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**The EU Environmental Implementation Review  
Country Report - BULGARIA**

*Accompanying the document*

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

**The EU Environmental Implementation Review: Common Challenges and how to  
combine efforts to deliver better results**

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

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## Executive summary

### About the Environmental Implementation Review

In May 2016, the Commission launched the Environmental Implementation Review (EIR), a two-year cycle of analysis, dialogue and collaboration to improve the implementation of existing EU environmental policy and legislation<sup>1</sup>. As a first step, the Commission drafted 28 reports describing the main challenges and opportunities on environmental implementation for each Member State. These reports are meant to stimulate a positive debate both on shared environmental challenges for the EU, as well as on the most effective ways to address the key implementation gaps. The reports rely on the detailed sectoral implementation reports collected or issued by the Commission under specific environmental legislation as well as the 2015 State of the Environment Report and other reports by the European Environment Agency. These reports will not replace the specific instruments to ensure compliance with the EU legal obligations.

The reports will broadly follow the outline of the 7th Environmental Action Programme<sup>2</sup> and refer to the 2030 Agenda for Sustainable development and related Sustainable Development Goals (SDGs)<sup>3</sup> to the extent to which they reflect the existing obligations and policy objectives of EU environmental law<sup>4</sup>.

The main challenges have been selected by taking into account factors such as the importance or the gravity of the environmental implementation issue in the light of the impact on the quality of life of the citizens, the distance to target, and financial implications.

The reports accompany the Communication "*The EU Environmental Implementation Review 2016: Common challenges and how to combine efforts to deliver better results*", which identifies challenges that are common to several Member States, provides preliminary conclusions on possible root causes of implementation gaps and proposes joint actions to deliver better results. It also groups in its Annex the actions proposed in each country report to improve implementation at national level.

### General profile

Bulgaria has made significant improvements in its environmental performance since its accession in 2007. While the Bulgarian legislation reflects accurately the

environmental requirements agreed at EU level, their implementation on the ground remains a challenge.

Air quality continues to give cause for severe concern.

Construction developments in Natura 2000 areas, lack of integration of nature and biodiversity policy into other sectorial policies, weak administration, lack of adequate management plans and conservation objectives are some of the main threats to nature and biodiversity in Bulgaria.

River Basin Management Plans indicate significant gaps, also reflected by very low connection and treatment rates for urban waste water. Drinking water, however, reaches high compliance rates in Bulgaria and over 90 % of its bathing waters are of good and excellent quality.

### Main Challenges

The three main challenges with regard to implementation of EU environmental policy and law in Bulgaria are:

- ❖ Ensuring better protection of human health by enforcing effective and efficient solutions to reduce air pollution.
- ❖ Providing and implementing the investments required to ensure appropriate collection and treatment of urban waste water.
- ❖ Ensuring sound enforcement of Nature protection legislation.

### Main Opportunities

Bulgaria could perform better on topics where there is already a good knowledge base and good practices. This applies in particular to:

- ❖ Ensuring the implementation of the adopted Waste Management Plan and the Waste Prevention Programme, including the measures for closure and rehabilitation of all non-compliant landfills and enforcing of the 'pay-as-you-throw' principle.
- ❖ Integrating the nature and biodiversity policy into other sectorial policies, and defining conservation objectives and measures for the adequate protection and management of the Natura 2000 sites.

### Points of Excellence

Where Bulgaria is a leader on environmental implementation, innovative approaches could be shared more widely with other countries. A good example is that:

- ❖ Bulgaria has adopted a well-structured and coherent Waste Management Plan, used as a model by other Member-States.
- ❖ Bulgaria reaches nearly 100% compliance rate as regards the quality of its drinking water.

<sup>1</sup> Communication "Delivering the benefits of EU environmental policies through a regular Environmental Implementation Review" (COM/2016/ 316 final).

<sup>2</sup> Decision No. 1386/2013/EU of 20 November 2013 on a General Union Environmental Action Programme to 2020 "[Living well, within the limits of our planet](#)".

<sup>3</sup> United Nations, 2015. [The Sustainable Development Goals](#)

<sup>4</sup> This EIR report does not cover climate change, chemicals and energy.

## Part I: Thematic Areas

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

#### Developing a circular economy and improving resource efficiency

The 2015 Circular Economy Package emphasizes the need to move towards a lifecycle-driven 'circular' economy, with a cascading use of resources and residual waste that is close to zero. This can be facilitated by the development of, and access to, innovative financial instruments and funding for eco-innovation.

SDG 8 invites countries to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. SDG 9 highlights the need to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. SDG 12 encourages countries to achieve the sustainable management and efficient use of natural resources by 2030.

#### Measures towards a circular economy

Transforming our economies from linear to circular offers an opportunity to reinvent them and make them more sustainable and competitive. This will stimulate investments and bring both short and long-term benefits for the economy, environment and citizens alike.<sup>5</sup>

A more circular economy and improving resource efficiency (how efficiently the economy uses material resources to produce wealth), will stimulate investments.

Bulgaria is with Estonia and Romania the worst performer in the EU in terms of resource productivity (how efficiently the economy uses material resources to produce wealth)<sup>6</sup>, with 0.28 EUR/kg (EU average is 2 EUR/kg) in 2015.<sup>7</sup> Figure 1 shows that Bulgaria's performance has not changed much since 2003.

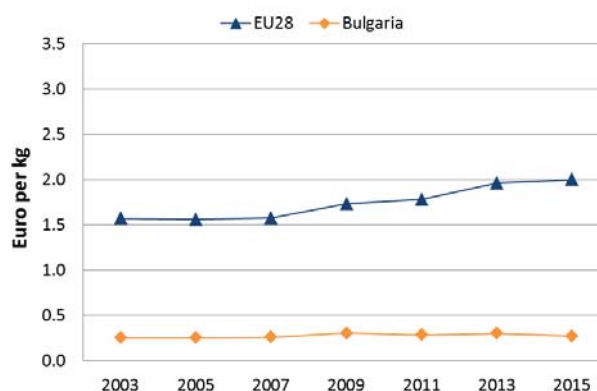
In Bulgaria, to date, no overarching circular economy policy programme exists. Despite the growing demand for environmentally-friendly products and services, stakeholders remain reluctant to invest in these areas. To meet the objectives of promoting energy efficiency, renewable energy sources, waste management and green transport, local stakeholders are taking advantage of funding options set up by the European funded Operational Programmes.

<sup>5</sup> European Commission, 2015. [Proposed Circular Economy Package](#)

<sup>6</sup> Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

<sup>7</sup> Eurostat, [Resource productivity](#), accessed October 2016

Figure 1: Resource productivity 2003-15<sup>8</sup>



However, individual efforts, such as funding support to projects with strong resource and environmental focus, cannot compensate the highly fragmented nature of these actions and the lack of an integrated and holistic approach towards the establishment of a circular economy policy framework.

#### SMEs and resource efficiency

In October 2015, a funding agreement between the European Investment Fund (EIF) and the Bulgarian government was established to implement the SME Initiative in Bulgaria. This innovative instrument will unlock over EUR 600 million for lending to Bulgarian small and medium businesses.

For employment and value added, SMEs are more important for Bulgaria's non-financial business economy than on average in the EU. SMEs accounted for 76 % of total employment, 9 percentage points more than the EU average. Their 62 % contribution to total value added exceeded the EU average by 4 percentage points.

The performance of Bulgarian Small and Medium-sized enterprises (SMEs) since 2008 has been mixed. They are estimated to have returned to pre-crisis levels of value added in 2014, but have not recovered jobs lost during the crisis: employment in SMEs in 2014 stood 7 % below the 2008 level. Forecasts predict a further 5 % increase in value added and a moderate 1 % rise in employment until 2016.

According to the Flash 426 Eurobarometer, the resource efficiency actions undertaken allowed the reduction of production costs in a 48% of Bulgarian SMEs.

<sup>8</sup> Eurostat, [Resource productivity](#), accessed October 2016

The Flash 426 Eurobarometer "SMEs, resource efficiency and green markets"<sup>9</sup> defines "green job" as a job that directly deals with information, technologies, or materials that preserves or restores environmental quality. This requires specialised skills, knowledge, training, or experience (e.g. verifying compliance with environmental legislation, monitoring resource efficiency within the company, promoting and selling green products and services). The flash Eurobarometer shows that 36% of the SMEs in Bulgaria have one or more full time employee working in a green job at least some of the time. Bulgaria has an average number of 3.5 full time green employees per SME.

### Eco-innovation

Despite the efforts made in recent years by the Bulgarian government to improve the legislative framework and to promote innovation and eco-innovation, Bulgaria still lags behind in these areas. According to the latest survey of the Innovation Union (2015) and 2015 Eco-Innovation Scoreboard (Eco-IS) results, Bulgaria continues to rank last in the EU and remains a "modest innovator" despite its willingness to reach the "moderate innovator" group as is planned according to its strategic vision up to 2020 as shown in Figure 2.

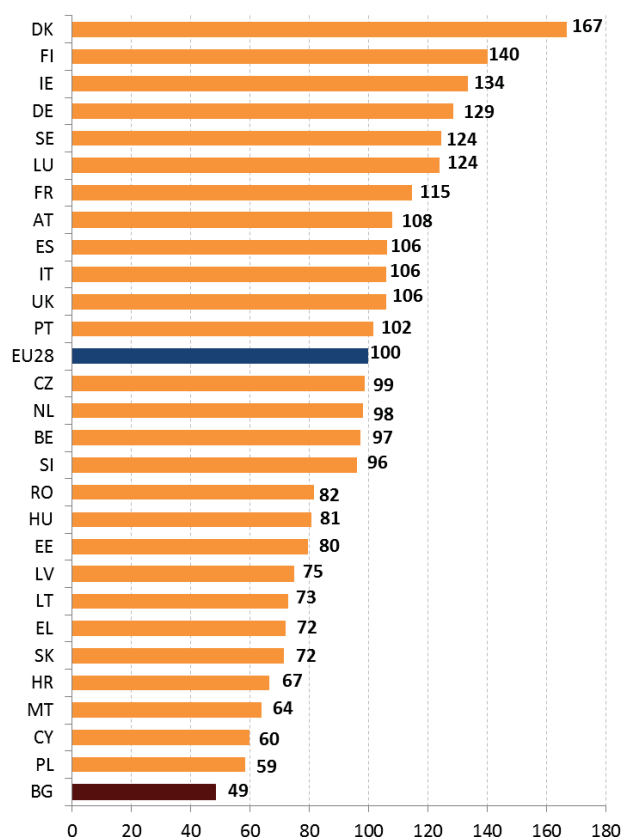
In Bulgaria, some of the most important barriers to eco-innovation and circular economy are of economic and financial nature. The high energy prices and the limited funding to finance renovation and modernization of the machinery of Bulgarian enterprises are the most significant ones.

Drivers include market demand for new green products and technologies due to the improvement in the quality of life and orientation towards a healthy lifestyle. The demand for new jobs in the areas of green and blue economy, the internationalization and globalisation of economy which post requirements for improvement of SMEs competitiveness, based on introduction of innovative & eco-innovative technologies, energy and resource efficiency, are also driving eco-innovation in Bulgaria.

Towards May 2016 Bulgaria had 5 EMAS registered organisations, which represented 0.1% of all registered organisations – among the lowest scores within the EU. However, it should be noted that in only five months Bulgaria has increased the number of registered organisations to 9.

Regarding Ecolabel licenses, Bulgaria is within the lowest achieving group of EU countries. It has had less than 10 Ecolabel licenses.

Figure 2: Eco-Innovation Index<sup>10</sup>



### Suggested action

- Develop a strategic long-term view and an integrated approach for mainstreaming sustainable development thinking and eco-innovation across the government's policies.

### Waste management

Turning waste into a resource requires:

- Full implementation of Union waste legislation, which includes the waste hierarchy; the need to ensure separate collection of waste; the landfill diversion targets etc.
- Reducing per capita waste generation and waste generation in absolute terms.
- Limiting energy recovery to non-recyclable materials and phasing out landfilling of recyclable or recoverable waste.

SDG 12 invites countries to substantially reduce waste generation through prevention, reduction, recycling and reuse, by 2030.

The EU's approach to waste management is based on the "waste hierarchy" which sets out an order of priority when shaping waste policy and managing waste at the operational level: prevention, (preparing for) reuse,

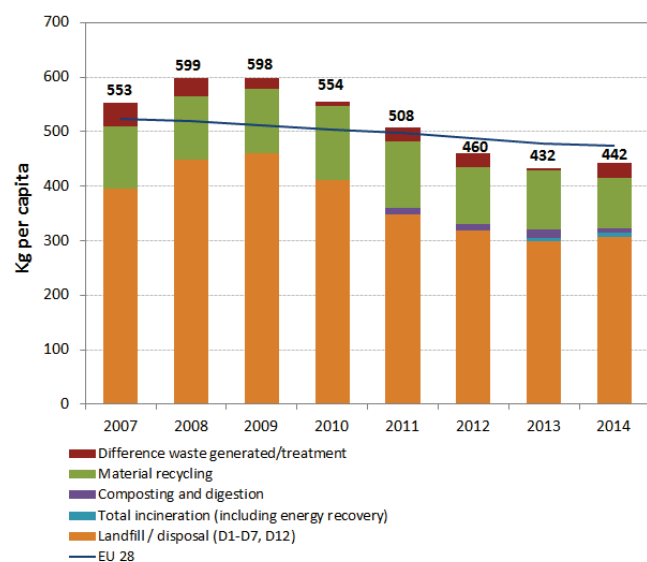
<sup>9</sup> European Commission, 2015. [Flash 426 Eurobarometer](#) "SMEs, resource efficiency and green markets"

<sup>10</sup> [Eco-innovation Observatory](#); Eco-Innovation scoreboard 2015

recycling, recovery and, as the least preferred option, disposal (which includes landfilling and incineration without energy recovery).

The progress towards reaching recycling targets and the adoption of adequate WMP/WPP<sup>11</sup> should be the key items to measure the performance of Member States. This section focuses on management of municipal waste for which EU law sets mandatory recycling targets.

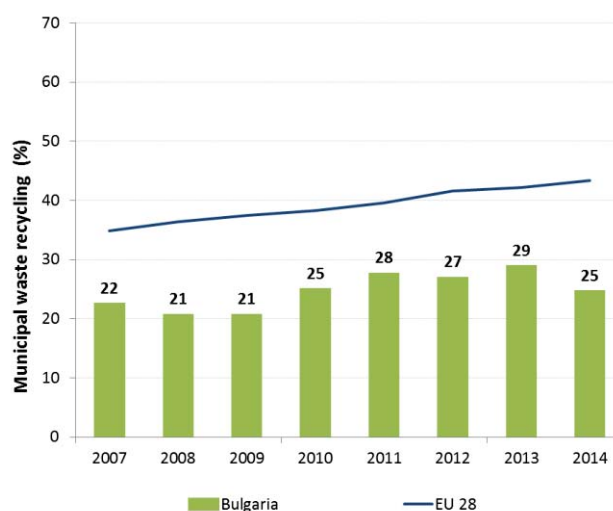
**Figure 3: Municipal waste by treatment in Bulgaria 2007-14**<sup>12</sup>



As shown in Figure 3, municipal waste<sup>13</sup> generation in Bulgaria has slightly increased in 2014 breaking the downward trend since 2008 but remains below the EU average (442 kg/y/inhabitant compared to around 475 kg/y/inhabitant). Figure 3 depicts the municipal waste by treatment in Bulgaria in terms of kg per capita. It shows that, contrary to the desired trend, there is an increase of landfilling and a decrease of recycling.

As shown in Figure 4, recycling of municipal waste (including composting) remains relatively low (25% compared to the EU average of 44%); significant efforts will be needed to meet the EU recycling target by 2020.<sup>14</sup> In 2014 the recycling rate actually decreased in comparison to 2013 – by 3%. Composting remains at a very low level of 2%.

**Figure 4: Recycling rate of municipal waste 2007-14**<sup>15</sup>



Bulgaria still has one of the highest landfilling rates of municipal waste in the EU (74% in 2014 compared to the EU average of 28%). In order to help bridge the implementation gap in Bulgaria, the Commission has delivered a roadmap for compliance.<sup>16</sup>

Bulgaria's implementation record is to be further improved by addressing as a matter of priority outstanding cases related to closure and rehabilitation of non-compliant landfills – a number of non-compliant landfills have been closed but there are still quite a few in operation. It is essential to strictly follow the schedule for the gradual closure and rehabilitation of all non-compliant landfills. Continuous efforts are needed on irregular landfilling of waste.

Full implementation of the existing waste legislation could create more than 14 000 jobs in Bulgaria and increase the annual turnover of the waste sector by over €1500 million. Moving toward the targets of the waste legislation and policies could create an additional 16 500 jobs and increase the annual turnover of the waste sector by over €1700 million.<sup>17</sup>

In 2013 Bulgaria has introduced by law that waste collection fees should be calculated on the basis of waste generated (i.e. 'pay-as-you-throw' principle) to replace the method based on the value of the real estate property. It was due to enter into force on 1<sup>st</sup> January 2015 but the enforcement was postponed twice, last target date being 1<sup>st</sup> January 2017. There is still no clear indication on how the amount of waste would be calculated.

<sup>11</sup> Waste Management Plans/Waste Prevention Programmes

<sup>12</sup> Eurostat, [Municipal waste and treatment, by type of treatment method](#), accessed October 2016

<sup>13</sup> Municipal waste is defined as household waste or waste comparable in its nature to household waste generated by administration, services, businesses, and industrial activities, and it consists of waste collected by or on behalf of municipal authorities, or directly by the private sector (business or private non-profit institutions) not on behalf of municipalities

<sup>14</sup> Member States may choose a different method than the one used by ESTAT (and referred to in this report) to calculate their recycling rates and track compliance with the 2020 target of 50% recycling of municipal waste

<sup>15</sup> Eurostat, [Recycling rate of municipal waste](#), accessed October 2016

<sup>16</sup> European Commission, [Final Roadmap for Bulgaria](#)

<sup>17</sup> Bio Intelligence service, 2011. [Implementing EU Waste legislation for Green Growth](#), study for European Commission. The breakdown per country on job creation was made by the consultant on Commission demand but was not included in the published document.

Bulgaria adopted its Waste Management Plan and the Waste prevention Programme. The Waste Management Plan is well structured and coherent, and includes specific policy measures to reach the 2020 recycling targets, responsibilities for their implementation and the necessary budget. In 2016 several calls to use Cohesion policy funds were published targeting green and other bio-degradable waste collection and treatment.

#### Suggested action

- Focus on implementation of the separate collection obligation to increase recycling rates and prioritise the separate collection of bio-waste in order to increase composting rates.
- Mobilise investment, including through EU funds, to the first steps of waste hierarchy; avoid building excessive infrastructure for the treatment of residual waste; and address as a matter of priority non-compliant landfills.
- Enforce the pay-as-you-throw principle which was adopted in 2013 and is part of the Waste Management Plan, ensure that it provides strong incentives to collect separately and recycle waste, and make continuous efforts on illegal landfilling of waste.
- Ensure cost-effectiveness, wide coverage, effective monitoring and transparency of EPR schemes.



## 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, restore ecosystems and their services in so far as feasible, and step up efforts to avert global biodiversity loss. The EU Birds and Habitats Directives aim at achieving favourable conservation status of protected species and habitats.

SDG 14 requires countries to conserve and sustainably use the oceans, seas and marine resources, while SDG 15 requires countries to protect, restore and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

The 1992 EU Habitats Directive and the 1979 Birds Directive are the cornerstone of the European legislation aimed at the conservation of the EU's wildlife. Natura 2000, the largest coordinated network of protected areas in the world, is the key instrument to achieve and implement the Directives' objectives to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species and habitats and the ecosystems they underpin.

The adequate designation of protected sites as Special Areas of Conservation (SAC) under the Habitats Directive and as Special Protection Areas (SPA) under the Birds Directive is a key milestone towards meeting the objectives of the Directives. The results of Habitats Directive Article 17 and Birds Directive Article 12 reports and the progress towards adequate Sites of Community Importance (SCI)-SPA and SAC designation<sup>18</sup> both in land and at sea, should be one of the key indicators to measure the performance of Member States.

Although Bulgaria is a relatively small country (111 001.9 km<sup>2</sup>), due to its highly varied climatic, geological, topographic and hydrologic conditions it is very rich in biological diversity – 26% of the total species described for Europe occur in its territory and represent more than 2% of the species in the world<sup>19</sup>. Thus Bulgaria country-region ranks among the countries with the greatest biological diversity in Europe. 34% of the land is covered by forests situated mostly on mountain slopes and non-arable lands.

The main threats to biodiversity in Bulgaria are the loss of terrestrial and aquatic habitats, in particular as result of

the boom of urban and infrastructure developments in the last 15 years (including in Natura 2000 sites); increased levels of air, water and soil pollution, as well as the direct exploitation and over-exploitation of economically viable species. Policy-related weaknesses include poor enforcement of conservation laws and environmental regulations; insufficient integration of nature and biodiversity policy into other sectorial policies; ineffective management and administration of protected areas; weak administration; absence of adequate management plans, conservation objectives and measures; insufficient financing or inefficient spending of the available financing (i.e. the financing does not necessarily go to where the priorities are) and lack of enforcement.



Bulgaria has designated 234 Natura 2000 sites under the Habitats Directive (Sites of Community Importance/SCIs). Three of them are entirely marine sites, while 14 include marine sites in their territory. Bulgaria has also designated 119 Natura 2000 sites under the Birds Directive (Special Protection Areas/SPAs). In total, the SCIs and SPAs cover 41 053.2 km<sup>2</sup> of Bulgaria's territory of which 38 231.84 km<sup>2</sup> of land and 2 821.35 km<sup>2</sup> of its marine territory.

Bulgaria's Natura 2000 network hosts 90 habitat types, 121 species other than birds, including 28 priority habitats and 8 priority species; 120 birds and 70 migratory birds.

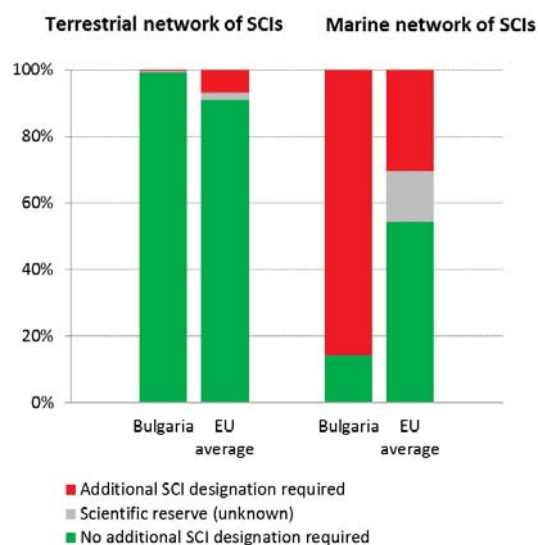
The terrestrial part of the Natura 2000 network is almost completed with only one exception in Rila Mountain. However, the latest assessment of the SCI part of the Natura 2000 network shows that there are significant insufficiencies as regards the marine components of the

<sup>18</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 of coverage do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) means a SCI designated by the Member States.

<sup>19</sup> IUCN Red List, [Bulgaria's biodiversity at risk](#)

network<sup>20</sup> (see Figure 5<sup>21</sup>).

**Figure 5: Sufficiency assessment of SCI networks in Bulgaria based on the situation until December 2013 (%)<sup>22</sup>**



Bulgaria has not yet fulfilled its obligations under Articles 4(4) and 6(1) of the Habitats Directive to designate the SCIs as special areas of conservation (SACs) and, respectively, define the conservation objectives and establish conservation measures for them. In June 2016, very few of the SCIs had their designation orders published.

A big mapping project of EUR 12.5 million was recently implemented under the Environmental Operational Programme. It covers all Natura 2000 sites so there is no lack of data and the information is publicly available<sup>23</sup>.

While continuing to collect data and monitor the progress towards achieving the objectives of the directives, a strong and urgent focus on the establishment of conservation objectives and implementation of concrete programmes and plans together with establishment of efficient management structure for Natura 2000 and strengthening the capacity of the administration and other bodies dealing with the

<sup>20</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>21</sup> The percentages in Figure 5 refer to percentages of the total number of assessments (one assessment covering 1 species or 1 habitat in a given biographical region with the Member State); if a habitat type or a species occurs in more than 1 Biogeographic region within a given Member State, there will be as many individual assessments as there are Biogeographic regions with an occurrence of that species or habitat in this Member State.

<sup>22</sup> European Commission internal assessment.

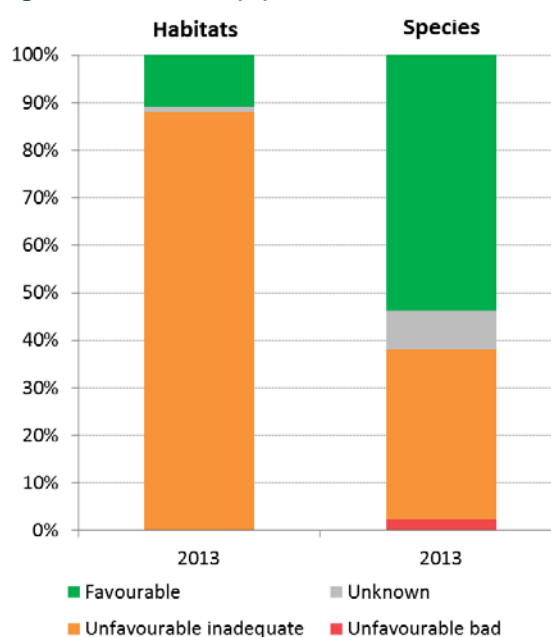
<sup>23</sup> <http://natura2000.moew.government.bg/>

Natura 2000 network is essential.

In terms of site management, Bulgaria has established management bodies only for the Natura 2000 sites which overlap with the three national parks and the six nature parks. There are management plans for these nine parks in place but not all of them are up to date. A very limited number of other Natura 2000 sites have management plans in place.

Integrating nature and biodiversity policy into other sectorial policies will not only lead to a better management of the Natura 2000 areas and protection of species, but could provide additional sources of financing.<sup>24</sup>

**Figure 6: Conservation status of habitats and species in Bulgaria in 2007/2013 (%)<sup>25</sup>**



According to the report on the conservation status of habitats and species covered by the Habitats Directive<sup>26</sup>, 10.9% of the habitats' biogeographical assessments were favourable in 2013 (EU 27: 16%). Furthermore, 88% are considered to be unfavourable–inadequate<sup>27</sup> (EU27: 47%)

<sup>24</sup> European Commission, 2016. [Integration of Natura 2000 and biodiversity into EU funding \(EAFRD, ERDF, CF, EMFF, ESF\). Analysis of a selection of operational programmes approved for 2014-2020](#)

<sup>25</sup> These figures show the percentage of biogeographical assessments in each category of conservation status for habitats and species (one assessment covering 1 species or 1 habitat in a given biographical region with the Member State), respectively. The information is based on Article 17 of the Habitats Directive reporting - [national summary of Bulgaria](#)

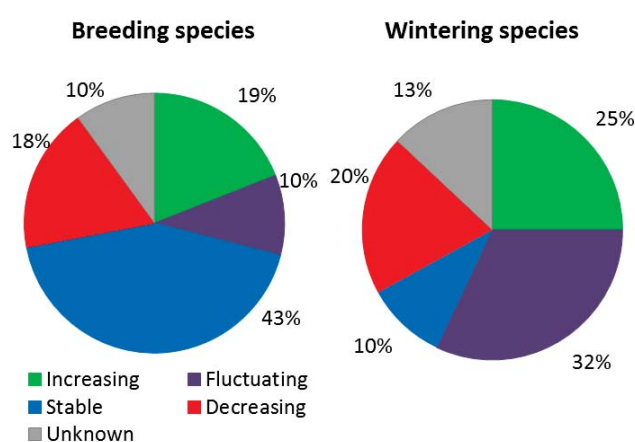
<sup>26</sup> The core of the 'Article 17' report is the assessment of conservation status of the habitats and species targeted by the Habitats Directive.

<sup>27</sup> 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

and none are unfavourable – bad (EU27: 30%). As for the species, 53.8% of the assessments were favourable in 2013 (EU 27: 23%) 35,6% at unfavourable-inadequate (EU27: 42%) and 3% unfavourable-bad status (EU27: 18%). This is depicted in Figure 6<sup>28</sup>. Only 2,5 of the unfavourable assessments for species were showing a positive trend in 2013. No unfavourable assessment for habitats was showing a positive trend in 2013.

Figure 7 shows that as far as birds are concerned, 62 % of the breeding species showed short-term increasing or stable population trends (for wintering species this figure was 35 %).

**Figure 7: Short-term population trend of breeding and wintering bird species in Bulgaria in 2012 (%)**<sup>29</sup>



Communication initiatives in order to explain the Natura 2000, its objectives, obligations, opportunities and benefits both at national and regional level, especially in the areas where opposition to the Natura network is observed, could help avoiding negative attitudes and gain local people's support.

Despite introducing some measures addressing the issue, illegal practices related to logging are still observed. Assessments show that in 2006-2013 Bulgaria marked a limited progress in the fight against illegal logging; expert analysis of statistical data showed an annual volume of illegal logging amounting to 2.5 million m<sup>3</sup> or 1/4 of the total yield. Forests which are over-exploited as a result of illegal logging cannot effectively provide their production, water regulation and environmental services.<sup>30</sup> The most effective solution to address this issue, following the example of other European

of the Habitats Directive.

<sup>28</sup> Please note that a direct comparison between 2007 and 2013 data is complicated by the fact that Bulgaria and Romania were not covered by the 2007 reporting cycle, that the 'unknown' assessments have strongly diminished particularly for species, and that some reported changes are not genuine as they result from improved data / monitoring methods.

<sup>29</sup> Article 12 of the Birds Directive reporting - [national summary of Bulgaria](#)

<sup>30</sup> Analysis of Illegal Logging in Bulgaria for the period 2006-2013 WWF, 2014

countries, is to establish a national forest inventory to ensure an appropriate reporting of forest changes and carry out independent supervision on the inventory in Forestry Management Plans.

#### Suggested action

- Complete the SAC designation process and put in place clearly defined conservation objectives and the necessary conservation measures for the sites and provide adequate resources for their implementation in order to maintain/restore species and habitats of community interest to a favourable conservation status across their natural range.
- Establish efficient management structures for the Natura 2000 network, with the appropriate administrative and financial capacity, on the basis of consultation with stakeholders and the public.
- Enhance efforts to collect reliable data and to improve the quality of the assessment and permitting procedures.



#### Estimating Natural Capital

The EU Biodiversity Strategy to 2020 calls on the Member States to map and assess the state of ecosystems and their services in their national territories by 2014, assess the economic value of such services, and promote the integration of these values into accounting and reporting systems at EU and national level by 2020. The EU MAES initiative (Mapping and Assessment of Ecosystems and their Services) supports the Member States in this work in order to ensure that ecosystems and their services can be taken into account in planning and development decisions.

Work is underway in Bulgaria to develop national methodologies for the mapping and assessment of ecosystems and their services.<sup>31</sup> In the framework of the implementation of programme BG03 "Biodiversity and ecosystem services", a model on ecosystem services will

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

be added to the Bulgarian Biodiversity information system. The programme also supports information exchange events and activities. The MAES initiative can significantly help the work of the scientific committee on methodologies for the mapping and assessment of ecosystems and their services.<sup>32</sup>

#### Suggested action

- Provide support to the mapping and assessment of ecosystems and their services, valuation and development of natural capital accounting systems.

### Green Infrastructure

The EU strategy on green infrastructure<sup>33</sup> promotes the incorporation of green infrastructure into related plans and programmes to help overcome fragmentation of habitats and preserve or restore ecological connectivity, enhance ecosystem resilience and thereby ensure the continued provision of ecosystem services.

Green Infrastructure provides ecological, economic and social benefits through natural solutions. It helps to understand the value of the benefits that nature provides to human society and to mobilise investments to sustain and enhance them.

The objectives of the National Biodiversity Strategy to 2020 are in line with the EU Green Infrastructure Strategy. Bulgaria aims to integrate its National Ecological Network into the EU and global ecological network and to launch trans-boundary protected areas, zones and corridors. The first transboundary protected wetlands under the Ramsar Convention were announced in 2013, with shared management between Bulgaria and Romania: Silver - Yezerul Calarash, Belene Islands Complex - Suhaia and Island Ibisha – Bistrets. Bulgaria is part of the European Green Belt Initiative<sup>34</sup>.

A number of activities related to different measures in the National Biodiversity Conservation Plan 2005–2010 have been implemented, including an assessment of riparian habitats' condition and the impact of watercourse modifications on biodiversity in the lower parts of the rivers. The National Plan for the Most Important Wetlands in Bulgaria 2013–2022 sets protection, maintenance and restoration priorities as well as horizontal measures for the conservation and sustainable use of wetlands. The plan includes measures for spatial and functional re-connection of wetland habitats in line with the Green Infrastructure concept. A number of local restoration initiatives are under way,

<sup>32</sup> [www.bg03.moew.government.bg](http://www.bg03.moew.government.bg)

<sup>33</sup> European Union, Green Infrastructure — Enhancing Europe's Natural Capital, [COM/2013/0249](https://ec.europa.eu/commission/presscorner/detail/en/COM_2013_0249)

<sup>34</sup> The European Green Belt is a cross-border initiative to protect, restore and connect high-value natural and cultural landscapes along the line of the former Iron Curtain in Europe. <http://www.europeangreenbelt.org/>

often involving partnerships between NGOs, local stakeholders and protected areas management authorities.

### Soil protection

The EU Soil Thematic Strategy highlights the need to ensure a sustainable use of soils. This requires the prevention of further soil degradation and the preservation of its functions, as well as the restoration of degraded soils. The 2011 Road Map for Resource-Efficient Europe, part of Europe 2020 Strategy provides that by 2020, EU policies take into account their direct and indirect impact on land use in the EU and globally, and the rate of land take is on track with an aim to achieve no net land take by 2050.

SDG 15 requires countries to combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation-neutral world by 2030.

Soil is an important resource for life and the economy. It provides key ecosystem services including the provision of food, fibre and biomass for renewable energy, carbon sequestration, water purification and flood regulation, the provision of raw and building material. Soil is a finite and extremely fragile resource and increasingly degrading in the EU. Land taken by urban development and infrastructure is highly unlikely to be reverted to its natural state; it consumes mostly agricultural land and increases fragmentation of habitats. Soil protection is indirectly addressed in existing EU policies in areas such as agriculture, water, waste, chemicals, and prevention of industrial pollution.

Artificial land cover is used for settlements, production systems and infrastructure. It may itself be split between built-up areas (buildings) and non-built-up areas (such as linear transport networks and associated areas).

The annual land take rate (growth of artificial areas) as provided by CORINE Land Cover was 0.14% in Bulgaria over the period 2006-12, well below the EU average (0.41%). It represented 755 hectares per year and was mainly driven by mines, quarries and dump sites as well as housing, services and recreation<sup>35</sup>.

The percentage of built up land in 2009 was 1.89%, below the EU average (3.23%)<sup>36</sup>.

The soil water erosion rate in 2010 was 2.06 tonnes per ha per year, close to EU-28 average (2.46 tonnes)<sup>37</sup>.

Figure 8 shows the different land cover types in Bulgaria

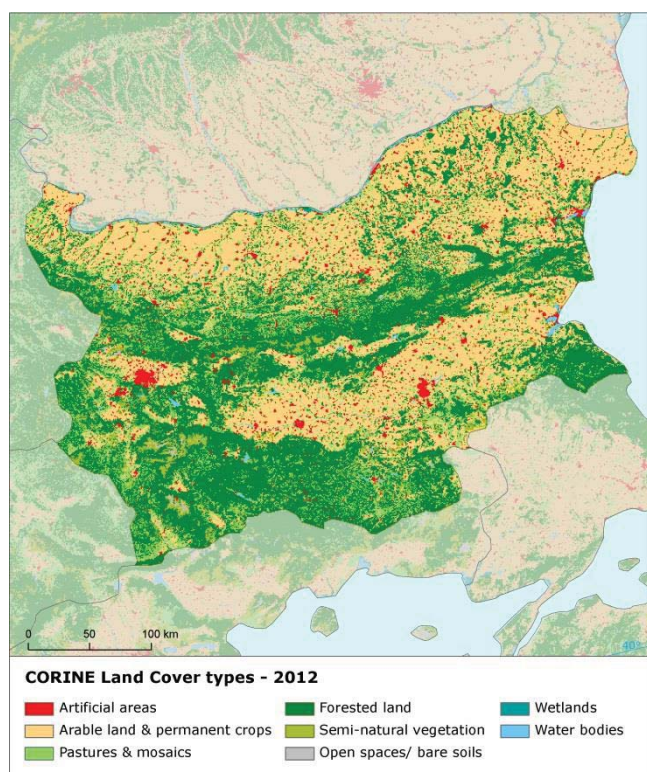
<sup>35</sup> European Environment Agency [Draft results of CORINE Land Cover \(CLC\) inventory 2012](https://www.eea.europa.eu/en/press/2012/04/04-12-01); mean annual land take 2006-12 as a % of 2006 artificial land.

<sup>36</sup> European Environment Agency, 2016. [Imperviousness and imperviousness change](https://www.eea.europa.eu/en/press/2016/04/04-16-01), Figure 1

<sup>37</sup> Eurostat, [Soil water erosion rate](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1), Figure 2, accessed November 2016

in 2012.

**Figure 8: Land Cover types in Bulgaria in 2012<sup>38</sup>**



There are still not EU-wide datasets enabling the provision of benchmark indicators for soil organic matter decline, contaminated sites, pressures on soil biology and diffuse pollution. An updated inventory and assessment of soil protection policy instruments in Bulgaria and other EU Member States is being performed by the EU Expert Group on Soil Protection.

## Marine protection

The EU Coastal and Marine Policy and legislation require that by 2020 the impact of pressures on marine waters is reduced to achieve or maintain good environmental status and coastal zones are managed sustainably.

SDG 14 requires countries to conserve and sustainably use the oceans, seas and marine resources for sustainable development.

The Marine Strategy Framework Directive (MSFD)<sup>39</sup> aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 by providing an ecosystem approach to the management of human activities with impact on the marine environment. The Directive requires Member States to develop and implement a marine strategy for their marine waters, and cooperate with Member States sharing the same marine region or subregion.

<sup>38</sup> European Environment Agency. Land cover 2012 and changes country analysis [publication forthcoming]

<sup>39</sup> European Union, [Marine Strategy Framework Directive 2008/56/EC](#)

As part of their marine strategies, Member States had to make an initial assessment of their marine waters, determine GES<sup>40</sup> and establish environmental targets by July 2012. They also had to establish monitoring programmes for the on-going assessment of their marine waters by July 2014. The next element of their marine strategy was to establish a Programme of Measures in 2016. The Commission assesses whether these elements constitute an appropriate framework to meet the requirements of the MSFD.

Bulgaria's marine waters are part of the Black Sea marine region and Bulgaria is party to the Black Sea Convention. The main threats to the Black Sea region are land-based sources of pollution (e.g. nutrients coming from the Danube River). In addition, given the role of the Black Sea region as a transit route of major oil and gas exports, oil spills or accidental pollution may also become increasingly important. Finally, the Black Sea fish stock has deteriorated dramatically over the past three decades, with the diversity of commercial fish caught decreasing from about 26 species to 6. This is due to eutrophication, introduction of alien species and overfishing.<sup>41</sup>

In 2014, the Commission services only assessed the Bulgarian implementation of Articles 9 (determination of good environmental status) and 10 (environmental targets). With regards to the specificities of the implementation of the MSFD, for certain descriptors, there is lack of clarity in the distinction between GES and targets. Bulgaria has not determined GES for 4 descriptors. Overall, it was considered that Bulgaria had partially adequate determinations of GES for 5 descriptors, but it was missing or inadequate for all other descriptors.<sup>42</sup>

It is too early to say whether Bulgarian marine waters are in a good status as there were delays with the report and weaknesses in identifying what GES is.

Bulgaria has established a monitoring programme of its marine waters in 2014. However, it seems that its monitoring programme for all descriptors except birds, mammals, water column and seabed habitats, as well as contaminants in seafood and litter need further refinement to constitute an appropriate framework to monitor progress towards GES. In addition, Bulgaria reports extensive bilateral cooperation with Romania in the coordinated development of its monitoring

<sup>40</sup> The MSFD Directive defines Good Environmental Status (GES) in Article 3 as: "The environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive"

<sup>41</sup> EEA State of the Environment report, 2015, [Black Sea](#)

<sup>42</sup> Commission Staff Working Document Accompanying the Commission Report on "The first phase of implementation of the Marine Strategy Framework Directive (2008/56/EC) - The European Commission's assessment and guidance" ([SWD\(21014\) 049 final](#) and [COM\(2014\)097](#))

programmes, an aspect that has contributed to regional coherence in the context of the MSFD implementation.<sup>43</sup>

In 2012<sup>44</sup>, Bulgarian marine protected areas covered 995.3 square kilometers of its marine waters in the Black Sea.<sup>45</sup>



#### Suggested action

- Continue work to improve the definitions of GES in particular for biodiversity descriptors, including through regional cooperation by using the work of the relevant Regional Sea Convention.
- Address knowledge gaps and further develop approaches assessing (and quantifying) impacts from the main pressures in order to lead to improved and more conclusive assessment results for 2018 reporting.
- Continue to integrate monitoring programmes already existing under other EU legislation and to implement joint monitoring programmes developed at (sub)regional level; enhance, in cooperation with Romania comparability and consistency of monitoring methods within the country's marine region.
- Ensure that all of the monitoring programme is implemented without delay, and is fully appropriate to monitor progress towards the Bulgaria's GES.

<sup>43</sup> Commission Staff Working Document Accompanying the Commission Report assessing Member States' monitoring programmes under the Marine Strategy Framework Directive (COM(2017)3 and SWD(2017)1 final)

<sup>44</sup> 2012 Data provided by the European Environmental Agency to the European Commission– Not published

<sup>45</sup> Bulgaria indicated that, in 2016, marine protected areas (SPAs and SCIs) covered 2821.35 km<sup>2</sup> of its marine waters in the Black Sea.

### 3. Ensuring citizens' health and quality of life

#### Air quality

The EU Clean Air Policy and legislation require that air quality in the Union is significantly improved, moving closer to the WHO recommended levels. Air pollution and its impacts on ecosystems and biodiversity should be further reduced with the long-term aim of not exceeding critical loads and levels. This requires strengthening efforts to reach full compliance with Union air quality legislation and defining strategic targets and actions beyond 2020.

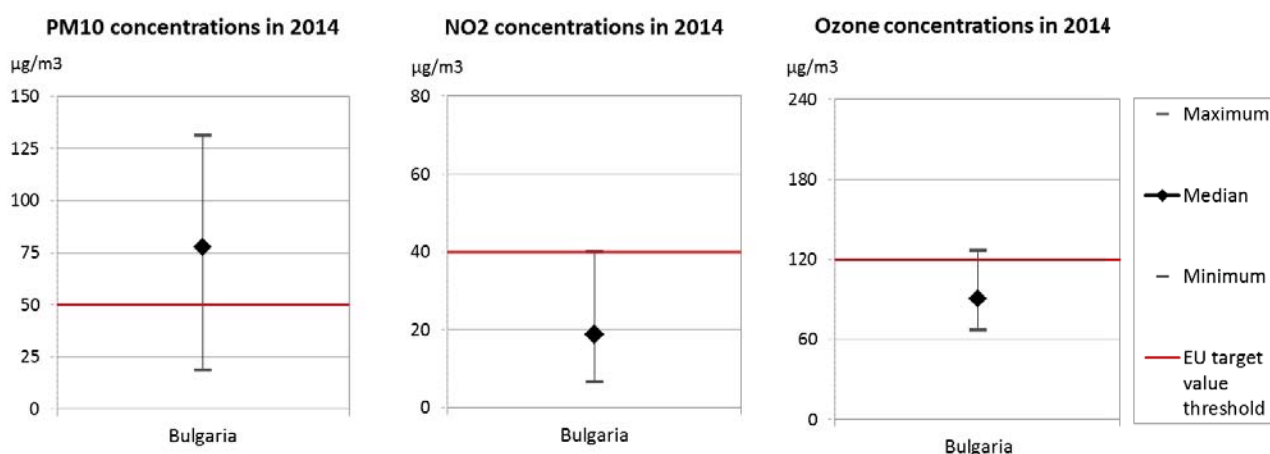
The EU has developed a comprehensive suite of air

ceilings<sup>48</sup>.

At the same time, air quality in Bulgaria continues to give cause for severe concern. For the year 2013, the European Environment Agency estimated that about 13 700 premature deaths were attributable to fine particulate matter<sup>49</sup> concentrations, 330 to ozone<sup>50</sup> concentration and 570 to nitrogen dioxide<sup>51</sup> concentrations.<sup>52</sup> This is due also to exceedances above the EU air quality standards<sup>53</sup> such as shown in Figure 9<sup>54</sup>.

For 2014, exceedances reported include those related to the annual limit value of sulphur dioxide (SO<sub>2</sub>) in one air quality zone<sup>55</sup>, and particulate matter (PM<sub>10</sub>) in all six air

Figure 9: Attainment situation for PM10, NO2 and O3 in 2014



**Note:** These graphs show concentrations as measured and reported by the Member State at different locations; specifically they show, (a) for PM10, the 90.4 percentile of daily mean concentration, which corresponds to the 36th highest daily mean, (b) for NO<sub>2</sub>, the annual mean concentration, and (c) for O<sub>3</sub>, the 93.2 percentile of maximum daily 8-hour mean concentration values, which corresponds to the 26th highest daily maximum. For each pollutant they depict both the lowest and highest concentration reported, as well as the median values (i.e. note that 50% of the stations report lower concentrations than the respective median value, the other 50% report higher concentrations). The air quality standards as set by EU legislation are marked by the red line.

quality legislation<sup>46</sup>, which establishes health-based standards and objectives for a number of air pollutants. As part of this, Member States are also required to ensure that up-to-date information on ambient concentrations of different air pollutants is routinely made available to the public. In addition, the National Emission Ceilings Directive provides for emission reductions at national level that should be achieved for main pollutants.

That the emission of several air pollutants has decreased significantly in Bulgaria.<sup>47</sup> Reductions between 1990 and 2014 for sulphur oxides (-83%), nitrogen oxides (-51%), volatile organic compounds (-84%) as well as ammonia (-72%) ensure air emissions for these pollutants are within the currently applicable national emission

<sup>46</sup> European Commission, 2016. [Air Quality Standards](#)

<sup>47</sup> See [EIONET Central Data Repository](#) and [Air pollutant emissions data viewer \(NEC Directive\)](#)

<sup>48</sup> The current national emission ceilings apply since 2010 ([Directive 2001/81/EC](#)); revised ceilings for 2020 and 2030 have been set by [Directive \(EU\) 2016/2284](#) on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC.

<sup>49</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 combustion.

<sup>50</sup> Low level ozone is produced by photochemical action on pollution and it is also a greenhouse gas.

<sup>51</sup> NO<sub>x</sub> is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NO<sub>x</sub> is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO<sub>2</sub>).

<sup>52</sup> European Environment Agency, 2016. [Air Quality in Europe – 2016 Report](#). (Table 10.2, please see details in this report as regards the underpinning methodology)

<sup>53</sup> [Directive 2008/50/EC](#) and [Directive 2004/107/EC](#)

<sup>54</sup> Based on European Environment Agency, 2016. [Air Quality in Europe – 2016 Report](#). (Figures 4.1, 5.1 and 6.1)

<sup>55</sup> See [EIONET The Air Quality Portal](#)

quality zones, thus covering the entire country. Four air quality zones have indicated exceedances regarding fine particulate matter (PM<sub>2.5</sub>), for which the limit value has become binding only in 2015. Furthermore, the long-term objectives regarding ozone concentrations are not being met in several air quality zones<sup>56</sup>.

The persistent breaches of air quality requirements (for PM<sub>10</sub> and SO<sub>2</sub>), which have severe negative effects on health and environment, are being followed up by the European Commission through infringement procedures covering all the Member States concerned, including Bulgaria. The aim is that adequate measures are put in place to bring all zones into compliance.

It has been estimated that the health-related external costs from air pollution in Bulgaria are above EUR 3 billion/year (income adjusted, 2010), which include not only the intrinsic value of living a full health life but also direct costs to the economy. These direct economic costs relate to 2 million workdays lost each year due to sickness related to air pollution, with associated costs for employers of EUR 121 million/year (income adjusted, 2010), for healthcare of above EUR 11 million/year (income adjusted, 2010), and for agriculture (crop losses) of EUR 58 million/year (2010)<sup>57</sup>.

### Suggested action

- Maintain downward emissions trends of air pollutants in order to achieve full compliance with air quality limit values - and reduce adverse air pollution impacts on health, environment and economy.
- Reduce PM10 emission and concentration, inter alia, by reducing emissions related to energy and heat generation using solid fuels, to transport and to agriculture.

### Noise

The Environmental Noise Directive provides for a common approach for the avoidance, prevention and reduction of harmful effects due to exposure to environmental noise.

Excessive noise is one of the main causes of health issues<sup>58</sup>. To alleviate this, the EU *acquis* sets out several requirements, including assessing the exposure to environmental noise through noise mapping, ensuring that information on environmental noise and its effects is made available to the public, and adopting action plans with a view to preventing and reducing environmental

noise where necessary and to preserving the acoustic environment quality where it is good.

Bulgarian authorities have fulfilled all their obligations with regards to the Environmental Noise Directive<sup>59</sup> for the current reporting period.

### Water quality and management

The EU water policy and legislation require that the impact of pressures on transitional, coastal and fresh waters (including surface and ground waters) is significantly reduced to achieve, maintain or enhance good status of water bodies, as defined by the Water Framework Directive; that citizens throughout the Union benefit from high standards for safe drinking and bathing water; and that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

SDG 6 encourages countries to ensure availability and sustainable management of water and sanitation for all.

The main overall objective of EU water policy and legislation is to ensure access to good quality water in sufficient quantity for all Europeans. The EU water *acquis*<sup>60</sup> seeks to ensure good status of all water bodies across Europe by addressing pollution sources (from e.g. agriculture, urban areas and industrial activities), physical and hydrological modifications to water bodies) and the management of risks of flooding.

River Basin Management Plans (RBMPs) are a requirement of the Water Framework Directive and a means of achieving the protection, improvement and sustainable use of the water environment across Europe. This includes surface freshwaters such as lakes and rivers, groundwater, estuaries and coastal waters up to one nautical mile.

Bulgaria has provided information to the Commission from its second generation of RBMPs. However, as the Commission has not yet been able to validate this information for all Member States, it is not reported here.

In its first generation of RBMPs Bulgaria reported the status of 688 rivers, 43 lakes, 15 transitional, 13 coastal and 177 groundwater bodies. Only 47.2% of natural surface water bodies achieve a good or high ecological

<sup>56</sup> See [The EEA/Eionet Air Quality Portal](#) and the related Central Data Repository

<sup>57</sup> These figures are based on the [Impact Assessment](#) for the European Commission Integrated Clean Air Package (2013)

<sup>58</sup> WHO/JRC, 2011, Burden of disease from environmental noise, Fritschi, L., Brown, A.L., Kim, R., Schwela, D., Kephelopoulou, S. (eds), [World Health Organization, Regional Office for Europe](#), Copenhagen, Denmark

<sup>59</sup> The [Noise Directive](#) requires Member States to prepare and publish, every 5 years, noise maps and noise management action plans for agglomerations with more than 100,000 inhabitants, and for major roads, railways and airports.

<sup>60</sup> This includes the [Bathing Waters Directive \(2006/7/EC\)](#); the [Urban Waste Water Treatment Directive \(91/271/EEC\)](#), concerning discharges of municipal and some industrial waste waters; the [Drinking Water Directive \(98/83/EC\)](#) concerning potable water quality; the [Water Framework Directive \(2000/60/EC\)](#) concerning water resources management; the [Nitrates Directive \(91/676/EEC\)](#) and the [Floods Directive \(2007/60/EC\)](#)



status<sup>61</sup> and 34% of heavily modified or artificial water bodies achieve a good or high ecological potential. 75% of surface water bodies<sup>62</sup>, 86% of heavily modified and artificial water bodies<sup>63</sup> and 70% of groundwater bodies achieve good chemical status<sup>64</sup>. 96% of groundwater bodies are in good quantitative status<sup>65</sup>.

The main pressure on Bulgarian waters comes from diffuse sources<sup>66</sup> that affect 42% of surface water bodies. 35% of water bodies are affected by point sources, 20% by water abstraction and 12% by flow regulation. Significant differences are observed between water basin districts: diffuse sources are the major pressure with 70% of surface water bodies affected in the Black Sea district compared to 30% in the East Aegean district. Water abstraction affects 65% of surface water bodies in the West Aegean district but only 1% of water bodies in the Black Sea district. In the Danube district all pressures affect a high proportion of water bodies. Navigation and related activities, such as port development, dredging, etc., were not considered in the plans as a pressure.

There are significant deficiencies in the River Basin Management Plans that indicate gaps in the monitoring system, assessment of pressures, methodologies for classification of status of water bodies. This results in high level of uncertainties concerning the pressures, status and effectiveness of Programmes of Measures. The Programmes of Measures however aim at a significant improvement of the ecological status of surface water bodies (31% improvement) and heavily modified and artificial water bodies (23%). Programmes of Measures are expected to deliver no or only slight improvement of chemical status of surface water bodies or chemical and quantitative status of groundwater.

As regards drinking water, Bulgaria reaches very high compliance rates of 99-100 % for microbiological, chemical and indicator parameters laid down in the Drinking Water Directive<sup>67</sup>.

<sup>61</sup> Good ecological status is defined in the Water Framework Directive, referring to the quality of the biological community, the hydrological characteristics and the chemical characteristics.

<sup>62</sup> Status of 23% of surface water bodies is unknown. The level of surface bodies with unknown chemical status reaches 75% in the Black Sea River Basin District of Bulgaria.

<sup>63</sup> Many European river basins and waters have been altered by human activities, such as land drainage, flood protection and building of dams to create reservoirs.

<sup>64</sup> Good chemical status is defined in the Water Framework Directive referring to compliance with all the quality standards established for chemical substances at European level.

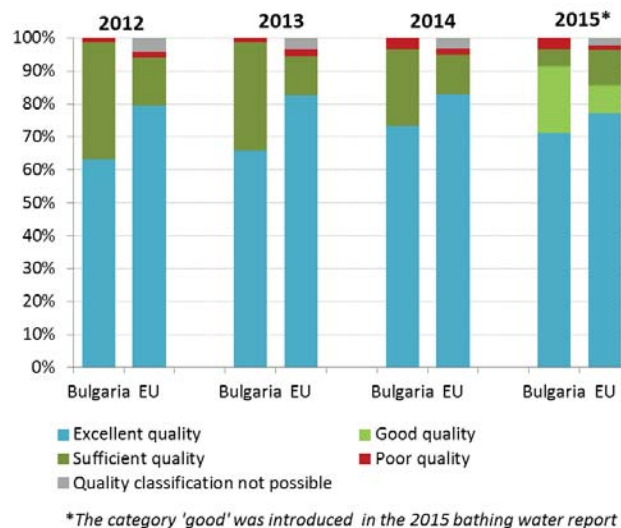
<sup>65</sup> For groundwater, a precautionary approach has been taken that comprises a prohibition on direct discharges to groundwater, and a requirement to monitor groundwater bodies.

<sup>66</sup> Diffuse pollution comes from widespread activities with no one discrete source, e.g. acid rain, pesticides, urban run-off, etc.

<sup>67</sup> [Commission's Synthesis Report on the Quality of Drinking Water in the Union](#) examining Member States' reports for the 2011-2013 period, foreseen under Article 13(5) of Directive 98/83/EC; COM(2016)666

As shown in Figure 10, in 2015, Bulgaria maintained at least sufficient quality of 96.8% of its bathing waters, though a slight reduction in those of excellent quality to 71.3% is observed<sup>68</sup>.

Figure 10: Bathing water quality 2012 – 2015<sup>69</sup>



With a total generated load of 8.2 million population equivalents (p.e.) the final deadline to fully comply with the Urban Waste Water Treatment Directive in Bulgaria was the end of 2014. For large agglomerations, above 10.000 p.e., (108), with compliance obligations since end 2010, in 2012, only 0.7% of the waste water load collected was subject to more stringent treatment in accordance with Article 5 of the Urban Waste Water Treatment Directive. Bulgaria demonstrates, in general, very low compliance rates with the Urban Waste Water Treatment Directive (also with compliance rates of 11.6% and 11.2 % for collection (Article 3) and secondary treatment (Article 4), respectively).<sup>70</sup>

The estimated investment needs (reported under article 17 of the Urban Waste Water Treatment Directive) to reach full compliance with the Directive in Bulgaria amount to EUR 2 969 million<sup>71</sup>

Figure 11 below shows the total generated load at Member State level (in population equivalent and regardless of agglomerations) and the load that remains to be addressed by Bulgaria.

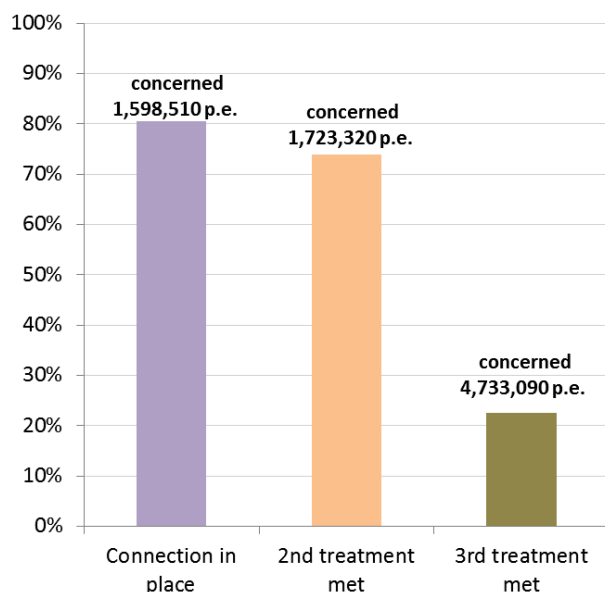
<sup>68</sup> European Environment Agency, 2016. [European bathing water quality in 2015](#), p. 26

<sup>69</sup> European Environment Agency, [State of bathing water](#), 2016

<sup>70</sup> Eighth Report on the Implementation Status and the Programmes for Implementation (as required by Article 17) of Council Directive 91/271/EEC concerning urban waste water treatment ([COM\(2016\)105 final](#)) and Commission Staff Working Document accompanying the report ([SWD\(2016\)45 final](#)).

<sup>71</sup> Eighth Report on the Implementation Status and the Programmes for Implementation (as required by Article 17) of Council Directive 91/271/EEC concerning urban waste water treatment ([COM\(2016\)105 final](#)) and Commission Staff Working Document accompanying the report ([SWD\(2016\)45 final](#)).

**Figure 11: Urban waste water Bulgarian situation 2012 – Final deadline 2014<sup>72</sup>**



Significant floods in 2014 proved the importance of water policy interventions. More than 10 major floods happened in less than two months during the summer with about 20 casualties. Damages claimed to EU Solidarity fund in 2014 were EUR 311.3 million and aid granted EUR 10.5 million<sup>73</sup>. In addition to floods, water is associated also with other crises events – droughts, erosion, landslides and variation in the surface and groundwater levels.

Management and prevention of floods is an area where potentially more economical nature-based solutions could improve resource efficiency through reducing costs and delivering multiple benefits.

According to the last report on the implementation of the Nitrates Directive, referring to the period 2008-2011, groundwater quality has improved the percentage of stations exceeding 25 or 50 mg nitrate per L have decreased from 47% to 42% and from 21% to 19% respectively. The trend in nitrate concentration shows an improvement of surface water quality since the percentage of stations with a downward or stable trend between 2008 and 2011 was 55%.

However, there remain issues with nitrate levels in some regions and with eutrophication (all coastal waters were reported as eutrophic).

Because the measures of the Nitrates Action Programme do not fulfil all requirements of the Directive, an infringement case was launched in 2013. Proceeding with all necessary changes to the Nitrates Action programme

<sup>72</sup> European Commission, 2016. [Urban waste water, 8th implementation reports](#)

<sup>73</sup> [http://ec.europa.eu/regional\\_policy/sources/thefunds/doc/interventions\\_since\\_2002.pdf](http://ec.europa.eu/regional_policy/sources/thefunds/doc/interventions_since_2002.pdf)

is essential in order to align it to all the requirements of the Nitrates Directive.

### Suggested action

- Improve water policy in line with the intervention logic of the Water Framework Directive, i.e. do a more detailed assessment of pressures to improve monitoring in order to know the status of water bodies and design adequately funded Programmes of Measures that address all the main pressures identified, in particular from agriculture, industry and urban waste water.
- Ensure appropriate treatment of urban waste water and establish a water pricing policy covering a broad range of water services and based on metering that would provide incentive for more efficient use of water.
- Review water permits, so they are consistent with environmental objectives and ensure that new projects which may cause deterioration of the status are properly assessed according to the WFD article 4(7).

### Enhancing the sustainability of cities

The EU Policy on the urban environment encourages cities to implement policies for sustainable urban planning and design, including innovative approaches for urban public transport and mobility, sustainable buildings, energy efficiency and urban biodiversity conservation.

SDG11 aims at making cities and human settlements inclusive, safe, resilient and sustainable.

Europe is a Union of cities and towns; around 75% of the EU population are living in urban areas.<sup>74</sup> The urban environment poses particular challenges for the environment and human health, whilst also providing opportunities and efficiency gains in the use of resources.

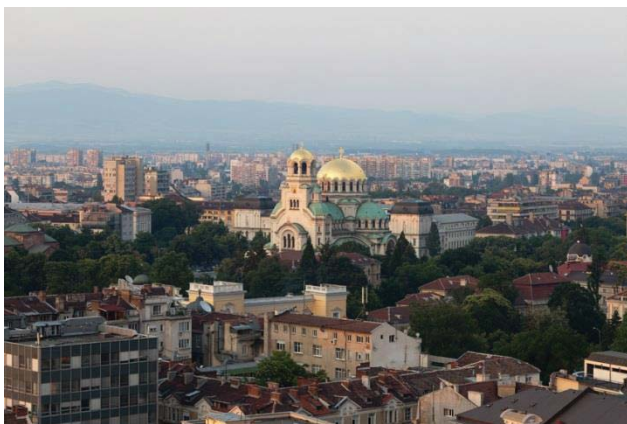
The Member States, European institutions, cities and stakeholders have prepared a new Urban Agenda for the EU (incorporating the Smart Cities initiative) to tackle these issues in a comprehensive way, including their connections with social and economic challenges. At the heart of this Urban Agenda will be the development of twelve partnerships on the identified urban challenges, including air quality and housing<sup>75</sup>.

The European Commission will launch a new EU benchmark system in 2017<sup>76</sup>.

<sup>74</sup> European Environment Agency, [Urban environment](#)

<sup>75</sup> <http://urbanagendaforthe.eu/>

<sup>76</sup> The Commission is developing an [Urban Benchmarking and Monitoring \('UBaM'\) tool](#) to be launched in 2017. Best practices emerge and these will be better disseminated via the app featuring the UBaM tool, and increasingly via e.g. EURO CITIES, ICLEI, CEMR, Committee of the Regions, Covenant of Mayors and others.



The EU stimulates green cities through awards and funding, such as the EU Green Capital Award aimed at cities with more than 100,000 inhabitants and the EU Green Leaf initiative aimed at cities and towns, with between 20,000 and 100,000 inhabitants.

Measurements show that Bulgarian citizens all over the country breathe in air that is considered harmful to health, with significant economic impacts for labour productivity and the health care system. Though generally marking a decrease over the years, concentrations of PM<sub>2.5</sub> and PM<sub>10</sub> remain much higher than the limits the EU and the World Health Organization have set to protect health. Bulgaria has the highest urban PM<sub>2.5</sub> concentrations of all EU-28 member states, as well as the highest PM<sub>10</sub> concentrations, with a daily mean of 77 µg/m<sup>3</sup> compared with the EU limit value of 50 µg/m<sup>3</sup>.<sup>77</sup>

This makes Bulgaria the country with the highest share of external costs associated with air pollution in the EU resulting in the loss of more than two million workdays and more than 11 thousand premature deaths per year.

The main sources of air pollution remain solid fuel use in the energy sector (especially for SO<sub>2</sub> and NO<sub>x</sub>) and domestic solid fuel combustion (especially for particulate matter). The direct economic costs related to air pollution could be significantly reduced by stepping up pollution prevention and control measures.

## International agreements

The EU Treaties require that the Union policy on the environment promotes measures at the international level to deal with regional or worldwide environmental problems.

Most environmental problems have a transboundary nature and often a global scope and they can only be addressed effectively through international co-operation. International environmental agreements concluded by the Union are binding upon the institutions of the Union and on its Member States. This requires the EU and the

Member States to sign, ratify and effectively implement all relevant multilateral environmental agreements (MEAs) in a timely manner. This will also be an important contribution towards the achievement of the SDGs, which Member States committed to in 2015 and include many commitments contained already in legally binding agreements.

The fact that some Member States did not sign and/or ratify a number of MEAs compromises environmental implementation, including within the Union, as well as the Union's credibility in related negotiations and international meetings where supporting the participation of third countries to such agreements is an established EU policy objective. In agreements where voting takes place it has a direct impact on the number of votes to be cast by the EU.

Bulgaria has signed and ratified almost all MEAs including the Nagoya Protocol.<sup>78</sup>

<sup>77</sup> Air Quality in Europe, [2014 report](#), three-year average urban PM<sub>2.5</sub> concentrations 2010-2012

<sup>78</sup> Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity.

## Part II: Enabling Framework: Implementation Tools

### 4. Market based instruments and investment

#### Green taxation and environmentally harmful subsidies

The Circular Economy Action Plan encourages the use of financial incentives and economic instruments, such as taxation to ensure that product prices better reflect environmental costs. The phasing out of environmentally harmful subsidies is monitored in the context of the European Semester and in national reform programmes submitted by Member States.

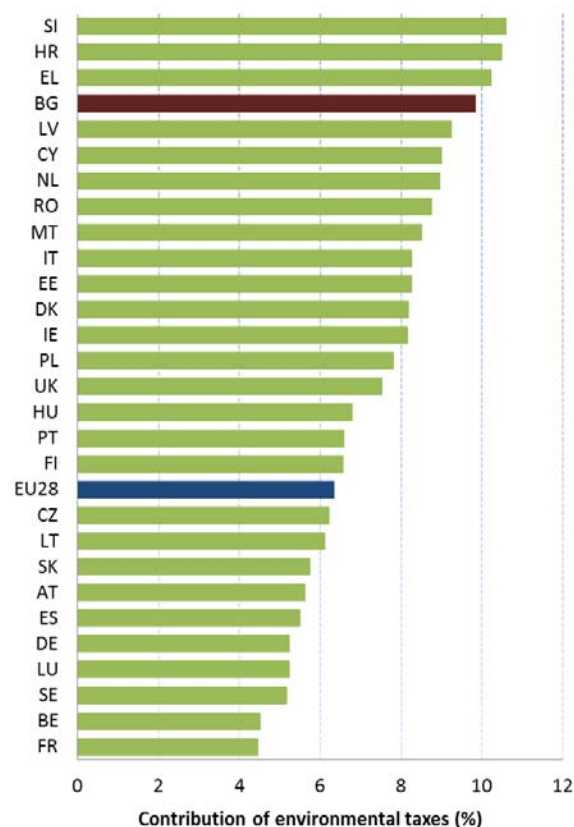
Taxing pollution and resource use can generate increased revenue and bring important social and environmental benefits.

Bulgaria's revenues from environmentally related taxes reached 2.73% of GDP in 2014 against an EU average of 2.46%. This percentage share is up from 2.29% in 2002, but has fallen from a high of 3.27% in 2008; energy taxes amounted to 2.38% of GDP, much above the EU average of 1.88%.<sup>79</sup> At the same time implicit tax rate on energy<sup>80</sup> remains the lowest in the EU: 104.18 (vs 233.74 EU-28 average), indicating a highly energy intensive economy.

As shown in Figure 12, in 2014 year environmental tax revenues accounted for 9.84% (down from 10.03%) of total revenues from taxes and social-security contributions (EU 28 average: 6.35%). It is shown that the environmental tax revenues have decreased slightly but steadily since 2011.

The relatively high share of the revenues from environmentally related taxes, in the total revenues from taxes and social-security contributions, throughout the years can be explained with the relatively low revenues from direct taxes. In addition, the high energy intensity of the economy contributes, through energy taxation to the higher than average share of revenues for environmental taxes. Still the environmental targeting of the tax system is questionable as the share of revenues from pollution taxes are below the EU average. Proper implementation of existing environmental taxes based on the 'polluter pays' principle, including on air pollution, landfilling and energy sources could help change taxpayer behaviour and contribute to achieving environmental goals. Offsetting, at least partially, the increase in energy taxation with resource efficiency measures could keep the overall costs for energy consumers down and reduce high energy bills for end users.<sup>81</sup>

Figure 12: Environmental tax revenues as a share of total revenues from taxes and social contributions (excluding imputed social contributions) in 2014<sup>82</sup>



#### Green Public Procurement

The EU green public procurement policies encourage Member States to take further steps to reach the target of applying green procurement criteria to at least 50% of public tenders.

Green Public Procurement (GPP) is a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life-cycle when compared to goods, services and works with the same primary function that would otherwise be procured.

The purchasing power of public procurement in the EU equals to approximately 14% of GDP<sup>83</sup>. A substantial part of this money is spent on sectors with high environmental impact such as construction or transport, so GPP can help to significantly lower the impact of public spending and foster sustainable innovative

<sup>79</sup> Eurostat, [Environmental tax revenues](#), accessed June 2016

<sup>80</sup> This indicator is defined as the ratio between energy tax revenues and final energy consumption calculated for a calendar year

<sup>81</sup> 2015 [Country Report, Bulgaria](#) (p.46)

<sup>82</sup> Eurostat, [Environmental tax revenues](#), accessed October 2016

<sup>83</sup> European Commission, 2015. [Public procurement](#)

businesses. The Commission has proposed EU GPP criteria<sup>84</sup>.

A national strategy on GPP is included in the National Action Plan (NAP) for promotion of green public procurement for the period 2012-2014.<sup>85</sup> However, information on current NAP is not available.

GPP criteria are developed at the national level and Energy efficiency criteria for 5 priority product groups: office IT equipment, air conditioning and ventilation, white goods, office lightening and public street lightening, motor vehicles.<sup>86</sup>

The Instructions for applying the requirements for energy efficiency and energy savings in procurement for the supply of equipment and vehicles and purchase and/or rental of buildings with high energy efficiency have been updated in 2016 to follow an approach of limiting energy consumption and using environmentally friendly technologies.

According to a 2011 survey, Bulgarian authorities included at least one of the EU core green criteria in 44% of GPP-relevant contracts, and 13% of the contracts included all the relevant EU core green criteria<sup>87</sup>.

### Investments: the contribution of EU funds

European Structural and Investment Funds Regulations provide that Member States promote environment and climate objectives in their funding strategies and programmes for economic, social and territorial cohesion, rural development and maritime policy, and reinforce the capacity of implementing bodies to deliver cost-effective and sustainable investments in these areas.

Making good use of the European Structural and Investment Funds (ESIF)<sup>88</sup> is essential to achieve the environmental goals and integrate these into other policy areas. Other instruments such as the Horizon 2020, the LIFE programme and European Fund for Strategic Investment<sup>89</sup> (EFSI) may also support implementation and spread off best practice.

<sup>84</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>85</sup> European Commission, 2015. [Documentation on National GPP Action Plans](#)

<sup>86</sup> European Commission, 2015. [Documentation on National GPP Action Plans](#)

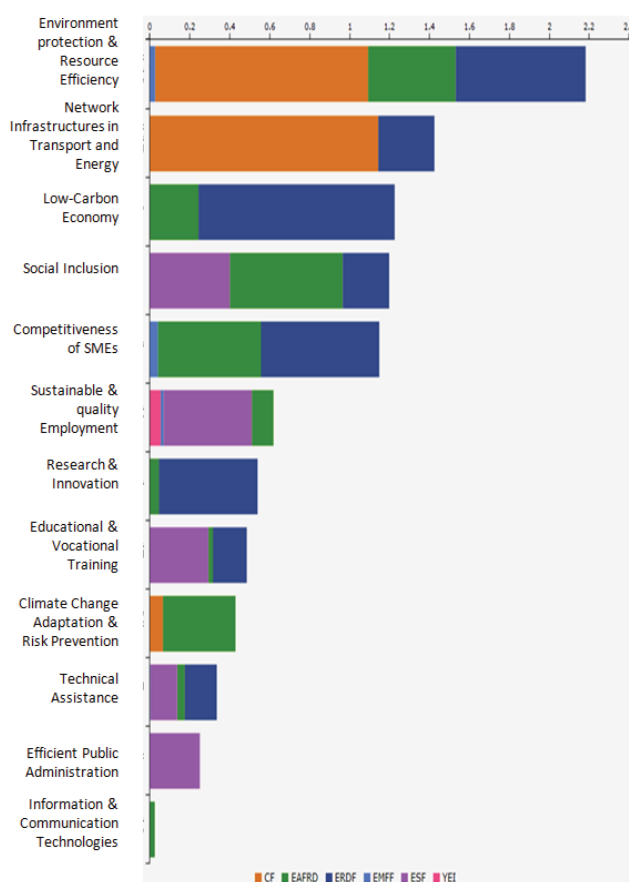
<sup>87</sup> CEPS, 2012. Monitoring the Uptake of GPP in the EU

<sup>88</sup> ESIF comprises five funds – the European Regional Development Funds (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 together form the Cohesion Policy funds.

<sup>89</sup> European Investment Bank, 2016 [European Fund for Strategic Investments](#)

The global budget allocation under the Structural and Cohesion Funds for the 2014-2020 period is EUR 9.82 billion, out of which EUR 2.6 billion is allocated for environmental expenditure (Thematic objective 5 – Climate change, adaptation and risk prevention and management – EUR 429 million; Thematic objective 6 – Environmental protection and resource efficiency – EUR 2.18 billion). It is too early to draw conclusions as regards the use and results of ESIF for the period 2014-2020, as the relevant programmes are still in an early stage of their implementation.

**Figure 13: European Structural and Investment Funds 2014-2020: Budget Bulgaria by theme, EUR billion<sup>90</sup>**



Current data suggest that the EU funds for the 2007-2013 period were almost fully spent.<sup>91</sup> This is due to the considerable efforts carried out in 2014-2015. Resulting from the Operational Programme for Environment support, during that period, 38 water agglomerations larger than 10000 p.e. were brought to compliance with EU standards. In the field of nature protection, 228 Natura 2000 protected zones were mapped throughout the whole country.

A number of big infrastructure projects (mainly landfills

<sup>90</sup> European Commission, [European Structural and Investment Funds Data By Country](#)

<sup>91</sup> Final conclusions on the ESIF use for the period 2007-2013 can only be drawn at the end of 2017.

and motorways) have been delayed due to pending court appeals on environmental grounds (EIA and Natura 2000 issues).

During the next 7 years, the new CAP is going to invest around EUR 7.4 billion in Bulgarian farming sector and rural areas. The new direct payments are to be distributed in a fairer way between Member States, regions and between farmers. As a result, with around EUR 5.1 billion, the budget available for direct payments in Bulgaria will remain stable despite a general reduction of 3.2% at EU level. 30% of direct payments in Bulgaria will be linked to three environmentally-friendly farming practices: crop diversification, maintaining permanent grassland and conserving 5% of areas of ecological interest or measures considered to have at least equivalent environmental benefit.<sup>92</sup>

The allocation under the Cohesion policy funds for Operational Programme Environment (OPE) for the 2014-2020 period is EUR 1.5 billion, which rises to about EUR 1.77 billion with the national co-financing. Through this EU assistance, OP Environment aims to have an additional 1.4 million p.e. served by improved wastewater treatment and additional 105 000 tonnes/year waste recycling capacity created.

The EIA/SEA and waste ex-ante conditionalities are fulfilled. The Water ones are partially fulfilled; appropriate action plans have been prepared and are under implementation.

The planned environmental investments under OPE are focused on the following priorities:

- **Water** – construction of water and wastewater infrastructure (focus in agglomerations with above 10,000 p.e., which are located in administrative districts where only one water company is operating); completion of the water monitoring systems - water quantity and water quality; development of new/update of existing strategic documents.
- **Waste** – measures in compliance with the waste hierarchy to improve the municipal household and hazardous waste management and to implement the legal requirements. Emphasis on separate collection and recycling to meet the 2020 targets.
- **Air** – review of air quality programmes; measures to improve ambient air quality with a particular attention to the identified pollution hot spots.
- **Floods and landslides, risk prevention** – establishment of a real-time National Water Management Centre; measures related to flood/landslides risk prevention and management; demonstration projects and information campaigns.
- **Nature protection** (Natura 2000 and biodiversity

protection) – measures related to protected areas of the Natura 2000 network and aimed to improve knowledge of ecosystems and their services according to the EU Biodiversity Strategy to 2020.

- **Technical assistance** – measures related to increasing the administrative capacity of Beneficiaries and the Managing Authority for programme monitoring.

The National Rural Development Program (RDP) of Bulgaria, its EARDF part, amounts to EUR 2 366 716 966. Budget for agri-environment-climate measure represents 7% of the total EAFRD budget (EUR 167 million) which is one of the lowest allocations for this measure among the EU28. Contribution of M12 (compensation for restrictions posed by Natura 2000) represents ca 4% of the budget (EUR 104 million from EAFRD) and is one of the highest absolute contributions for this measure in the RDPs. The needs found in this area are assessed as significantly higher.

Bulgaria committed to introduce in the RDP in the modification a forest-environmental measure to address needs of high-nature value forests (also pristine forests) and protected forest bird species. This is found as of great need.

As regards water management, financing via RDP is reserved to support irrigation and drainage investments after the recent adoption of the irrigation and drainage strategy.

With regard to the integration of environmental concerns into the Common Agricultural Policy (CAP), the two key areas for Bulgaria (as for all Member States) are, first, using Rural Development funds to pay for environmental land management and other environmental measures, while avoiding financing measures which could damage the environment; and secondly, ensuring an effective implementation of the first pillar of the CAP with regard to cross compliance and 1st pillar 'greening'. 30 % of direct payment envelope (out of total EUR 3 897 977 000 for 2015-2020<sup>93</sup>) is allocated to greening practices beneficial for the environment. An environmentally ambitious implementation of 1st pillar greening would clearly help to improve the environmental situation in areas not covered by rural development, including intensive area, and if needed to better address the environmental needs of agricultural area, Bulgaria could review its choice of 1st pillar greening measures.

During 2008-2012 the ratio of permanent grassland to total utilized agricultural area decreased beyond the legal maximum of 10% and reached more than 20% decrease. Direct payments under CAP are considered partially responsible for this, together with unaligned mapping tools for management of Natura 2000 (outdated

<sup>92</sup> [Bulgaria Common Agricultural Policy, March 2015](#)

<sup>93</sup> Commission Delegated Regulation [\(EU\) 2015/851](#)

cadastre), LPIS (land parcel identification system) used for direct payments.

For the year 2015 Bulgaria made it possible to use 14 elements laid down by the regulation as potential EFA. Use of fertilisers on EFA buffer strips is not allowed, use of fertilisers for EFA short rotation coppice (SRC) is allowed, as well as use of plant protection products for poplars and willows up to 2 years of age in SRC. Among eligible nitrogen fixing crop used as EFA also soybean is listed, for which no biodiversity benefit exists (the biodiversity justification was to be provided for the choice of the MS). 100% of Natura 2000 grasslands were designated as environmentally sensitive, 0 ha designated outside Natura 2000.

## 5. Effective governance and knowledge

SDG 16 aims at providing access to justice and building effective, accountable and inclusive institutions at all levels. SDG 17 aims at better implementation, improving policy coordination and policy coherence, stimulating science, technology and innovation, establishing partnerships and developing measurements of progress.

Effective governance of EU environmental legislation and policies requires having an appropriate institutional framework, policy coherence and coordination, applying legal and non-legal instruments, engaging with non-governmental stakeholders, and having adequate levels of knowledge and skills.<sup>94</sup> Successful implementation depends, to a large extent, on central, regional and local government fulfilling key legislative and administrative tasks, notably adoption of sound implementing legislation, co-ordinated action to meet environmental objectives and correct decision-making on matters such as industrial permits. Beyond fulfilment of these tasks, government must intervene to ensure day-to-day compliance by economic operators, utilities and individuals ("compliance assurance"). Civil society also has a role to play, including through legal action. To underpin the roles of all actors, it is crucial to collect and share knowledge and evidence on the state of the environment and on environmental pressures, drivers and impacts.

Equally, effective governance of EU environmental legislation and policies benefits from a dialogue within Member States and between Member States and the Commission on whether the current EU environmental legislation is fit for purpose. Legislation can only be properly implemented when it takes into account experiences at Member State level with putting EU commitments into effect. The Make it Work initiative, a Member State driven project, established in 2014, organizes a discussion on how the clarity, coherence and structure of EU environmental legislation can be improved without lowering existing protection standards.

### Effective governance within central, regional and local government

Those involved in implementing environment legislation at Union, national, regional and local levels need to be equipped with the knowledge, tools and capacity to improve the delivery of benefits from that legislation, and the governance of the enforcement process.

#### Capacity to implement rules

It is crucial that central, regional and local

<sup>94</sup> The Commission has work ongoing to improve the country-specific knowledge about quality and functioning of the administrative systems of Member States.

administrations have the necessary capacities and skills and training to carry out their own tasks and co-operate and co-ordinate effectively with each other, within a system of multi-level governance.

For the period 2007-2013 the contribution of the EU Cohesion policy available for strengthening the capacity of the public sector amounted to EUR 426 million.<sup>95</sup> The allocation dedicated to efficient public administration for the period 2014-2020 is a little under EUR 251.5 million.<sup>96</sup> However, there has been limited progress in strengthening the role of the administration and efficiency at local level<sup>97</sup>.



Despite some improvements, the country continues to have one of the weakest results in the EU with regards to the government effectiveness and regulatory quality indexes and ranks last for the rule of law and control of corruption<sup>98</sup>.

During the last programming period for some operational programmes financial corrections have been imposed, including OP "Environment". Payments under this programme have even been interrupted for a year between November 2013 and November 2014. Steps to respond to weaknesses and improve the efficiency of the national public procurement system have been undertaken, including the adoption of a dedicated strategy in 2014 – "National Strategy for the Development of the public procurement sector".

Unstable policies and lack of trust in key public institutions, such as the judiciary, constitute significant deterrents to investment in the Bulgarian economy. The slow implementation of public administration reforms hampers progress in improving the investment climate. Although Bulgaria has adopted a strategic framework to reform and modernise its public administration, progress

<sup>95</sup> [http://ec.europa.eu/regional\\_policy/sources/docoffic/official/communic/negociation/country\\_bg\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/negociation/country_bg_en.pdf)

<sup>96</sup> [European Structural and Investment Funds, Data](#)

<sup>97</sup> [2016 Country Report, Bulgaria](#) (p.54)

<sup>98</sup> [2016 Country Report, Bulgaria](#) (p.54)



is slow and implementation often postponed. New legislation is not subject to systematic impact assessment, although there have been some efforts to change this. Frequent changes to the legal framework create uncertainty and affect the businesses environment. Corruption remains a significant concern and the national authorities' response to this problem continues to be hampered by weak and fragmented institutions.<sup>99</sup>

The minister of environment and water is responsible for the policy-making and monitoring in the environmental sector. Legislative initiatives are prepared by the Ministry of Environment and Water. The minister can adopt legally binding measures or propose such measures to the Council of Ministers and to the parliament. The Ministry of Regional Development and Public Works is the body responsible for the agenda of the water supply and sanitation investments and sector reform at large. Cohesion Policy has supported the water sector reform process and the strengthening of the relevant stakeholders in 2007-2013. It will continue supporting Bulgaria also in 2014-2020 to implement the actions set in its national Water Supply and Sanitation Strategy<sup>100</sup> aimed to ensure sustainability of the sector and the delivery of efficient and high-quality services to the consumers at a fair and affordable price.

Bulgaria is generally transposing environmental directives on time and correctly and therefore non-conformity has not been a serious problem. In most cases, Bulgaria adopts the necessary changes in the relevant legislation before reaching the referral stage of the infringement procedure. Most of the infringements in the environmental sector result from bad application or lack of enforcement of EU law.

Air quality, nature protection and waste management seem to be the most problematic issues. The application of the Directives on environmental impact assessment (EIA) and strategic environmental assessment (SEA) are also, to a large extent, raised as part of complaints in the above areas.

The number of complaints received yearly has stabilised at the average level for the EU-28. It seems that nature related complaints are better substantiated and focus on systemic issues, while in the other areas the complaints concern more isolated and individual cases. In addition, a large number of EP petitions and MEP questions, mainly in the nature protection and waste management, are constantly registered.

Bulgarian nature conservation non-governmental organisations are very active and regularly send complaints to both national courts and the Commission

<sup>99</sup> [Commission Recommendation Bulgaria 2016](#) (para 13)

<sup>100</sup> [http://www.mrrb.government.bg/docs/24e7666f6785ee40bfb094be\\_c3ad5f45.pdf](http://www.mrrb.government.bg/docs/24e7666f6785ee40bfb094be_c3ad5f45.pdf)

as well as to the international conventions like the Aarhus, Bern etc.

The implementation and enforcement of environmental legislation lays with the ministry of environment and water, the regional inspectorates on environment and water (RIEWs) and the basin directorates. The RIEWs and Basin Directorates are under the supervision of the ministry and their directors are appointed by the minister. The ministry is responsible for the policy in most environmental areas and for the authorisation of large activities while the RIEWs authorise the smaller scale activities and ensure inspections. The basin directorates ensure water management at the level of individual water basins.

### Coordination and integration

Impact assessments are important tools to ensure environmental integration in all government policies.<sup>101</sup> Bulgaria uses regulatory impact analysis (RIA) on all legislative projects to be approved by the Government. There are however exceptions to the obligation to undertake an IA – for example, an IA will not be required if no significant expenditures/costs or savings to business and society are expected from the proposed act. Furthermore, an IA is not required for legislation instigated by the Parliament. Environmental, economic and social impacts should normally be considered. However, more emphasis seems to be given to the economic and social impacts, with less focus on any environmental impacts.<sup>102</sup> Bulgaria has fully aligned the strategic environmental assessment for plans and programmes (SEA) and environmental impact assessment for projects (EIA).

The transposition of the revised EIA Directive<sup>103</sup> will be an opportunity to streamline the regulatory framework on environmental assessments. The Commission encourages the streamlining of the environmental assessments to avoid overlaps in environmental assessments and accelerate decision-making, without compromising the quality of the environmental assessment procedure. The Commission has issued a guidance document in 2016<sup>104</sup> regarding the setting up of coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, Habitats Directive,

<sup>101</sup> Article 11 of the TFEU provides that "Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development."

<sup>102</sup> RPA, 2014. [Study on Economic and Social Benefits of Environmental Protection and Resource Efficiency Related to the European Semester. Study for the European Commission](#) (p. 93-99)

<sup>103</sup> Transposition of Directive 2014/52/EU is due in May 2017

<sup>104</sup> European Commission, 2016. Commission notice – [Commission guidance document on streamlining environmental assessments conducted under Article 2\(3\) of the Environmental Impact Assessment Directive \(Directive 2011/92/EU of the European Parliament and of the Council, as amended by Directive 2014/52/EU\)](#).

Water Framework Directive, and the Industrial Emissions Directive. The transposition of the revised EIA Directive will be an opportunity to streamline the regulatory framework on environmental assessments, and enhances the quality of the impact assessments carried out.

### Compliance assurance

EU law generally and specific provisions on inspections, other checks, penalties and environmental liability help lay the basis for the systems Member States need to have in place to secure compliance with EU environmental rules.

Public authorities help ensure accountability of duty-holders by monitoring and promoting compliance and by taking credible follow-up action (i.e. enforcement) when breaches occur or liabilities arise. Compliance monitoring can be done both on the initiative of authorities themselves and in response to citizen complaints. It can involve using various kinds of checks, including inspections for permitted activities, surveillance for possible illegal activities, investigations for crimes and audits for systemic weaknesses. Similarly, there is a range of means to promote compliance, including awareness-raising campaigns and use of guidance documents and online information tools. Follow-up to breaches and liabilities can include administrative action (e.g. withdrawal of a permit), use of criminal law<sup>105</sup> and action under liability law (e.g. required remediation after damage from an accident using liability rules) and contractual law (e.g. measures to require compliance with nature conservation contracts). Taken together, all of these interventions represent "compliance assurance" as shown in Figure 14.

**Figure 14: Environmental compliance assurance**



Best practice has moved towards a risk-based approach at strategic and operational levels in which the best mix of compliance monitoring, promotion and enforcement is

<sup>105</sup> European Union, [Directive 2008/99/EC of The European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law OJ L 328, 6.12.2008](#)

directed at the most serious problems. Best practice also recognises the need for coordination and cooperation between different authorities to ensure consistency, avoid duplication of work and reduce administrative burden. Active participation in established pan-European networks of inspectors, police, prosecutors and judges, such as *IMPEL*<sup>106</sup>, *EUFJE*<sup>107</sup>, *ENPE*<sup>108</sup> and *EnviCrimeNet*<sup>109</sup>, is a valuable tool for sharing experience and good practices. Currently, there exist a number of sectoral obligations on inspections and the EU directive on environmental liability (ELD)<sup>110</sup> provides a means of ensuring that the "polluter-pays principle" is applied when there are accidents and incidents that harm the environment. There is also publically available information giving insights into existing strengths and weaknesses in each Member State.

For each Member State, the following were therefore reviewed: use of risk-based compliance assurance; coordination and co-operation between authorities and participation in pan-European networks; and key aspects of implementation of the ELD based on the Commission's recently published implementation report and REFIT evaluation<sup>111</sup>.

Bulgaria has taken a number of positive steps towards establishing risk-based compliance assurance:

- Risk-based approaches have been adopted to target environmental inspections for industrial installations.
- Detailed guidance on the planning and organisation of industrial inspections and criteria and procedures for respective administrative sanctions are in place<sup>112</sup>. Check lists, templates and protocols to steer inspection work are used for such inspections.
- The Bulgarian Ministry of Environment and Water operates an informative web-site on which monthly and annual activities reports are published, including statistical information. Quarterly reports on imposed sanctions naming the offender and indicating the offence type are published online.
- The Association of the Prosecutors in Bulgaria has implemented a successful project aimed at strengthening the prosecution offices' operational

<sup>106</sup> [European Union Network for the Implementation and Enforcement of Environmental Law](#)

<sup>107</sup> [European Union Forum of judges for the environment](#)

<sup>108</sup> [The European Network of Prosecutors for the Environment](#)

<sup>109</sup> [EnviCrimeNet](#)

<sup>110</sup> European Union, [Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage OJ L 143, 30.4.2004, p.56](#)

<sup>111</sup> [COM\(2016\)204 final](#) and [COM\(2016\)121 final](#) of 14.4.2016. This highlighted the need for better evidence on how the directive is used in practice; for tools to support its implementation, such as guidance, training and ELD registers; and for financial security to be available in case events or incidents generate remediation costs.

<sup>112</sup> <http://www3.moew.government.bg/?show=164>

capacity to address environmental crime<sup>113</sup>. This included a series of training workshops and conferences and resulted, inter alia, in establishment of a national prosecutors' network, a web-platform for exchange of information on good practices and the publication of a detailed guidance manual on combating environmental crime<sup>114</sup>.

Up-to-date information is nevertheless lacking in relation to the following:

- data-collection arrangements to track the use and effectiveness of different compliance assurance interventions;
- the extent to which risk-based methods are used to direct compliance assurance at the strategic level and in relation to critical activities outside of industrial installations, in particular in specific problem-areas highlighted elsewhere in this Country Report, i.e. non-compliant landfills, the threats to protected habitat types and species, including from illegal logging, poor air quality and the pressures on water quality from diffuse and point sources of pollution, including significant deficits in urban waste-water treatment.
- arrangements for structured coordination and cooperation between different relevant competent authorities;
- how the Bulgarian authorities ensure a targeted and proportionate response to different types of non-compliant behaviour, in particular in relation to serious breaches detected, given indications that there is a low probability of being criminally prosecuted and sentenced for environmental offences<sup>115</sup>.

Bulgaria is involved in the activities of ENPE but is not active within IMPEL and the other European environmental compliance networks.

For the period 2007-2013, Bulgaria did not report any confirmed instance of environmental damage dealt with under the Environmental Liability Directive, but it did report one pending case and four instances of imminent damage. The Bulgarian authorities show a general interest in the Directive and have participated in the training programme organised by the Commission. Bulgaria has established a system of mandatory financial security.

### Suggested action

- Improve transparency on the organisation and functioning of compliance assurance and on how significant risks are addressed, as outlined above.

<sup>113</sup> <http://ecocrime.bg/bg/2013-05-04-10-22-52/36-2015-07-02-08-46-45>

<sup>114</sup> <http://ecocrime.bg/media/kunena/attachments/519/h5170489.pdf>

<sup>115</sup> <http://www3.moew.government.bg/?show=302>

- Encourage greater participation of competent authorities in the activities of IMPEL, EUFJE and EnviCrimeNet.
- Step up efforts in the implementation of the Environmental Liability Directive with proactive initiatives, in particular by drafting national guidance.

### Public participation and access to justice

The Aarhus Convention, related EU legislation on public participation and environmental impact assessment, and the case-law of the Court of Justice require that citizens and their associations should be able to participate in decision-making on projects and plans and should enjoy effective environmental access to justice.

Citizens can more effectively protect the environment if they can rely on the three "pillars" of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters ("the Aarhus Convention"). Public participation in the administrative decision making process is an important element to ensure that the authority takes its decision on the best possible basis. The Commission intends to examine compliance with mandatory public participation requirements more systematically at a later stage.

Access to justice in environmental matters is a set of guarantees that allows citizens and their associations to challenge acts or omissions of the public administration before a court. It is a tool for decentralised implementation of EU environmental law.

For each Member State, two crucial elements for effective access to justice have been systematically reviewed: the legal standing for the public, including NGOs and the extent to which prohibitive costs represent a barrier.

The Bulgarian legal order generally establishes a clear system of access to justice in environmental matters. In general costs in administrative court procedures are not considered to be prohibitively expensive. Shortcomings however, were identified in the areas of spatial planning for which in particular NGOs are not granted legal standing to ask for a review before a court<sup>116</sup>.

### Suggested action

- Take the necessary measures to ensure standing of environmental NGOs to challenge acts or omissions of a public authority in all sectoral EU environmental laws, in full compliance with EU law as well as the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in environmental matters (Aarhus Convention).

<sup>116</sup> See [study on access to justice in environmental matters 2012/2013](#)

## Access to information, knowledge and evidence

The Aarhus Convention and related EU legislation on access to information and the sharing of spatial data require that the public has access to clear information on the environment, including on how Union environmental law is being implemented.

It is of crucial importance to public authorities, the public and business that environmental information is shared in an efficient and effective way. This covers reporting by businesses and public authorities and active dissemination to the public, increasingly through electronic means.

The Aarhus Convention<sup>117</sup>, the Access to Environmental Information Directive<sup>118</sup> and the INSPIRE Directive<sup>119</sup> together create a legal foundation for the sharing of environmental information between public authorities and with the public. They also represent the green part of the ongoing EU e-Government Action Plan<sup>120</sup>. The first two instruments create obligations to provide information to the public, both on request and actively. The INSPIRE Directive is a pioneering instrument for electronic data-sharing between public authorities who can vary in their data-sharing policies, e.g. on whether access to data is for free. The INSPIRE Directive sets up a geoportal which indicates the level of shared spatial data in each Member State – i.e. data related to specific locations, such as air quality monitoring data. Amongst other benefits it facilitates the public authorities' reporting obligations.

For each Member State, the accessibility of environmental data (based on what the INSPIRE Directive envisages) as well as data-sharing policies ('open data') have been systematically reviewed.

Bulgaria's performance on the implementation of the INSPIRE Directive as enabling framework to actively disseminate environmental information to the public is lagging behind. Bulgaria has indicated in the 3-yearly INSPIRE implementation report<sup>121</sup> that the necessary data-sharing policies allowing access and use of spatial data by national administrations, other Member States' administrations and EU institutions without procedural obstacles are not available.

Assessments of monitoring reports<sup>122</sup> issued by Bulgaria and the spatial information that Bulgaria has published on the INSPIRE geoportal<sup>123</sup> indicate that not all spatial information needed for the evaluation and implementation of EU environmental law has been made available or is accessible. The larger part of this missing spatial information consists of the environmental data required to be made available under the existing reporting and monitoring regulations of EU environmental law.

### Suggested action

- Critically review the effectiveness of its data policies and amend them, taking 'best practices' into consideration.
- Identify and document all spatial data sets required for the implementation of environmental law, and make the data and documentation at least accessible 'as is' to other public authorities and the public through the digital services foreseen in the INSPIRE Directive.

<sup>117</sup> UNECE, 1998. [Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters](#)

<sup>118</sup> European Union, [Directive 2003/4/EC on public access to environmental information](#)

<sup>119</sup> European Union, [INSPIRE Directive 2007/2/EC](#)

<sup>120</sup> European Union, EU eGovernment Action Plan 2016-2020 -

Accelerating the digital transformation of government [COM\(2016\) 179](#) final

<sup>121</sup> European Commission, [INSPIRE reports](#)

<sup>122</sup> [Inspire indicator trends](#)

<sup>123</sup> [Inspire Resources Summary Report](#)