

Effective Environmental Health Protection

Sustainable Governance Indicators 2024



Indicator

Policy Efforts and Commitment to Minimizing Environmental Health Risks

Question

How committed is the government to protecting the public from environmental health risks?

30 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 = The government is clearly committed to the goal of protecting environmental health.
- 8-6 = The government is largely committed to the goal of protecting environmental health.
- 5-3 = The government is only somewhat committed to the goal of protecting environmental health.
- 2-1 = The government is not at all committed to the goal of protecting environmental health.

Canada

Score 10

Canada has an extensive environmental protection and management regime. The overall environmental policies and strategies are shaped by various laws, regulations, and frameworks passed at the federal level, as well as some at the provincial level, since 1960. The Pan-Canadian Framework on Clean Growth and Climate Change is one such initiative. It outlines the country's approach to addressing environmental challenges, including pollution. The framework emphasizes reducing greenhouse gas emissions, developing clean technology, and adopting sustainable practices.

Another key piece of federal legislation is the Canadian Environmental Protection Act (CEPA). This act addresses pollution and its effects on human health and the environment. It provides the government with tools to assess and manage risks associated with chemical substances and other pollutants.

Canada has policies and regulations specifically targeting terrestrial and water quality, including the Canadian Environmental Quality Guidelines. Provincial and territorial governments also play a significant role in managing water quality within their jurisdictions. The Canadian Ambient Air Quality Standards set by the federal government, along with provincial regulations, address air quality issues. Provincial and territorial governments have their own air quality management strategies and regulations. Coordination is enhanced through a Canadian council of environmental ministers.

In addition to national and provincial/territorial laws and guidelines, there are also many ecosystem-specific action plans. These include the Great Lakes Action Plan, where Canada has initiatives to address environmental issues in the Great Lakes, focusing on water quality, habitat restoration, and pollution prevention. The St.

Lawrence Action Plan aims to protect and restore the St. Lawrence River ecosystem and includes measures to address pollution, biodiversity, and sustainable development. In the past, Arctic Environmental Strategies were implemented to address the unique environmental challenges in the Arctic, such as contaminants, climate change, and ecosystem conservation in the region.

Citation:

<https://www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework.html>

<https://ccme.ca/en/current-activities/canadian-environmental-quality-guidelines>

<https://www.canada.ca/en/environment-climate-change/services/great-lakes-protection/overview/action-plan.html>

<https://www.canada.ca/en/environment-climate-change/services/environmental-funding/ecosystem-initiatives/st-lawrence-action-plan.html>

Finland

Score 9

The Ministry of Social Affairs and Health (MSAH) is responsible for identifying, preventing and eradicating health hazards arising from the environment. This includes the oversight of health protection, the formulation of relevant legislation and the supervision of chemical control programs to avert health risks. Additionally, the MSAH monitors the use of gene technology, supervises biotechnology and ensures the sector's responsible development, considering the impact of biotechnology both on human health and the environment (Ministry of Social Affairs and Health n.d.).

As the supreme supervisory and guidance authority, the MSAH spearheads the assessment of health hazards associated with nanomaterials and nanotechnology. It also leads efforts to protect the population from harmful radiation. The ministry actively engages in coordinating environmental healthcare at the municipal level. Strategic priorities for environmental health promotion include integrating health hazard assessments into planning and decision-making; ensuring safe drinking water access; enhancing authorities' capacity to investigate food and waterborne epidemics; and addressing the potential health effects of nanomaterials, endocrine disruptors and combined chemical exposure.

The MSAH prioritizes intensified collaboration between municipalities in the context of environmental healthcare, ensuring chemical safety on the market, contributing to healthy indoor environments with other ministries and guaranteeing societal functioning in special environmental health situations. The ministry is dedicated to researching and implementing regulations addressing environmental health risks associated with gene technology and biotechnology, thereby providing guidelines for the safe application of new technologies.

Water pollution remains a significant challenge in Finland, particularly due to nutrient emissions from farms. While efforts have successfully reduced emissions

from large industrial facilities and cleaned polluted lakes and rivers, approximately 1,500 lakes still require active restoration measures to combat eutrophication. Despite the lack of a specific prevention strategy with defined goals, ongoing activities within the MSAH help prevent environmental pollution and associated health risks. The ministry implements effective policies to support initiatives focused on protecting environmental health.

Citation:

Ministry of Social Affairs and Health. n.d. "Environmental Health." <https://stm.fi/en/environmental-health>

Sweden

Score 9

Sweden's commitment to minimizing environmental health risks related to climate change through pollution and emissions is covered by the generational target and several of the 16 environmental targets, such as clean air, an environment free of toxins, no overfertilization, good quality groundwater, and good living environments (see section 17 for a description of Sweden's environmental targets and strategies, their legal status, and the agencies working on evaluating them). Some of these targets are close to being reached, such as environments free of toxins and clean air, but others, like no overfertilization and good quality groundwater, are not yet met. The targets are evaluated through 20 different indicators, such as the amount of nitrogen dioxide emissions, travel habits, polluted areas, and environmental toxins in breast milk and blood (Sveriges Miljömål, 2023).

In 2021, none of Sweden's urban population was exposed to air pollution concentrations exceeding EU standards. However, air pollution was responsible for 650 attributable deaths (EEA, 2023). The Public Health Agency of Sweden has analyzed the health risks posed by environmental changes in the country. The most significant threats in a changing climate are heat waves and tick-borne infections, followed by a high probability of pollen allergies, floods, deteriorating drinking water quality, and disease outbreaks through water and food (Naturvårdsverket, 2023).

In the 2023 evaluation of the environmental targets, the Swedish Environmental Protection Agency examined the environmental targets and policy efforts to reach them. The agency stated that the targets for clean air and an environment free of toxins will be partly reached or that the necessary preconditions, such as policy instruments and measures, will be in place by 2030. Air quality has shown positive development for a long time, and the evaluation suggests that the specifications for the clean air target will be strengthened according to new guidelines presented by WHO. The policy efforts to reach the target of an environment free of toxins are guided by measures within the EU's chemical strategy and the Green Deal, and are expected to be largely implemented by 2030, increasing the chances of reaching the target (Naturvårdsverket, 2023).

Citation:

EEA – European Environment Agency. 2023. “Sweden – Air Pollution Country Fact Sheet.” <https://www.eea.europa.eu/themes/air/country-fact-sheets/2023-country-fact-sheets/sweden-air-pollution-country>

Naturvårdsverket. 2023. Fördjupad utvärdering av Sveriges miljömål 2023 – Med förslag till regeringen. Rapport 7088. Stockholm: Naturvårdsverket.

Sveriges Miljömål. 2023. “Sveriges miljömål.” <https://www.sverigesmiljomal.se/miljomalen/>

Czechia

Score 8

International comparisons show Czechia performing worse than the OECD and EU averages in terms of fine air particulate exposure and household exposure to solid fuels. These factors position Czechia near the bottom of the table, much worse than the best-performing countries or even the average. Additionally, a higher proportion of individuals suffer from the effects of unsafe drinking water.

Air pollution has been a long-standing problem in Czechia, reflecting the country’s industrial structure and reliance on heavily polluting fuel sources. Air quality is rigorously monitored through a network of stations. If concentrations exceed set thresholds for a 24-hour period, a smog situation can be declared. When this occurs, citizens are advised to take appropriate precautions based on their health status, and municipalities can impose transport restrictions. In 2023, one smog situation was declared for ozone pollution, and three were declared for particulate pollution.

Since 2004, national plans to reduce air pollution have been in place, aligning with EU legislation in recent years and periodically updated, most recently in December 2023. The report accompanying that update shows improvements across pollution indicators and that almost all targets are being met. The updated program includes commitments up to 2030, which are less demanding than the accompanying forecasts. An extensive number of specific measures are included as part of a broader State Environmental Policy. Pollution reductions will predominantly come from measures such as reducing energy use in heating, using renewable energy sources, and reducing carbon in transport. Indeed, changes in the economic structure have been the main source of reduced pollution.

Environmental policy addressing specific pollutants employs a diverse array of instruments, including direct subsidies, voluntary methods, and various monitoring techniques. These were implemented across six priorities, 14 supporting areas, and six combined areas.

An assessment updated in 2023 showed a meticulous approach to evaluation. However, several targets were not met, raising questions about the adequacy of the monitoring procedures. For instance, an initiative under the Ministry of Agriculture aimed to increase the rearing of beef cattle on pastures, supported by specific subsidies to reduce ammonia emissions, was to be accomplished by 2020. At least six agencies were involved in this initiative.

The Czech Statistical Office could provide data on the number of months pastures were used, but not the number of cattle utilizing them. They anticipated that this information would not be available until 2026. Data from the ministry was only sufficient to estimate the area of pasture used, falling short of indicating the required improvement. Consequently, a reduction in ammonia emissions could not be demonstrated, marking the program as a failure.

Citation:

[https://www.mzp.cz/C125750E003B698B/en/state_environmental_policy/\\$FILE/OPZPUR-State_Environmental_Policy_of_the_Czech_Republic_2030_with_a_view_to_2050-20220524.pdf](https://www.mzp.cz/C125750E003B698B/en/state_environmental_policy/$FILE/OPZPUR-State_Environmental_Policy_of_the_Czech_Republic_2030_with_a_view_to_2050-20220524.pdf)

[https://www.mzp.cz/C1257458002F0DC7/cz/strategicke_dokumenty/\\$FILE/OOO-Aktualizace_NPSE_2023-20240118.pdf](https://www.mzp.cz/C1257458002F0DC7/cz/strategicke_dokumenty/$FILE/OOO-Aktualizace_NPSE_2023-20240118.pdf)

Denmark

Score 8

Danish legislation has always been strict regarding pollution-associated health risks. Additionally, Danish environmental protection measures have been comparatively stringent. Consequently, there is a robust legal framework in place to address health issues arising from increased pollution levels. According to a special report from the European Environmental Agency, average Danish life expectancies are not affected by pollution (Environmental Agency 2023).

There is a concern that air pollution is causing excessive deaths in the five major cities. Consequently, these municipalities have been given the right to forbid older diesel cars and trucks from entering their cities.

One issue currently attracting political attention is the pollution stemming from agricultural production. Excessive nutrients are finding their way into lakes, fjords and coastal waters, adversely affecting fishing stocks. This also threatens the water supply. Consequently, there is strong monitoring of pollution levels in groundwater quality, and several plans have been enacted. The Environmental Agency is responsible for monitoring groundwater quality. The agency is also tasked with mapping water resources and implementing various policies to protect the water supply. The guiding principle in water supply protection is to prevent pollution of the supply rather than having to clean and process water before distributing it for consumption (Environmental Agency 2023).

Citation:

Environmental Agency. 2023. "Groundwater protection." <https://mst.dk/erhverv/rent-miljoe-og-sikker-forsyning/drikkevand-og-grundvand/grundvandsbeskyttelse>

Germany

Score 8

Germany does not have a comprehensive strategy to prevent environmental pollution. However, separate strategies, programs, or plans have been developed for air, water, and soil pollution, some of which operate at the European level. While the

strategies themselves are not legally binding, the actions proposed to achieve their goals often include the introduction of new legislation or the adaptation of existing laws, which are then binding.

Regarding air pollution, Germany is required to submit a National Air Pollution Control Program (NAPCP) to the European Commission every four years as part of the EU's National Emissions Reduction Commitments (NEC) directive. Based on the percentage emissions reduction commitments defined by the NEC directive for sulfur dioxide, nitrogen oxides (NO₂), ammonia, non-methane volatile organic compounds, and fine particulate matter smaller than 2.5 micrometers (PM_{2.5}), the NAPCP must include a With Measures Scenario (WM) and a NEC Compliance Scenario (WAM).

In this context, a scenario refers to the compilation of strategies and measures and their effect on pollutants. Specifically, the WM is meant to include measures that have already been adopted, while the WAM contains strategies and measures aimed at meeting the emissions reduction commitments in the event of noncompliance.

As the NEC directive prescribes specific percentages by which pollutants must be reduced, the NAPCP aims to achieve clearly defined goals. By requiring the program to be published every four years, the directive also provides a mechanism for monitoring progress. The key indicators for measuring outcomes are whether the goals specified in the directive are met.

Since the goals are based on an EU directive, the measures must be codified into national law in order to be binding. Germany passed its first NAPCP in 2019 and, as of June 2023, a draft for the second program exists. The 2019 program outlines how effectively the existing measures contribute to meeting the reduction commitments for each pollutant and what additional measures should be implemented to address any shortfall (BMUV, 2019). Overall, Germany's NAPCP considers 23 policies and measures for adoption and has adopted 21. For example, the reduction of coal-fired power generation is listed as an effective measure for sulfur dioxide and PM_{2.5} reduction (Kaar and Menadue, 2022).

The increasing pressure from droughts and their impact on forests, agriculture, and biodiversity prompted the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection (BMUV) to present the National Water Strategy in 2023. Although this strategy focuses on ensuring the responsible use of available water resources, it also addresses health risks associated with water pollution. In support of the EU's zero pollution plan, the BMUV's strategy aims to achieve zero pollutants by 2050.

The strategy includes a program of water measures to operationalize the National Water Strategy, making it comprehensive. For water pollution, the proposed measures include the implementation of EU directives from the zero pollution action plan and the introduction of a limit value in the Groundwater Ordinance

(Grundwasserverordnung) for medicinal products in ground water (BMUV, 2023). The implementation progress of the National Water Strategy is monitored every six years by an interministerial work group with state participation. The working group will submit a report using the implementation status of the measures set out in the programs as indicators to measure the outcome of the goals (BMUV, 2023).

Finally, Germany does not have a separate national strategy to address soil pollution. The federal government, however, acknowledged the need for European soil protection in its coalition agreement, thereby supporting the EU's soil strategy for 2030. While the soil strategy, similar to the National Water Strategy, focuses on the overall soil ecosystem and its health, the reduction of soil pollution harmful to human health is one of the long-term objectives of the strategy (European Commission, 2021).

Generally, existing policies support efforts targeting environmental health. For air pollution, according to the European Environment Agency, Germany met the reduction commitments in both 2020 and 2021. Simultaneously, 0% of the population was exposed to PM_{2.5}, 0.2% to NO₂, and 0.4% to an ozone (O₃) concentration above the EU standard. While this suggests a strong commitment to protecting the public from health risks due to air pollution, the European Environment Agency still lists around 45,000 deaths per year that are attributable to either PM_{2.5}, NO₂, or O₃ (European Environment Agency, 2023). Additionally, the WHO recommends values significantly below the permitted maximum value for PM_{2.5} and NO₃. Thus, the EU's limit value for PM_{2.5} is 25 micrograms per cubic meter and 40 micrograms for NO₃, while the WHO recommends reducing these values to five micrograms for PM_{2.5} and ten micrograms for NO₃ (Tagesschau, 2022).

Regarding the previous question, it is not possible to make an informed statement on whether ministries can efficiently monitor implementation or intervene if effective implementation is endangered.

Citation:

BMUV. 2019. "Nationales Luftreinhalteprogramm der Bundesrepublik Deutschland." https://www.bmuv.de/fileadmin/Daten_BMU/Download_PDF/Luft/luftreinhalteprogramm_bericht_bf.pdf

BMUV. 2023. "National Water Strategy, Cabinet Decision of 15 March 2023." https://www.bmuv.de/fileadmin/Daten_BMU/Pools/Broschueren/nationale_wasserstrategie_2023_en.pdf

European Commission. 2021. "EU Soil Strategy for 2030, Reaping the Benefits of Healthy Soils for People, Food, Nature and Climate." <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0699>

European Environment Agency. 2023. "Germany – Air Pollution Country Fact Sheet." <https://www.eea.europa.eu/themes/air/country-fact-sheets/2023-country-fact-sheets/germany-air-pollution-country>

Kaar, A., and H. Mendadue. 2020. "Review of the National Air Pollution Control Programme – Germany, Final Report for European Commission – DG Environment Specific contract 070201/2018/791186/SER/ENV.C.3." Ricardo Energy and Environment 11495 (5). <file:///Users/joanalefevre/Downloads/German%20NAPCP%20review%20report.pdf>

Tagesschau. 2022. "Großstädter klagen für sauberere Luft." <https://www.tagesschau.de/inland/bundesverfassungsgericht-klage-saubere-luft-101.html>.

Norway

Score 8

Norway has a long tradition of environmental regulation to protect the public from environmental health risks. Current legislation aligns with EU regulations through the EEA agreement. Norway is also a signatory to international agreements such as the Stockholm Convention on Persistent Organic Pollutants, the Basel Convention on Hazardous Wastes, and the Minamata Convention on Mercury. International cooperation is crucial for Norwegian policies on protecting against environmental health risks.

Central EU directives, such as the Industrial Emissions Directive (IED) and the Directive on Urban Wastewater Treatment, are undergoing revision, and these processes are being closely monitored. Proposed revisions to the IED by the EU will necessitate changes in Norwegian regulations but not legislation. In contrast, the proposed revisions to the Directive on Urban Wastewater Treatment could have more significant implications for Norway due to its long coastline and cold climate. The rapid pace and volume of regulatory changes in the EU may explain why Norwegian authorities seem to be undertaking few independent initiatives. Ensuring compliance with revised EU legislation will be challenging, requiring better data, improved coordination among governance levels in Norway, and potentially a redefinition of responsibilities among different governance levels.

A government White Paper (Meld.St. 14-2015-16), titled “Natur for livet,” set out an action plan for preserving biodiversity. Binding actions include a 10% target for the protection of forests, the protection of “representative” marine areas, and the regular revision of ecosystem-based marine management plans. As of 2023, the target for forest protection has not been reached.

An Action Plan for Non-Toxic Lives (from 2021) emphasizes Norway’s active involvement in international forums to reduce pollution and ban toxic materials. Prioritized policy areas include improving factual knowledge through monitoring and research, enhancing international cooperation to ban several materials (explicitly mentioning PFAS), and emphasizing that the strategy is nonbinding. The Norwegian Environmental Agency and Norwegian municipalities are working to stay abreast of regulatory developments in the EU, which will become binding.

The risk of premature death from air pollution is relatively low in Norway, but air quality leads to serious health problems in some urban areas. Attention to this issue increased significantly after Norway lost in the EFTA Court in 2015 for breaching the air quality directive. National targets for air quality are currently under revision to reflect stricter targets from the WHO. Both national and local authorities are engaged in improving air quality. Existing targets were missed by between 17% and 26% in 2022.

Municipalities bear primary responsibility for implementing air quality policies. The Norwegian Environment Agency (NEA) coordinates stakeholders and disseminates knowledge. Alongside the Norwegian Institute for Public Health, the NEA monitors status and progress. Municipalities have increasingly engaged in improving local air quality.

The quality of biodiversity in freshwater is generally good, although approximately 25% of rivers and lakes are in less-than-good condition. Much of the country consists of forests and mountains, which benefit water quality. However, in regions with higher population density and/or agricultural activities, water conditions are worse. A 2022 report on lake eutrophication concluded that trends are heading in the wrong direction (Solheim A.L. et al., 2022). Similar to much of Europe, biodiversity in Norway's water bodies has plateaued since 2010.

An assessment of the ecological condition of three marine ecosystems conducted in 2023 concluded that two out of the three ecosystems are substantially impacted by human pressures. Management plans exist for all areas.

There are strict limits on the release of environmental contaminants from various industries in Norway, including those on land, the offshore oil and gas industry, aquaculture, wastewater treatment, and other sectors. Over the past 15–20 years, releases from these sources have been significantly reduced. However, there are sites in Norway where the soil and sediment are heavily polluted. High levels of environmental contaminants at these sites, if released into water, can cause toxic effects in the aquatic environment. Information about known polluted soils is publicly accessible through the NEA, which enhances transparency.

The NEA develops action plans for several problem areas or ecosystems, such as plastics, chemicals, air quality, and noise. There is a “priority list” for dangerous chemicals that is updated regularly. The requirements from the EU Zero Pollution Action Plan and ensuing legislation are being implemented within the appropriate national regulatory framework. This may partly explain the authorities' tardiness in presenting national updates and follow-up reports for the EU action plan.

Citation:

Haase, P., Bowler, D.E., Baker, N.J. et al. 2023. “The Recovery of European Freshwater Biodiversity Has Come to a Halt.” *Nature* 620: 582–588. <https://doi.org/10.1038/s41586-023->

Klima – og miljødepartementet. 2021. Handlingsplan for ein giftfri kvardag 2021-2024. <https://www.regjeringen.no/contentassets/d373524448ca40859eb8414d2a0a68ea/t-1578n.pdf>

Ministry of Climate and Environment. 2015. Nature for Life – Norway's National Biodiversity Action Plan. White Paper no. 14 (2015-2016). <https://www.regjeringen.no/en/dokumenter/meld.-st.-14-20152016/id2468099/?ch=1>

Miljøstatus. 2024. “Miljømål 4.6. Å sikre trygg luft.” <https://miljostatus.miljodirektoratet.no/miljomal/forurensning/miljomal-4.6/>

Solheim, A. L., et al. 2022. “Eutrofiering av norske innsjøer. Tilstand og trender.” NIVA-rapport 7744-2022. <https://niva.brage.unit.no/niva-xmlui/handle/11250/3014661>

State of the Environment Norway, 2023. "Environmental Contaminants." <https://www.environment.no/topics/environmental-contaminants/>

Australia

Score 7

There has been a growing awareness of the adverse health effects of environmental pollution. Recognized risks in the Australian context include increasing risk of floods and storm surges that can result in drownings, injuries and mental health problems, as well as growing risks of infectious diseases, harmful pollutants from fossil fuels, and bushfires (Doctors for the Environment Australia 2016). The government has introduced measures to curb emissions and protect against environmental crises, with regulations focusing on health consequences. National report standards for six common air pollutants are set, with state and territory governments required to report annually (Dean and Green 2017). These governments regulate air pollution through various policy tools, including pollution fee schemes, though their scope and strength vary across jurisdictions.

Commentators argue that the government could do more to protect environmental health, suggesting practical measures such as building a high-speed railway to connect cities on the east coast to reduce air traffic emissions and stronger restrictions on fossil fuel extraction. Additionally, better forecasting for bush burning could reduce adverse impacts (Dean and Green 2017).

Citation:

Doctors for the Environment Australia. 2016. "Climate Change and Health in Australia." Doctors for the Environment Australia. https://dea.org.au/wp-content/uploads/2017/02/DEA_Climate_Change_Health_Fact_Sheet_final.pdf

Dean, A., and Green, D. 2017. "Climate Change, Air Pollution and Health in Australia." UNSW Sydney, Grand Challenges. [file:///C:/Users/nwok/Downloads/Sub_94_attach_1%20\(1\).pdf](file:///C:/Users/nwok/Downloads/Sub_94_attach_1%20(1).pdf)

Austria

Score 7

In terms of many established indicators, such as PM2.5 exposure or lead exposure, Austria has ranked in the middle range of OECD countries. However, for other indicators, particularly the quality of drinking water, Austria has consistently been among the top performers in the OECD.

According to the WHO 2023 country report on Austria, 15% of deaths from stroke and ischemic heart disease in Austria are caused by air pollution, and 18% of deaths from diarrhea are caused by unsafe drinking water, sanitation, and inadequate personal hygiene. (The latter data are remarkable as the same source indicates that just 1% of the population is without safe drinking water, and 0% of the population is without safe sanitation.) Further, according to the same source, less than one out of 100,000 children under five die from poisonings every year.

Sanitation problems are particularly pronounced at the level of individual water supplies from house wells. These wells are still common practice outside metropolitan areas and larger municipalities. Public authorities do not monitor these supplies, which often results in unknown contamination of private water sources. Approximately 7% of the total population obtains their water from private wells (Ministry of Agriculture n.d.).

Air pollution is a significant problem in alpine valleys with heavy traffic, such as the Inntal, as well as in larger cities. Although recent improvements in air quality have been noted, the continued transport of goods on one of the main alpine crossings and the stringent EU directives limiting traffic continue to present major challenges in these areas.

Health protection has been acknowledged as a key responsibility of the government at the legislative level since the late 1990s, when the government introduced a health promotion law (“Gesundheitsförderungsgesetz”). A health promotion strategy has also been implemented to facilitate effective cooperation among the central government, states, and social insurance agencies. In recent years, special emphasis has been placed on various aspects of children’s health.

There has been a growing acknowledgment among political leaders in Austria that climate protection is essentially health protection. Several new measures have been launched to highlight this connection by linking the health sector to climate policies. For example, in 2023 hospitals and various other care units were assigned special resources to reduce their climate footprint.

Citation:

<https://ccca.ac.at/wissenstransfer/apcc/broschuere-klimawandel-und-gesundheit>

<https://www.who.int/publications/m/item/environmental-health-austria-2023-country-profile>

https://www.ots.at/presseaussendung/OTS_20231024_OTS0149/klimastrategie-als-fahrplan-fuer-klimaneutrales-gesundheitswesen-vorgestellt-bild

https://agenda-gesundheitsfoerderung.at/sites/agenda-gesundheitsfoerderung.at/files/inline-files/Factsheet_Strategien%20f%C3%BCr%20Gesundheitsfoerderung_0922.pdf

Ministry of Agriculture. n.d. “Wasserversorgung und Wasserverbrauch in Österreich.” <https://info.bml.gv.at/themen/wasser/nutzung-wasser/wasserversorgung/versorgung.html>

Belgium

Score 7

Belgian policy on protecting the public from environment-related health risks is largely influenced by decisions made at the European level, much like many actions related to climate change and the environment. This is evident in the EU action plan “Toward Zero Pollution of Air, Water, and Soil,” which aims to reduce pollution at its source. The plan includes objectives such as improving air quality and reducing waste, marine plastic waste, and microplastics released into the environment.

As Belgium is a federal state, decision-making power is shared between the federal state, regions, and communities. Each region has developed its own strategy, approved at its respective government level. This suggests a degree of delegation in policy implementation to bureaucracies and executive agencies. However, the extent to which federal and subnational ministries monitor these bodies' activities and ensure effective implementation of government policies remains unclear (UNFCC 2022).

In terms of air quality, several cities have implemented low-emission zones (LEZs) that restrict access to the most polluting vehicles. While these measures are effective in reducing atmospheric pollutant emissions, they raise equity issues. For instance, low-income individuals often own small but older cars that they need to go to work. Because of their age, these vehicles are classified as polluting even when their fuel economy is good. Such population groups face great challenges in replacing them with less polluting vehicles.

Air quality in Flanders has been improving for decades in many areas, with most places already meeting the European air quality objectives. In Brussels, a clear improvement in ambient air quality has been observed over the last twenty years. This improvement is attributed to various factors such as the elimination of major emission sources, the reduction of volatile organic compounds (VOCs) or sulfur in fuels, the removal of lead in gasoline, the introduction of catalytic converters in cars, the renewal of the car fleet, and the increasing use of natural gas for heating. However, certain pollutants such as tropospheric ozone, suspended particles, CO₂, and persistent organic pollutants remain problematic. Despite efforts to change the vehicle fleet (LEZs, new regulations for company cars, etc.), road traffic continues to be one of the main sources of health-concerning pollutants in the Brussels-Capital Region. Heating, on the other hand, accounts for 70% of CO₂ emissions and 84% of SO_x emissions.

In Wallonia, soil pollution, a legacy of past practices, remains a challenge. Old industrial sites, former storage places for chemicals or hydrocarbons, and old public landfills have become uninhabitable due to the confirmed or probable presence of hazardous substances in the soil. Managing and cleaning up these polluted areas remains a top priority for several years.

Recently, a scandal involving PFAS (per- and polyfluoroalkyl) substances, specifically their presence in large quantities in the water supply, first in Flanders in the summer of 2021 and then in Wallonia in the fall of 2023, has raised questions about water quality and its potential impact on public health. Similarly, an investigation led by Belgian media (RTBF) revealed that metal recycling companies in Wallonia are releasing significant amounts of carcinogenic dust into their immediate environment, endangering the health of nearby residents. Despite regulations, these companies often exceed pollution limits by up to 600 times, and some have had their limits reclassified as targets, avoiding penalties.

Citation:

- European Environment Agency's country reports on <https://www.eea.europa.eu/>
- Beleidsplannen – Vlaamse Milieumaatschappij (vmm.be): <https://www.vmm.be/lucht/evolutie-luchtkwaliteit/beleidsplannen>
- Hoe evolueert de luchtkwaliteit in Vlaanderen? – Vlaamse Milieumaatschappij (vmm.be): <https://www.vmm.be/lucht/evolutie-luchtkwaliteit/ho-evolueert-de-luchtkwaliteit-in-vlaanderen>
- Généralités (wallonair.be), Plan – Pollution (wallonair.be) : <https://www.wallonair.be/fr/en-savoir-plus/plan-pollution.html>
- Pollution locale (wallonie.be) : <https://sol.environnement.wallonie.be/home/sols/autres-menaces/pollution-locale.html>
- Infographies – État de l'environnement wallon (wallonie.be) : <http://etat.environnement.wallonie.be/home/Infographies.html>
- Comment évolue la qualité de l'air | Citoyen – Bruxelles Environnement : <https://environnement.brussels/citoyen/l'environnement-bruxelles/protéger-sa-santé/comment-evolue-la-qualité-de-lair>
- Bruxelles réunit air, climat et énergie dans une vision intégrée: le CoBRACE et le plan régional PACE | Citoyen – Bruxelles Environnement : <https://environnement.brussels/citoyen/nos-actions/plans-et-politiques-regionales/bruxelles-reunit-air-climat-et-energie-dans-une-vision-integree-le-cobraces-et-plan-regional-pace>
- PLAN_AIR_CLIMAT_ENERGIE_FR_DEF (environnement.brussels) : https://document.environnement.brussels/opac_css/electfile/PLAN_AIR_CLIMAT_ENERGIE_FR_DEF.pdf

LEZ :

- Ghent: Stad Gent zet in op betere luchtkwaliteit door voort te bouwen op de huidige LEZ | Stad Gent : <https://stad.gent/nl/groen-milieu/nieuws-evenementen/stad-gent-zet-op-betere-luchtkwaliteit-door-voort-te-bouwen-op-de-huidige-lez>
- Brussels: Praktisch pagina | Low Emission Zone (lez.brussels) <https://lez.brussels/mytax/nl/practical?tab=Impact>
- Antwerp: Lage-emissiezone | Slim naar Antwerpen : https://www.slimnaarantwerpen.be/nl/lez?gclid=CjwKCAiA-vOsBhAAEiwAIWR0TehD0H2Ixmy6cZM03qUKmMty9jFIaJV4JYDaoLV3no8snTKgx-EhRoCUvQQAvD_BwE

PFAS

- Demir legt productieproces 3M stil na illegale PFAS-uitstoot | De Standaard: https://www.standaard.be/cnt/dmf20230922_97310524
- Waalse regering wil waarschuwingdrempel PFAS | De Standaard: https://www.standaard.be/cnt/dmf20231128_97422827
- Waalse regering wil waarschuwingdrempel PFAS | De Standaard
- Pollution aux Pfas: une chronologie des faits qui commence en 2017 - Le Soir : <https://www.lesoir.be/549968/article/2023-11-17/pollution-aux-pfas-une-chronologie-des-faits-qui-commence-en-2017>

Carcinogenic dust:

- <https://www.lesoir.be/563185/article/2024-01-23/wallonie-la-ministre-tellier-mise-en-cause-dans-la-pollution-des-broyeurs-metaux>

Estonia

Score 7

Estonia has implemented environmental strategies for decades. The latest, the Estonian Environmental Strategy 2030, includes a section on health and quality of life, setting goals to prevent environmental pollution and associated health risks. Many of these goals are also reflected in the long-term Estonia 2035 strategy and are supported by concrete objectives.

Health and climate-related risks are addressed in two of the five sub-themes in the Estonia 2035 planning document. One goal, under the rubric of “People,” emphasizes health-conscious behavior and caring for oneself, others and the

environment. Under the “Living Environment” category, goals include ensuring safe public spaces and preserving nature’s heritage. These changes will be outlined in annual government decisions and budget negotiations.

The Government Office (GO) is responsible for coordinating the preparation, implementation and amendment of the Estonia 2035 strategy in cooperation with the Ministry of Finance, primarily through development plans and programs in the respective fields. The progress of Estonia 2035 is bolstered by its close relationship with the state budget strategy process. The prime minister and line ministers meet annually to discuss the achievement of strategic goals. Additionally, a strategy day is held once a year with key partners and stakeholders. During this event, an overview of the strategy’s goal achievements is provided, best practices for addressing development needs are shared and proposals for the strategy’s implementation are made.

Based on the European Environment Agency’s report, the biggest challenge is related to the prospects for meeting the recycling target for municipal solid waste, where Estonia lags behind the 2025 target.

Italy

Score 7

Protecting the population from environmental health risks is a complex objective included in various programs of the National Plan for Ecological Transition, approved in 2022. The primary programs pursuing this goal are the National Sustainable Mobility Plan, the National Atmospheric Pollution Plan, and the National Health Prevention Plan, which is based on the One Health approach.

Two institutional networks monitor and provide technical advice to the national government: the National Network System for Environmental Protection and Regulation of the Higher Institute for Environmental Protection and Research (established in 2016) and the National System for Health Prevention from Environmental and Climate Risks (established in 2022). These networks comprise institutional and scientific actors at all levels.

Additionally, significant funding has been allocated in the NRRP to strengthen environmental health protection. Italian policy in this area is characterized by a well-designed and inclusive approach that involves key stakeholders, supported by dense and binding legislation. However, implementing these policies relies heavily on the appropriate behavior of numerous public and private actors across various levels of government. Therefore, increased coordination is necessary to effectively manage this complex policy environment.

Citation:

-Ministero della Salute. Piano nazionale della Prevenzione 2020-2025.
https://www.salute.gov.it/imgs/C_17_notizie_5029_0_file.pdf

- Ministero dell'ambiente. "Piano Nazionale contro l'inquinamento atmosferico." https://www.mase.gov.it/sites/default/files/archivio/allegati/PTE/PNCIA_20_12_21.pdf

- Ministero dell'ambiente. Piano nazionale per la Transizione Ecologica. <https://www.mase.gov.it/pagina/piano-la-transizione-ecologica>

Japan

Score 7

After experiencing severe environmental pollution due to the country's rapid industrialization in the 1960s, Japan introduced a range of environmental protection regulations, which led to a significant decrease in air, water and soil pollution. The 1993 Basic Act on the Environment defined the responsibilities of the central and local governments in preserving the natural environment. The Basic Environment Plan is reviewed every few years. It sets legally binding numerical environmental quality standards for air, noise, water and soil pollution, as well as waste disposal.

Coordination of implementing environmental strategies is conducted by the Ministry of the Environment and its Central Council for the Environment. The Fifth Basic Environment Plan from April 2018 formulated six comprehensive priority strategies: Formulation of a Green Economic System for Realizing Sustainable Production and Consumption, Improvement of Value of National Land as Stock, Sustainable Community Development Using Local Resources, Realization of a Healthy and Prosperous Life, Development and Dissemination of Technologies Supporting Sustainability, and Demonstration of Japan's Leadership through International Contributions and Building Strategic Partnerships. While the strategies are accompanied by a range of detailed targets, such as restoring sound water circulation and promoting farming photovoltaics, the plan does not contain clear numerical indicators to measure progress.

The most controversial recent environmental decision by a Japanese government was the release of treated water from the Fukushima Nuclear Power Plant into the ocean in August 2023. While the International Atomic Energy Agency announced that the water met international safety standards, according to some experts, it still posed certain health hazards. According to the Environmental Performance Index, Japan is one of the most advanced countries in the world when it comes to environmental health.

Citation:
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https://www.japaneselawtranslation.go.jp/en/laws/view/3850/en#je_ch2sc6at2

Ministry of the Environment. 2018. "Kihon Kankyô Keikaku" [Basic Environment Plan]. <https://www.env.go.jp/content/900511404.pdf>

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Atomic Scientists, September 22. <https://thebulletin.org/2023/09/why-japan-should-stop-its-fukushima-nuclear-wastewater-ocean-release/>

Wolf, M. J., Emerson, J. W., Esty, D. C., de Sherbinin, A., Wendling, Z. A., et al. 2022. “2022 Environmental Performance Index.” New Haven, CT: Yale Center for Environmental Law and Policy. epi.yale.edu

Latvia

Score 7

Latvia is ranked 39th in the Environmental Performance Index 2022 for environmental health protection. The country is making improvements in all “Environmental Health” indicators, such as PM2.5 exposure, ozone exposure, unsafe drinking water, and sanitation, demonstrating a serious commitment to environmental sustainability.

The goals for environmental health protection are outlined in the national policy paper “The White Paper on Environmental Policy” and the national plan “Action Plan for Air Pollution Reduction 2020–2030.” The White Paper on Environmental Policy is a comprehensive, cross-sectoral document that addresses key areas related to environmental health protections, including air pollution, water quality, and sanitation.

Policy papers in Latvia are binding for public administration, and agencies regularly monitor their implementation. According to the Environmental Protection Law (2006), environmental monitoring is conducted through programs such as the Air and Climate Change Monitoring Program, the Water Monitoring Program, and the Land Monitoring Program, covering all critical areas for environmental health protection.

Citation:

Wolf, M. J., Emerson, J. W., Esty, D. C., de Sherbinin, A., Wendling, Z. A., et al. 2022. 2022 Environmental Performance Index. New Haven, CT: Yale Center for Environmental Law & Policy. <https://epi.yale.edu/epi-results/2022/component/epi>

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Ministru kabinets. 2020. “Gaisa piesārņojuma samazināšanas rīcības plāns 2020.–2030. Gadam.” Approved April 16. <https://likumi.lv/ta/id/314078-par-gaisa-piesarņojuma-samazinanas-ricibas-planu-2020-2030-gadam>

European Environmental Agency. 2023. “Latvia – Air Pollution Country Fact Sheet.” <https://www.eea.europa.eu/themes/air/country-fact-sheets/2023-country-fact-sheets/latvia-air-pollution-country>

Cabinet of Ministers. 2006. Environmental Protection Law. <https://likumi.lv/ta/en/en/id/147917-environmental-protection-law>

Lithuania

Score 7

The government is largely committed to protecting environmental health. The Ministry of Environment is responsible for reducing and preventing air, water and soil pollution in Lithuania, with the Ministry of Health and other institutions, particularly the Department of Environmental Protection under the Ministry of Environment, also playing a role in policymaking and implementation.

In its 2021 report, the OECD noted that “Lithuania had a centralized environmental governance system with a modest role for local authorities. To implement the government’s ambitious environmental agenda, interinstitutional working groups collaborate on legislation and strategic documents, as well as on joint initiatives between relevant government stakeholders.” The report emphasized that “better coordination was necessary to integrate environmental considerations into sectoral policies and achieve a whole-of-government approach to environmental management. Municipalities should be more proactive in advancing the country’s agenda on climate change, circular economy and sustainable mobility.”

In the 2022 Environmental Performance Index, Lithuania was ranked 31st among 180 countries, an improvement from 35th place in 2020. It was ranked 33rd in the area of air quality, 57th in sanitation and drinking water, 21st in heavy metals, and 16th in waste management.

Water supply and sewage infrastructure have improved substantially over the years thanks to the use of EU structural funds. However, providing adequate connections to the public water supply remains a challenge in some areas. Moreover, wastewater treatment is inadequate in some respects, with significant differences evident between rural and urban areas.

In 2020, 79.44% of households were connected to wastewater treatment plants. This figure has been increasing very gradually over the last decade. The government plans to raise this proportion to 85% by 2025 and to 95% by 2030. The OECD survey (2021) emphasized that “water pollution is worsening across the country.” In particular, mineral fertilizers in agriculture and “insufficiently treated wastewater” are causes for concern.

In its 2021 report, the OECD acknowledged the progress made in waste management. It noted that the country “moved from landfilling almost all its waste to recycling and composting most of it in less than a decade. This impressive progress is a result of increased separate waste collection; construction of sorting facilities; improved labeling requirements; near-complete service coverage; education and awareness campaigns; and expansion of deposit-refund schemes to cover glass, plastic and aluminum beverage containers.” The OECD advised Lithuanian authorities to focus on reducing waste generation and improving material productivity by adopting and implementing cross-sectoral circular economy policies.

Environmental regulation has been reinforced over the last 20 years through the alignment of the country’s environmental legislation with EU directives. According to the OECD (2021), “it could be further improved by using activity-specific standard environmental requirements (general binding rules) for low-impact installations. This would reduce the regulatory costs for competent authorities and the administrative burden for regulated entities.”

Citation:

OECD. 2021. "OECD Environmental Performance Reviews: Lithuania 2021." Paris: OECD Publishing. <https://doi.org/10.1787/48d82b17-en>

OECD. 2022. "Reform of Water Supply and Wastewater Treatment in Lithuania: Practical Options to Foster Consolidation of Utilities." Paris: OECD Publishing. <https://doi.org/10.1787/f966a980-en>

Environmental Performance Index 2022, Lithuania – Country Scorecard, <https://epi.yale.edu/epi-results/2022/country/ltu>

New Zealand

Score 7

The commitment of the New Zealand government to protecting the public from environmental health risks is reflected in various policies and regulations – for example, the Resource Management Act, the National Environmental Standards for Air Quality, and the Hazardous Substances and New Organisms Act. Government agencies such as the Ministry for the Environment and the Environmental Protection Authority enforce compliance with these environmental laws and regulations.

Existing policies can both support and potentially undermine efforts to protect environmental health. Notable examples of supportive policies include environmental protection laws such as the Resource Management Act and the Hazardous Substances and New Organisms Act, as well as clean air and water policies. At the same time, certain policies – particularly resource extraction and land use policies – may undermine environmental health protection efforts.

Despite these efforts, challenges persist – in particular, in relation to air pollution (e.g., Morton 2023), drinking water quality (e.g., RNZ 2023a), toxic landfill gases and leachate (e.g., RNZ 2023b), and the management of contaminated land (e.g., McMahon 2023). Moreover, there has been a lack of investment over time in sustainable infrastructure, as well as limited political will to support the management of environmental risks, including in the areas of water quality and land management.

Citation:

McMahon. 2023. "DOC Managing over 300 Contaminated Sites on West Coast." RNZ, June 17. <https://www.rnz.co.nz/news/ldr/492164/doc-managing-over-300-contaminated-sites-on-west-coast>

Morton, J. 2023. "Air quality: Many NZ towns exceed WHO guideline for key pollutant." New Zealand Herald, 21 June. <https://www.nzherald.co.nz/environment/air-quality-many-nz-towns-exceed-who-guideline-for-key-pollutant/JKYJG65L6FHH5MK5OE7ICNXIVM>

RNZ. 2023. "Several councils could face huge bills to get drinking water up to scratch." 3 October. <https://www.rnz.co.nz/national/programmes/checkpoint/audio/2018909543/several-councils-could-face-huge-bills-to-get-drinking-water-up-to-scratch>

RNZ. 2023. "Residents 'Worried about Breathing Toxic Gases' Want Reassurance from Councils about Landfill." 8 August. <https://www.rnz.co.nz/news/national/495380/residents-worried-about-breathing-toxic-gases-want-reassurance-from-councils-about-landfill>

Slovenia

Score 7

In Slovenia, environmental legislation aims to prevent pollution and related risks through the Law on Environmental Protection and various other legal acts addressing air quality and pollution prevention. These include the Decree on Ambient Air Quality, the Rules on the Assessment of Ambient Air Quality, the Decree on Arsenic, Cadmium, Mercury, Nickel, and Polycyclic Aromatic Hydrocarbons in Ambient Air, and the Decree on the Emission of Substances into the Atmosphere from Stationary Sources of Pollution.

Despite these regulations, the European Environment Agency estimates that in 2021, 1,190 premature deaths were attributable to PM_{2.5} air pollution, compared to 1,800 such deaths in 2015. Additionally, 160 premature deaths were linked to NO₂ pollution and 140 to O₃ pollution. The data indicate that Slovenia has shown declining trends in SO₂ emissions and met its reduction commitments for PM_{2.5} and SO₂ in 2020 and 2021. However, PM₁₀ pollution remains a problem in some parts of the country.

Air pollution has been a public concern for years, with several prolonged public cases. For over a decade, residents and non-governmental organizations, especially Eco Circle, have fought against local and national administrations and the transnational company Lafarge in the Trbovlje region over the incineration of hazardous waste.

In recent years, the largest cement plant in Anhovo, owned by the Salanit company, has been criticized for endangering the local population's health through air pollution. In 2022, the UN Special Rapporteur on human rights and the environment visited Anhovo and stated that the Slovenian government must prioritize measures to improve air quality in this and other known air pollution hotspots, refusing to approve activities that increase pollution.

In early January 2024, a non-governmental organization prepared an amendment to the Environmental Protection Act, proposing to align the standards for co-incineration of waste with those for incineration, addressing the issue in Anhovo. Doctors from the Slovenian Medical Association's working group on monitoring, warning, and raising awareness of the dangers of a polluted environment for health have supported this proposed amendment.

A few years ago, a publicized protest action along the Soča River, "Za naravo ob Sočo!" warned of polluted drinking water due to the release of carcinogenic hexavalent chromium from a wastewater treatment plant operated by the Swiss company Eternit in Anhovo.

Citation:

European Environment Agency. 2023. "Slovenia – Air Pollution Country Fact Sheet." <https://www.eea.europa.eu/themes/air/country-fact-sheets/2023-country-fact-sheets/slovenia-air-pollution-country>

Gams, M. 2022. "Bad Atmosphere in the Soča Valley." <https://www.cipra.org/en/news/bad-atmosphere-in-the-soca-valley>

La. Da. 2024. "V Salonitu v primeru potrditve spremembe zakona o varstvu okolja napovedali ustavno presojo." RTVSLO <https://www.rtvsl.si/okolje/v-salonitu-v-primeru-potrditve-spremembe-zakona-o-varstvu-okolja-napovedali-ustavno-presajo/694978>

Spain

Score 7

Spain anticipates an increase in morbidity and mortality due to heat waves, which, as a result of climate change, are projected to become more frequent, intense, and prolonged in the coming decades. Another concern is the risk associated with the spread of established or new disease vectors.

In 2021, the government adopted the Strategic Plan for Health and Environment 2022–2025. This plan outlines 14 comprehensive thematic areas, including "climate change," "air quality," "extreme temperatures," and "disease vectors."

For instance, the action plan for "air quality" aims to reduce mortality and morbidity attributable to air pollution, in line with the National Climate Plan's goals. Actions include monitoring air quality in high-traffic areas, especially near schools, playgrounds, and healthcare facilities.

The plan includes several indicators to measure specific outcomes. A Monitoring Commission will oversee the development and management of the strategic plan and publish an annual report assessing compliance with the proposed actions in each thematic area. However, no progress report has been published thus far.

Policy implementation is not delegated to bureaucracies and executive agencies. The national plan serves as an umbrella for the actions of the autonomous communities, which must provide data to the central government for monitoring. Many autonomous communities already have their own Environmental Health Protection Plans and significant experience in integrated health impact assessments within Environmental Impact Assessments, although methodologies vary widely. The central government aims to enhance cooperation with the autonomous communities.

In recent years, the government has aligned all public policies with its primary climate action objectives. However, some subsidies, such as those for fuels, have been counterproductive.

Switzerland

Score 7

The Health2030 agenda recognizes the multifaceted and complex influence of the environment on health, highlighting the importance of reducing environmental health risks. This includes addressing harmful substances in the air, water and soil, as well as the impacts of ionizing and nonionizing radiation, biodiversity loss and climate change. The strategy acknowledges the need for concrete measures to address these risks at both national and international levels, with a focus on evidence-based policymaking (Health2030, 2017).

The strategy details specific objectives and lines of action for implementation, with Objective 7 explicitly focusing on supporting health through a healthy environment. This includes actions to reduce environmental health risks and to preserve and support nature and landscape quality. These measures are crucial for ensuring that current and future generations enjoy optimal health and benefit from biodiversity and landscape quality (Health2030, 2017).

Health2030 is comprehensive in its approach, addressing various environmental factors that impact public health. It not only focuses on reducing direct health risks but also emphasizes the importance of high-quality natural environments for promoting health and well-being (Health2030, 2017).

The strategy is built upon existing federal and cantonal responsibilities, ensuring that the implementation of the various lines of action aligns with the current legal and policy framework. This approach ensures that the strategy is supported by existing policies and structures, enhancing its effectiveness and feasibility (Health2030, 2017).

The strategy's progress is monitored using a system of indicators similar to the predecessor strategy, Health2020. This system tracks the evolving context of the health system, ensuring that the strategy's implementation is effectively monitored and evaluated (Health2030, 2017).

Implementation of Health2030 involves collaboration among federal and cantonal authorities, along with other key stakeholders in public health. The Swiss Conference of Cantonal Ministers of Public Health plays a significant role in deciding the implementation approach. This collaborative and multilevel governance approach ensures that policies are effectively implemented and monitored at both federal and subnational levels (Health2030, 2017).

In summary, the government's commitment to protecting the public from environmental health risks is evident in the Health2030 strategy, which outlines a

clear, comprehensive and collaborative approach toward reducing environmental health risks and promoting public health. The strategy's implementation is supported by existing policies and legal frameworks, with a structured monitoring system to track progress and ensure effective execution.

Switzerland now has comprehensive legislation on air (LPair), water (LEaux), and soil (LPE) protection. However, this legislation was introduced and has evolved in a rather uncoordinated manner, which led to some monitoring gaps. One recent example is the discovery of serious contamination from dioxins and heavy metals in the city of Lausanne, due to a waste incineration plant placed in an unfavorable topographical site. The belated discovery of the pollution was related to a complex series of factors including the complexity of interaction between levels of governance in monitoring duties (federal-cantonal-municipal), an industrial path-dependency, the lack of independent monitoring agencies at the regional level, the cumulation of planning and controlling activities by the canton, and the institutional uncoupling of health and environmental issues (Moll-François et al. forthcoming 2024). These factors can be extrapolated to other cases.

Citation:

Health2030 – the Federal Council's health policy strategy for the period 2020–2030. 2017.

Moll-François Fabien, Berthet Aurélie, Breider Florian, Elsig Alexandre, Mavrot Céline. 2024, forthcoming. "La plus vieille usine du monde": socio-histoire de l'ancien incinérateur du Vallon (1958-2005). EPFL/University of Lausanne/Unisanté.

United Kingdom

Score 7

Environmental health is a competence of the devolved administrations, with support from UK-wide agencies. For example, the Animal and Plant Health Agency focuses on "identifying and controlling endemic and exotic diseases and pests in animals, plants, and bees, and the surveillance of new and emerging pests and diseases." Additionally, there is a marine protection agency contributing to these efforts.

In England, the Environment Agency, established in 1996, is the primary body responsible for environmental health. Its duties include reducing industrial emissions, creating cleaner rivers and bathing waters, and mitigating the impacts of climate change. The Environment Agency's EA2025 plan, produced in 2020, outlines three main priorities: "a nation resilient to climate change; healthy air, land and water; and green growth and a sustainable future." In Scotland, similar responsibilities are handled by the Scottish Environment Protection Agency; in Wales, by Natural Resources Wales; and in Northern Ireland, by the Environment Protection Agency. These agencies are all executive bodies. In England, additional environmental actions are often spearheaded by mayors, such as the ultra-low emission zone extended to all of London in August 2023. Local authorities also take initiatives, including the adoption of low-traffic neighborhoods, though these sometimes face local opposition.

Despite the clear mandates of these agencies and their principled approaches (as detailed in the citation for England), there are frequent criticisms of insufficient enforcement, particularly regarding sewage discharges by water companies. These issues are partly due to legacy infrastructure not designed to separate rainwater from sewage, as well as inadequate investment by utilities. In the last two years, the number of sewage discharge incidents has increased, leading to public outcry. A BBC report noted a daily average of 825 sewage releases in 2022, with water companies in England discharging sewage for a total of 1.75 million hours.

The Environment Agency and OFWAT, the regulator of water companies, have been accused of neglecting their regulatory duties. The 2021 Environment Act led to the creation of a new Office for Environmental Protection (OEP) at the end of 2021, which published stricter enforcement policies in June 2022. In response to public complaints, the OEP “identified possible failures to comply with environmental law by the Department for Environment, Food and Rural Affairs (Defra), the Environment Agency, and OFWAT in relation to the regulation of combined sewer overflows” in September 2023, although these agencies dispute the findings.

While the OEP is still in its early stages, it is expected to enhance the quality of environmental health protection. However, some of its initial findings highlight implementation challenges in achieving the ambitious objectives and targets central to government policy.

Citation:

<https://www.gov.uk/government/publications/environmental-principles-policy-statement/environmental-principles-policy-statement>

<https://www.bbc.co.uk/news/science-environment-66778409>

<https://www.theoep.org.uk/report/our-strategy-and-enforcement-policy>

Greece

Score 6

“Greece faces challenges in waste and water management, and air pollution remains a serious concern” (OECD 2020: 4). Compared to other OECD countries, Greece lags in areas such as PM2.5 exposure, household solid fuels, ozone exposure, lead exposure, unsafe sanitation, and mismanaged solid waste (Yale Center for Environmental Law and Policy 2019). However, Greece performs well in ensuring the safety of drinking water.

The Greek government is committed to preventing environmental pollution and safeguarding public health. Various lead units, including the General Secretariat for Natural Environment and Water and the General Secretariat of Environmental Policy within the Ministry of Environment and Energy, are responsible for coordinating water management, monitoring air pollution, and ensuring soil security. An annually updated report on atmospheric quality is published every year (Ministry of Energy

and Environment 2022). The same General Secretariat is also responsible for soil security.

In response to natural disasters in 2023, including record wildfires and floods, Greece's National Public Health Organization (EODY) has informed the public about potential health risks (i.e., waterborne and vector-borne diseases) and conducted water quality testing. However, the scale and abruptness of these disasters have hindered the efficiency of government response.

In summary, while Greece has relevant policies in place to address environmental health risks, the country's institutional capacity faces limitations that impact effective implementation. (Schismenos et al. 2022: 3).

Citation:

Ministry of Energy and Environment. 2022. "Annual Report on Atmospheric Quality 2022." <https://ypen.gov.gr/wp-content/uploads/2023/06/%CE%95%CE%A4%CE%97%CE%A3%CE%99%CE%91-%CE%95%CE%9A%CE%98%CE%95%CE%A3%CE%97-2022.pdf>

OECD. 2020. "OECD Environmental Performance Reviews -Greece Highlights 2020." <https://ypen.gov.gr/wp-content/uploads/2020/11/OECD-EPR-Greece-2020-Highlights-English.pdf>

Schismenos, S., D. Emmanouilidis, G. J. Stevens, N. D. Katopodis, and A. M. Melesse. 2022. "Soil Governance in Greece: A Snapshot." *Soil Security* 6.

Yale Center for Environmental Law and Policy. 2019. "Environmental Performance Index (EPI): PM2.5 Exposure." <https://epi.yale.edu/downloads>

Yale Center for Environmental Law and Policy. 2019b. "Environmental Performance Index (EPI): Household solid fuels." <https://epi.yale.edu/downloads>

Yale Center for Environmental Law and Policy. 2019. "Environmental Performance Index (EPI): Ozone Exposure." <https://epi.yale.edu/downloads>

Yale Center for Environmental Law and Policy. 2019. "Environmental Performance Index (EPI): Lead exposure." <https://epi.yale.edu/downloads>

Yale Center for Environmental Law and Policy. 2019. "Environmental Performance Index (EPI): Unsafe sanitation." <https://epi.yale.edu/downloads>

Yale Center for Environmental Law and Policy. 2019. "Environmental Performance Index (EPI): Mismatched Solid Waste." <https://epi.yale.edu/downloads>

Yale Center for Environmental Law and Policy. 2019. "Environmental Performance Index (EPI): Unsafe drinking water." <https://epi.yale.edu/downloads>

The website of the Ministry for Energy and Environment is <https://ypen.gov.gr/>

The website of the National Health Public Organization (EODY) is <https://eody.gov.gr/en/>.

Ireland

Score 6

Ireland's surface and ground waters continue to be under pressure from human activities. Agriculture is the dominant source of this pressure, while river alterations, urban wastewater and forestry also contribute (EPA, 2020a). Ireland's air quality faces challenges, including nitrogen oxides (NOx), particulates (PM), volatile

organic carbon (NMVOC) and ammonia (NH₃). There are no safe levels for particulates, which are problematic in urban centers, while levels of NO_x, NMVOC, and NH₃ all breach National Emissions Ceiling targets (CSO 2022). NO_x and particulates arise from road transport, solid fuel home heating and agriculture (EPA 2020b). Ammonia emissions are almost exclusively from agriculture and are increasing. VOC emissions are attributable to agriculture, manufacturing, paints, and solvents. Problems are also arising from the drainage of peatlands and soils for agriculture and urban sealing of soil surfaces (EPA 2020c), but monitoring is limited.

Policy to address environmental health risks is spread across scales, functions and sectors. Much of this policy is binding as it is transposed from EU directives. Ireland has shown progress in discrete tasks such as improving sulfur dioxide levels, but, similar to climate action, demonstrates challenges with systemic problems arising from policy choices that support the expansion of environmentally damaging activities. Policy coherence is thus a significant issue due to decades of agricultural development policy, spatial and transport development policy and policy on heating technology. These policies have increased environmental burdens and significant costs to public health but are not coherently addressed across national policy silos (O'Mahony/EPA, 2020).

There is weak enforcement of EU health protection policy, and the EPA reports significant barriers in the stringency and enforcement of environmental regulation in Ireland. The EPA raises concerns relating to water stress, wastewater treatment, carbon concentration and changes in forest cover (EPA 2022 a, b, c).

Citation:

EPA. 2022a. Air Quality in Ireland 2021. Wexford: Environment Protection Agency.

EPA. 2022b. Drinking Water Quality in Public Supplies 2021. Wexford: Environment Protection Agency.

EPA. 2022c. Drinking Water Quality in Private Group Schemes and Small Private Supplies 2020. Wexford: Environment Protection Agency.

EPA. 2023. Clean Air Strategy for Ireland. Wexford: Environment Protection Agency.

Central Statistics Office. 2022. "Environmental Indicators Ireland 2022: Air." <https://www.cso.ie/en/releasesandpublications/ep/p-eii/environmentalindicatorsireland2022/air/>

EPA. 2020a. "Ireland's Environment 2020 - Chapter 7 - Water Quality." <https://www.epa.ie/publications/monitoring-assessment/assessment/state-of-the-environment/EPA-Ireland's-Environment-2020-Chapter7.pdf>

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Israel

Score 6

The Clear Air Law, passed in 2008 and implemented in 2011, is the principal air quality policy in Israel. Following the implementation of the legislation, the government established air quality measures for various pollutants, which are

periodically updated by the Ministry of Health and the Ministry of Environmental Protection.

The law established two types of values. The first type includes aspirational values, with deviation from these values considered harmful to people's health and quality of life. These values are not legally binding. The second type includes values from which deviation signifies significant air pollution.

Following the legislation, the two ministries monitor 28 pollutants. In 2013, the government approved the national program for the reduction of air pollution in Israel (Decision No. 707). The program is comprehensive, and includes concrete goals for 2015 and 2030, which are broken into sectors such as electricity, energy and transportation, among others. For instance, the Ministry of Transportation is tasked with decreasing the number of old cars on the roads and transitioning to green public transportation.

By 2020, the program was almost completely implemented. The progress of this program and the implementation of the Clear Air Law are monitored by the Ministry of Environmental Protection and the Ministry of Health. The Ministry of Health issues a biennial report that presents the policies, as well as health and environmental risks. The report is written in collaboration with the Life and Environment organization.

Water quality has been regulated since the 1970s. The regulations outline the desired concentration of various chemicals in drinking water. Water suppliers are required to periodically monitor drinking water and report their findings to the Ministry of Health.

In 2018, the Ministry of Health sampled drinking water in schools across the country. More than 99.5% of the samples met the required standards. In cases where standards were not met, the ministry conducted an inquiry, and the respective school and local authority were required to make the necessary corrections. The results of these drinking water samples are publicly available.

In 2020, a new law was enacted, stipulating that water packages cannot contain more than the minimum allowable amount of lead.

At the same time, we should note that pollution of water resources is monitored but only to a limited degree. Though there is effective enforcement against factories that intentionally violate the law, significant pollution of underground water resources and the sea still occurs in areas near the Tel Aviv metropolitan area due to various reasons, including leaks from gas stations and repositories. According to the state comptroller (2021), purification activities are lagging significantly.

The Ministry of Environmental Protection is responsible for soil pollution. It has a detailed policy that covers the identification, prevention and rehabilitation of polluted soil. The policy distinguishes between current and past activities that lead to

soil pollution. The ministry prioritizes polluted soil based on clear and transparent criteria, with guidelines, and an order of intervention tailored to each case and sector.

In all the above-mentioned environmental health risks, the policy is being updated based on new research and evidence. For each type of pollution, there are several measures and categories, as can be seen in the Ministry of Health report (The Ministry of Health and Life and Environment Organization, 2020).

In each field, the ministry or ministries publish periodic reports describing the progress made and the challenges remaining. However, not all ministries comply with the effort. For instance, the Ministry of Transportation did not meet many of the goals set in the air pollution reduction plan. Furthermore, the Ministry of Environmental Protection and Ministry of Health cannot enforce compliance by other departments.

Citation:

The Ministry of Health and Life and Environment Organization. 2020. "Health and Environment in Israel 2020." https://www.gov.il/BlobFolder/news/04012020-01/he/files_publications_environment_health-and-environment-in-israel-2020.pdf

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Portugal

Score 6

Between 2005 and 2022, Portugal actively aligned its policy instruments with European climate resilience standards. In recent years, the country has developed a comprehensive national and sectoral adaptation strategy (NAS and NAP), utilizing various reports (RAPs) for effective implementation.

The incorporation of Climate Risk Assessments into overarching adaptation governance frameworks is grounded in sectoral impact analyses outlined in monitoring reports. Like Greece, Portugal is committed to producing a comprehensive economic estimate of climate change damage and costs, enhancing sectoral evaluations of climate change impacts.

Furthermore, in line with several EU member states, Portugal aims to enact climate laws, demonstrating a political dedication to environmental protection and, consequently, public health. This commitment enhances the significance of adaptation policies, promoting a more coherent and coordinated implementation approach.

Citation:

European Environment Agency (EEA). 2022. "Advancing towards climate resilience in Europe – Status of reported national adaptation actions in 2021." <https://www.eea.europa.eu/publications/advancing-towards-climate-resilience-in-europe>

United States

Score 6

The Environmental Protection Agency (EPA) is the primary federal agency responsible for protecting the public from environmental health risks. It sets and enforces environmental regulations and standards, and takes action against pollutants and other hazardous substances that contaminate the air, water, and soil.

The EPA enforces a variety of federal statutes related to the environment. Under the Clean Air Act of 1970, the EPA has established the National Ambient Air Quality Standards (NAAQS), which it uses to reduce air pollution in collaboration with partners in state and local government. Under the Clean Water Act of 1972 and the Safe Drinking Water Act of 1974, the EPA monitors water quality and enforces drinking water standards for local public and private utilities. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) created a “superfund” from which the EPA can draw to fund cleanup efforts and mitigation at hazardous waste sites.

Other agencies enforce and monitor environmental health. The National Institutes of Health includes the National Institute of Environmental Health Sciences, which conducts research on environmental health issues. The Centers for Disease Control and Prevention (CDC), the Occupational Safety and Health Administration (OSHA), and the Food and Drug Administration (FDA) all have responsibilities for monitoring potential environmental health risks, especially in the areas of public health, the workplace, and consumer products, respectively.

The federal government places obligations on private sector industries to disclose information about potential hazardous substances they may be using. The Emergency Planning and Community Right-to-Know Act of 1986 requires industries that work with toxic chemicals to report this information.

On his first day in office, President Biden announced a series of actions to promote and protect public health and the environment. Most of those actions depend on the EPA’s regulatory authority. The executive order also required a review of several Trump-era regulations that weakened pollution standards or sought to permanently restrict the agency’s authority to impose health-based pollution standards.

France

Score 5

Environment-related issues do not currently appear to be at the top of the political agenda. The French Agency for Food, Environmental and Occupational Health and Safety (Agence nationale de sécurité sanitaire de l’alimentation, de l’environnement et du travail; ANSES) lists environmental health as one of its main goals. France’s

national plan for environmental health (NPEH) identifies several central goals. The fourth NPEH covers the period from 2021 to 2025 and pursues four different goals: 1) improving information and training to help citizens identify exposure risk and adopt the right precautions; 2) reducing citizen exposure to environmental risks affecting health – this includes air quality, noise and parasites such as bedbugs, which have been high on the public agenda in the past few years; 3) expanding the action of local political authorities – the idea is to encourage and support local initiatives; and 4) improving the understanding of the links between health and the environment.

For the time being, this policy has remained largely exploratory. Few resources are effectively committed to environmental health. Mostly, such activities are integrated either into health or environmental policies.

This is confirmed by a variety of indicators. France ranks around the OECD average on most relevant indicators, including exposure to particulate matter and ozone. Drinking water quality is particularly worrisome in some parts of the country due to years of uncontrolled soil pollution through intensive agriculture. While there is growing awareness of these issues, policy remains reticent at best.

Netherlands

Score 5

The 2018 Public Health Foresight Study (Volksgezondheid Toekomst Verkenning, VTV) reveals that 4% of the total disease burden in the Netherlands stems from environmental factors. Specifically, outdoor factors contribute approximately 175,000 disability-adjusted life years (DALYs), or the loss of the equivalent of one year of full health, primarily from air pollution and UV radiation. Indoor factors account for about 25,000 DALYs, notably due to second-hand smoke, radon and thoron exposure. Annually, there are 12,000 deaths attributed to outdoor environmental factors, with air pollution alone causing 11,000 deaths, and 1,000 deaths linked to indoor environmental factors. Notably, not all environmental disease burdens are covered in the VTV. Drawing on the VTV 2018 and adding estimates concerning noise, lead exposure and other environmental factors as yet unaccounted for, the Heart Council estimates that at least 5% of the total disease burden in the Netherlands is environmentally related.

Despite persistent advocacy from healthcare professionals and institutions such as the national Health Council (Gezondheidsraad), the National Institute for Public Health and Environment (RIVM), and regional health services (GGD/GHOR), the Dutch government's commitment to safeguarding citizens from environmental health risks remains limited. Efforts thus far have been fragmented, focusing mainly on localized "hotspots" like areas affected by industrial pollution from Chemours and Tata Steel, without a cohesive national policy approach. For instance, health impacts are not systematically integrated into the Policy Compass checklist used by civil servants in national policy formulation.

While numerous health indicators exist, their utilization in environmental policy formulation, monitoring and evaluation, and in establishing safe threshold values for licensing decisions, is often inadequate or nonexistent. The Clean Air Agreement (Schoneluchtakkoord, SLA), a covenant between the national government, provinces and a large number of municipalities, exemplifies this issue, as it lacks intermediate targets and outcome obligations, and participation is voluntary, leading to disparities between participating and nonparticipating municipalities. Moreover, the licensing system for environmental health protection policies is deficient, further hindering effective implementation.

Efforts to address these shortcomings are underway, with plans to decentralize responsibilities under the Environment Act expected to enhance the incorporation of health considerations into local environmental policies. The Health Council advocates for the development of a robust knowledge infrastructure to facilitate knowledge exchange among research institutions, policymakers and practitioners.

Overall, environmental health protection in the Netherlands remains a patchwork of initiatives and experiments, lacking a cohesive, evidence-based national approach. While promises for improvement abound, current efforts are hindered by insufficient support and decentralized governance structures at the provincial and local levels.

Citation:

Onderzoeksraad voor de Veiligheid. 2023. "Betere bescherming tegen industriële uitstoot is mogelijk en noodzakelijk."

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NRC. 2023. "Schipholbaas baalt van afblazen krimpplannen: 'Buren trekken aan kortste eind'." NRC November 19.

RIVM. 2022. "Gezonde Leefomgeving." GGD trekt instrument GES terug, December 12.

Gezind in de Stad (GIDS). 2020. "Decentralisatie Uitkering Gezond in de Stad (GIDS)." February 13.

Gezondheidsraad. 2022. "Kansen voor gezondheidswinst in omgevingsbeleid." Nr. 2022/16, Den Haag, July 13.

Poland

Score 5

Poland's environmental strategy is centered on the 2030 National Environmental Policy, established by the Ministry of Climate in 2019. The policy utilizes the Environmental Performance Index (EPI) as a metric, with the goal of achieving a score above 70 out of 100 by 2030. Divided into 13 strategic goals, the strategy covers diverse areas such as sustainable water and forest management, waste reduction, and air pollution control. Key objectives focus on improving various indicators, including surface water quality, groundwater chemical status, sewage system usage and air quality.

While aligning with EU standards in areas like PM_{2.5} exposure and waste management, Poland lags in the EPI rankings, particularly in the areas of air quality,

sanitation and waste management. Air quality poses a significant challenge, with the Polish Smog Alert (2023) estimating that approximately 40,000 premature deaths take place annually due to air pollution, reducing overall life expectancy by about nine months. The Supreme Audit Office (NIK 2023) has acknowledged shortcomings in the area of waste management, leading to reprimands from the European Commission.

The Chief Inspectorate for Environmental Protection Monitoring is tasked with monitoring environmental progress, using a methodology applied by the European Commission, the OECD and the EEA since 1992. The Strategic Program for State Environmental Monitoring (2020 – 2025) emphasized the integration of emissions data from public statistics systems, such as the National Center for Emissions Management (KOBiZE) for air emissions and the State Water Holding (Wody Polskie) water cadaster for water. Environmental protection authorities, including mayors, district governors and ministers, operate in a decentralized manner. They collaborate with specialized bodies like the State Council for Environmental Protection and the National Center for Emissions Management.

However, decentralization has placed a burden on municipalities, particularly regarding air quality policies. Responsibility has been delegated to the provincial level, with the provincial assembly enforcing air protection programs within its boundaries. This entails the preparation of draft resolutions and action plans, the involvement of relevant local authorities, and public participation. Overall, Poland faces multifaceted challenges in achieving its environmental goals with regard to addressing air pollution, waste management and water quality.

Citation:

Ministry of Climate. 2019. “The 2030 National Environmental Policy.” https://bip.mos.gov.pl/fileadmin/user_upload/bip/strategie_plany_programy/Polityka_Ekologiczna_Panstwa/Polityka%20Ekologiczna%20Pa%C5%84stwa%202030%20ENG_wersja%20internet.pdf
Naczelną Izbą Kontroli, NIK. 2023. “Funkcjonowanie systemu gospodarki odpadami komunalnymi i użytkowymi oraz transgraniczne przemieszczanie odpadów.” <https://www.nik.gov.pl/kontrola/P/20/045/>
Polish Smog Alert. 2023. “<https://www.polishsmogalert.org/>”

Slovakia

Score 5

The Greener Slovakia – Strategy of the Environmental Policy of the Slovak Republic until 2030 paper (Envirostrategy 2019: 60) emphasizes that environmental problems increasingly impact the economy, employment, health, and population comfort. The document outlines general goals and specific ambitions, serving as a strategic guide with defined indicators. However, implementation and monitoring have been slow. For example, it does not consider international statistics on unsafe drinking water, instead comparing Slovakia to V4 countries and the EU average.

By 2030, the municipal waste recycling rate, including preparation for re-use, is targeted to increase to 60%, with the landfill rate reduced to less than 25% by 2035.

In climate change mitigation, Slovakia aims to reduce greenhouse gas emissions in the emissions trading sectors by 43% and outside these sectors by at least 20%, compared to 2005. The country focuses on clean air, water, and soil, as air pollution causes more than 5,000 premature deaths annually in Slovakia.

Municipalities can introduce measures such as low-emission zones and transport restrictions (§ 2, § 9 of the Air Act), and a smog warning system (§ 13 of the Air Act) to warn the population when PM10 particle thresholds are exceeded (NPZE, 2020: 120).

The Slovak Innovation and Energy Agency (SIEA) coordinates efforts aimed at green housing infrastructure, including heating systems (Green Households, 2023). This initiative lacks financial support without time and funding limits, with financial support often reserved within minutes.

Less than two-thirds of the Slovak population is connected to public sewers, despite the public sewer system being in place. Voluntary disconnections and a long-term decline in total water consumption, which may indicate positive environmental trends, could also negatively impact public health and hygiene. Household water consumption has fallen below the World Health Organization's recommended sanitary minimum in recent years. This decline could be due to increased water prices, improved water-use technologies, or higher use of individual wells not recorded in official statistics. All public water supply networks comply with hygienic limits and currently supply 88% of the population (ASA QM, 2019).

Citation:

NPZE. 2020. "Národný program znižovania emisií – Slovenská republika." <https://www.minzp.sk/ovzdušie/ochrana-ovzdušia/narodne-zavazky-znizovania-emisii/narodny-program-znizovania-emisii/>

Envirostrategy 2030. 2019. "Greener Slovakia." <https://www.minzp.sk/iep/strategicke-materialy/envirostrategia-2030.html>

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Green households. 2023. " <https://zelenadomacnostiam.sk/nove-podmienky-zelenej-domacnostiam-siea-zverejni-30-oktobra-2023>"

Hungary

Score 3

Hungarian life expectancy is comparatively low, and Hungarians do not live in a healthy environment. In an OECD comparison, Hungary often ranks last or in the lowest quartile for indicators dealing with air quality, waste and water quality. There is little awareness regarding the impact of environmental health threats, and the national diet is also not particularly healthy. According to WHO statistics (WHO 2024), 17% of deaths from strokes and ischemic heart disease are caused by air pollution, and 18% by problems related to unsafe drinking water, sanitation or

hygiene. Air pollution, for instance relating to NO₂, regularly exceeds the limits set by international standards, and measurements are not always precise (Bíró-Nagy et al. 2023: 12). The regulatory environment in environmental health is underdeveloped. Hungary has legal standards for dealing with specific matters but does not comply with WHO air quality guidelines. The commitment to the COP26 health program is also insufficient. In occupational health, the numbers are much better, and regulatory compliance with international norms is stronger as well. Two out of three of the respective labor conventions have been implemented. In recent years, several large industrial plants have been set up in the country without adequate environmental safeguards and protocols, causing public concern. Specifically, the government has expanded its battery production capacities rapidly to serve the electric vehicle industry through fast-track approval processes. The Samsung battery plant in Göd has been shown to cause severe water pollution in the neighboring municipality, leading to public outcry. However, due to the plant's designation as part of a "special economic zone," the local council does not have the authority to prevent the plant's further expansion (Hungary Today 2022). There are several battery plants whose construction started in 2023 despite the concerns of residents (Deutsche Welle 2023).

Citation:

WHO. 2024. "Health and Environment Scorecard Hungary." https://cdn.who.int/media/docs/default-source/country-profiles/environmental-health/environmental-health-hun-2023.pdf?sfvrsn=d926123e_5&download=true

Bíró-Nagy, A., Hunyadi, R., Juhász, V., Szász, Á. 2023. *Talking Green in Hungary. Lessons on Communicating Environmental Policies*. Budapest: FEPS.

Deutsche Welle. 2023. "Hungary's Big Bet on Batteries – And Its Costs." March 31. <https://www.dw.com/en/hungarys-big-bet-on-batteries-and-its-costs/a-65193569>

Hungary Today. 2023. "Toxic Solvents Found in Three Wells in Göd, Where Samsung's Huge Plant is Located." 3 May. <https://hungarytoday.hu/toxic-solvents-environment-pollution-wells-god-samsung-sdi-battery-factory-plant/>

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