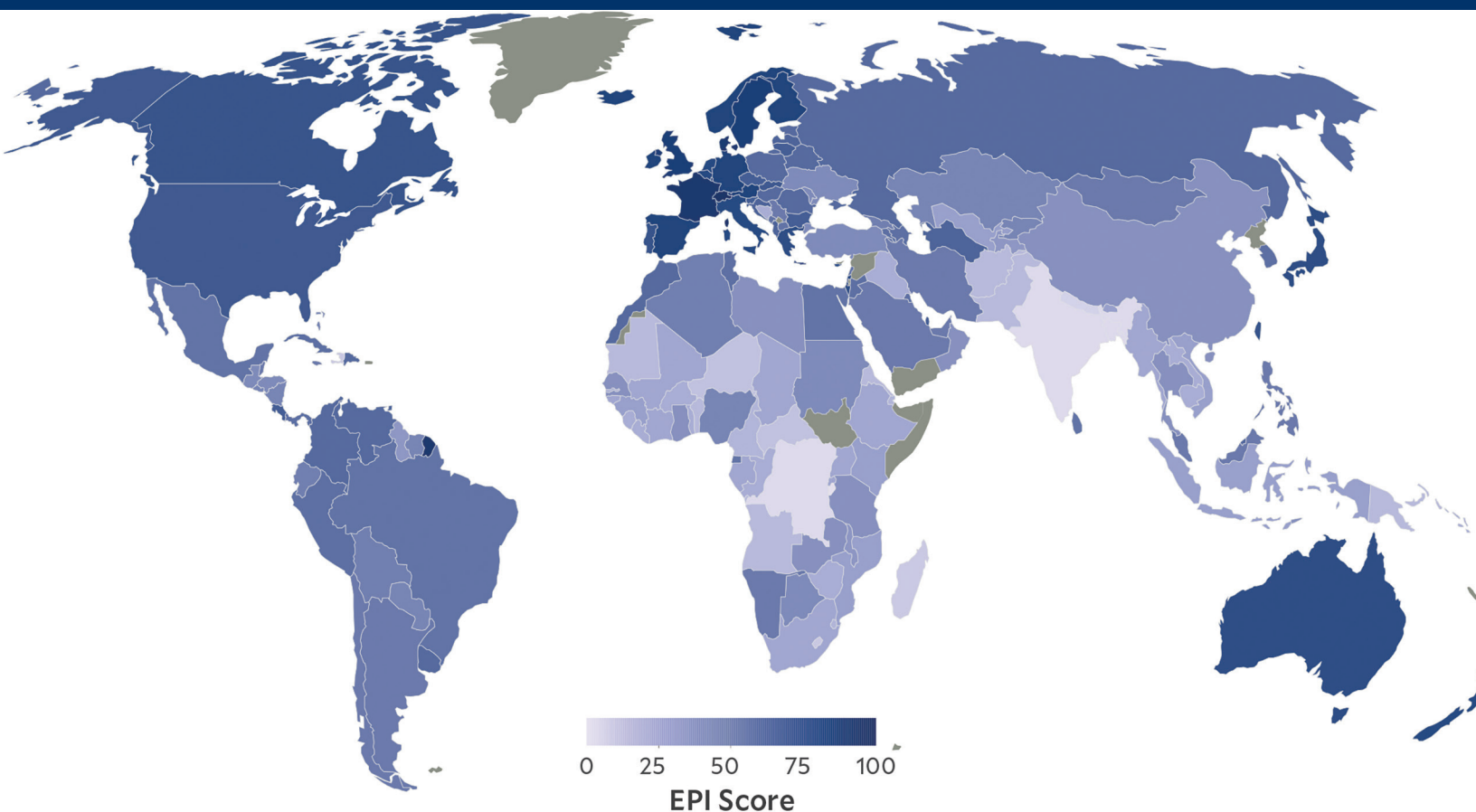


2018 ENVIRONMENTAL PERFORMANCE INDEX



Global metrics for the environment: Ranking country performance on high-priority environmental issues

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EXECUTIVE SUMMARY

Careful measurement of environmental trends and progress provides a foundation for effective policymaking. The 2018 Environmental Performance Index (EPI) ranks 180 countries on 24 performance indicators across ten issue categories covering environmental health and ecosystem vitality. These metrics provide a gauge at a national scale of how close countries are to established environmental policy goals. The EPI thus offers a scorecard that highlights leaders and laggards in environmental performance, gives insight on best practices, and provides guidance for countries that aspire to be leaders in sustainability.

Innovations in the 2018 EPI data and methodology have generated new rankings founded on the latest advances in environmental science and analysis. Switzerland leads the world based on strong performance across most issues, especially air quality and climate protection. In general, high scorers exhibit long-standing commitments to protecting public health, preserving natural resources, and decoupling greenhouse gas (GHG) emissions from economic activity.

India and Bangladesh come in near the bottom of the rankings. Low scores on the

EPI are indicative of the need for national sustainability efforts on a number of fronts, especially cleaning up air quality, protecting biodiversity, and reducing GHG emissions. Some of the laggards face broader challenges, such as civil unrest, but others seem to be suffering the effects of weak governance. The EPI draws attention to the issues on which policymakers must take further action.

While the EPI provides a framework for greater analytic rigor in environmental policymaking, it also reveals a number of severe data gaps. As the EPI project has highlighted for two decades, better data collection, reporting, and verification across a range of environmental issues are urgently needed. The existing gaps are especially pronounced in the areas of sustainable agriculture, water resources, waste management, and threats to biodiversity. Supporting stronger global data systems thus emerges as essential to better management of sustainable development challenges.

This Summary for Policymakers contains a snapshot of the 2018 EPI's framework and results. Complete methods, data, and results—including for individual countries—are available online at epi.yale.edu.

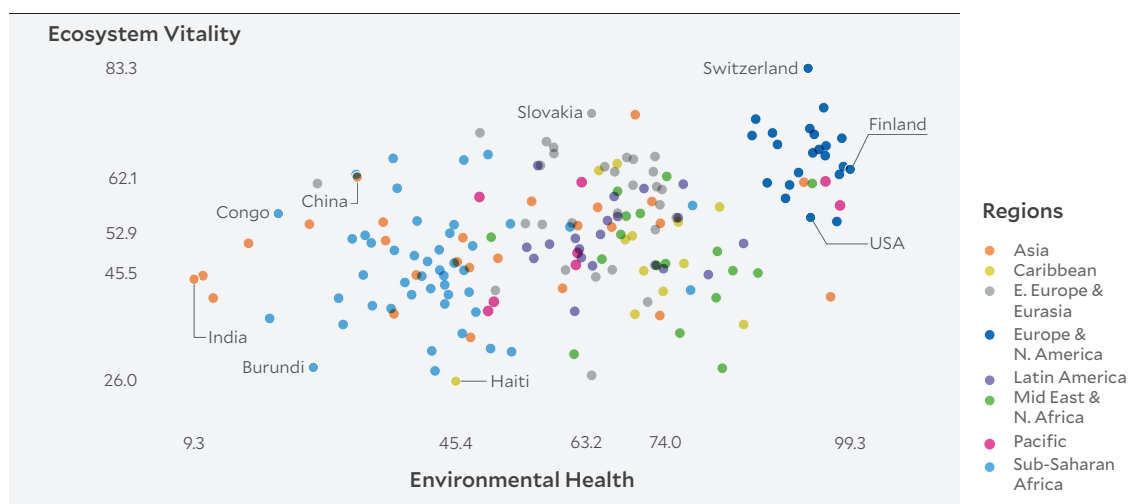
DATA-DRIVEN METRICS

The world has entered a new era of data-driven environmental policymaking. With the UN's 2015 Sustainable Development Goals, governments are increasingly being asked to explain their performance on a range of pollution control and natural resource management challenges with reference to quantitative metrics. A more data-driven and empirical approach to environmental protection promises to make it easier to spot problems, track trends, highlight policy successes and failures, identify best practices, and optimize the gains from investments in environmental protection.

The overall EPI rankings indicate which countries are doing best against the array of environmental pressures that every nation faces. From a policy perspective, greater value derives from drilling down into the data to analyze performance by specific issue, policy category, peer group, and country. Such an analysis can assist in refining policy choices, understanding the determinants of environmental progress, and maximizing the return on governmental investments.

TWO DIMENSIONS OF ENVIRONMENTAL PERFORMANCE

The relationship between sub-scores on the two policy objectives for all 180 countries in the 2018 EPI illustrate that Environmental Health and Ecosystem Vitality are distinct dimensions of environmental performance—which may be in some tension as economic growth creates resources to invest but adds to pollution burdens and habitat stress.



KEY FINDINGS

Air quality remains the leading environmental threat to public health. In 2016 the Institute for Health Metrics and Evaluation estimated that diseases related to airborne pollutants contributed to two-thirds of all life-years lost to environmentally related deaths and disabilities. Air pollution issues are especially acute in rapidly urbanizing and industrializing nations such as India and China.

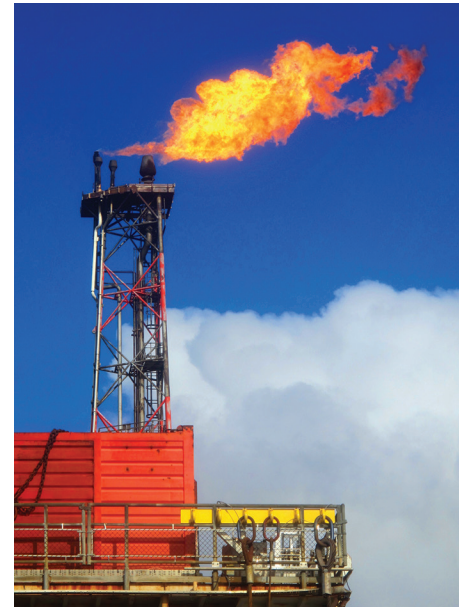


With 20 years of experience, the EPI reveals a tension between two fundamental dimensions of sustainable development: (1) environmental health, which rises with economic growth and prosperity, and (2) ecosystem vitality, which comes under strain from industrialization and urbanization. Good governance emerges as the critical factor required to balance these distinct dimensions of sustainability.

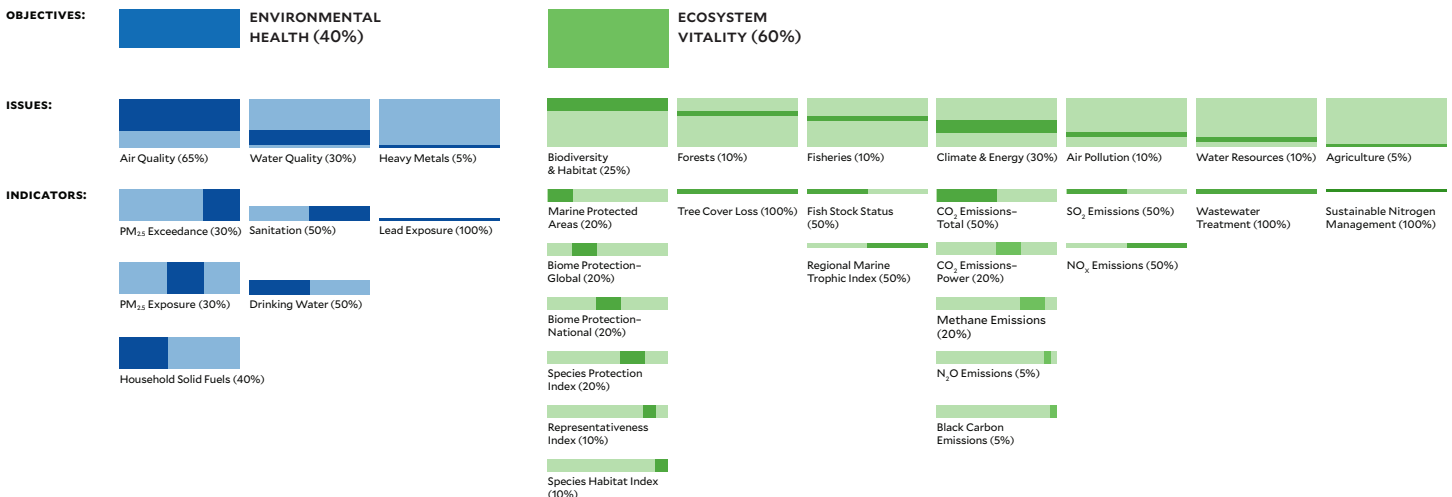


The world has made great strides in protecting marine and terrestrial habitats, exceeding the international goal for marine protection in 2014. Additional indicators measuring terrestrial protected areas suggest, however, that more work needs to be done to ensure the presence of high-quality habitat free from human pressures.

Most countries improved GHG emissions intensity over the past ten years. Three-fifths of countries in the EPI have declining CO2 intensities, while 85–90% of countries have declining intensities for methane, nitrous oxide, and black carbon. These trends are promising yet must be accelerated to meet the ambitious targets of the 2015 Paris Climate Agreement.



2018 EPI FRAMEWORK



The 2018 EPI Framework organizes 24 indicators into ten issue categories and two policy objectives. Weights used in each level of aggregation shown in parentheses.

2018 EPI RANKINGS

| RANK | COUNTRY | SCORE | REG | RANK | COUNTRY | SCORE | REG | RANK | COUNTRY | SCORE | REG |
|------|--------------------------|-------|-----|------|-----------------------|-------|-----|------|--------------------------|-------|-----|
| 1 | Switzerland | 87.42 | 1 | 61 | Kuwait | 62.28 | 5 | 121 | Thailand | 49.88 | 12 |
| 2 | France | 83.95 | 2 | 62 | Jordan | 62.20 | 6 | 122 | Micronesia | 49.80 | 13 |
| 3 | Denmark | 81.60 | 3 | 63 | Armenia | 62.07 | 17 | 123 | Libya | 49.79 | 16 |
| 4 | Malta | 80.90 | 4 | 64 | Peru | 61.92 | 6 | 124 | Ghana | 49.66 | 11 |
| 5 | Sweden | 80.51 | 5 | 65 | Montenegro | 61.33 | 18 | 125 | Timor-Leste | 49.54 | 14 |
| 6 | United Kingdom | 79.89 | 6 | 66 | Egypt | 61.21 | 7 | 126 | Senegal | 49.52 | 12 |
| 7 | Luxembourg | 79.12 | 7 | 67 | Lebanon | 61.08 | 8 | 127 | Malawi | 49.21 | 13 |
| 8 | Austria | 78.97 | 8 | 68 | Macedonia | 61.06 | 19 | 128 | Guyana | 47.93 | 20 |
| 9 | Ireland | 78.77 | 9 | 69 | Brazil | 60.70 | 7 | 129 | Tajikistan | 47.85 | 27 |
| 10 | Finland | 78.64 | 10 | 70 | Sri Lanka | 60.61 | 6 | 130 | Kenya | 47.25 | 14 |
| 11 | Iceland | 78.57 | 11 | 71 | Equatorial Guinea | 60.40 | 2 | 131 | Bhutan | 47.22 | 15 |
| 12 | Spain | 78.39 | 12 | 72 | Mexico | 59.69 | 8 | 132 | Viet Nam | 46.96 | 16 |
| 13 | Germany | 78.37 | 13 | 73 | Dominica | 59.38 | 5 | 133 | Indonesia | 46.92 | 17 |
| 14 | Norway | 77.49 | 14 | 74 | Argentina | 59.30 | 9 | 134 | Guinea | 46.62 | 15 |
| 15 | Belgium | 77.38 | 15 | 75 | Malaysia | 59.22 | 7 | 135 | Mozambique | 46.37 | 16 |
| 16 | Italy | 76.96 | 16 | 76 | Antigua and Barbuda | 59.18 | 6 | 136 | Uzbekistan | 45.88 | 28 |
| 17 | New Zealand | 75.96 | 1 | 77 | United Arab Emirates | 58.90 | 9 | 137 | Chad | 45.34 | 17 |
| 18 | Netherlands | 75.46 | 17 | 78 | Jamaica | 58.58 | 7 | 138 | Myanmar | 45.32 | 18 |
| 19 | Israel | 75.01 | 1 | 79 | Namibia | 58.46 | 3 | 139 | Côte d'Ivoire | 45.25 | 18 |
| 20 | Japan | 74.69 | 1 | 80 | Iran | 58.16 | 10 | 140 | Gabon | 45.05 | 19 |
| 21 | Australia | 74.12 | 2 | 81 | Belize | 57.79 | 10 | 141 | Ethiopia | 44.78 | 20 |
| 22 | Greece | 73.60 | 18 | 82 | Philippines | 57.65 | 8 | 142 | South Africa | 44.73 | 21 |
| 23 | Taiwan | 72.84 | 2 | 83 | Mongolia | 57.51 | 9 | 143 | Guinea-Bissau | 44.67 | 22 |
| 24 | Cyprus | 72.60 | 19 | 84 | Serbia | 57.49 | 20 | 144 | Vanuatu | 44.55 | 7 |
| 25 | Canada | 72.18 | 20 | 84 | Chile | 57.49 | 11 | 145 | Uganda | 44.28 | 23 |
| 26 | Portugal | 71.91 | 21 | 86 | Saudi Arabia | 57.47 | 11 | 146 | Comoros | 44.24 | 24 |
| 27 | United States of America | 71.19 | 22 | 87 | Ecuador | 57.42 | 12 | 147 | Mali | 43.71 | 25 |
| 28 | Slovakia | 70.60 | 1 | 88 | Algeria | 57.18 | 12 | 148 | Rwanda | 43.68 | 26 |
| 29 | Lithuania | 69.33 | 2 | 89 | Cabo Verde | 56.94 | 4 | 149 | Zimbabwe | 43.41 | 27 |
| 30 | Bulgaria | 67.85 | 3 | 90 | Mauritius | 56.63 | 5 | 150 | Cambodia | 43.23 | 19 |
| 30 | Costa Rica | 67.85 | 1 | 91 | Saint Lucia | 56.18 | 8 | 151 | Solomon Islands | 43.22 | 8 |
| 32 | Qatar | 67.80 | 2 | 92 | Bolivia | 55.98 | 13 | 152 | Iraq | 43.20 | 17 |
| 33 | Czech Republic | 67.68 | 4 | 93 | Barbados | 55.76 | 9 | 153 | Laos | 42.94 | 20 |
| 34 | Slovenia | 67.57 | 5 | 94 | Georgia | 55.69 | 21 | 154 | Burkina Faso | 42.83 | 28 |
| 35 | Trinidad and Tobago | 67.36 | 1 | 95 | Kiribati | 55.26 | 4 | 155 | Sierra Leone | 42.54 | 29 |
| 36 | St. Vincent & Grenadines | 66.48 | 2 | 96 | Bahrain | 55.15 | 13 | 156 | Gambia | 42.42 | 30 |
| 37 | Latvia | 66.12 | 6 | 97 | Nicaragua | 55.04 | 14 | 157 | Republic of Congo | 42.39 | 31 |
| 38 | Turkmenistan | 66.10 | 7 | 98 | Bahamas | 54.99 | 10 | 158 | Bosnia and Herzegovina | 41.84 | 29 |
| 39 | Seychelles | 66.02 | 1 | 99 | Kyrgyzstan | 54.86 | 22 | 159 | Togo | 41.78 | 32 |
| 40 | Albania | 65.46 | 8 | 100 | Nigeria | 54.76 | 6 | 160 | Liberia | 41.62 | 33 |
| 41 | Croatia | 65.45 | 9 | 101 | Kazakhstan | 54.56 | 23 | 161 | Cameroon | 40.81 | 34 |
| 42 | Colombia | 65.22 | 2 | 102 | Samoa | 54.50 | 5 | 162 | Swaziland | 40.32 | 35 |
| 43 | Hungary | 65.01 | 10 | 103 | Suriname | 54.20 | 15 | 163 | Djibouti | 40.04 | 36 |
| 44 | Belarus | 64.98 | 11 | 104 | São Tomé and Príncipe | 54.01 | 7 | 164 | Papua New Guinea | 39.35 | 21 |
| 45 | Romania | 64.78 | 12 | 105 | Paraguay | 53.93 | 16 | 165 | Eritrea | 39.34 | 37 |
| 46 | Dominican Republic | 64.71 | 3 | 106 | El Salvador | 53.91 | 17 | 166 | Mauritania | 39.24 | 38 |
| 47 | Uruguay | 64.65 | 3 | 107 | Fiji | 53.09 | 6 | 167 | Benin | 38.17 | 39 |
| 48 | Estonia | 64.31 | 13 | 108 | Turkey | 52.96 | 24 | 168 | Afghanistan | 37.74 | 22 |
| 49 | Singapore | 64.23 | 3 | 109 | Ukraine | 52.87 | 25 | 169 | Pakistan | 37.50 | 23 |
| 50 | Poland | 64.11 | 14 | 110 | Guatemala | 52.33 | 18 | 170 | Angola | 37.44 | 40 |
| 51 | Venezuela | 63.89 | 4 | 111 | Maldives | 52.14 | 10 | 171 | Central African Republic | 36.42 | 41 |
| 52 | Russia | 63.79 | 15 | 112 | Moldova | 51.97 | 26 | 172 | Niger | 35.74 | 42 |
| 53 | Brunei Darussalam | 63.57 | 4 | 113 | Botswana | 51.70 | 8 | 173 | Lesotho | 33.78 | 43 |
| 54 | Morocco | 63.47 | 3 | 114 | Honduras | 51.51 | 19 | 174 | Haiti | 33.74 | 12 |
| 55 | Cuba | 63.42 | 4 | 115 | Sudan | 51.49 | 14 | 175 | Madagascar | 33.73 | 44 |
| 56 | Panama | 62.71 | 5 | 116 | Oman | 51.32 | 15 | 176 | Nepal | 31.44 | 24 |
| 57 | Tonga | 62.49 | 3 | 117 | Zambia | 50.97 | 9 | 177 | India | 30.57 | 25 |
| 58 | Tunisia | 62.35 | 4 | 118 | Grenada | 50.93 | 11 | 178 | Dem. Rep. Congo | 30.41 | 45 |
| 59 | Azerbaijan | 62.33 | 16 | 119 | Tanzania | 50.83 | 10 | 179 | Bangladesh | 29.56 | 26 |
| 60 | South Korea | 62.30 | 5 | 120 | China | 50.74 | 11 | 180 | Burundi | 27.43 | 46 |

Rank, EPI Score, and Regional Standing (REG, shown in color) for 180 countries.

■ Asia
 ■ Caribbean
 ■ E.Europe & Eurasia
 ■ Europe & N.America
 ■ Latin America
 ■ Mid East & N.Africa
 ■ Pacific
 ■ Sub-Saharan Africa