Consequences of a Hasty Transition to Renewable Energy

What is the issue?

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- Urgency to move to renewable energy (RE) in India will have drastically different consequences for different parts of the country.
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- As hasty energy transitions can impact jobs and revenues, and create regional disparities, there is a need for gradualism.
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What is the current scenario?

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- While India’s coal resources are concentrated in eastern and central India, solar and wind resources are concentrated in Western and Southern India.
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- Of India’s installed grid-scale RE capacity of about 60 MW, only 3% is located in the eastern and north eastern region.
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- Notably, Geography and weather considerations prevent grid-connected RE capacity from being developed in eastern and north-eastern India.
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- As RE is likely to gradually substitute coal-based power, this will disadvantage coal belt states in terms of manufacturing and employment.
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- In the long term, expansion of RE will hurt not only coal-based power generation, but also diminish the prospects of coal mining.
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- Notably, plant load factors (ration of operational to the total capacity) have already plummeted at India’s coal plants, and have created financial strain in the sector.
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- Also, coal uptake from CIL has plummeted and the unprecedented situation of CIL having excess coal in its stocks and a shortage of buyers has emerged.
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How will this affect the economies of the coal belt?

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- **Direct impact -** There is a broad regional divergence in income levels among States and eastern States have generally lagged behind the rest.
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- Adoption of RE and the gradual displacement of coal is likely to accentuate this income divergence through loss employment.
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- Also, in the past decade, there has been a sharp increase in redistributive resource transfers to laggard states, which mostly lie along the coal belt.
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- This will now have to increase due to the lost royalties and tax revenues.
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- Notably, coal mining and its downstream industries have been an important part of states such as Jharkhand, Odisha, West Bengal, and Chhattisgarh.
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- **Other Impacts -** The social multiplier of coal-related activity extends well beyond the mere employment in the industry.
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- Private capital herds toward States with fewer governance problems, better business environments, and higher probabilities of quick returns.
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- Hence, the PSUs have to fill the investment vacuum in States with bad business conditions as reforming governance structures is a slow process.
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- On that note, there is already an increased focus on strengthening the power grids in eastern states and also plans for establishing a gas grid is underway.
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- But for these schemes to succeed, over a 100 million customers will have to engage with power and gas markets, which will be slow to come up.
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How does the future look?

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- While RE is indeed inevitable, the move should be well planned and spaced.
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- A balance needs to be struck between economic, political and environmental considerations in the transition towards RE.
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- Notably, populist backlash due to hasty energy transitions have contributed to anti-incumbent electoral swings in both America’s and Germany’s coal belt.
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- By comparison, India’s coal belt is considerably more populous and electorally relevant and the unrest could spiral to more dangerous proportions here.
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- As a gradualist approach has served India well in many other domains — there is no reason to believe that energy is any different.
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Source: Businessline

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