Analysis | Why not everyone will benefit equally from a transition to a low-carbon economy Premium

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While covering policy and investment ground, the 2023 Budget doesn't discuss the social justice aspect of a shift to a green economy.

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Pylons of high-tension electricity power lines are seen in front the cooling towers of the Tricastin nuclear power plant site in Saint-Paul-Trois-Chateaux, France, November 21, 2022. | Photo Credit: Reuters/Eric Gaillard/File Photo

The 2023-2024 Union Budget, presented by Finance Minister Nirmala Sitharaman on February 1, 2023, depicts the Union government’s long-term vision of a technology-driven, knowledge-based economy that banks on citizen engagement, youth empowerment, employment generation, and creating a robust macroeconomic environment. At the heart of this vision are four transformative opportunities: women empowerment, green growth, tourism and aiding indigenous knowledge by integrating them into the MSME value chain.

The Budget set the stage for a timely and indispensable policy discourse on green growth, with a focus on several key areas, including green energy, green farming, green mobility, green buildings, energy efficiency, and lifestyle and behavioural changes – on the road to sustainable consumption practices. The focus on energy transitions is central to the green-growth narrative. The Centre has envisioned financial flows towards energy transitions to achieve net-zero targets by 2070.

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Although mobilising and scaling up finance for renewable energy infrastructure has multiple consequences for socio-economic and human wellbeing, there is growing consensus worldwide that the costs and benefits of such a massive transition aren’t equally distributed. Specifically, the transition to non-conventional resources has the potential to reproduce the power asymmetries of the fossil-fuel regime, in which marginalised communities, women, the elderly, and children have often been the worst-hit by infrastructure reconfigurations.

We argue that in order to ensure that the structural inequities and power asymmetries of the fossil-fuel regime are not replicated through this emerging asset class, it is important to recognise that not everyone will benefit equally from a transition to a low-carbon economy. In particular, those who rely on fossil-fuel production for their livelihoods or money flows through the fiscal route, or who were anticipating using fossil-fuel energy to meet their development needs, may carry a disproportionate share of the energy transition burden.

This in turn calls for clear directives and frameworks to consciously embed ‘justice’ elements in financing India’s energy transition.

Finance Minister Nirmala Sitharaman holding the Budget papers at the North Block in New Delhi, February 1, 2023. | Photo Credit: R.V. Moorthy/The Hindu

Provisions to finance transitions

Given the rapidly growing renewable-energy market, with a target to achieve 500 GW generation by 2030, India has emerged as the fourth most attractive renewable energy market worldwide. There are multiple provisions in the 2023-2024 Budget to prioritise investment towards energy transitions and achieve net-zero commitments.

They include, among others: an outlay of Rs 35,000 crore as priority capital investments to the Ministry of Petroleum and Natural Gas; Rs 19,700 crore for the National Green Hydrogen Mission; a green credit programme to incentivise sustainable production throughout the supply chain; and Rs 20,700 crore to create an interstate transmission system for grid integration and to extract 13 GW of renewable energy from Ladakh.

Given that grid integration of renewable energy has been a consistent challenge for the electricity transmission and distribution infrastructure, and a big challenge to greening the grid is to *store* renewable energy, these allocations offer appropriate signals to investors.

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'Justice' in an energy transition discourse

Although the Budget offered a promising outlook for India’s net-zero transformation, it doesn’t consciously include deliberations on ensuring that the shift is also socially just.

To date, most of the policy decision-making in India has been guided by the perceived benefits of renewable energy, including reducing greenhouse-gas emissions, creating green jobs, and improving energy security by reducing India’s high energy-import bills. India is currently the world’s third largest energy-consuming economy.

This demand is only going to rise in future, which means rapidly scaling up renewable-energy production is going to be key to achieving sustained economic development while also cutting emissions. However, the emergence of this new asset class could also have negative impacts across the renewables value chain.

India’s energy transition story is complex because the country is still grappling with the 20th century challenges of energy poverty while endeavouring to move away from fossil-fuel energy sources in the 21st century. This tension poses access, reliability, and efficiency challenges.

While scaling up renewables deployment, some of the concerns that we need to acknowledge and carefully resolve, through regulatory and governance interventions, include greater social and ecosystem vulnerabilities due to land-use change; water-related conflicts due to intensive water use for the operation and maintenance of solar panels; injustices at sites where the rights of local communities have become less important than electricity production and access and other infrastructure provisioning.

The transition could also disproportionately affect human and labour rights in the parts of the informal sector intersecting with mining and raw-material extraction and in the production and disposal of renewable-energy equipment.

Although the 2023 Budget set the stage to finance a renewable-energy transition, ensuring that energy can be used as a tool to deliver environmental and socioeconomic well-being across all brackets of society requires multilevel governance and diverse actor networks.

Rooftop solar panels installed at PSG Institutions in Coimbatore, July 10, 2019. | Photo Credit: S. Siva Saravanan/The Hindu

To some extent, the green-credit programme incorporates elements of this by identifying the role of an evolving governance structure where multiple actors – including regulators, the judiciary, and civil society – can play a role in reimagining and reconfiguring energy infrastructure. This programme aims to incentivise behavioural change towards environmentally sustainable practices and help mobilise additional resources for companies, local bodies, and individuals.

However, given also that India's energy transition is increasingly driven by private capital, it is imperative we rethink strategies to embed and implement justice frameworks in financing energy projects. Energy is a highly regulated market in India, meaning the role of regulators is paramount. Elements of justice need to be internalised and operationalised through new financing frameworks monitored by electricity regulatory authorities, appellate tribunals for electricity, and development finance institutions (through their conditionality clauses).

Some examples are the emerging 'Environmental, Social & Governance' and 'Social Impact Assessment' frameworks for investing in transition projects. We also have lessons to learn from global examples, such as the World Bank's 'Just Transition for All' initiative and the 'Just Transition Framework' adopted by South Africa.

Finally, some levers that all stakeholders – including investors – can use to embed justice in the financial architecture of renewable-energy projects include local content requirements, local employment, ownership of equity by local communities, public-private ownership models, local development funds, and long-term power purchase agreements. So even as the Budget guides us through a green-economy transformation, we need to streamline financial investments with justice to ensure the transition is non-disruptive and economically regenerative.

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