

Environmental Performance Index 2022

Ranking country performance on sustainability issues



Summary for Policymakers

Yale Center for Environmental Law & Policy, Yale University

Center for International Earth Science Information Network, Columbia University

With support from the McCall MacBain Foundation



Summary for Policymakers

Scientists across the world have provided new evidence and understanding of the environmental challenges that we face at global, national, and local levels. They have documented how the build-up of emissions — including air pollution, effluent flows into waterways, mismanaged waste, chemical releases, and greenhouse gas emissions — harms human health and ecosystems. Of particular note, the recent Sixth Assessment Report from the Intergovernmental Panel on Climate Change makes clear the urgent need to address the threat of climate change.

Carefully constructed and methodologically rigorous environmental indicators allow us to track trends, identify emerging pollution problems, gauge the success of policy interventions, and ensure that our investments in environmental protection offer the greatest returns possible. Data-driven metrics promise to enhance environmental decision-making and steer the world towards a more sustainable future — but only if policymakers embrace fact-based analysis and act on the insights that emerge from the data.

The 2022 Environmental Performance Index (EPI) offers a data-rich sustainability scorecard that translates cutting-edge scientific findings into policy insights. Using 40 performance indicators, the EPI ranks 180 countries on their national efforts to protect environmental health, enhance ecosystem vitality, and mitigate climate change. These indicators measure how close countries are to meeting internationally established sustainability targets for specific environmental issues. While the overall EPI scores provide a way to spotlight sustainability leaders and call out laggards, the accompanying disaggregated data offers a more refined tool for identifying policy weaknesses and anomalies, as well as proven programs that countries can adopt from their top-performing peers.

With a methodology refined over two decades that builds on the most recent data, the EPI enables decision-makers to recognize the drivers of top-tier performance. Analysis of the EPI data demonstrates that financial resources, good governance, human development, and regulatory quality matter for elevating a country's sustainability. Highlighting these connections, the EPI helps to promote sustainable development in support of a more environmentally secure and equitable future (Figure PS-1).

Leaders and Laggards

High-scoring countries exhibit longstanding and continuing investments in policies that protect environmental health, preserve biodiversity and habitat, conserve natural resources, and decouple

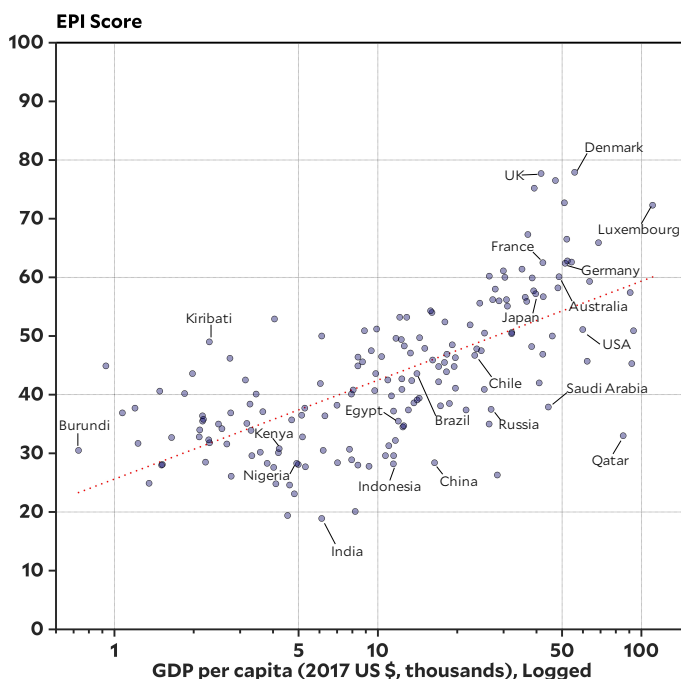


Figure PS-1. EPI scores are correlated with country wealth, although some countries outperform their economic peers while others lag.

greenhouse gas emissions from economic growth. Denmark tops the 2022 rankings — an achievement rooted in strong performance across nearly all issues tracked by the EPI, with notable leadership in efforts to promote a clean energy future and sustainable agriculture. The United Kingdom and Finland place 2nd and 3rd, both earning high scores for slashing greenhouse gas emissions in recent years.

Lagging its peers, the United States places 20th out of 22 wealthy democracies in the Global West and 43rd overall. This relatively low ranking reflects the rollback of environmental protections during the Trump Administration. In particular, its withdrawal from the Paris Climate Agreement and weakened methane emissions rules meant the United States lost precious time to mitigate climate change while many of its peers in the developed world enacted policies to significantly reduce their greenhouse gas emissions.

Innovations in the EPI methodology continue to shed light on new environmental issues and identify worrying trends — especially as data coverage improves in the developing world. Based on the latest scientific insights and environmental data, India ranks at the bottom of all countries in the 2022 EPI, with low scores across a range of critical issues. Deteriorating air quality and rapidly rising greenhouse gas emissions pose especially urgent challenges. Many bottom-tier countries face war and other sources of unrest as well as a lack of financial resources to invest in environmental infrastructure.

Summary for Policymakers

Insufficient Climate Action

In the 2021 Glasgow Climate Pact, the global community established a target of net-zero greenhouse gas emissions by mid-century and committed to more ambitious climate policies in pursuit of this aim. The 2022 EPI supports these goals with a new indicator that projects countries' progress towards reaching net-zero emissions in 2050.

The groundbreaking analysis undergirding this metric shows that only a handful of countries — including Denmark and the United Kingdom — are currently slated to reach greenhouse gas neutrality by 2050. Many other nations are headed in the wrong direction, with rapidly rising greenhouse gas emissions in major countries like China, India, and Russia. The *projected emissions in 2050* metric is a tool that policymakers, the media, business leaders, non-governmental organizations, and the public can use to gauge the adequacy of national policies, spotlight the largest contributors to climate change, and galvanize support to improve the emissions trajectories of those who are off-track.

EPI projections indicate that just 4 countries — China, India, the United States, and Russia — will account for over 50% of residual global greenhouse gas emissions in 2050 if current trends hold. A total of 24 countries — the “dirty two-dozen” — will be responsible for nearly 80% of 2050 emissions unless climate policies are strengthened and emissions trajectories change.

COVID-19 and Sustainability

Economic and societal disruptions stemming from the COVID-19 pandemic continue to add to the challenge of meeting the sustainability imperative. Although remarkable improvements in air quality and reductions in greenhouse gas emissions followed early lockdowns and fundamental shifts in economic activities, these gains came at a terrible cost in terms of human health and economic well-being. Policymakers now have a chance to rebuild their economies and societies on a more sustainable basis that preserves the pandemic-induced gains in environmental health and ecosystem vitality — but the latest data suggest that policymakers across much of the world are squandering this opportunity.

Air pollution has rebounded to pre-pandemic levels almost everywhere, as have many countries' greenhouse gas emissions. COVID-19 has also pushed the world further away from a circular economy, generating millions of tons of plastic waste as healthcare systems and people use facemasks, plastic food containers, and protective equipment.

Enhanced Environmental Insights

Ongoing advancements in environmental monitoring and data reporting enable the 2022 EPI to introduce several innovative metrics. Among the data breakthroughs are four new air quality indicators that track exposure to sulfur dioxide, nitrogen oxides, carbon monoxide, and volatile organics.

New metrics that gauge *recycling rates* and *ocean plastic pollution* join the Waste Management issue category, tracking countries' efforts to attain closed-loop economies. In recognition of the critical role of agriculture in promoting healthy societies, the 2022 EPI also includes a pilot indicator on *sustainable pesticide use*. As policymakers around the world adopt a more empirical approach to governance, the EPI's new insights promise to support the transformations necessary for a sustainable future.

A Comprehensive Environmental Index

The Environmental Performance Index distills data on many sustainability issues into a single score for each country — as well as providing a more disaggregated picture of specific environmental issues. Every iteration of the EPI incorporates the best available data and expands the scope of the sustainability scorecard as new research and insights emerge.

As the most comprehensive global environmental analysis ever published, the 2022 EPI leverages 40 performance indicators grouped into 11 issue categories (Figure ES-2). These issue categories are in turn aggregated into 3 policy objectives: Environmental Health, Ecosystem Vitality, and Climate Change. To make the EPI metrics broadly accessible, the EPI team transforms the raw environmental data into indicators that place countries on a 0–100 scale from worst to best performance. Scores for all 180 countries included in the EPI are fully discussed in the report and can be explored on our website: epi.yale.edu.

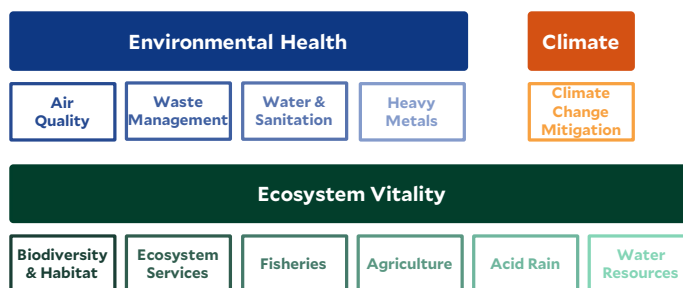


Figure PS-2. The 2022 EPI Framework includes three policy objectives and 11 issue categories. A total of 40 individual environmental metrics contribute to a country's overall EPI score.

RANK	COUNTRY	SCORE	REG	RANK	COUNTRY	SCORE	REG	RANK	COUNTRY	SCORE	REG
1	Denmark	77.9	1	60	Djibouti	47.5	6	121	Honduras	36.5	30
2	United Kingdom	77.7	2	62	Albania	47.1	15	122	Gambia	36.4	21
3	Finland	76.5	3	63	Montenegro	46.9	16	122	Samoa	36.4	11
4	Malta	75.2	4	63	South Korea	46.9	4	124	Marshall Islands	36.2	12
5	Sweden	72.7	5	65	Chile	46.7	12	125	Uganda	35.8	22
6	Luxembourg	72.3	6	66	Ecuador	46.5	13	126	Kyrgyzstan	35.7	12
7	Slovenia	67.3	1	67	Venezuela	46.4	14	127	Burkina Faso	35.5	23
8	Austria	66.5	7	68	Costa Rica	46.3	15	127	Egypt	35.5	8
9	Switzerland	65.9	8	69	Zimbabwe	46.2	7	129	Timor-Leste	35.1	13
10	Iceland	62.8	9	70	Suriname	45.9	16	130	Malaysia	35.0	14
11	Netherlands	62.6	10	71	Brunei Darussalam	45.7	5	130	Solomon Islands	35.0	14
12	France	62.5	11	72	Jamaica	45.6	17	132	Sri Lanka	34.7	4
13	Germany	62.4	12	73	Mexico	45.5	18	133	Iran	34.5	9
14	Estonia	61.4	2	74	Taiwan	45.3	6	134	Tanzania	34.2	24
15	Latvia	61.1	3	75	Central African Republic	44.9	8	135	Togo	34.0	25
16	Croatia	60.2	4	75	Eswatini	44.9	8	136	Senegal	33.9	26
17	Australia	60.1	13	77	Equatorial Guinea	44.8	10	137	Qatar	33.0	10
18	Slovakia	60.0	5	77	Mauritius	44.8	10	138	Côte d'Ivoire	32.8	27
19	Czech Republic	59.9	6	79	Serbia	43.9	17	138	Rwanda	32.8	27
20	Norway	59.3	14	80	Tonga	43.8	7	140	Sierra Leone	32.7	29
21	Belgium	58.2	15	81	Afghanistan	43.6	1	141	Lesotho	32.3	30
22	Cyprus	58.0	7	81	Brazil	43.6	19	142	Lebanon	32.2	11
23	Italy	57.7	16	81	Jordan	43.6	3	143	Ethiopia	31.8	31
24	Ireland	57.4	17	84	Moldova	42.7	4	144	Eritrea	31.7	32
25	Japan	57.2	1	85	Bhutan	42.5	2	144	Mozambique	31.7	32
26	New Zealand	56.7	18	85	Comoros	42.5	12	146	Guinea	31.6	34
27	Spain	56.6	19	87	Colombia	42.4	20	147	Fiji	31.3	16
28	Bahamas	56.2	1	87	Kuwait	42.4	4	148	Kenya	30.8	35
28	Greece	56.2	8	89	Dominican Republic	42.2	21	149	Laos	30.7	17
30	Romania	56.0	9	90	Bahrain	42.0	5	149	Oman	30.7	12
31	Lithuania	55.9	10	91	Cabo Verde	41.9	13	151	Angola	30.5	36
32	Seychelles	55.6	1	92	Argentina	41.1	22	151	Burundi	30.5	36
33	Hungary	55.1	11	93	Kazakhstan	40.9	5	153	Cameroon	30.2	38
34	North Macedonia	54.3	12	93	Paraguay	40.9	23	154	Cambodia	30.1	18
35	Botswana	54.0	2	95	El Salvador	40.8	24	155	Algeria	29.6	13
36	Barbados	53.2	2	96	Tunisia	40.7	6	155	Benin	29.6	39
36	St. Vincent and Grenadines	53.2	2	97	Malawi	40.6	14	155	Mongolia	29.6	19
38	São Tomé and Príncipe	52.9	3	98	Guinea-Bissau	40.2	15	158	Philippines	28.9	20
39	Antigua and Barbuda	52.4	4	99	Bolivia	40.1	25	159	Mali	28.5	40
39	United Arab Emirates	52.4	1	99	Republic of Congo	40.1	16	160	China	28.4	21
41	Bulgaria	51.9	13	101	Peru	39.8	26	160	Morocco	28.4	14
42	Dominica	51.2	5	102	Bosnia and Herzegovina	39.4	18	162	Nepal	28.3	5
43	United States of America	51.1	20	103	Georgia	39.1	6	162	Nigeria	28.3	41
44	Namibia	50.9	4	104	Azerbaijan	38.6	7	164	Indonesia	28.2	22
44	Singapore	50.9	2	105	Guyana	38.5	27	165	Chad	28.1	42
46	Poland	50.6	14	106	Zambia	38.4	17	165	Mauritania	28.1	42
47	Panama	50.5	6	107	Uzbekistan	38.2	8	167	Guatemala	28.0	31
48	Portugal	50.4	21	108	Thailand	38.1	8	167	Madagascar	28.0	44
49	Belize	50.0	7	109	Saudi Arabia	37.9	7	169	Iraq	27.8	15
49	Canada	50.0	22	110	Nicaragua	37.7	28	170	Ghana	27.7	45
51	Gabon	49.7	5	110	Niger	37.7	18	171	Sudan	27.6	16
52	Ukraine	49.6	1	112	Russia	37.5	9	172	Turkey	26.3	19
53	Saint Lucia	49.4	8	113	Maldives	37.4	3	173	Haiti	26.1	32
54	Kiribati	49.0	3	113	Micronesia	37.4	9	174	Liberia	24.9	46
55	Belarus	48.5	2	113	Uruguay	37.4	29	175	Papua New Guinea	24.8	23
56	Armenia	48.3	3	116	South Africa	37.2	19	176	Pakistan	24.6	6
57	Israel	48.2	2	117	Tajikistan	37.1	10	177	Bangladesh	23.1	7
58	Grenada	47.9	9	118	Turkmenistan	37.0	11	178	Viet Nam	20.1	24
59	Trinidad and Tobago	47.8	10	119	Dem. Rep. Congo	36.9	20	179	Myanmar	19.4	25
60	Cuba	47.5	11	119	Vanuatu	36.9	10	180	India	18.9	8



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. epi.yale.edu

This work is published under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Environmental Performance Index is a registered trademark of Yale University. All rights reserved.