2020 Environmental Performance Index Finds
Decarbonization Propels Countries to Top Sustainability Rankings
Japan and South Korea rank highest among Asia-Pacific nations;
the Marshall Islands join the ranks of the EPI for the first time this year

Online release event:

Results from the 2020 Environmental Performance Index will be released online and live from Yale and Columbia universities on Thursday, June 4 at 11:00 a.m. EDT. Panelists from the research team will be joined by ministers from the Danish government. Register online here.

NEW HAVEN, Conn. — Japan (1st in region, 12th globally) and South Korea (2nd in region, 28th globally) rank above their Asia-Pacific counterparts in the 2020 Environmental Performance Index (EPI), according to researchers at Yale and Columbia universities. Commenting on the rankings, Yale professor Dan Esty, who directs the Yale Center for Environmental Law & Policy that co-produces the EPI, observed that “our analysis suggests that countries with broad-based sustainability efforts and particular emphasis on decarbonizing their economies come out at the top of the pack.” This trend holds true in the Asia-Pacific region, as top-ranking countries like Japan, South Korea, and Taiwan show strong performance across a range of issues, including climate change governance.

Now in its 22nd year, the EPI report has become the premier metrics framework for global environmental policy analysis—ranking 180 countries on 32 performance indicators across 11 issue categories covering environmental health and ecosystem vitality. The 2020 EPI features new metrics that gauge waste management, carbon dioxide emissions from land cover change, and emissions of fluorinated gases—all important drivers of climate change. Project director Zach Wendling noted that “the expanded issue coverage promises to deepen the global capacity for data-driven environmental policymaking, clarifying sustainability leaders and laggards, and helping to identify best policy practices.”
Japan ranks 1st in the Asia-Pacific region and 12th in the world, reflecting strong performance across a wide range of environmental issue categories. On climate change, air quality, and sanitation & drinking water, Japan leads the rankings for the region. Other countries at the top of the regional rankings include South Korea, Singapore, and Taiwan. Notably, Singapore earns a nearly perfect score (99.6 out of 100) on the EPI’s new indicator for waste management. Leaders in the Asia-Pacific region also perform very well on fisheries. Singapore, Fiji, and Kiribati rank 1st, 2nd, and 3rd on fisheries, respectively, both in the region and in the world – though every country must still make substantial improvements on this issue.

Beyond providing issue-by-issue and country-by-country results, the 2020 EPI offers new insights into the factors associated with success on environmental sustainability goals. As Alex de Sherbinin of Columbia’s Earth Institute, one of the lead authors of the 2020 EPI, explained, “good governance more than any other factor separates the nations that are moving toward a sustainable future from those which are not.” High-scoring countries generally exhibit long-standing commitments and carefully constructed programs to protect public health, conserve natural resources, and reduce greenhouse gas (GHG) emissions.

The lowest rankings in the Asia-Pacific region go to Vanuatu (23rd in region, 163rd globally), the Solomon Islands (24th in region, 172nd globally), and Myanmar (25th in region, 179th globally). Myanmar’s EPI score is the second-lowest in the 2020 report, due to particularly poor performance on household use of solid fuels, marine ecosystem protection, and CO2 mitigation. Vanuatu lags behind its neighbors most on air pollution, while the Solomon Islands receive low scores on multiple environmental health indicators, as well as on agriculture and biodiversity & habitat. Low EPI scores suggest a need for national sustainability efforts on a number of fronts, including air and water pollution, biodiversity protection, and the transition to a clean energy future. Countries in the bottom rankings often also struggle with conflict or weak governance. As the 2020 EPI builds on data published in 2019 and collected earlier, the results do not capture impacts from very recent events, including wildfires in Australia, or the COVID-19 pandemic.
2020 EPI Global Trends

The 2020 EPI reveals that global progress on climate change has been halting. The Index’s metrics on CO₂ emissions from land cover change and black carbon emission growth rates show that critical aspects of the battle to address climate change are trending in the wrong direction. Despite its high regional ranking in the 2020 EPI, Singapore’s climate change score dropped by 38.6 on a 100-point scale over the past decade, with emissions of CO₂ growing 5% annually. Meeting the goals set out in the 2015 Paris Climate Change Agreement requires sustained cuts in emissions of all greenhouse gases, and the 2020 EPI finds that no country is decarbonizing quickly enough to achieve the Paris goals. Some Asian-Pacific countries do excel on individual greenhouse gas reductions, most notably Japan on CO₂ emissions, South Korea on methane, and Indonesia on fluorinated gases. To spread best practices around the world, policymakers must pay greater attention to how climate leaders achieve success. Such lessons can be drawn from countries around the world that have recently made notable improvements in climate change mitigation, such as Seychelles, Bahrain, and Luxembourg.

Taking into account historic data on environmental performance, the 2020 Index also recognizes countries that have made significant progress over the past decade. Many countries have improved health outcomes related to sanitation, drinking water, and indoor air pollution, demonstrating that investments in public health can translate into rapid advancements in human well-being. Environmental health gains can be traced to successful campaigns to reduce household use of solid fuels in a number of countries, particularly in the Middle East. Such efforts need to be expanded to all countries, especially as the world tackles persistent problems like poor air quality. The 2020 EPI makes it clear that hundreds of millions of people still suffer from dangerous levels of air pollution, most notably in Pakistan, India, and Nepal—and regionally in Mongolia and Myanmar.

Regional performance on protecting and enhancing the vitality of ecosystems reveals both gains and stubborn challenges. On some issues, the world community is doing well, while a few countries are trending in the wrong direction. Indonesia, Malaysia, and Cambodia, for example, have experienced significant deforestation over the past five years. Fisheries are also in global
decline, with significant trouble noted in a range of countries including Bahrain, Argentina, and Malaysia.

**Explaining EPI Results**

At every level of development, some countries achieve scores that exceed peer nations with similar economic circumstances. Analysis of the factors underlying the 2020 EPI rankings makes it clear that sustainable development requires not only economic prosperity to generate the funds required for investments in public health and environmental infrastructure but also careful management of the pollution threats and natural resource management challenges that emerge from industrialization and urbanization. This analysis demonstrates that positive environmental performance requires good governance, including a strong rule of law, vibrant public engagement, an independent media, and well-crafted regulations.

**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, the Potsdam Institute for Climate Impact Research, CSIRO, the Mullion Group, and the Sea Around Us Project at the University of British Columbia, as well as from international organizations like the World Bank and the UN Food and Agriculture Organization. Complete methods, data, and results are available online at epi.yale.edu. The EPI team is dedicated to transparency and constant improvement and invites critique and commentary from the global community.

The push for better data analytics as a foundation for policy choices has gained momentum in recent years, particularly after the adoption of the UN Sustainable Development Goals (SDGs) in 2015. And while more environmental data have become available, the EPI research team decries the lack of methodologically rigorous and globally comprehensive indicators on a number of fundamental issues including wetlands protection, toxic waste management, and groundwater quality and availability.
About the Yale Center for Environmental Law & Policy

The Yale Center for Environmental Law & Policy advances fresh thinking and analytically rigorous approaches to environmental decision-making across disciplines, sectors, and boundaries. In addition to its research activities, the Center aims to serve as a locus for connection and collaboration for all members of the Yale University community who are interested in environmental law and policy issues. The Center supports a wide-ranging program of teaching, research, and outreach on local, regional, national, and global pollution control and natural resource management issues. These efforts involve faculty, staff, and student collaboration and are aimed at shaping academic thinking and policymaking in the public, private, and NGO sectors.

About the Columbia Center for International Earth Science Information Network

The Center for International Earth Science Information Network (CIESIN) is part of the Earth Institute at Columbia University. CIESIN works at the intersection of the social, natural, and information sciences, and specializes in online data and information management, spatial data integration and training, and interdisciplinary research related to human interactions in the environment. Since 1989, scientists, decision-makers, and the public have relied on the information resources at CIESIN to better understand the changing relationship between human beings and the environment. From its offices at Columbia’s Lamont-Doherty Earth Observatory campus in Palisades, New York, CIESIN continues to focus on applying state-of-the-art information technology to pressing interdisciplinary data, information, and research problems related to human interactions in the environment.

Contact:

Zachary A. Wendling, Ph.D.
Yale Center for Environmental Law & Policy
epi@yale.edu
+1 (203) 436-9566
###