

Air quality is leading environmental threat to public health, EPI report shows

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The 2018 Environmental Performance Index (EPI) finds that air quality is the leading environmental threat to public health. Now in its twentieth year, the biennial report is produced by researchers at Yale and

Columbia Universities in collaboration with the World Economic Forum. The tenth EPI report ranks 180 countries on 24 performance indicators across 10 issue categories covering environmental health and ecosystem vitality. Switzerland leads the world in sustainability, followed by France, Denmark, Malta, and Sweden.

Switzerland's top ranking reflects 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, with Burundi, Democratic Republic of the Congo, and Nepal rounding out the bottom five. 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, said the researchers. Some of the lowest-ranking nations face broader challenges, such as civil unrest, but the low scores for others can be attributed to weak governance, they note.

EPI Rankings

The United States places 27th in the 2018 EPI, with strong scores on some issues, such as sanitation and air quality, but weak performance on others, including deforestation and greenhouse gas emissions. This ranking puts the United States near the back of the industrialized nations, behind France (2nd), the United Kingdom (6th), Germany (13th), Italy (16th), Japan (20th), and Canada (25th).

Of the emerging economies, China and India rank 120th and 177th respectively, reflecting the strain population pressures and rapid economic growth impose on the environment, note the researchers.

Brazil ranks 69th, they add, suggesting that a concerted focus on sustainability as a policy priority will pay dividends - and that the level and pace of development is just one of many factors affecting environmental performance. Sustainability outcomes among emerging economies remains highly variable.

Seychelles ranks as the most-improved country over the past decade, due largely to its commitment to combating [greenhouse gas emissions](#). São Tomé and Príncipe, Kuwait, and Timor-Leste also increased their ranking due to several factors, including the establishment of areas protecting biodiversity and habitat. Burundi, Central African Republic, Madagascar, the Bahamas, and Latvia slipped significantly in environmental performance, largely due to sub-par performance on climate change. All trend analyses are based on backcasting this year's EPI methods on historical data.

2018 EPI Trends

The 2018 EPI offers not only a snapshot of where countries stand today but also reflects important trends in [environmental performance](#) at both the national and global levels. The global community is generally improving on a number of issues, such as health outcomes related to drinking water and sanitation and protection of marine ecosystems, while on other issues significant challenges remain. Fisheries continue to deteriorate in most countries, with significant problems in El Salvador, Papua New Guinea, and Portugal. Substantial populations still suffer from poor [air quality](#), most notably in India, China, and Pakistan. And on some issues, a small number of countries are failing to address critical problems. Indonesia, Malaysia, and Cambodia, for example, have experienced significant deforestation over the past five years, reflecting broad policy failures, said the researchers.

EPI and Policy

Analysis of the policy drivers underlying the 2018 EPI rankings makes it clear that income is a major determinant of environmental success, said the researchers, noting that investments in safe drinking water and modern sanitation, in particular, translate quickly into improved [environmental health](#) results. Yet at every level of development, some countries achieve scores that exceed their peer nations with similar economic circumstances, demonstrating that good governance and careful policy choices also affect outcomes, they add.

"As the world community pursues new sustainable development goals, policymakers need to know who is leading and who is lagging on energy and environmental challenges," said Daniel C. Esty, director of the Yale Center for Environmental Law & Policy and the Hillhouse Professor at Yale University. "The 2018 EPI confirms that success with regard to sustainable development requires both economic progress that generates the resources to invest in environmental infrastructure and careful management of industrialization and urbanization that can lead to pollution that threatens both [public health](#) and ecosystems."

EPI and Global Sustainability Data

The EPI builds on the best available global data from international research entities, such as the Institute for Health Metrics and Evaluation, the World Resources Institute, and the Sea Around Us Project at the University of British Columbia, as well as international organizations such as the World Bank and the UN Food and Agriculture Organization. Nevertheless, serious data gaps limit the ability to measure results - and particularly changes in performance - on a number of important issues. "As the EPI project has highlighted for two decades, better data collection, reporting, and verification across a range of

environmental issues are urgently needed," said Zach Wendling, principal investigator of the 2018 EPI. "The world needs better data on sustainable agriculture, water resources, waste management, and threats to biodiversity. Supporting global data systems is one of the most important steps the world community can take to achieving [sustainable development goals](#)."

More information: epi.yale.edu/

Provided by Yale University

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