

ACHIEVING NET-ZERO EMISSIONS: INDIA'S PATH TOWARDS SUSTAINABILITY

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The global community is facing an urgent need to address climate change and transition towards a sustainable future. Achieving net-zero emissions is a critical goal, aiming to balance greenhouse gas emissions with removal or offsetting measures. This article explores India's efforts in achieving net-zero emissions, highlighting key initiatives, challenges, and potential solutions.

India's Emission Landscape:

India is the world's third-largest emitter of greenhouse gases, primarily driven by its rapidly growing population, industrialization, and increasing energy demands. The country heavily relies on coal for energy generation, leading to substantial emissions. However, India has also taken significant steps towards renewable energy adoption and sustainability.

Renewable Energy Transition:

To combat climate change, India has embarked on an ambitious renewable energy transition. The country aims to achieve 450 GW of renewable energy



Image Source: News18

capacity by 2030, including solar, wind, hydro, and bioenergy. This includes scaling up solar energy installations, enhancing wind power generation, and investing in grid infrastructure to enable smooth integration of renewable sources.

Energy Efficiency Measures:

India recognizes the importance of energy efficiency in reducing emissions. The government has implemented various initiatives to improve energy efficiency across sectors such as buildings, transportation, and industries. These measures include promoting energy-efficient appliances, implementing building codes, and adopting energy-efficient industrial processes



Image Source: <https://shorturl.at/anDJ2>

Electric Mobility Revolution:

India is witnessing a rapid shift towards electric mobility to reduce emissions from the transportation sector, which is a significant contributor to air pollution and greenhouse gas emissions. The government has introduced several incentives, subsidies, and policy measures to promote the adoption of electric vehicles (EVs). Additionally, the development of charging infrastructure and battery technology is crucial for a successful electric mobility transition.

Cleaner Industrial Practices:

India's industrial sector plays a vital role in the country's economic growth but also contributes significantly to emissions. To mitigate this impact, the government is promoting cleaner and more sustainable industrial practices. Encouraging the adoption of cleaner technologies, investing in research and development, and imposing stricter environmental regulations are key strategies for achieving emissions reductions in the industrial sector.

Forest Conservation and Restoration:

India recognizes the importance of forests in sequestering carbon dioxide and preserving biodiversity. The country has initiated various afforestation and reforestation programs to increase forest cover, including the ambitious goal of achieving a net-zero emissions forestry sector by 2030. Protecting and restoring ecosystems and promoting sustainable land management practices are crucial for achieving net-zero emissions.

Challenges and Way Forward:

While India's commitment towards achieving net-zero emissions is commendable, several challenges must be addressed. These challenges include the heavy reliance on coal, the need for massive investments in renewable infrastructure, technological barriers, and social and economic considerations. Collaboration between the government, private sector, civil society, and international partnerships will be crucial in overcoming these challenges.

In conclusion, Emission mitigation is a crucial policy ideal for policymakers in India and the world. India is actively working towards achieving net-zero emissions by implementing various strategies and initiatives.