



Concept Note

Regional Conference

Perspectives for Low Carbon Pathways and Future Readiness

Jharkhand, Chhattisgarh, Odisha, and West Bengal are among India's most resource-rich yet climate-vulnerable regions. Together, they play a critical role in ensuring the country's energy security, driving economic growth, and promoting inclusive development. Despite significant development challenges, these states are making substantial progress towards sustainability by prioritizing climate adaptation and mitigation efforts. To safeguard their future and lead India's green transition, these regions must embrace green development strategies and enhance their resilience to climate change. Building a sustainable, future-ready framework will not only protect natural resources but also secure their economic and environmental well-being.

Resource-Rich yet Climate-Vulnerable Region

Falling under the eastern part of India, Jharkhand, Chhattisgarh, Odisha, and West Bengal collectively hold a significant share of the nation's natural resources, with about two-thirds of coal and iron ore reserves located here. These states also possess large shares of major minerals, including bauxite, aluminium, copper, manganese, tungsten, mica, and several critical minerals. With a robust industrial base consisting of large, medium, small, and micro enterprises, this region propels India's growth trajectory.

However, despite resource abundance, these states are highly vulnerable to climate change due to geographical factors, socio-economic conditions, and reliance on natural resources. Jharkhand ranks 1st in India with the highest vulnerability index of 0.674, followed by Odisha in 3rd place with 0.633, Chhattisgarh in 4th place with 0.623, and West Bengal in 8th place with 0.592.

These four states have seen substantial growth in CO₂ emissions, reflecting the expansion of their industrial activities. From 2000 to 2022, Chhattisgarh's emissions increased by nearly 210%, Odisha's by 218%, Jharkhand's by 87%, and West Bengal's by 73%. In 2022, Chhattisgarh led with 255 million tonnes of CO₂ equivalent, followed by Odisha (232 million tonnes), West Bengal (209 million tonnes), and Jharkhand (140 million tonnes).

These trends underscore the escalating environmental impact and the urgent need for comprehensive strategies to manage future emissions while supporting industrial growth.

Imperative of Energy Security and Growth Trajectory

As part of its updated Nationally Determined Contributions (NDCs), India has committed to reducing the emissions intensity of its GDP by 45% from 2005 levels by 2030 and achieving 50% cumulative electric power capacity from non-fossil fuel sources. The Sustainable Development Goals and these climate ambitions call for recalibrating strategies. Jharkhand, Chhattisgarh, and Odisha are already exploring renewable energy options, such as solar power projects and bioenergy initiatives, signalling a shift toward a more sustainable energy future. Chhattisgarh, in particular, shows strong potential for expanding its solar capacity, which could position it as a leader in renewable energy. Additionally, West Bengal's extensive river network presents significant opportunities for hydroelectric power, further diversifying the energy mix.

