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

*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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## Executive summary

### About the Environmental Implementation Review

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

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

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

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

### General profile

Environmental implementation represents a challenge in Italy with high regional variations in water and waste management. With regard to resource efficiency, Italy is

pioneering voluntary agreements, and has one of the highest levels of EMAS and Eco-labels in the EU. The adoption of the *Collegato Ambientale* was a major step forward towards environmental integration.

### Main Challenges

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

- ❖ Improve waste management and water infrastructure, including waste water treatment, which are persistent concerns particularly in southern Italy.
- ❖ Improve management of land use, flooding and air pollution in the centre and northern regions.
- ❖ Designate remaining SACs. Improving the conservation status of habitats and species of EU interest by fully implementing the Natura 2000 instruments, using the regional Prioritised Action Frameworks to ensure a better integration of EU funds and a more strategic planning of investments.

### Main Opportunities

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

- ❖ Use the opportunities for EIB loans and environmental investment with the ESIF support and the EFSI. ESIF support can increase the quality and efficiency of public administration to develop a better model of environmental governance.
- ❖ Use the proposed Green Act and the Committee on Environmental Taxation to make wide-ranging proposals.
- ❖ Use the Integrated Project "GESTIRE 2020" [to update the Lombardy Natura 2000 Prioritised Action Framework] as an example for other Italian regions.

### Points of Excellence

Where Italy has developed innovative approaches they could be shared with other countries. Good examples are:

- ❖ Integrated environmental assessments & the user-friendliness of the webportal of the Ministry of Environment on EIA & SEA.
- ❖ Regional Administrative Reinforcement Plans covering ESIF and national funds
- ❖ The Committee on Environmental Accounting established by the *Collegato Ambientale*.
- ❖ Innovative approaches developed by LIFE projects.
- ❖ The BES (*Benessere equo e sostenibile*<sup>5</sup>) indicators.

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.

<sup>5</sup> Wellbeing, equal and sustainable

## 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 the circular economy

Transforming our economies from linear to circular offers an opportunity to reinvent them and make them more sustainable and competitive. This will stimulate investments and bring both short and long-term benefits for the economy, environment and citizens alike<sup>6</sup>.

In terms of resource productivity<sup>7</sup> (how efficiently the economy uses material resources to produce wealth), Italy is performing better than average in the EU, with 3.04 EUR/kg (EU average is 2) in 2015.<sup>8</sup> Figure 1 shows that Italy has had a small but steady increase of resource productivity since 2005.

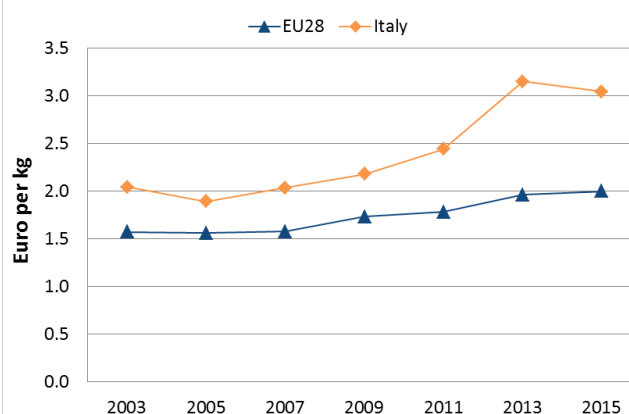
As yet there is no national policy for programming for a circular economy. Nevertheless, the planned *Green Act* (mentioned in the 2015 and 2016 National Reform Programmes) should facilitate the transition to a more circular and resource efficient economy. Efforts are starting-up to promote circular economy at the regional level<sup>9</sup>. Furthermore the 2017 Budget Law (*Legge di Stabilità 2017*) is promoting circular economy through

*Industria 4.0*<sup>10</sup>. The *Collegato Ambientale* adopted 28.12.15 foresees the adoption of a national plan on sustainable consumption and production within one year<sup>11</sup>. There is a National Plan on Food Waste since 2014, and a law to encourage the donation and distribution of food products and reduce waste has been recently adopted<sup>12</sup>.

In Milan there is a high-level of separate collection of food waste (93 kg/inhab/yr)<sup>13</sup> recognised worldwide as a best practice in a city with over 1 million population. This has had a 'domino effect' in encouraging take up of collection of food waste in surrounding municipalities.

A local initiative of circular economy is how industrial waste from is being used in the Val di Cornia in Tuscany (the *Rimateria* initiative<sup>14</sup>).

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



Overall, 385,570 Italian companies invest in the green economy and around 26.5% of Italian businesses can be considered green. The Green businesses' rate of innovation is double that of other businesses (22.2% against 11.4%). Similarly, with regard to exports, green businesses export almost double that of other

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

9 For example the new EU co-financed [SCREEN](#) project (Synergic Circular Economy across European regions (SCREEN), funded by the Horizon 2020 programme involving Lazio and Lombardy).

<sup>10</sup> Ministry of Environment, [Press Release](#); Budget Law 232, 11.12.16, Art.9

<sup>11</sup> [Collegato Ambientale](#) - Disposizioni in materia ambientale per promuovere misure di green economy e per il contenimento dell'uso eccessivo di risorse natura, Law n.221 of 28.12.2015, in force since 04.02.2016.

<sup>12</sup> [Disposizioni concernenti la donazione e la distribuzione di prodotti alimentari e farmaceutici a fini di solidarietà sociale e per la limitazione degli sprechi](#), Law n.166 of 19.08.2016

<sup>13</sup> European Commission, [Brussels workshop 13.01.2016](#)

<sup>14</sup> [Rimateria](#)

<sup>15</sup> Eurostat, [Resource productivity](#), accessed October 2016

businesses<sup>16</sup>. The *States General of the Green Economy* has been promoted by the National Council of the Green Economy, made up of 64 business organisations that represent the green economy in Italy, in collaboration with the Ministries of Environment and Economic Development<sup>17</sup>. Furthermore, in 2016, the Italian Alliance for Sustainable Development (ASviS) was created with the objective of raising awareness on the Sustainable Development Goals (SDGs)<sup>18</sup>.

According to a study by the European Commission, Italy uses mainly voluntary agreements and initiatives, non-legal standards for products and services, and supports extended producer responsibility for materials and products to foster resource efficiency.<sup>19</sup>

There are some notable examples such as the Italian Environmental Footprint Programme, launched by the Ministry for the Environment. The programme concerns the environmental footprint of goods/services (carbon footprint and water footprint). The *Collegato Ambientale* establishes a wider use of Product Environmental Footprinting (PEF) with the "Made Green in Italy" scheme. Italy is by far the most active Member State in using EMAS and it has the highest number of Eco-label products in the EU.

Italy is characterised by low R&D investment levels, with a 1.29% R&D intensity<sup>20</sup> (2.03% EU average), caused by the scarcity of public funding instruments and of high skilled human resources, and by the low share of high-tech manufacturing activities. However, there is a high patenting in the fields of water pollution abatement and waste management, for which Italy shows elevated export shares<sup>21</sup>.

## SMEs and Resource Efficiency

Innovative and export-oriented Small and Medium Sized Enterprises (SMEs) are the backbone of Italy's productive system. In terms of value added and jobs, SMEs play a more significant role in Italy than in most other EU countries, but their productivity, measured as value added per capita, is approximately 10 % below the EU average. Furthermore, Italian SMEs perform below the EU average in terms of their environmental performance, suggesting that it needs to do more in terms of policy in this area. The main challenges are related to the low level of public support for SMEs taking part in the green economy.

Around 41% of Italy's SMEs have invested up to 5% of annual turnover in their resource efficiency actions (EU28 average 50%), 15% are currently offering green products and services (EU28 average 26%), 37% took measures to save energy (EU28 average 59%), 59% to minimise waste (EU28 average 60%), 25% to save water (EU28 average 44%), and 38% to save materials (EU28 average 54%)<sup>22</sup>. From a circular economy perspective, 25% took measures to recycle by reusing material or waste within the company (EU28 average 40%), 10% to design products that are easier to maintain, repair or reuse (EU28 average 22%) and 17% 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 46% of the Italy's SMEs (EU28 average 45%)<sup>23</sup>. This is highly relevant considering the high number of SMEs in Italy (79.3% of private sector jobs above the EU-28 average of 66.8%)<sup>24</sup>.

Around 30% of SMEs in Italy have one or more full time employee working in a green job at least some of the time (EU28 average 35%)<sup>25</sup>.

In 2014, Italy had five SME support programmes for resource efficiency (e.g. Giada Project; Innovhub Milano).<sup>26</sup> Furthermore, Italy was involved in the European Regional Development Fund (ERDF) co-financed PRESOURCE project, which provides several tools and instruments to help promoting resource efficiency in SMEs.<sup>27</sup>

The transition to a resource efficient economy will result in new jobs related to reuse, repair or recycling. In Italy, 117,000 new jobs could be created and 327,000 jobs could be secured if SMEs in four sectors (food & beverages; energy, power & utilities; environmental technologies; construction) would fully use their potential for resource efficiency. Indeed the cost savings for these four SME sectors in Italy could amount to EUR 10.4 billion; this implies an average saving of EUR 19,000 per enterprise for just over 547,000 businesses in the four sectors.<sup>28</sup> EFSI has financed an equity SMEs project

16 Symbola, [Press Release](#)

17 [States General](#)

18 [Italian Alliance for Sustainable Development](#)

19 [A framework for Member States to support business in improving its resource efficiency](#), 2015, study for the European Commission

20 total R&D expenditures as a share of GDP

21 Osservatorio Innovazione e Tecnologia per la Green Economy, [Tecnologia e Innovazione nella Green Economy Italiana – Rapporto 2015](#)

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

23 Idem

24 [European Commission, SMEs country sheets](#), 2016

25 The Flash 426 Eurobarometer "SMEs, resource efficiency and green markets" 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).

26 RPA 2014, [Economic and Social Benefits of Environmental Protection and Resource Efficiency Related to the European Semester](#), study for European Commission

27 [PRESOURCE](#)

28 RPA, 2015, [Assessing the Potential Cost Savings and Resource Savings of Investments in 4 SME sectors](#), study for European Commission, p. 38 & 30

in Italy promoting environmental sustainability. Other EFSI projects under consideration are also environmentally friendly<sup>29</sup>.

Over the 2014-20 programming period, the ERDF will invest in R&I and SME competitiveness based on national and regional smart specialisation strategies. For Italy, the national strategy identifies 5 focus areas, including energy, the environment and sustainable industry.

### Eco-Innovation

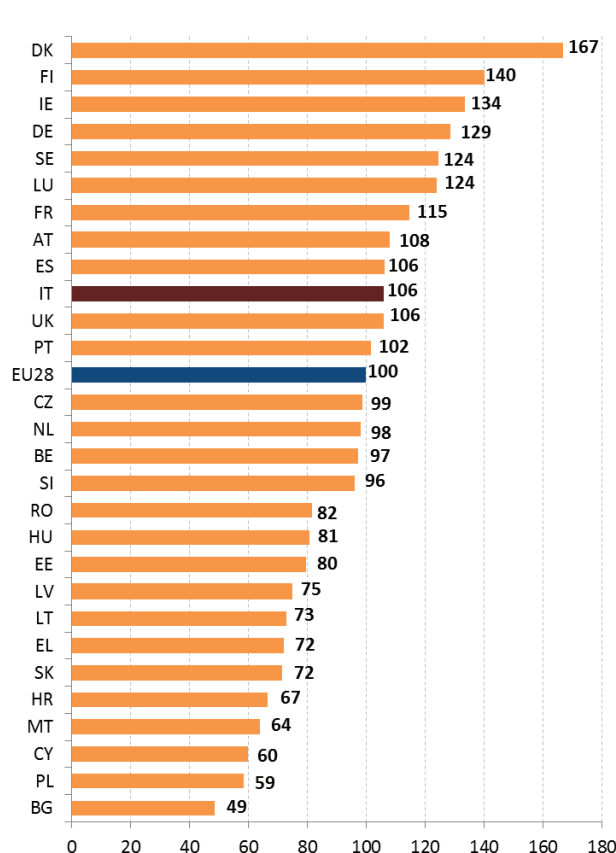
The relative positioning of Italy based on the analysis of the 2015 Eco-Innovation Scoreboard has improved and moved up in the EU28 ranking from 12th to 10th place (Figure 2). Social awareness with regard to needs and opportunities in the context of sustainability and eco-innovation has strongly grown over the recent years.<sup>30</sup> As a highlight, it should be noted that the universal EXPO in Milan 2015 on 'Feeding the Planet, Energy for Life'<sup>31</sup> showcased eco-innovation.

Barriers to eco-innovation and the circular economy in Italy are of different natures: there are structural barriers, such as those related to the economy and technology, as well as barriers related to policy and regulation. The availability of risk capital for both the creation and continuation of eco-innovative projects remains scarce. Italy's general innovation capacity is behind that of other European countries. Nevertheless, there have been major developments in the area of green technologies related to renewable energy generation and non-fossil energy generation.

Research related to the implementation of new management practices by firms, such as in Antonioli *et al.*<sup>32</sup>, can provide a new understanding of the effects of firms' organisational changes on eco-innovation adoption. Specifically, this study looked into whether environmental strategies and human resources training are integrated with the goal of fostering eco-innovation adoption. Although they examined one of the most competitive and densely industrialized regions of Italy (Emilia Romagna), they did not find evidence of complementarity between these strategies. A possible explanation, the authors concluded, is that green strategies are not yet fully embedded within the firms' organisational strategies. Another example is Lombardy recognized as having a high clustering of eco-industries<sup>33</sup> with their ERDF co-financed Open Innovation Platform

shortlisted as a 2016 REGIOSTAR finalist<sup>34</sup>.

**Figure 2: Eco-Innovation Index 2015 (EU=100)**<sup>35</sup>



Cainelli *et al.*<sup>36</sup>, studying incentives to adopt waste-related innovation in the manufacturing sector, found that regional factors related to both waste management and policy, are relevant to the adoption of eco-innovation. Moreover, they show that better regional separated waste collection and stricter waste policy can positively influence the likelihood of adopting eco-innovation.

### Suggested action

- Integrate resource efficient and circular economy principles within the SME sector, namely energy and water savings, recycling methods, ecodesign production and the establishment of secondary raw material market.
- Incentivise academia and schools in order to promote circular economy innovation.
- Step up the transition to a more circular and resource efficient economy, including by adopting the *Green Act*.

<sup>29</sup>EFSI – Country Sheet Italy

<sup>30</sup> Eco-Innovation Observatory, p.12

<sup>31</sup> Milan Expo

<sup>32</sup> Antonioli, D., Mancinelli, S., & Mazzanti, M. (2013). Is environmental innovation embedded within high-performance organisational changes? The role of human resource management and complementarity in green business strategies. *Research Policy*, 42(4), 975-988.

<sup>33</sup> European Cluster Observatory

<sup>34</sup> European Commission, 2016 REGIOSTARS finalists

<sup>35</sup> Eco-innovation Observatory: Eco-Innovation scoreboard 2015

<sup>36</sup> Cainelli, G., D'Amato, A., & Mazzanti, M. (2015). Adoption of waste-reducing technology in manufacturing: Regional factors and policy issues. *Resource and Energy Economics*, 39, 53-67



## Waste management

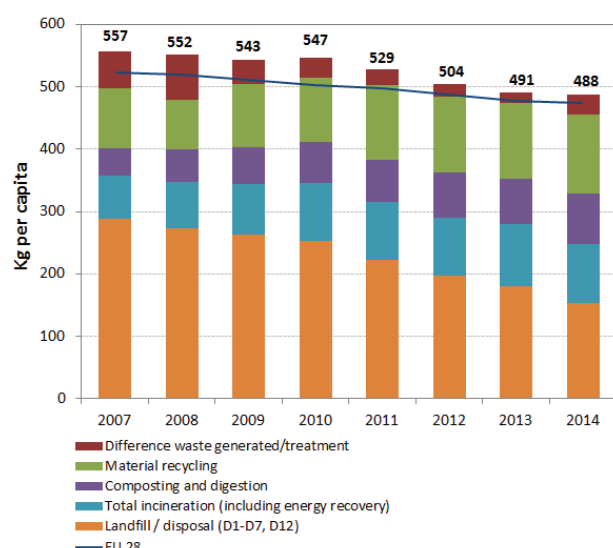
Turning waste into a resource requires:

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

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

The EU's approach to waste management is based on the "waste hierarchy" which sets out an order of priority when shaping waste policy and managing waste at the operational level: prevention, (preparing for) reuse, recycling, recovery and, as the least preferred option, disposal (which includes landfilling and incineration without energy recovery). The progress towards reaching recycling targets and the adoption of adequate WMP/WPP<sup>37</sup> should be the key items to measure the performance of Member States. This section focuses on management of municipal waste for which EU law sets mandatory recycling targets.

**Figure 3: Municipal waste by treatment in Italy 2007-14**<sup>38</sup>



Municipal waste generation<sup>39</sup> has been decreasing in the last years in Italy and it is slightly above the EU average

(488 kg/y/inhabitant in Italy compared to 475 kg/y/inhabitant).

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

**Figure 4: Recycling rate of municipal waste 2007-14**<sup>40</sup>

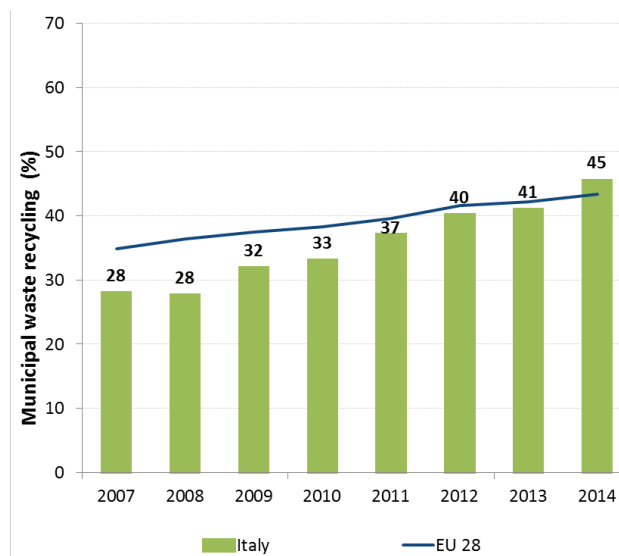


Figure 4 shows that in 2014 recycling of municipal waste, including composting and material recycling, accounted for 46% (although there are large differences between regions), just above the EU average (44%) and slightly below the EU 2020 target of 50% recycling<sup>41</sup>.

Landfilling of municipal waste accounted for 34% compared to other treatment options (EU average 27%) in 2014 and the amount of waste landfilled, and is constantly decreasing since 2002, in favour of the other treatment options that rank higher in the waste hierarchy, including separate collection and recycling<sup>42</sup>. Italy reported reaching its 2011 landfill target of 92 kg/inhabitant in 2014, and seems now to be on the path towards fulfilment of the 2018 target of the landfill directive. The Italian government is deploying steady efforts to restore the irregular landfill sites for some of which Italy has been subjected to financial penalties by the EU Court of Justice in 2014.

Waste policies are implemented at regional, provincial and municipal levels under national umbrellas. Despite overall progress in separate collection and recycling, the differences in performance at the local level can be high. Excellences are common in the north of the country and

<sup>37</sup> Waste Management Plans/Waste Prevention Programmes

<sup>38</sup> Eurostat, [Municipal waste and treatment, by type of treatment method](#), accessed October 2016

<sup>39</sup> 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.

<sup>40</sup> Eurostat, [Recycling rate of municipal waste](#), accessed October 2016

<sup>41</sup> Member States may choose a different method than the one used by Eurostat (and referred to in this report) to calculate their recycling rates and track compliance with the 2020 target of 50% recycling of municipal waste.

<sup>42</sup> Italy has introduced measures to increase separated collection and recycling since 1997.

in some contexts also in the centre and south (Campania-Province of Benevento 68.9% & Sardinia – Province of Medio Campidano 66.6% separate collection<sup>43</sup>). However, in general the centre and south of the Country perform less well in waste management than the north.

The reasons for the disparities are principally due to the late industrialization of the southern regions, difficulties with administrative capacity and an economic imbalance between the municipalities which implement the separate collection. Nevertheless it would be worth exploring further the underlying causes to be able to find the most efficient solutions. Italy has been subjected to sanctions by the EU Court of Justice for poor waste management in Campania region, which culminated in the waste crisis of 2007; since then, the separate collection in the region is steadily improving, as well as recycling.

Another factor influencing the differing geographical performance is the variable waste and landfill gate fees applied in the regions<sup>44</sup>. Some regions have also introduced special measures aimed at fostering separate collection or recycling operations. In the Marche region, for example, the landfill tax to be paid by municipalities is progressively reduced depending on the rate by which the national separate collection targets are exceeded. In Emilia-Romagna, which in 2010 reached 19% organic recycling of total municipal waste production, in order to promote the use of compost, farmers receive subsidies of EUR 150–180 per hectare<sup>45</sup>.

In order to support Italy in bridging the implementation gap, the Commission has delivered a roadmap<sup>46</sup> for compliance, in which economic instruments play a key role. For the regions in need of relevant infrastructure, waste management has been subject to Action Plans for the *ex-ante* conditionality for waste to streamline financing from the ERDF between 2014-20. In addition, EFSI is being used to improve environmental infrastructure for waste<sup>47</sup>. ERDF investments in 2014-20 for waste are only aimed at the activities at the top of the hierarchy hence excluding landfilling and incineration.

The share of incineration compared to other treatment options for municipal waste was 21% in 2014<sup>48</sup>. Furthermore, the government was mandated to assess the needs for incineration of municipal solid waste at

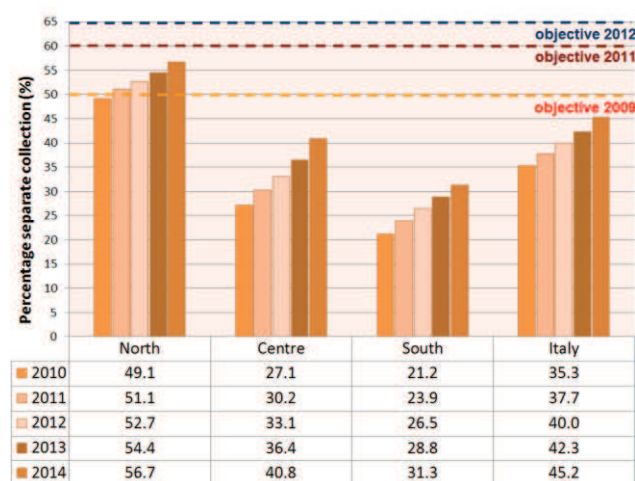
national level<sup>49</sup> and consequently a recent Decree provides a picture of the existing and needed incineration capacity region by region taking into account, *inter alia*, the foreseen reduction of waste production, and the future increase of separate collection in line with the national legal obligation (65%)<sup>50</sup>.

With a 65.9% of packaging waste being recycled, Italy has reached the 2008 target of 55%<sup>51</sup>. Recovery and recycling of packaging waste are constantly increasing since year 2000. A Decree has been adopted in 2016 on measures to create an adequate integrated system for the organic fraction of organic waste<sup>52</sup>. It is estimated by CIC<sup>53</sup> that EUR 20 million/year is saved through biowaste contributing to the circular economy.

According to a study<sup>54</sup>, moving towards the targets in the Roadmap on resource efficiency<sup>55</sup>, could create over 83,400 additional jobs and an increase in the annual turnover of the waste sector by over EUR 8.8 billion.

Separate collection and recycling are constantly growing all over the national territory as shown in Figure 5<sup>56</sup>.

**Figure 5: Regional separate collection rates**



For packaging waste, Italy applies Extended Producer Responsibility (EPR) by means of the national organisation CONAI. Different consortia have been established for paper, glass, plastic, etc.. The system covers a large part of the recycling in Italy, achieving increased volumes of recycled packaging every year. During 2016 a reform should be introduced to move from

43 ISPRA [Rapporto Rifiuti Urbani](#) Edizione 2015, p.57

44 Mazzanti M and Montini A (2014), Waste management beyond the Italian north-south divide: spatial analyses of geographical, economic and institutional dimensions, in *Handbook on waste management* T. Kinnaman & K. Takeuchi eds. (E. Elgar).

45 European Environment Agency 2016, [Municipal Waste Management Country Fact Sheet](#), p.19

46 [European Commission roadmap](#)

47 EFSI – [Aimag Settore Idrico e Ambiente](#)

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

49 [Decree Law N° 133](#) of 12.09.2014

50 [Decree DPCM](#) 10.08.2016

51 ISPRA [Rapporto Rifiuti Urbani](#) Edizione 2015

52 [Decree DPCM](#) 07.03.2016

53 Consorzio Italiano Compostatori, presentation, Waste Directors, Brussels, 26.10.2016

54 Bio Intelligence service, 2011. [Implementing EU Waste legislation for Green Growth](#), study for the European Commission

55 The [Roadmap](#) outlines how we can transform Europe's economy into a sustainable one by 2050.

56 ISPRA [Rapporto Rifiuti Urbani](#) Edizione 2015, p.36

taxes to tariffs in the waste sector<sup>57</sup>.

Regarding waste prevention, since 2013 Italy has adopted the National Waste Prevention Programme. On the basis of this National Programme, each Region has adopted regional prevention plans that, *inter alia*, include measures to increase the use of green public procurement and the reuse. A specific Fund for project financing for waste prevention and waste reduction has been established, with EUR 513,475 assigned in 2014 to selected projects.

### Suggested action

- Introduce a national landfill tax or harmonise the regional taxes to phase-out landfilling of recyclable and recoverable waste. Use the revenues to support the separate collection and alternative infrastructure but avoid building excessive infrastructure for the treatment of residual waste. Improve co-operation between regions to use waste treatment capacity more efficiently.
- Focus on improving the effectiveness of the separate collection to increase recycling rates in the regions that are lagging behind.
- Extend and improve the cost-effectiveness, monitoring and transparency of existing EPR schemes.

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<sup>57</sup> Programma Nazionale di Riforma 2016, April 2016, p.58

## 2. Protecting, conserving and enhancing natural capital

### Nature and Biodiversity

The EU Biodiversity Strategy aims to halt the loss of biodiversity in the EU by 2020, restore ecosystems and their services in so far as feasible, and step up efforts to avert global biodiversity loss. The EU Birds and Habitats Directives aim at achieving favourable conservation status of protected species and habitats.

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

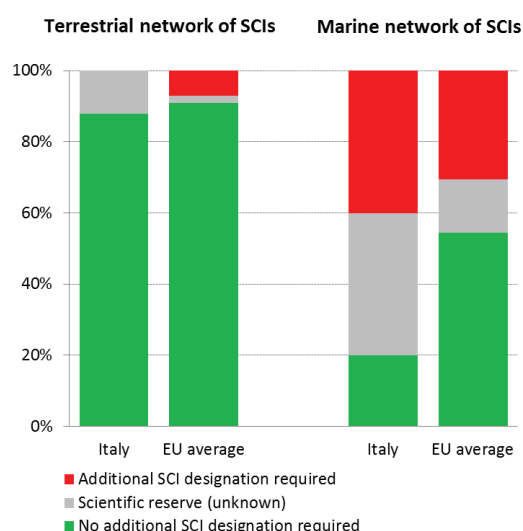
The 1992 EU Habitats Directive and the 1979 Birds Directive are the cornerstone of the European legislation aimed at the conservation of the EU's wildlife. Natura 2000, the largest coordinated network of protected areas in the world, is the key instrument to achieve and implement the Directives' objectives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

The adequate designation of protected sites as Special Areas of Conservation (SAC) under the Habitats Directive and as Special Protection Areas (SPA) under the Birds Directive is a key milestone towards meeting the objectives of the Directives. The results of Habitats Directive Article 17 and Birds Directive Article 12 reports and the progress towards adequate Sites of Community Importance (SCI)-SPA and SAC designation<sup>58</sup> both in land and at sea, should be the key items to measure the performance of Member States.

In Italy 2585 sites have been designated under the Habitats and the Birds Directives. By early 2016, 18.97% of the national land area of Italy was covered by Natura 2000 (EU average 18.1%), with Birds Directive SPAs covering 13.31% (EU average 12.3%) and Habitats Directive SCIs covering 14.21% (EU average 13.8%). By 2012 Italy designated 523 marine Natura 2000 sites that covered 6608.1 km<sup>2</sup>. Italy also had 88 nationally designated Marine Protected Areas covering 26644.9 km<sup>2</sup> which showed an 11.1% overlap with the Natura 2000 sites. By the end of 2014 Italy's marine Natura 2000

designations covered 6721 km<sup>2</sup>, showing a slight increase from 2012. Nevertheless, the latest assessment of the SCIs part of the Natura 2000 network shows that there are insufficiencies in designation for the marine components of the network<sup>59</sup> (see Figure 6<sup>60</sup>).

**Figure 6: Sufficiency assessment of SCI networks in Italy based on the situation until December 2013<sup>61</sup>**



Although the 6-year deadline established by the Habitats Directive to designate SACs and establish appropriate conservation objectives and measures has expired for 2281 SCIs, as in May 2016 Italy had completed the SAC designation and related obligations only for 578 SCIs.

There are a high number of complaints regarding the implementation of the Nature Directives on degradation of designated sites, asserted bad quality of Appropriate Assessments under Article 6(3) Habitats Directive, and poor species protection. The experience of the Commission in evaluating the ERDF Operational

<sup>58</sup> Sites of Community Importance (SCIs) are designated pursuant to the Habitats Directive whereas Special Areas of Protection (SPAs) are designated pursuant to the Birds Directive; figures of coverage do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) means a SCI designated by the Member States.

<sup>59</sup> For each Member State, the Commission assesses whether the species and habitat types on Annexes I and II of the Habitats Directive, are sufficiently represented by the sites designated to date. This is expressed as a percentage of species and habitats for which further areas need to be designated in order to complete the network in that country. [The current data](#), which were accessed in 2014-15, reflect the situation up until December 2013.

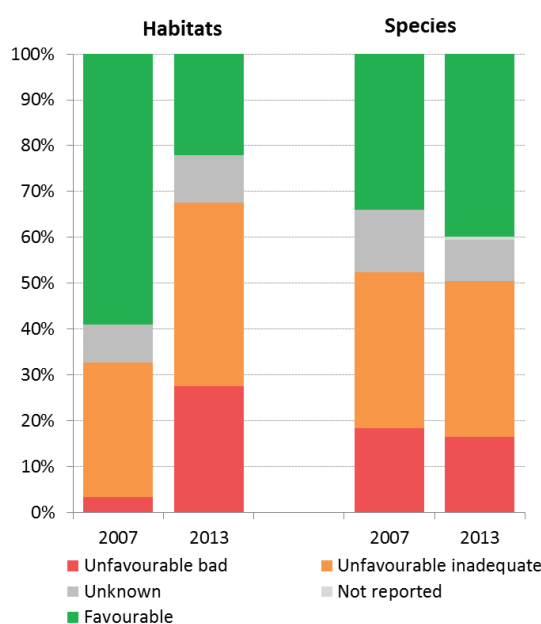
<sup>60</sup> The percentages in Figure 5 refer to percentages of the total number of assessments (one assessment covering 1 species or 1 habitat in a given biogeographical region with the Member State); if a habitat type or a species occurs in more than 1 Biogeographic region within a given Member State, there will be as many individual assessments as there are Biogeographic regions with an occurrence of that species or habitat in this Member State.

<sup>61</sup> European Commission, internal assessment.

Programmes 2014-20 is that the appropriate assessments were of widely varying quality. This has negative impacts on nature but also on business and legal certainty.

According to the latest report on the conservation status of habitats and species covered by the Habitats Directive (covering the period 2007-12)<sup>62</sup>, only 34% of the assessments for plant species and 44% for animal species indicate a favourable conservation status<sup>63</sup>. For habitat types the percentage of assessments showing a favourable conservation status is only 22% (EU 27: 16 %), while 40% (EU 27: 47%) are considered to be unfavourable-inadequate and 27% are seen unfavourable – bad (EU 27: 30%). This is depicted in Figure 7<sup>64</sup>.

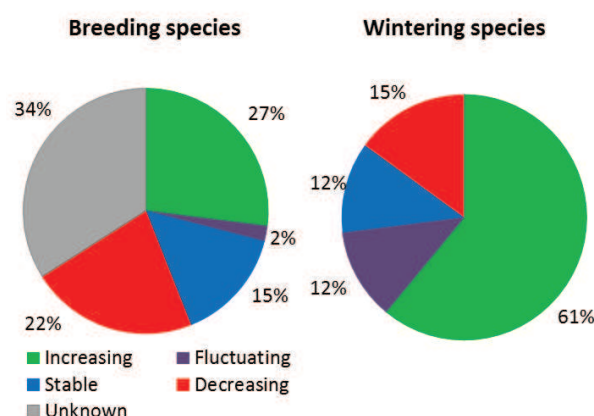
**Figure 7: Conservation status of habitats and species in Italy in 2007/2013 (%)**<sup>65</sup>



For birds, Figure 8 demonstrates that 42% of the breeding species showed short-term increasing or stable population trends (for wintering species this figure was 73%).

The lack of adequate resources to support appropriate land management and conservation measures is acknowledged as a major obstacle to achieve the objectives of the Nature Directives. In 2007-13 the disbursement from ERDF and EAFRD<sup>66</sup> for nature conservation measures is particularly low (see section 4). This could be improved by administrative capacity building. A recently adopted LIFE Integrated Project (GESTIRE 2020) creates an integrated management structure for achieving conservation objective for the Lombardy Natura 2000 regional network. The project aims to update the Lombardy Prioritised Action Framework (PAF) in the following ways: coordinate management; integrate regional policies; train personnel working; raise public awareness; and plan interventions to conserve biodiversity, such as enhancing connectivity and tackling invasive alien species.<sup>67</sup>

**Figure 8: Short-term population trend of breeding and wintering bird species in Italy in 2012 (%)**<sup>68</sup>



Persistent data gaps exist for the forestry sector: data on annual wood removals have not been reported to the 'Joint Forest Sector Questionnaire' for several years. This makes it difficult to ascertain whether forest harvesting rates are within the limits of Sustainable Forest Management. No information is available on the share of forest area under management plan or equivalent (no figures for the 2010 reporting period).

### Suggested action

- Complete the Natura 2000 designation process and put in place clearly defined conservation objectives and the necessary conservation measures for the sites and provide adequate resources for their implementation in order to maintain/restore species and habitats of community interest to a favourable conservation status across their natural range.

<sup>62</sup> The core of the 'Article 17' report is the assessment of conservation status of the habitats and species targeted by the Habitats Directive.

<sup>63</sup> Conservation status is assessed using a standard methodology as being either 'favourable', 'unfavourable-inadequate' and 'unfavourable-bad', based on four parameters as defined in Article 1 of the Habitats Directive.

<sup>64</sup> Please note that a direct comparison between 2007 and 2013 data is complicated by the fact that Bulgaria and Romania were not covered by the 2007 reporting cycle, that the 'unknown' assessments have strongly diminished particularly for species, and that some reported changes are not genuine as they result from improved data / monitoring methods.

<sup>65</sup> These figures show the percentage of biogeographical assessments in each category of conservation status for habitats and species (one assessment covering 1 species or 1 habitat in a given biographical region with the Member State), respectively. The information is based on Article 17 of the Habitats Directive reporting - [national summary of Italy](#)

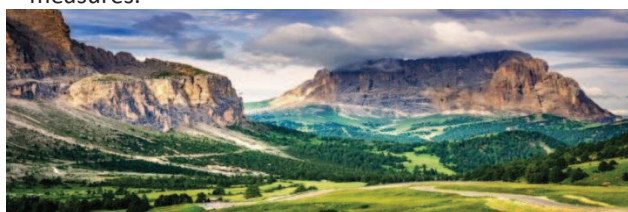
<sup>66</sup> European Agricultural Fund for Rural Development

<sup>67</sup> [GESTIRE 2020 LIFE integrated project](#)

<sup>68</sup> Article 12 of the Birds Directive reporting - [national summary of Italy](#)



- Develop and promote smart and streamlined implementation approaches, in particular as regards site and species permitting procedures, ensuring the necessary knowledge and data availability. Strengthen communication with stakeholders.
- Build capacity for completion and implementation of Management Plans, as well as for improving the overall quality of appropriate assessments.
- Use the available funds, namely ERDF and EAFRD, to implement well-designed nature conservation measures.



### Estimating Natural Capital

The EU Biodiversity Strategy to 2020 calls on the Member States to map and assess the state of ecosystems and their services<sup>69</sup> 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.

The four steps of the Mapping and Assessment of Ecosystems and Their Services (MAES) process are: 1) map ecosystems; 2) assess the condition of ecosystems; 3) assess the ecosystem services; and 4) make an integrated ecosystem assessment based on these data. Italy is currently in the third phase of the process. The Ministry of the Environment has provided financial support to universities and scientific societies for the implementation of MAES. Italy is also very involved in the assessment of cultural services and urban ecosystems.

Italy has shown a high interest in natural capital accounting. The Ministry of the Environment has set up a natural capital committee and launched an environmental accounting project for protected areas in Italy which should provide a framework for pursuing a natural capital accounting process at the national level. As part of the implementation of the *Collegato Ambientale*, a decree should have been issued in 2016 on estimating ecosystem and environmental capital<sup>70, 71</sup>.

### Suggested action

- Provide resources for the mapping and assessment of ecosystem services, their valuation and integration into natural capital accounting systems.

### Green infrastructure

The EU strategy on green infrastructure<sup>72</sup> promotes the incorporation of green infrastructure into related plans and programmes to help overcome fragmentation of habitats and preserve or restore ecological connectivity, enhance ecosystem resilience and thereby ensure the continued provision of ecosystem services.

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

Italy considers that Green Infrastructure implementation should start with protected areas, which are crucial to conserve natural capital, implement sustainable tourism and use traditional forms of agriculture and industry. The Ministry of the Environment responsible for implementing the Green Infrastructure Strategy has commissioned the development of: a methodological framework for identifying ecosystem restoration priorities and promoting Green Infrastructure; a restoration project on freshwater ecosystems; and two pilots for the urban/peri-urban Rome Metropolitan Area. Improving connections between natural and cultural capital was also underlined by the Charter of Rome.<sup>73</sup>

The importance of the linkages between culture and nature that is a central feature of Italian policy is exemplified by the *Corona Verde* project in the region of Piedmont. The project which involves 93 municipalities is designed to develop Green Infrastructure integrating the *Corona di Delizie* system of royal residences within the Turin green-belt. The *Corona Verde* project will provide a wide range of benefits e.g. protection against soil erosion, enhancement of tourism and the reduction of atmospheric pollution. Another example, is the *EcoSistema Filtro* a constructed wetland in Sardinia (& Natura 2000 site), built in 2004 to filter treated water<sup>74</sup>. Italy is currently involved in the EU co-financed Green Surge project<sup>75</sup>, and some Regions use ERDF and EAFRD to increase green infrastructure and wildlife corridors.

### Soil protection

The EU Soil Thematic Strategy highlights the need to ensure a sustainable use of soils. This requires the

69 Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.

70 Programma Nazionale di Riforma 2016, April 2016, p.58

71 Ministry of Environment, [Collegato Ambientale](#)

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

73 Ministry of Environment, [Carta di Roma](#)

74 [EcoSistema Filtro](#)

75 [Green Surge case studies Milan & Bari](#)

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.

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

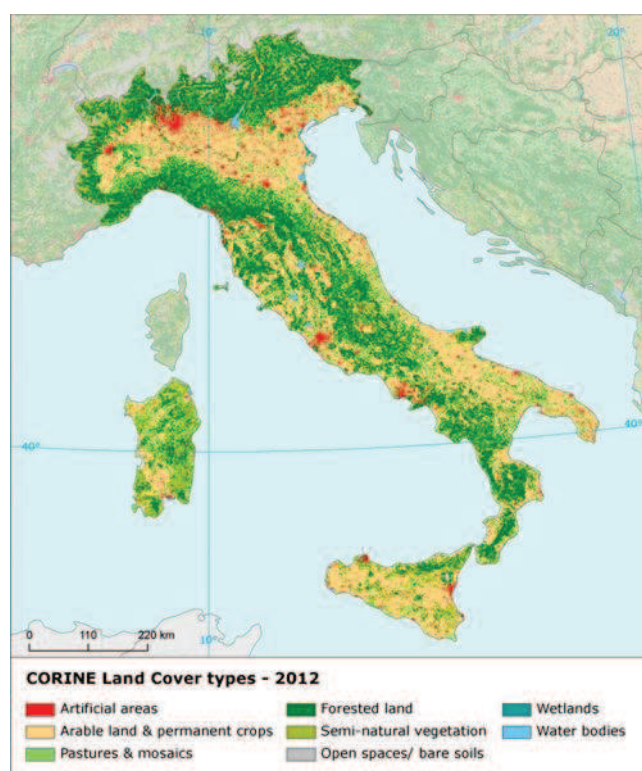
The main soil degradation processes occurring in Italy are: erosion/disaggregation, compaction, salinization, contamination, landslides, biodiversity decline/loss, soil consumption/sealing, & decline/loss of organic matter.

Artificial land cover is used for settlements, production systems and infrastructure. It may itself be split between built-up areas (buildings) and non-built-up areas (such as linear transport networks and associated areas). Figure 9 shows the different land cover types in Italy in 2012.

With a mean annual land take rate<sup>76</sup> of 0.37% (driven by urban sprawl and infrastructures) over the period 2006-12, the speed of urban development in Italy is just below the EU average (0.41%), representing 5786 hectares per year. Soil-sealing over wide areas, due to excessive urban development, has significantly increased hydrogeological risk. In terms of the percentage of built up land, Italy ranked the 4<sup>th</sup> highest in the EU with

around 2.7% in 2012<sup>77</sup>. The soil sealing has increased the vulnerability to landslides and flooding in several areas, which translates into an increased intensity and frequency of flood events and related damages. This problem is exacerbated by low soil organic matter in many regions. Indeed Italy has an average soil water erosion rate (8.4 tonnes per ha per year in 2010), which is well above the EU average (2.4 tonnes per ha per year).<sup>78</sup>

Figure 9: Land Cover types in Italy 2012<sup>79</sup>



In Italy there is a growing awareness of the importance of soil protection both at political and scientific level. For example, it is participating in the UNCCD<sup>80</sup> pilot project on target and indicators of Land Degradation Neutrality.

Relevant legislative instruments for soil protection are approved at national level or indirectly through the transposition of EU law. Furthermore, many soil protection measures in Italy are included in policy instruments that are not directly connected to the protection of soil. In 2016 the Italian Parliament discussed a Decree Law on the containment of the loss of land and reuse of soil built on<sup>81</sup>. Furthermore, Italy has a zero objective for soil consumption by 2050 as required by the Resource Efficient Europe Roadmap. As regards

<sup>76</sup> European Environment Agency [Draft results of CORINE Land Cover \(CLC\) inventory 2012](#); mean annual land take 2006-12 as a % of 2006 artificial land.

<sup>77</sup> Eurostat, [Built up Areas](#), accessed June 2016

<sup>78</sup> Eurostat, [Soil water erosion rate](#), Figure 2, accessed November 2016

<sup>79</sup> European Environment Agency, Land cover 2012 and changes

country analysis [publication forthcoming]

<sup>80</sup> UN Convention to Combat Desertification

<sup>81</sup> Ministry of Environment – [Press Release](#) 12.05.16

soil contamination, Italy has identified under a 1998 law<sup>82</sup> a number of contaminated sites (SIN) which require priority remediation. It is important that the management of these sites respects EU waste legislation.

The EAFRD should help to enhance soil organic matter and reduce soil erosion, while the ERDF will support the rehabilitation of industrial sites and contaminated land.

## Marine protection

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

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

The Marine Strategy Framework Directive (MSFD)<sup>83</sup> aims to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 by providing an ecosystem approach to the management of human activities with impact on the marine environment. The Directive requires Member States to develop and implement a strategy for their marine waters, and cooperate with Member States sharing the same region or subregion.

As part of their marine strategies, Member States had to make an initial assessment of their marine waters, determine GES<sup>84</sup> and establish environmental targets by July 2012. They also had to establish monitoring programmes for the on-going assessment of their marine waters by July 2014. The next element of their marine strategy is to establish a Programme of Measures (2016). The Commission assesses whether these elements constitute an appropriate framework to meet the requirements of the MSFD.

In 2012, Italian marine protected areas covered 30366.9 square kilometres of its marine waters in the Mediterranean Sea<sup>85</sup>. Italy has also one of the longest coastlines in the EU. Italy's marine waters are part of the marine region of the Mediterranean Sea and cover the sub-regions of the Adriatic Sea, the Ionian Sea and the Central Mediterranean Sea and the Western Mediterranean Sea. Italy is party to the Barcelona Convention. The Mediterranean Sea region has been identified by the EEA in its 2015 State of the Environment

report as one of the areas most responsive to climate change due to water scarcity, concentration of economic activities in coastal areas, and reliance on climate-sensitive agriculture. The introduction of invasive alien species presents an important threat in the Mediterranean Sea region with the number of invasive alien species increasing significantly since 1970. Finally, the unique biodiversity is also threatened by pollution from land-based sources, such as discharges of excess nutrients and hazardous substances, marine litter, over-fishing, and degradation of critical habitats.

In 2012, Italy has determined GES for all the descriptors listed in the MSFD. However, the Commission's assessment found that some GES definitions are to be developed. In particular, the GES definitions for marine litter and underwater noise were found to be below the minimum requirement or lack specification/ambition.

Italy established a monitoring programme of its marine waters in 2014. The monitoring programmes for all descriptors apart from hydrographical changes and marine litter need further refinement and development to constitute an appropriate framework to monitor progress towards GES status and targets. In addition, Italy reported that most of its monitoring programme will only be adequate to measure progress towards GES by 2018, the date by which the next assessment of their waters is due. In its reports on the implementation of the MSFD<sup>86</sup>, the Commission provided guidance to assist Italy. Italy is involved in various EU supported research projects<sup>87</sup>.

The new National Plan on Ports includes activities for recovery and preservation of the seabed and starting up monitoring programmes of protected sites near ports<sup>88</sup>.

## Suggested action

- Continue work to improve the definitions of GES, including through regional cooperation by using the work of the relevant Regional Sea Convention.
- Further develop approaches assessing (and quantifying) impacts from the main pressures in order to lead to improved and more conclusive assessment results for 2018 reporting.
- Continue to integrate existing monitoring programmes required under other EU legislation and to implement other joint monitoring programmes, where they exist, developed at (sub)regional level, for instance by the Barcelona Convention.

82 Law 426/1998 has identified the so-called Siti di Interesse Nazionale (SIN), i.e. highly polluted sites in Italy which need to be decontaminated. For example, the industrial area of Taranto, which comprises the ILVA steel plant, has been included in the list of SIN.

83 European Union, [Marine Strategy Framework Directive 2008/56/EC](#)

84 The MSFD defines Good Environmental Status (GES) in Article 3 as:

"The environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive"

85 2012 Data provided by the European Environmental Agency – not published

86 Report from the Commission "The first phase of implementation of the Marine Strategy Framework Directive (2008/56/EC) - The European Commission's assessment and guidance" [COM\(2014\)097](#) & Commission Staff Working Document Accompanying the Commission Report assessing Member States' monitoring programmes under the Marine Strategy Framework Directive (COM(2017)3 and SWD(2017)1 final)

87 RTD project: [KNOWSEAS](#); [MYOCEAN](#); [VECTORS](#); [HERMIONE](#); [CORALFISH](#); [PERSEUS](#)

88 [Piano Strategico Nazionale della Portualità e della Logistica](#) p.189



- Enhance comparability and consistency of monitoring methods within Italy's marine region and address knowledge gaps.

- Ensure that all of its monitoring programme is implemented without delay, and is appropriate to monitor progress towards the GES.

### 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.

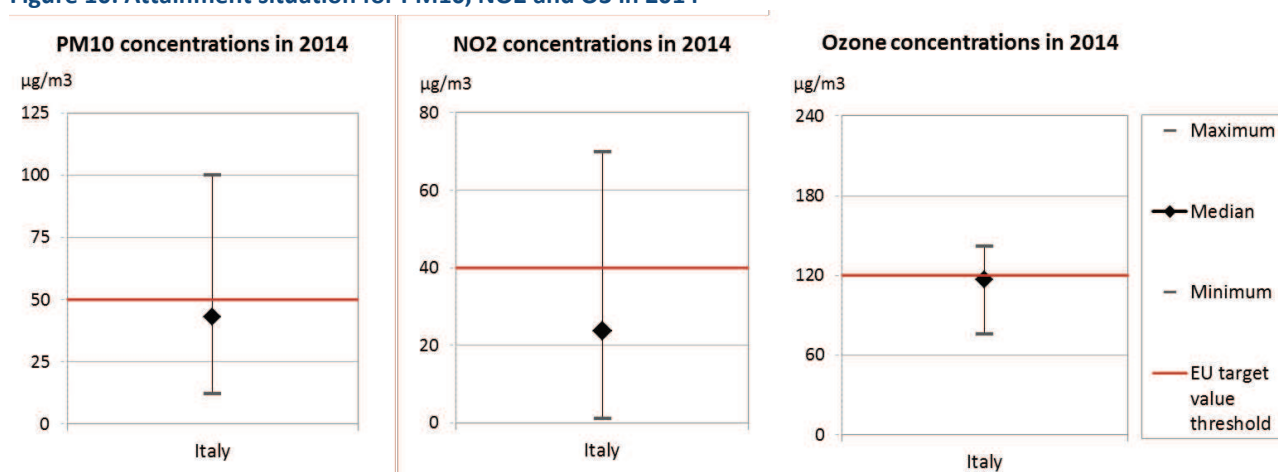
The EU has developed a comprehensive suite of air quality legislation<sup>89</sup>, which establishes health-based standards and objectives for a number of air pollutants. As part of this, Member States are also required to ensure that up-to-date information on ambient

57%) ensure air emissions for these pollutants are within the currently applicable national emission ceilings<sup>91</sup>.

At the same time, air quality in Italy continues to give cause for concern. For the year 2013 in Italy, the European Environment Agency estimated that about 66 630 premature deaths were attributable to fine particulate matter concentrations<sup>92</sup>, 3 380 to ozone concentration<sup>93</sup> and 21 040 to nitrogen dioxide concentrations<sup>94,95</sup>. This is due also to exceedances above the EU air quality standards, such as shown in Figure 10<sup>96</sup>.

These problems became an extreme concern in November-December of 2015 with particulate matter levels well above the EU daily limit values in Milan, Rome and Naples leading to the closing of these cities to traffic. On the 30 December 2015, the Environment Ministry,

**Figure 10: 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.

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 Italy<sup>90</sup>. Reductions between 1990 and 2014 for sulphur oxides (-93%), nitrogen oxides (-61%), ammonia (-17%) as well as volatile organic compounds (-

certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC.

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

93 Low level ozone is produced by photochemical action on pollution and it is also a greenhouse gas

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

95 European Environment Agency, 2016. [Air Quality in Europe – 2016 Report](#). (Table 10.2, p.60, please see details in this report as regards the underpinning methodology)

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

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

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

Regions and Municipalities signed an anti-smog protocol, and in 2016 a specific agreement was made for Bologna under this protocol<sup>97</sup>.

In 2013, Italy had over 60% of the urban population resident in areas exposed to PM<sub>10</sub> concentrations over the daily limit value (50 µg/m<sup>3</sup> on more than 35 days in a year), substantially worse than the EU average of 16.3%<sup>98</sup>. An emerging issue in Italy is high PM emissions associated with the increasing use of fuelwood in small-scale combustion units. Furthermore, for several air quality zones the long-term objectives regarding ozone concentration are not being met<sup>99</sup>.

The persistent breaches of air quality requirements (for PM<sub>10</sub> and NO<sub>2</sub>), which have severe negative effects on health and environment, are being followed up by the European Commission through infringement procedures covering all the Member States concerned, including Italy. The aim is that adequate measures are put in place to bring all zones into compliance.

It is estimated that the health-related external costs from air pollution are above EUR 47 billion/year (income adjusted, 2010), which include not only the intrinsic value of living a full healthy life but also direct costs to the economy. These direct economic costs relate to 17 million workdays lost each year due to sickness related to air pollution, with associated costs for employers of EUR 2400 million/year (income adjusted, 2010), for healthcare of above EUR 185 million/year (income adjusted, 2010), and for agriculture (crop losses) of EUR 418 million/year (2010)<sup>100</sup>.

Licenses are issued at regional and state level through a so called integrated environmental authorization (AIA). However evidence shows that the implementation of the conditions prescribed in the AIAs is not always satisfactory and requires the intervention of the central authorities and/or the European Commission such as illustrated by the ILVA Taranto case.

### 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<sub>x</sub>) emissions to comply with currently applicable national emission ceilings<sup>101</sup>

97 [Ministry of Environment](#) – Press Release 01.06.16

98 Eurostat, [Safeguarding Clean Air](#), accessed June 2106

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

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

101 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.

and/or to reduce nitrogen dioxide (NO<sub>2</sub>) (and ozone concentrations), inter alia, by reducing transport related emissions - in particular in urban areas.

- Reduce PM<sub>10</sub> emission and concentration, inter alia, by reducing emissions related to energy and heat generation using solid fuels, to transport and to agriculture.

## Noise

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

Excessive noise is one of the main causes of health issues<sup>102</sup>. To alleviate this, the EU *acquis* sets out several requirements, including assessing the exposure to environmental noise through noise mapping, ensuring that information on environmental noise and its effects is made available to the public, and adopting action plans with a view to preventing and reducing environmental noise where necessary and to preserving the acoustic environment quality where it is good.

Italy's implementation of the Environmental Noise Directive is significantly delayed. The noise mapping<sup>103</sup> for the most recent reporting round, for the reference year 2011, is only 62% complete for agglomerations, 50% for major airports, and only partially completed for major roads and major railways. Action Plans for noise management in the current period have been adopted for only 3% of agglomerations, and are missing for all of major airports, major roads and major railways.

### Suggested action

- Complete missing noise action plans and maps

## 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

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

103 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.

phosphorus) is managed in a more sustainable and resource-efficient way.

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

The main overall objective of EU water policy and legislation is to ensure access to good quality water in sufficient quantity for all Europeans. The EU water *acquis*<sup>104</sup> seeks to ensure good status of all water bodies across Europe by addressing pollution sources (from e.g. agriculture, urban areas and industrial activities), physical and hydrological modifications to water bodies) and the management of risks of flooding.

Italy is a water-stressed country. Most of the water abstracted in Italy is for consumptive uses especially irrigation.<sup>105</sup> Water scarcity and drought risk are typical of southern regions. In the North, in contrast, where water resources have been physically abundant, climate change effects together with water withdrawal levels have recently giving rise to water scarcity concerns.

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.

According to the Italian authorities, the second generation of RBMPs provide an improved monitoring system and the programs of measures reflect better the pressures on the water bodies. However, as the Commission has not yet been able to validate this information for all Member States it is not reported here.

In its first generation of RBMPs Italy reported the status of 7644 rivers, 38 lakes, 181 transitional, 489 coastal and 733 groundwater bodies. Only 29% of natural surface water bodies achieve a good or high ecological status<sup>106</sup> (while the status of 56% is unknown) and 16% of heavily modified or artificial water bodies achieve a good or high ecological potential (44% unknown). Only 18% of surface water bodies (79% unknown), 21% of heavily modified and artificial water bodies<sup>107</sup> (66% unknown) and 49% of

groundwater bodies (25% unknown) achieve good chemical status<sup>108</sup>. In addition, 53% of groundwater bodies (32% unknown) are in good quantitative status<sup>109</sup>.

The main pressure on Italian waters comes from diffuse sources that affect 38% of surface water bodies<sup>110</sup>. The latest data show that 26% of water bodies are affected by point sources, 16% by water abstraction and 8% by flow regulation. Italian waters are affected by a broad range of economic activities. These include: industry, both abstractions and point source pollution; agriculture, point and diffuse source pollution from livestock raising, as well as abstractions and diffuse source pollution for crops; coastal works and recreation, affecting transition and coastal waters. An example is the sub-basin of the Ticino River – water bodies are affected by 25 different types of pressures, from urban wastewater discharges to abstractions to engineering works.

Significant differences in terms of pressures are seen across the country, for example, diffuse sources from agriculture are a significant pressure for more than half of the surface water bodies in Northern Apennines (55% of water bodies), Serchio (71%) and Sicily (53%) river basin districts but much less in Sardinia (27%) or the Eastern Alps (29%). Water abstraction is an important pressure in Southern Apennines (28% of water bodies affected) and Northern Apennines (24%) compared to Eastern Alps, Sardinia and Sicily (all less than 10% of water bodies affected).

The latest data show that 99%<sup>111</sup> of large drinking water supplies reach minimum standards. However, punctual drinking water problems exist (arsenic and fluoride in Lazio).

As shown in Figure 11, in 2015, in Italy out of 5518 bathing waters, 90.5 % were of excellent quality, 4.9% of good quality and 1.9 % of sufficient quality. 95 bathing waters were of poor quality or non-compliant while it was not possible to assess the remaining 55 bathing waters<sup>112</sup>.

104 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 \(2007/60/EC\)](#)

105 European Commission, 2016. [EU Resource Efficiency Scoreboard 2015](#)

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

107 Many European river basins and waters have been altered by human activities, such as land drainage, dredging, flood protection and, building of dams.

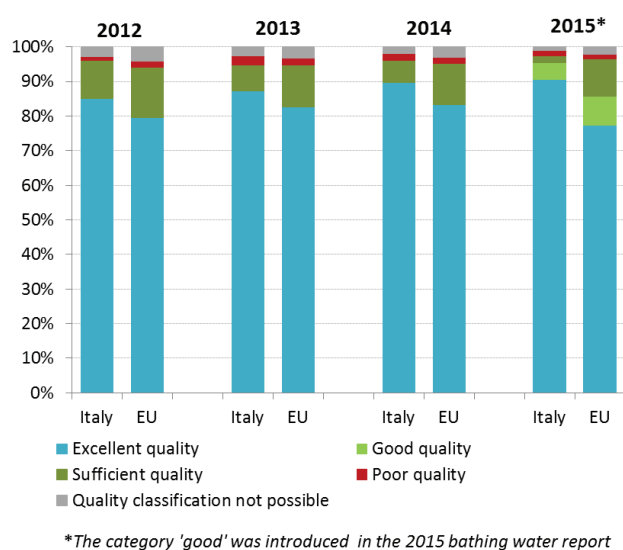
108 Good chemical status is defined in the Water Framework Directive referring to compliance with all the quality standards established for chemical substances at European level.

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

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

111 [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, p.13

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

**Figure 11: Bathing water quality 2012 – 15<sup>113</sup>**

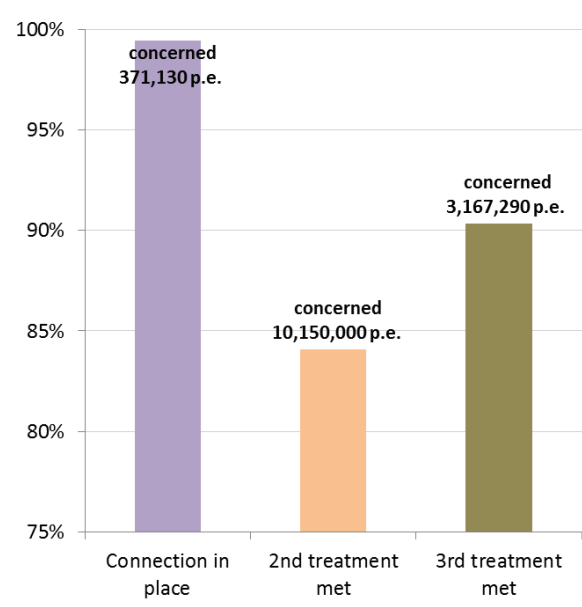
There are considerable issues of non-compliance with the Urban Waste Water Treatment Directive (UWWTD). Recent efforts have been made, but almost one third of all agglomerations above 2000 p.e. (in a total of approximately 3200) are subject to EU infringement procedures. It shows that Italy has not achieved the obligation to reach 100% compliance by 2005.

Figure 12 shows the total generated load at Member State level (in population equivalent (p.e.) and regardless of agglomerations) and the load that remains to be addressed by Italy.

In addition, reporting under the UWWTD and the Drinking Water Directive reveal discrepancies between regions and the need for improvement of implementation at regional level, especially with regard to monitoring. Urban wastewater treatment data were completely or partially missing from some regions, rendering it impossible to calculate compliance rates at national level<sup>114</sup>.

Activities to solve these issues are being implemented. The ERDF will be used in the southern Italy to address the extensive UWWTD non-compliance, in conjunction with the National Cohesion and Development Fund. EFSI is also intervening to improve water infrastructure. Furthermore, the Decree-Law *Unblock Italy*<sup>115</sup> speeds up investments in water and flooding through administrative reforms and in 2016 special commissioners to speed up compliance with the UWWTD have been appointed. Significant investments are needed for urban wastewater

treatment currently estimated by Italy at EUR 4.6 billion<sup>116</sup>.

**Figure 12: Urban waste water Italian situation 2012 – Final deadline 2005<sup>117</sup>**

Groundwater and surface waters pollution is also a major challenge. In addition to wastewater discharges, agriculture, and in particular the use of digestate from anaerobic digestion of a biodegradable feedstock, especially in areas characterized by intensive livestock production, exerts a significant pressure on water resources. A particular effect is eutrophication in the Adriatic Sea. Closing the implementation gap in the Nitrates Directive would address this situation, but further efforts both in terms of monitoring potentially vulnerable areas and enforcing existing measures, need to be done at regional level making use of the EAFRD, which could also support supplementary measures in accordance with the Water Framework Directive.

There is a need for improvements in the efficiency of the water supply system, in particular the high leakage rates (27% nationally, the figure is closer to 50% in the south) and it is urgent to invest in renewal of water infrastructure (the average age is 30 years).<sup>118</sup> Despite being the major water user in the country, water prices in the agricultural sector are significantly lower than domestic and industrial prices, providing little incentive for an efficient water use.

Investments in the water sector from the ERDF and EAFRD 2014-20 are made subject to Action Plans for the

<sup>113</sup> European Environment Agency, [State of bathing water country reports -Italy](#), 2016

<sup>114</sup> 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](#)).

<sup>115</sup> [Sblocca-Italia](#) Law 164/2014

<sup>116</sup> European Commission, [Facts and Figures about Urban Waste Water Treatment](#)

<sup>117</sup> European Commission, 2016, [Urban waste water, 8th implementation report](#)

<sup>118</sup> [Partnership Agreement 2014-20](#), section 1A, pp.66-7



*ex-ante* conditionality for water, to ensure the correct application of the Water Framework Directive, including the adoption of updated RBMPs and the recovery of costs for water services.

In Italy integrated water services (public water supply, wastewater treatment and sewerage) are regulated by an independent authority called AEEGSI<sup>119</sup> which approves the tariff methodology and the tariff plans of water utilities.



Italy has issued guidelines in the form of Ministerial Decrees for the definition of environmental costs needed for cost recovery<sup>120</sup> & on water abstraction measurements and distribution in the agricultural sector<sup>121</sup> and various regulations governing the implementation of cost recovery including environmental and resource cost. For example, by decision 662/2014/IDR<sup>122</sup>, AEEGSI has identified a first set of charges to include in the environmental resources' costs (ERC) and by decision 656/2015/R/IDR<sup>123</sup> has regulated the relationship between service granting authorities and water utilities. In addition with decision 643/2013/R/IDR<sup>124</sup>, AEEGSI has introduced the *Water Tariff Method*<sup>125</sup> and with decision 664/2015/R/IDR<sup>126</sup> it has approved a new tariff method for integrated water

services relating to the 2016 – 20 period. AEEGSI has introduced an increasing (progressive) tariff system related to consumption that ensures incentive pricing, supports investments and provides adequate incentives for users to use water resources efficiently. New rules on water tariffs entered into force on 01.01.2016. Furthermore, the 2016 Budget Law<sup>127</sup> has created a guarantee fund to improve water infrastructure, financed by the new tariff.

The Ministry of Environment, in cooperation with District Authorities, has established a Working Group to draft national guidelines on the abstraction procedures and setting up environmental flows.

Flood risk areas have already been identified and mapped in Italy<sup>128</sup>. The first cycle of Flood Risk Management Plans (FRMPs) have been completed apart from Sicily<sup>129</sup>.

Italy is hit regularly by flooding incidents with serious economic damage costs (the latest serious flooding incidents occurred in October and November 2014 with a total cost of damage estimated at EUR 2.2 billion). It is estimated that 60% of the country is at risk of flooding. The total cost of floods extrapolated in Italy over 11 years between 2002-13 was around EUR 11 billion for the 20 major floods recorded. The average cost per flood was EUR 558 million, well above the EU average of EUR 370 million<sup>130</sup>. Over a longer time period, it is estimated that the costs of damages on physical assets in the period 1950-10 amounted to EUR 52 billion<sup>131</sup>. In contrast, the costs of securing the entire national territory was estimated at EUR 44 billion<sup>132</sup>.

In order to provide an effective governance system to manage hydro-geological risk, Italy launched a National Operational Plan for the mitigation of hydrogeological risk in the period 2015-20, based on the proposals directly submitted by the regions to a constantly updated web platform called ReNDiS<sup>133</sup>; so far about 9,000 requests of mitigation measures for over EUR 31 billion have been received. Submitted proposals are evaluated in accordance with criteria laid down in a Council of

119 Autorità per l'energia elettrica, il gas ed il sistema idrico

120 Decreto MATTM n. 39 del 24/2/15 di approvazione criteri per la definizione degli ERC per tutti gli usi

121 Decreto MiPAFF del 31/7/2015 Approvazione delle linee guida per la regolamentazione da parte delle Regioni delle modalità di quantificazione dei volumi idrici ad uso irriguo

122 Delibera 662/R/2014/IDR dell'AEEGSI "Individuazione ed esplicitazione dei costi ambientali e della risorsa con riferimento a quanto previsto nel metodo tariffario idrico (MTI) per l'anno 2015

123 Delibera 656/2015/R/IDR dell'AEEGSI "Convenzione tipo per la regolazione dei rapporti tra enti affidanti e gestori del servizio idrico integrato - Disposizioni sui contenuti minimi essenziali"

124 Delibera 27/12/13 n. 643/2013/R/IDR dell'AEEGSI Approvazione del metodo tariffario idrico e delle disposizioni di completamento

125 Metodo Tariffario Idrico - MTI

126 Delibera 664/2015/R/IDR dell'AEEGSI "Approvazione, ai fini della valorizzazione dei conguagli nell'ambito del metodo tariffario per il secondo periodo regolatorio mti-2, delle predisposizioni tariffarie relative all'ambito territoriale ottimale sarnese vesuviano, per il periodo 2012-2015"

127 Legge di stabilità 2016

128 European Commission, [Report on the progress in implementation of the Floods Directive](#) p. 55

129 Italian government

130 RPA 2014, [Economic and Social Benefits of Environmental Protection and Resource Efficiency Related to the European Semester](#), study for European Commission

131 Consiglio Nazionale dei Geologi (CNG), 2010. Terra e sviluppo, decalogo della terra 2010 – Rapporto sullo stato del territorio italiano. Roma, 13.10.2010

132 Analysis of the potential for growth and job creation through the protection of water resources, pack 2, final report, (2015), ACTeon & IMDEA et al (unpublished consultants' report carried out for the Commission)

133 Repertorio Nazionale degli interventi per la Difesa del Suolo

Ministers Presidential Decree<sup>134</sup>. Furthermore, to ensure the funding of the most urgent measures, another Council of Ministers Presidential Decree<sup>135</sup> identifies as part of the National Operational Programme, a Metropolitan Areas Plan<sup>136</sup> consisting of a set of mitigation measures for metropolitan areas and urban areas with high levels of population exposed to flood risk. This Plan includes 33 projects already funded for a value of over EUR 650 million, and a programmatic part with another 99 projects for a value of around EUR 500 million.

Management and prevention of floods is an area where potentially more economical nature-based solutions could improve resource efficiency through reducing costs and delivering multiple benefits. In its 2014-20 ERDF and EAFRD regional programmes Italy is planning to invest in nature-based solutions to deal with flood control in addition to grey infrastructure. Under EFSI a new loan is underway to deal with flooding and hydrogeological risks<sup>137</sup>. Finally, among the measures included in National Operational Plan green Infrastructures are considered a priority over other measures, as they contribute to integrated goals from both RBMPs and FRMPs.

### Suggested action

- Improve water policy in line with the intervention logic of the Water Framework Directive, i.e. provide a more detailed assessment of pressures to improve monitoring to know the status of water bodies and design Programmes of Measures that address all the main pressures identified, in particular from agriculture, industry and urban wastewater. The Programmes of Measures should be adequately funded. The national and regional administration in the water sector should improve coordination including using the district basin authorities created by the *Collegato Ambientale*<sup>138</sup>.
- Roll out a water pricing policy based on adopted national guidelines, including metering for more efficient use of water. Water abstraction permits should be reviewed so they are consistent with environmental objectives.
- Ensure that new projects that can cause deterioration of the status are properly assessed according to the

Water Framework Directive Article 4(7), in particular new hydropower projects.

- Increase investment in water infrastructure to ensure implementation for the collection and adequate treatment of wastewater.
- Reduce the polluting pressures by agriculture on surface and ground waters such as by introducing binding requirements for farmers to improve nutrient balances. The implementation of actions in new national guidelines is a first step.
- Improve land use and flood control.

### Enhancing the sustainability of cities

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

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

Europe is a Union of cities and towns; around 75% of the EU population are living in urban areas.<sup>139</sup> The urban environment poses particular challenges for the environment and human health, whilst also providing opportunities and efficiency gains in the use of resources.

The Member States, European institutions, cities and stakeholders have prepared a new Urban Agenda for the EU (incorporating the Smart Cities initiative) to tackle these issues in a comprehensive way, including their connections with social and economic challenges. At the heart of this Urban Agenda will be the development of twelve partnerships on the identified urban challenges, including air quality and housing<sup>140</sup>.

The European Commission will launch a new EU benchmark system in 2017<sup>141</sup>.

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.

In addition, Italy has allocated 5% of its ERDF budget 2014-20 to sustainable urban development.

There is a great level of motorisation in Italy's metropolitan and medium sized cities. Medium sized cities have the highest number of cars (63.8 per 100

134 [Individuazione dei criteri e delle modalità per stabilire le priorità di attribuzione delle risorse agli interventi di mitigazione del rischio idrogeologico](#), DCPM 28.05.15

135 [Individuazione degli interventi compresi nel Piano stralcio aree metropolitane ed aree urbane con alto livello di popolazione esposta a rischio di alluvione](#), DCPM 15.09.15

136 Piano Stralcio Aree Metropolitane

137 EFSI – [Italian Flood Prevention Loan](#)

138 The Collegato Ambientale (art. 51) updates the governance structure for planning in the field of water and soil conservation (approval in July 2016 – Conferenza Stato Regioni), making operational the district Basin Authority.

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

140 <http://urbanagendaforthe.eu/>

141 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. EUROCIITIES, ICLEI, CEMR, Committee of the Regions, Covenant of Mayors and others.

persons) followed by the 14 metropolitan cities (62.7 per 100 persons) in 2011 compared to the national average (62.5 per 100 persons). In the period 2001-11, there has been a noticeable reduction in motorisation in centre-north metropolitan cities whereas in the southern metropolitan cities there has been an increase. This can be explained by public policies encouraging public transport. The majority of regions will be using 2014-20 ERDF funds to support clean urban infrastructure and promotion; there is also a dedicated ERDF National Programme for Metropolitan Cities 2014-20.

Italy is the 10th worst in the EU with regard to the economic costs caused by traffic congestion.<sup>142</sup> Certain urbanised areas such as Rome, Milan and the Venice-Mestre area are particularly affected. Solving the congestion problem would substantially reduce the (health costs of) air pollution and the direct economic costs of congestion. There is scope for a more comprehensive approach to congestion problems in Italy.



Regarding public transport, compared to the national average index of 208.9 passengers using public transport per city, metropolitan cities have a figure of 242.9<sup>143</sup>, with a higher value in the centre-north & Cagliari (391.7 & 234, respectively) compared to the metropolitan cities in the south (70.8) in 2012<sup>144</sup>. Mobility sharing is strongly encouraged with the establishment of a national observatory<sup>145</sup>, and in Milan for example it is estimated that 10-20% of the vehicles are shared<sup>146</sup>. The ERDF is supporting the construction of the tramway in Florence reducing congestion and improving quality of life<sup>147</sup>.

Reggio Emilia had over 1m of cycle path/inhabitant, the highest among the 2016 Green Capital Award contenders<sup>148</sup>. EFSI is being used in Bologna to improve urban mobility<sup>149</sup>. Connecting Italy (*Connettere Italia*), the new strategy for transport infrastructure and logistics includes a target of a 20% increase in km of trams and metro lines per inhabitant by 2030, a 40% target for public transport, and a 10% target for softer transport modes (e.g. cycling). Furthermore, it is planned to have a 30% increase in the population served by high-speed trains by 2030, a 50% increase in railway freight transport by 2021 and a maximum time of 2 hours to reach ports and airports in the core network<sup>150</sup>. Italy has also created in 2007 a national observatory on local public transport<sup>151</sup>.

Each inhabitant has an average of 30.3 m<sup>2</sup> of urban green space in 2011. The lowest values are found in the centre (23 m<sup>2</sup> per inhabitant) and the north-west (24.3 m<sup>2</sup> per inhabitant), and in the north-east the average figure is almost doubled (45.4 m<sup>2</sup> per inhabitant). It is also relatively high in the south (37.1 m<sup>2</sup>)<sup>152</sup>. The majority of Italian cities have less than 20% green urban areas.<sup>153</sup> In 2012, over 86% of the residents of Reggio-Emilia lived within 300m of recreational green areas, helped through planning policies such as a green belt<sup>154</sup>. Paternò, a medium-sized city in Sicily, has used the ERDF to boost green infrastructure<sup>155</sup>. Another innovative project is the Vertical Forest<sup>156</sup>, in the Porta Nuova district of Milan, containing plants roughly equivalent to 2.5 acres of forest.<sup>157</sup>

A consequence of energy use and traffic is on airborne particulate matter. The metropolitan cities have the highest number of days when daily limit values are passed (56.1 on average) compared to medium sized cities (43.1 on average)<sup>158</sup>.

Regarding municipal waste, medium-sized cities such as Treviso increased recycling from 52% in December 2013 to 86% in November 2015<sup>159</sup>. In Reggio-Emilia the recycling rate is almost 60%<sup>160</sup>. In Milano separate

142 INRIX scorecard

143 Number of passengers taking public transport divided by the resident population of a given city

144 Partnership Agreement 2014-20, section 1A, pp.139

145 Observatory on Mobility Sharing

146 Foundation on Sustainable Development, [mobility sharing](#), p.17

147 European Commission, [regional projects](#), Florence tram

148 European Green Capital Good practice report 2016, p.15

149 EFSI – [Ambiente Urbano Bologna V](#)

150 [Connettere l'Italia - Strategie per le infrastrutture di trasporto e logistica](#), pp.44-46

151 Osservatorio Nazionale sulle politiche del Trasporto Pubblico Locale

152 ISTAT [Green Space](#)

153 European Environment Agency, [Green Urban Areas](#)

154 European Green Capital Good practice report 2016, p.19

155 GRaBS, (Green and Blue Space Adaptation for Urban Areas and Eco Towns), Interreg IV C

156 Bosco Verticale

157 ten Brink P., Mutafoğlu K., Schweitzer J-P., Kettunen M., Twigger-Ross C., Baker J., Kuipers Y., Emonts M., Tyrväinen L., Hujala T., and Ojala A. (2016) The Health and Social Benefits of Nature and Biodiversity Protection. A report for the European Commission, Institute for European Environmental Policy, London/Brussels, p.12

158 Partnership Agreement 2014-20, section 1A, pp.141

159 European Commission, [Brussels workshop](#) 13.01.2016

160 European Green Capital Good practice report 2016, p.35



collection is 54%<sup>161</sup>. The situation is worse in southern Italian cities which encounter serious difficulties in managing waste (with some exceptions such as the cities of Salerno and Benevento which have a higher separate collection). The ERDF has supported improvements in waste treatment in Salerno<sup>162</sup>.

Regarding leakage of drinking water, the centre and southern cities have a higher level than the national average. The highest losses are in Catania (56.9%) and Cagliari (58.5%) in 2012<sup>163</sup>. EFSI is being used to improve water supply in Milan<sup>164</sup> and Ancona<sup>165</sup>.

Metropolitan cities such as Venice, Florence, Rome, Naples, Bari, Reggio Calabria, Messina, Catania and Palermo have persistent difficulties to treat waste waters. Reggio Emilia has an almost 90% urban wastewater connection rate<sup>166</sup>. The ERDF has heavily supported urban wastewater treatment in the Campania Region for example the project for Campi Flegrei<sup>167</sup>, whereas European Investment Bank (EIB) loans are being used especially in centre and northern Italy to ensure compliance.<sup>168,169</sup>

## 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.

Currently, Italy has signed but not yet ratified the Offshore Protocol of the Barcelona Convention<sup>170</sup>, the Protocol on Integrated Coastal Zone Management, two agreements under the Convention on Long-range Transboundary Air Pollution: the Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone and the Heavy Metals Protocol. The same applies to the Stockholm Convention on Persistent Organic Pollutants, the Kiev Protocol on Pollutant Release and Transfer Registers, and the Nagoya Protocol<sup>171</sup>. The Italian authorities have indicated their commitment to ratify the Minamata Convention on mercury, already signed in 2013.

## Suggested action

- Increase efforts to be party to relevant multilateral environmental agreements, by signing and ratifying the remaining agreements.

<sup>161</sup> Consorzio Italiano Compostatori, presentation, Waste Directors, Brussels, 26.10.2016

<sup>162</sup> European Commission, [regional projects](#), Salerno waste

<sup>163</sup> ISTAT [UrBes](#) 2015, p.30

<sup>164</sup> EFSI, [MM water infrastructure upgrade](#)

<sup>165</sup> EFSI, [multiservizi settore idrico Ancona](#)

<sup>166</sup> European Green Capital Good practice report 2016, p.41

<sup>167</sup> European Commission, [regional projects](#), Lake Flegrei

<sup>168</sup> EIB [Viver Hydrobond](#)

<sup>169</sup> EIB Breaking [Down Investment Barriers at Ground Level](#), p.31

<sup>170</sup> Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil.

<sup>171</sup> Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity.



## Part II: Enabling Framework: Implementation Tools

### 4. Market based instruments and investments

#### 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 brings important social and environmental benefits.

Italy has environmental tax revenues amounting to 3.6% of GDP in 2014 (EU 28 average: 2.46% of GDP).<sup>172</sup> In the same year environmental tax revenues accounted for 8.28% of total revenues from taxes and social-security contributions (EU28 average: 6.35%) as shown in Figure 13.

Shifting taxation away from labour towards taxes less harmful to growth remains a key challenge in Italy, and has been recommended as a country specific recommendation (CSR) under the European Semester 2012-14. Italy remains fairly modest in its proposed tax shift with 0.2% of GDP. A 3 year plan of measured tax cuts is planned starting with property taxes in 2016.

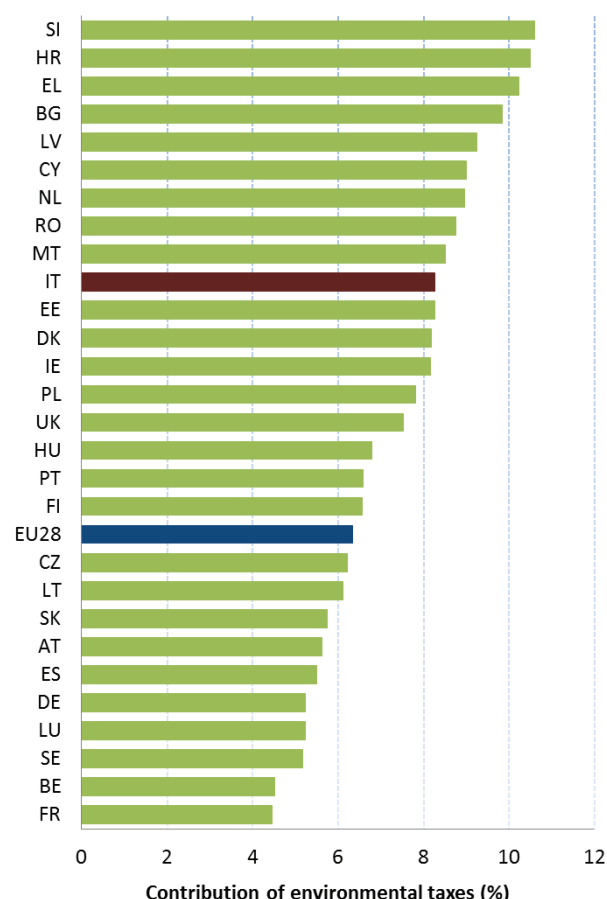
A 2016 study shows there is considerable potential for shifting taxes from labour to environment<sup>173</sup>. Under a good practice scenario<sup>174</sup>, these taxes could generate an additional EUR 10.85 billion by 2018, rising to EUR 19.53 billion by 2030 (both in real 2015 terms). This is equivalent to an increase by 0.64% and 1.4% of GDP in 2018 and 2030, respectively.

The largest potential source of revenue comes from the suggested harmonisation of taxes on transport fuels, generating EUR 9.14 billion of revenue generated by

2030 (real 2015 terms), equivalent to 0.45% of GDP. The next largest contribution to revenue comes from the proposed water abstraction tax. This accounts for EUR 4.64 billion in 2030 (real 2015 terms), equivalent to 0.23% of GDP.

Italy has a diesel differential of around 85% (as a benchmark a figure of 100% means the same level of taxation for petrol and diesel cars, i.e. no diesel differential)<sup>175</sup>, whereas externalities associated with diesel are higher than petrol and therefore it would justify higher taxation.

**Figure 13: Environmental tax revenues as a share of total revenues from taxes and social contributions (excluding imputed social contributions) in 2014**<sup>176</sup>



Environmentally-harmful subsidies (EHS) persist in Italy notably a reduced rate of VAT on energy and low

<sup>172</sup> Eurostat, [Environmental tax revenues](#), accessed June 2016

<sup>173</sup> 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.

<sup>174</sup> The good practice scenario means benchmarking to a successful taxation practice in another Member State.

<sup>175</sup> Update by European Commission, 2015 based on Harding M., 2014. [The Diesel Differential: Differences in the Tax Treatment of Gasoline and Diesel for Road Use](#). OECD Taxation Working Papers, No. 21; European Environment Agency 2016, [Environmental taxation and EU environmental policies](#), table 4.3, p.24

<sup>176</sup> Eurostat, [Environmental tax revenues](#), accessed October 2016

taxation of company cars. There has been very limited progress on the removal of EHSs with some increases in excise duties and an extension for grants for energy efficiency (so an environmentally positive subsidy) offered in the 2015 budget but so far not enacted. The *Collegato Ambientale* establishes a catalogue of environmental friendly and harmful subsidies with a report due by 31 July of each year.

Italy has proposed to establish a Committee on Environmental Taxation, mentioned in its 2015 National Reform Programme (but not mentioned in the 2016 National Reform programme). The *Collegato Ambientale* creates a Committee on Environmental Accounting that should produce a report by the 28 February of each year.

## Green Public Procurement

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

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

The purchasing power of public procurement in the EU equals to approximately 14% of GDP<sup>177</sup>. A substantial part of this money is spent on sectors with high environmental impact such as construction or transport, so GPP can help to significantly lower the impact of public spending and foster sustainable innovative businesses. The Commission has proposed EU GPP criteria<sup>178</sup>.

In 2013 Italy has adopted the national action plan (NAP) for GPP. The NAP GPP provides that the Ministry of the Environment set out the minimum environmental criteria (MEC), which represent the reference point at national level for the use of GPP by contracting authorities. The *Collegato Ambientale* (Article 19) makes GPP mandatory.

One good practice is the Remade in Italy<sup>179</sup> accredited certification scheme specifically aimed at the verification of recycled content in a product.

Regarding the level of uptake of GPP in public authorities in Italy, there is a positive trend in the last years, also due to the involvement of its central purchasing body

(CONSIG), which has seen the use of sustainable criteria in more than 50% of tenders for certain product categories<sup>180</sup>. The *Collegato Ambientale* establishes MEC that apply to at least 50% of the value of a given procurement activity with the possibility of increasing this percentage in a period of 5 years. Furthermore, a national public procurement strategy was adopted in early 2016.

## Investments: the contribution of EU funds

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

Making good use of the European Structural and Investment Funds (ESIF)<sup>181</sup> is essential to achieve the environmental goals and integrate these into other policy areas. Other instruments such as the Horizon 2020, the LIFE programme and the EFSI<sup>182</sup> may also support implementation and spread of best practice.

Italy receives EUR 32.8 billion in total Cohesion Policy funding over 2014-20 period (current prices, including ERDF, ESF, European Territorial Cooperation funding and the allocation for the Youth Employment Initiative, see Figure 14); national co-financing adds another EUR 20.2 billion. Furthermore there is yet another EUR 54.8 billion from the National Cohesion and Development Fund<sup>183</sup>. Italy also receives EUR 10.4 billion for rural development and EUR 537 million for fisheries and maritime affairs<sup>184</sup>. Cohesion policy (and rural development) is a mixed competence with both national programmes and regional programmes. The less developed south (Basilicata, Calabria, Campania, Puglia and Sicily) and transition regions (Abruzzo, Molise and Sardinia) receive a higher intensity of funding than the more developed centre and north in both the ERDF and the National Cohesion and Development Fund (80% in the south, 20% in the centre & north).

In addition, 30% of the first pillar of the Common Agricultural Policy (CAP) (EUR 27 billion for Pillar 1 for Italy<sup>185</sup>) will contribute to basic environmental

<sup>177</sup> European Commission, 2015. [Public procurement](#)

<sup>178</sup> In the Communication "Public procurement for a better environment" ([COM/2008/400](#)) the Commission recommended the creation of a process for setting common GPP criteria. The basic concept of GPP relies on having clear, verifiable, justifiable and ambitious environmental criteria for products and services, based on a life-cycle approach and scientific evidence base.

<sup>179</sup> [Remade in Italy](#)

<sup>180</sup> Presentation made by CONSIG, Rome Conference 25.11.14 on 'L'uso strategico degli appalti pubblici per un'economia sostenibile'

<sup>181</sup> ESIF comprises five funds – the European Regional Development Funds (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF together form the Cohesion Policy funds.

<sup>182</sup> European Investment Bank, 2016 [European Fund for Strategic Investments](#)

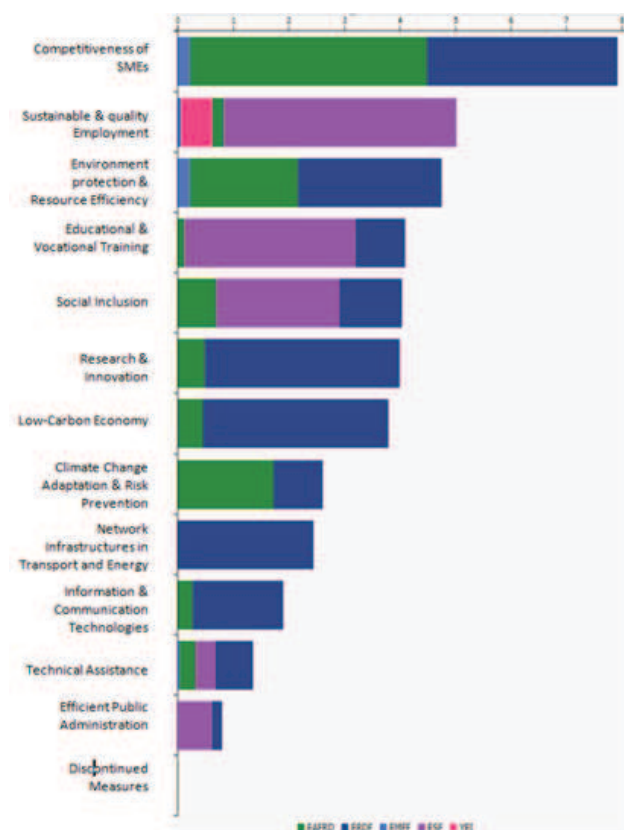
<sup>183</sup> Fondo per lo Sviluppo e la Coesione

<sup>184</sup> [European Commission](#); [Dipartimento per le Politiche di Coesione](#)

<sup>185</sup> European Commission, [Common Agriculture Policy](#); Pillar 1 is the

protection.

**Figure 14: European Structural and Investment Funds 2014-2020: Budget Italy by theme, EUR billion**<sup>186</sup>



With regard to the support by EAFRD, the agri-climate environment component includes a wide range of measures, some of which are ambitious and address a wide range of environmental issues (biodiversity, water, soil, air).

The ERDF allocation for environment (Thematic Objective 6 – T06) is EUR 2.6 billion which is 12.5% of the total allocation for the ERDF<sup>187</sup>. Investments in water and waste are only eligible in the less developed south and Sardinia. As the ERDF allocation is insufficient to close implementation gaps, adequate financing from the National Cohesion and Development Fund and EIB and EFSI loans is needed.

The action plans for the *ex-ante* conditionalities for water and waste investments under the ERDF and EAFRD 2014-2020 mentioned earlier will play a major role in accelerating the implementation of the environmental legislation, and foster a dialogue with the authorities.

Some of the expected results from ERDF investments in the South of Italy are as follows: 877,800 Tonnes/year of

additional waste recycling capacity will be created; 1,373,786 additional persons will be served by improved water supply ; 4,014,540 persons will be served by improved wastewater treatment; in terms of expected results in the whole territory, 1,693,859 persons will benefit from forest fire protection measures ; 77,088 Hectares of land will be rehabilitated ; 273,915 Hectares of habitats will be supported to attain a better conservation status<sup>188</sup>.

Current data suggest that the overall disbursement of funds for the 2007-13 programming period for the ERDF in Italy reached 80% of the allocated resources with 95% in the centre-north and 78% in the south (all figures well above the EU average), but the environmental sector is performing worse than other sectors.<sup>189</sup> In 2014-20, the EU funds will be instrumental *inter alia* to end the persistent infringements in the water and waste sectors. Indeed, the ERDF is being used to deal with under-investment in water e.g. in Campania in a substantial way with five Major Projects.

With regard to natural capital (biodiversity), clean-up of contaminated land, and risk prevention, the ERDF is available over the whole territory. In central and northern Italy investments are focused on sustainable transport and energy, research and competitiveness of SMEs. This includes opportunities for eco-innovation and promoting the circular economy.

The Cohesion Policy in Italy has suffered three main problems - fragmentation, lack of adequate administrative capacity and a weak central control. The new National Cohesion Agency was created to resolve these issues.

The new National Strategy for Internal Areas supported by the ESIF is another opportunity to make environmental investments<sup>190</sup>.

A lack of administrative capacity in small municipalities can lead to difficulties in using EU funds for environmental purposes. The cohesion policy places an emphasis on financing so-called major projects; in the case of Italy, there are several major projects in the field of urban wastewater treatment in the Campania region. On the other hand, it is often smaller projects at municipal level that are needed to implement EU environmental objectives and targets (e.g. separate collection, public awareness on waste prevention, nature and biodiversity projects).

The Ministry of Environment has developed several initiatives & projects to strengthen its support of the

non-rural development (non-EAFRD) part of the CAP

<sup>186</sup> European Commission, [European Structural and Investment Funds Data By Country](#)

<sup>187</sup> This figure includes risks and land decontamination too. The narrow environmental allocation (water, waste, nature, air) is EUR 1.4 billion

<sup>188</sup> European Commission, [European Structural and Investment Funds - Italy](#)

<sup>189</sup> Final data for the period 2007-13 will only be available at the end of 2017.

<sup>190</sup> Programma Nazionale di Riforma 2016, April 2016, p.132

regions. This support aims at the better use of ESIF resources in the environmental sector during the programming period 2014-20 and the improvement of the complementarity between ESIF and other funds and programmes.

One existing project is the *Knowledge Platform - Best Practices for the Environment and Climate Action*<sup>191</sup>, financed with Technical Assistance<sup>192</sup> collecting results from EU co-financed projects through various programmes and developing networking capabilities. The transfer of acquired knowledge and results from LIFE projects have already begun to assist the Calabria and Sicily Regions (ARUPA; PRIME; GESTIRE 2020; TRUST; AQUOR)<sup>193</sup>. The Platform supports the Regions and the SME in accessing innovative methodologies and technologies.

The Ministry of Environment is also a partner of several projects implemented through the Rural National Network Programme (co-financed by EAFRD), including the one focused on complementarity between the LIFE Programme 2014-20 and Rural Development policies<sup>194</sup>.

With the technical support of the LIFE National Contact Point at the Ministry of Environment<sup>195</sup>, 306 projects were co-financed 2007-13 and 29 projects in 2014. Moreover, Italy is involved in 104 of the 189 projects resulting from the 2014, 2015 and 2016 one stage calls for proposals in the Societal Challenge “Climate action, environment, resource efficiency and raw materials” (including the SC5 relevant projects resulting from the calls for SMEs Instruments - phase 2)<sup>196</sup>.

With regard to the use of EFSI, in November 2014 Italy presented around 80 projects worth over EUR 40 billion, with the process still being open to new eligible projects. EFSI environmental projects in the fields of dealing with hydrogeological hazards, urban wastewater treatment and decontaminated land are cited earlier in this Country Report.

191 [La Piattaforma delle Conoscenze](#), Ministry of the Environment

192 [PONGAT 2007-13](#)

193 LIFE projects: [ARUPA](#); [PRIME](#); [GESTIRE 2020](#); [TRUST](#); [AQUOR](#)

194 [Complementarietà e sviluppo di sinergie con il programma per l'ambiente e l'azione per il clima LIFE a supporto dei PSR 2014/2020](#)

195 [LIFE projects national page](#), Ministry of Environment

196 European Commission, [Horizon 2020](#)



## 5. Effective governance and knowledge

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

Effective governance of EU environmental legislation and policies requires having an appropriate institutional framework, policy coherence and coordination, applying legal and non-legal instruments, engaging with non-governmental stakeholders, and having adequate levels of knowledge and skills<sup>197</sup>. Successful implementation depends, to a large extent, on central, regional and local government fulfilling key legislative and administrative tasks, notably adoption of sound implementing legislation, co-ordinated action to meet environmental objectives and correct decision-making on matters such as industrial permits. Beyond fulfilment of these tasks, government must intervene to ensure day-to-day compliance by economic operators, utilities and individuals ("compliance assurance"). Civil society also has a role to play, including through legal action. To underpin the roles of all actors, it is crucial to collect and share knowledge and evidence on the state of the environment and on environmental pressures, drivers and impacts.

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

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

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

### Capacity to implement rules

It is crucial that central, regional and local 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.

According to the World Bank 2015 Worldwide Governance Indicators, Italy scores well below the EU average for the government effectiveness indicator, which captures the perceptions of the quality of public services, the capacity of the civil service and its independence from political pressures, and the quality of policy formulation.<sup>198</sup> A CSR was adopted in 2015 to improve the institutional framework and modernising the public administration. The Government has passed a law in August 2015 to improve the public administration, and more steps were announced for 2016<sup>199</sup>. The Commission has again proposed a CSR for 2016<sup>200</sup> on implementing reform of the public administration which has environmental importance as it does for other sectors<sup>201</sup>.



Several factors underlie the reduced effectiveness of actions in Italian public administrations. Competences are unclearly shared among central and local administrations, generating overlapping and intra institutional conflicts. These make administrative processes uncertain both in terms of duration and outcome. Furthermore, the lack of transparency and public control over the administrative activities reduces the accountability of the public administration<sup>202</sup>.

<sup>197</sup> The Commission has work ongoing to improve the country-specific knowledge about quality and functioning of the administrative systems of Member States.

<sup>198</sup> World Bank - [Worldwide Governance Indicators](#)

<sup>199</sup> Programma Nazionale di Riforma 2016, April 2016, p.3 & pp.87-91, (Law 124/2015)

<sup>200</sup> 2016 CSR proposed 18.05.16

<sup>201</sup> this CSR also refers to stepping up the fight against corruption by revising the statute of limitations and reducing the length of civil justice proceedings by enforcing reforms and through effective case management.

<sup>202</sup> European Commission 2016 [Country Report for Italy](#)

The 2013 European Quality of Government Index gives a similar picture with Italy well below the EU average, ranking 23rd of the 28 EU Member States<sup>203</sup>. Peculiarly, Italy shows the widest variation across EU regions with Trento the highest placed region and Campania the lowest.

The implementation framework for the environment is fragmented and essentially reactive. Furthermore, it is recognized that administrative capacity to implement environmental requirements is weak in the *Mezzogiorno*. Furthermore, the OECD has stated that the Ministry of Environment is under-resourced to allow it to ensure environmental integration in all policy areas.<sup>204</sup>

Italy agreed to adopt regional (and national) Administrative Reinforcement Plans (PRAs<sup>205</sup>) to improve implementation of ESIF in part as a reaction to the aforementioned 2015 CSR<sup>206</sup>. The PRAs cover also non-ESIF administrative capacity-building and should lead to a reform of the public administration and reinforcement of managing structures. The National Operational Programme on “Governance and Institutional Capacity” 2014-20 provides another opportunity to improve administrative capacity also in the environmental sector.

The fragmentation at regional and local levels and red tape are also recognized to cause problems for the activities of SMEs<sup>207</sup>. A recent administrative change called the Single Environmental Authorisation<sup>208</sup> has reduced the administrative burden. However, it is still estimated that in 2015 'environmental issues' are seen as costing EUR 3.41 billion out of a total of around EUR 32 billion in terms of administrative burden by the first Italian Measurement Programme 2008-12.

Reforms of the governance of national parks & protected areas and of the waste consortia were announced in the 2016 National Reform Programme<sup>209</sup>.

Environmental policy developments in Italy are mainly driven by EU Regulations and Directives. However, there has been a consistent problem with late transposition. This has resulted in several infringements and a high number of complaints to the Commission. The situation is further complicated by two levels of transposition, first at national and later regional level. If the national transposition is incorrect, this has a knock on effect on the regional level, e.g. the situation with the EIA Directive up until November 2015.

Italy has also a considerable number of infringements relating to the application of EU environmental law,

some of which were established and penalised by the EU Court of Justice in areas such as management of waste. Improving the administrative capacity is vital to address such implementation gaps.

In some of the environmental cases where individuals or NGOs have gained access before the national courts over the past years, the Italian judges referred several requests for preliminary rulings to the EU Court of Justice. This represented a valuable contribution to the development of EU environment law, since preliminary rulings enable the Court of Justice to give a coherent interpretation of the EU law.

## Coordination and integration

In the light of its decentralised institutional setting which is one of the fundamental principles of administrative organization and is a constitutional principle, Italy has established the Inter-ministerial Committee for European Affairs<sup>210</sup>. This high-level political forum works under the Presidency of the Council of Ministers with the aim of ensuring political coordination among national and regional authorities in relation to the European dossiers. The Inter-ministerial Committee for European Affairs is assisted by the Technical Committee of Evaluation<sup>211</sup> which facilitates the policy convergence and synergies, among the Ministries' representatives and the Regions on specific implementation issues in a timely and effective manner.

At national level, the prime responsibility for co-ordinating environmental matters lies with the Ministry of Environment, Land and Sea. Although the Ministry does not benefit from a specific National Operational Programme on “Environment” funded by the ESIF, many projects/initiatives have been proposed to integrate environmental objectives and actions in other National Operational Programmes. Other key ministries for environmental integration are: the Ministry of Economic Development; the Ministry of Agriculture, Food and Forestry; the Ministry of Education, University and Research; the Ministry of Infrastructure and Transport; and the Ministry of Health; the aforementioned National Cohesion Agency is also a key actor. The regions, provinces and municipalities have also environmental competences. The general legislative power belongs to the State and the Regions on an equal footing. Furthermore, Regional Environmental Agencies (ARPAs) exist for controlling pollution, monitoring and technical support and the national Institute for Environmental Research (ISPRA)<sup>212</sup> has been given the role for ensuring that regional agencies perform in a uniform manner in

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

204 OECD, [Environmental Performance Review Italy](#) 2013

205 Programma Rafforzamento Amministrativa

206 [Partnership Agreement 2014-20](#).

207 European Commission, [Small Business Act Italy Fact Sheet](#), 2015

208 Autorizzazione Unica Ambientale (AUA)

209 Programma Nazionale di Riforma 2016, April 2016, p.58

210 Comitato Interministeriale per gli Affari Europei

[Law No. 234 of 24 December 2012, Art. 2](#)

211 Comitato Tecnico di Valutazione

[Law No. 234 of 24 December 2012, Art. 19](#)

212 Istituto superiore per la protezione e la ricerca ambientale

June 2016.

The sustainable development strategy has not been updated since 2002. A public consultation was launched in March 2016 on an update of the strategy introducing the SDGs<sup>213</sup>. A Commission on Sustainable Development<sup>214</sup> was established in 2002 as part of the Committee for Economic Planning<sup>215</sup>, which is the main inter-ministerial body that defines national economic policy, outlines multi-year budgets and monitors their implementation. However, the OECD has judged in 2013 that the Commission on Sustainable Development has been largely inactive<sup>216</sup>.

The *Collegato Ambientale* foresees updating of the National Strategy on Sustainable Development every three years. It should be noted that there is also no environmental action plan at national level, although these exist in some regions<sup>217</sup>.

Italy has taken significant steps towards the inclusion of the environmental dimension into budgetary and financial issues with the creation of the BES indicator system (Wellbeing, Equal and Sustainable)<sup>218</sup>. The BES indicators are organised in 130 sub-indicators in 12 fields<sup>219</sup>. The law<sup>220</sup> establishing BES also creates an *ad hoc* Committee made of representatives from the Ministry of Economy and Finance (MEF), Bank of Italy, the National Institute of Statistics (ISTAT)<sup>221</sup> and high-level experts from the academic and research field to identify the indicators that will be attached to the Annual Financial Law<sup>222</sup>. Furthermore, MEF is tasked with the production of an annual analysis reporting back to the parliament by 15 February each year as regards progress and trends of the indicators.

Following the introduction of a law in 2005, Regulatory Impact Assessments (RIA) are formally required for every legislative proposal in Italy. However, the systematic application of RIA varies between the different sectors of the Italian public administration<sup>223</sup>.

More robust and systematic use of RIAs and Strategic Environmental Assessments (SEAs), as well as *ex post* evaluation of policies, would also help to mainstream

environmental considerations into sectoral policies and programmes. These efforts should be grounded in the development of a more effective assessment culture<sup>224</sup>. The transposition of the revised Environmental Impact Assessment (EIA) Directive<sup>225</sup> will be an opportunity to streamline the regulatory framework on environmental assessments. This approach would reduce duplication and avoids unnecessary overlaps in environmental assessments applicable for a particular project. Moreover, streamlining helps reducing unnecessary administrative burden and accelerates decision-making, without compromising the quality of the environmental assessment procedure. The Commission has issued a guidance document in 2016<sup>226</sup> 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.

Italy has already integrated/coordinated environmental assessment procedures under the EIA Directive (SEA, Habitats, Integrated Emissions Directives) which can be considered a good practice. Lessons should be learnt from past environmental crises, e.g. recurring flooding incidents in central and northern Italy, waste management in Campania and Lazio, water in Sicily, and traffic congestion in the Venice-Mestre area, all examples which have been cited earlier in this Country Report. The lack of coordination among regions also affects the proper implementation of the Water Framework Directive. The occurrence of crises in Italy is linked to the convergence or divergence of subnational units (regions, provinces and municipalities) in terms of economic and environmental performance.<sup>227</sup> The appointment of emergency commissioners has been used to deal with crises, but this does not entail derogation from EU rules.

The *Collegato Ambientale* (Article 51) updates the governance structure for planning in the field of water and soil conservation (approved in July 2016 by the State-Regions Conference<sup>228</sup>), making operational the District Basin Authority.

Some environmental integration is taking place. One good practice example is the Environmental Network<sup>229</sup>,

213 Ministry of Environment – [Press Release](#) 31.03.16

214 Ministry of Environment, [Sustainable Development Strategy](#)

215 Comitato interministeriale per la programmazione economica (CIPE)

216 OECD, [Environmental Performance Review Italy](#) 2013

217 European Environment Agency, [More from less – material resource efficiency in Europe](#). 2015 overview of policies, instruments and targets in 32 countries, 2016, Italy report, p.9

218 Benessere equo e sostenibile

219 [BES webpage](#), ISTAT

220 [Law No. 163 of 4 August 2016 n° 163, Art 1,6 & Art.14](#) G.U. 25/08/2016

221 Istituto nazionale di statistica

222 Documento di Economia e Finanza

223 RPA 2014, [Economic and Social Benefits of Environmental Protection and Resource Efficiency Related to the European Semester](#), study for European Commission

224 OECD, [Environmental Performance Review Italy](#) 2013

225 the transposition of Directive 2014/52/EU is due in May 2017

226 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).

227 Waste management beyond the Italian north-south divide: spatial analyses of geographical, economic and institutional dimensions, Mazzanti M and Montini A (2014), Handbook on waste management edited by T. Kinnaman & K. Takeuchi (E. Elgar).

228 Conferenza Stato Regioni

229 [Rete delle Autorità Ambientali e delle Autorità di Gestione. The Italian network regularly participates in the meetings and activities of the European ENEA-MA.](#)

a network of national & regional environmental and managing authorities ensuring integration through the ESIF activities in existence for over 10 years. While the Network has produced many useful outputs and facilitated the exchange of experiences, it has been rather intermittent in its activities. Another example is the register of the environmental sustainability of school buildings<sup>230</sup>.

In the framework of the REACH Regulation, the national technical coordination committee (CTC) represents a best practice concerning governance at the national level. The CTC<sup>231</sup> gathers relevant branches of the public administration in order to agree a common position both at the national and at the EU level. In order to share this governance experience, a website<sup>232</sup> has also been established, allowing a continuous dialogue among all relevant stakeholders.

The relatively low priority assigned to the environment by the national and some regional governments over much of the last decade, coupled with a highly decentralised governance system, has made it difficult to scale up positive environmental initiatives, despite the efforts deployed by the environmental authorities<sup>233</sup>. However, recent initiatives, for example to promote a green economy, indicate an increased emphasis on environmental issues by the government and should help co-ordination.

### Suggested action

- Address the fragmentation at regional and local levels by developing better national level coordination mechanisms for 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 inspections for permitted activities, surveillance for possible illegal activities, investigations for crimes and audits for systemic weaknesses. Similarly, there is a range

of means to promote compliance, including awareness-raising campaigns and use of guidance documents and online information tools. Follow-up to breaches and liabilities can include administrative action (e.g. withdrawal of a permit), use of criminal law<sup>234</sup> and action under liability law (e.g. required remediation after damage from an accident using liability rules) and contractual law (e.g. measures to require compliance with nature conservation contracts). Taken together, all of these interventions represent "compliance assurance" as shown in Figure 15.

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*<sup>235</sup>, *EUFE*<sup>236</sup>, *ENPE*<sup>237</sup> and *EnvCrimeNet*<sup>238</sup>, is a valuable tool for sharing experience and good practices.

**Figure 15: Environmental compliance assurance**



Currently, there exist a number of sectoral obligations on inspections and the EU directive on environmental liability (ELD)<sup>239</sup> provides a means of ensuring that the "polluter-pays principle" is applied when there are accidents and incidents that harm the environment. There is also publically available information giving insights into existing strengths and weaknesses in each Member State.

For each Member State, the following were therefore reviewed: use of risk-based compliance assurance;

<sup>230</sup> Programma Nazionale di Riforma 2016, April 2016, p.83

<sup>231</sup> Ministry of Environment, [Ministerial Decree 22.11.2007](#)

<sup>232</sup> [REACH - Prodotti Chimici: informiamo i cittadini](#)

<sup>233</sup> For example, in the water field, this is also reflected in the low quality of the data monitored and reported under the Drinking Water and Urban Wastewater Treatment Directives.

<sup>234</sup> European Union, [Environmental Crime Directive 2008/99/EC](#).

<sup>235</sup> [European Union Network for the Implementation and Enforcement of Environmental Law](#)

<sup>236</sup> [European Union Forum of judges for the environment](#)

<sup>237</sup> [The European Network of Prosecutors for the Environment](#)

<sup>238</sup> [EnvCrimeNet](#)

<sup>239</sup> European Union, [Environmental Liability Directive 2004/35/CE](#)



coordination and co-operation between authorities and participation in pan-European networks; and key aspects of implementation of the ELD based on the Commission's recently published implementation report and REFIT evaluation.<sup>240</sup>

In Italy, some positive developments have occurred to underpin risk-based compliance assurance: (i) For instance, the regional environmental agency of Lombardy (ARPA Lombardia) has developed a good inspection planning system, mechanisms for dialogue with the regulated community to promote compliance general guidance on industrial inspections, extensive training plans<sup>241</sup> and an innovative use of earth observation techniques. (ii) A recent revision of its Criminal Code has put Italy in a better position to tackle the most serious environmental offences.

However, risk-based approaches and data collection are not applied consistently across the country<sup>242</sup>. The low deterrence of sanctions imposed in practice and lack of cooperation between different environmental inspection authorities and between them and police and prosecutors represent challenges<sup>243</sup>.

Up-to-date information is lacking in relation to the following: (i) Data-collection arrangements to track the use and effectiveness of different compliance assurance interventions. (ii) The extent to which risk-based methods are used to direct compliance assurance both at the strategic level and in specific problem-areas highlighted elsewhere in this Country Report, i.e. non-compliance with waste rules<sup>244</sup>, the threats to protected habitat types and species, air quality problems, the pressures on water quality from diffuse water pollution and deficits in urban waste-water treatment.

Italian regional inspection authorities actively contribute to the work of IMPEL. Italy is also strongly involved in the activities of the EUFJE and EnviCrimeNet. Italy is leading a project on combating environmental crime, with participation of Belgium, Spain, Romania, Belgium and involvement of EnviCrimeNet, Europol, Eurojust and

Interpol<sup>245</sup>.

Information in Italy's report for the period 2007-13 suggests a high incidence of cases potentially falling within the scope of the ELD, as well as a high number of requests for action by Italian citizens or NGOs. However, while Italian authorities have participated in the Commission training programme for the ELD, Italy has not developed guidance or other administrative support tools, and there is no register for environmental liability cases. As regards financial security (to pay for remediation where the operator cannot), information is incomplete. The country did not establish mandatory financial security, but there is an insurance pool<sup>246</sup> operating and sufficient insurance cover seems to be on offer (although not taken up).

### Suggested action

- Improve transparency on the organisation and functioning of compliance assurance and on how significant risks are addressed.
- Step up efforts in the implementation of the Environmental Liability Directive (ELD) with proactive initiatives, in particular by setting up a national register of ELD incidents and drafting national guidance. Italy 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"). 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.

240 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.

241 IMPEL IRI Italy, p. 4, 19, 21 and 30.

242 Amec Foster Wheeler Environment & Infrastructure/Millieu, 'Assessment and Summary of the Member States implementation reports for the IED, IPPCD, SED and WID' 2016, p. 265, study for European Commission

243 IMPEL IRI Italy, p. 4 and 13.

244 Since the 1990s, the Commission has been obliged to pursue infringement procedures targeting significant number of irregular landfills in Italy. Lack of proper compliance monitoring and effective measures to tackle organised waste crime have been identified to be amongst the causes of the Naples waste crisis, see Study 'Implementing EU Waste Legislation for Green Growth', BioIntelligence Service, p. 175.

245 The EU funded "Tackling Environmental Crimes through Standardised Methodologies – [TECUM](#)" project aims at reinforcing the capacities of police services and specialized agencies in fighting environmental crime, especially where organized crime is involved. The project will tackle illicit waste trafficking as well as related evolutionary forms of environmental crime, addressing the problems by an operational inter-agency approach aimed at standardization of transnational investigation procedures.

246 Pool Inquinamento

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

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

The Italian legal system grants NGOs legal standing in environmental matters in particular through case law. However, the conditions are not codified in a way that the right to take an environmental case to the court is laid down in national legislation with sufficient precision and clarity. It seems, for instance, that it is not clear whether local branches of recognized environmental NGOs are granted legal standing before the courts. The case law on that issue is not uniform<sup>247</sup>.

### Suggested action

- Take the necessary measures to ensure standing of environmental NGOs to challenge acts or omissions of a public authority in all sectoral EU environmental laws, in full compliance with EU law as well as the 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<sup>248</sup>, the Access to Environmental Information Directive<sup>249</sup> and the INSPIRE Directive<sup>250</sup> together create a legal foundation for the sharing of environmental information between public authorities and with the public. They also represent the green part of

the ongoing EU e-Government Action Plan<sup>251</sup>. The first two instruments create obligations to provide information to the public, both on request and actively.

The access to EIA and SEA information and data is granted both at national level (EIA-SEA Portal of the Ministry of Environment<sup>252</sup>) and at the different administration levels through dedicated websites, fulfilling the requirements of the national legislation concerning access to informational and public participation in environmental assessments procedures and with the intention of being in line with the provisions of the revised EIA Directive (Articles 5.6).

The INSPIRE Directive is a pioneering instrument for electronic data-sharing between public authorities who can vary in their data-sharing policies, e.g. on whether access to data is for free. The INSPIRE Directive sets up a geoportal which indicates the level of shared spatial data in each Member State – i.e. data related to specific locations, such as air quality monitoring data. Amongst other benefits it facilitates the public authorities' reporting obligations.

For each Member State, the accessibility of environmental data (based on what the INSPIRE Directive envisages) as well as data-sharing policies ('open data') have been systematically reviewed<sup>253</sup>.

Italy's performance on the implementation of the INSPIRE Directive as enabling framework to actively disseminate environmental information to the public is lagging behind. Italy has indicated in the 3-yearly INSPIRE implementation report<sup>254</sup> that the necessary data-sharing policies allowing access and use of spatial data by national administrations - including in particular local municipalities - other Member States' administrations and EU institutions without procedural obstacles are not yet available.

Within Italy, the creation, management and publication of spatial information is often institutionally assigned to small municipalities, that are not able to make available spatial information in conformity with the standards required by the INSPIRE Directive due to lack of technological infrastructure and of qualified personnel.

Italy recently has started the preparation of legislative proposals to establish the necessary licences for overcoming the existing impediments to the sharing of spatial data. It should be noted though that in order to address the problems highlighted above the National

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

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

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

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

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

252 Ministry of Environment, [EIA-SEA Portal](#)

253 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.

Council for Spatial and Environmental Information (CNITA)<sup>255</sup> was set up and aims to carry out a detailed assessment on how it can create an open data policy taking also into account the priorities defined in the Digital Single Market.

Assessments of monitoring reports issued by Italy<sup>256</sup> and the spatial information that Italy has published on the INSPIRE geoportal<sup>257</sup> indicate that not all spatial information needed for the evaluation and implementation of EU environmental law has been made available or is accessible. The larger part of this missing spatial information consists of the environmental data required to be made available under the existing reporting and monitoring regulations of EU environmental law.

### Suggested action

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

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255 Consulta nazionale per l'informazione territoriale e ambientale,

[Decree 12.01.2016](#)

256 [Inspire indicator trends](#)

257 [INSPIRE Resources Summary Report](#)