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

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

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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 legislation¹. 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 Programme² and refer to the 2030 Agenda for Sustainable development and related Sustainable Development Goals (SDGs)³ to the extent to which they reflect the existing obligations and policy objectives of EU environmental law⁴.

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

Although Hungary is making efforts to preserve its rich natural heritage and improve its environmental performance, environmental implementation still

represents a challenge.

Main Challenges

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

- ❖ Accelerating the progress made over the past decade to meet the EU waste targets, also by revising the tariff policy for waste management.
- ❖ Complying with EU air quality limit values, in particular for dust particles.
- ❖ Completing the Natura 2000 network with site-specific conservation measures and ensuring adequate resources for them combined with floodplain conservation and restoration including the flood risk management (minimalize the flood risk)

Main Opportunities

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

- ❖ Using the financial opportunities made available by the EU (the EU structural and investment funds – ESIF, EFSI as well as EIB loans) in the sectors covered by the EIR.
- ❖ Using the upcoming review of the National Waste Management Plan to make a better use of economic instruments to prevent waste generation, improve separate collection and recycling, and reduce landfilling.
- ❖ Stepping up the implementation of the national Cross-sectoral Action Programme for the reduction of small particulate matter (PM₁₀)⁵.

Points of Excellence

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

- ❖ The recently established unified National Research, Development and Innovation Fund, provided that it allocates state support for research, development and innovation in environmental fields.

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

² 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](#)".

³ United Nations, 2015. [The Sustainable Development Goals](#)

⁴ This EIR report does not cover climate change, chemicals and energy.

⁵ This Programme was approved by Government Decree No 1330/2011 of 12 October 2011.

Environmental Implementation Report – Hungary

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 makes them more sustainable and competitive. This will stimulate investments and bring both short- and long-term benefits for the economy, environment and citizens alike.⁶

Hungary is performing below the EU average in terms of resource productivity (how efficiently the economy uses material resources to produce wealth)⁷, with 0.9 EUR/kg (EU average is 2) in 2015. Figure 1 shows that this represents a slight decrease since 2012.

There is no comprehensive steer towards a circular economy concept in Hungarian policies yet. The National Environmental Programme IV (2015-2020) is the latest broad strategic document relating to environment, which encompasses several different strategies⁸, and for this reason it could be a good starting point in this respect.

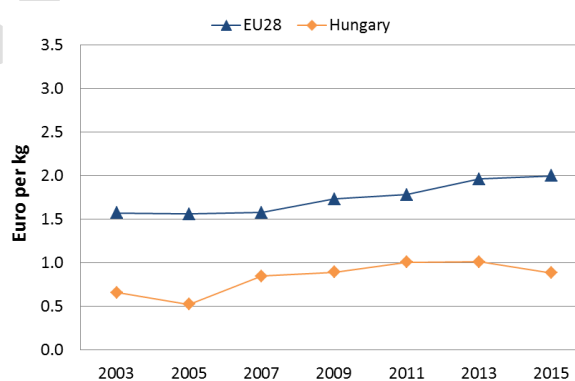
Dialogues and consultation on the circular economy have started mainly involving the waste management sector and the public sector.

Although strategic thinking to embed the circular economy concept in the Hungarian economy is yet to be developed, there is both political will and some private initiatives to improve the performance in the use of resources. In the 2011 National Environmental Technology Innovation Strategy⁹, which is part of the Hungarian National Reform Programme, Hungary stipulates reducing its material intensity to 80% of the 2007 level by 2020.

Hungary has a technology advantage in environment-related technologies, while ICT and bio- and nanotechnologies are close to the OECD median. Regarding good practices, a project on the integration of algae production into waste water treatment, thereby enhancing water quality, building green image and improving economics is a good example¹⁰.

There is a wide use of measures aiming to provide targeted information and advice to companies on resource efficiency. One of the main measures is an initiative ('*Ablakon Bedobott Pénz*'), which consists of an eco-mapping of companies and a brainstorming with the employees in order to identify a list of measures which could help to achieve environmental savings¹¹.

Figure 1: Resource productivity 2003-15¹²



⁶ European Commission, 2015. [Proposed Circular Economy Package](#)

⁷ Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

⁸ including the Strategy for the Countryside, the National Forest Programme and Strategy, the National Energy Efficiency Action Plan, the National Renewable Energy Action Plan, the National Climate Change Strategy, the National Transport Strategy and also the National Concept of Development and Spatial Planning.

⁹ [National Environmental Technology Innovation Strategy 2011–2020, approved by Government Decree No 1307/2011 of 6 September 2011.](#)

¹⁰ Szent István Egyetem, 2015. [Izolált algafajok célzott alaputatása](#)

¹¹ [Ablakon Bedobott Pénz](#)

¹² Eurostat, [Resource productivity](#), accessed October 2016

SMEs and resource efficiency

Around 59% of Hungary's Small and Medium Sized Enterprises (SMEs) have invested up to 5% of their annual turnover in their resource efficiency actions (EU28 average 50%), 18% of them are currently offering green products and services (EU28 average 26%), 59% took measures to save energy (EU28 average 59%), 48% to minimise waste (EU28 average 60%), 44% to save water (EU28 average 44%), and 49% to save materials (EU28 average 54%)¹³. From a circular economy perspective, 18% took measures to recycle by reusing material or waste within the company (EU28 average 40%), 14% to design products that are easier to maintain, repair or reuse (EU28 average 22%) and 20% were able to sell their scrap material to another company (EU28 average 25%).

The resource efficiency actions undertaken allowed the reduction of production costs in 50% of Hungary's SMEs (EU28 average 45%). In terms of "green jobs", 22% of the SMEs in Hungary have one or more full time employee working in a green job at least some of the time (EU28 average 35%)¹⁴.

Eco-Innovation

Hungary is ranked 18th on the Eco-innovation scoreboard, as shown in Figure 2, which is still below the EU average, but showing a significant step forward from the 23rd position it occupied in 2013.

The National Sustainable Development Strategy Framework (2012-24)¹⁵ adopted in March 2013, contains a description of the national resources, lists ongoing unsustainable processes and describes the appropriate directions to choose. Furthermore, it confirms that scientific research and corporate innovation constitute the basis for economic growth.

Hungary has 29 EMAS¹⁶ registered organisations, which is quite low with respect to the total of 4034 organisations that hold a registration. As regards the use of the EU Ecolabel, there are 22 licenses, which is a low number with respect to the 1875 total number of licenses.

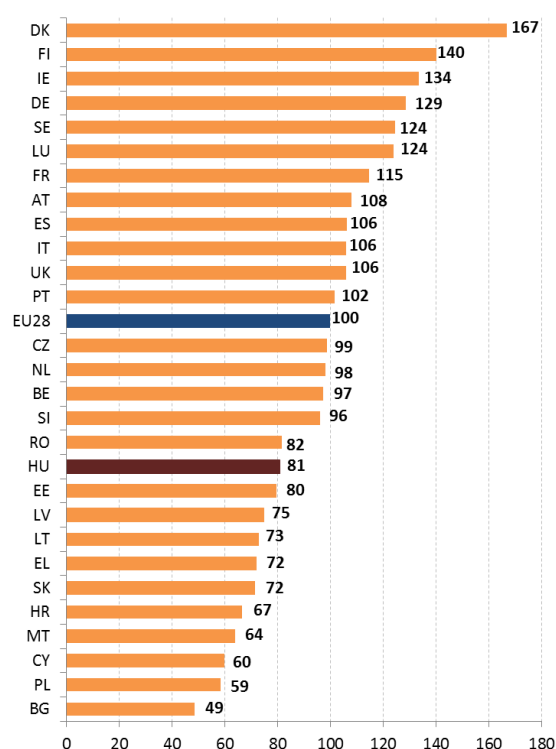
¹³ European Commission, 2015. [Flash 426 Eurobarometer](#) "SMEs, resource efficiency and green markets"

¹⁴ The Flash 426 Eurobarometer 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).

¹⁵ 18/2013. (III. 28.) OGY határozat a [Nemzeti Fenntartható Fejlődés Keretstratégiáról](#); [National Framework Strategy on Sustainable Development of Hungary](#)

¹⁶ The Eco-Management and Audit Scheme (EMAS) is a voluntary environmental management tool for companies and other organisations to evaluate, report and improve their environmental performance.

Figure 2: Eco-Innovation Index 2015 (EU=100)¹⁷



Suggested action

- Develop an overarching circular economy policy framework, create economic instruments to support the transition towards it and raise awareness within the general public and private sector on circular economy principles and products.
- Adopt circular economy principles within the SME sector, improve their access to finance, promote full-time green jobs and support the increase of their innovation rates.
- Incentivise investments in green products and services.

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.

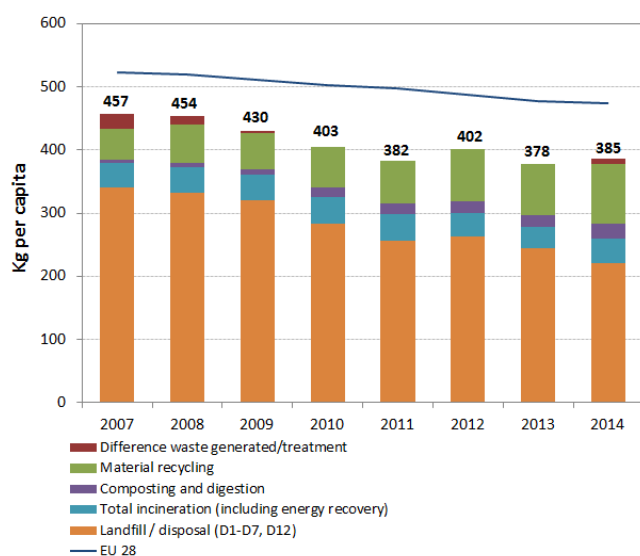
The EU's approach to waste management is based on the

¹⁷ [Eco-innovation Observatory](#): Eco-Innovation scoreboard 2015

"waste hierarchy" which sets out an order of priority when shaping waste policy and managing waste at the operational level: prevention, (preparing for) reuse, 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 waste management plans / waste prevention programs are 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 Hungary 2007-14¹⁸



Waste management is still inefficient in Hungary, which is struggling to meet important EU waste targets. Economic instruments and other mechanisms to prevent waste generation, improve separate collection/recycling and reduce landfilling are not efficient enough.

Municipal waste¹⁹ generation in 2014 has slightly increased compared to 2013 (from 378 kg/y/inhabitant to 385 kg/y/inhabitant), but Hungary is below the EU-28 average (which is 475 kg/y/inhabitant)²⁰.

Figure 3 depicts the municipal waste by treatment in Hungary in terms of kg per capita, which shows an increase of the recycling rates and a decrease in landfilling.

Though slowly rising, recycling of municipal waste is still not adequately developed, reaching only 31%, including

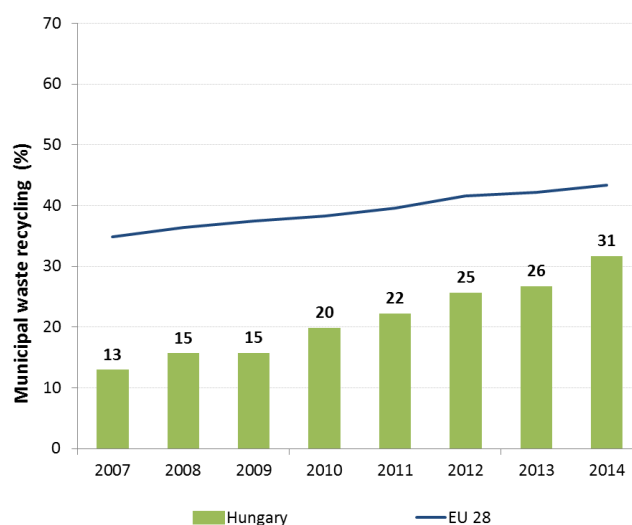
¹⁸ Eurostat, [Municipal waste and treatment, by type of treatment method](#), accessed October 2016

¹⁹ Municipal waste 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.

²⁰ Eurostat, [Municipal waste generation and treatment, by type of treatment method](#), accessed October 2016

composting rate of only 6%, well below the EU average. Compliance with the 2020 target of 50% recycling will therefore require more effort.²¹

Figure 4: Recycling rate of municipal waste 2007-14²²



Landfilling of municipal waste accounts for 57% whereas the EU average is 28%.²³

In addition, in 2012-14, Hungary did not meet the 2008 packaging waste recycling target of 55% since the recycling rate in 2014 accounted for 52.3%, while the packaging recovery rate dropped slightly below the mandatory level of 60%. In order to help bridging the implementation gap in Hungary, the Commission has delivered a roadmap for compliance²⁴. Hungary adopted a National Waste Management Plan for the period 2014-20 which is currently under conceptual revision.

The underlying causes for the current distance to EU waste targets are:

- Lack of co-ordination between the different administrative levels;
- Insufficient (door-to-door) separate collection of waste;
- No developments in infrastructure and collection systems to divert biodegradable waste from landfilling;
- Lack of incentives to manage waste according to the waste hierarchy;
- Extended producer responsibility (EPR) systems

²¹ 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.

²² Eurostat, [Recycling rate of municipal waste](#), accessed October 2016

²³ Although there are no targets on landfilling rates of municipal waste, there is a clear connection between low recycling performance and high landfilling.

²⁴ European Commission, 2016.

http://ec.europa.eu/environment/waste/framework/support_implementation.htm. Country factsheet [Hungary](#).

could be improved.

The use of economic instruments is important in this respect. In Hungary there is an existing landfill taxation regulation which was initially planned to be implemented on a phased basis, rising from EUR 10/t to EUR 40/t by 2016.²⁵ Separate collection schemes should be improved through more door-to-door collection including of biodegradable waste. A suitably designed aggregates tax could help reduce extraction rates for aggregates and stimulate demand for aggregates from secondary sources.²⁶ This approach is aligned with the Roadmap to a Resource Efficient Europe²⁷. In addition, introducing an incineration tax could help avoiding that wastes from landfills are simply shifted to incinerators.

In Hungary, two instruments are widely used on waste management supporting extended producer responsibility. One is the so-called WEEE²⁸ coupon, which is used when consumers (households) take back their e-waste to an EEE selling point. The consumers then get a coupon which can be used when the next piece of EEE is purchased²⁹. The other tool is the environmental product fee, which is applied to a wide range of products including batteries, packaging materials, EEE, tyres, plastic bags, plastics and office paper³⁰.

However, government pricing policies applied, *inter alia*, in the waste management sector have triggered forced tariff decreases which can potentially distort the market and provide wrong incentives. Recently Hungary has introduced a new system, whereby standard fees are collected from the population by a newly established national holding, redistributing in turn the resources to the operators.³¹ However, the fees collected do not seem

to guarantee coverage of the actual costs of waste management. Therefore, these recent reforms raise serious concerns regarding the medium to long-term sustainability of environmental projects.³²

Preventing and reducing waste generation, together with the necessary increase in reuse and recycling, could improve resource efficiency of the Hungarian economy, increase business opportunities and provide jobs in the recycling sector, conducive to a circular economy. Better allocation of Cohesion Policy funds towards solution ranking higher in the waste hierarchy will also contribute to this goal. When taking decisions about future waste management infrastructure, care needs to be taken not to create overcapacities for residual waste management (mechanical-biological treatment plants and waste-to-energy plants).

Full implementation of the existing EU waste legislation could create more than 13,300 jobs in Hungary and increase the annual turnover of the waste sector by EUR 1.4 billion. Moving towards the targets of the Roadmap on resource efficiency, which outlines how we can transform Europe's economy into a sustainable one by 2050, could create over 16,000 additional jobs and increase the annual turnover of the waste sector by over EUR 1,688 million³³.

Suggested action

- Increase gradually landfill taxes to phase-out landfilling of recyclable and recoverable waste. Use the revenues to support the separate collection and alternative infrastructure in conjunction with a better allocation of the cohesion policy funds to the higher steps of waste hierarchy, while avoiding excessive infrastructure for the treatment of residual waste.
- Implement an efficient tariff policy to ensure financial viability of waste management companies, and financial sustainability of projects.
- Undertake a review of the governance and performance of EPR schemes.

²⁵ The landfill tax increased from EUR 10/t (2013) to EUR 20/t (2014) and it remained at that level since then.

²⁶ European Environment Agency (EEA) [Effectiveness of Environmental Taxes and Charges for Managing Sand, Gravel and Rock Extraction in Selected EU Countries](#), June 2008.

²⁷ European Commission, Roadmap to a Resource Efficient Europe, [COM\(2011\) 571](#), which outlines how we can transform Europe's economy into a sustainable one by 2050.

²⁸ waste electrical and electronic equipment

²⁹ The legal base of the coupon is the [Gov. Decree No. 197/2014 \(VIII. 1.\)](#), which entered into force in 2015.

³⁰ In 2011 a 'Green Tax Act' on environmental product fees ([2011. évi LXXXV. törvény a környezetvédelmi termékdíjról](#)) was passed by the Parliament, introducing significant changes to the environmental fees on products. The fee on advertising papers was raised threefold. The most recent changes were made in 2015 when the fee was extended to additional products, including soaps, washing powders, cosmetic products, and, remarkably, to photovoltaic panels. Furthermore, the recent changes introduced six new 'pollution categories' according to the degree of the pollution of the specific products. The main aim of these changes was to create a more transparent and simpler system which would reduce the administrative burden.

³¹ Since 1 April 2016 the National Organizer of Waste and Asset Management has been in charge of coordinating the public waste management services at the national level, collecting the public service fees from the population and paying the service fee to the public service operators for their activity. The standard fee is

determined at the national level with a possibility of using correction factors depending on the quality of services provided and on the contribution to the fulfilment of EU waste targets.

³² The new system is at an early phase of implementation, therefore its medium to long-term effects are only estimates.

³³ 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.

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 17³⁴ and Birds Directive Article 12 reports and the progress towards adequate Sites of Community Importance (SCI)-SPA and SAC designation³⁵ both in land and at sea, should be the key items to measure the performance of Member States.

Hungary hosts 46 habitat types and 142 species covered by the Habitats Directive. The country also hosts populations of 78 bird species listed in the Birds Directive and 23 migratory species.

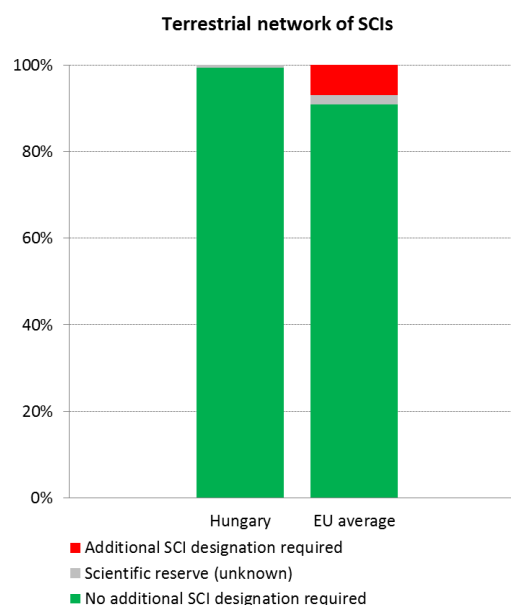
By early 2016, 21.44% of the national land area of Hungary is covered by Natura 2000 (EU average 18.1%), with 56 Birds Directive SPAs covering 14.78% (EU average 12.3%) and 479 Habitats Directive SCIs covering 15.25% (EU average 13.8%).

³⁴ The core of the 'Article 17' report is the assessment of conservation status of the habitats and species targeted by the Habitats Directive

³⁵ 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.

Figure 5³⁶ shows that the SCIs part of the Natura 2000 network in Hungary is considered sufficiently designated³⁷.

Figure 5: Sufficiency assessment of SCI networks in Hungary based on the situation until December 2013 (%)³⁸



By the end of 2013 all sites had been designated as SACs under article 4(4) of the Habitats Directive. In February 2016, 285 Natura 2000 sites had management plans in place, covering 54% of all Natura 2000 sites covered. Management plans for an additional 52 sites were under preparation. Under national legislation, these plans are not obligatory and there is no legal obligation to implement them. Management of Natura 2000 and enforcement of nature legislation is carried out by 10 national park directorates, supervised by the Ministry of Agriculture.

³⁶ 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 biogeographical 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.

³⁷ 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. A scientific reserve is given when further research is needed to identify the most appropriate sites to be added for a species or habitat. [The current data](#), which were assessed in 2014-2015, reflect the situation up until December 2013.

³⁸ European Commission internal assessment.

In Hungary, in 2012³⁹ only approximately 20% of the habitat types and 37% of the species covered by the Habitats Directive had favourable conservation status⁴⁰ (EU average is respectively 16% and 23%). Furthermore, 57% of the habitat types are considered to be unfavourable-inadequate (EU27: 47%) and 24 % are unfavourable – bad (EU27: 30%). As for the species, 54 % were at unfavourable-inadequate (EU27: 42%) and 8% at unfavourable-bad status (EU27: 18%). This is depicted in Figure 6⁴¹. Among the habitats, grasslands and freshwater habitats fared comparatively worst.

Figure 6: Conservation status of habitats and species in Hungary in 2007/2013 (%)⁴²

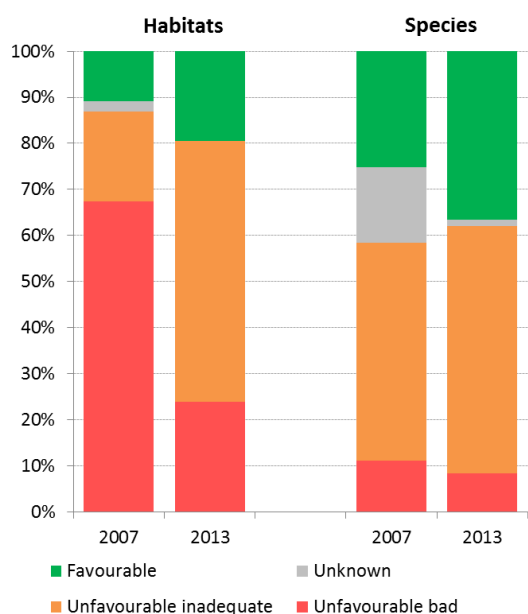


Figure 7 shows that as far as birds are concerned, only 20% of the breeding species showed long-term increasing or stable population trends (for wintering species this figure was 39%). Intensive agriculture and forestry, together with human-induced modifications of natural conditions (e.g. of water systems) and invasive alien species have been identified as the greatest threats to biodiversity in Hungary.

³⁹ Reporting period 2007-2012 for habitats and species covered by the Habitats Directive and 2008-2012 for birds.

⁴⁰ Conservation status is assessed using a standard methodology as being either ‘favourable’, ‘unfavourable-inadequate’ and ‘unfavourable-bad’, based on four parameters as defined in Article 1 of the Habitats Directive.

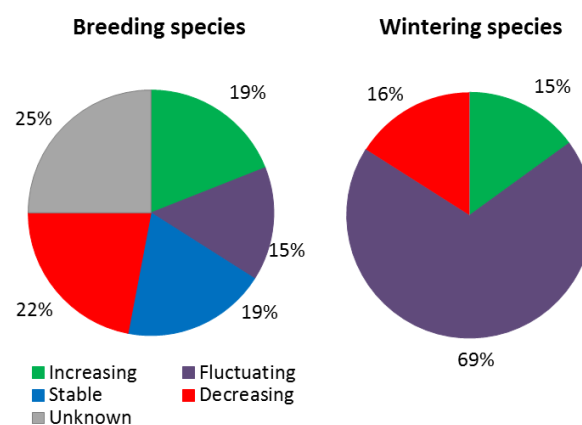
⁴¹ Please note that a direct comparison between 2007 and 2013 data is complicated by the fact that Bulgaria and Romania were not covered by the 2007 reporting cycle, that the ‘unknown’ assessments have strongly diminished particularly for species, and that some reported changes are not genuine as they result from improved data / monitoring methods.

⁴² 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 Hungary](#)



The main challenges related to Natura 2000 in Hungary include ensuring sufficient resources (financial and human) to carry out necessary management and restoration measures, improving the knowledge base (including long-term monitoring), developing institutional capacities (including site control and preparation of remaining management plans) as well as raising public awareness about values of Natura 2000. Improving appropriate assessment of projects potentially detrimental to nature (such as road or energy infrastructure) is also important.

Figure 7: Short-term population trend of breeding and wintering bird species in Hungary in 2012 (%)⁴³



The main challenges related to Natura 2000 in Hungary include ensuring sufficient resources (financial and human) to carry out necessary management and restoration measures, improving the knowledge base (including long-term monitoring), developing institutional capacities (including site control and preparation of remaining management plans) as well as raising public awareness about values of Natura 2000. Improving appropriate assessment of projects potentially detrimental to nature (such as road or energy infrastructure) is also important.

Suggested action

⁴³ Article 12 of the Birds Directive reporting - [national summary of Hungary](#)

- Ensure that changes in ownership (the new private ownership structure of the previously state-owned Natura 2000 lands) fully respect the conservation objectives of these sites and do not result in weakening their protection status.⁴⁴ Complete the Natura 2000 network with site-specific conservation measures, adequately resourced, which are able to maintain/restore species and habitats of community interest to a favourable conservation status across their natural range.
- Develop and promote smart and streamlined implementation approaches, in particular as regards site and species permitting procedures, ensuring the necessary knowledge and data availability and strengthen communication with stakeholders.



Estimating Natural Capital

The EU Biodiversity Strategy to 2020 calls on the Member States to map and assess the state of ecosystems and their services⁴⁵ in their national territory 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.

In order to safeguard ecosystem services it is important to know their status and changes. Based on a large-scale vegetation mapping carried out between 2003 and 2006 across the micro-regions of Hungary, the Natural Capital Index (NCI) was evaluated in 2008.

Detailed national habitat mapping is available for the majority of Natura 2000 sites, including mapping of the quality of natural and semi-natural habitats. A national

⁴⁴ In 2015, Hungary launched a sales-campaign of state-owned land, including 30.000-35.000 ha land belonging to the Natura 2000 network. This has prompted strong criticism by environmental NGOs who are concerned that the change of ownership structure will ultimately have negative effects on the conservation of these sites.

⁴⁵ Ecosystem services are benefits provided by nature such as food, materials, clean water, clean air, climate regulation, flood prevention, pollination and recreation on which human society depends.

initiative on the mapping and assessment of ecosystems and their services is under preparation within the Environment and Energy Efficiency Operational Programme (EEEOP)⁴⁶. The expected results of the project will improve understanding of the state of ecosystem services, give inputs to the designation and maintenance of green infrastructure and contribute to the identification and assessment of landscape characteristics.

Suggested action

- Within the national project under preparation provide support for mapping and assessment of ecosystems and their services, valuation and development of natural capital accounting.

Green Infrastructure

The EU strategy on green infrastructure⁴⁷ 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 backbone of green infrastructure in Hungary is the National Ecological Network, which incorporates protected areas and Natura 2000 sites, complemented with other natural and semi-natural adjacent areas. This accounts for 36% of the total area of the country. The zone of the National Ecological Network is entrenched in the municipal planning of settlements. The National Ecological Network was updated in 2014 and the National Spatial Plan was amended accordingly, keeping the regulations of the zones of the ecological networks. The *European Union Strategy for the Danube Region* – ratified by Hungary in 2011 – includes the development of green infrastructure to connect different bio-geographic regions and habitats along the Danube river, amongst other biodiversity goals.

⁴⁶ European Commission, [Environmental and Energy Efficiency OP Hungary](#)

⁴⁷ European Union, Green Infrastructure — Enhancing Europe's Natural Capital, [COM/2013/0249](#)

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.

Figure 8 shows the different land cover types in Hungary in 2012.

Artificial land cover is used for settlements, production systems and infrastructure.

The annual land take rate (growth of artificial areas) as provided by CORINE Land Cover was 0.29% in Hungary over the period 2006-12, below the EU average (0.41%). It represented 1626.5 hectares per year and was mainly driven by housing, services and recreation as well as mines, quarries and dump sites⁴⁸.

The percentage of built up land in 2009 was 3.17%, close to the EU average (3.23%)⁴⁹. The soil water erosion rate in 2010 was 1.62 tonnes per ha per year, below EU-28 average (2.46 tonnes)⁵⁰. The numbers show that the rate of erosion is definitely higher than the rate of soil formation. Hungary is a country with a very high proportion of arable land (up to 75 % EU, average 46.7%) as such the protection of soils should be of high importance.

⁴⁸ European Environment Agency [Draft results of CORINE Land Cover \(CLC\) inventory 2012](#); mean annual land take 2006-12 as a % of 2006 artificial land.

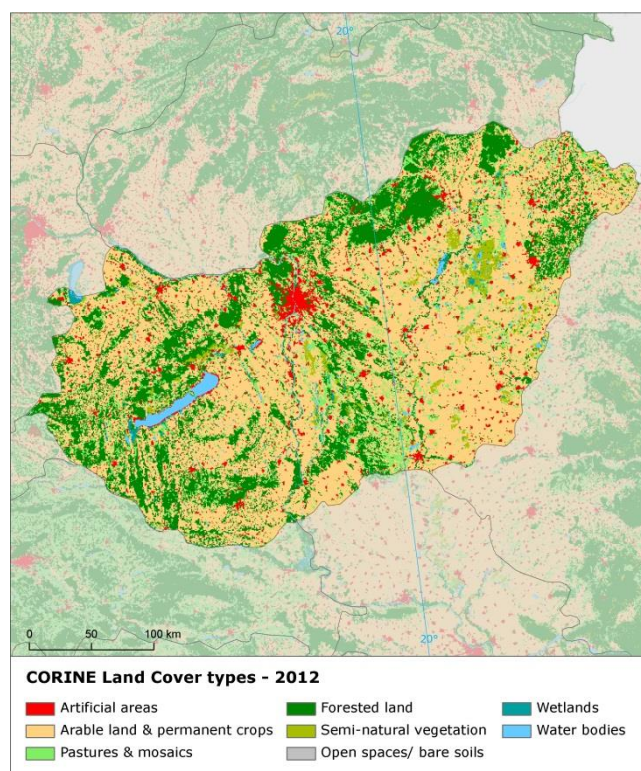
⁴⁹ European Environment Agency, 2016. [Imperviousness and imperviousness change](#)

⁵⁰ Eurostat, [Soil water erosion rate](#), Figure 2, accessed November 2016

The implementation of Good Agricultural and Environmental Conditions (GAEC) in 2003 in agricultural lands of Member States has helped to reduce soil loss rates. GAEC has contributed in reducing the overall soil erosion from 2.71 tonnes per hectare per year to 2.46 tonnes per hectare per year (decrease of 9.5 %). The highest reduction of soil loss due to GAEC implementation was in arable land (mean reduction of 20.2 %).

There are still no 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 Hungary and other EU Member States is being performed by the EU Expert Group on Soil Protection.

Figure 8: Land Cover types in Hungary 2012⁵¹



⁵¹ European Environment Agency, Land cover 2012 and changes country analysis [publication forthcoming]

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.

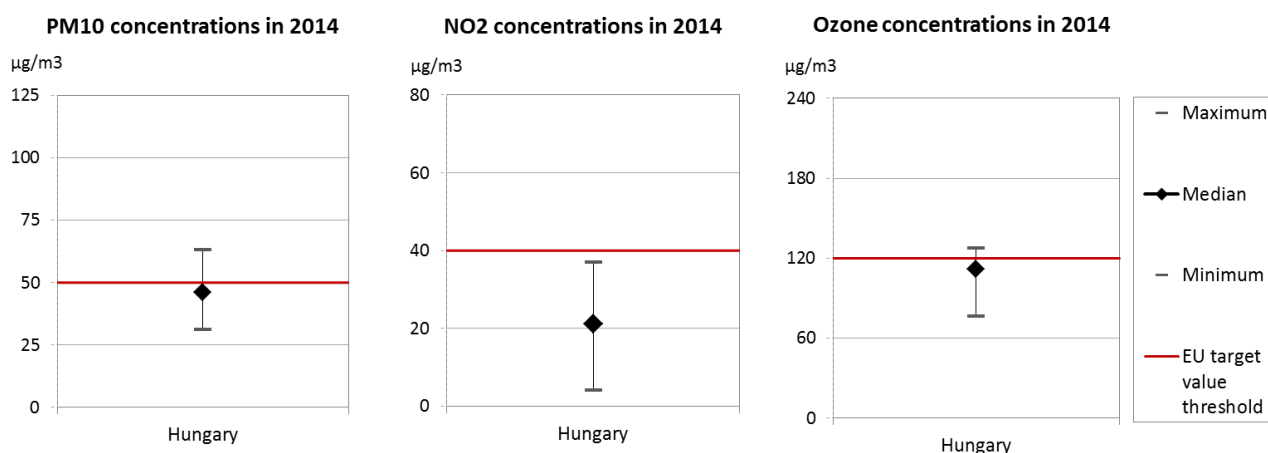
The EU has developed a comprehensive suite of air quality legislation⁵², which establishes health-based

ceilings⁵⁴.

At the same time, air quality in Hungary continues to give cause for concern. For the year 2013, the European Environment Agency estimated that more than 12 890 premature deaths in Hungary were attributable to fine particulate matter⁵⁵ concentrations, more than 460 to ozone⁵⁶ concentration and more than 390 to nitrogen dioxide⁵⁷ concentrations⁵⁸. This is due also to exceedances above the EU air quality standards, as shown in Figure 9⁵⁹.

For 2014, exceedances above the EU air quality standards have been registered for nitrogen dioxide (NO₂) in two air quality zones (Budapest and Pécs) and for particulate

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 NO₂, the annual mean concentration, and (c) for O₃, 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.

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.

The emission of several air pollutants has decreased significantly in Hungary⁵³. Reductions between 1990 and 2014 for sulphur oxides (-97%), nitrogen oxides (-50%), ammonia (-47%) as well as volatile organic compounds (-60%) ensure air emissions for these pollutants are within the currently applicable national emission

matter (PM₁₀) in three air quality zones (including

⁵⁴ 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.

⁵⁵ Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM10 (PM2.5) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many anthropogenic sources, including both combustion and non-combustion sources.

⁵⁶ Low level ozone is produced by photochemical action and it is also a greenhouse gas.

⁵⁷ NO_x is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NO_x is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO₂).

⁵⁸ European Environment Agency, 2016. [Air Quality in Europe – 2016 Report](#). (Table 10.2, see details in this report as regards the underpinning methodology)

⁵⁹ Based on European Environment Agency, 2016. [Air Quality in Europe – 2016 Report](#). (Figures 4.1, 5.1 and 6.1)

⁵² European Commission, 2016. [Air Quality Standards](#)

⁵³ See [EIONET Central Data Repository](#) and [Air pollutant emissions data viewer \(NEC Directive\)](#)

Budapest). Furthermore, one air quality zone has indicated exceedances regarding fine particulate matter (PM_{2.5}), for which the limit value has become binding only in 2015. Target values for benzo(a)pyrene are exceeded in seven air quality zones. For several air quality zones the target values and long-term objectives regarding ozone concentrations are also not met⁶⁰.

The persistent breaches of air quality requirements (for PM₁₀ and NO₂), 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 Hungary. The aim is that adequate measures are put in place to bring all zones into compliance. In response, Government Decree No 1330 of 12 October 2011 on the Cross-Sectoral Action Programme for the Reduction of PM₁₀ was adopted and is now being implemented⁶¹.

It is estimated that the health-related external costs from air pollution in Hungary are above EUR 5 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 3 million workdays lost each year due to sickness related to air pollution, with associated costs for employers of EUR 239 million/year (income adjusted, 2010), for healthcare of above EUR 18 million/year (income adjusted, 2010), and for agriculture (crop losses) of EUR 63 million/year (2010)⁶².

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 nitrogen oxide (NO_x) emissions to comply with currently applicable national emission ceilings⁶³ and/or to reduce nitrogen dioxide (NO₂) (and ozone concentrations), inter alia, by reducing transport related emissions - in particular in urban areas.
- Reduce PM₁₀ emission and concentration, inter alia, by reducing emissions related to energy and heat generation using solid fuels, to transport and to agriculture.

⁶⁰ See [The EEA/Eionet Air Quality Portal](#) and the related Central Data Repository

⁶¹ [PM₁₀ csökkentési program](#)

⁶² These figures are based on the [Impact Assessment](#) for the European Commission Integrated Clean Air Package (2013)

⁶³ Under the provisions of the revised National Emission Ceilings Directive, Member States now may apply for emission inventory adjustments. Pending evaluation of any adjustment application, Member States should keep emissions under close control with a view to further reductions.

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 issues⁶⁴. 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.

There have been delays in the implementation of key obligations under the Noise Directive⁶⁵ in Hungary, in particular as regards the adoption of noise maps and action plans. For example, as of January 2016, the relevant noise map and action plan had still not been drawn up for the Budapest agglomeration⁶⁶ and the relevant action plans were also missing for the major roads and major railways⁶⁷ located in the territory of the country.

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

⁶⁴ WHO/JRC, 2011, Burden of disease from environmental noise, Fritschi, L., Brown, A.L., Kim, R., Schwela, D., Kefalopoulos, S. (eds), [World Health Organization, Regional Office for Europe](#), Copenhagen, Denmark

⁶⁵ 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.

⁶⁶ The relevant noise map for this agglomeration was due to be in force by 30 June 2012, according to the first subparagraph of Article 7(2) of the Directive, and the relevant action plan was due to be in force by 18 July 2013 according to Article 8(2) of the Directive.

⁶⁷ The relevant action plans for the major roads and major railways were also due to be in force by 18 July 2013 according to Article 8(2) of the Directive.

*acquis*⁶⁸ 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.

Hungary 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 RBMPs⁶⁹ (RBMP1), Hungary reported the status of 869 rivers, 213 lakes and 185 groundwater bodies. Only 11% of natural surface water bodies achieve a good or high ecological status⁷⁰ (while the status of 30% is unknown) and 9% of heavily modified or artificial water bodies⁷¹ achieve a good or high ecological potential (45% unknown). Only 3% of surface water bodies (95% unknown), 3% of heavily modified and artificial water bodies (94% unknown) and 80% of groundwater bodies achieve good chemical status⁷². Furthermore, 85% of groundwater bodies⁷³ are in good quantitative status⁷⁴.

The main pressures on Hungarian surface waters are river

management, flow regulation and morphological alterations with 81% and 50% of water bodies affected by these pressures respectively. Diffuse pollution⁷⁵ affects 24% and point sources of pollution 17% of surface water bodies while abstraction affects only 8%.

The Hungarian RBMP1 has a number of deficiencies that result in uncertainties about the status, pressures and effectiveness of the Programme of Measures. In particular there were weaknesses in monitoring and methods for assessment and classification of the status meaning that a very high proportion of water bodies have unknown status⁷⁶. A number of exemptions were applied without transparent justification. It was not clear to what extent new modifications were assessed according to Article 4(7) of the Water Framework Directive. The Programmes of Measures do not fully address the implementation gap and they are expected to result only in a slight improvement by 1% of the ecological status of natural surface water bodies, and artificial and heavily modified bodies⁷⁷.

As regards drinking water, Hungary reaches very high compliance rates of 99-100% for microbiological parameters. It also demonstrates 98.6% and 97.1% compliance rates with chemical and indicator parameters laid down in the Drinking Water Directive⁷⁸. At the same time, the Commission is closely following up on the non-compliance with other specific parameters of the Directive (Arsenic, Boron and Fluoride) of a large number of water supply zones, due to natural conditions and the measures taken to address these by 2018.

As shown in Figure 10, in 2015, in Hungary out of 246 bathing waters, 68.7 % were of excellent quality, 11.8 % were of good quality, 2.4 % of sufficient quality. Only one bathing water was of poor quality or non-compliant while it was not possible to assess the remaining 41 bathing waters⁷⁹. Figure 10 depicts a gradual increase in excellent quality of bathing waters since 2013.

Nitrates vulnerable zones established under the Nitrates Directive covered more than 50% of the Hungarian territory⁸⁰. The 2008-2011 reporting showed that, overall, water quality remained relatively stable over the last years for what concerns nitrate concentrations.

⁶⁸ 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 \(2007/60/EC\)](#).

⁶⁹ [Commission Staff Working Document](#) (SWD (2012)379 final)

⁷⁰ Good ecological status is defined in the Water Framework Directive, in terms of the quality of the biological community, the hydrological characteristics and the chemical characteristics.

⁷¹ 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.

⁷² Good chemical status is defined in the Water Framework Directive in terms of compliance with all the quality standards established for chemical substances at European level.

⁷³ For groundwater, a precautionary approach has been taken that comprises a prohibition on direct discharges to groundwater, and a requirement to monitor groundwater bodies.

⁷⁴ According to the Hungarian authorities, the RBMP2 (<http://www.vizugy.hu/index.php?module=vizstrat&programelemid=149>; submitted to the Commission in 2016) evaluates altogether 1078 surface water bodies, reducing the proportion of unknown ecological status down to 11%, the unknown chemical status to 46.5%. 85.4% of the evaluated surface water bodies are in good status from chemical aspect. A significant improvement can be detected on data management and methods in the RBMP2 for decreasing information gap.

⁷⁵ Diffuse pollution comes from widespread activities with no one discrete source, e.g. acid rain, pesticides, urban run-off, etc.

⁷⁶ More information on the implementation status and more specific recommendations can be found at European Commission, [Water Framework Directive Implementation Reports](#)

⁷⁷ According to the Hungarian authorities, the expected improvement is 2% in case of rivers, and +3% in case of lakes until 2015.

⁷⁸ [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

⁷⁹ European Environment Agency, 2016. [European bathing water quality in 2015](#), p. 26

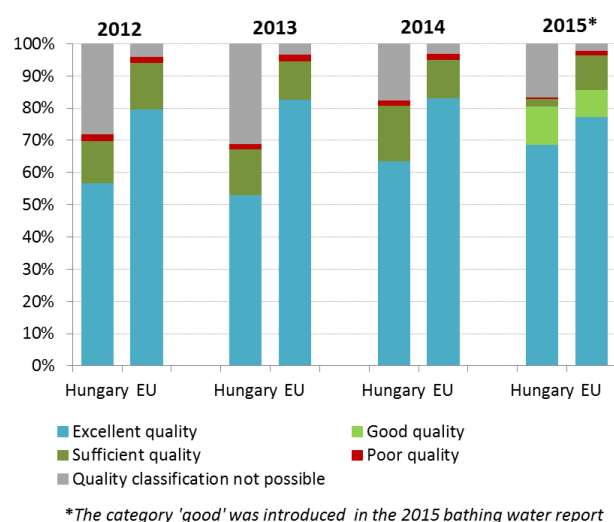
⁸⁰ According to the Hungarian authorities, in 2016 the Nitrates vulnerable zones is about 70%.

However, nitrate levels and eutrophication are still a matter of concerns for many water bodies.

Concerning the implementation of the Urban Waste Water Treatment Directive, the final deadline set in Hungary's Accession Treaty to reach compliance was 31 December 2015. However, following an agreement between Hungary and Romania, Hungary decided to apply more stringent treatment of waste water based on Article 5(4) of the Directive, over its whole territory by 31 December 2018. For the moment, the requirements regarding more stringent treatment only apply in the three areas designated as sensitive in 2004. However, as of 2018 Hungary needs to ensure a reduction of 75% of the load entering treatment plants for nitrogen and phosphorus, over its whole territory. According to the latest data available (2014) the percentage of reduction of the load entering treatment plants was 80,23 % for nitrogen and 83,46 % for phosphorus by the end of 2014.

Out of 34 countries worldwide, Hungary is ranked 32nd for use of renewable water sources⁸¹. Water resources in Hungary show regional and seasonal limitations, which may escalate with climate change (causing also changes in water consumption patterns). Urban heat waves are a specified vulnerability for Hungary that could have a direct connection to water utilities. Better management of precipitation with the creation of storage facilities to meet non-drinking water needs are envisaged to reduce this vulnerability.

Figure 10: Bathing water quality 2012 – 2015⁸²



The river bank-filtered resources are generally of good quality and quantity. However, they are dependent on river morphology developments. Subsurface water resources are the key source of drinking water supply (up to 95%). There are local resource constraints with respect

⁸¹ Christian Kroll, 2015. [Sustainable Development Goals: Are the rich countries ready?](#) p.33.

⁸² European Environment Agency, 2016. [State of bathing water country report Hungary](#)

to the volume of extraction. Shallow subsurface sources are often polluted, especially from agricultural sources⁸³ and from the settlements which have had no waste water collecting system until recently (communal sources).

In the RBMP1 Hungary considered water services only those delivered by water providers. Environmental and resource costs, including those generated by diffuse and point sources, have not been calculated but they are claimed to be internalised via existing policy instruments (waste water charges, water abstraction charges). Moreover, water and sewerage tariffs were frozen in 2012 and were decreased by law in 2013. In the Environment and Energy Efficiency Operational Programme (EEEOP) 2014-20⁸⁴, an action plan has been proposed in order to review the water pricing policy to reflect cost recovery obligations under the Water Framework Directive. A modified tariff methodology is currently under development.

A 2016 study⁸⁵ suggests that increasing the existing water abstraction fees, and introducing an additional tax on water abstracted for agricultural uses, would further improve efficiency in the usage of water.

Hungary is hit regularly by flooding incidents, and is likely to experience large flood damages and increased relative economic impacts by the end of this century. Significant benefits have been identified for Hungary from upgrading protection levels to the future 100-year flood event (adaptation scenario). Management and prevention of floods is an area where potentially more economical nature-based solutions could improve resource efficiency through reducing costs⁸⁶ and delivering multiple benefits⁸⁷.

Green Infrastructure is part of the response and should be maintained, improved and restored. The Hungarian Partnership Agreement (PA) provides references to natural water retention measures, nature-based solutions and Green Infrastructure (habitat protection

⁸³ [Water and wastewater services in the Danube Region](#), World Bank, May 2015.

⁸⁴ European Commission, [Environmental and Energy Efficiency OP Hungary](#), p.168-169.

⁸⁵ Enomia Research and Consulting, IEEP, Aarhus University, ENT, 2016. [Study on Assessing the Environmental Fiscal Reform Potential for the EU28](#)

⁸⁶ It is estimated that between 2002 and 2013, for the 10 floods recorded the total direct costs were €2,700 million. RPA Risk and Policy Analysts, 2014. [Study on Economic and Social Benefits of Environmental Protection and Resource Efficiency related to the European Semester](#); (damages only found for 5 out of 10 floods, damages extrapolated across all 10 floods). The average cost per flood was €270 million (based on those floods that are sufficient to exceed the threshold for inclusion in the EM-DAT database).

⁸⁷ RPA Risk and Policy Analysts, 2014. Study on Economic and Social Benefits of Environmental Protection and Resource Efficiency related to the European Semester, [Annex I Country fiches](#)

and ecosystem - floodplains - restoration)⁸⁸. According to the PA, the magnitude of the flood risk areas and inland waters is close to 50% of the country's territory. The flood measures protect national wealth responsible for about one-third of GDP. In the EEEOP 2014-20, Hungary is planning to invest in improving the conditions required for the sustainable management of water resources and improving the conditions of protection against damages of floods.

The Vásárhelyi Plan which provided a national framework for the flood management investments in Hungary since 1999, was revised in October 2003⁸⁹. The principle of the revised Vásárhelyi Plan is for potentially damaging surplus floodwater to be diverted - in a controlled way - into retention reservoirs constructed along the river, precisely for this purpose. However, the currently observed focus, which is limited to implementing individual EU-funded projects and to classical flood protection measures, could undermine the comprehensiveness of the programme in the longer term. Cohesion Policy cannot finance the entire scope of the revised Vásárhelyi Plan, in particular the specific agricultural subsidy schemes necessary to support the desired management of floodplains, and so complementary national funds will be needed.

Suggested action

- Build up the necessary infrastructure to achieve compliance with the Drinking Water Directive and the Urban Waste Water Treatment Directive.
- Improve monitoring and status assessment so that the Programme of Measures reliably addresses all the relevant pressures and implementation gaps. Measures should be properly financed.
- Assess properly new modifications of water bodies according to Article 4(7) of the Water Framework Directive.
- Implement an efficient tariff policy to ensure cost recovery.
- Focus on nature-based retention measures when implementing flood protection projects.

Enhancing the sustainability of cities

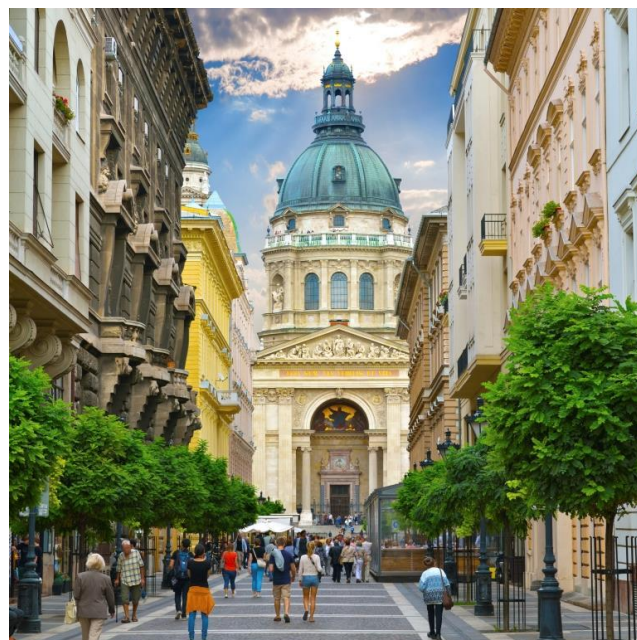
The EU Policy on the urban environment encourages cities to implement policies for sustainable urban planning and design, including innovative approaches for urban public transport and mobility, sustainable buildings, energy efficiency and urban biodiversity conservation.

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

⁸⁸ Partnership Agreement of Hungary for the 2014–2020 programming period p. 33-35, 87.

⁸⁹ [Act No LXVII of 2004](#)

Europe is a Union of cities and towns; around 75% of the EU population are living in urban areas.⁹⁰ 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 housing⁹¹.

The European Commission will launch a new EU benchmark system in 2017⁹².

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. The city of Pécs (with 150,000 inhabitants) figures among the applicant cities for the European Green Capital Award 2017.

Hungary has allocated EUR 537.84 million (5% of its allocation under the European Regional Development Fund), excluding technical assistance, to sustainable urban development.

Sustainability of urban areas is dependent on bringing pollution under control, of which air and water are the

⁹⁰ European Environment Agency, [Urban environment](#)

⁹¹ <http://urbanagendaforthe.eu/>

⁹² 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. EUROCITIES, ICLEI, CEMR, Committee of the Regions, Covenant of Mayors and others.

most relevant in case of Hungary. In 2012, road traffic was responsible for 41% of the NO_x emissions, and particulate matter (PM) emissions from traffic are also a concern. Hungary had 55% of the urban population resident in areas exposed to PM₁₀ concentrations over the daily limit value, substantially worse than the EU average of 21.5%^{93,94}. The latest available data (2011) showed that collection of waste water was ensured in all agglomerations, but adequate treatment of waste water collected was still due in 16% of the urban agglomerations⁹⁵.

In Budapest and in other Hungarian cities, new construction projects started in recent years have destroyed too many full grown trees. Even if new trees are planted to replace them, it will take several decades before they offer the same ecosystem services (e.g. filtering and cooling the air) as the ones that were cut. The unauthorised cutting of trees is also widespread. Green areas tend to be replaced by underground installations (e.g. parkings) with a thin layer of soil and with buildings with green roofs, again resulting in a reduction of ecosystem services. Better urban planning and stricter enforcement are needed that focus on the preservation of trees and green areas.

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.

Hungary is performing as one of the best in the EU with regard to signing and ratifying such agreements.

⁹³ European Environment Agency, 2015. [Air Quality in Europe – 2015 Report](#). EEA Report 5/2014, table 4.4, p.55

⁹⁴ The Hungarian Government announced in September 2016 plans to spread electric cars and develop the e-charging infrastructure in Hungary. It would contribute to the achievement of the clean city aims, according to the Jedlik Ányos Plan.

⁹⁵ European Commission, Eighth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Directive ([COM \(2016\)105 final](#)) and Commission Staff Working Document accompanying the report ([SWD\(2016\)45 final](#)).

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.

Hungary has environmental tax revenues amounting to 2.6% of GDP in 2014 (slightly above the EU28 average: 2.46%)⁹⁶. In the same year, environmental tax revenue accounts for 6.79% of total revenues from taxes and social contributions in the same year (EU28 average: 6.35%) as shown in Figure 11.

Hungary figures amongst the five Member States that have introduced or increased taxes on pollution and resources.⁹⁷ In particular, a landfill tax for non-hazardous waste was introduced in 2013 with a rate of EUR10/t⁹⁸.

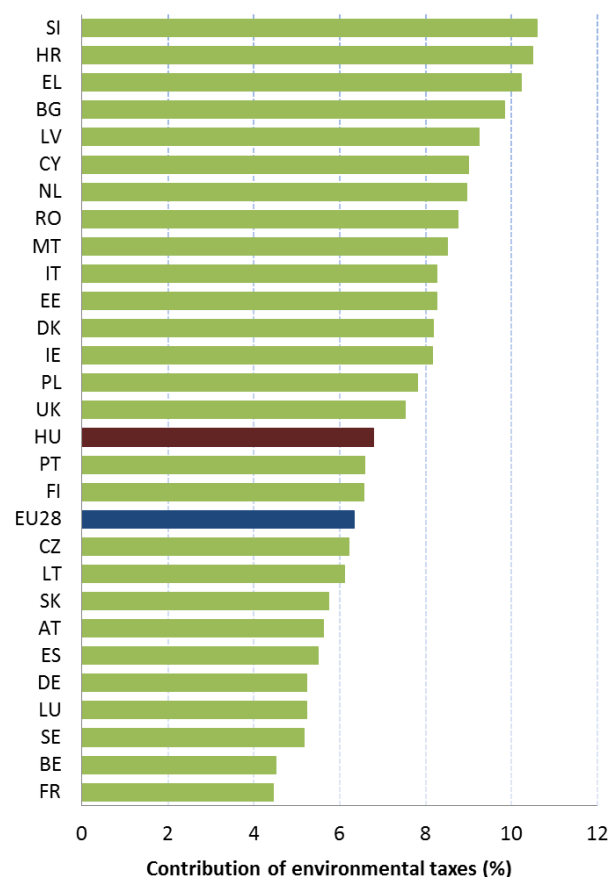
Despite persistently low energy prices, Hungary is not levying excise duties on the supply of energy and electricity to non-business customers. The excise duty regulation changed from September 2016⁹⁹ and excise duty on petrol, diesel and petroleum (which earlier was fixed barely over the minimum rate, among the lowest in the EU) had been directly linked to global price of oil. If global price of oil stays above USD 50, the excise duty on petrol, diesel and petroleum unchanged and fuel taxed with original tax rate (valid before September 2016). Excise duty rate increase on fuel by HUF 10 for diesel and HUF 5 for petrol and petroleum if the global price of oil reach or drops under threshold.

Hungary does not fully exploit the economic instruments, although recently there have been a number of increases in the field of environmental taxation¹⁰⁰.

The Hungarian tax system is still characterised by some environmentally harmful subsidies (EHSs), including the favourable tax treatment of personal use of company

cars¹⁰¹. The motor vehicle tax, characterised by a shrinking rate according to age of the vehicle, is clearly not based on environmental factors.

Figure 11: Environmental tax revenues as a share of total revenues from taxes and social contributions (excluding imputed social contributions) in 2014¹⁰²



In this context, a 2016 study suggests that there is considerable potential for shifting taxes from labour to environmental taxes¹⁰³. Under a good practice scenario¹⁰⁴, these could generate an additional EUR 0.65 billion in 2018, rising to EUR 1.21 billion in 2030 (both in

¹⁰¹ The annual motor vehicle tax is deductible from the company car tax

¹⁰² Eurostat, [Environmental tax revenues](#), accessed October 2016

¹⁰³ Eunomia Research and Consulting, IEEP, Aarhus University, ENT, 2016. [Study on Assessing the Environmental Fiscal Reform Potential for the EU28](#). N.B. National governments are responsible for setting tax rates within the EU Single Market rules and this report is not suggesting concrete changes as to the level of environmental taxation. It merely presents the findings of the 2016 study by Eunomia *et al* on the potential benefits various environmental taxes could bring. It is then for the national authorities to assess this study and their concrete impacts in the national context. A first step in this respect, already done by a number of Member States, is to set up expert groups to assess these and make specific proposals.

¹⁰⁴ The good practice scenario means benchmarking to a successful taxation practice in another Member State.

⁹⁶ Eurostat, [Environmental tax revenues](#), accessed June 2016

⁹⁷ European Commission, 2015. [Tax Reforms in EU Member States 2015](#), Institutional Paper 008 Sept. 2015, pp.18-19.

⁹⁸ It was supposed to increase to EUR40/t by 2016, but tariffs were frozen by the Government in 2012.

⁹⁹ Act LXVIII of 2016 on the excise duties

¹⁰⁰ E.g. environmental product fees were raised on a number of products (see in Chapter I/1, in the section on waste management).

real 2015 terms). This is equivalent to 0.56% and 0.80% of GDP in 2018 and 2030 respectively. The 2016 study shows the largest potential source of revenue would come from the suggested increase in vehicle (circulation) taxes, generating EUR 0.46 billion in 2030 (real 2015 terms), equivalent to 0.30% of GDP. The next largest contribution to revenue comes from the proposed pesticides tax. This accounts for EUR 0.19 billion in 2030 (real 2015 terms), equivalent to 0.13% of GDP.

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 equals to approximately 14% of GDP¹⁰⁵. 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 businesses. The Commission has proposed EU GPP criteria¹⁰⁶.

Hungary has not yet adopted the National Action Plan for GPP.

According to a 2010 study¹⁰⁷, the share of Hungarian authorities that included GPP requirements in 50% to 100% of their contracts was estimated at between 10-20%.

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)¹⁰⁸ 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 the EFSI¹⁰⁹ may also support implementation and spread of best practice.

The global budget allocation for Cohesion Policy for the 2014-2020 period is EUR 21.5 billion. Hungary also receives EUR 3.45 billion for rural development (from the European Agricultural Fund for Rural Development, EAFRD) and EUR 39.1 million for the fisheries sector (from the European Maritime and Fisheries Fund, EMFF), see Figure 12.

There are seven multi-fund (ERDF, CF, ESF) Operational Programmes (OP) having national coverage (with the exception of one covering only the more developed central region¹¹⁰), and one OP under the EAFRD and the EMFF each. The biggest programme is the Economic Development and Innovation OP (co-funded by ERDF, ESF and Youth Employment Initiative, YEI) with the allocation of EUR 7.73 billion EU fund.

An amount of EUR 3 billion is foreseen for environmental investment in the 2014-20 period, which represents 13.9% of the total allocation under the Cohesion Policy. The environmental priorities are included in the EEOP (EUR 3.22 billion from ERDF and CF). Hungary envisages co-financing flood protection and climate adaptation, infrastructure in the water, wastewater and waste sectors, improvement of nature protection, and increase of energy efficiency. Projects aimed specifically at improving air quality are not included.

The EAFRD part of the national Rural Development Program (RDP) of Hungary amounts to EUR 3.45 billion. Hungary has used the possibility to transfer funds from Pillar II (EAFRD) to Pillar I (direct payments) at the level of 15% (for years 2016-20). The budget for agri-environmental-climate measure represents 15% of the total EAFRD budget.

As regards water management, support in RDP is channelled to support irrigation investments, with a 5% or 10% minimum potential water savings. Water metering systems need to become part of the investment supported, if this is not already in place. Hungary plans to support natural water-retention measures with the EAFRD and RDP.

Concerning the ex-ante conditionalities, the specific one

¹⁰⁵ European Commission, 2015. [Green public procurement](#)

¹⁰⁶ 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.

¹⁰⁷ Adelphi et al, [Strategic Use of Public Procurement in Europe'](#) (2011)

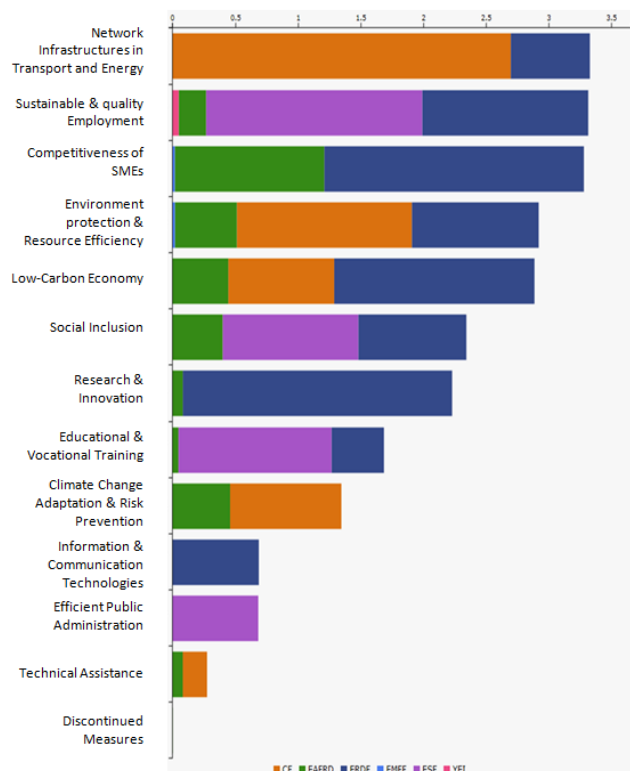
¹⁰⁸ ESIF comprises five funds – the European Regional Development Funds (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF together form the Cohesion Policy funds.

¹⁰⁹ European Investment Bank, 2016 [European Fund for Strategic Investments](#)

¹¹⁰ Central Hungary region (including Budapest) is classified as a "more developed region", all the other regions are "less developed".

on water is considered as partially fulfilled as both the RBMP and the water pricing policy have shortcomings. Therefore an Action Plan addressing these was submitted to the Commission.

Figure 12: European Structural and Investment Funds 2014-2020: Budget Hungary by theme, EUR billion¹¹¹



It is too early to draw conclusions as regards the use and results of ESIF funds for the period 2014-20, as the relevant programmes are still in an early stage of their implementation.

Current data suggest that the overall use of cohesion policy funds for the 2007-2013 period are already close to 92%.¹¹²

Governmental resources to support NGOs active on environmental issues have reportedly decreased over the last few years. In this context, the Hungarian authorities could more actively support interested organizations to apply for and implement LIFE integrated projects of common interest.

¹¹¹ European Commission, [European Structural and Investment Funds Data By Country](#)

¹¹² Final data for the period 2007-2013 will only be available at the end of 2017.

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 skills¹¹³. 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, governments 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.

¹¹³ The Commission has work ongoing to improve the country-specific knowledge about quality and functioning of the administrative systems of Member States.

Capacity to implement rules

It is crucial that central, regional and local 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.

Hungary performs below the EU average regarding fast-changing legislation, the complexity of administrative procedures and e-government services for businesses. The World Bank 2015 Worldwide Governance Indicators show that the governance score of Hungary for the regulatory quality indicator is below the EU average and has deteriorated since 2006¹¹⁴.

The 2013 European Quality of Government Index puts Hungary in 21st place out of the 28 Member States¹¹⁵.



Impact assessments are important tools to ensure environmental integration in all government policies.¹¹⁶

Consultations on draft legislation tend to be non-public, informal and take place with selected stakeholders, and there are no publicly available impact assessments underpinning legislation. For instance, on average only 46 days elapsed between the adoption of a draft law and its publication in the official journal (*Magyar Közlöny*), which does not allow a proper public discussion and does not give enough preparation time for the affected parties. Public consultations remained limited; the median number of days open for consultation was only 5 days in

¹¹⁴ The governance score denotes the estimate of governance measured on a scale from approximately -2.5 to 2.5. Higher values correspond to better governance. Hungary scored 1.21 in 2006 and 0.77 in 2014. The EU average was 1.17 in 2014.

¹¹⁵ Charron N., 2013. [European Quality of Government Index \(EQI\)](#)

¹¹⁶ 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."

2014 and 3.5 days in 2015¹¹⁷.

As regards environmental impact assessments of projects, Hungary has relied on several occasions on a special procedure, called environmental performance evaluation¹¹⁸, which provides an ex post assessment of an existing or ongoing project, instead of carrying out an impact assessment before the project is authorised and integrate properly the environmental concerns in the development consent.

Suggested action

- Ensure increased partnership and transparency all over the public administration and strengthen public participation in decision-making relating to environmental matters.
- Make greater use of impact assessments of draft legislation, covering in particular environmental impacts.

Coordination and integration

Hungary has a National Sustainable Development Strategy Framework (2012-2024) since March 2013¹¹⁹.

The primary responsibility for environmental issues and for the implementation of most EU environmental legislation is delegated to the Ministry of Agriculture. Within the Ministry, the State Secretariat for Environmental affairs, agricultural development and Hungarian products (specific national products) is the central governing body for environmental protection and nature conservation. The task of the State Secretariat is the promotion of sustainable development, the preservation of air and soil quality, and the protection of natural assets.

The fragmented governance of environmental topics among the various ministries may further reduce the effectiveness of the measures. This may be particularly evidenced by the fact that the Ministry for National Economy bears responsibility for the implementation of the circular economy package; the Ministry of National Development - for environmental technologies, for the designation of the public waste management services fee and for energy efficiency; the Ministry of Agriculture - for waste management, and the Ministry of Interior - for water management and for water protection.

From 1 April 2015, the regional Environment and Nature Protection Inspectorates were merged into County Government Offices. Their environmental tasks are

coordinated and controlled by the National Inspectorate for Environment and Nature Protection as a second instance authority. From 1 January 2017, the National Inspectorate will also be merged into the Government Offices as regards environmental administration in general, and into the Agriculture Ministry as regards waste management issues in particular. It is essential to ensure that irrespective of the formula chosen, environmental impacts of projects or policy decisions are fully and effectively taken into account in any relevant consent procedures¹²⁰.

The transposition of the revised EIA Directive¹²¹ 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 2016¹²² regarding the setting up of coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, Habitats Directive, Water Framework Directive, and the Industrial Emissions Directive.

Suggested action

- Address the fragmented governance of environmental topics and increase integration of environmental aspects into other policies.
- Establish a clear and transparent process for the authorization of activities and facilities that have impact on the environment.

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

¹¹⁷ Corvinus University, Corruption Research Center, Budapest, 2016. 'The Quality of Hungarian Legislation 2015'.

¹¹⁸ As laid down in Article 77 of [Act No. LIII of 1995 on Environmental Protection](#).

¹¹⁹ 18/2013. (III. 28.) OGY határozat a [Nemzeti Fenntartható Fejlődés Keretstratégiájáról](#); [National Framework Strategy on Sustainable Development of Hungary](#)

¹²⁰ While the restructuring of the environmental administration system may in principle lead to better integration of the environmental concerns, it has been criticised as prone to weaken environmental protection.

¹²¹ The transposition of Directive 2014/52/EU is due in May 2017.

¹²² 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).

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 law¹²³ 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 13.

Figure 13: 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 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*¹²⁴, *EUFJE*¹²⁵, *ENPE*¹²⁶ and *EnviCrimeNet*¹²⁷, 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)¹²⁸ 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 publicly 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.¹²⁹

Over the last decade, Hungary has made efforts to improve its system of inspections of industrial facilities. Some relevant data collection and analysis are undertaken and annual activity reports are prepared. Some basic risk criteria are used for planning and targeting of inspection work¹³⁰.

Up-to-date information is 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, especially specific problem-areas highlighted elsewhere in this Country Report, i.e. the threats to protected habitat types and species, poor air quality and the pressures on water quality from diffuse and point sources of pollution.
- how the Hungarian authorities ensure a targeted and proportionate response to different types of non-compliant behaviour, in particular in relation to serious breaches detected.

Hungary is active within EUFJE and participates in some IMPEL activities.

For the period 2007-2013, Hungary reported 563 cases dealt with under the ELD, the highest number of any Member State. The importance that the country attaches to the Directive could be further enhanced by the adoption of guidance, as well as by additional measures to ensure effective financial security (to pay for remediation when an operator cannot). Difficulties have been experienced with the latter. For example, the operator who was liable for the tragic accident that occurred in October 2010 in the alumina facility near the town of Ajka proved to be grossly under-insured.

¹²³ European Union, [Environmental Crime Directive 2008/99/EC](#)

¹²⁴ [European Union Network for the Implementation and Enforcement of Environmental Law](#)

¹²⁵ [European Union Forum of judges for the environment](#)

¹²⁶ [The European Network of Prosecutors for the Environment](#)

¹²⁷ [EnviCrimeNet](#)

¹²⁸ European Union, [Environmental Liability Directive 2004/35/CE](#)

¹²⁹ [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.

¹³⁰ See for details Amec Foster Wheeler Environment&Infrastructure UK Ltd in collaboration with Milieu Ltd, 2016, 'Assessment and summary of the Member States' implementation reports for the IED, IPPCD, SED and WID, p. 245f., which indicates also diverging practices across the country in relation to publication of inspection plans.

Suggested action

- Improve transparency on the organisation and functioning of compliance assurance and on how significant risks are addressed, as outlined above.
- Encourage greater participation of competent authorities in environmental compliance networks.
- Step up efforts in the implementation of the Environmental Liability Directive (ELD) with proactive initiatives, in particular by drafting national guidance. Hungary should moreover take further steps to ensure an effective system of financial security for environmental liabilities (so that operators not only have insurance cover available to them but actually take it up).

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")¹³¹. 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.

A major challenge includes the simplification of access to justice standing rules currently differentiating between nature and environmental protection, with a special view to facilitate standing for the public concerned in different environmental planning cases. The costs to bring environmental cases to the national courts are not considered as being prohibitively high. However, the

¹³¹ UNECE, 1998. [Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters](#)

Hungarian system has shortcomings in providing the public, notably individuals and NGOs, legal standing which would allow them to initiate court actions in environmental matters¹³².

Suggested action

- Take the necessary measures to ensure standing in particular 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).

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, the Access to Environmental Information Directive¹³³ and the INSPIRE Directive¹³⁴ 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 Plan¹³⁵. 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

¹³² European Commission, [2012/2013 access to justice in environmental matters](#)

¹³³ European Union, [Directive 2003/4/EC on public access to environmental information](#)

¹³⁴ European Union, [INSPIRE Directive 2007/2/EC](#)

¹³⁵ European Union, EU eGovernment Action Plan 2016-2020 - Accelerating the digital transformation of government [COM\(2016\) 179](#) final

envisages) as well as data-sharing policies ('open data') have been systematically reviewed¹³⁶.

Hungary's performance on the implementation of the INSPIRE Directive as enabling framework to actively disseminate environmental information to the public is lagging behind. Hungary has indicated in the 3-yearly INSPIRE implementation report¹³⁷ 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 fully available. With the exception of a limited set of spatial data sets, the existing Hungarian data policy does not allow for free data sharing between public administrations. This prevents cooperation between the different sectors in Hungary and creates an important obstacle for data-sharing.

Assessments of monitoring reports¹³⁸ issued by Hungary and the spatial information that Hungary has published on the INSPIRE geportal¹³⁹ 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.

¹³⁶ Upon request by the Commission, most Member States provided an INSPIRE Action Plan addressing implementation issues. These plans are currently being assessed by the Commission.

¹³⁷ European Commission, [INSPIRE reports](#)

¹³⁸ [inspire indicator trends](#)

¹³⁹ [Inspire Resources Summary Report](#)