



GLOBAL METRICS FOR THE ENVIRONMENT

The Environmental Performance Index
ranks high-priority environmental issues

www.epi.yale.edu

What is the EPI?

The Environmental Performance Index (EPI) ranks countries' performance on high-priority environmental issues in two areas: protection of human health and protection of ecosystems. Within these two policy objectives the EPI scores national performance in nine issue areas comprised of more than 20 indicators. EPI indicators measure country proximity to meeting internationally established targets or, in the absence of agreed targets, how nations compare to one another.

Complete methods, data, and results are available online at www.epi.yale.edu.

Why the EPI?

Pioneering data-driven approaches to environmental policy in the last 15 years, the EPI has accelerated the global use of quantitative metrics to evaluate policy performance.

The United Nations Sustainable Development Goals (SDGs), adopted in September 2015, have assimilated a parallel approach, defining 17 goals and 169 targets to guide the global development agenda. Aligning the EPI's indicators with the SDGs provides a baseline for evaluating national performance and shows how far countries are from reaching global targets.

The EPI's value lies not only in the overall rankings, which are intended to drive productive competition, but also in the issue-by-issue metrics that provide a diagnostic tool for countries to look internally for areas of weakness and strength. A common framework and methodology allows countries to compare their performance with that of neighbors and peers, and see how their own performance has changed over time.

This Policymakers Summary provides a big-picture overview of global environmental trends. Readers are encouraged to delve deeper into the country profiles and indicator data on the website.



GLOBAL SCORECARD

The 2016 EPI covers



99%
of global
population



97%
of global
land area



98%
of global
GDP

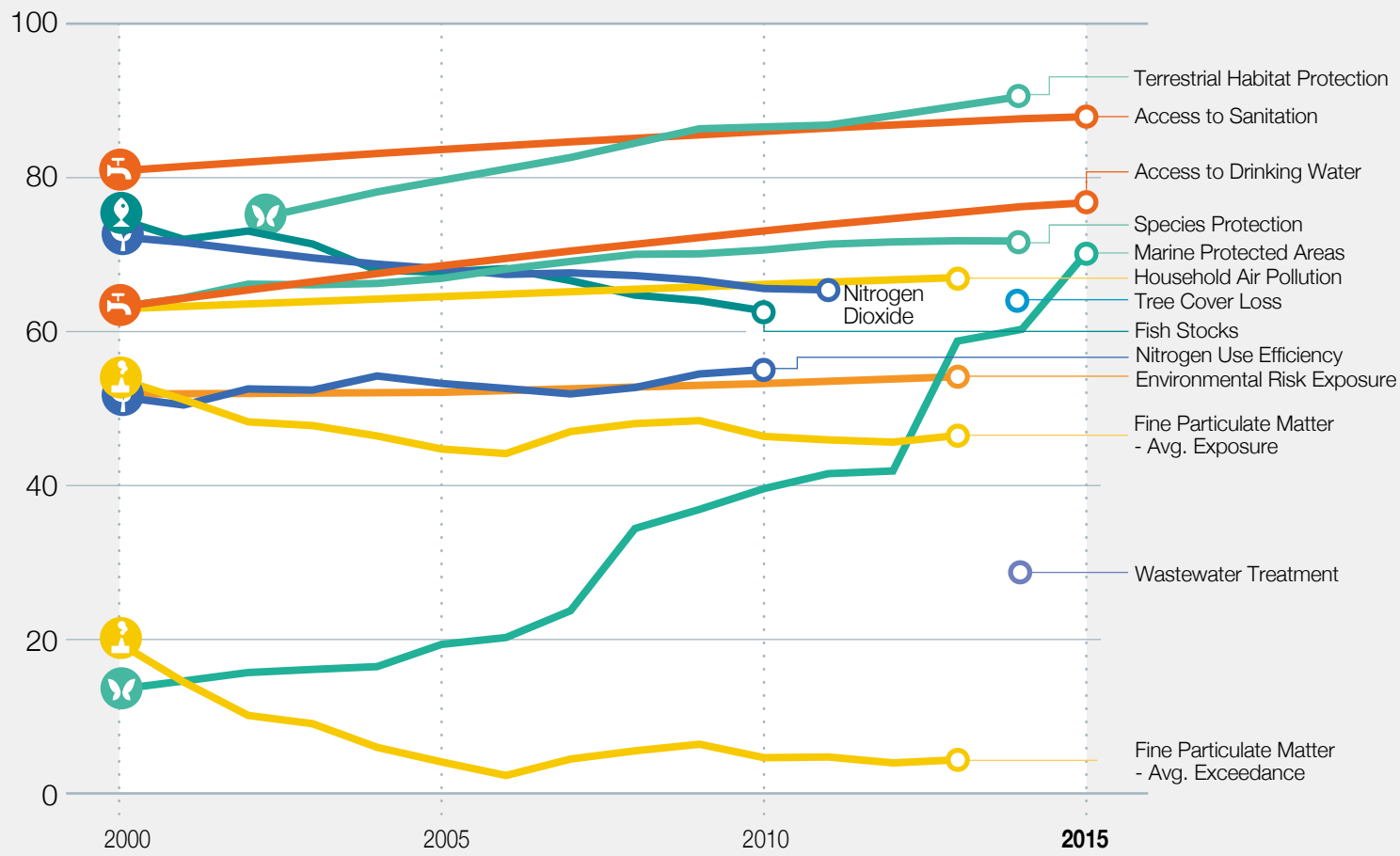


Figure: Global indicators for most of the policy issues assessed by the EPI. Some indicators, such as Tree Cover Loss, are expressed as trends that already encompass a time series. These indicators are exhibited by a dot instead of a line. *Data Source: 2016 EPI.*

KEY FINDINGS



~5 times more people die globally from poor air quality than unsafe water.

In 2013, unsafe water was responsible for 2% of global deaths (~1.24 million), while poor air quality was responsible for 10% of all global deaths (~5.52 million). Economic development leads to improvement in some environmental areas, yet it is also associated with increased environmental hazards for human health. As nations become wealthier, their governments invest in sanitation infrastructure and fewer people are exposed to unsafe water, leading to fewer deaths from waterborne illnesses. But as countries develop, increased industrial production, urbanization, and motorized transport expose human populations to dangerous air pollutants. Thus, deaths attributed to air pollution have risen steadily in the past decade.



2.52 million km² of tree cover was lost in 2014 – an area roughly twice the size of Peru.



More than 3.5 billion people – half of the world's population – are exposed to unsafe air quality.

Dangerous air pollution is a global issue. One-third (~1.3 billion) of those exposed live in the East Asia and Pacific region, where in China and South Korea more than 50% of their populations breathe unsafe air. In India and Nepal, the percentage is nearly 75%.



The number of people lacking access to drinking water has been nearly cut in half from 960 million in 2000 to 550 million today, around 8% of the world's population.



23% of countries have no wastewater treatment.

Sustainable Development Goal 6 – to ensure availability and sustainable management of water and sanitation for all – sets a target to halve the proportion of untreated wastewater by 2030. More than 80% of the world's discharged wastewater is untreated when released into the environment. Countries need to invest in wastewater treatment infrastructure to reach Goal 6.



15.4% of terrestrial habitats and 8.4% of marine habitats are protected.

Nations are less than 2% away from reaching global targets on biodiversity and habitat. But, there is roughly a 3% global gap between Terrestrial Habitat Protection and Species' Habitat Protection, suggesting that nationally-designated protected areas do not always align with species preservation. Protected areas are often established on marginal lands, rather than in high-value areas where wildlife is forced out by agricultural development and human settlements.



34% of global fish stocks are over-exploited or collapsed.

The stark decline of fish stocks shows that when measurement is poor or not aligned with proper management, environmental and human health suffer. Marine fisheries are poorly monitored, as many fleets misreport or fail to report catch data, and international policy targets are ad hoc and incomplete.



Only 20% of countries meet targets for Nitrogen Use Efficiency.

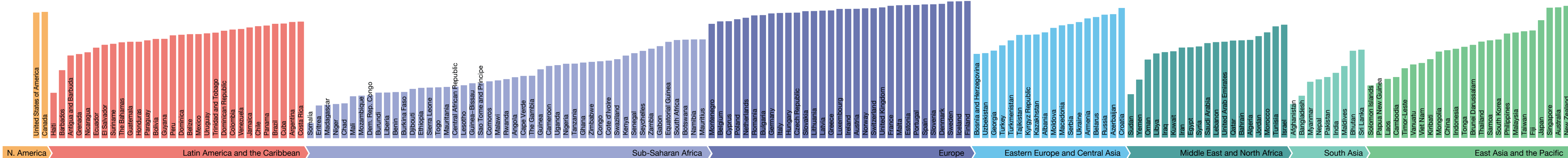
Nitrogen use efficiency directly enhances crop productivity while decreasing nitrogen runoff and associated environmental degradation. Excess nitrogen not taken up by crops enters the environment through nitrogen leaching, ammonia volatilization, and nitrous oxide emissions. This nitrogen pollution has negative impacts on air and water quality, leads to ozone layer depletion, and exacerbates climate change.



1/3 of countries scored on Climate and Energy are reducing their carbon intensity.

Globally, Trends in Carbon Intensity are starting to decline slightly. The 2015 Paris Climate Agreement specifies climate change action expected from all countries, yet solid metrics to evaluate performance remain elusive. The inextricable linkage between carbon and economic growth makes disentangling performance signals from emissions difficult. As a result, the EPI's Climate and Energy indicators primarily show how countries are decarbonizing economic growth rather than whether their climate policies are having a tangible effect.

REGIONAL RANKINGS & TRENDS



2016 EPI RANKINGS

Rank	Country	Score	Peer Comp.*	Rank	Country	Score	Peer Comp.*	Rank	Country	Score	Peer Comp.*
1	Finland	90.68	↑	61	Albania	74.38	↓	121	Bosnia and Herzegovina	63.28	↓
2	Iceland	90.51	↑	62	Trinidad a. Tobago	74.34	↑	122	Antigua and Barbuda	62.55	↓
3	Sweden	90.43	↑	63	Malaysia	74.23	↑	123	Kenya	62.49	↑
4	Denmark	89.21	↑	64	Morocco	74.18	↑	124	Swaziland	60.63	↑
5	Slovenia	88.98	↑	65	Uruguay	73.98	↑	125	Kiribati	60.48	↓
6	Spain	88.91	↑	66	Philippines	73.7	↑	126	Oman	60.13	↓
7	Portugal	88.63	↑	67	Mexico	73.59	↑	127	Cote d'Ivoire	59.89	↑
8	Estonia	88.59	↑	68	Belize	73.55	↑	128	Congo	59.56	↑
9	Malta	88.48	↑	69	Kazakhstan	73.29	↓	129	Zimbabwe	59.25	↑
10	France	88.2	↑	70	Dominica	73.25	↑	130	Ghana	58.89	↑
11	New Zealand	88	↑	71	Kyrgyz Republic	73.13	↓	131	Viet Nam	58.5	↓
12	United Kingdom	87.38	↑	72	Tajikistan	73.05	↓	132	Tanzania	58.34	↑
13	Australia	87.22	↑	73	Peru	72.95	↑	133	Nigeria	58.27	↑
14	Singapore	87.04	↑	74	Jordan	72.24	↑	134	Vanuatu	57.74	↓
15	Croatia	86.98	↑	75	Guyana	71.14	↑	135	Uganda	57.56	↑
16	Switzerland	86.93	↑	76	Bolivia	71.09	↑	136	Cameroon	57.13	↑
17	Norway	86.9	↑	77	Mauritius	70.85	↑	137	Maldives	57.1	↑
18	Austria	86.64	↑	78	Namibia	70.84	↑	138	Timor-Leste	55.79	↓
19	Ireland	86.6	↑	79	Botswana	70.72	↑	139	Guinea	55.4	↑
20	Luxembourg	86.58	↑	80	South Korea	70.61	↑	140	Barbados	54.96	↓
21	Greece	85.81	↓	81	South Africa	70.52	↑	141	India	53.58	↑
22	Latvia	85.71	↓	82	Paraguay	70.36	↓	142	The Gambia	52.09	↓
23	Lithuania	85.49	↓	83	Algeria	70.28	↑	143	Cape Verde	51.98	↓
24	Slovakia	85.42	↓	84	Turkmenistan	70.24	↓	144	Pakistan	51.42	↓
25	Canada	85.06	↑	85	Samoa	70.2	↑	145	Angola	51.32	↓
26	United States of America	84.72	↓	86	Bahrain	70.07	↑	146	Cambodia	51.24	↓
27	Czech Republic	84.67	↓	87	Qatar	69.94	↑	147	Rwanda	50.34	↓
28	Hungary	84.6	↓	88	Honduras	69.64	↓	148	Laos	50.29	↓
29	Italy	84.48	↓	89	Guatemala	69.64	↓	149	Nepal	50.21	↓
30	Germany	84.26	↓	90	Equatorial Guinea	69.59	↑	150	Yemen	49.79	↓
31	Azerbaijan	83.78	↑	91	Thailand	69.54	↑	151	Malawi	49.69	↓
32	Russia	83.52	↑	92	United Arab Emirates	69.35	↑	152	Comoros	49.2	↓
33	Bulgaria	83.4	↓	93	The Bahamas	69.34	↓	153	Myanmar	48.98	↓
34	Romania	83.24	↓	94	Lebanon	69.14	↑	154	Sao Tome and Principe	48.28	↓
35	Belarus	82.3	↑	95	Saudi Arabia	68.63	↑	155	Guinea-Bissau	48.2	↓
36	Netherlands	82.03	↓	96	Suriname	68.58	↓	156	Papua New Guinea	48.02	↓
37	Armenia	81.6	↑	97	El Salvador	68.07	↓	157	Lesotho	47.17	↓
38	Poland	81.26	↓	98	Brunei Darussalam	67.86	↑	158	Solomon Islands	46.92	↓
39	Japan	80.59	↑	99	Turkey	67.68	↓	159	Central African Republic	46.46	↓
40	Cyprus	80.24	↓	100	Gabon	67.37	↑	160	Mauritania	46.31	↓
41	Belgium	80.15	↓	101	Syria	66.91	↑	161	Togo	46.1	↓
42	Costa Rica	80.03	↑	102	Tonga	66.86	↓	162	Sierra Leone	45.98	↓
43	Argentina	79.84	↑	103	Ecuador	66.58	↓	163	Ethiopia	45.83	↓
44	Ukraine	79.69	↑	104	Egypt	66.45	↓	164	Djibouti	45.29	↓
45	Cuba	79.04	↑	105	Iran	66.32	↓	165	Burkina Faso	43.71	↓
46	Brazil	78.9	↑	106	Zambia	66.06	↑	166	Benin	43.66	↓
47	Montenegro	78.89	↓	107	Indonesia	65.85	↓	167	Liberia	43.42	↓
48	Serbia	78.67	↑	108	Sri Lanka	65.55	↑	168	Burundi	43.37	↓
49	Israel	78.14	↑	109	China	65.1	↓	169	Haiti	43.28	↓
50	Macedonia	78.02	↑	110	Bhutan	64.99	↑	170	Sudan	42.25	↓
51	Panama	78	↑	111	Georgia	64.96	↓	171	Dem. Rep. Congo	42.05	↓
52	Chile	77.67	↑	112	Seychelles	64.92	↑	172	Mozambique	41.82	↓
53	Tunisia	77.28	↑	113	Kuwait	64.41	↓	173	Bangladesh	41.77	↓
54	Jamaica	77.02	↑	114	Mongolia	64.39	↓	174	Mali	41.48	↓
55	Moldova	76.69	↑	115	Nicaragua	64.19	↓	175	Chad	37.83	↓
56	Venezuela	76.23	↑	116	Iraq	63.97	↓	176	Afghanistan	37.5	↓
57	Colombia	75.93	↑	117	Senegal	63.73	↑	177	Niger	37.48	↓
58	Dominican Republic	75.32	↑	118	Uzbekistan	63.67	↓	178	Madagascar	37.1	↓
59	Fiji	75.29	↑	119	Libya	63.29	↓	179	Eritrea	36.73	↓
60	Taiwan	74.88	↑	120	Grenada	63.28	↓	180	Somalia	27.66	↓

* The Peer Comparison column identifies whether a country performs better or worse than countries in its region.

