CEEW
THE COUNCIL

#CEEWatCOP24

ALIGNING INDIA'S CLIMATE POLICY WITH NATIONAL PRIORITIES AND SUSTAINABLE DEVELOPMENT

The Council on Energy, Environment and Water (CEEW) has developed a 'Synergies and Trade-off Matrix' to explore synergies between emission mitigation, sustainable development, and national priorities such as land requirement, water use, and employment creation.

3.5 times

estimated increase in energy-related CO_2 emissions between 2015-2050

4.2 billion kilolitres

estimated water withdrawal in 2020 for electricity generation

0.4 million

full time jobs potential in wind and solar (ground-mounted and manufacturing) in 2020

1.5 million

acres of land required for solar and wind technologies in 2020. This is 5 times the land required by conventional technologies

Figures above correspond to business-as-usual (BAU) scenario
All data points, CEEW analysis.

"India's climate policy has to align with the goals of energy policy - energy access, energy affordability, and energy security, as well ensure that national priorities, specially ramping domestic manufacturing capacity and managing sustainable urbanisation, are also met. Only an analysis of synergies and trade-offs of a climate policy with these multiple objectives can inform strategic policy choices.

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Image: Pexels

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The table below presents the emissions, land requirement, water withdrawals, and jobs potential in the energy sector both in the business-as-usual scenario as well as the 2°C scenario. Understanding these trade-offs will be critical in shaping policy choices.

Business-As-Usual Scenario

Emissions

4.6 tCO_2/capita in 2050 while total CO_2 emissions are projected at 7697 $MtCO_2$

Land

16.2 times land required for RE (solar and wind) compared to conventional technologies in 2050

Water

2.4 times increase in water withdrawal for electricity between 2020-2050

Jobs

4.4 million additional jobs in wind and solar sectors between 2020-2050

2°C Scenario

Emissions

1.0 tCO_2/capita in 2050 while total CO_2 emissions are projected at 1663 $MtCO_2$

Land

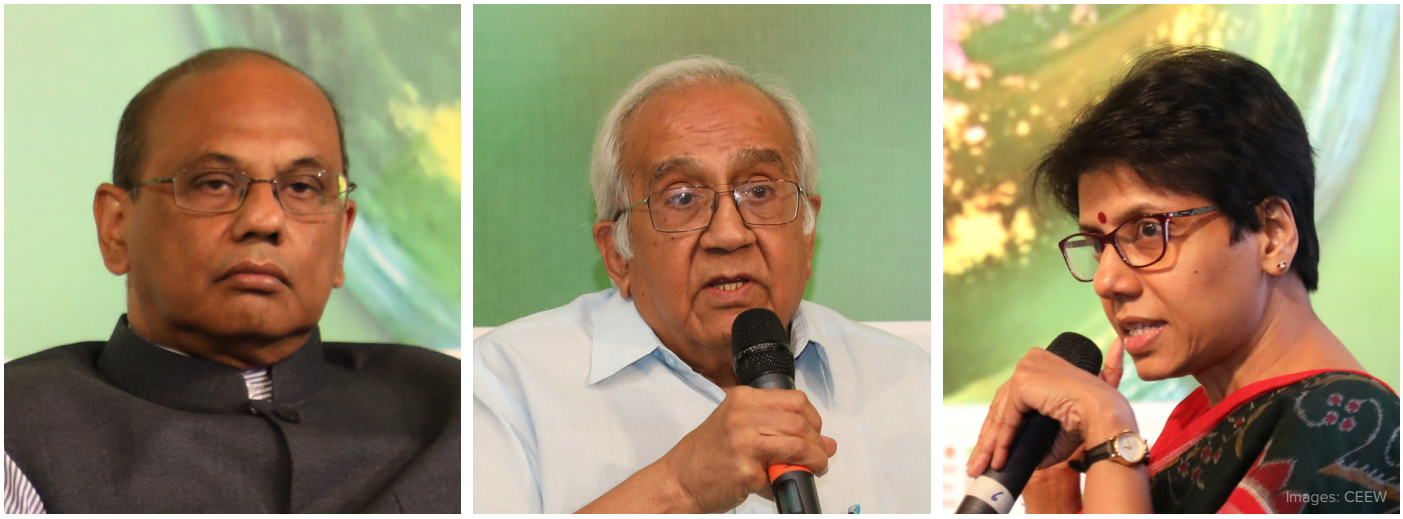
66.4 times land required for RE (solar and wind) compared to conventional technologies in 2050

Water

50% decrease in water withdrawal for electricity between 2020-2050

Jobs

26.6 million additional jobs in wind and solar sectors between 2020-2050



L to R: Ajay Mathur, Director General, TERI; **Dr Kirit Parikh,** Chairman, Integrated Research and Action for Development (IRADe); and **Prof. Purnamita Dasgupta,** Chair Professor and Head, Environmental and Resource Economics Unit, Institute of Economic Growth (IEG) at the CEEW- Dialogue on 'Sustainable Development, Uncertainties, and India's Climate Policy: Pathways towards Nationally Determined Contribution and Mid-Century Strategy' New Delhi, April 2018.

Images: CEEW

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