



technology, launch creative competitions on GHG emission mitigation... thereby calling, mobilizing businesses, organizations and people to actively participate in GHG emission mitigation activities.

*Thirdly*, Vietnam needs to plan the national power grid until 2030 and a roadmap to 2050, which prioritizes public investment, strengthens the power transmission network, has alternative energy solutions, and attracts private projects on wind energy, solar energy, hydrogen energy, biomass energy... Synchronously invest in infrastructure and technology in the energy sector, gradually reduce towards ending dependence on foreign technology in the new energy sector, at the same time, have preferential policies to encourage and create favourable conditions for businesses to develop and use new energy in production and business.

*Fourthly*, research to establish a national renewable energy centre to develop human resources, transfer technology, share experiences and national governance in this sector. At the same time, it is necessary to promote climate diplomacy, mobilize to attract international resources (public and private financial sources, technology, knowledge, experience...) through exchanges and high-level visits, working programs of ministries, sectors and local authorities with foreign partners and Vietnamese representative agencies abroad; take advantage of all the opportunities that JETP offers; focus on creating a favourable legal environment and strengthening governance capacity to effectively use loans and investments for clean energy and renewable energy development. In addition, it is necessary to improve policies to promote innovation, technology transfer, digital transformation and human resource development, which are important factors for the green transformation process, towards the net-zero goal by 2050.

## 5. CONCLUSION

From net-zero commitment to specific, practical actions is a long journey for a developing country like Vietnam, requiring a clear awareness of green transformation, development and implementation of low-emission production and business models, but this will also be a time and opportunity for Vietnam to enhance its position in the international arena, affirming its determination to act together to realize the global goals; an opportunity for our country to restructure the economy, transform the growth model based on knowledge, digital transformation, green transformation, high-quality human resources, science and technology, leading the country to develop along the “green path”, with high income by 2045. In this journey, the joint coordination between the Government, people and businesses is a key factor, making an important contribution to ensuring economic development associated with environmental protection, towards the sustainable development goals ■

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The Environmental Performance Index (EPI), developed by Yale University (USA) since 2006 and published every 2 years, integrates various indicators in different fields to assess the efforts of countries in achieving environmental goals. According to the latest EPI report released in June 2024, Vietnam's score has continued to decline. This article focuses on updating the methodology of the EPI and the results of Vietnam's EPI performance for 2024.

## THE ENVIRONMENTAL PERFORMANCE INDEX (EPI)

The first Environmental Performance Index (EPI) framework was constructed based on two main environmental objectives: (i) environmental protection for human health, also known as environmental health, and (ii) protection of the natural habitats, also known as ecosystem vitality. However, since 2022, the EPI framework has been adjusted to consist of three policy objectives: (i) Environmental Health, (ii) Ecosystem Vitality, and (iii) Climate Change.

The EPI 2024 utilizes the latest data, science, and technology to provide the most comprehensive assessment of global sustainability. In total, the EPI integrates data on 58 performance indicators grouped into 11 environmental issue categories to rank 180 countries based on progress in mitigating climate change, protecting ecosystem vitality, and promoting environmental health. The 11 issue categories include: (1) Biodiversity and habitat; (2) Forests; (3) Fisheries; (4) Air pollution; (5) Agriculture; (6) Water resources; (7) Air quality; (8) Sanitation & Drinking water; (9) Heavy metals; (10) Waste management; and (11) Climate change mitigation. This broad set of metrics is a powerful tool to track progress towards the UN Sustainable Development Goals, the climate mitigation targets in the 2015 Paris Climate Change Agreement, and the biodiversity protection goals in the Kunming-Montreal Global Biodiversity Framework.



# Vietnam's Environmental Performance Index (EPI) 2024

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Regarding the calculation method, the EPI 2024 continues to use the “proximity-to-target” approach. This method involves measuring the actual (quantifiable) performance of policies and comparing it to the target levels set. Environmental performance results are determined through the assessment of various indicators used to measure the outcomes of related policies. The indicators and policy categories are integrated and weighted to create a composite EPI score, with the weights ensuring that the contribution of each indicator is accurately reflected. The composite score is used for ranking, with higher scores corresponding to higher rankings.

## Score and ranking of Vietnam's EPI in 2024

No.	Index 2024	Rank	Score	10 -Year Trend
		2024	2024	2024
	<b>EPI</b>	<b>180</b>	<b>24.5</b>	<b>-4.6</b>
<b>A</b>	<b>Ecosystem vitality</b>	<b>174</b>	<b>27.7</b>	<b>-5.7</b>
A1	Biodiversity & habitat	160	25.4	-2.1
A2	Forests	85	48.5	1.5
A3	Fisheries	133	29.4	-2.9
A4	Fisheries	180	7.5	-34.8
A5	Agriculture	16	73.0	-1.0
A6	Water resources	136	14.9	0.0
<b>B</b>	<b>Environmental health</b>	<b>142</b>	<b>26.6</b>	<b>3.1</b>
B1	Air quality	167	15.5	3.5
B2	Sanitation & drinking water	94	53.7	2.6
B3	Heavy metals	97	43.3	2.9
B4	Waste management	33	46.1	0.0
<b>C</b>	<b>Climate change</b>	<b>175</b>	<b>17.9</b>	<b>-9.4</b>
C1	Climate change mitigation	175	17.9	-9.4

Overall, the data sources used by EPI 2024 are primarily international publications. To ensure comprehensive and reliable coverage for most countries, these publications often rely on data from international organizations that are focal points of international conventions, such as: IUCN, UNEP, IEA, World Bank, WWF, WHO, FAO, the EU Commission, OECD, the CBD Secretariat, and related researches from these organizations like Map of Life, Global Forest Watch, Sea Around Us, CAIT, WDPa, EDGAR, and GEOBON.

## THE CHANGES IN THE SCORES AND RANKINGS OF VIETNAM'S EPI IN 2024

The EPI 2024 report released in June 2024 indicates that Vietnam is ranked 180<sup>th</sup> out of 180 countries, with a composite score of 24.5/100. Compared to the last two years, Vietnam's ranking has been continuously declining. In 2020, Vietnam's rank dropped by 37 places, from 141<sup>st</sup> out of 180 countries. In 2022, it fell by 2 places, from 178<sup>th</sup>. The composite EPI score also decreased from 33.4/100 in 2020 to 20.1/100 in 2022, and then to 24.5/100 in 2024.

In 2024, countries in the region experienced changes in their rankings. The highest-ranked country in the region is Thailand, positioned 91<sup>st</sup> out of 180 countries (an increase of 17 places compared to 2022). Countries experiencing significant declines in ranking include Laos (down 29 places), Cambodia (down 16 places), and the Philippines (down 10 places).

Source: EPI 2024



Upon review, there are 2 out of 11 issue categories assessed by EPI 2024 for Vietnam that have higher scores than the average, and 9 out of 11 issue categories with scores lower than the average. Specifically, the 2 issue categories with scores above the average are Agriculture (73.0) and Water and sanitation (53.7). Among the 9 issue categories with scores below the EPI 2024 average, the most prominent is air pollution, which has the lowest score.

The EPI 2024 has undergone significant changes in its indicator set compared to EPI 2022. While EPI 2022 used 40 indicators, EPI 2024 employs 58 indicators for evaluation, an increase of 18 indicators from 2022. Consequently, some indicators have been adjusted and added, particularly in the ecosystem vitality policy area (which now uses 34 indicators, nearly doubling the number of indicators used in 2022).

The changes in the scores and rankings of Vietnam's EPI in 2024 are primarily due to modifications in the calculation methods and weighting used by the EPI. The data sources for the indicators are now based on independent studies. In 2020, climate change was evaluated as part of the ecosystem vitality policy area. However, since 2022, it has been established as an independent policy objective, accounting for 38% of the total score, and it has also been the policy objective for which Vietnam has the lowest score. By 2024, although the weighting for this component has decreased to 30% and Vietnam's score has improved (17.9/100), the overall assessment for this group of indicators has not shown significant improvement.

Additionally, the replacement of the acidification issue area with the air pollution issue area has also affected Vietnam's score. Overall, the score for the air pollution issue area in 2024 is the lowest among the 11 assessed issue areas, with a score of 7.5 out of 100.

In reality, the EPI has undergone changes in evaluation indicators, calculation methods, and data sources over the years. Therefore, it is not advisable to compare EPI rankings across different years directly. Instead, EPI provides trend assessments by evaluating data from a baseline year (primarily using data from 10 years prior to the assessment). Accordingly, Vietnam's evaluation score has decreased by 4.6 points compared to the reference from 10 years earlier. This score indicates a trend of declining environmental quality in Vietnam. Consequently, Vietnam needs to make substantial efforts to achieve climate change and ecosystem vitality goals; otherwise, it will be at a disadvantage compared to other countries globally.

## CONCLUSION

The Environmental Performance Index (EPI) reflects the efforts of countries in achieving environmental goals. However, the results of the EPI can vary across reporting periods due to changes in evaluation indicators, weightings, the number of indicators, data sources, and assessment methods. Therefore, comparing EPI results across different years can lead to inconsistencies and a lack of clarity. A notable feature of EPI 2024 is the addition of many indicators in the ecosystem vitality category, including the replacement of the acidification issue with air pollution. Vietnam has the lowest score in air pollution among the 11 assessed issue categories (7.5/100). The EPI score indicates that Vietnam is facing significant environmental challenges, particularly in air pollution, biodiversity loss, and climate change mitigation capacity.

To achieve the country's sustainable development goals, Vietnam will need to implement comprehensive measures to halt the increasing trend of pollution, gradually improve environmental quality, enhance climate change adaptation capacity, prevent biodiversity loss, and promote a low-carbon and circular economy. This requires continued enhancement of the institutional, policy, and legal frameworks for environmental protection; improving the effectiveness and efficiency of state management, accountability in implementation oversight, and developing databases to monitor environmental performance indicators.

In particular, it is crucial to propose solutions for providing accurate information and data to international organizations for calculating and ranking environmental performance indicators across countries ■

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