



Indicator Environmental Policy

Question

How effectively does environmental policy protect and preserve the sustainability of natural resources and quality of the environment?

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 effectively protects, preserves and enhances the sustainability of natural resources and quality of the environment.
- 8-6 = Environmental policy largely protects and preserves the sustainability of natural resources and quality of the environment.
- 5-3 = Environmental policy insufficiently protects and preserves the sustainability of natural resources and quality of the environment.
- 2-1 = Environmental policy has largely failed to protect and preserve the sustainability of natural resources and quality of the environment.

Estonia

Score 9

Environmental awareness has risen rapidly in the political sphere, partly because of the need to comply with international standards. The Ministry of Environment articulated a vision of an integrated system of environmental protection that covers the entire country and ensures the preservation of a clean environment and sustainable use of natural resources. The challenge, however, is the national economy is still dependent on energy-heavy technologies. On the other hand, Estonia is sparsely populated and possesses significant natural resources – wetlands, forests, and protected areas for flora and fauna.

On climate protection, the country is progressing very much in line with international targets. It has reduced greenhouse-gas emissions by half in a little over 20 years, even as the size of its economy has doubled. By 2050, Estonia aims to decrease greenhouse gas emissions by nearly 80% compared to the 1990 level.

The share of renewable energy in Estonia today is already at 25%, close to the European Union's 2030 target. The main remaining challenge is the future of the oil-shale sector.

Estonia has invested significantly in renovation and building of the water management 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. According to recent estimates, the quality of about 26% of surface water is not good.

More than half of Estonia's territory is forested. Both the area covered by forests and the volume of forests have significantly increased in the last 50 years, making it one

of the biggest resources in Estonia, both in natural and economic terms. Seventy percent of the forests are commercial forests, while the remaining third has been placed under different protection regimes. Estonia ranks 10th in Europe on the basis of the proportion of forests protected from development. Two general objectives have been set for forest management: sustainability and effective management of forests.

Finally, looking at biodiversity, 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. All protected objects and species form a Natura 2000 network. About half of the Natura 2000 areas are wetlands and another half is dry land. Dry land protected areas cover about 17% of the Estonian mainland. 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. For example, the first "ecoduct" has been opened on the main national highway between Tallinn and Tartu. Strong emphasis has been put on environmental concerns in the process of planning the route for the Rail Baltic high-speed railway.

Latvia

Score 9

Environmental policy effectively ensures the sustainability of natural resources and protects the quality of the environment, as evidenced by Latvia's consistently high rankings in the Environmental Performance Index produced by Yale and Columbia universities. Environmental health policy, air quality and biodiversity were identified as particular strengths. However, weaknesses remain in the areas of climate change, energy issues and water resources.

In 2015, Latvia adopted a new Environmental Policy Strategy for the 2014 – 2020 period, prioritizing a new financing model for the use of revenue from the natural-resources tax, creating a deposit system for waste management, improving standards in waste-water management, and improving research and development capacities.

The Climate Change Financial Instrument, funded through the International Emissions Trading Scheme, is the main climate-change policy instrument.

Latvia is a heavily wooded country, with 2.9 million hectares (44.5% of the total area) of its territory forested, of which 50% 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 monitoring, and control of tree species.

Biodiversity in Latvia means coastal biodiversity, with unique brackish-water ecological systems at the shore of the Baltic Sea and the Gulf of Riga as well as

forest ecosystems, and bogs and fens. Protected areas, including Natura 2000 territories, cover 11.9% of Latvia's territory. A law called On Protection of Species and Habitats also provides for the establishment of micro-reserves to protect small-scale biologically rich areas that lie outside of protected territories. Over 2,000 micro-reserves had been established as of 2012.

Citation:

- 1. Yale University (2012), Environmental Performance Index Rankings, Available at: http://epi.yale.edu/epi2012/rankings, Full report: http://epi.yale.edu/sites/default/files/downloads/2012-epi-full-report.pdf, Last assessed: 20.05.2013
- 2. Ministry of Environmental Protection and Regional Development (2011), Annual Public Report, Available at (in Latvian): http://www.varam.gov.lv/files/text/VARAM_2011_PublParsk.pdf, Last assessed: 20.05.2013
- 3. Forest Stewardship Council Database, Available at: http://info.fsc.org/
- 4. Convention on Biological Diversity, Latvia: Country Profile, Available at: http://www.cbd.int/countries/profile/default.shtml?country=lv#status, Last assessed: 20.05.2013
- 5. European environment state and outlook 2015. European Environment Agency. Available at: http://www.eea.europa.eu/soer-2015/countries/latvia, Last assessed 22.11.2015

Sweden

Score 9 As is the case with global social injustice, Sweden tries to be a forerunner in environmental policy as well.

Environmental policy made its way onto the political agenda in the 1970s and has remained a salient set of issues. 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. Indeed, CO2 emissions are decreasing, bio-diversity is improving and its ecological footprint, while still high, is slowly decreasing. Moreover, governments of both center-right and leftist-green orientation are gradually shifting toward an increase in "green taxes". In addition, environmental policy is an integrated component of the larger project of restructuring the economy and making it more environmentally friendly.

After the 2014 elections, the Social Democrats formed a coalition government with the Greens. While both the Social Democrats and the Greens are strongly committed to "green" issues, it seems as if the Greens' ascendance to power has further increased the attention on environmental issues. Nonetheless, the two coalition partners do disagree on some issues. For instance, they do not seem to agree on the future of nuclear power; the Social Democrats want to study the issue further whereas the Greens want to shut down two reactors before the next elections (in 2018). Meanwhile, as fate would have it, two nuclear power plants are now scheduled to be closed over the next few years by their owners due to falling electricity prices and the resulting low profitability.

Switzerland

Score 9

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 a number of cross-sectoral strategies focusing on issues including 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. It aims to significantly develop energy efficiency and exploit the potential of water power 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.

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 totaled 2.5% of total public expenditure in 2012. 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 factors:

• 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 mix of voluntary, regulatory and market-based instruments are expected to produce a reduction in emissions through 2020.
- 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.
- Little progress has been made with respect to controlling noise pollution, as 25% to 30% of the population remains exposed to high levels of noise from road and rail traffic.
- Soil protection has improved.
- Average to high levels of success have been achieved in the area of chemical-management policy.
- 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 the risk of extinction continues to rise.

The 2015 national election led to a loss of power for the green-left parties in parliament, weakening those actors who most fervently have supported environmental protection. In recent referenda, voters have preferred excellent motorways, such as an additional tunnel in the Gotthard-region, over environmental preservation. A major challenges for environmental policies in Switzerland remains the adequate and bona fide implementation of federal rules by cantonal and municipal institutions.

Denmark

Score 8

Denmark is considered a front-runner in environmental policy. According to the 2015 Climate Change Performance Index of the Climate Action Network Europe, Denmark is the most climate-friendly country in the world. According to the Environmental Performance Index for 2014 (produced by the Yale Center for Environmental Law and Policy), Denmark ranks 13th among 178 countries.

Denmark ranked first for health impacts as well as water and sanitation, but 97th for forests, 93rd for fisheries and 86th for agriculture. Agriculture's contribution to ground and water pollution has occasionally become a political issue in Denmark. In February 2016, the Minister for Environment and Agriculture, Eva Kjer Hansen, was forced to resign for allegedly withholding information about nitrogen emissions from agriculture.

In 2015, Denmark had four EU infringement cases regarding the environment. Seven other member states had fewer, but 20 other member states had more.

The perception in Denmark is that the country is doing reasonably well. Asked whether they were satisfied or dissatisfied with efforts to preserve the environment, 70% of Danes answered that they were satisfied, putting Denmark in fourth place among OECD countries. Denmark is doing relatively well when it comes to renewable energy, as 23.40% of energy consumption is renewable, which puts Denmark in eighth place among OECD countries. Water usage is relatively low in Denmark compared to other OECD countries.

While CO2 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. Hence, while Danish production has become more CO2 friendly this is largely mitigated by imports from countries where production is less CO2 friendly. Measured in terms of production Denmark has emissions per capita that rank it 8th highest in the OECD and measured in terms of consumption 7th highest.

Denmark has set rather ambitious goals including that energy production should be fossil free by 2050. Several sub-targets have been set to reach this goal. Denmark aims to be coal-free by 2030; recently, it was proposed to move the date forward to 2025.

The June 2015 government platform calls for Denmark to remain among the leading countries pushing for the green transition. 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.

Citation:

Organisation for Economic Co-operation and Development, PRESS STATEMENT, Copenhagen, 25 January 2008 Launch of the Environmental Performance Review of Denmark, By Mr. Lorents Lorentsen, Environment Directorate.

Regeringens energi- og klimapolitiske mål, 2013, http://www.kemin.dk/Documents/Presse/2012/Energiaftale/Faktaark%202%20energi%20o g%20klimapolitiske%20mal.pdf

Climate Action Network Europe, "The Climate Change Performance Index. Results 2015," https://germanwatch.org/en/download/10407.pdf. (Accessed 23 October 2016).

"Denmark wants to be coal-free by 2015," http://www.euractiv.com/sections/energy/denmark-wants-be-coal-free-2025-309593 (accessed 3 November 2014).

Rockwool Fondensforskningsenhed, 2014, Measuring Denmark's CO2 emissions. Copenhagen.

Environmental Performance Index. Country profile: Denmark. http://www.epi.yale.edu/epi/country-profile/denmark (accessed 7 October 2015, re-accessed 23 October 2016).

EU Environmental infringements, https://www.statista.com/statistics/432857/environmental-breaches-by-member-state-eu/ (Accessed 23 October 2016).

Finland

Score 8

Finland faces 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, in the Yale 2014 Environmental Protection Index, Finland was ranked 18th out of 178 countries overall, and was top-ranked in the categories of health impact along with water and sanitation. In 2016 Finland ranked at the top of the Environmental Performance Index, ahead of Iceland, Sweden and Denmark. Water pollution is indeed a large issue in Finland. While pollution emissions from large industrial facilities have been to a large extent 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 management of which is of vital importance for sustainable economic development. 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.

Citation:

Jari Lyytimäki, "Environmental Protection in Finland", http://finland.fi/public/default.aspx?contentid=160041; "Finland's Environmental Administration", http://www.ymparisto.fi/en-US/Finlands_environmental_administration; http://archive.epi.yale.edu/epi/country-rankings;

Sebastian Frick and Luis Marin Morillas, "Environmental Policies in Finland", https://prezi.com/x6yy6xidpwaj/environmental-policies-in-finland/

Germany

Score 8

In the latest Environmental Performance Index, Germany places only among the second tier of "strong performers," ranking behind its European peers. After ranking sixth worldwide in 2015, Germany now is ranked 30th in the world, trailing behind frontrunner Finland by roughly 6.4 points (90.68, EPI 2016: 18). However, Germany

improved its score from 80.47 to 84.26 (Environmental Performance Index 2016: 111). The authors note that in absolute numbers Germany improved considerably, exhibiting "historically good environmental records" (Environmental Performance Index 2016: 111). Germany performs well in the areas of water resources, sanitation, biodiversity, climate and energy. The reason for the huge ordinal drop in rank (other countries dropped significantly as well, Switzerland from rank 1 to 16) are mainly due to improvements in the methodology of the index (e.g., new indicators). In the case of Germany, "more robust and telling air quality measures" (111) led to a reassessment of Germany's air quality. Current government policies geared toward forests and fisheries likewise leave ample room for improvement.

The greatest environmental policy challenge remains adequately responding to the 2011 government decision to phase out nuclear energy by 2022. The coalition decided that the financial responsibility for the demolition of nuclear plants and resulting atomic waste would remain fully with plant operators. How this decision will influence energy prices remains an open question, but it will very likely place further burdens on consumers. With regard to alternative forms of energy production, Germany is comparatively well prepared. The country has become an investor friendly destination for renewable energy, offshore wind farms, cogeneration, and the energy efficient redevelopment of buildings and other infrastructure. Nonetheless, today only 30% of Germany's total energy production is supplied by renewables (AG Energiebilanzen). As a key component of the energy system transition, the government seeks to increase the share of renewable energy in electricity consumption to at least 40% by 2025 and 55% by 2035. Thus, major challenges remain regarding how to organize and finance the demolition of nuclear plants and storage of wastes, expand the electric grid to supply renewable energy, and harmonize the phase out of nuclear energy while also reducing CO2 emissions.

All three challenges received attention in the current review period. The renaissance of lignite use after the shutdown of the first nuclear plants endangers the goal of successfully reducing CO2 emissions. In fact, according to estimates by AG Energiebilanzen, German CO2 emissions rose in 2015 despite an increase of renewable energy production (Cleanenergywire 2016) putting even more pressure on the government's ambitious CO2 emission targets.

Instead of a carbon tax, proposed by Minister of Economic Affairs and Energy Sigmar Gabriel, public investments and subsidies will be allocated for energy efficiency. To accommodate concerns from citizens groups in southern Germany, the building of new high-voltage transmission lines will be avoided or installed underground. This compromise implies additional costs of roughly €10 billion, which are to be covered by taxpayers. In particular with regard to the projected costs of underground power cables, one can expect public estimates to be overoptimistic. In September 2016, Bavaria's energy minister, Ilse Aigner, stated investment costs of approximately €6 billion. In reply, Lex Hartman, CEO of Tennet, an electricity company involved in the construction, estimated construction costs to be €15 billion.

In 2016, Germany also took steps to reform the Renewable Energy Act (EEG). The reform introduces market-based elements to support renewable energy investments and institutes an auction system that aims at keeping the annual capacity added into the grid steady. This new system replaces feed-in-tariffs that led to an uncontrolled, rapid rise in renewable energy sources which can no longer be accommodated by the energy grid's infrastructure.

Citation:

Environmental Performance Index 2014: http://epi.yale.edu/files/2014_epi_report.pdf

Environmental Performance Index 2016: http://epi.yale.edu/sites/default/files/2016EPI_Full_Report_opt.pdf Energy mix:

https://www.cleanenergywire.org/news/german-co2-emissions-rise-2015-despite-renewables-surge Power cables:

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EEG Novelle

https://www.cleanenergywire.org/factsheets/eeg-reform-2016-switching-auctions-renewables

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http://www.wiwo.de/politik/deutschland/energiewende-barbara-hendricks-kritisiert-sigmar-gabriels-energie-kompromiss/12006466.html

Ireland

Score 8 Climate Policy:

In 2013, the government published a draft Climate Action and Low Carbon Development Bill. A commitment to producing up to 40% of the country's energy from renewable sources is being implemented, relying heavily on the construction of wind farms. During 2015, progress was made toward attaining these targets.

Ireland is a world leader in carbon-efficient agriculture and food production.

At a EU summit in October 2014, Ireland argued strongly for concessions in its carbon-emission reduction targets outside the Emission Trading System, because its agricultural sector (dairy farming in particular) produces almost half of the country's carbon emissions. The country's negotiators claimed that displacing this production from Ireland to countries outside the EU would ultimately result in higher global emissions.

During 2015, it was announced that the ban on smoky bituminous fuels, which had been progressively extended to the main cities and towns since 1990, will be applied countrywide by autumn 2018.

Ireland has one of the highest proportions of electricity provided by wind power in the world. On 23 February 2017, wind power generated 55% of Ireland's total supply of electricity compared to 45% in Germany and only 18% in the UK. The figures vary daily according to weather conditions (see: www.windeurope.org/dailywind).

Renewable water resources:

In 2000, Ireland signed the EU Water Framework Directive into national law. Article

16 of the directive requires 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 Eireann) was incorporated as a semi-state company under the Water Services Act 2013. The creation of Irish Water merges the water and waste-water 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 (CER) and the Environmental Protection Agency (EPA).

The installation of domestic water meters began in 2014 and, despite sometimes violent local opposition, this process is now more than three-quarters complete. Substantial up-front costs were incurred with significant savings yet to be achieved. The proposed structure of the domestic water tariffs, which became the focus of fierce public protests, has been repeatedly revised. The water charge element was greatly attenuated, so that the levy became little more than a property-tax surcharge. Consequently, it provides only a weak incentive for conserving water usage.

In June 2016, the Minister of the Environment appointed an 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 must be included in the public-sector budget (for further details see our section on Policy Communication).

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 now has been shelved in response to concerns about the potentially adverse effects on the amenity value of these lands assets. Increased afforestation has been proposed in exchange for leeway on the emissions from the Irish dairy sector.

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:

Report on the Funding of Domestic Public Water Services in Ireland, November 2016. Climate Action and Low Carbon Development Bill 2015 http://www.oireachtas.ie/documents/bills28/bills/2015/215/b215d.pdf

For an update on Ireland's progress in regard to renewable energy see http://www.seai.ie/Publications/Statistics_Publications/Energy_in_Ireland/Energy-in-Ireland-1990-2013-report.pd

The latest data on emissions, etc. are contained in an EPA factsheet: http://www.epa.ie/pubs/reports/indicators/epa_factsheet_waste_v2.pdf

Information on the National Biodiversity Data Center is available at: http://www.biodiversityireland.ie/

The coverage of protected areas is set out in: http://www.npws.ie/protected-sites

Lithuania

Score 8

Lithuania's environmental performance varies significantly by sector. Lithuania's energy intensity is more than twice the EU average, with the residential-housing sector being particularly energy-inefficient. The country is progressing toward a low-carbon economy, with CO2 emissions declining. Lithuania is likely to achieve its Europe 2020 greenhouse-gas emission targets. The proportion of energy produced from renewable sources in Lithuania reached 23.0% in 2013, Lithuania's Europe 2020 target, and further increasing to 25.86% in 2015. Water-supply and sewage infrastructure has benefited substantially over the years through the use of EU structural funds. However, providing adequate connections to the public water supply still remains a challenge in some cases. Moreover, wastewater treatment is inadequate in some respects, with significant differences evident between rural and urban areas.

The country's forest-conservation efforts are much stronger, with Lithuania topping the 2012 Environmental Performance Index's forest category due to strong results in the areas of forest cover, growing stock and forest loss. With respect to biodiversity, Lithuania's protected areas cover 15.6% of the country's territory, but only 22% of habitat types and 54% of the protected species in Lithuania are subject to preservation efforts, according to European Commission reports. The country's municipal waste recycling rate reached 34.9% in 2013, well below the EU recycling average. Infrastructure for waste sorting and recycling is insufficiently developed,

and most non-hazardous waste is disposed of in landfills. The removal of the landfill tax, which was supposed to enter into force from January 2016, will discourage investment in waste processing and sorting.

Citation:

COMMISSION STAFF WORKING DOCUMENT, country report Lithuania 2016: http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_lithuania_en.pdf

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 http://epi.yale.edu/epi2012/country profiles

Norway

Score 8

Norwegian public opinion is highly sensitive to environmental issues, and the government regularly promotes international cooperation on environmental issues. There is a wide range of laws regulating various aspects of environmental policy and the use of natural resources, including specific laws on building regulations, pollution controls, wildlife and freshwater fish, municipal health, environmental protection and motorized vehicles.

Norway's share of renewable-resource use is among the highest in the world. Air and water quality are among the best in the world, largely due to the country's low population density and the fact that Norway's main energy source is hydroelectric power, which is in turn due to the natural abundance of water in the country. Less positively, Norway does not have a good record on waste management, and has received international criticism for its policy concerning whale hunting. In addition, energy demand and usage per capita are higher in Norway than in the rest of Europe. This is partly attributable to a legacy of inexpensive energy, a factor that international energy markets have now made a thing of the past. The government is committed to energy efficiency. To this end, conservation standards for new buildings have been tightened, and new taxes have been added to the use of electricity and gasoline. However, there is significant scope for improvement in this area.

Moreover, Norway is a major oil and gas producer, and it is therefore directly and indirectly contributing to increased global CO2 emissions. The government's plans for achieving its climate goals have sparked national and international controversy. The intention is to rely strongly on the purchase of international CO2 quotas to a degree that appears to be beyond what is acceptable by EU standards (to which Norway is committed despite not being an EU member itself). In the course of this plan, it has been involved in projects to save forest land in Africa, Asia and South America. Environmental groups have criticized the country for attempting to buy its way out of the problem rather than enacting appropriate and lasting economic and organizational reforms.

Research performed by government-owned companies has led to pioneering technological innovations involving CO2 storage in seabeds that is aimed at reducing

and ultimately eliminating CO2 emissions associated with gas exploitation. However, these initiatives have proved difficult and costly in the transition from research to large-scale experimentation.

Slovenia

Score 8

Slovenia enjoys extraordinarily rich biodiversity and landscapes due to its location at the junction of several ecological regions. The country's natural endowment has been enhanced by a tradition of close-to-natural forest management and by low-intensity farming. Forests occupy approximately 62% of the total land area, about twice the OECD average.

The key mechanism for defining sustainable development goals and targets has been Slovenia's new Development Strategy 2014-2020. In mid-2015, the Ministry of Environment and Spatial Planning initiated a comprehensive public debate about the update of the Spatial Planning Development Strategy (for the period until 2050 with a medium-term action plan until 2020), with a comprehensive third round of consultations taking place in March 2016.

Over the last decade, Slovenia has established a comprehensive environmental legislation. It has transposed most EU environmental directives into the 2004 Environmental Protection Act and other national laws. It has introduced risk-based planning of environmental inspections and improved compliance monitoring and enforcement. Several action plans and programs are in planning: decreasing GHG emissions, risk assessment of natural and other disasters, establishing an operational program for drinking water supplies, developing a new biodiversity strategy, and creating a national development program to establish an adequate waste management infrastructure. Another instrument providing support to individuals is the ECO Fund, which creates financial incentives for various energy-efficiency measures and renewable energy schemes.

In parallel with these developments, Slovenia improved the provision of and access to environmental information. Environmental NGOs fulfill an important watchdog role, participate actively in environmental policymaking, and play a role in environmental management – for example, by helping manage nature reserves. However, as in many countries, the legal basis enabling NGOs to challenge government decisions in the courts could be strengthened. While gross expenditure on R&D for environmental purposes has more than tripled in real terms in the last decade, the country's environmental innovation system has produced relatively little output.

It testifies to the quality of environmental policy in Slovenia that the country was declared the world's first "green country" by the Dutch organization "Green Destinations" and that Slovenia's capital Ljubljana was rewarded European Green Capital in 2016.

Citation:

European Environment Agency (2015) The European environment - state and outlook 2015: Slovenia. Copenhagen (http://www.eea.europa.eu/soer-2015/countries/slovenia).

Slovenia Times (2016): Slovenia declared world's first green country. September 28, 2016 (http://www.sloveniatimes.com/slovenia-declared-world-s-first-green-country).

Canada

Score 7

Canada's environmental-protection and sustainable-development record has been on the decline over the past years. A bill (No. C-38) passed in 2012 eliminated the Canadian Environmental Assessment Act, lowering the stringency of the federal environmental-assessment process and limiting the scope for public involvement. Environmentalists argue that the bill is part of a general pattern in which habitat-protection measures that often existed in law for years are removed in order to enable the development of energy projects and pipelines.

Bill C-38 had a number of implications for renewable water resources, forests, and biodiversity. Federal protection of over 95% of Canada's lakes and rivers was eliminated under the new Navigable Waters Protection Act, and pipelines and power lines were exempted from the provisions of the act. Amendments to the Species at Risk Act relieved the National Energy Board of the duty to impose critical-habitat-protection conditions on projects it approves. In addition, companies no longer have to renew permits periodically for projects that threaten critical habitats. As part of the government's austerity budgets between 2012 and 2015, Parks Canada suffered significant cuts in its budget.

Climate-change policy has been extremely controversial in Canada. The previous government largely failed to address the issue of global warming and greenhouse gas emissions. Bill C-38 included a repeal of the Kyoto Protocol Implementation Act. The 2014 Commissioner of the Environment and Sustainable Development report concluded that Canada is all but certain to miss its target for the Copenhagen Accord, which the government signed in lieu of participating in the Kyoto Protocol. Under the Accord, greenhouse gas production was to be cut to 17% below 2005 levels by 2020. Using Environment Canada data, the commissioner estimated that by 2020, greenhouse gas production in the oil and gas sector will be 27 megatons higher than it was in 2012.

The new Liberal government has made conflicting moves in the fight against climate change. In December 2015, Canada signed the Paris Agreement on Climate Change, a legally binding climate strategy, along with 194 other countries. At the same time, the government has publicly announced its support for pipeline construction to supply international markets with Canadian crude oil, which does not align with its position on climate change. The federal government has yet to set a clear target of greenhouse gas emissions to meet its commitments made in Paris, and it is hard to

see how these commitments will be met while also attempting to keep the oil sector engaged with foreign markets.

Renewable energy strategies have largely been the responsibility of the provinces. The 2016 federal budget included provisions to increase the number of jobs in clean energy industries in an effort to move away from fossil fuels. In October 2016, Prime Minister Trudeau also introduced Canada's first national carbon tax of \$10 for provinces that do not introduce their own carbon tax or cap-and-trade policy by 2018.

Citation:

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Luxembourg

During the period under review, Luxembourg has made efforts to protect water resources and curb emissions through a series of governmental measures. However, efforts such as reducing carbon emissions, caused partly by the phenomenon of "fuel tourism" by cross-border commuters, as well as the progressive improvement of the water quality of rivers and lakes, need to be continued. A new joint-venture drinkingwater plant with a daily capacity of 110,000 cm3 is to be built.

Under the Kyoto Protocol, Luxembourg pledged to reduce carbon emissions by 28% by 2012. However, government commitment to this target has been weak due to significant tax revenues derived from fuel tourism. Indeed, fuel tourism has increased carbon emissions and negated Luxembourg's emissions policies. Other prominent key determinants of higher carbon emissions include dynamic economic growth and new car leasing by cross-border workers. Luxembourg has Europe's highest energy consumption per capita, the highest vehicle density (660 vehicles per 1,000 people in 2014) and the highest renewal rate of passenger cars (12.5%). Despite the debate concerning environmental liability, Luxembourg was the only EU member state to reduce its biofuel ratio in 2012. Between 2015 and 2020, as part of the Kyoto Protocol, Luxembourg has agreed to contribute €5 million annually to the Green Climate Fund.

Luxembourg also has the lowest share of energy consumption from renewable sources of any EU member state (2.1%), while only 36% of wastewater is treated in modern triple-phase sewage treatment plants. In 2011, European Court of Justice ruled against the government for a second time for "failing in its obligation to treat and dispose of urban waste water." As a result, Luxembourg has been paying a fine of €2,800 per day since 2013. The government has thus prioritized expenditure for the construction of wastewater treatment plants. The 2016 budget allocates €110 million for significant investments in new sewage treatment installations.

Score 7

Almost 60% of the country's deep wells have pesticide residues with many concentrated in the south of the country. Although Luxembourg committed to the OECD and EU Pesticide Risk Reduction Project, implementation has been slow. For example, the community framework for the sustainable use of plant protection products (2009/128/EG) directive only became national law in December 2014.

There are problems with wastewater treatment and drinking water supplies during particularly dry summers. The monitoring of water systems is insufficient. To improve drinking water quality, the environmental administration designated 80 drinking water protection areas and 42 communes have banned pesticides since 2016.

As of 2011, Luxembourg had the highest degree of landscape fragmentation in Europe, which has undermined the country's biodiversity with many animal and plant species classified as being in danger of extinction. In 2012, about 34% of the 1,323 native flowering plants, around 54% of mammals and 24% of breeding birds, were considered at risk.

The country's environmental policy thus faces some major challenges. Programs implemented during the period are looking to address: issues surrounding the country's high recovery and recycling rate; new assessments of environmental sustainability questions; the achievement of sustainable protected forests reserves; monitoring nature conservation programs; the enlargement of energy counselling; a decrease in average per capita water consumption; the reduction of tax-privileged mileage allowances; and the implementation of an indicator based biodiversity monitoring framework.

Citation:

Green Climate Fund: http://www.greenclimate.fund/contributions/pledge-tracker/#states

Plant Protection National Action Plan: http://ec.europa.eu/food/plant/docs/pesticides_sup_nap_luxembourg_en.pdf

Mesures pour assurer la qualité de l'eau potable: http://www.gouvernement.lu/44444990/12-qualite-eau/2context=3393616

United Kingdom

Score 7

Environmental goals were ostensibly close to the heart of both governments led by David Cameron. Yet, some critics have expressed dismay at cuts in subsidies for green energy, and an increase in government support for natural gas fracking and nuclear power. The latter reaffirmed in the decision to proceed with a new reactor. The coalition government (2010-2015) set itself the goal of becoming "the greenest government ever," and its Conservative successor government has 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 polices. In many areas, the Cameron

government continued previous government's initiatives. For example, market-based environmental policy mechanisms, and a planning system designed to preserve and protect "green belts" around major conurbations. The "eco towns" initiative of the former Labour government, promoting low carbon emissions, renewable energy, expansive green space and high recycling rates, was substantially scaled back due to spending cuts.

After taking over from Cameron in July 2016, Prime Minister Theresa May dissolved the Department of Energy and Climate Change, which had existed since 2008, merging into the newly established Department for Business, Energy & Industrial Strategy. This step has been harshly criticized by environmentalist groups. In her keynote speech at the Conservative and Unionist Party Conference, Prime Minister May did not mention any environmental topics beyond the planned ratification of the Paris Climate Agreement.

Much environmental policy is still determined by the European Union (e.g., the Water Framework Directive or the Biodiversity Agenda) beyond which there is little space for nationally specific initiatives. After "Brexit," some divergence from the European Union could occur, although there is no reason to believe that the UK will renege on big issues such as the Paris climate accord. Renewable water resources have never been an issue for the UK, although utility companies are being encouraged to reduce leaks and improve sewerage. Forestry policy is a devolved competence. In England there is Forestry Commission, which has responsibility for both tress and biodiversity.

Austria

Score 6

Austria's government has sought to establish a policy course balancing economic growth and protection of the environment. In reality, this is very often seen as a contradiction. Environmental policies may have significant effects for employment and even for economic growth in the long run, but in the short run – and the Austrian government, like any democratic government, is first and foremost focused on short-term effects – traditional economic incentives are given priority most of the time, at the cost of environmental protection.

However, this has changed little by little in recent decades, as public opinion has slowly accepted the need for environmental protection. Ecological values have been embraced by virtually all political parties, not just the Greens, and as long as protecting the environment is not in immediate conflict with economic growth, the government has promoted environmental policies. But the ambiguity remains, as well as a tendency to think within traditional frameworks that favor economic growth over environment protection. Public opinion in Austria is inclined to think the country should be in the vanguard of international environmental protection and for that reason Austria's signing of the Paris Agreement on Climate Change in Paris

at the end of 2015 was not disputed domestically. Despite all this, Austria is one of the very few EU countries that has failed to meet the objectives of the Kyoto Protocol. To this day, Austria's greenhouse gas emission levels are very high for a country of its size.

Partly due to EU laws (the so-called Eurovignette directive), and partly due to the failure to make railroads a more attractive way to transport goods, Austria has completely failed to decrease vehicle-traffic CO2 emissions.

Industry and commerce are responsible for the second-highest increase in total CO2 production, and remain the largest contributor to CO2 emissions in full with 45.6% of total greenhouse gas emissions. Economic growth and cheap carbon-market certificates for CO2 can be seen as the principal reasons for the increase in CO2 emissions in this sector. In part due to strong lobbying by economic actors, the Austrian government has failed to control the supply and prices of tradable CO2 certificates, contributing to a significant fall in certificate prices.

Belgium

Score 6

The Belgian government has established a climate-policy website (www.climat.be) on which the authorities themselves concede that the country's environmental policy is "rather complicated" given the unique policymaking arrangements. Belgium's environmental policy is indeed split between the federal government and the three regions, which makes it largely unmanageable. Most of the energy spent at this policy seems to be devoted to pushing the burden of adjustment to another of these partners. As of November 2016, the website proudly details the progress made between 2008 and 2012, but concludes with the understatement that negotiations for the 2013–2020 policy round have not yet come to fruition. In practice, this means that environmental policy in Belgium remains largely uncoordinated, local and inefficient. Generally speaking, environmental quality matches the OECD average.

The European Environmental Agency notes that "The Belgian annual air quality report indicates significant improvement over recent decades, but also shows that a high percentage of the Belgian population is still exposed to excessive concentrations of the four most important air pollutants (PM, NO2, O3 and SO2)." A push to increase solar electricity production in the early 2000s, translated into massive increases in electricity costs that continue today. Projects to create offshore wind farms may help reduce CO2 production, but their costs remain undetermined.

Regional initiatives may, however, progressively improve the situation. The local, bottom-up, nature of these projects means that it is hard to see a general pattern or a well-defined policy direction, but this may also produce better results in the long term, if they meet project aspirations and increase the general public's awareness.

Car traffic is unlikely to decrease in the short term, given the poor management of public transportation projects (e.g., a regional express train for the greater Brussels area, initially planned for completion in 2012, has been postponed until 2025), Belgium's location as a crossroads for European highway traffic, and the political unwillingness to curb tax benefits for corporate cars. The government is introducing a per-kilometer tax on trucks, but the main objective is to shift some of the tax burden away from labor, not to reduce traffic. Congestion in the major cities remains high. Brussels, for instance, ranks as the seventh-most-congested city in Western Europe, according to the TomTom Traffic Index, with an average daily delay of 44 minutes during peak hour for what would be a 60-minute drive in off-peak conditions.

Significant improvements in water treatment have been recorded in all regions, after Belgium was taken to court by the European Commission for failing to implement its international commitments. Implementation in this area has become a regional prerogative.

The regions are now responsible for maintaining forests and biodiversity. Overall, forest management is proactive, with a view toward long-term sustainability. Some superficial attention is given to biodiversity.

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Bulgaria

Given the heavy damage to the environment inherited from the socialist economy, the overriding priority of environmental policy in Bulgaria over the last two decades has been to reduce pollution. Issues such as climate policy, renewable water resources, forest policy and biodiversity have been placed on the agenda by EU initiatives.

Bulgaria's per capita CO2 emissions are relatively low and might further decrease with improvements in energy efficiency, the substitution of lower (gas) for higher

(coal) emission fuels for power plants, and the rise in the share of renewables in the energy mix. Climate policy has concentrated on subsidizing renewable energy sources, especially solar and wind. Energy supply from renewables has increased at a high pace and equals more than 20% of final energy consumption. The rise in the share of renewables, however, has slowed due to revisions to the highly unpopular government subsidy policy which palpably increased the price of electricity.

Water resource management rests predominantly with municipalities, creating problems of coordination and strategy development. Since much of these management costs can be covered by using EU funds, the process of application may improve strategizing and coordination. A further strategic problem in this area arises from the fact that much of the renewable water resources in Bulgaria also affect neighboring countries (i.e., Romania, Turkey, Greece), requiring international coordination. Bulgaria still lacks a clear water-resources strategy.

Forests in Bulgaria are either private, municipal or state property. This fact impedes the development and implementation of coordinated forestry policy actions. However, Bulgaria forest coverage is above the global average and has a long-term growing trend. This indicates that the existing model is performing relatively well and possibly needs incremental adjustments.

In terms of biodiversity policies, Bulgaria is an active participant in Natura 2000, the European Union's largest network for the preservation of biodiversity. With approximately a quarter of its territory dedicated to Natura 2000, Bulgaria is significantly above the average for the European Union. As opposed to many other issues, there is an active civil-society sector working on biodiversity and conservation issues, which is capable of applying political pressure and sometimes achieves results. However, powerful business actors with access to policymakers often manage to violate environmental-protection policies in order to further business interests. Most violations of this kind take place in the tourism and mining sectors.

Chile

Score 6

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) has been upgraded into the Ministry of Environment (Ministerio del Medio Ambiente). The creation and implementation of complementary institutions, such as environmental tribunals (Tribunales Ambientales) and a chairperson for the environment (Superintendencia Ambiental), showed some progress by the end of 2012. However, Chilean environmental policy is basically designed for compliance with standards required by international markets and thus does not necessarily focus on aspects like ecological sustainability. In

addition, Chilean environmental policy is also exposed to major domestic political pressures from the industrial sector, especially in the field of water and forestry policies and regulation. This often produces clashes over the protection, preservation and sustainability of natural resources and the quality of the environment. It is quite common for the judiciary to stop investments and projects on ecological-sustainability grounds. In September 2016, Chile signed the Paris Agreement on climate change, but has not yet ratified the agreement. The agreement entered into force in November 2016. This entry into force might foster institutional efforts to protect and preserve natural resources and environmental quality in the near future.

Citation

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Czech Republic

Score 6

The Czech Republic continues to battle both a historical legacy of environmental damage and other ongoing environmental issues. There has been a long-term trend of decline in emissions of acidifying substances, ozone precursors, primary particles, secondary particulate precursors, greenhouse gas emissions from the manufacturing industry. Surface and groundwater pollution have also diminished over time. The main priorities of the State Environmental Policy of the Czech Republic 2012-2020 are the sustainable use of resources, climate and air protection, nature and landscape protection and safe environment.

In terms of climate protection, in October 2015 the Czech Government adopted the Strategy on Adaptation to Climate Change in the Czech Republic. This document sets specific tasks and deadlines across all fields in which negative impacts of climate change are expected (e.g. agriculture, water and forest management, transport and human health) and represents a national adaptation strategy of the Czech Republic. It includes assessment of the climate change impacts and proposals for specific adaptation measures, legislative and partial economic analysis. In 2016, it was complemented by a National Action Plan on Adaptation to Climate Change and a climate protection strategy for the period until 2030 with a long-term outlook until 2050. The stipulated goals are based on the Czech Republic's international commitments regarding the reduction of greenhouse gas emissions, and the relevant EU documents and strategies (e.g. the climate and energy package until 2020, and the new climate and energy framework until 2030). It remains an open question whether the government will be able to implement these general principles after the decision in October 2015 to yield to industry and employment interests by allowing a further expansion of open-cast mining for brown coal in North Bohemia. This decision threatens to leave the Czech Republic among those countries with high levels of per capita greenhouse gas emissions.

Citation:

France

Score 6

Although the OECD in its 2016 environmental report attests that France has significantly improved its environmental performance over the last ten years, the performance record with respect to environmental targets is not satisfactory. In general, the political will exists, as is confirmed by many new laws and regulations covering the entire field of environmental regulation. However, the initiatives often miss their ambitious objectives. Regulations are too complex and the several layers of administrative structures slow the implementation of initiatives. Natural resource and green management needs improvement, though lobbies and pressure groups remain influential when economic interests collide with environmental targets. Thus, environmental policies continue to be subordinated to sectoral policies, which are considered more important. The latest example was the October 2014 withdrawal of the so-called eco-taxon truck-transported goods, which was driven by fears of truck driver protests.

France's good performance on carbon emissions is credited to the aging nuclear sector in France. The objectives set out in the July 2015 energy transition bill (reduce nuclear power in total energy production from 75% to 50% by 2025, and increase renewable energy sources to 40% from its current 12.5% share) are unlikely to be met given the complex authorization processes for renewable energies. In the same way, areas related to energy efficiency, such as insulation technology, have been neglected. It was announced that the insulation of buildings will become compulsory, however, it remains to be seen if these ambitious targets will be supported by consequential policies.

Until the recent Volkswagen scandal, the government refused to deviate from incentives for diesel cars, as French companies have a marked preference for diesel engines. Following public pressure, the government decided to end the tax privilege it afforded to diesel fuel in October 2016.

The same contrast is observable in the field of renewable water resources. In principle, France supports a water policy and has set up water agencies to monitor the use and protection of its water 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. This plays out in the southwest of France, where the intensive production of corn jeopardizes regional resources, and even more in Brittany, where surface water (the main resource in that region) is highly polluted by intensive pork and poultry production. The use of pesticides has increased by 29% (2008-2014). Despite condemnations by the courts and the EU commission, the government has been reluctant and unable to tackle the problem properly. Rivers and the sea are affected by the excessive proliferation of toxic seaweed. Things are better in urban

areas, where 90% of the water treatment centers complied with European regulations in 2015.

The performance of municipal composting, waste management, and recycling is far behind that of other countries.

Air quality is another problem. France has been respecting European directives and has adopted a plan to fight air pollution in Paris. However, especially in the Paris region (Ile-de-France) and in the southern region of Provence-Alpes-Côte d'Azur, the pollution levels are still above European targets.

The situation is much better with biodiversity and forests, 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 by many diverging interests (agriculture, construction and transportation).

Citation:

OECD Environmental Performance Reviews: France 2016, Paris, OECD, 6 oct. 2016

Hungary

Score 6

As the 2011 constitution incorporated "green" values, the constitutional basis for environmental policy in Hungary is strong. Comprehensive environmental regulations are in place, and the EU continues to serve as an important driver of policy action. However, environmental policy has suffered from the country's tight budgetary situation, the lack of a separate Ministry of Environment and a relatively low environmental awareness among the population. In the third Orbán government, environmental issues have largely been dealt with by a Ministry of Agriculture department led by a deputy state secretary. However, water management has rested with the Ministry of the Interior, and, the subnational environment authorities have become part of the newly created government offices at the county level. Due to the neglect of environmental policy, problems such as the frequent contamination of drinking water resources and the mismanagement of garbage sites (often inherited from the privatization period of the 1990s and still poisoning the environment) have grown. From a comparative perspective, Hungary has also seen a relatively high increase in CO2 emissions. The planned extension of the Paks nuclear power plant stirred controversies with the EU and will raise questions concerning the storage of nuclear waste, but has meanwhile been accepted by the EU. More recently, the megalomaniac construction activities of the government have led to "deforestation" in Budapest, as hundreds of big trees in many parts of the capital have been cut.

Iceland

Score 6

Environmental policy has historically not been a high priority on Iceland's political agenda. The Ministry for the Environment and Natural Resources (Umhverfis- og auðlindaráðuneytið) was established, comparatively late, in 1990. When the

Gunnlaugsson cabinet came to office in May 2013, the Ministry of Environment and Resources was brought under the responsibility of the person who also was Minister of Fisheries and Agriculture. However, a new Minister for Environment and Natural Resources was nominated at the end of 2014, separating the two ministerial positions.

The country is rich in onshore energy and fresh water 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 early 2013, Iceland's parliament made two significant steps toward addressing the country's nature and natural resources. First, parliament passed a new act, Lög um Náttúruvernd No. 60, which strengthened the regulatory framework for protecting the natural environment. Second, the parliament passed a resolution that implemented aspects of the Master Plan for Hydro and Geothermal Energy Resources 1999–2010 (Rammaáætlun). The plan was based on scientific and impartial advice, rather than special interests, and it was intended to be open to public involvement and scrutiny. The 2013 resolution provided greater substance to the initial plan by stipulating which hydropower and geothermal resources could be used for power generation. However, the Gunnlaugsson cabinet reversed the previous government's progressive environmental policy agenda. In November 2013, the Minister for the Environment and Natural Resources argued that the act had "met great resistance from different groups in the society" and proposed to repeal it by spring 2013. After bargaining between government and opposition, a final compromise was ratified in late 2015.

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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 poor relationship with its neighboring countries prevents it from sharing power facilities, which would reduce environmental costs. Security and political considerations also overshadow environmental issues, resulting in long-term neglect of environmental policy while OECD accession binds Israel to conform with western standards and goals.

Since Israel received a status as a developing country with regards to climate policy, it is not bound to international climate treaties and has discretion over greenhouse-

gas emissions and pollution targets. In 2009, it stated its aim to reduce emissions by a modest 20% by the year 2020 and subsequently launched a policy package of NIS 2.2 billion. However, the treasury halted the transfer in 2013 and again in 2015 as well as reduced the policy goals. Similarly, the Clean Air Act (2008) that set standards for industrial pollutant emissions and waste dumping underwent severe budget cuts. Although the government has sought to use taxation and price mechanisms to provide incentives for energy use reductions, it has not done enough to offer viable alternatives. This past year, the government approved a NIS 500 million national program to reduce greenhouse gas (GHG) emissions and increase energy efficiency; this was about four months after Israel committed to reducing its GHG emissions by 26% from its 2005 level at the Paris Climate Conference in 2015. In addition, NIS 260 million were allocated this year to a two-year program focused on reducing air pollution.

Years of drought and rising water prices motivated Israeli scientists to develop new innovative technologies such as desalination facilities, sewage treatment procedures and infrastructure, and efficient irrigation techniques. These have become front-line technologies recognized around the world, used to a somewhat lower (but sufficient) degree in Israel itself. However, Israel has considerable room for improvement with respect to regulation and water pollution prevention.

Israel's approach to preserving forest areas is systematic and effective, but could be improved. According to 2010 report, Israel's wooded area makes up 8.9% of its total land, and some 10% of its open rural area. Most of this land is declared as preserved, and is supervised by governmental authorities such as the KKL-JNF.

Israel's geographical diversity supports impressive biodiversity. Yet, in 2010 8% of plants were under threat or severe threat and 2% were already instinct, while the percentage of endangered vertebrates in Israel is one of the highest in the OECD. It was in that same year that Israel joined other parties to the Convention on Biological Diversity in adopting an updated Strategic Plan for Biodiversity for 2011 through 2020. In 2006, Israel established a communal program which promotes cooperation between the government's main environmental bodies.

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Japan

Score 6 Japan was a global leader in terms of antipollution policy and energy conservation in the 1970s and 1980s. More recently, Japan has been faced with the major concern of how to improve its domestic energy mix.

The triple 3/11 disaster led to some policy rethinking with respect to nuclear energy. The LDP-led government has, however, reiterated that nuclear power will remain important for a considerable time. In August 2015, the first nuclear reactor was restarted after the Fukushima incident, with new safety rules created under the new Nuclear Regulation Authority in place. As nuclear power remains fairly unpopular, only two reactors have been recommissioned so far. While Japan has introduced various measures to support renewable energy use, the goal of 22 to 24% for 2030 will not be easy to reach. Renewables made up just 14% of energy production in March 2016, compared to 10% before 3/11. The imminent deregulation of the power industry leads companies to seek low-cost solutions, including coal-fired plants.

Japan has made great progress in terms of waste-water management in recent decades. Today the country has one of the world's highest-quality tap-water systems, for example. Usage of water for energy production is limited for geographical reasons.

The country has a proactive forestry policy, and in 2011 passed both the Fundamental Plan of Forest and Forestry and a National Forest Plan. The devastation caused by 3/11 in northeastern Japan has led to further emphasis on forest-support measures.

Japan's biodiversity is not particularly rich compared with other Asian countries. While the country has in recent years taken a proactive stance under its National Biodiversity Strategy, the 2016 Annual Report finds that the long-term decline of biodiversity continues.

Citation:

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New Zealand

Score 6

The performance of New Zealand's environmental policy is mixed, but improving. In the 2016 Environmental Performance Index, New Zealand ranked 11 out of 180 countries. However, this particular ranking should not detract from the fact that New Zealand holds only an average overall position in the group of OECD countries. Major environmental problems stem from New Zealand's economy, which is heavily dependent on agricultural production and particularly dairy. Areas of concern include water usage and management and greenhouse gas emissions. The main policy tool for tackling greenhouse gas emissions is New Zealand's Emissions Trading Scheme. However, the effectiveness of the scheme is limited, as biological emissions from agriculture and transitional arrangements are excluded. This has halved the carbon price that carbon emitters have had to pay. According to OECD recommendations, the government should address the issue of high greenhouse gas emissions from agriculture through pricing, regulation and R&D, while transitional agreements should be terminated. The Climate Change Issues Minister Paula Bennett highlighted the need to reform the Emissions Trading Scheme to achieve New Zealand's target for reducing emissions as agreed at the Paris climate conference in December 2015. Water usage and deforestation, in contrast, are of much less concern, as logging in indigenous forests on public land has ceased and on privately owned land can only be carried out with a permit (although several major forests will reach maturity in the next few years). Finally, biodiversity is an area in which all recent governments have been quite active. Due to New Zealand's isolated location, its biodiversity is one of the most varied in the world, with a high percentage of vulnerable endemic species. Substantial public interest in environmental issues is evidenced by high levels of support for environmental-interest groups (e.g. Greenpeace and Forest and Birds Society) and the significant influence of the Green Party. Due to this public interest, environmental policy has been a necessary part of the government's agenda. On the other hand, the government's critics accuse it of pandering to farmers, especially the rapidly expanding dairy industry, who are among National's strongest supporters, and failing to take a strong stance in supporting international environmental agreements such as the Kyoto Protocol.

The problem of gathering and systemizing environmental data was addressed with the introduction of the Environmental Reporting Act in September 2015. This establishes a broad framework of five key areas for the scope of reporting, namely air, climate and atmosphere, freshwater, marine and land, with biodiversity included in all areas. This followed the restructuring of the Environment Ministry to strengthen its policy capability and the creation of the Environmental Protection Authority. These initiatives form part of the government's blue-green agenda for improving New Zealand's environmental institutions. Moreover, New Zealand had previously been the only OECD country without a statutory requirement for the state reporting of environmental data.

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Portugal

Score 6

Portugal has long had legislation in place meant to protect the environment. Although the government has failed to implement adequate policies to mitigate climate change, ensure renewable water sources, or to protect forest areas and biodiversity, the reduction in production resulting from the economic crisis eased the pressures placed on the environment.

However, Portugal's environmental performance has deteriorated since 2014 as the economy has slowly recovered. In the Climate Change Performance Index, Portugal ranked 16 out of 58 countries in 2016, having ranked 4 in 2015 and 3 in 2014. Moreover, the country's score dropped from 67.26 in 2015 to 59.52 in 2016, reducing Portugal's overall rating from good to moderate.

The Costa government's energy policy has come under attack from the renewable energy sector, with a recent international article citing an (anonymous) EU source as stating that "Portugal went from being a small country that was really ambitious and fantastic in renewables — with policy proposals that the Germans were calling 'the Portuguese option' — to being a desert".

Portugal has proposed a National Strategy for Sustainable Development (ENDS) since 2002, but implementation of this strategy continues to be postponed. The strategy could have a substantial positive impact by developing a green public-accounting system; harmonizing and publicizing existing environmental information; creating analysis and decision-making tools to combine environmental, social, economic and fiscal aspects; reviewing industry regulation; and rationalizing existing environmental funds.

In lieu of the ENDS, this assessment is based largely on newspaper reporting. In this regard, Portugal can be rated as good on climate issues; poor on water resources, though a National Plan for Water is under discussion; poor on forests, but very poor on forest fire prevention, as exemplified by the devastating fires of 2016; and good on biodiversity, particularly regarding marine environments.

Citation:

Source: Público 18/11/2013.

Technical Report for the DGEP Model Results prepared for the Commission for Green Fiscal Reform (http://www.portugal.gov.pt/media/1537849/20140917% 20fiscalidade% 20verde% 20anexo% 20IV% 20DGEP% 20mo

del%20results.pdf (doc 23 e 24)

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Jan Burck, Franziska Marten & Christoph Bals (2014), The Climate Change Performance Index Results 2015, available online at: https://germanwatch.org/en/download/10407.pdf

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"Portugal's clean-power problem", Politico, 22 August 2016, Available online at http://www.politico.eu/article/portugal-looks-to-free-its-stranded-renewables-wind-solar-energy-subsidies-european-union/

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, including water resources, wetlands, endangered species, and protection of forests. In some areas, 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.

In his 2008 and 2012 election campaigns, President Obama promised to make effective action on climate change a major priority. In 2009-2010, he pushed for a major cap-and-trade bill, but the measure failed in the Senate. Nevertheless, a number of constructive developments have occurred. The Environmental Protection Agency (EPA) has imposed several major measures, including increased fueleconomy standards for cars and light trucks, and carbon standards for new coal plants. In 2014, the EPA proposed regulations that would require reductions in power plants' carbon emissions of 30% by 2030, in effect, largely phasing out coalfired power plants. Despite the failure to enact a cap-and-trade policy, the United States is on pace to cut carbon emissions by an estimated 16.3% by 2020, consistent with international expectations. In November 2015, President Obama announced that the United States was rejecting the proposed Keystone XL Pipeline that would have carried bitumen produced from tar sands in Alberta, Canada, for processing into oil in Texas. Because producing oil from tar sands has high energy costs, environmentalists criticized the project as undermining the effort to reduce carbon emissions.

Serious obstacles to substantive progress have emerged, however. Although the US joined the Paris Agreement on climate change in 2016, Congress blocked Obama's proposed climate-change rules, and a federal court struck down Obama administration measures to restrict coal-burning power plants. In his presidential campaign, Donald Trump embraced an extreme version of climate-change denial and promised to reinvigorate the coal mining industry.

Italy

Score 5

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 such as solar or wind energy has been very effective in recent years thanks to generous incentives. Because of budgetary constraints (and in part also because of other conflicting environmental reasons such as protection of the landscape) incentives for solar energy have been reduced in the recent years. Nonetheless, the transition toward renewable energy has gained momentum and renewable energy sources now supply between 32% and 35% of total energy demand (data from GSE). Strong fiscal incentives for sustainable house building and renovations have existed for several years. An initial discussion about the return to nuclear energy with the purpose of further reducing CO2 emissions was stopped by the Fukushima disaster.

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

In other dimensions, such as water efficiency and waste management, Italy fares less well. In these fields disparities between northern or central Italy and southern Italy remain significant. Some emergencies in Naples, Palermo and other southern regions have demonstrated in the past years the lower performance of local and regional authorities in environmental matters. The absence of purification plants affects parts of the coastline and rivers.

Recycling rates have increased very significantly in central and northern Italy, but recent ISPRA data also indicates significant improvements in southern Italy. Recycling rates in southern Italy have traditionally lagged behind. The government made funds available to the regions to fulfill EU objectives regarding water and air pollution.

Erosion, flood and earthquake prevention should still be a high priority for the government. 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 increasingly undermine the quality of life significantly in Italian towns. Erosion is a danger in many parts of Italy. Perhaps

more so than any other policy area, the environment demands a stronger strategy and corresponding political action, as Italy is dropping back on the European but also global level for quality of life.

Citation:

http://www.gse.it/it/Statistiche/RapportiStatistici (provides data about renewable energies production in Italy) http://www.isprambiente.gov.it/it/archivio/notizie-e-novita-normative/notizie-ispra/2015/05/produzione-rifiuti-e-differenziata-i-dati-di-tutti-i-comuni-italiani-sono-online

Mexico

Score 5

Mexico is a signatory to the Kyoto Protocol and has shown every sign of taking environment policy seriously. However, it continues to faces several very sincere 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 a marked decrease in population growth is relieving some environmental pressure, policies aiming to conserve the environment and reduce pollution should remain a top priority for ensuring sustainable development. 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 scarce; in particular, in the most ecologically rich but poorest regions of the country. 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. It is worthwhile noting that the Mexican Green Party is not as "green" as its name might imply in other countries; environmental interests are still weakly nested in the major political parties.

Netherlands

Score 5

Environmental policy is no longer a significant issue among the public in the Netherlands. According to a 2011 Eurobarometer study, only about half of the population supports a progressive environmental policy (e.g., one that addresses climate change, with a sustainable energy policy). Climate skepticism has won a voice in the States General through the People's Party for Freedom and Democracy (Volkspartij voor Vrijheid en Democratie, VVD) and the Party for Freedom (Partij voor de Vrijheid, PVV). Although government references to sustainable growth are largely rhetorical, as GDP growth and job creation clearly have priority over criteria reflecting environmental and social sustainability. While the future development of a low-CO2 energy system has been agreed, the government has failed to demonstrate a strong political commitment to climate change policy and develop a long-term energy strategy. The government has preferred to pursue quick policy wins with structural reforms receiving insufficient attention. Climate policy has largely focused on medium-term targets, for example 2020 or 2030. Until the Paris Accords, the Dutch government resisted more ambitious climate goals in international negotiations. The so-called Energy Pact of summer 2013, welcomed as a decisive step toward an energy transition, suffered from considerable implementation gaps and was postponed after only one year. In 2015, the General Audit Chamber and many other NGOs observed that the goals set in the Energy Pact were no longer feasible. Notably, in a case brought by a climate NGO, Urgenda, a civilian court recently ruled against the Dutch government for showing insufficient effort to reduce CO2-emissions and, more broadly, develop appropriate energy policies. However, after the Paris Accords, there has been some policy movement. The Scientific Council for Government Policy is developing a climate change bill, which proposes a legally binding long-term goal for CO2 emissions, and the creation of a climate authority for advice, monitoring, coordination and societal debate. On 26 October 2016, the Department of Infrastructure and Environment organized a national climate "summit" between national and subnational governmental nongovernmental organizations and businesses to discuss implementation of the Paris Accords, under the motto "Bring Paris Home." Actual political commitments and policy change will only become visible after the election in spring 2017.

There is a clear policy shift toward climate adaptation already. This appears manageable today because any adverse developments in the Netherlands will be gradual. The Netherlands' natural-gas reserves are diminishing 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 (still contested as to small) compensation measures for victims.

PBL, 3 June 2015, "Transitie naar schone economie in 2015 vergt scherpere klimaatdoelen voor 2030" (pal.nl. consulted 26 October 2015)

Algemene Rekenkamer, Rapport Stimulering van duurzame energieproductie (SDE+). Haalbaarheid en betaalbaarheid van beleidsdoelen, 16 April 2015 (rekenkamer.nl, consulted 26 October 2015)

"De rechter verplichtte de staat tot meer klimaatactie. Wat is er met het vonnis gebeurd?", Jelmer Mommers, in De Correspondent, 17 September 2015.

WRR-Policy Brief 5, Klimaatbeleid voor de lange termijn: van vrijblijvend naar verankerd, October 2016 Ecofys, De impact van de Nationale Klimaattop 2016 in kaart, 26 October 2016

Romania

Despite its membership in the EU, Romania continues to struggle with developing and implementing comprehensive environmental regulations. The main challenges have been industrial pollution, illegal resource extraction and systemic corruption. To address issues such as waste management and pollution, Romania has strongly relied on taxation. This led to the introduction of a solid waste fee in January 2016. In the period, the Ministry of Environment and Forests secured 130 million euros in EU funding to reduce recyclable waste by 50% by 2020, but made headlines primarily because of protests by its employees over wages and labor disputes in summer. Together with the Ministry of Transport and Infrastructure, it also received negative press following a report which found that the two ministries had failed to allocate approximately three billion in EU grant funding, largely as a result of delays

Slovakia

Score 5

Slovakia has considerable natural resources. However, interest groups and policymakers have traditionally assigned priority to economic growth rather than the protection of the environment. Although NGOs have helped draw attention to environmental issues, and EU accession has come with the obligation to meet the European Union's strict environmental standards, this negative legacy is still present in policymaking. As a result, each government's approach to environmental issues has tended to be patchy rather than holistic. A second major problem has been the weak implementation of environmental laws and regulations. A third problem is the country's strong industrial production, which keeps energy demand high. Although the Fico government relies heavily on nuclear power, carbon dioxide emissions increased in 2016. The planned completion of the nuclear power plant in Mochovce has been postponed once again. In terms of environmental issues, Slovakia's air pollution represents the country's biggest problem, as air quality in the country is one of Europe's worst.

in capital projects like waste and water treatment plants in the environment portfolio.

South Korea

Score 5

South Korea remains a growth-first society. Environmental policies are currently insufficient to protect the environment or preserve the sustainability of resources. Environmental problems are very serious, particularly with regard to air quality. In the 2016 Yale Environmental Performance Index, Korea was ranked 80th out of 180 countries overall, falling to just 173rd place in terms of air quality. About half of the most problematic fine airborne dust comes from the industries of coastal China; however, Korea itself could also do a better job with respect to reducing harmful emissions. For example, the share of energy production accounted for by renewables is the second-lowest in the OECD.

In the OECD's 2016 Better Life Index, South Korea was ranked at 38th on the air pollution indicator, last among the countries included. Indeed, South Korea is expected to experience the most severe consequences from this issue among OECD member countries. Air pollution is expected to ease off in the future for most other OECD member countries, but forecasts for Korea are less positive. By 2060, South Korea is expected to be the only OECD member to have premature deaths exceeding 1,000 per million citizens related to this issue. The economic cost by this time is forecast to reach 0.63% of its gross domestic product (GDP), the highest level among OECD member countries.

Park Geun-hye's administration distanced itself from the "green growth" agenda of her predecessor (which in truth was more focused on growth than on environmental protection). However, it did not present an alternative environmental-policy agenda. Facing pressure from domestic and U.S. car makers, Park's administration delayed the onset of a proposed tax on vehicle carbon emissions until 2020. An emissionstrading scheme launched in 2015, but has not been broadly effective. South Korea is one of the few countries in the world that still plans to expand its nuclear-power generation capacity despite the 2011 Fukushima catastrophe. As in other countries, the storage of nuclear waste remains a major unsolved problem.

The quality of public transportation \square especially in Seoul \square is also steadily improving, and the country also has a high recycling rate. However, conservation efforts are stalling in many other areas. For example, priority is still given to cars, many buildings are poorly insulated and energy use continues to be subsidized. On the positive side, Korea has a progressive electricity-fee system under which households consuming more have to pay a higher rate. However, while this system seems to provide a strong incentive to reduce electricity consumption, it applies only to private households, and not to businesses, thus limiting its environmental impact.

Citation:

[&]quot;What happened to green growth?, The Korea Times, July 17, 2013

[&]quot;S.Korea increases emissions cap in proposed carbon trading scheme," Reuters, Sep 11, 2014

Hyeonjung Choi, "Mission Impossible: Breathing Clean Air in South Korea" EAF Policy Debates, No.54 (July 19, 2016).on

Spain

Score 5 Spain enjoys exceptionally diverse natural habitats; however, government policy has not provided sufficient safeguards regarding sustainability and general environmental quality.

Concerning climate, a report released by the international NGO WWF shows a decrease in greenhouse-gas emissions since 2008, although those emissions are not yet within the maximum threshold allowed by the Kyoto Protocol, and may again increase now that the economy is recovering. More worrisomely, the Spanish government has aggressively rolled back economic incentives for renewable energy development since 2011, while in 2015, the Ministry of Industry and Energy announced new fees on consumers who use batteries to store electric power produced by their own solar panels. Decisions such as these have jeopardized Spain's previous leadership role with regard to solar power and wind energy. As the country is extremely dependent on external energy supplies, government strategy during the period under review was aimed at encouraging energy savings through a pricing policy. Air quality remains a big problem in big capitals such as Madrid and Barcelona, but local governments in both cities say to be determined to reduce pollution. Regarding water resources, Spain was one of the few EU member states to delay completion of its river-basin management plans and the European Commission has recently taken the country to the EU Court of Justice for not properly treating waste water. In terms of protecting natural resources and biodiversity, the assessment is mixed. On the one hand, the reform of the Sea Coast Law (Ley de Costas) in 2013 deregulated some coastal activities which will likely lead to the resumption of coastal construction projects. On the other hand, the recent expansion of the network of national parks continued the trend of improving safeguards for wildlife ecosystems. Finally, and despite public spending cuts, Spain is now a global reference country in the prevention of this forest fires thanks to the increasingly professionalized forestry services in regional autonomous communities and the Ministry of Agriculture and Environment.

Citation:

January 2016, El País: "Madrid to ban all cars from center if pollution reaches critical levels" http://elpais.com/elpais/2016/01/21/inenglish/1453389022_667074.html Commission takes Spain to Court over waste water treatment presenting a risk to public health http://europa.eu/rapid/press-release_IP-14-2129_en.htm

Australia

Australia's economy is based to a considerable extent on the exploitation of natural resources and on a resource-intense mode of agricultural production and exportation. Therefore, the trade-off between environmental concerns and economic growth is a topic of great public debate.

Environmental policy in Australia has focused very much in recent years on climate change and water security. However, Australia continues to promote a lifestyle that is not sustainable. Energy consumption is generally high and, despite great potential for solar and wind energy, the contribution of renewable energy to the grid has declined since the 1970s, an exception in the OECD. Furthermore, since 1971, carbon emissions have almost tripled in Australia, again one of the worst performances in the OECD.

Australia's infrastructure continues to be stretched thin, a fact contributing to the rising carbon emissions. Public transport in Australian cities is less developed than in comparable European or Asian cities. Investment in infrastructure will have to be a key component in Australia's environmental policy in the next decades, but despite the obvious shortcomings investment in new infrastructure is modest.

One of the early acts of Prime Minister Abbott's Liberal-National coalition government was to abolish the carbon tax introduced by the previous Labor government in 2012, which ceased to apply from 1 July 2014. Nonetheless, the government remains committed to reducing carbon emissions by 26% to 28% as compared to 2005 levels by 2030. A Direct Action Plan, under which businesses will be paid incentives to reduce their emissions, has replaced the carbon tax, but is regarded by most experts as a poor substitute that will ultimately have minimal effects.

Concerning the country's scarce water resources, restrictions on urban water use are common and several states have built desalination plants in recent years. There has been a great deal of policy attention on achieving more sustainable and efficient agricultural use of water in the Murray-Darling Basin, the predominant source of water for agriculture in Australia. However, satisfactory resolution of differences between the four states affected has not been achieved to date.

Biodiversity decline is also a significant concern in Australia, with considerable evidence of acceleration in decline in recent decades. In response to this concern, in October 2010, the Australian government released "Australia's Biodiversity Conservation Strategy 2010 –2030," a report that 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.

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

http://www.timebase.com.au/news/2014/AT338-article.html

http://infrastructure australia.gov. au/policy-publications/publications/files/Australian-Infrastructure-Audit-Executive-Summary.pdf

http://www.smh.com.au/nsw/sydney-faces-congested-roads-akin-to-mexico-city-without-user-pays-transurban-20160315-gnifsg.html

http://www.domain.com.au/news/82 year old-woman-knocks-back-26-million-offer-from-developer-as-castle-hill-neighbours-sell-around-her-20160624-gppbvn/

Score 4

Environmental policy in Croatia has been strongly shaped by Croatia's accession to the European Union. According to the National Strategic Reference Framework, which guides the use of EU Structural and Cohesion Fund money, Croatia is to spend almost €0 billion on waste management, water management and air protection – the three most important environmental issues in the EU accession negotiations – by 2023. However, implementation of the envisaged measures progressed slowly under the Milanović government.

In July 2016, the European Commission pursued a legal action within its infringements package (in the form of a reasoned opinion) against Croatia for failing to comply with its obligations under EU environmental law. The Commission requested that Croatia bring its national laws on waste into full conformity with EU rules, particularly with Directive 2008/98/EC. The Directive aims to minimize the negative effects of waste generation and management on human health and the environment. The Commission identified a number of defects in Croatia's transposition of the Directive and sent the Croatian government a formal notice on that issue. It stated that none of the fundamental requirements in waste management had been completed, including requirements on waste management permits, the waste management plan and waste prevention program as well as detailed rules on inspections. The Commission allowed Croatia two months to respond with a precise list of measures on how it would address these shortcomings. If Croatia fails to adequately respond, the infringement may be referred to the European Court of Justice.

Citation:

Tišma, S., M. Funduk (2015): Croatian Environmental Policies in the EU Context, in: D. Lajh, Z. Petak (eds.), EU Public Policies seen From a National Perspective: Slovenia and Croatia in the European Union. Ljubljana: Faculty of Social Sciences, 225-239 (https://bib.irb.hr/datoteka/819245.EU_public_polices_seen_from_a_national_perspective.pdf).

Cyprus

Score 4

The absence of a comprehensive and coherent environmental policy and the lack of political will for environmental protection place Cyprus very low on the relevant EU ratings. The Republic has failed so far to meet its EU obligations, despite pressures from local and international organizations. Awareness-raising efforts by environmental groups since the late 1980s may have delayed or prevented activities threatening the environment in some areas. However pressures on the environment continue and authorities' decisions favor non-environmently friendly projects. Moreover, some officials ask Brussels to grant a relaxation to environment protection rules. Cyprus needs integration of ministerial responsibilities, more information efforts and administrative coordination.

The country's response to demands for climate protection remains insufficient in many respects. Exploitation of solar energy has begun to improve only recently, but progress in using renewable resources remains slow overall. Energy-consumption levels are high, due to deficient public transportation infrastructure and overuse of private cars. Actions designed to meet time-sensitive obligations to contain emissions and create an efficient waste-management infrastructure remain slow.

Water is a serious problem, due to dependence on (scarce) rainfall. Desalination and waste water use (insufficiently exploited by now) are potential solutions, while rural areas are just beginning to install sewage systems. Drilling for water – in many cases without permits – has led to depletion of groundwater sources. Thus, water conservation and sustainable management remain big challenges, while authorities are promoting water-hungry projects such as golf courses.

Forest protection under a national program for the 2010-2020 period aims at reforestation and reduction of fire hazards. Other measures seek to protect forests from pollution and problems caused by visitors. However, some protected areas, even those in the Natura 2000 project, such as the Akamas peninsula and others, are shrinking and are placed at risk by government decisions and private developers' activity. As well, neighboring communities and landowners exert pressure while seeking profit at the expense of environmental protection.

In December 2012, on the occasion of its European Council presidency, Cyprus presented a strategic plan for biodiversity policy looking forward through 2020. In this area too, policy gaps and a deficient implementation of plans and regulatory enforcement measures are evident. Ecosystem protection measures, including the Natura 2000 program, have not been effectively promoted. The economic crisis is leading to a relaxation of rules governing land development, a major cause of ecosystem destruction, and exploitation of beaches. In the past, such development has been frequently promoted in ostensibly protected zones. Hunting poses another threat to protected species, especially trapping with nets and other illegal practices. Political expediency continues to prevail at the expense of implementation of existing rules or effective action to protect the environment.

Overall, despite some efforts to promote solar and renewable energies, major challenges persist with regard to waste management and the development of a comprehensive policy framework that prioritizes the protection of the environment and sustainability.

Citation:

- 1. Press report, Expenditure for the protection of the environment, Cyprus Mail, http://cyprus-mail.com/2015/02/05/still-lagging-behind-the-eu-average-in-environmental-expenditure/
- 2. Quarries edging even closer to protected areas, Cyprus Mail, 2016, http://cyprus-mail.com/2016/09/25/quarries-edging-ever-closer-protected-areas
- 3. Social Progress Index, Cyprus, 2015, http://www.socialprogressimperative.org/global-index/#performance/countries/com8/dim1,dim2,com8,dim3

Greece

Score 4

Compared to other OECD Nations, Greece is one of the relatively large producers of energy. With regard to waste management and renewable energy sources, Greece ranks average. It is telling that in terms of per capita generation of waste, Greece is on par with the UK, France and the Netherlands, namely countries which are much more industrialized than Greece. The performance of Greece regarding the share of municipal waste which is recycled is rather low (16% of total municipal waste). However, between 2009 and 2012, Greece increased efforts to use renewable energy. Although it started at a low level, it managed to increase the share of renewable energy by approximately 40% in that time period. Greece's CO2 emissions are average and its energy intensity is rather low. At the root of Greece's environmental problems lies unchecked urban development, large infrastructure projects and negligent consumer behavior.

Indeed, in Greece, economic development in tourism and agriculture has often proceeded in a haphazard manner and has always taken priority over environmental concerns. During the economic crisis, raging since 2010, environmental policy has been neglected even more than in the past. Environmental NGOs were only nominally consulted by the Ministry of Environment, Town Planning and Public Works (YPEXODE). In fact, public works and town planning have always been afforded priority over environmental protection. The result has been that none of the three targets of environmental protection – climate, renewable water sources and forest area biodiversity – have ever been pursued in a systematic fashion. In the period under review, the Syriza-ANEL government continued its effort to stop a major gold mining investment in northern Greece, even though the country's supreme administrative court has annulled the government's decision, ruling that the environmental concerns have been taken care of by the investors.

Forest management is haphazard, too, and subject to the vicissitudes of changing political leaderships and interests. It is also vulnerable to fires, although in the period under review, the extent of forest destruction by fires was not as large as in previous years.

To sum up, regarding environmental sustainability and given its conducive geographical morphology (long coastline) and helpful weather conditions (sunshine, winds blowing in the Aegean sea), Greece certainly has the potential for improvement.

Citation:

Data on Greece's performance regarding renewable energy sources, waste generation and recycling is drawn on the SGI database available on this platform.

Malta

Score 4

Malta's environmental challenges are complicated by large population density, and a constant challenge to create employment opportunities, attract foreign investment and improve standards of living. As an EU member state, Malta is bound to fulfill key climate targets within the context of the Europe 2020 Strategy. Indeed, 10% of Malta's gross final energy consumption should come from renewable energy sources by 2020. In 2014, 4.7% of Malta's energy consumption was obtained from renewable energy sources but ongoing efforts are required to ensure that the established national target is met.

High electricity tariffs have historically hampered the competitiveness of small and medium-sized enterprises. The government reduced energy tariffs for households in 2014, before extending this reduction to the business sector in 2015. Several initiatives aimed at fulfilling targets have been undertaken though, including the generation of photovoltaic power including the setting up of photovoltaic farms, the construction of an electricity interconnection system with Sicily, the promotion of fuel-efficient cars and the construction of a gas-fired power station. The impact of these initiatives will primarily be felt in the future since to date Malta still remains nearly 100% dependent on fossil fuels.

Fresh water is a scarce resource in Malta, yet until recently the government's approach to this important issue was inconsistent and in general inadequate to protect the island's water reserves. The production of water for domestic and commercial use is heavily dependent on reverse-osmosis plants. To relieve pressure from reverse-osmosis water generation, a National Flood Relief Project has been concluded at the end of 2015 with the aim of increasing the amount of water collected annually.

The Maltese countryside is protected from unsustainable development through a regulatory process of permits and enforcement. Proposed amendments to the environment impact assessment regulation in order to correct identified and persistent shortcomings have been made. Nonetheless, EU data extracted in 2016 highlighted the fact that Malta (together with Belgium) had the highest proportion of developed areas, coupled with the highest population density among the EU Member States. The Malta Environmental and Planning Authority (MEPA) has recently been restructured, and now two separate entities (the Planning Authority and the Environment & Resource Authority) are respectively responsible for planning and environmental issues. However, this split and many of the related changes have generated considerable controversy, including increased ministerial powers in the selection of board members, reducing the autonomy and independence of these boards and the strange anomaly that allows a representative of the environmental authority to sit on the planning authority boards only when invited to do so.

The government has introduced various policies to preserve Malta's biodiversity, as the small island is home to a "varied and interesting array of habitats and hosts endemic, indigenous, and migratory species," as stated in the National Environment Policy. Yet Malta's biodiversity continues to be threatened through land development, invasive species, overexploitation of species and climate change. The policy outlines measures aimed to halt the loss of biodiversity by 2020. These include the compiling of a dedicated National Biodiversity Strategy and Action Plan, the creation of additional marine protected areas and strengthening the management of existing protected areas.

Citation

http://ec.europa.eu/europe2020/pdf/annexii_en.pdf

Commission Staff Working Document - Country Report Malta 2016 SWD (2016) 86 final p.30

The Malta Independent 06/11/2013 Most families to get 30% reduction in utility bills

Times of Malta 19/06/2014 Electricity tariff reduction will save businesses €0m

Times of Malta 31/12/2015 Work on national flood relief project concluded

 $http://ec.europa.eu/eurostat/statistics-explained/index.php/Land_cover,_land_use_and_landscape$

TVM 04/04/2016 Split of MEPA into two independent authorities comes into effect

Times of Malta 12/07/2015 Mepa split: 'We're all in for a rough ride'

National Environment Policy 2012 p.76-77

Times of Malta 03/12/16 Renewable energy in Malta

Consultation session on proposed Revision of EIA Regulations http://www.meusac.gov.mt/newsdetails?ns=2386

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, as evidenced once more in the 2015 election campaign, there is a broad political consensus in the country that economic growth should be given priority over protection of the environment. Governments have been especially keen on protecting the domestic coal industry, which is a large employer and reduces the country's dependence on Russian energy, an issue that has taken on even greater prominence since the Ukrainian crisis. Regarding the coal industry, both the PO-PSL and the PiS government have sought to obstruct attempts by the European Union to tighten targets for the reduction of carbon emission. The PiS government has also followed a liberal approach toward the exploration and production of shale gas and has presented plans for building new nuclear-power stations. At the same time, the share of renewables in Poland still stands at a meager 1%. The government's disregard for environmental issues is reflected in its plans to cut down parts of the Białowieża primeval forest. Since Białowieża is a protected Natura 2000 site, environmentalists mobilized the EU Commission which finally launched an infringement procedure against Poland in April 2016.

Citation

OECD (2015): Environmental Performance Review: Poland 2015. Paris.

Turkey

Score 4

Sustainable development policies gained in importance in Turkey as part of the EU accession process, which involved the country taking steps forward in environmental policy and legislation. The environmental chapter (Chapter 27) of the EU acquis was opened in 2009. In terms of environmental impact assessments, Turkey is generally in line with EU environmental legislation. In recent years, considerable progress has been made toward establishing emissions controls, the use of renewable energies and promoting energy efficiency. In the 2016 Environmental Performance Index, Turkey was ranked 99th out of 180 countries. In the 2016 Climate Change Performance Index, Turkey was described as showing "very poor performance," and was ranked 50th out of 61 countries, climbing one position compared to the previous year. Turkey's greenhouse-gas emissions rose by 5.1% in the 2010 – 2011 period, and by 3.7% in 2011 – 2012. Whether the slowdown in this rate of growth is due to past legal and structural reforms and/or technical improvements is a matter of growing debate.

Turkey adopted the framework for IPA II in December 2015. Thus, budget implementation tasks for IPA funds' management, including environment and climate action have been assigned. In April 2016, Turkey joined the European Union Civil Protection Mechanism. However, it has not yet connected to the EU Civil Protection Mechanism's common emergency communication and information system. Court decisions related to the environment are not in harmony with the Aarhus Convention (not yet adopted). Also, the Strategic Environmental Assessments Directive is still pending. Environmental impact assessment shall not be taken into account for strategically important investment projects starting from September 2016. This will negatively affect on acquis implementation.

Turkey signed, ratified and is fulfilling its commitments under the UN Framework Convention on Climate Change. A greenhouse gas monitoring mechanism is under preparation.

Progress has also been made in terms of regulating air quality and industrial pollution, though it will take time and considerable funding to fully implement this legislation. On 2 April 2015, the Turkish Ministry of Environment and Urban Planning adopted a new regulation on waste management based on the EU's Waste Framework Directive (2008/98/EC), yet economic instruments are weak.

The framework legislation on nature protection and the national biodiversity strategy and action plan have not been adopted, and there are legal shortcomings, not in line with the acquis, in relation to wetlands, forests and natural sites. Areas such as industrial pollution and risk management, chemicals and noise need either effective regulation in line with international standards or effective implementation.

Citation:

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