

Contact: Martin Wolf, EPI Principal Investigator, +1 203 436 9566, epi@yale.edu

Indian Ministry of Environment, Forest and Climate Change Turns Aside an Important Environmental Policy Tool

*Dismissing the 2022 Environmental Performance Index, the Ministry
misses an opportunity to improve India's sustainability*

Overview

The 2022 Environmental Performance Index (EPI), released June 1st by Yale and Columbia Universities, provides a data-driven summary of country-level sustainability trends. A recording of the release event is [available here](#). India placed 180th out of 180 countries in the 2022 rankings, reflecting poor performance across a variety of important environmental issues, such as air quality, water quality, biodiversity and habitat conservation, and climate change. The Indian Ministry of Environment, Forest and Climate Change issued a rebuttal to the 2022 EPI report.

By dismissing the 2022 EPI's findings and the environmental insights it provides, the Ministry squanders an opportunity to achieve better air quality, safer drinking water, a smoother transition to a clean energy future, and better environmental health overall for the Indian people. The Environmental Performance Index team calls on the country's policymakers, researchers, and media to instead see India's low ranking as a call to action for improving sustainability trends.

Simply put, claims that the EPI is biased and unscientific are unfounded. Below, the EPI team responds to the Ministry's criticisms, demonstrates the EPI's commitment to transparent and analytically-rigorous analyses, and highlights the environmental policy insights available to Indian leaders as they strive to put the country on the path towards a more sustainable future.

Climate Change Metrics

Criticisms that the EPI's climate change metrics do not account for historical emissions, renewable energy capacity, and the extent of carbon sinks misunderstand the aims of the analysis and run contrary to the sustainability community's expert consensus. The EPI aims to mitigate climate change by informing countries on whether their *current* climate policies are sufficient. Ranking countries on their historical emissions does not demonstrate whether they are presently on the right track.

Renewable energy capacity is similarly inadequate as a metric of climate performance. While India has made commendable progress in expanding renewable energy – and is now one of the top-five largest producers of clean energy – it remains the world's third-largest and second-fastest growing source of greenhouse gas (GHG)

emissions. Renewable energy capacity alone thus provides an incomplete picture of countries' current contributions to climate change and whether their current policies are sufficiently mitigating GHG emissions.

The Ministry further asserts that the EPI's climate indicators are flawed because they do not account for carbon sequestration rates in both forests and wetlands. This criticism misunderstands the goal of the metrics, which aim to gauge whether countries are sufficiently reducing GHG *emissions*. Sustainability experts agree that expanding carbon sinks is no substitute for reducing emissions of climate pollutants. India's current data provide a case-in-point. Forests sequester less than 10% of total GHG emissions, with several studies finding that total tree biomass is *decreasing* throughout the country. India's own Forest Service recently concluded the country was unlikely to meet its stated goal of sequestering 2.5–3 billion tons of carbon dioxide equivalents by 2030. Even the most optimistic assessments of India's carbon sequestration potential conclude that the country must strive to more aggressively reduce GHG emissions. The EPI's GHG trends indicators provide an analytically-rigorous toolkit that Indian decision-makers can use to reduce emissions and mitigate climate change on multiple fronts.

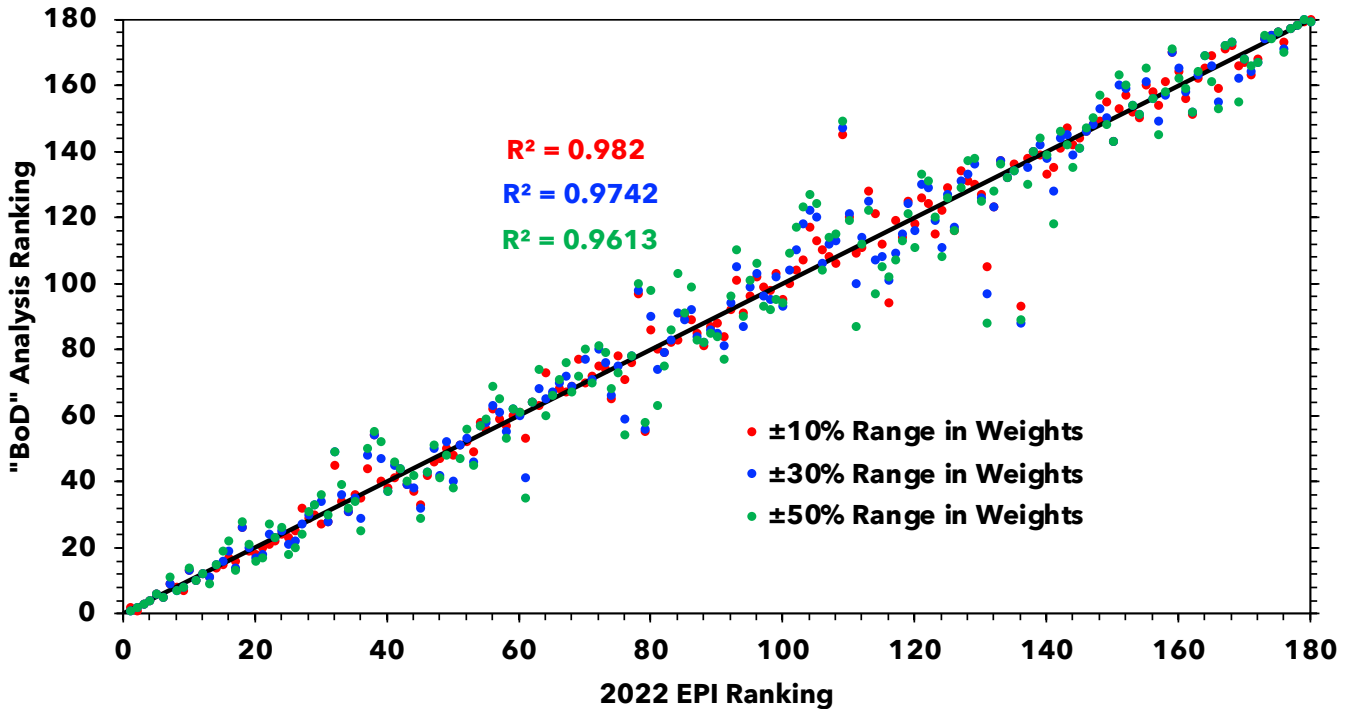
Invoking the equity principle of *common but differentiated responsibilities* (CBDR), the Ministry claim a right to increase greenhouse gas emissions. This stance runs contrary to global climate policy. The Glasgow Climate Pact, approved by 197 countries, including India, last November sets a goal for *all* countries to move to net-zero GHG emissions by mid-century – and to begin the transition to a clean energy future now. While CBDR may entitle India to technological assistance, it does not sanction ever-growing GHG emissions.

EPI Weighting Methodology

The Ministry asserts that India's low overall EPI score results from a biased weighting framework, and that India's ranking would improve under an alternative weighting scheme. A sensitivity analysis demonstrates this assertion is untrue. The EPI team has compiled a "Benefit of the Doubt" (BoD) framework that allows each country to maximize its score by adjusting the weight given to the EPI's 11 issue categories within bands: $\pm 10\%$, $\pm 30\%$, and $\pm 50\%$ of the suggested weight used by the 2022 EPI. The results of the BoD model show that India, ranked 180th in the 2022 EPI, achieves a maximum ranking of 179th under the optimized weighting schemes. Even reducing the weight of India's worst-performing areas by 50% does not elevate its global ranking.

India's low score in the 2022 EPI instead reflects poor performance across multiple critical environmental issues. The country ranks 179th in both the Air Quality and Biodiversity & Habitat issue categories. It also ranks 174th in Heavy Metals and 139th in Sanitation & Drinking Water. The EPI analyses find essentially no overall improvement in India's environmental performance over the past decade. Ten years ago, the same metrics used in the latest analyses would have given India a ranking of 179th out of 180 countries.

2022 EPI Ranking Sensitivity Analysis



Air Quality, Water Quality, and Biodiversity

The Ministry erroneously states that all EPI Air Quality indicators are derived from the Copernicus Atmosphere Monitoring Service data. Three of the most heavily weighted indicators – particulate matter, household solid fuels, and ozone exposure – are based on disability-adjusted life year (DALY) rates compiled by the Institute for Health Metrics and Evaluation’s Global Burden of Disease initiative. These DALY data come from a variety of sources, including remotely-sensed data, ground-based monitoring networks, and surveys. The four Air Quality metrics based on Copernicus data – NO_x, SO₂, CO, and volatile organic compound exposure – are weighted more heavily in population centers where monitoring networks exist. The Ministry’s claim that the metrics are based on inaccurate data is thus unfounded.

As the Ministry acknowledges, water quality is vital to healthy societies. Two of the EPI’s water quality indicators – unsafe drinking water, and unsafe sanitation – directly measure the health outcomes from poor water quality. The 2022 EPI results demonstrate that hundreds of thousands of Indians die prematurely each year from unsafe sanitation and drinking water. By rejecting the EPI’s metrics because they measure health outcomes rather than

contaminant concentrations, the Ministry obscures the public health toll that poor water quality has on India's residents, especially the poor.

Finally, the Ministry reiterates a long-known position that protected habitat metrics may fail to reflect the quality of the protection afforded. The EPI team agrees. The lack of global data on management effectiveness, however, presently precludes global rankings on the quality of protections. Indicators based on the number and quality of enacted biodiversity and habitat regulations may also fail to capture real-world environmental outcomes. Quantitative measures of conservation better reflect environmental performance than policy inputs.

Conclusion

For over 20 years, the EPI has sought to enhance environmental decision-making by embracing cutting-edge sustainability research and robust statistical analyses. The 2022 EPI's data-driven environmental metrics can improve public health, enhance ecosystem vitality, and focus attention on climate mitigation – but only if India's leaders embrace scientific insights and act on the critical issues that metrics highlight. The EPI team encourages the Ministry to leverage the 2022 EPI's findings to better understand their country's environmental performance, identify best policy practices, and reflect on how they may put their nation on track for a healthier and more sustainable future.