Environment Report

Environmental Policy

Sustainable Governance Indicators 2022

SGI Sustainable Governance Indicators

BertelsmannStiftung

Indicator

Environmental Policy

Question

How effectively does environmental policy in your country protect and preserve the sustainability of natural resources and environmental quality?

41 OECD and EU countries are sorted according to their performance on a scale from 10 (best) to 1 (lowest). This scale is tied to four qualitative evaluation levels.

10-9 = Environmental policy goals are ambitious and effectively implemented as well as monitored within and across most relevant policy sectors that account for the largest share of resource use and emissions.

8-6 = Environmental policy goals are mainly ambitious and effectively implemented and are monitored within and across some of the relevant policy sectors that account for the largest share of resource use and emissions.

5-3 = Environmental policy goals are neither particularly ambitious nor are they effectively implemented and coordinated across relevant policy sectors.

2-1 = Environmental concerns have been largely abandoned.

Denmark

Score 9

Denmark is considered to be a front-runner in terms of its environmental policy. According to the 2022 Climate Change Performance Index of the Climate Action Network Europe, Denmark is the highest ranked country. Climate and environmental policies have taken center stage in recent policy discussions, and a wide range of aspects concerning sustainable living and production have been discussed.

Denmark is doing relatively well when it comes to renewable energy, as more than 30% of the country's primary energy supply comes from renewable sources, which is high in international comparison. Water usage is relatively low in Denmark compared to other OECD countries.

While carbon dioxide emissions measured on the basis of Danish production have been reduced by about 20% since the mid-1990s, the reduction is only about 5% when measured in terms of consumption. There is broad agreement on targeting a 70% reduction in greenhouse gas emissions by 2030 relative to 1990 levels.

Denmark has set a number of rather ambitious goals, including that of achieving fossil-free energy production by 2050. Several sub-targets have been set to reach this goal. While the long-term goal is for Denmark to be independent of fossil fuels by 2050, the government has also called for green realism in environmental policy and there are signs that some environmental goals will be softened. In June 2018, all parties in the Folketing approved an energy agreement, which aimed to produce 100% of electricity consumed in Denmark from renewable sources by 2030. As such, three large offshore windfarms were planned, taxes on electricity were to be

reduced and money was also budgeted for promoting green transport (e.g., electric cars).

In 2020, Denmark committed to a 2030 target of a 70% CO2 emissions reduction compared with 1990 levels and to reach climate neutrality by 2050. There are ongoing political discussions on how to reach this target, including CO2 taxes and investments in new technologies.

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Luxembourg

Score 9

According to the Climate Change Performance Index 2022, in which Luxembourg gained three ranks to wind up at 18th place, the Grand Duchy remains a high-performing country with regard to environmental issues. The country performs poorly with regard to greenhouse gas emissions, and at only a medium level with regard to renewable energy and energy use, but it rates high in climate policy overall, which indicates considerable potential for Luxembourg to improve its overall climate change performance.

The 2022 state budget allotted €765 million to investment in the field of climate and environment, and €210 million more will be added by 2024. A total of €1.8 billion is to be applied to implementing the national energy and climate plan. As part of efforts to diminish CO2 emissions, further investments are planned in the development of

the rail and tram network, and in the electromobility sector (€300 million for rail infrastructure in 2022, and €12.6 million annually through 2025 for more electric charging stations). Luxembourg's national mobility plan has a strong environmental component. On 1 March 2020 all buses, trams and trains became free of charge, making it the first country in the world to introduce free public transport (with a cost for the state of about €40 million per year). The Climate and Energy Fund offers subsidies to companies that reduce their environmental impact via employer mobility. The state also provides financial support for the purchase of e-bikes.

In 2021, under the leadership of Environment Minister Carole Dieschbourg, the government renewed the design of the climate pact (a co-operative agreement titled "Pacte Climat 2.0"), with the aim of strengthening the leading role of municipalities in climate policy, reducing greenhouse gas emissions and energy use, and stimulating investment at local level. Each participating municipality must commit to hiring a climate adviser, and to implementing an energy management system based on 64 measures divided into six categories (spatial planning and development, municipal buildings, resource management, mobility, internal organization, and cooperation). The state covers the costs of the climate advisers and technical assistance. Luxembourg's Environmental Protection Fund provides subsidies to municipal projects linked to implementation of the pact.

The government plans to achieve the major goals of the National Climate and Energy Plan (NECP) 2021-2030 (which is a 10-year integrated document mandated by the European Union) through implementation of the following main measures: a CO2 tax; the electrification of car, bus and truck traffic; the introduction of the A+ energy efficiency standard for new residential buildings; improvement of the "PRIMe House" support program; replacement of oil heating with renewable energy sources or connections to heating networks; introduction of the Nearly Zero Energy Standard for functional buildings; and an expansion of heating networks.

In terms of biodiversity, the country's achievements do not match its ambitions as set out in the two successive National Plans for Nature Conservation for the periods 2007-2011 and 2017-2021. Furthermore, biodiversity has consistently declined in the country for more than four decades. The reasons for this situation include especially the rapid economic growth, urbanization, landscape fragmentation and climate change. Biodiversity concerns are fully integrated in the current National Action Plan for the Promotion of Organic Agriculture (PAN-Bio 2025), that aims to increase the share of organically farmed land in Luxembourg to 20% by 2025, and to consolidate the green orientation of the sectoral policy in this area. Currently, only 5% of the agricultural land in the Grand Duchy is certified as "organic," while the European average is about 7%. With this new commitment, which is in line with the green Common Agricultural Policy of the EU, Luxembourg is sending a strong political signal to the agricultural sector, suppliers, the retail sector and consumers that the government will demand stronger coordination between the national and local levels.

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Sweden

Score 9

As is the case with global social injustice, Sweden tries to be a forerunner in environmental policy as well. Sweden performs extremely well in areas such as reduction of greenhouse gas emissions and the use of renewable energy sources but is not a leader in recycling or water usage. At the same time, Sweden’s Earth Overshoot Day – the day on which humanity’s demand for ecological resources and services would have exceeded what the Earth could regenerate in that year if all countries consumed like Sweden – for 2021 was April 6, compared to a global average of July 29 (Overshoot day, 2021). Thus, while there is a strong political commitment among all the major political parties, the execution of that commitment in some aspects is still lagging. Meanwhile, Sweden continues to push forward environmental issues in international forums; the government’s work on Agenda 2030 is an example of its commitment to environmental issues as well as sustainability in general (Regeringskansliet 2021a; 2021b).

Greenhouse gas emissions from electricity and heating production decreased by 23% – or about 1 million tons of CO2 – in 2020 compared to 2019. This was a result of a phase out fossil fuels plus a decrease in demand. At the same time, the biggest culprit with regard to greenhouse gas emissions is the burning of plastic used for electricity and district heating production, the levels of which remained about the same between 2019 and 2020 (Naturvårdsverket, 2021). With its legacy as a high-energy consuming industrial economy, Sweden certainly has a long way to go, but the data suggest its environmental policy is working. It should be noted that environmental policy is an integrated component of the larger project of restructuring the economy and making it more sustainable; much of this work takes place at the urban level.

A concrete example at the national level was the strategy issued in 2020 by the Ministry for Enterprise and Innovation for the transition to a circular economy. Measures included investment support for rental housing; funding for multifamily-housing energy efficiency, renovation and outdoor spaces; as well as an energy transition in the transport sector (Regeringskansliet 2020a). The strategy is being implemented in 2021, focusing on single-use plastics and their environmental consequences (Regeringskansliet, 2020b).

Electricity prices were previously relatively low in Sweden, with production mainly in the sparsely populated north, while demand is concentrated in the considerably more urbanized south. However, electricity prices shot up in 2021 so excessively that the government is now subsidizing households. This has also been the case in other European countries, resulting in some countries, such as France and eastern European nations, advocating nuclear energy as a cheap and climate-friendly alternative. Other countries, led by Germany, disagree and advocate more investment in renewable energy. Sweden has shut down four reactors since 2017, and the current government is not eager to return to the nuclear power debate, which was quite intense a few decades ago, including a heated debate on the storage of nuclear byproducts in northern municipalities. If the center-right alliance is elected in 2022, Sweden's position on this might change, with electricity prices and other developments in Europe also playing a role.

Citation:
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United Kingdom

Score 9

Environmental goals have been espoused by successive Conservative-led governments and, despite objections from some members of parliament on the right of the party, there has been a concerted effort to shift the United Kingdom toward renewable energy. Off-shore wind power has been the main component, but the

approach also includes construction of new nuclear reactors, although recent re-assessments of the commercial viability of nuclear energy may prevent it happening. The coalition government (2010 – 2015) set itself the goal of becoming "the greenest government ever," and its Conservative successor governments have not noticeably changed tack. However, worries about the cost of living led the government to suspend automatic increases in fuel duties for seven years in succession, and there have been rumblings of discontent over the 2008 Climate Change Act, which forms the legislative foundation for climate change policies. The Johnson government has put renewed and broader emphasis on environmental protection.

Having left the European Union, the United Kingdom has had to replace environmental regulations such as the Water Framework Directive and the Biodiversity Agenda. The Environment Act 2021 is regarded by many as a landmark piece of legislation. For example, Tony Juniper, a seasoned campaigner of green policies, described it as "the most ground-breaking piece of environmental legislation in many years," noting that it sets "clear statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, water and waste, and includes an important new target to reverse the decline in species abundance by the end of 2030."

The act enshrines in law a goal of net zero carbon emissions by 2050 and the aim to cut emissions by 78% by 2035 compared with 1990 levels. It establishes in law five principles, which are expected to advance the aims of the 25-year Environmental Plan initially put forward in 2018 (these are integration of environmental protection into policymaking, prevention, rectification at source, polluter pays and precautionary), and the need for all government ministers to consider them when making policy. In addition, it will set up the independent Office for Environmental Protection, which will report regularly on progress.

While some divergence from EU regulations could occur, there is little reason to believe that the United Kingdom will renege on big issues, such as the Paris Climate Accord. In November 2021, the UK government hosted the COP26 climate negotiations, which provided an opportunity to point out ambitious UK environmental goals, such as reducing greenhouse gas emissions by 78% by 2035 compared to 1990.

Citation:
https://naturalengland.blog.gov.uk/2021/11/23/the-environment-act-2021-a-turning-point-for-nature/

Finland

Score 8

Finland faces quite specific environmental challenges in terms of climate change and population growth; yet the country's contribution to larger efforts in combating climate change have to date been fairly modest. Still, after being ranked 18 out of 178 countries in Yale University's 2014 Environmental Performance Index, Finland ranked first ahead of Iceland, Sweden and Denmark in 2016. However, in 2018 it fell

to 10th place. According to a report released in May 2019, Finland's greenhouse-gas emissions grew by 2% from the previous year, to a total of 56.5 million tons of carbon dioxide. According to another recent report, Finland emits around one metric ton of jet fuel CO2 per capita, which is the second-highest such figure in the world. During the first year of the pandemic, overall emissions declined.

Water pollution is a major challenge in Finland. While pollution emissions from large industrial facilities have to a large extent been successfully curbed and polluted lakes and rivers have been cleaned, waterborne nutrient emissions generated by farms remain a pressing problem. According to calculations, some 1,500 lakes are in need of more active restoration measures to combat eutrophication. Finland's most valuable natural resource is its forests. The overall annual growth rate of trees in the forests exceeds the total timber harvest, a result of institutionalized protections. Separately, efforts to halt an ongoing decline in biodiversity have proved insufficient, though the government has created networks of protected areas. The environment and natural resources are among the responsibilities of 13 centers for economic development, transport and the environment. The Ministry of Employment and the Economy supervises the general administrative work of these centers. Recent research suggests that in environmental matters in which economic factors play a key role there is a trend toward restricting the rights of citizens to be informed about and influence decisions.

Citation:
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Germany

Score 8

In the Environmental Performance Index 2020 (EPI 2020), Germany is ranked 10th among 180 countries, which is a significant improvement compared to 2016 when the country had dropped to 30th place. However, the country's performance varies substantially across the various dimensions.

The country performs well with regard to health-related environmental hazards, which is due in large part to its high standards of sanitation and quality of drinking water, but in terms of air quality, the exposure to particulate matter results in a less-favorable ranking. Germany uses about one-third of its land for agricultural production. Intensity of production and the negative impact on biodiversity are problematic issues. The country is rich in forests, which cover about 30% of the territory. Despite the controversy regarding the effect of agricultural production on

biodiversity, Germany ranks 12th worldwide in the Environmental Performance Index on the issue of ecosystem vitality, but receives low scores on sub-indices such as the protection of biodiversity habitats.

Although the German economy's CO2 intensity has declined, it is still high by international comparison, in part as a consequence of the still relatively high share of industrial production contributing to GDP. The energy sector still depends to a large extent on fossil-fuel-based electricity production, and the need to transform the energy system is a key challenge. The energy transition is further complicated by the exit from climate-neutral nuclear energy that is to be completed by the end of 2022.

Starting in 2021, companies that bring heating oil, natural gas, petrol and diesel onto the market will pay a CO2 price for these products. While CO2 emissions are priced through the European Emission Trading System, these national rules have now established a CO2 price for the heating and transport sectors as well. This CO2 emission tax will be raised from its starting price of €25 in 2021 to €55 in 2025. The new government has confirmed its intention to continue on this path (Koalitionsvertrag 2021, p. 63).

In a landmark ruling in April 2021, Germany's Federal Constitutional Court ruled that the government's climate legislation from 2019 is insufficient, that it lacks details on emission reduction targets beyond 2030 which would unilaterally offload the burden of adjustment onto the future (Federal Constitutional Court 2021). With this innovative intertemporal argument, the Court has seen a violation of citizens' fundamental rights in the future. Within months, the Grand Coalition has reacted and amended the Climate Protection Act. The amended Act frontloads parts of the adjustment burden and commits Germany to becoming greenhouse gas neutral by 2045, five years ahead of its previous target and also ahead of the EU's target date. A 65% reduction in greenhouse gas emissions is required by 2030, compared to 1990, instead of the previously set 55%.

Apart from the pandemic, climate change has been one of the key topics addressed during the 2021 federal election campaign, with all parties (excepting the right-wing populist AfD) issuing ambitious plans in their election manifestos. The new coalition has made environmental and climate policy a key leitmotif with its objective to transform the German economic model toward a "social-ecological market economy" (Koalitionsvertrag 2021, p. 25).

In January 2022, the new Minister for Economic Affairs and Climate Action Robert Habeck announced an "opening balance" on climate protection, stating a likely failure to comply with reduction targets in 2022 and 2023. To reduce the backlog, the government plans to start by presenting plans on how to speed up the energy transformation toward renewables with an amended Renewable Energy Law. The law will clarify that renewables serve the public interest and public security. By reformulating policy along these lines, the government hopes to overcome delays and legal resistance from local opponents against windmill constructions.

Thus, despite many open questions, Germany has embarked on an ambitious path that puts the country firmly into the group of climate policy pioneers who want to reconcile the economic model of an advanced industrial country with climate neutrality.

Citation:
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Federal Constitutional Court (2021): Constitutional complaints against the Federal Climate Change Act partially successful, Press Release No. 31/2021 of 29 April 2021.

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Ireland

Score 8

Climate Policy:

The Irish government's Climate Action Plan of 2021 aims to take action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and to reach net-zero emissions by no later than 2050, as committed to in the 2020 Programme for Government. The plan hopes to create new jobs in areas such as offshore wind, cutting-edge agriculture and retrofitting (CAP, 2021).

To meet the required level of emissions reduction, by 2030, the government has committed to increasing the share of electricity generated from renewable sources to up to 80%, with an emphasis on facilitating local community-based projects; delivering three new transmission grid connections to Northern Ireland, Great Britain, and the European Union; phasing out coal and peat-fired electricity generation; and ensuring that 20–30% of system demand is flexible by 2030 (CAP, 2021).

Agriculture makes up 35.3% of Ireland's greenhouse gas emissions, of which 95% are emissions from livestock agriculture (DFHER, 2021). However, Ireland is a world leader in carbon-efficient agriculture and food production. Ireland has argued strongly at the EU level for concessions on its carbon-emission reduction targets outside the Emission Trading System. The country's negotiators have claimed that displacing this production from Ireland to countries outside the European Union would ultimately result in higher global emissions.

In 2018, the ban on smoky bituminous fuels, which had been progressively extended to the main cities and towns since 1990, was applied countrywide in Ireland.

Building on previous commitments, Minister for the Environment, Climate and Communications Eamon Ryan has continued to take steps toward a nationwide ban

on the use of smoky coal to combat air pollution and to protect public health (DECC, 2021).

In the 2022 budget, the carbon tax was increased by €7.50 per ton, from €33.50 to €41 per ton, coming into effect in 2022 (CI, 2021). This was one of the most controversial elements of the 2021 budget and subsequently became entangled with the global increases in the cost of energy.

The government's approach is a graduated one, with the carbon tax increasing by €7.50 per ton in every budget until 2029. The 2020 Programme for Government aims to levy €100 per ton on carbon by 2030. This is an increase on the previous commitment of €80 per ton by 2030.

The funds raised through the carbon tax are ringfenced and spent in the following areas: initiatives to prevent fuel poverty and to ensure a just carbon transition; a national retrofitting program; and measures to incentivize farmers to farm in a greener and more sustainable way.

Ireland has one of the highest proportions of electricity provided by wind power in the world, second only to Denmark in 2020. Wind is the second greatest source of electricity generation in the country, after only natural gas, and wind energy is currently the largest source of renewable energy in Ireland. In 2020, wind provided over 86% of Ireland's renewable electricity and 36% of total electricity demand (SEAI, 2022). The figures vary daily according to weather conditions. About 2.5% of Ireland's electricity generating capacity comes from hydropower (Teagasc, 2022).

Renewable water resources:

In 2000, Ireland signed the EU Water Framework Directive into national law. Article 16 of the directive required the introduction of charges for domestic water. Full implementation of this measure was included in the Troika agreement with Ireland. In July 2013, Irish Water (Uisce Éireann) was incorporated as a semi-state company under the Water Services Act 2013. The creation of Irish Water merged the water and wastewater services of 34 local authorities together within one national service provider. Irish Water is now responsible for public water services, including the management of national water assets, and making capital investment decisions regarding the country's water infrastructure. Irish Water is accountable to the Commission for Energy Regulation and the Environmental Protection Agency (EPA).

The installation of domestic water meters began in 2014 amid sustained opposition. Substantial up-front costs were incurred. The proposed structure of the domestic water tariffs, which became the focus of fierce public protests, were repeatedly revised. The water charge element was greatly attenuated, so that the levy became little more than a property-tax surcharge, providing only a weak incentive for conserving water usage.

In June 2016, the then minister of environment appointed the Expert Commission on Domestic Public Water Services. Its final report, the Report on the Funding of Domestic Public Water Services in Ireland, was published on 29 November 2016. The commission recommended that "the optimal arrangement is one involving the funding of water services, for domestic and personal use, as a charge against taxation." It also suggested that "excessive or wasteful use of water will be discouraged by charging for such use and therefore is consistent with the "polluter pays principle." Essentially the commission marginalized the issue of water charges, suggesting that the "question of metering is one of policy and is outside the Expert Commission's terms of reference."

Finally, in 2015, Eurostat ruled that the mechanisms proposed by the Irish government to fund Irish Water did not meet the criteria for classifying it as a commercial company. As a result, for national accounting purposes, its budget would need to be included in the public sector budget (for further details see "Policy Communication").

Following sustained opposition, the water charges were ultimately suspended by the Fine Gael-led minority government in May 2016, as part of a confidence-and-supply agreement with Fianna Fáil. At the time of writing, domestic customers don't have to pay charges for water supply and wastewater services. However, Irish Water plans to introduce household charges for excess water use in 2022, according to the Irish Water Charges Plan (IW, 2021). Ireland thus stands out in EU terms as the only member state that does not charge consumers for water.

Forest area:

Significant grants for increasing the proportion of the territory under forestry have been in place for some time. The state-owned forestry service operates forests that now cover about 7% of the country's land area. The privatization of the harvesting of some of these forests was recommended in the Troika agreement but shelved in response to concerns about the potentially adverse effects on the amenity value of these land assets. Increased afforestation has been proposed in exchange for leeway on the emissions from the Irish dairy sector. The government's Forestry Policy and strategy (2014 – 2020) sets an ambitious plan to increase the amount of afforestation activity through an enhanced licensing scheme, forestry grants and initiatives to protect woodlands (DAFM, 2021).

Biodiversity:

Ireland is broadly compliant with EU directives on biodiversity, and engages in enforcement measures to protect wildlife and flora. An extensive rural environmental protection scheme has sought to encourage farming in a sustainable and environmentally sensitive manner. In addition, a large number of protected areas have been designated.

Citation:
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Latvia

Score 8

Latvia is a heavily wooded country, with 2.9 million hectares (44.5% of the total area) of its territory forested, 50% of which is state-owned. The government acts as both regulator and largest landowner with respect to Latvia's forests. Protection of forests is well organized and secured through legislation which regulates all related economic activities, including harvesting, management plans, regeneration, and the monitoring and control of tree species.

The EU Environmental Implementation Review (2019) and the OECD Environmental Performance Review (2019) emphasized that, despite the overall positive performance, Latvia would benefit from setting more ambitious goals when it comes to environmental performance. In particular, waste management, eco-innovation and material recycling remain a challenge. In addition, the OECD has emphasized the need for Latvia to invest in green public procurement, eco-labeling and market incentives, and to additionally promote public awareness, ensure better enforcement and set more ambitious goals in this area.

Meaningful steps have been taken to address many of these challenges, however. For example, the Ministry of Environmental Protection and Regional Development developed a reform project, approved by the Cabinet of Ministers, aimed at improving municipal waste management by reviewing the boundaries of municipal waste regions and the functions of landfills, moving from 10 municipal waste management regions to five in order to make more efficient use of resources and meet the new waste management targets. The key target here is to ensure that the share of municipal waste disposed of in landfills (63.8% in 2019) ultimately declines substantially (with a target of 10% in 2035). Similarly, Latvia introduced a Law on Reduction of Consumption of Plastic products in 2021, and will launch a packaging system in February 2022 to reduce waste and foster a circular economy. Furthermore, in 2020, the regulatory framework for green procurement was improved to promote the production and use of environmentally friendly goods and enhance the support provided to local producers.

Latvia is on course to achieve many of the Sustainable Development Goals, with significant opportunities to accelerate the move to a low-carbon, greener and more inclusive economy.

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Norway

Score 8

Environmental policy has been a salient issue for voters, and policymaking is characterized by the political parties making broad compromises. It is a common goal to be more ambitious in national priorities than international agreements entail. Most clearly this is seen in the case of carbon emissions, where the national goal is to be carbon neutral by 2030.

Given the country’s easy access to hydroelectric and wind power, Norway’s share of renewable-resource use is among the highest in the world. Air and water quality are also among the best, largely due to the country’s low population density and

successful policies in reducing pollution from traditional industries. Less positively, Norway has a dismal record on waste management, and has received international criticism for its continued culling of whales. Laws protecting biodiversity are generally strict, often leading to conflicts between conservation regards and economic interests.

Norway is a major producer of oil and gas, thus directly and indirectly contributing to increased levels of greenhouse gases in the atmosphere. The strategy for becoming a carbon-neutral society by 2030 relies on four key elements: (1) Reduce global CO2 emissions by purchasing international emission quotas and financing projects to fight deforestation in Africa, Asia and South America. (2) Reduce emissions related to the production of oil and gas by powering the offshore-oil rigs with electricity produced by hydro-energy and offshore windmills. (3) Develop technologies for, and the subsequent use of, "carbon capture and storage." The idea is to extract CO2 from carbon-based energy production and store the CO2 in the North Sea seabeds. (4) Shift away from carbon-based energy sources to electricity and possibly hydrogen in powering the transport sector. Taxes on oil are heavy and will increase. Thanks to success with subsidies, electric cars are now replacing diesel and gasoline cars.

The future of the petroleum industries is contested, and a transition to a green, carbon-neutral economy, will increase the demand for more energy. Ambitious plans for windmills as well as for more efficient energy usage have been announced. There are high hopes that research and development in new technologies will generate new jobs and develop sustainable industries.

Slovenia

Score 8

Over the last decade, Slovenia has established comprehensive environmental legislation. It has transposed most EU environmental directives into the 2004 Environmental Protection Act and other national laws. Environmental policy has also been guided by the country's Development Strategy 2030 which was approved by the government in December 2017. Certain environmental policy goals such as those regarding waste are ambitious, and the implementation and coordination of environmental policy has been largely effective.

Resource productivity has improved overall in Slovenia in the last 10 years, though it remains below the EU average, particularly when compared with the EU-15. Slovenia performs above the EU-28 average in terms of the number of people employed in the circular economy. New policy instruments were introduced in 2019 to promote waste prevention, make reuse and recycling more economically attractive and shift reusable and recyclable waste away from incineration.

Slovenia has registered 378 sites where potentially polluting activities have taken or are taking place. Air quality in Slovenia continues to give cause for concern. For

2015, the European Environment Agency estimated that about 1,800 premature deaths were attributable to various sources of air pollution (i.e., fine particulates). Slovenia planned to take action to reduce the key sources of emissions in 2019 under the National Air Pollution Control Programme. The ecological status of most natural lakes and rivers as well as all coastal waterbodies have been assessed as "good" or better. Chemical pollution, followed by organic and nutrient pollution, have been identified as having the most significant impact on all surface water categories. Despite ongoing protests from local communities, two waste-processing plants (Kemis Vrhnika and Ekosistemi Zalog) that suffered from massive fires in 2017 have resumed operations. Further plants also suffered from massive fires in 2019, 2020 and 2021. As a consequence of these events, new safety mechanisms and procedures are being implemented at all waste-processing plants, though policy implementation is clearly lacking oversight and monitoring. As a result, many municipalities are increasingly turning away from hosting waste-processing plants on their territory. In July 2021, an overwhelming referendum majority rejected legislative changes proposed by the government, which could have opened the way to construction projects by the sea, lakes and rivers that would have threatened the environment. The government claimed the changes were intended to secure funds to protect lakes and rivers, strengthen flood defenses, and tighten construction regulations, but the vast majority (86.6%) of referendum voters disagreed.

Slovenia's national target under the Effort Sharing Regulation is to reduce greenhouse gas emissions by 15% by 2030 compared to 2005 levels. Since 2016, Slovenia has had a National Adaptation Strategy in place, developed through its Strategic Framework for Climate Change Adaptation. The framework provides a long-term vision and strategic guidelines for adaptation-related activities. Slovenia is currently in the process of developing a National Action Plan based on a comprehensive national Climate Change Vulnerability Assessment. Sectors that have devoted the most attention to climate change adaptation action are water management (and the associated risks of flood and drought), agriculture and forestry.

Slovenia has more than 350 Natura 2000 sites. Together, these sites cover 10.6 km² of marine waters and 37.9% of the country's land area, which is the largest share of land area coverage in the EU (EU average 18.1%). Considering the Natura 2000 coverage in Slovenia, there is no doubt it forms the backbone of efforts to promote green infrastructure. This infrastructure requires an upgrade in order to improve ecological connectivity among Natura 2000 sites and to provide green infrastructure in urban areas outside Natura 2000 sites.

During its Presidency of the Council of the European Union in 2021, the Slovenian government has focused on environmental policy, and achieving climate targets by 2030 and 2050.

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Switzerland

Score 8

In this area, the most remarkable developments in recent years have been made through the integration of environmental-protection and sustainability issues into a wide range of areas that both directly and indirectly concern environmental policy per se. Following the OECD's strategy of green growth, Switzerland has launched several studies aimed at reconciling the goals of sustainability and economic development. Furthermore, Switzerland has in recent years developed several cross-sectoral strategies focusing on issues including noise management, pesticide mitigation, sustainability, biodiversity, climate change adaptation and forest management. New guidelines for integrated water management were published in 2011, taking into consideration the use and protection of natural water sources.

In 2011, the federal government decided to phase out the use of nuclear power over the course of the next several decades. In 2016, the "Energy Strategy 2050" was adopted by parliament and won a majority in a popular vote in May 2017. It aims to significantly develop energy efficiency and exploit the potential of hydropower as well as other renewable energies (e.g., solar, wind, geothermal and biomass). There will be no permits for the construction of new nuclear power stations or any fundamental changes to existing nuclear power stations. However, existing nuclear power stations may stay in operation for as long as they are deemed safe. A more radical initiative was rejected in a popular vote on 27 November 2016. It would have led to the shutdown of existing nuclear power plants in the near future. Three out of the five nuclear power plants would have been closed down by 2017.

Switzerland invests considerable sums in the area of environmental protection. For example, there are about 8,000 jobs related to protection of the environment at the federal level (500), the cantons (1,500) and the municipalities (6,000) combined. Public spending on environmental protection amounts to 0.7% of GDP, substantially higher than the OECD average of 0.5%. A new article (Article 84.2) was added to the constitution in 1994, stating: "Transalpine freight in border-to-border transit shall be transported by rail. The federal government shall take the necessary measures. Exceptions shall be permitted only if they are inevitable. They shall be specified by statute." This article has not yet been effectively implemented, but the country has made enormous investments in improved railway infrastructure, particularly with regard to transalpine freight.

In certain regards, the ecological challenges facing Swiss policymakers have been much less demanding than in other countries. Switzerland never developed significant smokestack industries and industrialization took place as a decentralized

process. Thus, Switzerland has no regions with large concentrations of industries with significant emissions. Nonetheless, the country's record is mixed in terms of environmental policy overall, as demonstrated by the following:

• Switzerland is ranked very highly internationally in terms of controlling water pollution and has implemented significant environmental-protection measures as a part of its water-infrastructure planning.

• Air quality has improved over the past 25 years, but ozone and other threshold values are frequently exceeded, and legislation for more ambitious norms on CO2 reduction has suffered setbacks.

• Switzerland recently updated its national climate change mitigation policy. A broad combination of voluntary, regulatory and market-based instruments have been expected to produce a reduction in emissions through 2020 by 20 percentage points – a goal which has not been reached (NZZ 13 April 2021). The country has committed to reducing by 2030 its greenhouse gas emissions by 50% (measured against 1990 levels), which includes purchasing international credits that reduce emissions elsewhere. The targeted domestic reduction amounts to 30%. In 2019, the Federal Council also announced a goal of reaching net zero emissions by 2050 (including international credits) (BAFU 2022).

• Considerable success has been achieved in the area of waste management policy, especially with respect to hazardous waste. Furthermore, Switzerland's recycling rate is one of the highest worldwide. On the other hand, the volume of household waste remains large.

• In Switzerland, 1.6 million people (every fifth inhabitant) are exposed to harmful or disturbing road traffic noise during the day and every seventh inhabitant to overall noise disturbances. Total traffic noise generates costs of around CHF 1.9 billion annually.

• Soil protection has improved.

• Average to high levels of success have been achieved in regulating the use of chemical substances.

• Policies seeking to prevent the release of hazardous materials into the environment have been very successful.

• There has been little success in terms of nature conservation and protection. The number of animal and plant species that have become extinct or are at risk of extinction continues to rise. In Europe, Switzerland has the lowest share of conservation areas for sustaining biodiversity. Biodiversity remains therefore one of the most pressing environmental challenges for Switzerland.

• Even though Switzerland's agricultural sector is rather small compared to other European countries, pesticide use per inhabitant is one of the highest in Europe. Negative externalities and exposure risks are to be addressed by the "plant protection action plan" introduced in 2018.

In the 2019 national election, the green parties recorded a major increase in votes received. The green party increased by six percentage points its share of votes and the green-liberal party increased this by three percentage points, while the two major parties suffered losses of four (Swiss People's Party) and two percentage points (Social Democrats) respectively. By Swiss standards this is a tectonic change indicating much better prospects for enactment of environmental policies. However, these changes are not yet visible, which may be also due to the pandemic crowding out policy activity in other fields. For an analysis of the changing climate discourse and its actors see Kammerer and Ingold (2021). A major challenge for environmental policies in Switzerland remains the adequate and bona fide implementation of federal rules by cantonal and municipal institutions.

A major setback for environmental policies occurred in 2021, when the CO2 law was rejected in a popular vote. This ambitious law combined various comprehensive measures that combined levies with subsidies. It targeted and mobilized various groups, including homeowners, passengers of airplanes and car drivers, that opposed the new law. In December 2021, the Federal Council opted for a new draft law, which is much less ambitious and avoids any new levies. The rejection of the CO2 law by the majority of citizens emphasizes an important aspect of direct democracy, namely that it is very hard to realize innovative and encompassing policies – even when there is a pressing need for such a policy – given the reform-averse institutional effects. These effects were already visible in the case of the expansion of the welfare state or women's suffrage, to name a few important examples of delayed responses to societal or external developments (Kriesi 2005; Linder 1999; Vatter 2018: Chapter 8).

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Austria

Score 7

Ecological values have been embraced by virtually all Austrian political parties (not just the Greens). Moreover, as long as protecting the environment is not in immediate conflict with economic growth, the government has promoted environmental policies. But ambiguity and a tendency to think within traditional frameworks that favor economic growth over environmental protection remain.

Due to EU laws (the so-called Eurovignette directive), more international transit and the failure to make railroads a more attractive way to transport goods, Austria has conspicuously failed to decrease carbon dioxide emissions from vehicle traffic. Greenhouse gas emissions have remained strikingly high. As an official report by the Austrian Federal Audit Office from early 2021 suggests, greenhouse gas emissions grew by 5% in Austria over the past 30 years (making the country one of just six EU member states that have failed to achieve any improvement), while during the same period the average for all EU member states reduced by 24%. Industry and commerce remain the largest contributors to carbon dioxide emissions. Economic growth and cheap carbon market certificates for carbon dioxide are the principal causes of the increase in carbon dioxide emissions in this sector. Due to strong lobbying by economic actors, consecutive Austrian governments have failed to control the supply and price of tradable carbon dioxide certificates, contributing to a significant fall in certificate prices.

From 2019 to 2020, Austria's overall energy consumption decreased by 7.9 percentage points, which was similar to the average score for Europe (7.8 percentage points). The largest reduction was in the category of oil. The per capita consumption of primary energy in Austria in 2020 was the lowest since 2010. The equivalent reduction from 2019 to 2020 was -8.4 percentage points, again slightly better than the European average (-8.0 percentage points). Regarding carbon dioxide emissions, Austria improved as well (with -13.5 percentage points on 2019); again performing slightly better than the European average (-12.3 percentage points).

Further, Austria has a rather large and growing waste generation sector, with the country ranking only 29 out of 41 OECD countries in 2019. However, Austria was among the top three (out of 32) European countries with regard to waste recycling. Nevertheless, the overall material recycling rate remains much less impressive, with Austria ranking 23 out of 41 OECD countries.

The new ÖVP-Green government, which assumed office in early 2020, launched two ambitious national targets. First, 100% of domestic electricity consumption will be covered by renewable energy sources by 2030. Second, the country will achieve climate neutrality by 2040. It remains to be seen whether the government will achieve these targets. Arguably, the single most spectacular measure was the introduction of an annual "climate ticket" in late 2021 (for about €1,100), which

allows ticket holders to use all forms of public transport (e.g., trains, buses, trams and subways) across the country. The pricing of CO2 emissions, as stipulated in a major tax reform package introduced in late 2021, despite its perceived shortcomings, marked a step forward. The Greens made their first-time presence in the federal government felt through more isolated decisions. For example, in early December, the Green climate minster spectacularly halted several controversial highway projects (including the Lobau tunnel).

Environmental pollution in Austria continues to be moderate by comparative European standards. Regarding air pollution, and exceedances of nitrogen dioxide (NO2) in particular, Austria was among the half dozen of 22 European countries covered in a report published in 2022 in which road traffic was identified as the only major source of exceedances reported. A report by Statistik Austria from 2021 identified an overall positive trend in the area of environmental pollution. In addition, the government's environmental and climate policy budget was significantly increased in late 2021, continuing the trend established in 2020.

Concerning biodiversity, Austria continues to operate in the better half of OECD countries, slightly above average, with no major changes having taken place during the period of review. With the country participating in the recently established LIFEPLAN project (launched by the University of Helskink), Austria can be considered to be at the cutting edge of global biodiversity research.

Thus, while some performance indicators continue to be clearly less than satisfactory, it is possible to identify a moderate change for the better.

Citation:
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https://www.umweltbundesamt.at/en/news210519en

Canada

Score 7

Climate change has come to the forefront of the Liberal government's agenda, with widespread fires and flooding in Canada during the summer and fall of 2021 and with coastal regions bearing the brunt of these impacts. Moreover, a recent expert

report has indicated that Canada faces increasing risks from climate change with impacts for Indigenous and Northern communities, human health, physical infrastructure, ecosystems and fisheries (CCA 2019).

On the whole, since first taking office in 2015, the Liberal government's environmental record has been mixed. On climate change, in 2016, the government ratified the Paris Agreement and has since established a new national target of reducing greenhouse gas emissions by 40 to 45% below 2005 levels by 2030. It has also set a legally binding target of net zero emissions by 2050. The Pan-Canadian Framework on Clean Growth and Climate Change represents a collaborative effort to ensure that the target is met through carbon pricing, investments in energy efficiency and renewable-energy strategies. Renewable-energy policy is largely the responsibility of the provinces, and several provinces have already made significant efforts to address climate change. Successive federal budgets have also provided funding for clean technologies with clean tech an important new hub for investment and innovation. More recently, Canada has signed on to the Glasgow Climate Pact which reaffirmed the commitment of the Paris Agreement to reduce greenhouse gas emissions and which now has also included a commitment to begin "phasing out" coal.

Despite these efforts, however, a recent report by the Commissioner of the Environment and Sustainable Development has found that emissions have continued to increase and indeed, since 1990, have grown by 20%. Moreover, following investor uncertainty, the government nationalized the highly controversial Kinder Morgan pipeline expansion at a cost of CAD 4.5 billion, which raised serious questions about Trudeau's commitment to fighting climate change and protecting Indigenous rights. The government has finished a second round of consultations and reapproved the project (following a court decision to allow for further consultation), with construction now well underway. The issue continues to draw criticism from British Columbia and Indigenous communities.

With respect to other issues, 2019 saw the passage of bills C-48, a moratorium on large oil tankers accessing ports on British Columbia's north coast, and C-55, which establishes a network of protected marine areas and prohibits certain activities in these areas. These actions are signs of an effort to improve the country's marine-resources conservation. Additionally, the federal government has made significant investment to mitigate biodiversity loss. The government has also passed legislation to impose a carbon tax in provinces without a comparable program. Experts agree that this carbon tax is too low to achieve Canada's commitments. At the same time, the government continues to face fierce opposition to the tax from some provinces. Attempts to challenge the law in court have failed with the Supreme Court upholding the legislation.

Overall, the government has tried to steer a course through highly polarized positions in the country on climate change and the environment.

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Estonia

Score 7

The Ministry of Environment manages an integrated system of environmental protection, which covers the entire country, and ensures the preservation of the environment and sustainable use of natural resources. The Ministry of Economic Affairs and Communication is responsible for the energy sector and efforts to address climate change. Currently, Estonia is negotiating the national plan for the EU climate Fit for 55 package, which revises or expands the previous climate targets. The next national development plan for the energy sector, which will run until 2030, was approved in October 2017. It aims to increase the proportion of total energy consumed supplied by renewable energy sources to 50%, generate 80% of heat energy from renewable sources and limit vehicular fuel consumption to 2012 levels by 2030. Various efforts to increase the energy efficiency of buildings are already being implemented, with further measures planned (e.g., new buildings must conform to a near zero-energy standard).

Estonia needs to improve the collection of packaging waste and increase the recycling of bio-waste, as the country is struggling to achieve the 50% target for recycling and preparing for reuse of municipal waste set out in the EU Waste Framework Directive. The targets for municipal waste recycling will be increased (55% by 2025, 60% by 2030 and 65% by 2035), and the implementation strategy includes awareness-raising as well as an increase in the prices for unsorted waste.

Estonia has invested significantly in renovation and water infrastructure. As a result, water pollution has decreased and the quality of tap water has improved. However, most of the country's lakes and rivers are very small, and therefore highly sensitive to any pollution whatsoever. More than half of Estonia's territory is forested. Commercial forests account for 75% of all forest area, while the remaining 25% has been placed under various protection regimes. Yet, deforestation has been gathering pace in recent years – the country lost 18% of tree cover between 2000 and 2020, half of it in the last five years of the period (Global Forest Watch). Citizens are sensitive to the issue and there is significant public demand for more responsible forest management.

Finally, Estonia has a rich biological diversity, being home to a wide variety of wildlife species. To keep the population of its main species stable, the government regulates hunting through licensing and limits. One of the main risks for biodiversity is increasing traffic and road construction, though the newest roads have been constructed in accordance with environmental protection regulations. Strong emphasis has been put on environmental concerns in the process of planning the route for the Rail Baltic high-speed railway.

Citation:
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France

Score 7

In its 2016 environmental report, the OECD stated that France had significantly improved its environmental performance over the last 10 years. However, the French record with respect to environmental targets is not optimal. According to OECD indicators, France is ranked in the lower-middle group in most areas. Too often, environmental policies continue to be subordinated to sectoral policies or weakened by protest movements. While being extremely active at the international level (e.g., Cop 21 and related forums), France has been unable to reach its own targets in most of areas. This is due to lobby groups' resistance to the full implementation of environmental policies. As an example, public financial support for agriculture is often granted without significant environmental conditions.

A (semi-official) think tank report by I4CE underlined in December 2021 that in spite of the pandemic, private and public spending in support of the ecological transition had grown by 10% (€45 billion), but that it was still insufficient to reach the targets set. An additional €13 billion and €15 billion would be necessary through 2023 simply to realize the objectives fixed by the government. The French recovery plan established in 2020 to respond to the pandemic has dedicated 30% of its resources, which overall total €30 billion, to the task of environmental transition; the investment plan launched in October 2021, called France 2030, gives a similar priority to these questions.

France's good performance with regard to carbon emissions (sixth place within the OECD for CO2 emissions per GDP unit in 2017) can be credited to the country's nuclear sector. A July 2015 energy transition bill set several objectives, including a reduction of nuclear power's share in total energy production from 75% to 50% by 2025, and an increase in the share contributed by renewable energy sources to 40% from what was then a 12.5% share. However, these goals are unlikely to be met, given the complex authorization processes for renewable energy installations. The Macron government has passed laws prohibiting oil exploration on French territory (including overseas territories), ordering a closure of coal mines by 2022, and closing the Fessenheim nuclear plant beginning in 2020. However, a policy U-turn

had taken place by the end of 2021. Macron has now advocated the idea of launching smaller nuclear plants, and the return to nuclear energy is supported both by the Conservatives and by public opinion, which regards this energy form as being "neutral" with regard to CO2 emissions. In the meantime, other forms of energy have not made enough progress, due to resistance by pressure groups and judicial obstacles.

The decision to raise taxes on gasoline and diesel fuel provoked the Yellow Vest riots in November and December of 2018, leading the government to withdraw this measure. This was reminiscent of a similar government retraction in 2014, when President Hollande was forced to cancel the so-called eco-tax on trucks. On 24 October 2019, France was condemned by the European Court of Justice (ECJ) for being unwilling or unable to reduce NO2 levels to meet EU targets in place since 2009. In April 2019, Macron announced a new initiative, launching a "Citizen Convention for the Climate," which assembled 150 citizens representative of the French population to address the question: "How can greenhouse-gas emissions be reduced by 40% by 2030 in a spirit of justice and equity?" The 149 proposals from that group in January 2020 have been submitted to the parliament in a slightly watered-down form. Some pesticides (e.g., Glysophate) will be banned in the future, but the government rejected an opposition request to advance the deadline, set by the European Union, in France. Macron's initial promise to hold a referendum (adding climate preservation to Art. 1 of the constitution) was abandoned in July 2021 because the two chambers of parliament did not reach the agreement necessary to hold a popular consultation on this constitutional reform.

In the field of renewable water resources, France has long experience dating to the 1960s, and has set up water agencies to monitor the use and protection of its resources. However, the objectives set out in the Ecophyto plan (2009) to enhance water quality have not been met by 2015. French authorities have been unable to resist the agriculture lobby, which is the largest consumer of water. The use of pesticides has increased by 29% (2008 – 2014). The excess of nitrate and its negative consequences for the proliferation of some seaweeds has been felt particularly strongly in the north of Brittany, where poultry and pig manures are used as fertilizers. In spite of social pressure and judicial decisions to the contrary, the farm lobby and other economic interests have impeded the drastic measures needed.

The municipal composting, waste management and recycling sectors trail far behind counterparts in northern European countries. The situation is better with biodiversity and forests, the latter of which are experiencing a growth in surface area. A new law on biodiversity was adopted in August 2016. However, the protection of biodiversity has met resistance in metropolitan France due to many countervailing interests (agriculture, construction and transportation), and protection levels have actually been reduced according to official reports.

To summarize, France has set ambitious environmental-policy goals, but implementation of governmental decisions has often turned out to be incomplete,

producing only limited impact. It remains to be seen whether the implementation of the recovery plan will be better. In its November 2021 recommendations, the OECD emphasized the need to stimulate private investment, create incentives in order to change the behavior of companies and individuals, align the price of carbon energy across sectors, and offer support to those who might be unable to bear the economic costs of the transition.

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Iceland

Score 7

Historically, environmental policy has not been a high priority on Iceland's political agenda. The Ministry for the Environment and Natural Resources was established, comparatively late, in 1990. The ministry was a single-issue ministry for the environment until 2013 when it was merged with the former Ministry for Fisheries and Agricultural Affairs. Then, a new minister for environment and natural resources was appointed in 2014, and environment was separated from agriculture and fisheries. In early 2022, in yet another organizational overhaul and increase in the number of ministries, the new Ministry of the Environment, Energy and Climate was created.

Iceland is rich in onshore energy and freshwater resources, and has substantial offshore fisheries. However, apart from the fisheries management system in operation since the mid-1980s, there has been little discussion about how to preserve these resources, reflecting a popular assumption that these resources are, in effect, unlimited.

In April 2019, the government resolved to reduce its carbon footprint by instructing public employees to:
1. Reduce both domestic and international air travel, and use digital technology instead;
2. Use the most environment-friendly option possible to get to and from work;
3. Use electric rental cars where possible.

In September 2018, the government announced a new climate strategy, intended to boost efforts to cut net greenhouse gas emissions. The new measures aim to help Iceland meet its Paris Agreement targets for 2030 and reach the government's ambitious goal to make Iceland carbon neutral before 2040. The main emphasis of

the new plan is on phasing out fossil fuels in transport and increasing carbon sequestration through afforestation, revegetation, and restoration of wetlands. Climate mitigation measures are envisaged to receive a substantial increase in funding, almost ISK 7 billion, between 2019 and 2023. A general carbon tax, already in place, will be gradually increased.

The Agreement on the Platform for the Coalition Government of the Independence Party, the Left-Green Movement and the Progressive Party in November 2021 emphasizes environmental issues. Stating that "Iceland should be at the forefront of international environmental action," it says that "an independent national target of a 55% reduction in emissions for which Iceland is directly responsible by 2030, compared to 2005 levels. Emphasis will be placed on targeted and ambitious measures to reduce emissions from land use and accelerate energy conversion in all areas. The goal is to achieve carbon neutrality and full energy conversion no later than 2040, which will make Iceland the first state to be independent of fossil fuels." These words signal ambitious intentions in environmental affairs.

A privately run environmental initiative is The Wetlands Fund (Votlendissjóður), a private equity fund operated by socially responsible companies and individuals. The fund aims to reduce greenhouse gas emissions through wetland restoration in collaboration with landowners, the state, municipalities, companies, NGOs and individuals. Research shows that drained wetlands are responsible for about 60% of CO2 emissions in Iceland. This proportion does not include international flights over Iceland, but all other transport and industry are included. Wetland restoration is an effective measure against climate change.

Not much is known about the possible environmental effects of the rapid expansion of foreign tourism. Prior to the collapse of tourism due to the COVID-19 pandemic, which struck in 2020, the number of tourists arriving in Iceland each year had increased to seven times Iceland's population.

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Italy

Score 7

Italy was not an early mover in the field of environmental policies compared to other European and OECD countries, but in a number of aspects its environmental record has significantly improved. For instance, Italy ranks above average in its performances for CO2 emissions in comparison to GDP. In the field of renewable energies, where Italy traditionally fared reasonably well thanks to its large hydroelectric (and geothermic) plants, the promotion of new sources (e.g., solar or wind energy) has been very effective in recent years thanks to generous incentives. The transition toward renewable energy has gained momentum and renewable energy sources now supply between 32% and 35% of total electricity demand (data from GSE). Strong fiscal incentives for sustainable house building and renovations have been in place over the last few years.

Forest areas have been growing significantly in recent years and biodiversity is above the European average.

In other dimensions, such as water efficiency, Italy fares less well. Disparities between northern or central Italy, and southern Italy remain significant. Some waste emergencies (e.g., in Rome, Naples, Palermo and other places in southern regions) have demonstrated in recent years the lower performance of some local and regional authorities in environmental matters. The absence or inadequacies of purification plants still affects parts of the coastline and rivers. As with other oceans, the Mediterranean is polluted by microplastics.

Recycling rates have increased very significantly in central and northern Italy. According to Reuters, Italy ranks very highly in Europe for recycling. Recent ISPRA data also indicates significant improvements in southern Italy where recycling rates had traditionally lagged behind.

Erosion, flood and earthquake prevention should be a high priority for the government, as the geology of the Italian peninsula means that the country is very exposed to natural disasters. After the recent 2016 earthquakes, the government is launching a long-term investment policy to promote public and private rebuilding.

Climate change has and will have a huge impact on Italy. The country has among the highest numbers of cars per capita in the world, and this combines with poor short-, medium- and long-haul public transport to make life in cities difficult. It also compromises the transport of goods and persons across Italy. Smog, particulate matter, poor air quality and traffic jams undermine the quality of life significantly, especially in large cities.

The Draghi government has set ambitious goals for and assigned a large proportion resources from the PNRR to an environmental transition.

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http://www.asvis.it/rapporto-2017/
https://it.reuters.com/article/topNews/idITKBN1CE1D5-OITTP

Lithuania

Score 7

In 2016, Lithuania signed the Paris Agreement, in which it (along with other EU members) committed to reducing greenhouse emissions by 40% in comparison to 1990. Compared to 2005, Lithuania has committed to reduce emissions by 9% by 2030 (excluding sectors which participate in the EU Emissions Trading System).

As noted in a recent OECD survey, there is a discrepancy between the country's ambitious medium- and long-run climate-change goals and existing policies, which are deemed insufficient to achieve them. In particular, taxation is used in a very limited way to tackle pollution and climate-change externalities. The Ministry of Environment has proposed a new (and higher) level of taxation on automobiles, but the proposals have met with considerable criticism, and were in fact rejected by the parliament in early 2022 (at least in their current form). Furthermore, Lithuania does not provide adequate financing for environmental needs – in fact, environmental protection expenditure as a share of GDP has been declining over recent decades, and is substantially below the EU average.

The proportion of energy produced from renewable sources in Lithuania reached 25.5% in 2019, above the country's Europe 2020 target of 23%. The National Strategy for Energy Independence (amended in 2018) includes further regulatory and financial incentives for the use of wind and solar energy, with the goal of having all domestic production of energy be based on renewables by 2050.

The OECD has emphasized the considerable progress made in reducing reliance on landfills, and shifting to recycling and composting. Nonetheless, it also pointed to increased wage generation, and the need to move to a cross-sectoral circular economy.

Water-supply and sewage infrastructures have improved substantially over the years thanks to the use of EU structural funds. However, the provision of adequate connections to the public water supply still remains a challenge in some areas. Moreover, wastewater treatment is inadequate in some respects, with significant differences evident between rural and urban areas. In 2019, only 79% of the population lived in facilities connected to wastewater treatment plants, and this share has been rising only very gradually over the last decade. However, the government plans to raise this proportion to 85% by 2025 and 95% by 2030 (OECD). In February 2017, the European Commission initiated an infringement procedure against

Lithuania for failing to comply with EU wastewater-treatment requirements. Furthermore, the OECD survey has emphasized that "water pollution is worsening across the country." In particular, mineral fertilizers in agriculture and "insufficiently treated wastewater" are causes for concern.

In the Environmental Performance Index 2020, Lithuania was ranked 35th out of 180 countries (only 24th in the EU), with good rankings in the areas of biodiversity and habitat (9th), but mediocre or poor rankings in the areas of waste management (24th), pollution emissions (26th), agriculture (20th), ecosystem vitality (25th), air quality (33rd), water resources (37th), sanitation and drinking water (57th), heavy metals (57th), and especially ecosystem services (135th). Inadequate legislation and ineffective enforcement in the field of pollution control failed to prevent substantial damage to the environment when a major fire broke out in a tire-recycling facility in Alytus in October 2019. The country's municipal-waste recycling rate was 45.1% in 2020 (EU average 47.8), down from 48.1% in 2017.

To sum up, while the goals of environmental policy are ambitious, particularly with regard to emissions cuts and the expansion of renewable energy capacities, supporting policies are not implemented consistently. The conservative-liberal coalition government formed after the parliamentary elections of 2020 devotes considerable attention to climate-change mitigation policies in its program. However, after one year, few actual measures have been implemented, though it is likely that the national plan for the use of the Resilience and Recovery Fund financed by the EU for 2021 – 2026, which prioritizes green policies, might act as an important incentive to advance in this area.

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The Article 17 EU Habitats Directive Reports available at http://ec.europa.eu/environment/nature/knowledge/rep_habitats/
The Environmental Protection Index is available at https://epi.yale.edu/

New Zealand

Score 7

The performance of New Zealand's environmental policy is mixed. In the 2021 Environmental Performance Index, New Zealand is ranked 19th out of 180 countries (Environmental Performance Index 2021). The Climate Action Tracker, which assesses countries' performance in terms of meeting their Paris Agreement commitments, rates New Zealand as "highly insufficient" (Climate Action Tracker 2021).

Many of New Zealand's environmental problems stem from the country's large agricultural sector, which accounts for more than half of merchandise exports – in particular, through the export of meat and dairy products. Methane and nitrous oxide

gases created by farming make up around half of New Zealand's total greenhouse gas emissions (Hancock 2021), while road transport contributes 37% to long-life gases (Climate Commission 2021). In addition, the booming meat and dairy sector has taken a toll on the country's freshwater resources. According to a 2021 report by Land Air Water Aotearoa (LAWA), nearly two-thirds of monitored rivers were "ecologically impaired" (Brownlie 2021).

New Zealand's biodiversity is also facing a crisis. According to the latest National Report to the United Nations Convention on Biological Diversity, 4,000 species are at risk in New Zealand – including 90% of the country's seabirds, 76% of its freshwater fish, 84% of its reptiles and 46% of its plants (Department of Conservation 2019).

In November 2019, the government passed the Climate Change Response (Zero Carbon) Act that set new domestic greenhouse gas emissions reduction targets for New Zealand. These include: reducing net emissions of all greenhouse gases (except biogenic methane) to zero by 2050; reducing by 2050 emissions of biogenic methane to anywhere from 24% to 47% below 2017 levels; establishing a system of emissions budgets to act as stepping stones toward the long-term target; requiring the government to develop and implement policies for climate change adaptation and mitigation; establishing a new, independent Climate Change Commission to provide expert advice and monitoring to help keep successive governments on track to meeting long-term goals.

Some elements of the 2020 COVID-19 budget were crafted to respond to environmental sustainability challenges. In particular, the Labour-led government pledged $1.1 billion for weed and pest control, biodiversity enhancement, and regional restoration projects, including wetlands and waterways – projects that will help to sequester carbon emissions. New transport funding went entirely to rail, with more than $1 billion in capital expenditure for renewing and upgrading existing networks. However, the budget was criticized for its short-term vision, failing to set New Zealand on a course toward a low-emissions economy (Hall 2020).

The 2021 budget funneled less money than previously toward environmental causes. The most notable spending items include $300 million to accelerate investment in low-carbon technology and $67.4 million to implement the Carbon Neutral Government Program (Neilson 2021).

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Climate Commission Draft Advice Report (2021) https://ccc-production-media.s3.ap-southeast-2.amazonaws.com/public/evidence/advice-report-DRAFT-1ST-FEB/Evidence-CH-04b-Reducing-emissions-Transport-and-buildings-20-Jan-2021.pdf

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Spain

Score 7

In December 2020, Spain adopted its National Integrated Energy and Climate Plan (ENCP) 2021 – 2030. The long-term goal of the plan is to make Spain carbon neutral by 2050, to achieve a 90% reduction in GHG emissions from 1990 levels by 2050, and to base the electricity system exclusively on renewable sources of generation.
The ambitious National Plan for Adaptation to Climate Change for the period 2021 – 2030 was also approved in 2020. This plan establishes strategic objectives and defines an assessment system as well as indicators for impact and adaptation to climate change. In May 2021, a very ambitious Climate Change and Energy Transition Law was passed. This law establishes the following minimum national targets for the year 2030 (Article 3.1):
- Reduction of greenhouse gases by at least 20% compared with 1990.
- A renewable-energy share of at least 35% in final energy consumption.
- An electrical system in which at least 70% of the energy comes from renewables.
- A reduction in primary energy consumption of at least 35% from the baseline in accordance with EU regulations.

The Climate Change and Energy Transition Law contains also specific measures for implementation.

Moreover regarding the four key targets of protection, the government adopted a Circular Economy Strategy, a Green Infrastructure Strategy and a hydrological planning cycle in 2021.

Within the RRP, the government moved its 2025 energy transition targets forward to 2023 and increased investments for renewable energy, the protection of ecosystems and biodiversity, the renewal of the housing stock, and infrastructure for electric mobility. According to a report by international climate experts, the RRP will make a positive contribution to the green transition, while also supporting less developed regions.

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Chile

Score 6

In general terms, environmental-policy goals tend to be ambitious, especially when taking into account the country's economic structure and dependence on natural resources. As several studies show, Chile is highly vulnerable to the effects of climate change. For this reason, the country has initiated an active climate agenda coordinated by the Ministry of the Environment and the Council of Ministers for Sustainability, which includes mitigation and adaptation measures by various sectoral authorities.

Chile has an efficient but scarcely restrictive environmental regulatory system. From 2010 onwards, it has boasted a modern environmental institutional system. For example, the former National Commission for Environmental Issues (Comisión Nacional del Medio Ambiente) was upgraded to the Ministry of Environment (Ministerio del Medio Ambiente). Some progress has been achieved regarding the creation and implementation of complementary institutions, such as environmental tribunals (Tribunales Ambientales) and a chairperson for the environment (Superintendencia Ambiental). In September 2016, Chile signed the Paris Agreement on climate change, which was ratified in January 2017.

However, Chilean environmental policy prioritizes compliance with standards required by international markets, and thus does not necessarily focus on non-commercial aspects like ecological and social sustainability. In addition, Chilean environmental policy is also subject to major domestic political pressure by the industrial sector, especially in the field of water and forestry use and regulation. This constraint often leads to clashes over the protection, preservation and sustainability of natural resources and the quality of the environment. The judiciary has often acted to stop investments and projects, citing ecological sustainability issues. Tangible environmental-policy impacts on the productive sectors tend to take the form of ex post fines (applied once the law has been violated) rather of preventive regulations and compliance. This weakness can be observed, for example, in the fishery industry. In the field of agriculture and mining, water-use rights and their environmental, social and economic impact have become a prominent public issue. However, especially in the field of water-use rights, environmental concerns are often not integrated across relevant policy sectors.

Chile has imposed a green tax on the energy sector since 2017 with the goal of lowering CO2 emissions and favoring ecologically efficient production. The country

is poised to enact a climate change law (Proyecto de Ley Marco de Cambio Climático, PLMCC) intended to establish a more effective climate governance system and reduce carbon-dioxide emissions. A preliminary draft of the law proposal has been drafted, and was introduced into the Congress in August 2020. With this PLMCC, Chile is seeking to become carbon neutral by 2050.

A number of recent initiatives in the capital city of Santiago have been taken with the aim of diminishing air pollution, promoting a more sustainable public transport system (e.g., the implementation of electric buses and a significant increase in bicycle paths). Furthermore, regulations governing the protection of urban wetlands were modified.

During his first term as president (2010-2014), Piñera supported and actively participated in the Escazú Agreement, a regional agreement on access to information, public participation and justice in environmental matters in Latin America and the Caribbean. However, the country did not ultimately ratify the agreement. According to official statements, the postponement was needed in order to further review the possibility of litigation before the International Court of Justice under the Pact of Bogotá. However, the so-called Pandora Papers revealed that the president's sons had business interests in the Minera Dominga mining project that might have been complicated if the agreement had entered into force. This fact changed the public's perspective on the government's decision not to sign the Escazú Agreement.

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Israel

Score 6

Israel faces significant environmental challenges due to its small territory, high population growth, and poor natural water resources. Its geopolitical climate adds another challenge since unlike many OECD countries, Israel's relationship with its neighboring countries prevents it from sharing power facilities and thereby reducing environmental costs. Security and political considerations also overshadow environmental issues, resulting in long-term neglect of environmental policy even as OECD accession has bound Israel to conform with Western standards and goals.

Although Israel's environmental policy still lags behind other OECD countries, it has made some advances in recent years, including the ratification of the Paris agreement and a reduction in greenhouse gas emissions. Although most of its power production is based on fossil fuels (moving from coal to natural gas), some power production is based on solar and wind power. Taxation encourages the purchase of less polluting vehicles, but at the same time public transportation is underdeveloped.

Recently, Israel launched the Israel 2030 Energy Goals, which includes various paths to increase the country's use of natural gas and renewable energy sources. According to this new initiative, Israel plans to stop using coal as an energy source by 2030, and replace coal with natural gas and other less-polluting sources of energy (e.g., solar energy). These plans were criticized by the Ministry of Finance as well as the oil and gas industry, while environmentalists criticized the plan for being too mild. In addition, it remains to be seen whether and to what degree these goals will be achieved. The government has declared that the transition to green energy is one of the pillars of its working plan for 2022. To encourage a clean energy transition toward the use of green and efficient electricity, and electric transportation, and to boost investment in infrastructure, the Ministry of Finance is promoting legislative amendments such as regulatory relief and the elimination of barriers to promote green energy. In addition, the government updated the national target for reducing greenhouse gas emissions, so that they will be reduced by at least 27% by 2030 and by at least 85% by 2050 (from the annual amount of 79 million tons, measured in 2015).

Israel's National Biodiversity Protection Plan was prepared by Israel's Ministry of Environmental Protection, and the Nature and Parks Authority, and was adopted in 2010. Since then, it serves as the national guiding document in this area. Regarding environmental pollution, in September 2015, the Israeli government adopted a national multi-year plan to limit air pollution and mitigate environmental risks in the Haifa Bay Area. The government took additional steps following the above decisions during 2021–2022, but environmental organizations claim that the process is too slow and the measures taken are insufficient.

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Japan

Score 6

Japan used to be a global leader in terms of effective anti-pollution policy and energy conservation. More recently, however, the government has faced the top-priority challenge of adjusting its domestic energy mix in the wake of the triple 3/11 disaster. While the official vision of the government is to create a "circular and ecological economy," a goal that necessarily touches on various public-policy domains,

environmental concerns have taken a back seat in terms of energy policy. The government has reiterated that nuclear power will remain an important part of the country's energy mix well into the future. All 48 nuclear-power reactors were shut down between 2011 and 2012. By 2021, only five nuclear power plants with a total of nine reactors meeting new, stricter standards had resumed operations. Opposition has made it difficult to restart more.

The Japanese government also faces the challenge of following up on its climate change promises. For example, after announcing at the World Economic Forum in January 2021 that Japan would take on the "Three Transitions" challenge (decarbonization, circular economy and decentralized society) and pledging later at COP26 in Glasgow to step up its fight against climate change by taking actions such as increasing funding to climate finance and phasing down the use of coal power, the government almost immediately backtracked by slowing down the shift away from fossil fuels for fear of fuel shortages. The plan to reducing greenhouse-gas emissions to net-zero by 2050 also seems shaky.

According to the 5th Strategic Energy Plan, released in July 2018, the basic proportions envisioned for the country's 2030 energy mix remain unchanged, including the goal of a 22% to 24% share for renewables and 20% to 22% for nuclear energy. This is ambitious, and will be hard to achieve if many nuclear reactors remain shut down. Given the uncertainty, the government has been slowing down the phasing out coal-based power plants.

Japan has a severe plastics problem. According to a 2018 UN report, Japan is the world's second-largest consumer of single-use plastic packaging per person, trailing only the United States. It is also the world's second-largest exporter of plastic waste. While the government supports the development of more plastics recycling facilities, as well as research into biodegradable plastic and its applications, its 2030 target for a 25% reduction in single-use plastics is relatively unambitious compared to EU plans, for example.

Japan has made great progress in recent decades with regard to wastewater management. The country today has one of the world's highest-quality tap-water systems, for example. Japan also has a proactive forestry policy. The 2018 Forest Management Law promotes the commercialization of forestry, which may create some tension with wider societal and environmental objectives. Japan's biodiversity is not particularly rich compared with other Asian countries, but the government has in recent years taken a more proactive stance under its National Biodiversity Strategy.

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Netherlands

Score 6

A few key facts about the Dutch economy help to understand why the Netherlands is struggling with environmental issues. The Netherlands is an agricultural superpower within an urbanized society. In terms of value, the Netherlands is the second-largest agricultural exporter in the world. Most exports are in livestock; its feed needs to be imported, what remains in the country is manure, which, processed into fertilizer, leaves a huge nitrogen emission impact. Household electricity and gas use constitute 12% of total energy use in the Netherlands. Traffic and transport have a slightly larger share of 15%. The largest share of about 40% is from industry. The structure of the Dutch economy is energy-intensive. The share of renewable energy is small; the largest contribution is made by biomass, but the Netherlands is unable to meet its energy demand using only domestically grown biomass, as there simply is not enough land available. The Dutch have never been more mobile. Add to this that the Netherlands is a country of transport flows. Every day, goods are shipped from Dutch harbors to the European hinterland by air, ship, railroad and road transportation services that have a total annual (2021) value of €54 billion. In other words, environmental policy has immediate and severe impacts on the country's economic business model.

The Rutte III government has described itself "the greenest coalition" to date, and put climate change on its political agenda. A Climate Act was approved by parliament in December 2018. Broad consultations eventually produced a climate agreement that set the goal of a 49% reduction in CO2 emissions by 2020. Before the Paris Accords, the Dutch government had resisted more ambitious international climate goals. At the moment, the goals are not being met, and the State Council called for immediate remedial measures instead of waiting for the new coalition government.

The new coalition agreement has more ambitious plans: a minimum of 55% CO2 reduction in the Climate Law, binding agreements regarding pollution reduction with the top 20 industrial polluters, and, remarkably, the revival of nuclear energy as a sustainable source. The new government even has a minister of climate and energy.

There has been a clear policy shift in recent years toward climate adaptation. This appears manageable today because any adverse developments in the Netherlands will

be gradual. The Netherlands' natural-gas reserves have diminished rapidly and will necessitate gas imports from 2025 onward, despite decreasing demand. Meanwhile, earthquakes and soil subsidence are damaging houses in the northern provinces where the Dutch gas reserves are located. The government has introduced compensation measures for victims (but these are still contested as too small, unfairly distributed and inefficiently allocated).

Plastic is seen as a problem, but is dealt with largely at the municipal level, as a part of local recycling programs. A deposit paid by consumers on plastic bottles was introduced in 2021.

The quality of air and surface water in the Netherlands remains poor, with intensive farming and traffic congestion the primary causes of concern, as well as soil salification in agricultural lands. Half of the country's rivers, canals and lakes contain too much nitrogen and phosphates. Air pollution levels, especially of particulate matter in the region around Amsterdam, Rotterdam and The Hague, are among the highest in Europe, and the concentrations of ozone and nitrogen dioxide are linked to a very considerable amount of premature deaths.

Sustainable agriculture, particularly meat and dairy farming, is on the agenda and is gaining social support. In October 2018, the Urgenda environmental association won a major victory, with the Court of Appeal ruling that the government's failure to reduce carbon dioxide emissions significantly violated its human rights obligations. The verdict was upheld by the Supreme Court. In a separate case, courts rejected a scheme for trading future emissions in nitrogen, deeming that it failed to protect the environment sufficiently, and failed to assure air quality. The verdict effectively brought a large number of construction projects, including housing construction, to a halt. The reaction was to turn a focus on a primary culprit in this area – Dutch industrial farming, particularly livestock farming, which is the largest contributor to the country's nitrogen emissions. A call to reduce the sector by half led to mass demonstrations by farmers, and even riots in some locations. Construction workers also protested, as they too viewed their jobs as being at risk.

Eventually, even the suggestion that industrial farming should be reduced at least by half to resolve the nitrogen crisis (and the exacerbation of the housing problem due to the delay of construction projects) led to loud and intimidating protest by the newly established Farmers Defense Force (with tractors in the streets of the Hague and blocking highways), and to the election of a member of parliament from the new Farmers' Citizen Movement. Evidently, both the farming and the construction sectors will have to act to meet the Urgenda goals by 2025, according to the Dutch Environmental Assessment Agency.

All in all, the government that originally called itself "green" was forced by these verdicts to increase the pace of its climate action, in some cases through the use of emergency measures. A very visible measure has been the speed-limit reduction on highways to a maximum of 100 kilometers per hour during daylight hours. These

measures have become possible due to a gradual shift in public opinion. The discussion is no longer if emissions reductions will happen, but about the distribution of costs. For example, many have expressed a fear that the weakest shoulders will carry a disproportionately high burden. Still, the new coalition is allocating €25 billion to compensate farmers and to stimulate sustainable farming, by this confirming the fears that ordinary citizens as taxpayers will continue to carry the burden of energy transition and climate adaptation.

At the same time, the Netherlands continues to invest heavily in fossil fuels. After heavy criticism, it signed the COP26 agreement in Glasgow to end investment in fossil fuel. Recently, the sustainability of biomass (an important element in the climate agreement) has been called into doubt. By denying an environmental permit to an energy producer using biomass, the Dutch court in 2021 set a precedent that could lead to shutting down businesses as well, rather than being limited to bringing construction projects to a halt. The permit was denied on the grounds that nitrogen emissions were too high. Although industry is responsible for 9% of the country's nitrogen emissions, businesses could be a target of more court orders in the coming months and years, since many of them hold old permits, sometimes exceeding the current norms by three to four times.

The airline industry is still not paying its fair share with regard to the amelioration of pollution, although the government has pledged to resolve this issue at the European level. The coronavirus crisis did not stimulate any long term measures in this respect. Instead, KLM was saved by generous support with taxpayers' money. The new coalition is allocating €22 billion to stimulate environmentally friendly practices at KLM, Tata Steel and other big industrial polluters.

In 2021, in a historic verdict, Royal Dutch Shell was ordered to reduce its CO2 emission by 45% compared to the total 2019 level. As a response, Shell moved its headquarters to the United Kingdom.

Although the Netherlands has been praised as a pioneer in the area of mapping and assessing ecosystems and their management, and in developing natural capital accounting systems, significant problems remain. The most serious problems involve habitat fragmentation and biodiversity loss, atmospheric nitrogen deposition, desiccation and acidification. Over the last 25 years, about 140 species inhabiting the North Sea have suffered a 30% decline, mainly due to recently forbidden commercial fishing techniques.

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Portugal

Score 6

The reduction in production resulting from the 2009 – 2014 economic crisis eased environmental pressures in the first half of the 2010s. This was particularly apparent during the bailout period and economic downturn, when Portugal ranked third in the 2014 and fourth in the 2015 Climate Change Performance Index (CCPI), which measures overall climate protection performance.

As noted in the previous SGI report, the subsequent economic recovery was accompanied by a decline in Portugal's ranking and score, falling to 18th place worldwide in the 2018 CCPI, with an overall score of 59.16 (albeit with a somewhat different methodology) – Portugal's worst result over the past five years. This decline was arrested in the 2019 CCPI, with Portugal ranking in 17th place and marginally increasing its score to 60.54. This relative position was maintained in the most 2022 CCPI, in which Portugal ranks 16th with a score of 61.11.

Portugal's score in the "Domestic Policy" component of the CCPI, which assesses countries' policies and measures as well as their implementation and effects, declined from a rating of "high" in 2019 CCPI to one of "medium" in the 2022 report. As in other areas, there is some lag between the laws that have been passed and actual implementation of environmental legislation.

If we look at environmental policy more broadly, Portugal shows improvements in some areas but also challenges in others. The European Commission's 2019 Environmental Implementation Review for Portugal notes substantial progress with regard to the circular economy, a flagship policy of Ministry of Environment and Climate Action under the first Costa government, as well as some progress on marine conservation and water management, all of which had been areas of challenge noted in the 2017 review. Likewise, Portugal performed above the EU average with regard to eco-innovation, environmental tax revenues as a percentage of GDP and the proportion of land area that is protected.

At the same time, however, the review noted persistent challenges with regard to nature conservation, waste management (including low levels of recycling), water management, low productivity in using material resources to generate wealth and urban sprawl, among others. Overall, the review also noted that sustainable development was not fully taken into account across policy areas.

Citation:
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United States

Score 6

The United States has had ambitious environmental programs since the early 1970s. By the 1990s, major enactments covered the entire range of significant environmental concerns. In some areas of environmental pollution, such as hazardous-waste management and new sources of air pollution, environmental controls have imposed excessive costs. The issue of climate change, however, requires the implementation of costly controls for the sake of benefits that will occur years or even decades in the future and that will affect the rest of the world as much as the United States itself.

The Trump administration proved to be a disaster for environmental policy. Trump embraced an extreme version of climate-change denial and withdrew the United States from the Paris Climate Agreement. He sought to reverse actions taken by the Obama administration and he torpedoed ambitious environmental policy goals. Simultaneously, Trump appointed hardliner opponents of environmental regulation from industry to top environmental positions. Under his leadership, the Environmental Protection Agency (EPA) ordered the cancellation of numerous Obama-era environmental regulations. The Trump administration also decimated the EPA's staff of individuals with a research and expert background, leaving the agency less likely to enforce many regulations that remained on the books.

The Biden administration reversed key environmental decisions made during the Trump years. This means that the Biden administration has adapted environmental policies similar to those of the Obama administration. For instance, on the first day of the Biden presidency, the United States rejoined the Paris Climate Agreement. In

early 2021, President Biden also signed many executive orders to undo Trump environmental policies while strengthening environmental protection measures and the fight against climate change. Large investments in green technologies and public transportation have also featured prominently in the Infrastructure Investment and Jobs Act, which President Biden signed in November 2021.
Finally, regarding resource use and environmental protection issues, the Biden administration cancelled the federal permit for the controversial Keystone XL pipeline while imposing a moratorium on oil leases in Alaska's Arctic National Wildlife Refuge.

Belgium

Score 5

As on other fronts, Belgium's environmental policy ranges from bad to exemplary, depending on the dimension of concern. With regard to waste collection and recycling, Belgium is among the EU leaders (European Commission, 2019, doi:10.2779/54230). Belgium (Flanders taking the lead here) also features very dynamic circular economy policies. All regions have active green infrastructure initiatives, and provincial and municipal authorities are quite proactive in pushing a variety of environmentally friendly policies in areas such as waste management, green mobility and nature conservation. These are visible, politically conspicuous and clearly rewarded initiatives.

When it comes to the politically more sensitive dimension of reducing greenhouse gas emissions, the outlook is different. It is widely accepted that one of the policy components will require increasing the cost of energy, a particularly thorny political issue. The political landscape makes this even thornier in Belgium, and the OECD's 2021 Environmental Review headline is plain: "Belgium is not on track to achieve climate neutrality by 2050." The stated objective of the new National Energy and Climate Plan was to cut GHG emissions by 35% between 2005 and 2030. The COP26 meetings induced Belgium to talk about upping this ambition, to a 47% cut in sectors not covered by the EU Emissions Trading System (ETS). But this seems mainly to have opened a new rift between regions about the burden-sharing agreement. Decisions about how to progress in this direction are still in the making.

As for healthcare, Belgium boasts a record number of ministers with responsibilities for environmental matters (at least four). The OECD writes that "the fragmentation of competences and lack of an independent coordinating body hamper development of a shared long-term vision and implementation of coherent policies. … Oil and gas dominate the energy mix. … Energy supply from renewable sources has increased but accounted for only 9.4% of gross final energy consumption in 2018, half the EU average." At any rate, the OECD projections are that Belgian GHG emissions will actually increase until 2030 under existing measures.
According to a ranking by a collective of environmental NGOs, Belgium fell from 16th place in 2015 to 49th place this year, one of the worst performers among EU countries.

While there are several initiatives to accelerate Belgium's energetic and sustainability transition, they come across as improvised, poorly planned and uncoordinated. Back in 2003, the federal government imposed rules that would phase out the use of nuclear power by 2025. But this did not translate into a sufficiently proactive policy to implement the transition until 2021. At the end of 2021, a botched attempt to auction off the right to build fresh production capacity (by building new gas-turbine stations) left Belgian parties still wondering if the country can actually afford to close nuclear power stations built in the early 1970s. Meanwhile, the demand for electricity is bound to increase. Several cities, including Brussels, embarked on a policy of forbidding GHG-emitting vehicles by 2030. This is already translating into a strong growth in demand for electricity-powered vehicles, although the plans to build charging stations are scheduled to end several years after the 2030 deadline.

On a more positive note, the reduction in particle emissions has been noteworthy, thanks to tighter vehicle regulations. Moreover, Belgium boasts companies that are leading in the recycling of used equipment and cars (including batteries) and in developing various green technologies. Remaining challenges include reducing nitrogen oxides emissions, reducing the release of nitrates that pollute water and soils, and accelerating the modernization of buildings with respect to insulation and energy consumption.

Citation:
https://ccpi.org/country/BEL/
Official national sources

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- https://climat.be/politique-climatique/belge/nationale/plan-national-energie-climat-2021-2030
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Bulgaria

Score 5

Overall, developments in this area during the review period were encouraging, though much room for improvement remains. In 2018, Bulgaria ranked 30th out of 175 countries in terms of both environmental quality and environmental-protection policy according to the Environmental Performance Index (EPI). But after having significantly improved on previous years, the country's performance deteriorated in 2020, as the country ranked 41st in the EPI (out of 180 countries). In 2020, all new EU members outperformed Bulgaria on this ranking.

In 2019-2020, certain industrial regions suffered severe water shortages as a result of mismanagement and poor weather conditions, which led to one large company, a steel processing factory, filing for bankruptcy. The government responded by establishing a State Water Company with financing equal to 1% of the country's 2019 GDP, though the company is to date not operational and it remains unclear what this means for the 14 private water concessions already in place.

According to Natura 2000, Bulgaria ranks third in the EU in terms of how much of its territory (35%) constitutes protected areas. Only Slovenia and Croatia have a similar percentage of territories under biodiversity protection (37% and 36%, respectively).

In 2021, Bulgaria spent 3% of GDP on environmental protection, half of which came from the state budget and targeted waste and water management. National parks and protected habitats are financed by resources allocated via the Ministry of Environment and Waters and/or Ministry of Agriculture and Forest that amount to nearly 0.3% of GDP. Different EU programs contribute roughly the same amount of cash.

Pollution prevention and costs are covered by the private sector.
Climate change is addressed by policies to foster photovoltaic, wind and water power stations. Prior to 2020, renewables in electricity production accounted for 20% of final consumption (half of it provided by water power stations). No new facilities were added to the system in 2021. Bulgaria delayed efforts to harmonize its laws and regulations with the EU Renewable Energy Directive, particularly with regard to independent power producers. No progress has been registered in plans to phase out two "unclean" thermal power plants.

Citation:
2020 EPI Results, Yale University (https://epi.yale.edu/epi-results/2020/component/epi)

Croatia

Score 5

Primarily as a result of its EU membership obligations, Croatia has made some improvements in its water and waste management systems, and has passed several action plans. However, there is still much to be done in terms of actual enforcement and implementation. In the area of water management, substantial investment in the public water-supply network, drainage systems, and wastewater treatment systems is needed. In the capital city of Zagreb, there are steady leakages due to the poor condition of water pipes. The recycling rate for municipal waste rose from 14.9% in 2013 EU to 34.3% in 2020. However, Croatia is still among the EU's worst performers. The key reason for this state of affairs is to be found in the ineffective bureaucracy, the lack of any coherent strategy or policy coordination, a territorial fragmentation that has hampered the achievement of economies of scale for utility companies, the lack of financial incentives tied to certain milestones, and poor urban planning.

Per capita emissions of CO2 in Croatia reached their peak of 5.7 tons annually in 2007, and dropped to 4.14 tons in 2020. Additionally, energy intensity (how much energy the country uses per unit of GDP) has steadily declined, from 1.91 kWh in 1993 to 1 kWh in 2016. Environmental pollution has declined. However, air pollution occasionally emerges as a significant local problem, especially in Zagreb.

Eurostat data for 2018 show that the share of energy from renewable sources in transport was less than 4%. Only Greece, Estonia and Cyprus showed a worse performance. Therefore, electromobility in Croatia is very limited. Croatia ranks in the middle of the EU-27 chart with regard to charging points per 100 kilometers (2.3 in 2020). On the other hand, Croatia has a less impressive score in relation to the market share of EVs (1.9% in 2020). In this particular area Croatia has plenty of space to improve, attract new investments and create new jobs. It remains to be seen whether the NewGenerationEU (NGEU) and EU budget funds will serve as a game-changer. The answer to that question will depend on the quality of planning for operational programs stretching through the 2021-2027 period, as well as on the implementation of NGEU projects already approved by the European Commission.

The readiness of Croatian businesses to embrace opportunities arising from green transition was assessed by a joint research project conducted on behalf of the Croatian Chamber of Commerce and the Apsolon consultancy firm. Their recently published research shows that more than 60% of businesses do not perceive the green transition as an opportunity. The greatest obstacles to the green transition have been identified in the fields of financing, the country's often contradictory and complex legislative framework, as well as the slow and non-responsive public administration. However, some enterprises (e.g., Rimac Automobili) look very promising, and are transitioning rapidly.

Czechia

Score 5

Environmental policy in Czechia is shaped largely by the country's obligations to implement EU legislation, which sets both the policy agenda and has provided much of the necessary finance. In January 2021, the Babiš government adopted the State Environmental Policy of the Czech Republic 2030 with an Outlook to 2050, which set 10 strategic objectives: addressing water availability and quality; air quality improvement; exposure to hazardous chemicals; decreasing noise and light pollution levels; preparedness for natural disasters; quality of life and safety in cities; decreasing greenhouse emissions (only in seventh place); circular economy; landscape stability; and biodiversity (Ministry of the Environment 2021). However, there has been criticism of past policies relating to governments' lack of commitment and failure to ensure the required coordination between agencies. Water management has followed the general pattern, earning criticism for the government's lack of commitment on issues including storm-water management, water retention in agriculture and urban wastewater treatment. The case of an ecological disaster on the river Becva in September 2020 exemplifies this. While almost 40km of the river was damaged and 40 tons of fish killed, the investigation by the Czech Environmental Inspection and the police failed to find any culprit. Investigative journalists and some environmental experts link the catastrophe to DEZA – a company in Babiš's Agrofert holding. In April 2021, a parliamentary investigation committee for the Becva case was established and found significant failures in the investigation.

Poor air quality, particularly in North Moravia and North Bohemia, has made addressing pollution a high-priority issue. The problem is primarily a result of energy policy and the country's heavy dependence on fossil fuels. Air and water pollution are at the heart of an ongoing conflict between Poland and Czechia around the Polish coalmine Turow. Mining has continued despite a ruling by the European Court of Justice in September 2021 that Poland should stop mining and pay €0.5 million for each day of non-compliance.

Improvements in energy efficiency and the use of renewables have been slow, the latter reaching 16% of total energy in 2019. Coal is set to be phased out by 2038, but is to be replaced in the first instance by gas. During the negotiation of the European Green Deal in fall 2021, Czechia joined France in demanding that nuclear energy be designated as clean energy. When the National Energy and Climate Plan (NECP) for 2021–2030 was adopted, the European Commission found that of its 10 recommendations in the 2019 NECP draft only three were fully addressed (internal energy market, investment needs and analysis of air quality), six were only partially addressed (renewables, energy security, regional energy cooperation, phasing out energy subsidies, R&D, and just and fair energy transition) and one had not been addressed at all (energy efficiency) (European Commission 2020).

In biodiversity, the first strategy produced by the Ministry for the Environment was adopted in 2005, shortly after accession to the European Union. This included objectives and indicators for monitoring results but no allocation of specific tasks. An updated strategy for 2016–2025 published in 2016 (Ministry of the Environment 2016) lamented the low public awareness of the issue of biodiversity, particularly as the overall situation was continuing to deteriorate due largely to agriculture and transport activities; indeed, this meant that the issue could not be addressed by the Ministry of the Environment alone. The Nature Conservation Agency for Czechia (Agentura ochrany přírody a krajiny ČR, NCA CR), established in 2015, actively monitors the country's biodiversity and administers various categories of protected territory (including 24 protected landscape areas under the IUCN category, and about 8,000 other types of protected areas under IUCN Ia, III, IV), which cover 16% of the country's area. The use of EU funds has helped maintenance and development in this area. In November 2021, NCA CR supported the World Commission on Protected Areas' statement to global leaders at the COP26 climate summit in Glasgow, prepared by its UK counterpart.

Citation:
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Romania

Score 5

With the health crisis appearing to be near an end, EU member states are shifting their focus on emergency problems and mitigation, and finding sustainable, affordable and efficient solutions that aim to improve the well-being of European citizens. With access to capital from the Just Transition Fund and Next Generation EU, Romania is on track to implement policy goals from the European Green Deal (EGD) and the Recovery and Resilience Plan (RRP). These goals include the "transition toward a green economy; digital transformation; intelligent, sustainable, and inclusive economic growth; social and territorial cohesion; health and institutional resilience; and children, youth, education, and competences." Domestic targets for the RRP and EGD, however, are not easily reachable, because of the Romanian government's opposition. For instance, the EU Climate Law proposed by the European Commission addresses the climate neutrality objective for 2050 and transposes it into EU legislation – a target vehemently opposed by the Romanian government. The new initiative of the Romanian Ministry of Foreign Affairs for developing a pilot network of climate diplomacy represents an important incentive, aiming to develop a pragmatic answer to climate change through multilateral

cooperation. Domestically, the decarbonization of the energy sector is largely based on the support provided by the EGD, although local renewable energy solutions have the potential to drive decarbonization for Romania's energy sector, so long as public initiatives are synchronized with business intentions. Nevertheless, the energy market in Romania is competitive, with too many electricity producers,. The majority of producers are state companies and many household consumers are covered by regulated tariffs. Consequently, Romania performs very well for greenhouse gas emissions, at 4.09 metric tons per capita. Romania is also one of only two EU member states to be integrated into the EU power market, with an interconnection capacity of 7%, which is expected to increase to 10%. Yet, at the national level, Romania needs to move toward a clear vision and strategy, promoting research, innovation and good practice in the field of the circular economy. Buildings are a key segment of EU energy efficiency policy, as they are responsible for about 40% of final energy consumption and CO2 emissions.

In spite of improvements and commitments made to tackle carbon emissions by the Romanian government, Romania's environmental authorities have been accused of failing to collect accurate data on air pollution in the country, fearing sanctions by the European Union. For example, the European Commission has argued that Romania has failed to ensure that three industrial plants operate with a valid permit under the Industrial Emissions Directive (Directive 2010/75/EU), undermining efforts to prevent or reduce pollution. Secondly, Romania has not adopted a national air pollution control program under Directive (EU) 2016/2284 on reducing national emissions of certain atmospheric pollutants. Thus, the commitments set out in the EGD, launched in December 2019, agreed upon by the Romanian government, are under threat. Domestic targets to reach regional carbon and climate neutrality targets by 2050 with an intermediate goal of cutting emissions by 40% by 2030, and efforts to achieve the Low Carbon Green Strategy for 2016–30 are undermined by evasive carbon emission measurements of Romanian industries.

Citation:
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Slovakia

Score 5

In Slovakia, interest groups and policymakers have traditionally assigned priority to economic growth rather than the protection of the environment. As a result, the approach to environmental issues has tended to be patchy rather than holistic, and the implementation of environmental laws and regulations has been weak. However,

citizen sensitivity for environmental and climate issues has considerably increased in recent years. Thus, almost 70% of Slovak citizens are worried about climate change. Air pollution, solid waste management and biodiversity conservation have been the three main environmental challenges in the Slovak Republic. There is a need for reforms to radically improve the environmental effectiveness of public policies in the Slovak Republic. Thus, the OECD (2020) recommends shifting away from regulatory (command-and-control) measures to more incentive-based instruments which would allow achieving the environmental protection and public health objectives more cost efficiently. Another recommended measure is to use of pricing instruments that could raise additional budget revenue and help finance improvements in the country's waste management and nature protection systems. Despite the recommendations of international organizations, there has been very little progress in the areas of environmental taxes (OECD 2020).

The new center-right government has been quite active in the realm of environmental policy. There has been a high output of new laws and regulations regarding, inter alia, restructuring the national parks, eliminating plastic bottles and cans, improving waste management and stopping the import of nuclear waste. Building on preparations by the previous government, Minister of the Environment Ján Budaj has presented the country's strategy to achieve climate neutrality by 2050, the goal set by the EU (Ministry of the Environment 2021). This will cause additional costs amounting to 1.8% of GDP annually until 2040. The strategy is quite ambitious as CO2 emissions must be 55% below that of 1990 levels by 2030. As Slovakia relies on one of the most energy-intensive industries within the EU, with emissions of 22 million tons of CO2 in 2019, this goal is particularly challenging.

Regarding energy production, Slovakia relies strongly on its nuclear power plants. In 2021, after more than 12 years of construction, the third unit of the Mochovce nuclear power plant was ready for commissioning and fuel loading and is expected to go into full operation in early 2022. Economy Minister Richard Sulík (SaS) hopes that the fourth unit of the Mochvce nuclear power plant will also be put into operation during the current term of parliament, that is, by 2024. At the same time, Slovakia lags behind in transitioning to more renewable energy sources. The European Commission started an infringement case against Slovakia for failure to transpose a directive promoting the use of energy from renewable sources. In December 2021, the government reacted and set out to change the law accordingly.

Citation:
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Australia

Score 4

In recent years, environmental policy in Australia has focused strongly on water security. Some progress has been made over this time, including the construction of desalination plants and the creation of the Murray-Darling Basin water-management plan. However, this focus has not resolved water-management issues, not least because sustained droughts affecting large areas of the country appear to have increased in severity.

Environmental pollution is almost entirely the policy domain of state governments. There is considerable variation in the extent of pollution mitigation across the states, and it is difficult to assess overall performance. However, in general, most states enforce relatively strict standards on environmental pollution. There has been no clear change in this regard in the review period.

Climate change policy, clearly the most important component of environmental policy in the current era, has been largely absent. The federal government remains committed to reducing carbon emissions compared to 2005 levels by between 26% and 28% by 2030, and achieving net zero emissions by 2050. However, almost no policies in support of these objectives have been implemented or even announced.

Energy consumption levels are generally high, and despite great potential for solar and wind energy, the contribution of renewable energy to the grid remains considerably lower than it could be. A government-commissioned review of the national electricity market was published in June 2017. Most of its recommendations were accepted, but in the intervening period up to the end of the review period, there has been almost no progress on the policy front. Industry uncertainty therefore persists, undermining incentives to invest in energy generation and contributing to record-high energy prices for consumers, low levels of reliability and very limited progress on emissions reductions.

Biodiversity decline is also a significant concern in Australia, with considerable evidence of an acceleration in decline over recent decades. In response to this concern, in October 2010 the Australian government released “Australia’s Biodiversity Conservation Strategy 2010 – 2030,” which provides the guiding framework for conserving Australia’s biodiversity over that period. Various policies to address the decline in biodiversity have been implemented, though more action is required.

While Australia has been slow to implement a sustainable energy policy in the past, the country has made significant progress more recently. Western Australia is emerging as a new energy hub for Australia, and as a hydrogen provider for Japan and South Korea. The AUKUS security agreement between Australia, the United Kingdom and the United States, founded in September 2021, could enable Australia

to embrace small modular nuclear reactors, which are currently developed by Rolls-Royce.

Citation:
Australian Natural Resource Management Ministerial Council, ‘Australia’s Biodiversity Conservation Strategy 2010–2030,’ 2010: http://www.environment.gov.au/biodiversity/publications/strategy-2010-30/pubs/biodiversity-strategy-2010.pdf

Murray-Darling Basin Authority: https://www.mdba.gov.au/

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https://www.abc.net.au/news/2021-07-14/wa-green-energy-hub-hydrogen-sustainable-power/100292878

https://www.smh.com.au/world/europe/go-mini-nuclear-with-aukus-rolls-royce-urges-australia-20211109-p597jl.html

Cyprus

Score 4

Cyprus’s response to several warnings from the European Commission regarding the country’s systematic failure to comply with EU environmental rules, accumulated by the eve of 2020, came two years later, as a draft law that sets the requirements for impact assessments was presented to the parliament. The absence of ambitious goals is accompanied by a lack of urgency to meet obligations. Environmental policies have been insufficient and inadequately implemented. Meanwhile, the basic targets of Europe 2020 have not been met.

The environmental issues are absent from the EU post-program surveillance reports. Cyprus’s Recovery and Resilience Plan for 2021 to 2026 mostly focuses on energy issues, although 2020 targets were missed, and to some extent on climate protection. This means that other areas where problems persist do not receive the attention they deserve.

Regulations protecting Natura 2000 areas, both inland and at sea, remain pending, while projects with deficient or no impact assessment threaten these areas. The Akamas peninsula and other sites remain at risk from plans or decisions of the government sidelining environmental protection. Despite water management being a major environmental challenge, authorities have approved several new water-intensive projects (e.g., golf courses). Desalination continues while the reuse of wastewater remains limited. Energy policy is at the heart of the Recovery and

Resilience Plan, while fossil fuel exploration continues. The main policies in the Recovery and Resilience Plan consist in introducing green taxation, investing in energy efficiency measures and renewables, and promoting sustainable green mobility. With these policies, Cyprus is expected to benefit from its natural advantages in solar energy, to promote energy efficient buildings, and to shift from the use of private cars to cycling, walking and the use of electric cars. Green taxes may assist in reducing waste generation and improving the efficiency of waste management.

Promotion of green mobility started with subsidies for electric cars and bicycles. However, given substantial infrastructural problems and the limited amount of subsidies available, transport continues to be almost exclusively dominated by private combustion-engine cars.

Given the island's vulnerability to climate change, Cyprus participated in the eighth Summit of the Southern EU Countries and in the second Eastern Mediterranean Conference on Climate, among other meetings.

It remains to be seen whether initiatives and statements will translate into concrete actions, whether expert warnings will be sufficiently convincing and whether the authorities will comply with existing EU rules. New projects with significant negative effects for ecosystems have been approved. The unruly construction of very high buildings continues in defiance of town planning rules and the limitations they impose. Laws such as the one voted in 2017 leave the door open for the privatization of natural resources.

Political expediency favors financial interests at the expense of environmental protection. Politicians, businesses, and representatives from both public and private institutions persistently press for the relaxation of environmental protection rules. Local and central government authorities continue to highlight the importance of profit to justify decisions damaging the environment.

Citation:
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2. Cyprus petrol price hike to pay for €40 mln eco-fine, Financial Mirror, 31 January 2021, https://www.financialmirror.com/2021/01/31/cyprus-petrol-price-hike-to-pay-for-e40-mln-eco-fine/
3. Activists attacked, threatened with shotgun, bird protection group says, Cyprus Mail, 21 September 2021, https://cyprus-mail.com/2021/09/21/activists-attacked-threatened-with-shotgun-bird-protection-group-says/
4. Ministry defends decision to green light multi-story building in down town Nicosia, Cyprus Mail, 21 December 2021, https://cyprus-mail.com/2021/12/21/ministry-defends-decision-to-green-light-multi-story-building-in-down-town-nicosia/

Greece

Score 4

In comparison to many other countries, Greece performs rather well on environmental policy. In the Yale University's Environmental Policy Index 2020, Greece ranked 25th out of 180 countries (down from 22nd two years earlier) for

overall environmental performance, with a score of 69.1. Greece is among the top world performers in terms of access to water and sanitation, but compared to residents of other developed countries, Greeks overuse water sources and create a lot of waste.

Industrial production and greenhouse-gas emissions in Greece declined after 2010, as a consequence of the economic crisis. Recycling has increased only modestly over the past 15 years and waste management is not systematically practiced.

Many observers as well as an OECD review in 2020 have underlined traditional problems with environmental protection. In Greece, transport and electricity power stations using lignite heavily pollute the air; tourist and construction businesses, as well as Greek and foreign tourists cause coastal zones to degrade; and unregulated activities related to agriculture, transport, tourism and fisheries create multiple risks for biodiversity.

Several causes lie at the root of Greece's environmental challenges: a lack of state mechanisms capable of controlling sources of pollution, unchecked urban development, large infrastructure projects and negligent consumer behavior. Environmental and forest management is haphazard and subject to the vicissitudes of changing political leaderships and interests. This pattern is evident in the spread of the wildfires that threatened the northwestern suburbs of Athens in the summer of 2021.

Compared to the past, when environmental policymaking was rather fragmented across different ministries and state agencies, today policy formulation and implementation are better served by the Ministry of Environment and Energy. In 2021, the Greek government revamped its environmental legislation. The new regulations set clearer rules for environmental protection and are expected to facilitate environmental investments. More specifically, the new law changes regulations on land use, environmental licensing and the management of protected areas. However, the country is still not ready to address the challenges of climate change. Unprecedented wildfires in August 2021 and heavy flooding in October 2021 hit various areas.

Nevertheless, if there is one priority area in which tangible results have become increasingly obvious, it is the promotion of renewable energy. Here, the country has significant natural capital in the form of solar, wind and tidal resources.

In sum, as the latest EU Environmental Implementation Review notes, there has been some progress on waste-management issues, ecosystem protection and the implementation of the European Union's Urban Wastewater Treatment Directive. However, complex administrative structures and procedures continue to cause significant delays and bottlenecks. Paired with local political hurdles and "not in my backyard" movements, these are the main obstacles to the implementation of environmental legislation.

Nevertheless, central and local authorities, as well as state and private companies have become increasingly sensitive in implementing environmental legislation. While, owing to better crisis management, floods and wildfires in the period under review did not cause civilian deaths (as was the case prior to 2019), Greece has a very long way to go to successfully transition to a resource-efficient economy and preserve the country's natural asset base.

Citation:
Data on Greece's performance regarding renewable energy sources, water management and recycling is drawn from the SGI database available on this platform.

Data from the Environmental Performance Index for 2020 is available at https://epi.yale.edu/epi-results/2020/country/grc

European Commission, The Environmental Implementation Review 2019 (https://ec.europa.eu/environment/eir/pdf/report_el_en.pdf)

OECD's Environmental Performance Review for Greece, 2020, is available at https://www.oecd-ilibrary.org/sites/132fd602-en/index.html?itemId=/content/component/132fd602-en

Hungary

Score 4

As the 2011 constitution incorporated "green" values, the constitutional basis for environmental policy in Hungary is strong. However, environmental policy under the Orbán governments has suffered from a lack of commitment, institutional fragmentation, and weak implementation and coordination. Since 2010, no independent ministry for environmental policy has existed and environmental issues have largely been dealt with by a department in the Ministry of Agriculture.

Resource efficiency is low. While Hungary has made progress in waste recycling and recovery, more than half of the country's waste is deposited in landfill. Hungary uses substantially more energy than the EU average for a unit of GDP. This is partly due to low energy prices, especially for households.

While air quality has increased, environmental pollution in Hungary is still relatively high. Energy supply has remained largely dependent on fossil fuels. CO2 emissions declined in Hungary from 1990 to 2014, but have started to increase since 2014 as a result of using the Mátra carbon-based power station, which is owned by the influential oligarch Lőrinc Mészáros. As a result of the tight finances of municipalities and weak oversight, cases of contaminated drinking water and mismanaged garbage sites, which have poisoned local environments, have increased. While the government has softened its campaign against "climate hysteria," its climate policy has suffered from a lack of ambition. Instead of expanding renewables, the government has for a long time argued that all problems will be solved by technological progress and has banked on the extension of the Paks nuclear power plant, a project that has been controversial both for environmental

reasons and for Russian involvement. In a law passed in June 2020, Hungary set a climate neutrality goal for 2050, signaling support for the EU net zero emissions strategy, which it had originally opposed (Darby 2020). However, the three-page document was significantly watered down from a “climate emergency” declaration originally put forward by an opposition lawmaker last August. By leaving the interim target for 2030 unchanged, it has raised doubts about its credibility. More recently, however, there have been some improvements in the solar energy field, where an announced government directive aims to reduce administrative burdens for investment.

Hungary has a well-developed network of protected areas covering over 22% of its territory, exceeding the respective international target. However, the management of these protected areas suffers from a lack of resources. While progress has been made in integrating biodiversity considerations into policymaking for the agricultural, forestry and fisheries sectors, efforts to integrate biodiversity protection into energy, transportation, tourism and industry strategies have been limited. The Orbán government made panicked efforts to strengthen the economic position of the Fidesz oligarchs before the spring 2022 elections, with the frequent use of “national interest” legislation lifting environmental standards for more and more investments. The most shocking recent event has been the big development rush by the oligarchs around the lakes of Balaton and Fertő, which has involved building huge hotels that have ruined the natural environment, replacing natural lakeside areas with concrete.

Citation:
Darby, M. (2020): Hungary sets 2050 climate neutrality goal in law, issues green bond, in: Climate Home News, June 4 (https://www.climatechangenews.com/2020/06/04/hungary-sets-2050-climate-neutrality-goal-law-issues-green-bond/).

Mexico

Score 4

Mexico faces a number of very serious environmental challenges. The provision of clean water to Mexico City, air pollution in the capital and other major cities, deforestation and erosion in rural Mexico are some of the most pressing problems. While environmental policy has become more sophisticated, particularly in Mexico City and other major cities, the enforcement of environmental standards and regulations is often lacking. It is worth noting the substantial variation between government levels and across issues; the federal government is much more capable, with better and more efficient regulations and monitoring. This is not the case at the local level, where funds, human capital, and administrative resources are often scarce. In terms of environmental issues, Mexico has very strong air quality regulations and made significant progress over the last two decades. In contrast, norms regulating water consumption and pollution are far less advanced.

From a comparative perspective, the government’s recent economic reforms were more diluted and slower to pass than its environment legislation, but implementation

of policies and regulations remains a major challenge. Many companies do not comply with existing regulations and the high degree of informality in the economy is further aggravating the challenge of non-compliance. Despite an increasing awareness of environmental challenges among the broader population, particularly among the young, public pressure and support for environmental NGOs remains weak when compared to many other OECD countries. Business interest groups are much more powerful than their environmental counterparts; environmental interests are still weakly nested in the major political parties.

Despite a 2013 energy reform aimed at incentivizing the use of renewable energy and reducing greenhouse gas emissions by requiring the largest consumers to purchase a portion of their electricity from clean energy sources, the renewable energy sector has been the subject of intense criticism from the López Obrador administration. The president sees the expansion of renewable energy as a departure from state sovereignty in the energy sector, as renewables would be promoted primarily by foreign private investors, who would also provide overpriced and poor services to Mexican consumers. Furthermore, López Obrador has been heavily criticized by environmentalists. In particular, criticisms have focused on his three major projects: the construction of a new Santa Lucia airport, the troubled Tren Maya railway project and the construction of the Dos Bocas oil refinery.

Furthermore, the current Mexican government is pursuing a nationalistic energy policy that prioritizes the use of environmentally harmful and soon-to-be obsolete power generation technologies and hinders the expansion of renewable energy. According to AMLO, the latter is not reliable enough. AMLO is also aiming for extensive nationalization of the energy sector, which was partially privatized under the previous government. He wants in this way to make a contribution to the country's "energy sovereignty," but is at the same time failing to accord enough importance to innovation and technological change.

Citation:
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https://elpais.com/internacional/2019/07/25/mexico/1564070598_951499.html
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Poland

Score 4

Poland has enshrined the principle of sustainable development in Article 5 of its constitution and has broadly adopted EU environmental standards. However, the conviction that economic growth should be given priority over the protection of the environment changes is still very strong. All governments have been keen on protecting the domestic coal industry, which is a large employer and reduces the country's dependence on Russian energy.

For some time, however, the question of how to reduce CO2 emissions has gained prominence in public debates. Following the 2019 parliamentary elections, the government developed a new climate strategy which has called for a reduction of the share of coal in electricity production from 70% today to 50% by 2030 and a concomitant increase in the share of renewables (European Parliamentary Research Service 2021). In 2021, the government eventually succeeded in reaching an agreement with the trade unions to phase out coal power by 2049. However, many details remain open. The government has managed to achieve the targeted share of renewables only by accounting tricks (Wiejski 2022).

The strong reliance on fossil energy as well as on wood burning has kept environmental pollution high. The heavy air pollution has increased health problems for many infected persons during the COVID-19 pandemic. The government has been in conflict with the European Union and the Czech government over the lignite mine in Turow (Harper 2021). The Czech side – worried about the consequences for water levels, dust and noise – sued Poland at the Court of Justice of the European Union. Poland lost a preliminary verdict on the case and has been fined €500,000 per day since September 2021 because Warsaw refuses to shut down the mine until a final verdict is issued.

Resource productivity has been low. While the updated National Waste Management Program prioritizes separate collection and recycling, landfill has remained the dominant form of waste treatment. Municipalities often lack the power or incentives to enforce waste legislation. In addition, Poland imports waste, especially from Germany (70% of all imports), as well as from the United Kingdom, Italy and Austria. Often it arrives under false labels and is neither recycled nor disposed of adequately (Bronska 2021).

While Poland has made some progress with drawing up plans for managing Natura 2000 sites, the protection of biodiversity has not featured very prominently on the government agenda. Biodiversity is threatened by the rapid development of infrastructure (e.g., roads), the regulation of rivers for navigation, flood defenses and intensive agriculture.

Citation:
Bronska, J. (2021): Poland's growing problem with illegal European waste, Deutsche Welle, January 18 (https://www.dw.com/en/polands-growing-problem-with-illegal-european-waste/a-55957224).

European Parliamentary Research Service (2021): Climate Action in Poland: Latest State of Play. Strasbourg: European Parliament (https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698766/EPRS_BRI(2021)698766_EN.pdf).

Harper, J. (2021): Fear and loathing at Poland's Turow coal mine, Deutsche Welle, September 28 (https://www.dw.com/en/fear-and-loathing-at-polands-turow-coal-mine/a-59324808).

Wiejski, P. (2022): The accounting trick behind Poland meeting its EU renewable energy target, in: Notes from Poland, January 25 (https://notesfrompoland.com/2022/01/25/the-accounting-trick-behind-poland-meeting-its-eu-renewable-energy-target/).

South Korea

Score 4

Korea's environmental problems remain very serious, though it did drastically improve its rank on the Yale Environmental Performance Index in 2020 to 28th place (out of 180 countries) from 60th in 2018. It continued to perform poorly with regard to per capita GHG emissions (158th), ecosystem services (100th), and biodiversity (84th). Problems with fine dust exposure improved, raising the country to 45th place. As of 2019, Korea was the world's eighth-largest emitter of CO2, and the share of energy production accounted for by renewables is the second-lowest in the OECD.

Environmental policies remain unable to protect the environment and ensure sustainable resource use. The main problem appears to be a lack of ambition. Environmental policies largely do not match the scale of environmental challenges. And while "green growth" is widely touted as a policy priority, Korea is more focused on growth than it is on protecting the environment. The Green New Deal announced in 2020 and updated in 2021 allocates KRW 1.4 trillion to the transition to a green economy. However, the Green New Deal is primarily focused on developing and producing greener products – such as energy-efficient buildings and electric / hydrogen cars – and less ambitious with regard to the transition to a carbon-neutral economy. Environmental policies have not been accompanied by an environmental-tax reform. The final deal did not introduce a carbon tax as promised. With no explicit tax rate on carbon and no electricity taxes, the tax regime does not provide price signals for reducing emissions. While Korea has introduced a substantial emissions-trading system, the market has thus far failed to increase emission prices appreciably. Despite Korea's 2020 pledge of becoming carbon neutral by 2050, there is as yet no comprehensive strategy for achieving net-zero emissions. Environmental measures that have been implemented, such as the bans on free plastic bags and paper cups, usually have a relatively quick and tangible impact. However, the integration of environmental policies is a major problem, as measures seem to be ad hoc and fragmented.

Citation:
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OECD. "Taxing Energy Use 2019: Country Note – Korea," 2019. https://www.oecd.org/tax/tax-policy/taxing-energy-use-korea.pdf.

Malta

Score 3

Malta's environmental challenges are complicated by large population density, a constant challenge to create employment opportunities, attract foreign investment and improve standards of living. In line with the European Union's environmental targets, Malta is set to achieve a 19% reduction in GHG emissions and increase the share of renewable energies in the energy mix to 11.5% by 2030. The country accounts for less than 0.1% of the EU-27 GHG emissions and has reduced its emissions at a faster pace than the EU average since 2012. While energy industry emissions dropped by 63% between 2005 and 2019, emissions in the transport sector grew by 22% over the same period, though during the pandemic they temporarily declined by over 70%. The drop in GHG emissions is due to the launch of an electricity interconnector with Sicily and a shift from heavy fuel oil to natural gas. The volume of plastic waste in Malta has increased by nearly one-third over the last decade, making the country one of the worst performers in the European Union. However, Malta was among the first to ban some single-use plastic items, ahead of EU deadlines. Shortcomings are largely a result of the country's continued high dependence on cars, the growing dependency on air conditioning, and the slow reduction in the island country's forest and parkland area.

Several initiatives to fulfill these targets have been undertaken. These include the generation of photovoltaic power, the establishment of photovoltaic farms, construction of an interconnected electricity system with Sicily, a shift to the sole use of electric cars paired with a phase-out of fuel-inefficient cars, plans for a more bicycle-friendly road network, the promotion of car-sharing facilities, free public transport for young people and senior citizens, grants for electric scooters and cars, and the construction of a gas-fired power station.

Building permits in 2020 fell by 37.2% for new residential buildings. However, building permits for Gozo have increased threefold since 2015, with one in every six involving projects in outside development zones. In 2021, the Gozo regional council warned of substantial damage to the environment due to rampant over development. The Maltese countryside is protected from unsustainable development through a regulatory process of permits and enforcement. Nonetheless, a third of all outside development zone (ODZ) permits approved in 2020 were for dwellings. This is coupled with the fact that the number of ODZ permits on Malta's sister island, Gozo, has increased by 240% since 2013. The entity responsible for the issuance of permits, the Planning Authority, is often seen as lacking when it comes to timely action, especially within the context of enforcement. An undertaking by the minister to introduce a register where all meetings with stakeholders and lobbyists are logged has not transpired. Though new legislation has been introduced to regulate developers, sub-standard buildings continue to surface. The Planning Authority has over 5,000 pending enforcement notices, 14 date back to 1993. In 2010, the government refused to ratify the European convention that would oblige it to protect

heritage buildings and respect threatened landscapes. Many government road-building projects have not followed proper planning procedures. Moreover, the government is proposing to reduce the penalties for breaches of environmental regulations and introduce the right to petition a tribunal to waive infringement fines. In 2020, the minister of environment set up the Intelligent Planning Consultative forum, bringing together representatives from different organizations. One of its members, Flimkien ghal Ambjent Ahjar, resigned from the organization in February 2022 stating that several issues are leading to planning and environmental disasters in the country. These issues range from the quiet amendments made to building height guidelines in 2014 to the rampant destruction of heritage houses to the development of open spaces and massive projects in small villages (e.g., Sannat and Qala).

An agency called Ambjent Malta was also established in August 2018. Rather than being a regulatory institution, it is intended to bring together all of the country's environmentally related directorates. Its aim is to improve people's quality of life and appreciation for the environment. However, the government decision to hand over the management of one of the few woodland areas in Malta to the local hunting association undermines this objective. The decision has also generated considerable objections among the general public and NGOs. The government once again allowed autumn hunting in 2021 despite flagrant abuses. The wild birds regulation unit remains under the Ministry of Gozo since it was removed from the Ministry of Environment in 2020 in breach of EU practice. Statistics indicate that the number of illegally shot birds has trebled over the last six years. Malta has also been taken to the European Court of Justice for violating a ban on bird trapping.

Malta's 2030 National Energy and Climate Plan p. 5
European Parliament Climate Action in Malta – State of Play p. 1
Times of Malta 13/06/2019 Malta One of Europe's Worst Offenders for Plastic Waste
Malta Today 13/01/2021 Not Bold Enough: the Fight Against Plastic Pollution
Malta Today 15/02/2018 A new quest for land: Malta's solar farms set to cover an area as large as 94 football grounds
https://www.southeusummit.com/europe/malta/malta-develops-massive-projects-to- secure-its-energy-future/
Lovin Malta 02/11/2021 Third Of ODZ Applications Approved In Malta In 2020 Were For Works On Dwellings
Lovin Malta 02/03/2021 Permits In Gozo Increase By 240% Since 2013 With ODZ Permits Increasing Rapidly
Times of Malta 05/01/2022 Planning Authority Took Three Days to Halt Illegal Works on Barracuda Building

09/10/2020 Government Signs Off Miżieb and Aħrax to FKNK in Private Event
The Malta Independent 01/04/2021 Amid Covid Pandemic, Families Could Lose Access to Parts of Ahrax, Mizieb During Hunting Hours
Newsbook 14/07/2021 NGOs Can Challenge Lands Decision on Miżieb and Aħrax Woodlands – Court
Malta Independent 22/03/2020 Malta sees big decrease in air pollution after corona virus mitigation measures come into force
European Parliament -Climate Action in Malta: Latest State of Play
Times of Malta 20/01/2021 Pledge to end construction cowboys as reform report finally revealed
Long term renovation strategy 2050 Consultation document May 2021 Government of Malta
The Shift 05/06/2021 Gozo under siege: More than 6,000 development permits issued since 2013
Malta Independent 21/01/22 Planning Authority says that there are over 5,000 pending enforcement notices
Malta Today 27/01/20 Hunting regulator pulled out of environmental ministry and given to hunter minister
Malta Today 04/02/22 Illegally shot birds have trebled in four years
Malta Today 28/01/22 Environmental culprits to get petition rights on fines
Times OF Malta 19/02/22 FAA quits intelligent planning forum in protest

Turkey

Score 3

The Turkish government does not generally follow eco-friendly policies. The ongoing economic crises in Turkey make a sustainable economy secondary. Although some positive steps have been taken, such as the ratification of the Paris Agreement on climate change in November 2021, enforcement remains weak, especially in the areas of waste management and industrial pollution. According to TURKSTAT (2021) data, greenhouse gas emissions totaled 506.1 million metric tons in 2019. The largest contributor to emissions is energy consumption, with a 72.0% share, followed by industrial enterprises and product use at 13.4%, agricultural activities at 11.2%, and waste at 3.4%.

Some of Turkey's strategic goals appear very ambitious. Under Goal 1.1, "Protecting the environment and nature, preventing pollution, combating climate change," the ministry aims to achieve several far-reaching targets by 2023. These include plans to expand its zero-waste policy, separate waste at the source, provide recycling services to businesses, and provide solid waste and wastewater treatment services to all citizens.

The Ministry of the Environment and Urban Planning outlined several aims in its strategic plan for 2018 – 2022. These aims focus on protecting the environment and nature, preventing pollution and combating climate change; monitoring and controlling environments to improve environmental quality; accelerating environmental impact assessment processes for investments; and spatial planning and urban transformation for disaster resilient, energy-efficient and environmentally friendly construction projects. While these aims can be related to certain sectors theoretically, it is not obvious from the ministry's annual activity report how the ministry has connected these aims with the relevant sectors, including in its policymaking, policy implementation and the assessment of outcomes

Turkey is currently building its first nuclear power plant, in Akkuyu. What is worrisome about environmental policy is the government's disregard of judicial decisions relating to controversial projects with high levels of impact. The Canal Istanbul project, which will connect the Black Sea and the Sea of Marmara, is one of these projects. The government is seeking to build the canal despite its immense costs and its very serious impact on the environment.

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