India can provide a model of green economic development for other emerging and developing countries

IEA policy solutions and support for multilateral engagement help accelerate clean energy transitions in India

- **Supported India's first-ever presidency of the G20 and Clean Energy Ministerial in 2023**
- **Provided policy advice on solar PV, decentralised solar programmes and bioenergy in liaison with India's government and major think tanks**
- **Worked with the Government of India on a clean and just energy transition, selecting topics and sectors with the most direct impact on decarbonisation and people's lives**

Key facts

2023

In 2023, India became the world's most populous country

3rd

world's third-largest **energy consuming country,** thanks to rising incomes and improving standards of living

0 CO_2 | 2070

India announced ambitious **energy transition plans** at COP26, including reaching net **zero emissions by 2070**

x2

Energy use has doubled since 2000

with **80% of demand** being met by **coal, oil and solid biomass**

2022

electricity generation

+4,6%

Solar has grown to 4.6% (from 0% in 2010)

72%

Coal is currently close to 72%

Energy efficiency

The IEA works closely with the Government of India and other stakeholders to provide policy advice and training for Indian officials and to facilitate exchanges between India and other emerging economies. We focus on sectors with large energy savings and decarbonisation potential and offer solutions tailored for the Indian context, for example promoting energy efficiency in small and medium-sized textile manufacturers. Other recent projects include a roadmap to mainstream energy efficiency in buildings and a report, *Transitioning India's Road Transport Sector,* that presented key scenarios and policy options to support India's commitment to achieve carbon neutrality by 2070.

Renewable energy, hydrogen and biofuels

The IEA is supporting the Government of India in delivery of the country's ambitious Green Hydrogen Mission and advises on bioenergy and biofuels, including international best practice sharing, data collaboration and market forecasts. We are also providing advice on the critical renewable energy technologies to deploy by 2030 to support India's goal of net zero emissions by 2070. The policy focus on and discussion of solar PV supply chains increased strongly in India in 2022, as solar was included in the Production Linked Incentive Scheme that had been launched in 2021. The IEA carries out analysis of PV supply chains in the country and is expanding its cooperation on renewable energy to support the development of India's offshore wind market.

Opportunities for engagement

- **India's In-Depth Review –** The IEA is developing a comprehensive look at India's energy system to identify policy recommendations best adapted to its national context to ensure energy security and acceleration of the country's clean energy transition.
- **Scaling up green hydrogen –** The IEA is conducting analysis on priority industrial uses such as refining and chemicals, helping India decarbonise key hard-to-abate sectors and reduce its fossil fuel imports. The analysis will result in refined policy recommendations after stakeholder consultation.
- **Enhancing energy efficiency –** In close collaboration with the Bureau of Energy Efficiency and Indian knowledge partners, the IEA is analysing energy efficiency potentials, developing scenarios and policy packages, and enhancing the capacity to accelerate and monitor energy efficiency improvements in the context of sustainable development..

G20

The IEA directly supported India's first-ever presidency of the G20 and the Clean Energy Ministerial in 2023. We worked with the Government of India to develop G20 workstreams, notably:

- **Energy –** Collaborated with the Ministry of Power, Ministry of New and Renewable Energy, Ministry of Petroleum and Natural Gas, Ministry of Mines and NITI Aayog on issues including energy security and clean energy supply chains, "fuels for the future", energy efficiency and industrial decarbonisation, low-cost financing for energy transitions, just energy transitions, and critical clean energy technology gaps.
- **Disaster Risk Reduction –** Contributed to the G20 working group by adding a focus on the importance of energy infrastructure in disaster and climate resilience work.
- **Development –** Contributed analysis of the impact of India's 'Lifestyle for Environment' initiative on reducing emissions and supporting sustainable development.
- **Finance track –** Provided analytical input to inform both the Sustainable Finance Working Group on clean energy investment and the Framework Working Group on the macroeconomic impact of energy insecurity, climate change and transition pathways.

Climate and carbon markets

The IEA works with the Government of India and other Indian stakeholders on climate and energy policies. In our analysis, we select topics with the most direct impact on people's lives. In collaboration with NITI Aayog, we published a report that assessed road transport decarbonisation policies to support India's air pollution and climate objectives. We also study the role of energy in climate resilience, focusing on the financial impact of climate risks to India's power sector.

IEA Executive Director with **Prime Minister Modi of India,** *February 2023*

This work is supported by the **Clean Energy Transitions Programme,** the IEA's flagship programme for taking action to achieve a clean energy transformation worldwide.

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