

Managing a Fair Transition Away from Coal in India

Report on a Conversation Starter Roundtable

**Prayas (Energy Group) and Centre for Policy Research
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An energy transition is already underway in India, driven by a rapid fall in prices of renewable energy, rise in prices of coal-based electricity, and increasing environmental and climate-change related pressures. This does not imply that India will stop depending on coal any time soon but the share of coal in India's energy is likely to reduce gradually. Given the various linkages of the coal sector with other sectors, the transition away from coal is likely to be complex and hence merits beginning a conversation. In this context, Prayas (Energy Group) and Centre for Policy Research organised a roundtable on 20 December 2019, to explore and understand the issues around India's transition away from coal.

23 participants from various organisations, representing research groups, grassroots organizations, trade unions and consultancy organisations attended the event. The deliberations were carried out as per the Chatham House rule. The full list of participants is attached as Annexure A. The event was structured into three sessions on the broad and over-lapping themes of

- People and communities
- Resources and restoration
- Finance and politics.

This document captures a summary of the discussions at the roundtable, and presents a broad overview of the various issues that would need to be addressed during the transition away from coal. It was broadly agreed that India is indeed at the beginning of a transition away from coal, and this has to be managed carefully given the multiple complex issues involved.

1. People and Communities

Loss of indigenous livelihoods

Development in coal bearing areas has occurred in relation to the growth of the coal value chain, which generally results in the exclusion of the local community from planned State led development. It also occurs at the expense of other indigenous industries, like farming and fishing industries, furthering the dependence on coal. Thus, the shutting down of coal mines disrupts local economies, causes the loss of contracted and permanent employment, and leaves the dependent community in limbo. Even the current jobs in the coal sector are often high risk and menial, with low wages, insufficient training and minimal social coverage, putting them at risk due to the transition. Contracted labourers, who do not enjoy the same benefits as the permanent work force, are even more vulnerable to the transition.

With poor working conditions and wages, labourers are open to adapting to alternate employment opportunities, if such opportunities existed. Given this and the disenfranchisement brought about by the coal sector, it is important to consider alternate options to coal related jobs, and provide appropriate retraining and skilling to the affected population. While this is a notionally sound undertaking, labourers in the coal sector vary from younger contracted labourers, who are easier to train, to older permanent employees, who may not be able to adapt as readily, making its implementation complex. Ideally, traditional livelihoods and economies rooted in local culture should be restored rather than retraining for other livelihoods.

Loss of the way of life, health, and environment

Unlike coal communities in other countries, the community in India does not have deep socio-cultural roots in the coal and mining sector. The current status quo within the coal sector is only beneficial to upper class members of the community and those engaged in businesses related to the sector. The local community and vulnerable sections of society, such as indigenous landless labourers and women, suffer the impact of the coal value chain but accrue very little benefits from it, and are also not part of the conversations around the transition. In addition, the presence of the coal industry in these regions has resulted in issues such as the loss of cultural identities, incidence of black lung disease, and high levels of pollutants in the soil and water of coal bearing regions.

While there is some legal structure (such as Environmental Impact Assessments) to address and advocate for compensation with regard to loss of ecology, the effectiveness of its implementation relies on proper valuation of the ecological loss which is missing. Such valuation must go beyond air, water, and soil, to include health impacts as well. The ecological, socio-cultural, and health impacts of the coal sector on the residents of coal bearing regions must be addressed as part of the transition, and must account for preserving cultural identity, repairing forest and agrarian economies, and addressing the vulnerability of the affected communities.

Need for participatory action under a legal framework

The community's role in the transition is critical, especially at the local level, so that their concerns and requirements are adequately addressed. Social movements have become more vocal on the problems with coal, as compared to a few years prior, and have also provided alternatives to the status quo, in the form of participatory action and engagements. Trade unions are another stakeholder that could play a larger role in facilitating a just transition by integrating community concerns into their movements. Local area development plans, and rehabilitation and retraining of workers are issues that can be addressed within a participatory structure that involves coal workers and communities.

However, it is also important to assess this burden of change and ensure appropriate State support to aid the transition. A mechanism with a sound legal and policy framework which addresses community and equitability concerns is essential toward enabling an effective transition, particularly in India, where changing the coal sector is tantamount to changing the entire economy in the affected areas.

2. Resources and Restoration

Regulation and restoration of mines

Restoration of the mined-out land at the mine site is required by the mine closure norms. This could be addressed, ideally by using the overburden and top soil that was dug out, but this is seldom stored, or usable after the long life of the mine. Large scale depositing of fly ash into the old mine site by coal

companies is an alternative that is practiced, but it worsens the quality of land at the mine site and the restored land is not usable for other purposes.

Regulations require the coal companies to continue closure activities after the exhaustion of the reserve, till the mining area is restored to an acceptable level. But adherence to these norms is questionable and needs to be monitored better. Even for operational projects, local political economies stand in the way of environmental and ecological protection regulations being met, hindering restoration in the future. Coal companies also default on resettlement and rehabilitation, with only a small proportion of the communities affected receiving appropriate compensation. Moreover, valuation of such compensation does not include the area and biodiversity loss of forests, deterioration of water quality, long term health impacts, etc.

Issues hindering restoration

The coal resource in India is abundant and found at various depths, which has led to several large-scale mining operations. Mining leases for these projects last for as long as the resource does, making it convenient for companies to continue and expand their operations. Quality is also a serious concern with regard to Indian coal. Aspects such as open-cast mining and the poor quality of Indian coal make restoration of mining areas doubly difficult. Additionally, there are concerns about the role of the private sector, in the form of Mine Developers and Operators, and their mining practices and its impact on local ecology.

Owing to the need to improve the quality of mined coal, washeries have been set up in the coal sector. But this further contributes to the problem of pollution as washeries produce waste products like ash, rejects, etc., which are difficult to dispose. The washery sector has also been mired in many controversies and there are concerns about prevalence of corrupt practices, which make restoration of such sites after mine-life harder.

Need for planning and participatory mechanisms

Contrary to common perception, the transition deals with more than a shift to renewable sources, and mine closure and mothballed power plants are symptomatic of the ongoing transition. Regulatory and planning systems for the approval of coal mines and thermal power plants needs to take cognisance of the reducing attractiveness of coal as a source of electricity, and likely reduced capacity utilization of such capacity. The approval of new capacity additions without cognisance of the transition will result in underutilised and potentially stressed assets, ancillary infrastructure, and tie up related resources, such as land and water. In addition to this, existent capacity must also be rationalised.

Given the impact of these large infrastructure projects on the economy and geography of coal bearing regions, restoration of mining areas and rehabilitation of the affected community must also be carried out. Local communities can be engaged to prevent the expansion of existing mines and to aid restorative measures, like building green belts and compensatory afforestation. Community participation in economic activities can be enabled via institutional mechanisms such as the financing of local sustainable activities. Coal India Ltd., which is the dominant player in the sector, can be tasked with fast-tracking restoration of mines, but accounting for localised solutions given the differences across the coal mining regions.

3. Finance and Politics

Impact of changing energy mix

Given unstable demand and supply and the drying out of financing in the coal sector, there has been a decline in the addition of thermal power. There is reduced uptake of green field projects, and future developments pertain to brown field expansions, efficiency improvements and plants in the pipeline. The expected rise in coal demand will be offset by the rapid consolidation of renewable energy, and encouraging capital infusion in renewables is an effective economic measure towards moving away from coal. Currently, new coal fired plants and new renewable projects are at cost parity. While intermittency is a concern with regard to renewables, it is more financially attractive than new coal-based plants given modularity, no fuel requirement, etc.

There is also significant resistance to the transition from local entrenched interests due to the currently prevailing political economy. With complex money flows and entrenched political interests, the coal economy goes beyond the geographical confines of coal bearing regions and has effects across the country. In spite of the existence of stranded capacity and plants running on partial load, there are likely to be pressures from vested interests to add new capacity. These realities call for a different approach to planning for the power and coal sector going forward, accounting for such contradictory forces.

Financial impact of the transition

The transition away from coal will affect the revenue stream of different State entities. Many states in the coal bearing areas derive significant revenue from the coal sector and its downstream value chain through taxes, royalties and other payments. Indian Railways is also highly dependent on coal for its revenues, which allows it to cross-subsidise passenger fares. As the share of coal in the energy basket gradually declines, these agencies would have to find alternative revenue sources and/or business models in order to deal with the transition while remaining financially solvent. That many of the states dependent on the coal economy are also among the poorer states of the country makes this even more challenging.

It was debated whether the funds currently vested in the coal sector would be sufficient to drive the transition. Elements such as the coal cess (GST compensation cess), funds from the District Mineral Foundation and Compensatory Afforestation Fund Management and Planning Authority (CAMPA), were cited as possible sources to fund the cost of the transition, while further investments towards the cause must also be considered.

4. Conclusions

Given the larger context of cheaper alternative energy technologies, increasing concerns about pollution and impacts of climate change, the eventuality of the transition away from coal is unquestionable. Indeed, the transition may even be faster than previously imagined. The discussions at the roundtable highlighted some action points that need attention to enable a transition that is smooth, fair, and equitable.

- **Planning for the transition:** Structural changes signalling a transition away from coal have begun to take shape in the power sector, the largest consumer of coal. Though coal mining may not see an immediate decline, future growth prospect of the sector is certainly constrained, suggesting a transition that may unfold over the years. Given the embeddedness of the regional economy, livelihoods and environment in the coal value chain, there is a need to begin planning for the

transition, to avoid undesirable resource lock-ins. The rollout of equitable compensation and rehabilitation of the affected communities will require strategic and long-term planning, and a nimble and coordinated approach that goes beyond the departmental or ministerial silos.

- *Need for participatory transition at sub-national level:* The conversation around the transition should have enough representative voices from those most affected by it. Coal-bearing states should be important stakeholders in any conversation around the transition. Owing to the added vulnerability and varied perspectives, indigenous communities and women should also be included in such conversations. In addition to this, trade unions could adopt transition related community needs as a cause and play a larger role in the transition away from coal.
- *Balancing Centre-state roles:* Despite having a concentration of a primary energy source, the coal-rich states in India have remained among the poorest. That also implies their limited capability to diversify the economy in the face of the transition. In that context, the Centre will have to play a crucial role to support these states to cope with the transition, while the planning needs to happen at state level.
- *Institutional, policy and legal framework:* Given the scale of the transition and the extent of its impacts, a mechanism with a sound legal, policy and institutional framework is essential toward ensuring an equitable and timely transition. Appropriate authorities and the associated departments should take responsibility towards reorienting existing funds (from the coal cess, DMF funds, CAMPA funds, etc.) and procuring further investments to support the transition.

The transition away from coal has a lot of challenges, but it also presents an opportunity to improve the economic, ecological, and social conditions in India's coal belt. This is, however, contingent on effective planning measures and timely action, that involves all concerned stakeholders. As the transition may take place faster than previously imagined, it would be prudent to begin planning and developing effective interventions on these lines soon.

Annexure A

The list of participants at the roundtable is given below.

No.	Name	Organisation
1	Anish De	KPMG
2	Ashim Roy	New Trade Union Initiative
3	Chinmayi Shalya	Centre for Science and Environment
4	Daljit Singh	Independent researcher
5	Joe Athialy	Centre for Financial Accountability
6	Nandikesh Sivalingam	Greenpeace
7	R Sridhar	Environics
8	Rahul Tongia	Brookings India
9	Rajesh Kumar	Centre for Financial Accountability
10	Ranjit Bharvirkar	Regulatory Assistance Project
11	Ritwick Dutta	Legal Initiative for Forest and Environment
12	Rohit Chandra	Centre for Policy Research
13	Shweta Narayan	Independent researcher
14	Srestha Banerjee	Centre for Science and Environment
15	Ashwini K Swain	Centre for Policy Research
16	Ira Sharma	Centre for Policy Research
17	Sarada Prasanna Das	Centre for Policy Research
18	Aniruddha Ketkar [joined remotely]	Prayas (Energy Group)
19	Ashok Sreenivas	Prayas (Energy Group)
20	Atul Kharabe	Prayas (Energy Group)
21	Maria Chirayil	Prayas (Energy Group)
22	Narendra Pai	Prayas (Energy Group)
23	Shripad Dharmadhikary	Prayas (Energy Group)