

# **EUROPEAN UNION ENVIRONMENTAL POLICY**

Susan Baker

## **Introduction**

As high consumption economies, the European Union (EU) and its member states have a major impact on the environment, both internally and globally. Around 8.8% of the greenhouse gases (GHGs) emitted worldwide come from the EU and it creates around 2,500m. metric tons of waste each year, some 95m. tons of which is hazardous.<sup>1</sup> At the same time, environmental policy is one of the most important and far-reaching areas of EU legislation. Since the early 1970s, the EU has developed an ever-expanding policy agenda and regulatory regime, dealing with the protection of air and water quality, the conservation of natural resources and of biodiversity, waste management and the control of industrial activities that have adverse environmental impact. It also has a major impact on the environmental policy of its near neighbours and plays an ever-growing role in global environmental governance.

This chapter explores environmental policy in the EU. It begins by looking at the Union's strong legal commitment to environmental protection and then examines the policy and strategy documents that frame the EU's approach. Exploring the challenge of environmental policy integration at the sectoral level provides insight into the difficulties surrounding implementation efforts. We conclude with some reflections on the wider political and economic context within which environmental policy is embedded and the consequences of this for policy progress.

## **Treaty Basis and Regulatory Developments**

Environmental protection was not mentioned in the Treaty of Rome (1958) and EU initiatives in the field did not begin until the 1970s, a time when member states were

influenced by growing domestic and international concerns about the environment. The EU declared that economic expansion is not an end in itself, but should result not only in improvements in the standard of living but also in quality of life (Baker, 2000). However, it was not until the Single European Act of 1986 that the EU's role in environmental protection was formally recognized. By this time, the European Commission, the main body that initiates new policy proposals in the EU, feared that the strengthening of environmental legislation by member states in response to increasing societal mobilization around environmental issues would act as a barrier to European free trade. The Commission, in particular the administrative division responsible for the environment, the Directorate-General for the Environment (DG Environment), was keen to ensure that environmental policy was more fully Europeanized.

EU environmental policy initially focused on legislating against pollution, particularly that of a transboundary nature, and then on supporting the completion of the internal market, including by setting EU trading standards, such as in relation to environmental standards for products. Some developments were in reaction to major pollution events, such as the Seveso Directives (Council Directive 96/82/EC; Seveso II & III 2012/18/EU), dealing with the control of major accident hazards involving dangerous substances, while others were in response to the obligations incurred under international agreements. Gradually, there was a shift of policy focus from general environmental protection measures to the promotion of sustainable development. This shift was reflected in treaty modifications, including the Treaty on European Union or Maastricht Treaty (signed in 1992) and the Treaty of Amsterdam (signed in 1997), the latter making sustainable development, along with economic and social progress, one of the objectives of the Community. The Treaty of Nice (signed in 2001) confirmed this. The Treaty of Lisbon (signed in 2007) reinforced the EU's pledge to pursue

sustainable development both within and beyond its borders. In 2009, the European Council reaffirmed that sustainable development remained a fundamental objective of the EU under the Lisbon Treaty. Owing to these treaty modifications, there is probably no single government or other association of states with such a strong ‘constitutional’ commitment to sustainable development as the EU. Sustainable development is now a *norm* of EU politics, both domestically and internationally (Baker and McCormick, 2004). The Lisbon Treaty also commits the EU to work towards the adoption of international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources<sup>2</sup>. The Treaty also makes combating climate change on an international level a specific objective of EU environmental policy, recognizing that the EU has a leading international role to play.

Treaties establish the remit and objectives of the European integration process. Guided by these, the EU has played an ever-stronger role in regulating economic behaviour to address the negative environmental consequences of production, and, to a lesser extent, consumption activities. This has resulted in a wide body of legislation, mostly in the form of directives governing an ever-growing array of issues<sup>3</sup>. There are several hundred environmental directives aimed at improving the quality of water, including in the marine environment; tackling air and noise pollution, including from transport and industrial sources; assuring the safety of chemicals; setting standards for the prevention and recycling of waste; protecting native wildlife and plants; and the maintenance of biodiversity (Swords, 2010). One of the most complicated of these directives is the EU Water Framework Directive (WFD, 2000), which requires member states to establish river basin districts and accompanying basin management plan (CEC, 2014a). The Directive utilizes a cyclical process where river basin management plans are prepared, implemented and reviewed every six years, and it sets a series of

implementation deadlines up to 2027. In response to concerns about weak implementation of the WFD, in 2012 the Commission published a Blueprint to Safeguard Europe's Water Resources, outlining actions to improve implementation (CEC, 2012). The Blueprint is expected to shape EU water policy up to 2050 (CEC, 2014b). In keeping with trends towards making greater use of market instruments in environmental policy, it also explains how to apply economic instruments through the internalization of costs for water use and water pollution. To support the continued use of market instruments, the Commission subsequently undertook research into the application of payments for ecosystem services to support the implementation of the WFD (European Union, 2014). The Blueprint also introduced new water-related green infrastructure measures, such as reforestation, floodplains restoration, soil management and sustainable urban drainage systems. Ways to integrate water management issues into the Common Agricultural Policy (CAP) and Cohesion Policy were also detailed.

Progress, however, has been slow. A 2015 report on the implementation of the WFD found that only 23% of WFD-specific basic measures were reported as completed, while 66% were ongoing and 11% not started (CEC, 2015a). Furthermore, in two-thirds of the river basin districts established under the WFD were not sufficient to tackle diffuse pollution from agriculture. Funding shortfalls were also shown to hamper implementation. More recently, the lack of systems thinking, seen as a prerequisite to effective WFD implementation, has been highlighted, as too has the departure of implementation efforts from the WFD's original intentions (Voulvoulis et al., 2017). Implementation difficulties continued to be reflected in a 2017 statement from the Commission, especially in relation to cross border co-operation, where, despite the fact that many European river basins are international, crossing administrative and territorial borders, they still lack a common approach to effective implementation of the Directive.

Similar problems were identified with the closely related Directive 2007/60/EC on the assessment and management of flood risks (CEC, 2017, *Implementing the EU Water Framework Directive & the Floods Directive*, 9 January, available online at: [http://ec.europa.eu/environment/water/water-framework/objectives/implementation\\_en.htm](http://ec.europa.eu/environment/water/water-framework/objectives/implementation_en.htm)).

Greater use of market-based instruments is also evident in the use of quota trading schemes, voluntary agreements and ecolabels, as seen, for example, in the development of the EU Emissions Trading Scheme (ETS) for trading GHG emissions. Increased use of these instruments was demanded by the sixth Environment Action Programme (EAP), the renewed Sustainable Development Strategy and the Lisbon Strategy, and is also reflected in the seventh EAP, as discussed below. The use of these environmental policy instruments forms part of the shift to new styles of governance in the EU, a neoliberal approach that sees greater involvement of economic partners and stakeholder networks in both the design and delivery of policy. Several criticisms of these instruments have been mounted, including concerns that the ETS, for example, may pass on costs to customers through price increases and that the scheme may result in ‘carbon leakage’ to companies outside the EU (Muûls et al., 2016). More seriously, corruption has enabled the resale and misreporting of used carbon offsets, sophisticated computer hacking schemes for the theft from national carbon emission registries, and continuing value-added tax fraud. In 2010, European authorities uncovered several cases of so-called ‘carousel fraud’ in the trading of emissions, which amounted to an estimated US \$6,450m. in lost revenues across at least 11 countries (UNEP, 2013).

In February 2018, new reforms of the ETS for the period after 2020 were formally approved (European Council, 2018, *EU Emissions Trading System Reform*:

*Council approves new rules for the period 2021 to 2030*, Press Release, 27 February, available online at: <http://www.consilium.europa.eu/en/press/press-releases/2018/02/27/eu-emissions-trading-system-reform-council-approves-new-rules-for-the-period-2021-to-2030/>). These reforms bring a cap on the total volume of emissions reduced annually, while the number of allowances to be placed in the market stability reserve will be doubled temporarily until the end of 2023 (feeding rate). A new mechanism to limit the validity of allowances in the market stability reserve above a certain level will become operational in 2023. The revised ETS directive also contains a number of new provisions to protect against the risk of carbon leakage (European Union, 2018, *Directive of the European Parliament and of the Council amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments and Decision (EU) 2015/1814*, Brussels, 2015/0148 (COD)/ PE-CONS 63/17).

In addition to using both market-based and so-called ‘command and control’ legislative and regulatory instruments, reliance is also placed on ‘soft’ procedural tools. These include the 2001 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the Aarhus Convention), and the use of environmental impact assessments (EIA) and strategic environmental assessments (SEA) in certain planning decisions. The revised 2014 Environmental Impact Assessment (EIA) Directive (2014/52/EU) simplifies the rules for assessing the potential effects of projects on the environment. This simplification is in line with the drive for smarter regulation to reduce administrative burden, especially on the private sector (CEC, 2015b). Similarly, proposals for the amendment of directives on waste policy were also tabled (CEC, 2014c). These planned reforms were driven by concerns to improve resource efficiency, including

through waste capture and reuse. This, it was hoped, would create a more circular economy, in turn supporting further economic growth. They were also designed to support the objectives of the Resource Efficiency Roadmap and the seventh EAP, as discussed below. However, the proposals for the amendments on waste were withdrawn. The official reason given was that the proposals needed to be redrafted to make them more ambitious, but some MEPs believed that the decision was a result of lobbying by big business (Crisp, 2015). In 2018, reforms were eventually approved, based on the Commission's Circular Economy policy, discussed further below. The use of economic instruments, including through Extended Producer Responsibility schemes, is evident here. The new legislation is built on the 'waste hierarchy' approach, which requires Member States to take specific measures to prioritize prevention, re-use and recycling above landfilling and incineration, thus promoting the circular economy (European Union, 2018, *Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste*, Brussels, 2015/0275 (COD) PE-CONS 11/18).

The EU is also party to a number of international conventions and protocols, including the UN Framework Convention on Climate Change (UNFCCC) and the related Kyoto Protocol, and the UN Convention on Biological Diversity. It is also a member of several international governance regimes, such as those developed under the World Trade Organization, the trade policies of which have both direct and indirect environmental effects. International engagement plays a fundamental role in shaping EU policy, especially energy policy. In the lead-up to the UNFCCC Conference of the Parties (COP21) in Paris in 2015, the EU agreed to cut its emissions by 40%, compared with 1990 levels, by 2030. Targets for 2020, 2030 and 2050 are broadly the same (CEC, 2016a). The Paris Agreement also included a five-

year, so-called ‘ambition cycle’ to take stock and re-examine their commitments, strengthening them if necessary (CEC, 2017b). The binding target of at least 40% domestic GHG emissions reduction below 1990 levels by 2030 in the Nationally Determined Contribution (NDC) under the Paris Agreement has now been ratified by all member states (European Council, 2015, available online at: <http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Latvia/1/LV-03-06-EU%20INDC.pdf> ). According to estimates, in 2016 emissions from energy use decreased only slightly, by 0.4% (Eurostat, 2017) and increased by approximately 1% in 2017 (Agora Energiewende and Sandbag, 2018). As a result, the average rate of emissions reductions between 1990 and 2017 slowed to 0.8%. This is a worrying trend, making it even more difficult for the EU to reach its emissions reduction targets for 2030 and 2050 (Climate Action Tracker, 2017, *Country Summary*, available online at: <https://climateactiontracker.org/countries/eu/>). A recent (June 2018) report from Climate Action Network Europe shows that all EU countries are ‘off target’ with the Paris Agreement goal. No single EU country is performing sufficiently in both ambition and progress in reducing carbon emissions (CANE, 2018, *Off target: Ranking of EU countries’ ambition and progress in fighting climate change*, Brussels, available online at: <http://www.caneurope.org/docman/climate-energy-targets/3357-off-target-ranking-of-eu-countries-ambition-and-progress-in-fighting-climate-change/file>).

These binding emission reduction targets have major consequences for sectoral policy, including for the energy sector, as discussed below, as well as for internal relations between the EU and its member states. There are tensions between the EU and the Visegrad group (the Czech Republic, Hungary, Poland and Slovakia), for example. Czech proposals to limit energy efficiency savings from 1.5% a year to

0.35%, and Poland's proposal to carry over unused carbon credits into the next market phase, which would depress prices and reduce the incentive to scale back CO<sub>2</sub> emissions, are cases in point (Neslen, 2017). In addition, there are tensions between leaders and laggards in climate policy. While in 2018 Sweden's Minister for Climate Change called on the EU to aim for net-zero carbon emissions by 2050, followed by the Dutch Prime Minister urging the EU to increase its 2030 emissions reduction target to 55% below 1990 levels, at the same time, climate skepticism is apparent in a number of member state governments. Estonia, Ireland and Poland continue to exhibit stiff opposition to climate action nationally and in the EU.

In January 2018, the Members of European Parliament agreed on the key elements of the Clean Energy Package, on the Energy Efficiency Directive (EED), the Renewable Energy Directive (RED) and the Governance on Energy Union Regulation. These are critical components of the EU's climate change policy and are currently under discussion in the European Council and in the Commission. Under the EED, the Parliament endorsed a binding EU-level target of 35% in energy efficiency improvements. The EED also accelerates the annual energy savings requirements under from 0.75 % to 1.22%, while under the RED there are plans to raise the share of renewable energy to 35% of the EU's energy mix by 2030. This level of ambition sets the stage for a challenging round of discussions with the EU Member States who have agreed a much lower efficiency target of 27% (IEEP, 2018, 'Policy outlook for the environment 2018: could momentum return?', available online at: <https://ieep.eu/news/policy-outlook-for-the-environment-2018-could-momentum-return>).

While the Commission proposes to increase the proportion of the budget spent on climate objectives from the current 20%, its impact will depend on how strictly the

target is measured. This requires a stricter approach to climate tracking of expenditure is needed and clearer identification of whether the expenditure is delivering on mitigation, or on increased climate resilience is required (IEEP, 2018, above). In addition, how well the proposed new vehicle for catalyzing private investment, InvestEU, operates, and how effectively it targets low carbon investment, will also be important. Integration of climate change considerations into EU policy also requires the application of climate mainstreaming to the 75% of the budget not covered by the climate-spending target (IEEP, 2018). Suggested removal of ring fenced money (so called ‘greening’) for the environment in Pillar 1, to be replaced by a ‘voluntary eco scheme’ has also raised concerns as negotiations on the budget continue.

Neither the historical, nor the projected, rate of emissions reduction will allow the EU to meet its 2030 goal, at least not with existing measures. As such, there remains a mismatch between the declared ambition to act on climate change and the limited progress to date (Remling, 2018; see also European Commission and European Environment Agency, 2017, *EU Adaptation Policy*, European Climate Adaptation Platform (CLIMATE-ADAPT), available online at: <http://climate-adapt.eea.europa.eu/eu-adaptation-policy/landing>). However, the reform of the EU ETS agreed in November 2017 may bring improvements, as it may result in higher prices of the emissions allowances and thus reduce the competitiveness of coal. Furthermore, the adoption of the new air pollution regulations to be met by coal-fired power plants in the EU by 2021 may further serve to reduce the dependence on coal.

Developments over time also saw the EU enlarge to 28 member states. Enlargement introduced a more diverse range of ecosystem types and environmental conditions that had to be taken into account in policy formulation. However, the increased number of jurisdictions, with different national policy styles and political

cultures, has not only made negotiations more complex and time-consuming across the 28 member states, but has often resulted in policy outcomes that are a weak compromise. Enlargement also adds to the problem of ensuring effective implementation of policy. Several of the newer member states have retained their historical tendency to give low priority to environmental considerations, with the countries of the Visegrad Group, for example, able to win concessions on a range of environmental issues, including their individual country emissions reduction targets, as mentioned above. Implementation capacity is also weak among the newer member states, particularly those from South-Eastern Europe.

### **Environmental Actions Programme**

EU environmental policy is framed by medium-term Environment Action Programmes (EAPs), which translate declaratory and legal commitments into policy actions. They provide a forward-looking framework for policy developments, which are drawn up by DG Environment. The first EAP (1973–76) acknowledged that economic growth was not an end in itself, while the second EAP (1977–81) referred to the limits to growth stemming from natural resource availability and affirmed that ‘economic growth should not be viewed solely in its quantitative aspects’. The third EAP (1982–86) forged links between environmental policy and the Community’s industrial strategy, arguing that environmental protection measures could stimulate technological innovation. This argument proved decisive and, since the third EAP, environmental protection has come to be seen as having the potential to enhance the competitiveness of the EU’s economy. This belief continues, for example, to be reflected in EU policy, as witnessed by the 2018 Plastics Strategy, discussed below. The fourth EAP (1987–92) further developed this idea, drawing upon, while also helping to promote, the principle of ecological

modernization, with a twin focus on efficiency and technological innovation as solutions to environmental problems (Baker, 2007).

The fifth EAP, *Towards Sustainability* (1993–2000), made the first explicit policy pledge to promote of sustainable development. It was drawn up in parallel with preparations for the Rio Earth Summit. This EAP has been the subject of extensive reviews, which have shown that up to 2000 there was no reversal in economic and social trends harmful to the environment, particularly in relation to the transport, energy and tourism sectors (EEA, 1995). The EU is responsible for 15%–20% of the world's consumption of resources; the balance remained unchanged during this period.

The sixth EAP, *Our Future, Our Choice* (2001–10), attempted to address some of these shortcomings by developing a more strategic and targeted approach (CEC, 2001a). It identified four environmental areas for priority action: climate change; nature and biodiversity; environment, health and quality of life; and natural resources and waste. Detailed measures were set out in seven Thematic Strategies, in turn used to identify further proposals for legislation. Under the sixth EAP, the EU adopted a number of new environmental policies and measures, set ambitious targets in various areas, and developed several 'cross-cutting' strategies and plans. However, the failure to set concrete targets, and limited monitoring and reporting mechanisms compromised the sixth EAP. Furthermore, coherence between the different strands of EU policy was also weak. Environmental policy integration has proved particularly elusive for the Commission at the sectoral level. Transport, for example, continues to impose a significant environmental burden and environmental pressures from unsustainable consumption and production continue to grow (CEC, 2011). The prioritization of road building in EU transport policy in Eastern Europe provides a good example of the failure of policy integration (CEE Bankwatch Network, 2007; Baker, 2012), giving rise to

conflicts where road-building programmes are at odds with EU biodiversity protection policy.

The CAP, to take another policy sector, has also led to serious environmental deterioration. The high level of support given to maintaining agricultural prices has encouraged intensive agriculture. The resultant increased use of fertilizers and pesticides has polluted water and led to soil contamination. It has also resulted in the destruction of some important ecosystems through the removal of hedges, stone walls and ditches, and the drainage of wetlands. This has reduced natural habitats for a large number of birds, plants and other forms of wildlife. In some regions, intensification has resulted in over-consumption of water and has accelerated soil erosion. The CAP has undergone a series of reforms in order to address both mounting environmental concerns and to enable it better to support rural livelihoods. Reforms include the introduction of agri-environmental and, more recently, climate change measures. The 2013 reforms, for example, introduced direct payments to farmers, so-called ‘greening payments’, to support farming practices that are beneficial to both the climate and the environment (CEC, 2016c).

Several developments added renewed pressure for reforms, including falling agricultural prices, the new emphasis on bilateral deals in trade negotiations, and the EU’s international environmental commitments under the UNFCCC following COP21 and under the United Nations (UN) Sustainable Development Goals (SDGs), and the need to address growing concerns about food security (CEC, 2017c).

In June 2018, the Commission launched its long awaited legislative proposal on the CAP after 2020, *Modernising & Simplifying the Common Agricultural Policy*, (available online at: [https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap\\_en](https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en)). The proposal is closely tied to

the EU's *Multiannual Financial Framework 2021-2027*, the EU budget. The new CAP proposals place greater emphasis on the environment, in support of a transition to sustainable agricultural. Enhanced conditionality, a mandatory eco-scheme, and the continuation of a minimum spend for the environment and climate under Pillar 2 are all included. However, the continued focus on direct payments leaves the bulk of CAP spending potentially unaligned to the delivery of public goods (IEEP, 2018, *What is the fate of environmental ambition in the proposed EU agricultural policy?*, available online at: <https://ieep.eu/news/what-is-the-fate-of-environmental-ambition-in-the-proposed-eu-agricultural-policy>). There are also concerns about the Commission leaving it up to member states to propose how much GHG reductions the agricultural sector should achieve during the budget period. This means that the actual contributions of member states will not be known until they have submitted their national plans for the first year of the new CAP regime in 2021. Environmental NGOs have been highly critical of this approach (Peter Teffer, 'Commission bets on states to make farm policy 'green'', *European Observer*, 1 June, available online at: <https://euobserver.com/environment/141972>). In the meantime, May 2018 saw litigants from eight countries, including members of the indigenous Sami community in Sweden, launched legal action against the EU for failing to adequately protect them against climate change (*The Guardian*, 2018, 'We can't see a future' group takes EU to court over climate change', available online at: <https://www.theguardian.com/environment/2018/may/24/families-take-eu-court-climate-change-emissions>). The Commission is also proposing to increase funding by almost 60% for LIFE, the EU programme for the environment and climate action (CEC, 2018, 'Commission proposes to increase funding to support the environment and climate', IP/18/4002, available on line at:

<http://ec.europa.eu/environment/life/news/press/index.htm#pr2018>). This includes an ambitious new target of 25% of the EU budget to be spend on climate change (IEEP 2018, *The New EU Budget: Commission's Regional Development proposals and key issues for the environment*, available online at: <https://ieep.eu/news/the-new-eu-budget-commission-s-regional-development-proposals-and-key-issues-for-the-environment>).

Decisions over budget are critical in shaping the direction of EU policy. In some member states with lower GDP per head the EU budget represents both a large part of overall public expenditure, and acts as a key instrument in delivering economic growth and modernisation of infrastructure. In Bulgaria, Hungary and Romania, for example, EU spending is around 5% of national wealth, and forms a very important element in the resources available for public investment. This in turn means that the EU budget takes on significant political relevance in a number of Member States (IEEP, 2018, 'Commission budget proposals for 2021-2027: An IEEP guide to the environmental issues', available online at: <https://ieep.eu/news/commission-budget-proposals-for-2021-2027-an-ieep-guide-to-the-environmental-issues>). Weaknesses in the environmental integrity of the budget are therefore carried down to the member-state level.

Efforts to integrate environmental considerations into the Common Fisheries Policy (CFP) have also proved difficult. The CFP was reformed in 2013, when the practice of discards (throwing away fish that would take a boat over its quota, or are not covered by the quota) was replaced by a landing obligation. However, integration between fisheries management and environmental conservation has not yet been achieved (IEEP, 2016). In addition, it is unlikely that the current period will see much improvement, as under the Commission led by President Jean-Claude Juncker, the DG

for Maritime Affairs and Fisheries has been encouraged to prioritize ‘respect for the principles of subsidiarity, proportionality and better regulation ... [and to] ... always look for the most efficient and least burdensome approach’ (Juncker, 2014). Greater commitment to the sustainable development obligations with respect to the marine environment are needed, both under the CFP and under the Marine Strategy Framework Directive of 2008. This Marine Directive forms part of the Integrated Maritime Policy introduced in 2007 to develop a management framework to promote ‘blue growth’ and spatial planning in the maritime environment at the EU level, discussed further below in relation to the bioeconomy. The Directive legally binds member states to achieve good environmental status of their waters by 2020. However, implementation plans remain weak, especially at the member state level (IEEP, 2016; EEA, 2015b). In addition, over time the discourse on the commitment to sectoral integration has tended to be replaced by more general discussion on the need to ‘reflect’ environmental considerations in EU policies.

In 2013 the EU adopted the seventh EAP, *Living Well, within the Limits of our Planet*, to guide environment policy up to 2020 (OJ, 2013) The seventh EAP identifies a series of challenges facing the EU and seeks to enhance Europe’s ecological resilience by transforming the EU into an inclusive and sustainable green economy. The seventh EAP identified nine priority objectives up to 2020, including protecting nature and strengthening ecological resilience; stimulating sustainable, resource-efficient, low-carbon growth; and addressing environment-related threats to health. The programme set out a framework to support the achievement of these objectives through, *inter alia*, better implementation of EU environment law; enhancement in scientific knowledge; securing the necessary investments in support of environment and climate change policy; and improving the way in which environmental concerns are reflected in other

policies. The programme also aims to help EU cities to become more sustainable<sup>4</sup>. Nearly 75% of Europeans live in cities and urban areas, and by 2020, this is expected to have risen to 80%. Cities encounter several environmental challenges, including ensuring security of food supplies while at the same time reducing their environmental impact, and trying to balance the need for green spaces for both healthy living and the maintenance of biodiversity amid the ever-growing demand for land required by city expansion. The 2016 Amsterdam Pact outlines the main features of the Urban Agenda for the EU. Initial priorities include addressing air quality, supporting climate adaptation through the extension of green infrastructure solutions, and the promotion of energy transition (NLU, 2016).

The seventh programme explicitly recognizes the importance of environmental policy integration and the need to make cross-thematic linkages with other policy areas. This is a critical first step in developing a comprehensive approach towards integrating environmental, social and economic concerns into policymaking. Yet the programme has not explicitly identified the trade-offs that will have to be made between the different priorities it has set, making it difficult to negotiate between different actors and concerns, such as in relation to social and environmental matters, and to take appropriate action (Endl and Berger, 2014). A 2016 review of the seventh EAP by the EEA made it clear that ‘dealing with the complex, inter-related priorities of the 7th EAP requires more integrated and systemic approaches to knowledge (EEA, 2016). The Report also concluded that the EU’s natural capital is not yet being protected, and that environmental pressures continue to contribute significantly to the overall burden of disease and that further efforts are needed to implement existing environment and health legislation and policies (EEA, 2016; see also EEB, 2013). Such criticisms already beset the sixth EAP<sup>5</sup>. Various Communications from the Commission, including in 2008 and 2012

(COM(2008)773, final, available online at: [http://ec.europa.eu/environment/legal/law/pdf/com\\_2008\\_773\\_en.pdf](http://ec.europa.eu/environment/legal/law/pdf/com_2008_773_en.pdf); and COM (2012)95, final, available online at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52012DC0095>), have also sought to address the implementation issue.

The seventh EAP differs from previous action programmes in that it is designed to address the increasingly interlinked nature of environmental, economic and social challenges, especially in the context of climate change. It also indicates that the body of EU legislation has reached maturity, in terms of both its spread and coverage, and that attention now needs to be focused on both implementation and on non-legislative engagements. In addition, the seventh EAP emphasizes the need to take a leadership role in international environmental governance, in particular with respect to climate change. This reflects the fact that the Treaty of Lisbon adds the support of international action for fighting climate change to the list of objectives defining environmental policy at the EU level. This requires, in turn, that the increased growth in the demand for natural resources and the impact this has for the environment be addressed both internally by the EU and externally in the Union's international engagements.

However, claims that EU legislation has reached maturity may be premature, especially given new evidence about the health impact of poor air quality standards, particularly in urban settings, and the growing policy challenges arising from climate change and biodiversity loss, including natural resource scarcity. Regulation supporting the maintenance of the environmental quality of soils is also needed, especially given that promises to address this in the sixth EAP are still outstanding. Proposals for a Soil Framework Directive were withdrawn in May 2014, due to lack of support in the Council (CEC, 2016d). In the absence of a common policy framework, there is no EU-

level political or legislative framework supporting an integrated and coherent approach to soil management (Ecologic, 2017).

The seventh EAP also reflects a shift of focus from concentrating on legislation towards setting long-term environmental strategies, such as in the *Roadmap to a Low Carbon Economy in 2050* (COM(2011) 122), the *EU Biodiversity Strategy to 2020* (COM(2011) 0244), the *Roadmap to a Resource-Efficient Europe* (COM(2011) 0244) and the *Europe 2020 Strategy* (COM(2010) 2020), some of which are discussed further below. The shift from a legislative approach is also in keeping with the ‘Better Regulation’ package (COM(2014)368), which investigates whether EU legislation is fit for purpose, as also discussed below.

Nature protection policy, built around the construction of a *Natura 2000* network of protected areas, is supported by the Birds (2009/147/EC) and Habitats Directives (92/43/EEC). In addition, the EU Biodiversity Strategy to 2020 sets a target to maintain and enhance ecosystems and their services by establishing green infrastructures and restoring at least 15 % of degraded ecosystems by 2020

Biodiversity remains under severe threat, not least because of pressure from agricultural pollution, overfishing, land taken for roads and urban development, and from climate change. The EEA’s report entitled *State of Nature in the EU* confirmed the negative impact of these pressures across different biogeographical and marine regions (EEA, 2015b). The failure to make effective progress towards meeting the EU 2020 Biodiversity Strategy targets has also been highlighted (CEC, 2015c). This led to demands from the European Parliament to address urgently the social, ecological and economic consequence of biodiversity loss in Europe and for the EU not to fail as it did in relation to meeting the 2010 biodiversity targets (EP, 2016). The 2017 Environment Implementation Review Country Reports (CEC, 2017, *The EU Environmental*

*Implementation Review: Common challenges and how to combine efforts to deliver better results*, CEC, Brussels, {SWD(2017) 33 - 60 final}) reflects the findings of the 2015 EEA Report, namely that the overall status of protected species and habitats has not significantly improved. Assessment indicates that more than three quarters of the habitats are in an unfavourable conservation status, and a significant proportion is continuing to deteriorate. As regards non-bird species, 60% of EU level assessments indicate an unfavourable status. The status of 15 % of all wild bird species is near threatened, declining or depleted and another 17% are threatened. Further worrying evidence is to be found in a 2018 report by key ENGOS, BirdLife Europe, WWF, European Environmental Bureau (EEB) and Friends of the Earth Europe, which showed that, while the majority of the Member States assessed (67%) have fully incorporated the Birds and Habitat Directives into national law, most have failed to implement them properly (BirdLife Europe, WWF, European Environmental Bureau (EEB) and Friends of the Earth Europe, 2018, *The State of Implementation of the Birds and Habitats Directives in the EU An analysis by national environmental NGOs in 18 Member States*, (available online at: [https://www.birdlife.org/sites/default/files/attachments/nature\\_scorecards\\_report\\_march2018.pdf](https://www.birdlife.org/sites/default/files/attachments/nature_scorecards_report_march2018.pdf); see also CEC, 2016, *Mapping and Assessment of Ecosystems and their Services, Mapping and assessing the condition of Europe's ecosystems: Progress and challenges, 3rd Report, Final*, available online at: [http://ec.europa.eu/environment/nature/knowledge/ecosystem\\_assessment/pdf/3rdMAESReport\\_Condition.pdf](http://ec.europa.eu/environment/nature/knowledge/ecosystem_assessment/pdf/3rdMAESReport_Condition.pdf)).

Under its commitment to Better Regulation, in 2014 the Commission launched an evaluation of the Nature Directives, a 'Fitness Check'. The evaluation found that the Birds and Habitats Directives are fit for purpose, but require better

implementation. This led the Commission adopted an *Action Plan for nature, people and the economy* (CEC, 2017, Brussels COM(2017) 198 final, available online at: [http://ec.europa.eu/environment/nature/legislation/fitness\\_check/action\\_plan/index\\_en](http://ec.europa.eu/environment/nature/legislation/fitness_check/action_plan/index_en) ). The Plan is designed to improve implementation up to 2020 and sets priority areas for action. However, as the Action Plan does not deal with the issue of funding, resulting improvements are likely to be marginal in most Member States (IEEP, 2018, ‘Policy outlook for the environment 2018: could momentum return?’, available online at: <https://ieep.eu/news/policy-outlook-for-the-environment-2018-could-momentum-return> ). Growing concern both within the Commission and across a variety of economic and environmental stakeholder groups about the decline in pollinators, and the expected launch of an EU pollinators’ initiative this year, could help improve prospects. The fact that response to the pollinator decline has seen some EU Member States set up their own pollinator strategies and action plans, and stepped up monitoring and research, is putting additional pressure on the EU for a unified and effective approach. A key indicator of the EU’s resolve on this issue has been the April 2018 decision to ban neonicotinoid pesticide.

A 2017 interim review of the seventh EAP by the European Parliament found a lack of policy coherence, with many sectoral policies not reflecting sufficiently (or are even in conflict with) environmental and climate objectives, as is the case of the oft quoted CAP. Such criticisms already beset the sixth EAP<sup>5</sup>. Implementing the relevant legislation on biodiversity, waste management, air quality and noise are particularly lagging (European Parliament Research Services, 2017, *7th Environment Action Programme Mid-term review: European Implementation Assessment* (European Parliament, PE 610.998, available online at:

[http://www.europarl.europa.eu/RegData/etudes/STUD/2017/610998/EPRS\\_STU\(2017\)610998\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2017/610998/EPRS_STU(2017)610998_EN.pdf)).

A wider overview of the implementation of EU environmental laws and policies, *The Environmental Implementation Review*, was published in 2017 (CEC, 2017d). The report similarity highlighted that waste prevention remains an important challenge in all member states, including those with high recycling rates. Decoupling of waste production from economic growth is still required. It also found that the overall status of protected species and habitats has not significantly improved (see also CEC, 2016, *Delivering the benefits of EU environmental policies through a regular Environmental Implementation Review*, Brussels, 27.5.2016 COM(2016) 316 final). Furthermore, while air quality in the EU has improved over the past few decades, currently 16 Member States are facing legal action for exceeding PM10 limit values, and 12 Member States for exceeding permitted levels of NO<sub>2</sub> and for lack of effective measures to address air pollution (CEC, 2017, *The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results*, (CEC, Brussels, {SWD(2017) 33 - 60 final}, available online at: [http://ec.europa.eu/environment/eir/pdf/full\\_report\\_en.pdf](http://ec.europa.eu/environment/eir/pdf/full_report_en.pdf); see also, CEC, 2017, *The EU Environmental Implementation Review: Common Challenges And How To Combine Efforts To Deliver Better Results Annex: Guidance To Member States: Suggested Actions On Better Environmental Implementation 28 Country Reports* , available online at: [http://ec.europa.eu/environment/eir/index\\_en.htm](http://ec.europa.eu/environment/eir/index_en.htm)[http://ec.europa.eu/environment/eir/index\\_en.htm](http://ec.europa.eu/environment/eir/index_en.htm)).

Efforts to deal with the implementation deficit include, as a first step, the Commission drafting 28 reports describing the main challenges and opportunities on

environmental implementation for each Member State (Brussels, 2017, *The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results*, COM(2017) 63 final {SWD(2017) 33 - 60 final}). It has also established a new peer-to-peer learning scheme between environmental authorities, the so-called TAIEX-EIRPEER2PEER programme (European Commission, 2018, 'Peer Learning for environmental authorities', available online at: [http://ec.europa.eu/environment/eir/p2p/index\\_en.htm](http://ec.europa.eu/environment/eir/p2p/index_en.htm)), a policy transfer and lesson learning approach that has been employed in the past, especially during preparations for Eastern Enlargement.

Several factors have been put forward to account for the implementation deficit, including insufficient administrative capacity, insufficient data, evidence and information, a lack of skills at the local level, inappropriate sanctions and low level of fines that do not constitute a deterrent. Other factors include absence of political will within Member States that sees insufficient integration of environmental concerns in various policies, programmes and projects. In addition, the continued belief in economic growth see environmental policy regularly confronting opposition within EU institutions, at times leading to delays in the adoption of specific implementation measures, and in some cases to a lowering of their level of ambition (IEEP, 2010). The consequences can be seen in the regularity with which assessments of EU environmental policy indicate the failure to bring about effective reductions in the stresses that sectoral policies place on the natural resource base and on the global ecological system.

Awareness of this issue within the Commission has prompted efforts once again at developing a strategic approach to implementation, as witnessed by the establishment of an Environmental Implementation Review. This is designed to provide an informed

and systematic picture of Member State implementation gaps; create opportunity for structured dialogue with each Member State on challenges in tackling the gaps; enable the Commission to provide tailored support; strengthen the compliance culture, while providing an informed basis for political debates and deliberations; identify and share best practices and common problems and make best use of the experience accumulated across the EU (CEC, 2016, *Delivering the benefits of EU environmental policies through a regular Environmental Implementation Review* (Brussels, 2016, COM(2016) 316 final).

In summary, the use of EAPs has allowed the EU to engage in forward planning and has enabled it to set up a process of periodic review, which has helped to highlight both its achievements and its failings, and to identify its future challenges. Over time, this has proved beneficial in several ways. It has given a strategic focus to legislative developments that has, in turn, helped to improve ambient quality, including European water quality, reduce air pollution, transform waste management, improve the safety of handling of chemicals and is beginning to address the pressures on the marine environment. Longer-term planning has also enabled the European Commission to keep environmental issues on the policy agenda, despite the fluctuations in its political salience. It has also served to push several reluctant EU member states towards taking greater care of their environment, including in relation to nature protection. However, the need not only for enhanced efforts to implement existing legislation, as so often stressed by the Commission, but also the need to take major and consequential steps to integrate environmental considerations into EU sectoral policy, particularly within agricultural and transport policy.

## **The Sustainable Development Strategy**

In addition to being guided by EAPs, environmental policy in the EU are framed by strategic initiatives, including the Resource Efficiency Roadmap, the 2020 Biodiversity Strategy, and the Low Carbon Economy Roadmap<sup>6</sup>. Policy, furthermore, is guided by *A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development* (EU SDS) (CEC, 2001b), which was renewed in June 2006 following the enlargement of the EU (CEC, 2005).

Since it was adopted at the European Council meeting held in Göteborg (Gothenburg), Sweden in 2001, the EU Sustainable Development Strategy (SDS) is sometimes called the Gothenburg Strategy. Its development followed from the 1992 Rio Earth Summit, when governments agreed to formulate national strategies, and the 1997 Rio+5 Summit, which set the objective for all countries to have their SDSs in place by the 2002 Johannesburg World Summit for Sustainable Development. In part, the SDS was designed to show how the Union is contributing to global efforts to promote sustainable development.

The renewed 2005 SDS focuses on seven principal challenges, in particular as they relate to climate change, contains detailed arrangements for implementation, monitoring and follow-up, and specifies what is expected, not only of other EU institutions, but also of member states. Specific quantitative targets and measures have been laid down, for example with respect to GHG emissions and energy efficiency. Policy integration has a central role in this Strategy. These targets and objectives are, to a large extent, based on international commitments at the time, for example, under the Kyoto Protocol, the Johannesburg World Summit on Sustainable Development and the Millennium Development Goals, or reflect internal policy developments, such as on biofuels (IEEP, 2010). In 2016, the EU presented its response to the UN 2030 Agenda (CEC, 2016e; see also CEC, 2016f).

Although at the declaratory level the Strategy reflects a relatively strong commitment to promoting fundamental changes in policy, implementation remains the challenge. Some of the environmental objectives include vaguely formulated ambitions, for example to decouple economic growth from environmental degradation. Limited attention has been given in the Strategy to conceptual clarification and to the necessary revision of the traditional hierarchy of policy objectives, which give precedent to economic growth over and above environmental considerations. This leads to a confusing variety of methods for integrating environmental concerns in sector policies across the Strategy as a whole (IEEP, 2010). This focus on growth is also reflected in the *2017 General Report on the Activities of the European Union*, where a Forward from Jean-Claude Juncke stresses how the EU is ‘now in the fifth year of an economic recovery that reaches every single Member State, with faster growth than the United States and Japan in 2016 and 2017. ... Our Investment Plan for Europe has already triggered over €256 billion of new investment, helping to create more than 300 000 jobs (EU, 2018, *The EU in 2017: General Report on the Activities of the European*, Luxembourg: Publications Office of the European Union, 2018, C(2018) 1280). Juncke had previously declared that ‘My first priority as Commission President will be to strengthen Europe’s competitiveness and to stimulate investment for the purpose of job creation’ (Jean-Claude Juncker, *Political Guidelines*, 15 July 2014, quoted in EU, 2018, *The EU in 2017: General Report on the Activities of the European* Luxembourg: Publications Office of the European Union, CEC, Brussels, C(2018) 1280).

The SDS also reflects new thinking on environmental issues, as seen, for example, in its recognition of the value of ecosystem services, placing more emphasis on promoting sustainable consumption and production patterns, and demanding that

environmental and health aspects be integrated in transport policy. The external dimension is also addressed in the renewed SDS. Attention should also be drawn to a European Commission communication published in 2014, entitled *A Decent Life for All: From Vision to Collective Action*, which addresses the UN SDGs developed under the auspices of the UN 2030 Agenda. This communication is strong in its recognition of the international dimension of the EU's engagement, and the importance of addressing the promotion of sustainable development at a global level (CEC, 2014e). However, it is unlikely that the contribution of the EU to the attainment of the SDGs will be achieved without substantial changes to the status quo, particularly in relation to high consumption, and without substantial additional financial contributions to developing countries.

In relation to its external engagement, and in response to the UN 2030 Agenda for Sustainable Development, the *Next Steps for a sustainable European future* was published in 2016. The aim is to support the integration of the UN SDGs into EU policy and priorities, while also engaging in what is referred to as 'reflection work', to develop a longer term vision, including for sectoral policies after 2020 (CEC, 2016, *Next steps for a sustainable European future: European action for sustainability*, COM(2016) 739 final, available online at:

[https://ec.europa.eu/europeaid/sites/devco/files/communication-next-steps-sustainable-europe-20161122\\_en.pdf](https://ec.europa.eu/europeaid/sites/devco/files/communication-next-steps-sustainable-europe-20161122_en.pdf)). The new Multiannual Financial Framework beyond 2020 will also reorient the EU budget towards the achievement of the EU's long-term sustainability objectives. The *Next Steps* also makes clear that use of the better regulation tools is key to ensuring the further mainstreaming of sustainable development in European policies. However, it is very difficult for the better regulation agenda to be used as an instrument for policy coherence when it was

designed as an instrument for efficiency (Renda, 2017). Existing indicators have also been strongly criticised, including for their failure to capture progress towards the principles and the transformative ambition of the Goals (SDG Watch, ‘Not fit for purpose - SDG monitoring report fails to illustrate how far the EU is from a sustainable future’, available online at: <https://www.eesc.europa.eu/en/agenda/our-events/events/measuring-eu-progress-meeting-sustainable-development-goals/presentations>). The new consensus on development, *Our World, Our Dignity, Our Future*, (European Union, 2017, *The New Consensus on Development, Our World, Our Dignity, Our Future*, available online at: [https://ec.europa.eu/europeaid/sites/devco/files/european-consensus-on-development-final-20170626\\_en.pdf](https://ec.europa.eu/europeaid/sites/devco/files/european-consensus-on-development-final-20170626_en.pdf)), also stresses the importance of implementation, particularly through a focus on integrated action.

The *Biodiversity Strategy* is another policy framework that plays a part in the Union’s global action, committing it to combat the biodiversity crises by minimising the EU’s global biodiversity footprint, that is, minimising impacts of EU’s internal policies and consumption patterns on biodiversity loss outside the EU, and by addressing biodiversity concerns as an integral part of the EU external environmental governance. In practice, the EU pursues these objectives through a framework of instruments including international dialogues and negotiations, trade restrictions and incentives, dedicated legislation, such as the EU regulations on illegal timber and wildlife trade, and capacity building (IEEP, 2018, *EU’s global biodiversity policy: increasing effectiveness for conservation and sustainability*, available online at: <https://ieep.eu/news/eu-s-global-biodiversity-policy-increasing-effectiveness-for-conservation-and-sustainability>). EU policy includes relatively strong objectives, alongside active involvement in international conventions. On the positive side,

evidence points to the success of the EU's ban on wildlife trade in contributing to limiting global trade of targeted species over the past decades (IEEP, *ibid*). However, there are several weaknesses: EU external biodiversity policy is *ad hoc* and fragmented, consisting of a range of different types of instruments and relying heavily on integration into other policy domains, such as trade and development cooperation, despite the fact that this integration is weak. Furthermore, emphasis on biodiversity-related actions in EU financing is still limited and monitoring is poor. The key monitoring framework, the assessment of progress in implementing the EU Biodiversity Strategy, is not comprehensive, and provides information primarily on the progress of the process without critical reflection on the nature of the processes involved, their effectiveness and whether they are fit for purpose. Monitoring progress in meeting objectives does not necessarily equate with EU's engagement in the promotion of sustainable development. For example, the official monitoring report, *Sustainable Development in the European Union, Monitoring Report on Progress towards the SDGs in an EU Context 2017*, (European Union, 2017, available online at:

<http://ec.europa.eu/budget/img/budget4results/SustainableDevelopmentInTheEU.pdf>.)

, found that, in the case of SDG 15, which focuses on terrestrial ecosystems, for example, the indicators chosen mostly show good progress, but this should not lead to the conclusion that ecosystems or biodiversity in the EU are in good health (see also CEC, 2016, *Key European action supporting the 2030 Agenda and the Sustainable Development Goals*, CEC, Brussels, SWD(2016) 390 final). Thus, while Eurostat has developed a set of Sustainable Development Indicators (SDIs)<sup>7</sup>, which show that the EU has taken the international lead in the fight against climate change and the promotion of a low-carbon economy, unsustainable trends persist in the EU in several

areas, including in relation to transport, consumption and natural resource use (CEC, 2009; EU, 2015).

Taken together, the EAPs and strategy documents represent the environmental policy framework of the EU and serve to put legal obligations and declaratory intent into practice. They frame the context within which actions, secondary legislation, specific programmes and funding are structured. It is clear from our review that new issues continue to arise on the EU's environmental policy agenda and that over time these have stretched concerns beyond the EU border, particularly given global environmental change, especially climate change. In recent years, the EU has played an ever-greater role in international environmental governance to address global environmental change. It is also clear, however, that domestic achievements continue to fall far short of the declaratory intent of policy, particularly when it comes to the integration of environmental considerations into sectoral policies.

### **Tensions at the Heart of the Integration Process**

Much has changed since the EU began its active engagement in the environmental policy arena, including enlargement, which resulted in the EU expanding to 28 members, and the entry into force of the Treaty of Lisbon, which changed the institutional architecture of the EU. Over time, despite an early and strong commitment to environmental policy, political priorities have veered more and more towards a prioritization of economic and social issues to the detriment of environmental considerations, a trend further exacerbated by the post-2008 financial and economic crises. The implementation deficit in EU environmental policy has to be seen as embedded within this wider political and economic context. The tensions between the EU's environmental and economic policy are evident in the EU's 10-year growth strategy, Europe 2020.

It is the Commission's view that current environmental policy, as reflected in the seventh EAP, for example, should contribute to the objectives of the Europe 2020 Strategy of obtaining high levels of employment, productivity and social cohesion for 2020. The aim of the 2020 Strategy, introduced in 2010, is to help Europe to overcome the ongoing economic and financial crisis through a 10-year programme of growth. Europe 2020 is closely related to the earlier, so-called Lisbon Strategy, the objective of which was to make the EU the most competitive and dynamic knowledge-based economy in the world. The 2020 Strategy builds on the aspirations of Lisbon by addressing the shortcomings of the Union's current growth model, replacing it with a new type of growth that is smart, sustainable and inclusive. It focuses on three themes: smart growth, which fosters knowledge, innovation, education and the digital society; sustainable growth, which involves making production more resource-efficient, while improving competitiveness; and inclusive growth that raises participation in the labour market, the acquisition of skills, and seeks to combat poverty.

The Europe 2020 Strategy has set five objectives to be reached by 2020 on employment, innovation, education, social inclusion and climate/energy. The Europe 2020 Strategy also includes seven 'flagship initiatives'<sup>8</sup>, including the roadmap to a resource-efficient Europe that supports the shift towards a resource-efficient, low-carbon economy to achieve sustainable growth.<sup>9</sup> (see CEC, 2016g; CEC, 2017e; CEC, 2016h). Progress is monitored through the so-called European Semester, an annual cycle that submits member states to analyses of their economic and structural reforms, with potential policy warnings and enforcement through incentives and/or sanctions (CEC, 2014f; see also CEC, 2017f).

However, the roadmap tends to prioritize only those environmental actions that help to promote growth and jobs, to the detriment of wider environmental

considerations. Community negotiations on growth and competitiveness now routinely include discussion on moving to a low-carbon economy and creating ‘green’ jobs, emphasizing the ‘win-win’ potential of addressing climate change, especially through energy initiatives. Security of supply is also a principal focus, particularly in the context of geopolitical concerns over Russian control of gas exports to the EU. Energy policy, both through promoting decarbonization and market liberalization, is seen as the key tool not only to support climate change objectives but also wider economic and social achievements (IEEP, 2010). Emphasizing the need for a so-called Energy Union, Juncker regards energy policy as fundamental to the construction of a resilient Union: ‘This is not only a matter of a responsible climate change policy. It is, at the same time, an industrial policy imperative if we still want to have affordable energy at our disposal in the medium term’ (European People’s Party, not dated).

Environmental protection is increasingly considered dependent on achieving a dynamic European economy, thus making it subservient to shorter-term economic goals. The emphasis on energy policy has been at the expense of both environmental policy and a wider understanding of the imperatives associated with climate change adaptation and mitigation. Restructuring of the Commission under the Juncker presidency, which saw the loss of a dedicated Climate Change portfolio, has led to criticism from the EEB that environmental actions have been marginalized (Energy Post, 2016). This approach runs counter to the basic tenets of sustainable development, which hold that long-term sustainability can be achieved only through policies that integrate environmental, economic and social considerations from the outset of policy developments.

Alongside the 2020 Strategy, EU policy is also guided by the so-called circular economy approach. Combined, these two frame the economic development

approach of the EU, shaping its objectives for the longer term. *Closing the Loop - an EU Action Plan for the Circular Economy* (COM/2015/0614 final) was adopted by the EU in 2015. The Action Plan was reviewed in January 2017 (CEC, 2017a). A circular economy is based on ‘cascading use’, that is, re-use and recycling of resources (including waste), where materials that can be reused and recycled are injected back into consumption cycle as new (raw) materials. This converts what is waste for some economic actors into secondary raw materials for others. The circular economy initiative is closely linked to other key EU policies on the bioeconomy, industrial growth, energy and climate. The Strategy on the use and disposal of plastics, alongside new legislation on packaging waste, e-waste and landfill, and reforms to the Directive on waste management are all designed to support the circular economy initiative (CEC, 2018, *Implementation of the Circular Economy Action Plan: 2018 Circular Economy Package*, 23/07/2018, available online at: [http://ec.europa.eu/environment/circular-economy/index\\_en.htm](http://ec.europa.eu/environment/circular-economy/index_en.htm)). It is also designed to support the EU’s international commitments on sustainable development, as outlined in the *Next Steps*, discussed above, and in particular to help reach SDG12, on responsible consumption and production.

The development of the bioeconomy is a crucial element of the circular economy. The term bioeconomy refers to an economy that relies on renewable natural resources, rather than on fossil fuels, to produce energy, products and services, adopting an integrated view on food, energy and industrial production. It is seen as playing a crucial role in the transition to a post-carbon future and in supporting climate change policy. The EU also sees the bioeconomy as holding great potential to both modernise traditional economic sectors and to generate economic growth through enabling new technologies, such as biotechnology and nanotechnology (CEC,

2017, *Bioeconomy Development in EU Regions: Mapping of EU Member States' regions' Research and Innovation Plans & Strategies for Smart Specialisation (RIS3) on Bioeconomy*, available online at:

[https://ec.europa.eu/research/bioeconomy/pdf/publications/bioeconomy\\_development\\_in\\_eu\\_regions.pdf](https://ec.europa.eu/research/bioeconomy/pdf/publications/bioeconomy_development_in_eu_regions.pdf)).

In 2012, the *Innovation for Sustainable Growth: A Bioeconomy Strategy for Europe*, was launched (CEC, 2012, COM(2012) 60 final, available online at: <https://publications.europa.eu/en/publication-detail/-/publication/1f0d8515-8dc0-4435-ba53-9570e47dbd51>). The Bioeconomy Strategy aims to reduce dependence on fossil resources and ensuring food security, while at the same time 'open new and diverse markets, for example in food and biobased products. This in turn will boost economic growth and create jobs in established and new industrial sectors and applications' (Ibid, p. 2).

However, a review of the Strategy points to inconsistencies in definitions and use of terminology, including in the detailed Action Plan, and also stressed the need to state the objectives of the Strategy more clearly (CEC, 2017, *Commission Staff Working Document on the review of the 2012 European Bioeconomy Strategy* SWD(2017)374). The need to streamline the Action Plan to include fewer, focused actions has also been stressed (EU, 2017, *Review of the 2012 European Bioeconomy Strategy*, Luxemburg, Publications Office of the European Union, available online at: [https://ec.europa.eu/research/bioeconomy/pdf/review\\_of\\_2012\\_eu\\_bes.pdf](https://ec.europa.eu/research/bioeconomy/pdf/review_of_2012_eu_bes.pdf)). The relationship between the Bioeconomy Strategy and the circularity principles as applied to the biological components of the circular economy also need to be clarified, as does the integration of this into innovation and research funding, the CAP, forest policy and climate action policies.

Various forms of economic activity sit under the bioeconomy label, ranging from low-carbon, green growth, sustainable agriculture, innovative food production, green chemistry, eco-innovation, and blue growth (see CEC, 2017, *Study on the establishment of a framework for processing and analysing of maritime economic data in Europe*, available online at: <https://publications.europa.eu/en/publication-detail/-/publication/9c132514-982d-11e7-b92d-01aa75ed71a1>). An ‘agro-food’ focus is the most prominent approach to bioeconomy, although a forest-based bioeconomy is also developing, for in addition to raw materials, forests also provide a wide range of vital ecosystem services. The forest plays an essential role in climate change mitigation, safeguarding biodiversity, providing fresh-water, non-wood forest products and recreational environments. However, there are risks including competing uses of biomass (e.g. food-fuel), land use change and loss of habitat, which can in turn lead to a loss of traditional livelihoods, such as in Sami reindeer herding, as well as the risk that the growth of the bioeconomy will lead to increases in carbon emissions.

As part of its policy to increase growth through the development of the bioeconomy, in 2012, the EC Communication on Blue Growth (EC 2012c) highlighted the role of the seas and the coasts as drivers of economic growth, including through aquaculture and blue biotechnology. The blue economy consists of established activity, such as port services, shipbuilding, fishing, off shore oil and gas, coastal tourism, alongside emerging sectors, such as renewable energy, biotechnology and carbon capture and storage. The Communication was followed by the publication of *The EU Blue Growth Strategy* (European Commission 2014b), which emphasises the importance of marine bio-based products as alternative sources of carbon and energy, with specific reference to the role of renewable resources such as micro-algae. In 2014, the EC *Communication on Blue Innovation* (EC 2014b) was mindful of the

hurdles involved in developing the blue economy, including from under-investment, lack of technical knowledge and fragmentation of efforts. The European Structural and Investment Funds (ESIF) are an important funding source for bioeconomy related activities, but funding is also available through a variety of other EU programmes such as Interreg (ERDF), LIFE (and LIFE+), Intelligent Energy Europe, CIP (in 2007-2013, now in 2014-2020 COSME), ERASMUS+ and H2020.

In January 2018, the European Commission published the much anticipated EU response to the problem of plastic pollution, *A European Strategy for Plastics in a Circular Economy*, (COM/2018/028 final, available online at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN>). The Strategy is designed to be technology forcing, making recycling profitable for business by setting new rules on packaging to improve the recyclability of plastics and increase the demand for recycled plastic content. It specifically proposes that all plastic packaging on the EU market will be recyclable by 2030, the consumption of single-use plastics will be reduced and the use of microplastics will be restricted. This policy is linked to the circular economy principle, including ensuring markets for recycled materials and reducing the economy's dependence on virgin resources. However, the nature of most of the future actions included in the Strategy is yet to be defined (IEEP, 2018, '3 key conclusions from EU Plastics Strategy and new initiatives for the circular economy', available online at: <https://ieep.eu/news/3-key-conclusions-from-eu-plastics-strategy-and-new-initiatives-for-the-circular-economy>). In May 2018, the Commission also set out a Proposal for a single-use plastics directive (CEC, 2018, *Proposal for a Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment*, Brussels, COM(2018) 340 final, 2018/0172).

In 2017, the Commission approved an investment package of €222 million to support Europe's transition to more sustainable and low-carbon future under the LIFE programme for the Environment and Climate Action. Project funding is designed to help Member States in their transition to a more circular economy, although funding will also be available to support the implementation of the Action Plan for Nature, in particular, the management of Nature 2000 sites, as mentioned (CEC, 2017, 'Member States to benefit from over €222 million investments for environment, nature and climate action', Brussels, Press Release, 28 September, available online at: [http://europa.eu/rapid/press-release\\_IP-17-3429\\_en.htm](http://europa.eu/rapid/press-release_IP-17-3429_en.htm)).

The strong links between the development of the blue economy and strategies for economic development and competitiveness are also evident in the 2018 statement of the Commission: 'Growth in the emerging sectors is expected to gain momentum as economic activity in the euro area experiences solid and lasting expansion, securing the foundations for higher potential output and more resilient and inclusive growth (CEC, 2018, *Annual Economic Report on the EU Blue Economy*, available online at: PDF/Volume\_01 KL-AR-18-001-EN-N 978-92-79-81757-1 2599-6584 10.2771/305342, P. 71). Thus, this policy also inherits the same contradictions that have plagued the EU's environmental policies. How the promotion of sustainable development can be realised through a Blue Economy that see the exploitation of marine living resources, for food, marine biotechnologies and marine-related health products and the enhanced use of ocean bioresources in markets for industrial enzymes, functional foods, cosmeceuticals, while protecting the oceans remains in doubt.

The impact of austerity on EU environmental policy has also to be taken into account. The global financial crisis of 2008-09 and new austerity measures introduced

following the EU debt crisis in 2011 led some member states to impose severe restrictions on public expenditure, not only on environment-related policy. It has also been used as an opportunity to transfer the responsibility for managing environmental issues to the private sector (EPSU, 2012).

The influence on EU environmental policy of a British exit from the EU, supported by the results of a referendum held in the United Kingdom in June 2016, and commonly referred to as ‘Brexit’, remains more uncertain. On the one hand, the British Government can be seen as having had a negative impact on the formulation of EU environmental policy, and thus Brexit could result in an environmentally stronger Union. The UK, for example, which is in favour of the release of genetically modified organisms, has tried to prevent the adoption of stronger pesticide regulations. More recently the UK has called for weaker habitats protection, sought to block strict rules limiting the imports of tar sands at the EU level, tried to dilute the terms of the EU energy efficiency directive, successfully blocked the adoption of binding national renewable energy targets for 2030, and threatened to block an EU pesticide ban protecting bees (Burns, 2015). On the other hand, the need to address obligations incurred under the UNFCCC continues to bring out tensions between those member states that are keen to address climate change, and those for whom it is less of a policy priority; and between member states that wish climate change to be dealt with under the principle of subsidiarity and those that wish the EU to play a greater role, including in international negotiations. The UK has provided strong leadership on climate change issues, including at the international level, and Brexit may see a weakening of EU international environmental leadership in this area (Oberthür, 2015). However, the UK has been less keen to introduce binding targets, particularly at the sectoral level, including within the energy sector, instead favouring market-based approaches, such as

the ETS. Without the strong neoliberal push from the UK, a push that is not necessarily favourable for the advancement of EU environmental policy, an EU without the UK could be more willing to accept regulatory measures (Dupont et al, 2016).

While the UK Government has confirmed that it intends to continue EU environmental rights on a UK legal basis and it intends to uphold its obligations under international environmental treaties, a number of concerns have been raised in relation to the rollover of EU environmental law. These include the possible weakening of environmental standards and weaker enforcement, including for air quality; lower levels of scrutiny and consultation; and worry about lower levels of funding and resources for environment programmes and policy development in the post-Brexit UK.

The registration, evaluation, authorisation and restriction of chemicals Regulation (No 1907/2006) (known as REACH) that came into force in June 2006, provides an example. REACH aims to improve the protection of human health and the environment from the risks posed by chemicals. In its *Report on the Future of Chemicals Regulation after the EU Referendum*, the UK House of Commons Environmental Audit Committee found that the chemicals regulation framework established through REACH ‘would be difficult to transpose directly into UK law’. One of the reasons for this was that much of REACH relates to ‘Member State co-operation and mutual obligations, oversight and controls, and freedom of movement of products’ (UK Environmental Audit Committee, 2017, *Future of Chemicals Regulation after the EU Referendum*, HC 912, 2016-17, para 5). Additionally, many industry stakeholders do not want the cost and burden of having to comply with two regulatory systems, and the cost of setting up a new regulatory system in the UK separate to REACH would be significant financially as well as from the perspective of

administrative burdens and knowledge capacity (House of Commons, Briefing Paper, 2018, *Brexit and the Environment*, Sara Priestley and Louse Smith, Number CBP8132, January).

In 2018, Erik Solheim, executive director of the UN's environment programme, also raised concerns that post-Brexit could see a weaker system for enforcing environmental safeguards, including in relation to climate change. These concerns come at a time when the UK and five other nations were referred to the European Court of Justice for failing to tackle illegal levels of air pollution. The ECJ has the power to impose large fines. Under current proposals, however, Britain's proposed new environmental watchdog would have only the power to publish advisory notices (The Guardian, 'Brexit could wreck green agenda', says UN, 19 May, available online at:

<https://www.theguardian.com/environment/2018/may/19/un-warns-britain-over-green-brexit>).

There is also a lack of vision at the EU level. The 2017 *White Paper on the Future of Europe* sets out different scenarios for the future of the EU in an effort to open up wide ranging debate about how Europe should evolve in the post-Brexit years (CEC, 2017, *White Paper on the Future of Europe Reflections and Scenarios for the EU27 by 2025*, COM(2017)2025, available online at:

[https://ec.europa.eu/commission/sites/beta-political/files/white\\_paper\\_on\\_the\\_future\\_of\\_europe\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/white_paper_on_the_future_of_europe_en.pdf); see also CEEP for a detailed analysis, <https://www.ceep.eu/opinion-on-the-european-commission-white-paper-on-the-future-of-europe/?cn-reloaded=1>). The White Paper has been heavily criticised by the European Green Party for its lack of ambition, especially in the face of key global environmental challenges, and for lack of vision as to how to make the

EU act in the interests of its citizens (European Greens, 2017, *Jean-Claude Juncker's white paper on the future of Europe: five scenarios not to make a choice*, available online at: <https://europeangreens.eu/news/jean-claude-juncker%E2%80%99s-white-paper-future-europe-five-scenarios-not-make-choice>).

### **Conclusion**

Environmental policy is a well-developed field in the EU, backed by treaty obligations, a comprehensive range of legislation, strategy documents and action programmes. However, while it would appear that the EU is making a certain amount of progress, this is not enough to reduce pressure on the environment and even less so to promote sustainable development. It is also clear that the environmental policy of the EU cannot be wholly separated from other influences, such as the state of the European economy and shifting political mandates. These result in tensions at the heart of the European integration process, between the stimulation of growth-orientated economic policy and environmental protection measures. In this context, environmental policy integration remains a daunting challenge, especially given the current marginalization of environmental and sustainable development considerations. The current period, which sees the EU struggle to envisage its future direction, yet continue to prioritize economic growth and the imposition of harsh austerity measures, risks the loss of the environmental leadership role that the EU has developed over the past several decades. Without accelerated efforts and commitment, pressure on the environment will continue to exceed the limited carrying capacity of the environment, including at the global level.

### **Notes**

<sup>1</sup> See Boden, T. A., Marland, G., and Andres, R. J. (2015). *National CO2 Emissions from Fossil-Fuel Burning, Cement Manufacture, and Gas Flaring: 1751–2011*, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, US Department of Energy, doi 10.3334/CDIAC/00001\_V2015; CEC, *Report from the Commission to the European Parliament and the Council: Progress Towards Achieving the Kyoto and EU 2020 Objectives* (Brussels, 28.10.2014, COM(2014) 689 final available at [ec.europa.eu/transparency/regdoc/rep/1/2014/EN/1-2014-689-EN-F1-1.pdf](http://ec.europa.eu/transparency/regdoc/rep/1/2014/EN/1-2014-689-EN-F1-1.pdf).2014; *Annex to the Report from the Commission to the European Parliament and the Council: Progress Towards Achieving the Kyoto and EU 2020 Objectives*, available at [ec.europa.eu/transparency/regdoc/rep/1/2014/EN/1-2014-689-EN-F1-1-ANNEX-1.pdf](http://ec.europa.eu/transparency/regdoc/rep/1/2014/EN/1-2014-689-EN-F1-1-ANNEX-1.pdf).2014; Eurostat, *Waste Statistics*, available at [ec.europa.eu/eurostat/statistics-explained/index.php/Waste\\_statistics#Further\\_Eurostat\\_information](http://ec.europa.eu/eurostat/statistics-explained/index.php/Waste_statistics#Further_Eurostat_information); European Environment Agency, *Waste Generation*, 30 November 2017, available online at: <https://www.eea.europa.eu/airs/2017/resource-efficiency-and-low-carbon-economy/waste-generation>.

<sup>2</sup> See [eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTM](http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTM).

<sup>3</sup> EU directives lay down certain end results that must be achieved in every member state. National authorities have to adapt their laws to meet these goals, but are free to decide how to do so. Each directive specifies the date by which the national laws must be adapted, giving national authorities the room for manoeuvre within the deadlines necessary to take account of differing national situations ([ec.europa.eu/eu\\_law/directives/directives\\_en.htm](http://ec.europa.eu/eu_law/directives/directives_en.htm)).

<sup>4</sup> See [ec.europa.eu/environment/newprg](http://ec.europa.eu/environment/newprg).

<sup>5</sup> See [www.eeb.org/index.cfm/news-events/news/eeb-welcomes-respect-for-planetary-limits-in-7th-eap-proposal-but-misses-concrete-targets](http://www.eeb.org/index.cfm/news-events/news/eeb-welcomes-respect-for-planetary-limits-in-7th-eap-proposal-but-misses-concrete-targets).

<sup>6</sup> See [ec.europa.eu/environment/newprg/index.htm](http://ec.europa.eu/environment/newprg/index.htm).

<sup>7</sup> See [www.ieep.eu/assets/443/sdi\\_review.pdf](http://www.ieep.eu/assets/443/sdi_review.pdf).

<sup>8</sup> See [ec.europa.eu/europe2020/europe-2020-in-a-nutshell](http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell).

<sup>9</sup> See [ec.europa.eu/resource-efficient-europe](http://ec.europa.eu/resource-efficient-europe).

### Select Bibliography

Baker, S. ‘The European Union: Integration, Competition, Growth—and Sustainability’, in W. M. Lafferty and J. Meadowcroft (Eds), *Implementing Sustainable Development: Strategies and Initiatives in High Consumption Societies*, pp. 303–336. Oxford, Oxford University Press, 2000.

Baker, S. 'Sustainable Development as Symbolic Commitment: Declaratory Politics and the Seductive Appeal of Ecological Modernisation in the European Union', *Environmental Politics*, March 2007.

Baker, S. 'Environmental Governance: Influence of the European Union beyond its Borders', in Gladman, I. (Ed.) *Central and South-Eastern Europe 2013*, 13th edn, Abingdon, Routledge, 2012.

Baker, S., and McCormick, J. 'Sustainable Development: Comparative Understandings and Responses', in Vig, N. J., and Faure, M. C. (Eds). *Green Giants? Environmental Policy of the United States and the European Union*. Cambridge, MA, MIT Press, 2004.

Burns, C. *The EU Referendum and the Environment*. London, Friends of the Earth, 2015, available at: [www.foe.co.uk/sites/default/files/downloads/eu\\_referendum\\_environment.pdf](http://www.foe.co.uk/sites/default/files/downloads/eu_referendum_environment.pdf).

CEC. 'First Programme of Action on the Environment', *Official Journal of the European Communities*, Vol. 16, No. C 112, 20 Dec. 1973.

CEC. 'Second Environmental Action Programme, 1977–1981', *Official Journal of the European Communities*, No. C 139, 13 June 1977.

CEC. 'Third Environmental Action Programme', *Official Journal of the European Communities*, No. C 46, 17 Feb. 1983.

CEC. *Towards Sustainability: A European Community Programme of Policy and Action in Relation to the Environment (1992–2000)*, COM(92) 23 final. Brussels, Commission of the European Communities, 1992.

CEC. *Environment 2010: Our Future, Our Choice*, COM(2001) 31 final. Brussels, Commission of the European Communities, 2001a.

CEC. *A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development*, COM(2001) 264 final. Brussels, Commission of the European Communities, 2001b.

CEC. *Review of the Sustainable Development Strategy—A Platform for Action*, COM(2005) 658 final. Brussels, Commission of the European Communities, 2005.

CEC. *Mainstreaming Sustainable Development into EU Policies: 2009 Review of the European Union Strategy for Sustainable Development*, COM(2009) 400 final. Brussels, Commission of the European Communities, 2009.

CEC. *EUROPE 2020 A Strategy for Smart, Sustainable and Inclusive Growth*, COM(2011) 0531 final. Brussels, Commission of the European Communities, 2011.

CEC. 'The Sixth Community Environment Action Programme: Final Assessment', COM(2011) 531 final. Brussels, Commission of the European Communities, 2011.

CEC. *A Blueprint to Safeguard Europe's Water Resources*, COM(2012) 673, final. Brussels, Commission of the European Communities, 2012.

CEC. *Review of Waste Policy and Legislation: Roadmap*, available at: [ec.europa.eu/smart-regulation/impact/planned\\_ia/docs/2014\\_env\\_005\\_waste\\_review\\_en.pdf](http://ec.europa.eu/smart-regulation/impact/planned_ia/docs/2014_env_005_waste_review_en.pdf). Brussels, Commission of the European Communities, 2013.

CEC. *River Basin Management Plans 2009–2015: Information on Availability by Country*, available at: [ec.europa.eu/environment/water/participation/map\\_mc/map.htm](http://ec.europa.eu/environment/water/participation/map_mc/map.htm). Brussels, Commission of the European Communities, 2014a.

CEC. *A Water Blueprint: Taking Stock, Moving Forward*, available at: [ec.europa.eu/environment/water/blueprint/index\\_en.htm](http://ec.europa.eu/environment/water/blueprint/index_en.htm). Brussels, Commission of the European Communities, 2014b.

CEC. *Proposal for a Directive of the European Parliament and of the Council amending Directives 2008/98/EC on Waste, 94/62/EC on Packaging and Packaging Waste, 1999/31/EC on the landfill of waste, 2000/53/EC on end-of-life vehicles,*

2006/66/EC on Batteries and Accumulators and Waste Batteries and Accumulators, and 2012/19/EU on Waste Electrical and Electronic Equipment, COM(2014) 0397, final, available at: [eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52014PC0397](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52014PC0397). Brussels, Commission of the European Communities, 2014c.

CEC. *2030 Framework for Climate and Energy Policies*. Brussels, Commission of the European Communities, 2014d.

CEC. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Decent Life for All: From Vision to Collective Action*, COM/2014/0335 final, available at: [eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52014DC0335](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52014DC0335). Brussels, Commission of the European Communities, 2014e.

CEC. *Making It Happen: The European Semester*, available at: [ec.europa.eu/europe2020/making-it-happen/index\\_en.htm](http://ec.europa.eu/europe2020/making-it-happen/index_en.htm). Brussels, Commission of the European Communities, 2014f.

CEC. *The Fourth Implementation Report—Assessment of the Water Framework Directive Programmes of Measures and the Flood Directive*, available at: [ec.europa.eu/environment/water/water-framework/impl\\_reports.htm#fourth](http://ec.europa.eu/environment/water/water-framework/impl_reports.htm#fourth). Brussels, Commission of the European Communities, 2015a.

CEC. *Review of the Environmental Impact Assessment (EIA) Directive*, available at: [ec.europa.eu/environment/eia/review.htm](http://ec.europa.eu/environment/eia/review.htm). Brussels, Commission of the European Communities, 2015b.

CEC. *Mid-term Review of the EU Biodiversity Strategy to 2020* COM(2015) 0478 final. Brussels, Commission of the European Communities, 2015c.

CEC. Annex to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Commission Work Programme 2016: No Time for Business as Usual*. Brussels, Commission of the European Communities, COM(2015) 610 final, available at: [ec.europa.eu/atwork/pdf/cwp\\_2016\\_annex\\_i\\_en.pdf](http://ec.europa.eu/atwork/pdf/cwp_2016_annex_i_en.pdf) ANNEX 1, 2015d.

CEC. *Implementing the Paris Agreement: Progress of the EU towards the at Least 40% Target*. Brussels, ECE, 2016a, available at: [https://ec.europa.eu/clima/sites/clima/files/eu\\_progress\\_report\\_2016\\_en.pdf](https://ec.europa.eu/clima/sites/clima/files/eu_progress_report_2016_en.pdf), 2016a.

CEC. *Report from the Commission to the European Parliament and the Council on Evaluating the Implementation of Decision No. 406/2009/EC pursuant to its Article 14*. Brussels, Commission of the European Communities, COM(2016) 0483 final, 2016b.

CEC. *The Common Agricultural Policy after 2013*. Brussels, Commission of the European Communities, available at: [ec.europa.eu/agriculture/cap-post-2013](http://ec.europa.eu/agriculture/cap-post-2013), 2016c.

---

CEC. *Addressing Soil Quality Issues in the EU*, available at: [ec.europa.eu/environment/soil/process\\_en.htm](http://ec.europa.eu/environment/soil/process_en.htm), 2016d.

CEC. *Sustainable Development: EU Sets out its Priorities*. Brussels, Commission of the European Communities, Press Release, Strasbourg, 22 Nov. 2016, available at: [europa.eu/rapid/press-release\\_IP-16-3883\\_en.htm](http://europa.eu/rapid/press-release_IP-16-3883_en.htm), 2016e.

CEC. *Key European action supporting the 2030 Agenda and the Sustainable Development Goals 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. Next Steps for a Sustainable*

*European Future: European Union Action for Sustainability*. Brussels, Commission of the European Communities, COM(2016) 739 final, available at: [https://ec.europa.eu/europeaid/sites/devco/files/swd-key-european-actions-2030-agenda-sdgs-390-20161122\\_en.pdf](https://ec.europa.eu/europeaid/sites/devco/files/swd-key-european-actions-2030-agenda-sdgs-390-20161122_en.pdf), 2016f.

CEC. *Proposal for a Directive of the European Parliament and of the Council on the Promotion of the Use of Energy from Renewable Sources (Recast)*. Brussels, Commission of the European Communities, COM(2016) 0767 final/2 (2016) 0382 (COD), available at: [eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016PC0767R%2801%29.0](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016PC0767R%2801%29.0), 2016g.

CEC. *Proposal for a Directive of the European Parliament and of the Council amending Directive 2012/27/EU on Energy Efficiency*. Brussels, Commission of the European Communities, 2016, COM(2016) 761 final, available at: [ec.europa.eu/energy/sites/ener/files/documents/1\\_en\\_act\\_part1\\_v16.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/1_en_act_part1_v16.pdf), 2016h.

CEC. Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *On the Implementation of the Circular Economy Action Plan*. Brussels, Commission of the European Communities, COM(2017) 33 final, available at: [ec.europa.eu/environment/circular-economy/implementation\\_report.pdf](http://ec.europa.eu/environment/circular-economy/implementation_report.pdf), 2017a.

CEC. *Paris Agreement*, available at: [https://ec.europa.eu/clima/policies/international/negotiations/paris\\_en](https://ec.europa.eu/clima/policies/international/negotiations/paris_en), 2017b.

CEC. *Consultation on Modernisation and Simplifying the Common Agricultural Policy (CAP)*, available at: [https://ec.europa.eu/agriculture/consultations/cap-modernising/2017\\_en](https://ec.europa.eu/agriculture/consultations/cap-modernising/2017_en), 2017c.

CEC. *The Environmental Implementation Review (EIR)*, available at: [ec.europa.eu/environment/eir/index\\_en.htm](http://ec.europa.eu/environment/eir/index_en.htm), 2017d.

CEC. Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Renewable Energy Progress Report*. Brussels: Commission of the European Communities, COM(2017) 57 final, available at: [eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0057&qid=1488449105433&from=E](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0057&qid=1488449105433&from=E), 2017e.

CEC. *Eurostat: Headline Indicators Score Board*, available at: [ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/headline-indicators-scoreboard](http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/headline-indicators-scoreboard), 2017f.

CEE Bankwatch Network. ‘Lost in Transportation’, available at: [bankwatch.org/documents/lost\\_in\\_transport.pdf](http://bankwatch.org/documents/lost_in_transport.pdf). Prague, CEE Bankwatch Network, March 2007.

Crisp, J. ‘Waste Laws will be Binned, Despite Protests’, *Euroactiv*, 23 Jan. 2015, available at: [www.euroactiv.com/section/sustainable-dev/news/waste-laws-will-be-binned-despite-protests](http://www.euroactiv.com/section/sustainable-dev/news/waste-laws-will-be-binned-despite-protests).

Dupont, C., Groen, L., and Oberthür, S. 2016 ‘The UK in EU Environmental Policy: Common Responses to Common Problems’, in Dupont, C. and Trauner, F. (Eds), IES, April 2016, available at: [www.ies.be/files/Brexit%20Project.pdf](http://www.ies.be/files/Brexit%20Project.pdf).

EAP. ‘Living Well, within the Limits of Our Planet’, *Official Journal* L354, pp. 171–200. Brussels, EAP, 28 Dec. 2013.

EEA. *Environment in the European Union 1995—Report for the Review of the Fifth Environmental Action Programme*, State of the environment report No 1/1995, available at: [www.eea.europa.eu/publications/92-827-5263-1](http://www.eea.europa.eu/publications/92-827-5263-1). Copenhagen, EEA, 1995.

EEA. *Trends and Projections in Europe 2015—Tracking Progress towards Europe’s Climate and Energy Targets*, EEA Report No 4/2015. Copenhagen, EEA, 2015a, available at: [www.eea.europa.eu/publications/trends-and-projections-in-europe-2015](http://www.eea.europa.eu/publications/trends-and-projections-in-europe-2015).

EEA. *Results from Reporting under the Nature Directives 2007–2012*, Technical Report No 2/2015, 2015b.

EEA. *Marine Protected Areas in Europe’s Seas—An Overview and Perspectives for the Future*, EEA Report No 3/2015, 2015c, available at: [www.eea.europa.eu/publications/marine-protected-areas-in-europes](http://www.eea.europa.eu/publications/marine-protected-areas-in-europes).

EEA. *Environmental Indicator Report 2016, In Support to the Monitoring of the 7th Environmental Action Programme*, EEA Report No 30/2016. Copenhagen, EEA, available at: <https://www.eea.europa.eu/publications/environmental-indicator-report-2016>.

EEB. *Future of EU Environmental Policy: Towards the 7th Environmental Action Programme*, available at: [www.eeb.org/index.cfm/activities/sustainability/7th-environmental-action-programme](http://www.eeb.org/index.cfm/activities/sustainability/7th-environmental-action-programme). Brussels, EEB, 2013.

Ecologic. *Updated Inventory and Assessment of Soil Protection Policy Instruments in EU Member States*. Final Report. Berlin, Ecologic Institute, 2017, available at: [ec.europa.eu/environment/soil/pdf/Soil\\_inventory\\_report.pdf](http://ec.europa.eu/environment/soil/pdf/Soil_inventory_report.pdf).

Endl, A., and Berger, G. *The 7th Environment Action Programme: Reflections on Sustainable Development and Environmental Policy Integration*, ESDN Quarterly Report 32, March 2014, available at: [www.sd-network.eu/quarterly%20reports/report%20files/pdf/2014-March-The\\_7th\\_Environment\\_Action\\_Programme.pdf](http://www.sd-network.eu/quarterly%20reports/report%20files/pdf/2014-March-The_7th_Environment_Action_Programme.pdf). Vienna, ESDN, 2014.

Energy Post 2016 ‘Team Juncker: EU unveils new Energy Commissioner(s)’, available at: [www.energypost.eu/team-juncker-eu-unveils-new-energy-commissioners](http://www.energypost.eu/team-juncker-eu-unveils-new-energy-commissioners).

EPSU. *Environmental Protection Agencies Study: Syndex Report for the European Federation of Public Service Unions*. Brussels, SPSU Secretariat, 2012.

EU. *Sustainable Development in the European Union: 2015 Monitoring Report of the EU Sustainable Development Strategy*, Brussels, European Union, available at: [ec.europa.eu/eurostat/documents/3217494/6975281/KS-GT-15-001-EN-N.pdf/5a20c781-e6e4-4695-b33d-9f502a30383f](http://ec.europa.eu/eurostat/documents/3217494/6975281/KS-GT-15-001-EN-N.pdf/5a20c781-e6e4-4695-b33d-9f502a30383f).

European Parliament, *European Parliament Resolution of 2 February 2016 on the Mid-Term Review of the EU’s Biodiversity Strategy (2015/2137(INI))*, available at: [www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P8-TA-2016-0034&format=XML&language=EN](http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P8-TA-2016-0034&format=XML&language=EN).

European People’s Party, ‘My Priorities’, (J.-C. Juncker, European People’s Party), available at: [juncker.epp.eu/my-priorities](http://juncker.epp.eu/my-priorities) (not dated).

European Union Communication and Information Resource Centre for Administrations, Businesses and Citizens. *Support Policy Development for Integration of Ecosystem Service Assessments into WFD and FD Implementation*, available at: [circabc.europa.eu/sd/a/95c93149-0093-473c-bc27-1a69cf404/Ecosystem%20service\\_WFD\\_FD\\_Main%20Report\\_Final.pdf](http://circabc.europa.eu/sd/a/95c93149-0093-473c-bc27-1a69cf404/Ecosystem%20service_WFD_FD_Main%20Report_Final.pdf). Brussels, 2014.

European Union Delegation to the United Nations. *EU Statement: United Nations Open Working Group on Sustainable Development Goals*, EUUN14–089EN, 20 June, available at [www.eu-un.europa.eu/articles/en/article\\_15185\\_en.htm](http://www.eu-un.europa.eu/articles/en/article_15185_en.htm). New York, 2014.

Gravey, V. ‘Reforming EU Policy’, in Burns, C., Jordan, A., Gravey, V., Berny, N., Bulmer, S., Carter, N., Cowell, R., Dutton, J., Moore, B., Oberthür, S., Owens, S., Rayner, T., Scott, J., and Stewart, B. (2016) *The EU Referendum and the UK Environment: An Expert Review. How has EU membership affected the UK and what*

*might change in the event of a vote to Remain or Leave?*, pp. 125–134, available at: [environmentEUref.blogspot.co.uk/](http://environmentEUref.blogspot.co.uk/).

Institute for European Environmental Policy (IEEP). *Strategic Orientations of EU Environmental Policy under the Sixth Environment Action Programme and Implications for the Future*, Final Report', available at:

[www.ieep.eu/assets/556/Strategic\\_Orientations\\_of\\_6EAP-Revised\\_report-May\\_2010.pdf](http://www.ieep.eu/assets/556/Strategic_Orientations_of_6EAP-Revised_report-May_2010.pdf). Brussels, IEEP, May 2010.

IEEP. *The Potential Policy and Environmental Consequences for the UK of a Departure from the European Union*. London, IEEP, 2016.

Juncker, J.-C., President of the European Commission, *Mission Letter to Karmenu Vella, Commissioner for Environment, Maritime Affairs and Fisheries*, 1 Nov. 2014, available at:

[efaep.org/sites/enep/files/President%20Juncker%27s%20Mission%20Letter%20to%20Karmenu%20Vella.pdf](http://efaep.org/sites/enep/files/President%20Juncker%27s%20Mission%20Letter%20to%20Karmenu%20Vella.pdf).

Muûls, M., Colmer, J., Martin, R., and Wagner, U. J. *Evaluating the EU Emissions Trading System: Take it or Leave it? An Assessment of the Data after Ten Years*.

Imperial College London, Grantham Institute Briefing Paper No 21, Oct. 2016, available at: [https://www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/Evaluating-the-EU-emissions-trading-system\\_Grantham-BP-21\\_web.pdf](https://www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/Evaluating-the-EU-emissions-trading-system_Grantham-BP-21_web.pdf).

Neslen, A. 'EU climate laws undermined by Polish and Czech revolt, documents reveal', *Climate Home*, 29 May 2017, available at:

[www.climatechangenews.com/2017/05/29/eu-climate-targets-undermined-polish-czech-revolt-documents-reveal](http://www.climatechangenews.com/2017/05/29/eu-climate-targets-undermined-polish-czech-revolt-documents-reveal).

NLU. *Establishing the Urban Agenda for the EU: Pact of Amsterdam*, 30 May 2016, available at: [https://ec.europa.eu/futurium/en/system/files/ged/pact-of-amsterdam\\_en.pdf](https://ec.europa.eu/futurium/en/system/files/ged/pact-of-amsterdam_en.pdf).

Oberthür, S. *How Would a Brexit Affect the Environment?* *London School of Economics*, 2015, available at: [bit.ly/28Q7Qdf](http://bit.ly/28Q7Qdf).

Official Journal of the European Union, Decision No 1386/2013/EU of the European Parliament and of the Council of 20 Nov. 2013 on a General Union Environment Action Programme to 2020, 'Living well, within the limits of our planet'. Brussels, EU, L 354/171.

Renda, A. (2017), *How can Sustainable Development Goals be 'mainstreamed' in the EU's Better Regulation Agenda?*, Centre for European Policy Studies, No. 2017/12, available online at:

[https://www.ceps.eu/system/files/Better%20regulation%20and%20sustainable%20development\\_CEPS%20Policy%20Insights\\_%20A\\_Renda.pdf](https://www.ceps.eu/system/files/Better%20regulation%20and%20sustainable%20development_CEPS%20Policy%20Insights_%20A_Renda.pdf).

Remling, E. (2018) 'Depoliticizing adaptation: a critical analysis of EU climate adaptation policy', *Environmental Politics*, 27:3, 477-497, DOI: 10.1080/09644016.2018.1429207.

Swords, P. *The Failures to Properly Implement EU Environmental Legislation in Ireland*, Correspondence with Party Concerned, 28 June, Regarding Communication to Aarhus Convention Compliance Committee, ACCC/C/2010/54, available at:

[www.unece.org/fileadmin/DAM/env/pp/compliance/C2010-UN\\_Economic\\_Commission\\_for\\_Europe,54/Communication/CommunicationACCC.pdf](http://www.unece.org/fileadmin/DAM/env/pp/compliance/C2010-UN_Economic_Commission_for_Europe,54/Communication/CommunicationACCC.pdf). Geneva, 2011.

UNEP. *The Impact of Corruption on Climate Change: Threatening Emissions Trading Mechanisms?* 2013, available at: [https://na.unep.net/geas/getUNEPPageWithArticleIDScript.php?article\\_id=97](https://na.unep.net/geas/getUNEPPageWithArticleIDScript.php?article_id=97).  
Voulvoulis, N., Arpon, K. D., and Giakoumis, T. 'The EU Water Framework Directive: From Great Expectations to Problems with Implementation', *Science of The Total Environment*, Vol. 575, No 1, pp. 358–366, Jan. 2017.