

# Proceedings of the roundtable discussion on “Exploring options for the Indian coal sector”

*Roundtable discussion held on December 1, 2014 at New Delhi*

*Organized by Prayas (Energy Group) in association with Centre for Policy Research*



**Prayas (Energy Group)**

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**Disclaimer:** This report on the proceedings of the roundtable discussion on “Exploring options for the Indian coal sector” represents Prayas (Energy Group)’s understanding and summarization of the discussions. The participants at the roundtable may or may not agree with all the viewpoints expressed here.

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## 1 Background

Coal is a critical element of India's energy basket and supplies over half the primary commercial energy of the country. It is likely to play an important role in the Indian energy sector for the near to medium term in spite of increasing concerns about climate change. Coal is also important to India from energy security and energy access perspectives, as official data suggests that India has plentiful reserves of coal and domestic coal is likely to be the cheapest reliable source for electricity generation at least for the near future. Therefore, a healthy, well-managed and responsible coal sector is critical to India's energy and economic future.

The coal sector has faced hard times recently. Power plants have reported severe shortages in their coal stocks, coal imports have been rising significantly, the Supreme Court cancelled allocation of all captive blocks issued since 1993, and the Government of India subsequently issued an ordinance to begin auctioning of the cancelled blocks. Ambiguity in the coal linkage policy led to different policy interpretations resulting in much litigation regarding power tariffs. The Competition Commission of India has held Coal India Limited (CIL) guilty of abuse of its dominant position in a series of judgements. Given this background, the Indian coal sector is poised to undergo some significant changes in the near future.

Prayas (Energy Group) organized a roundtable discussion on "Exploring options for the Indian coal sector" in association with the Centre for Policy Research (CPR) on December 1, 2014 in New Delhi to discuss and deliberate the possible contours of changes to the coal sector. The roundtable brought together stakeholders from various related sectors and looked beyond the immediate need to bid out the blocks whose allocation was cancelled by the Supreme Court, and instead considered ways and means of progressing towards a healthy coal sector in future. The objective of the roundtable was to develop, if not a complete consensus on the way forward, at least a better understanding about the trade-offs between different approaches to the coal sector.

Representatives from all stakeholder segments such as the coal and power sectors, researchers working for socio-environmental justice, representatives of worker interests and energy policy analysts were invited to the roundtable. The invitees included past and present Government officials, officials from public and private sector enterprises and reputed researchers. The roundtable was attended by over 25 people from across the stakeholder spectrum and featured rich discussions that ended only because of paucity of time. The complete list of attendees at the event is provided in the Appendix.

The event was chaired by Mr. Ajay Shankar, former Secretary, Government of India and current Member Secretary, National Manufacturing Competitiveness Council. It also featured some expert speakers who shared their thoughts about the issues with the coal sector. These were Mr. Pramod Deo (former Chairman, Central Electricity Regulatory Commission), Mr. Pravat Mandal (former Advisor (Projects), Ministry of Coal), Ms. Kanchi Kohli (independent researcher on socio-environmental issues) and Mr. Ashim Roy (Vice President, New Trade Union Initiative). Mr. Partha Bhattacharyya, former Chairman of CIL, had also agreed to be an expert speaker at the event but could not be present due to some last minute demands on his time. However, he shared a brief note with his thoughts on the future of the coal sector, which was presented at the roundtable.

## 2 Issues before the coal sector

Prayas (Energy Group) had prepared and circulated a background paper about a fortnight before the roundtable to facilitate discussions at the event<sup>1</sup>. The paper highlighted some of the key challenges being faced by the coal sector, which are summarized below:

1. **Shortage of domestic coal:** This is the most discussed problem faced by the Indian coal sector today and the primary driver for many of the changes being proposed.
2. **Resource allocation:** Allocation of natural resources is a contentious issue, and needs to carefully consider issues of fairness of resource allocation (both blocks as well as linkages), appropriation of value of a national resource and contract design and administration.
3. **Pricing:** The cost of coal forms about half of the cost of supplying coal-based electricity. Given the large energy poverty in India and the fact that coal remains the cheapest source of electricity, coal pricing is a very important issue.
4. **Transparency and accountability:** There have been concerns about the accountability of coal suppliers and other agencies in the coal sector. Similarly, there is also need for total transparency in dealing with a limited national resource.
5. **Regulation:** Regulation of the coal sector is a serious challenge given that the sector has complex linkages with other sectors such as power and environment; it is currently dominated by a large public sector monopoly; and introduction of competition will require ensuring a level-playing field for all players.
6. **Socio-environmental management:** The record of coal mining and associated industries regarding satisfactory resettlement and rehabilitation, or compliance to environmental norms is disappointing. Means and measures to improve this regime while making it more efficient, are critical to ensure a responsible coal sector in future.
7. **Labour safety and rights:** Coal mining is an inherently unsafe industry and hence labour safety and rights deserve special attention. If one considers the increasing contractualization of labour and number of fatalities at CIL, the issue becomes doubly important.
8. **Law and order issues:** The coal sector is known to suffer from challenges of law and order, and it is understood that there are entrenched vested interests in various steps of the coal value chain. These need to be addressed effectively if the coal sector is to function effectively and efficiently.
9. **Legal implications:** Coal mining in India is governed by a variety of laws. Any future roadmap for the coal sector has to carefully consider all of them to ensure that the sector is governed by a coherent set of laws. In particular, it may be prudent to revisit the Coal Bearing Areas (Acquisition) Act of 1957 that gives the Government huge powers regarding coal-bearing areas.
10. **CIL:** CIL will continue to be an important player in the Indian coal sector. Therefore, the concerns regarding CIL, such as low productivity and HEMM utilization, and adoption of non-competitive practices need to be addressed in the solution roadmap.
11. **Domestic coal reserves:** India has not adopted internationally accepted norms for coal reserve estimation such as the UNFC method, leading to scepticism about the real extractable reserves in

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<sup>1</sup> The background paper is available at <http://prayaspune.org/peg/publications/item/289-exploring-options-for-the-indian-coal-sector.html>.

India. This is a serious issue and needs to be addressed at the earliest to facilitate proper planning of the coal and energy sectors.

### **3 Summary of discussions**

The discussions at the roundtable ranged over a wide variety of topics such as the possible future market structures for coal, dealing with the socio-environmental concerns, the socio-political aspects and institutional arrangements related to coal and others. We have attempted to broadly classify the important discussion points below.

#### **3.1 Market structure and pricing**

As may be expected, this was the topic with the most divergent set of views. While some participants strongly felt that introducing competitive markets and commercial mining were the best way to improve productivity and efficiency, others felt equally strongly that this would be very detrimental to the future of the coal sector and may also worsen the law and order problems associated with the sector. Some other interesting points made during the discussions are as follows.

- Competition and efficiency need not necessarily mean privatization – there could also be competition within the public sector.
- It is important to follow sound commercial principles with professional and independent management. The issue of private or public ownership is secondary.
- Tariff-based bidding could be used to partly introduce private players into coal mining.
- Markets should be designed to deliver not only economic efficiency but also protect socio-environmental and labour considerations.
- CIL should have a prominent role in any future coal scenario.

Coal pricing and contracts, which are closely related to market structure, were also discussed. It was felt that the current contractual structure of Fuel Supply Agreements is too rigid and there needs to be some flexibility on this count. Some participants related the market structure to the willingness and ability to free up coal prices (and thereby leading to higher coal prices). They felt that it would be meaningful to privatize and introduce competition if there is a willingness to absorb higher prices, else the prevalent practice of quasi-privatization through Mine Development Operators (MDOs) may be the best option.

The issue of auctioning coal blocks was also discussed in this context. There was agreement that meaningful block sizes would be required for coal auctions if commercial mining were to be attractive. It was felt that the purpose of auctioning blocks should not be to maximize Government revenue but fair allocation of blocks, though it was also felt that the revenue realized from the block auctions could be used to subsidize electricity access. Questions were also raised whether there should be different auction mechanisms for opencast and underground mines, with some suggesting that the floor price for auctioning underground mines could be lower than opencast mines given the greater costs of mining from them. Some participants felt that the auction costs should also capture the costs of mitigating socio-environmental impacts and protecting labour interests.

### **3.2 Socio-political and institutional aspects**

It was broadly recognized that India's coal bearing areas suffered from the so-called "resource curse" and were among the least developed parts of the country. Any solution to the future of the coal sector cannot ignore this aspect and has to deal with it up-front, and factor in the relevant political and social considerations.

Participants expressed the view that one of the fundamental reasons for the current problems of the sector was a very top-down approach to decision making with not enough spaces for more democratic participation of citizens, particularly from the coal bearing areas. Addressing the coal sector's problems was recognized as a complex problem that needs negotiations and consensus building among all the concerned stakeholders, with a genuine intention to build workable and fair systems.

The institutional and governance aspect of the solution was also discussed. Allocating a resource such as coal was identified as a challenge that needed to be addressed through suitably transparent and fair processes. It was generally agreed that careful institutional design was required that could provide the requisite regulatory, monitoring and oversight functions in a transparent and fair manner. It was also felt that, for such institutions to function effectively they should be staffed and led by specialists with relevant domain expertise rather than generalists.

### **3.3 Socio-environmental issues**

Dealing with the socio-environmental consequences of coal mining and associated activities was an issue that all participants felt was important, though there was some divergence on the actual impacts and way forward.

The fundamental reasons behind the problems were that coal has to be mined where it is available and mining is land intensive, which makes land acquisition a sensitive issue. Leasing of land from owners was suggested as a possible option to address some of these issues. Some participants felt that socio-environmental practices were slowly improving through measures such as eco-restoration (rather than just afforestation) and depositing a fixed sum annually into an escrow account to be used for restoration upon mine closure. Others felt that the issue was not being given the importance it deserved and that socio-environmental concerns should be "up streamed" and considered even for project approvals – for example, by factoring in the socio-environmental record of the developer. It was expressed that one of the reasons for the discord currently is that compensation efforts are targeted at the least acceptable amount rather than addressing citizen aspirations in the wake of a "development project".

It was agreed that the governance aspect of ensuring compliance to required socio-environmental practices was weak and needed to be strengthened. In particular, it was felt that often coal issues are dealt with in isolation rather than considering the "coal network" which included coal handling, evacuation and often consumption in power, cement, steel plants in the same region. From a coal sector point of view, it was felt that Indian coal mining does not lead to chemical pollution as Indian coal is inherently low in sulphur. But the coal transport activity, which is perhaps controlled by entrenched interests, could lead to significant particulate pollution.

### **3.4 Labour safety and rights**

There was general concern expressed about labour safety and labour rights, particularly with increasing share of contract labour force in CIL. In particular, concerns were expressed whether the safety of such workers was under the purview of the Director General of Mines Safety and the fact that India was yet to ratify International Labour Organization convention 176 regarding labour safety. It was felt that any coal block auctions should factor in the cost of labour safety though some participants felt that the economic situation of the regular labour force in the coal sector was quite good currently. It was felt that increasing contractualization should be strongly discouraged as it is not in the interests of employees or even employers, as their future profitability will depend on a skilled and committed workforce.

### **3.5 The role of coal in the energy sector**

It was recognized by the participants that given resource limitations and an increasingly climate constrained world, coal may have a limited role in the long-term future of the energy sector while being vital in the short to medium term. Lack of certainty about India's economically extractable coal reserves was also discussed, and separating Central Mine Planning and Design Institute (CMPDI) from CIL was suggested as a necessary condition to address this. It was said that extractable reserves would be only about 20-30% of proved reserves, and current trends indicate that India had sufficient coal only for about 40 more years. Some participants felt that India's underground coal seams are not very conducive to advanced underground mining techniques such as continuous miners and other heavy mechanization, and options such as underground coal gasification (UCG) should be explored further.

The point was also made that, given the limited lifetime of coal resources, likely constraints on coal usage with increasing climate change concerns and long gestation periods and lock-ins of coal and its downstream sectors, there is a need for careful planning of the future of the energy sector in general and coal sector in particular, and accordingly directing investments to the coal sector. The multiple linkages of the coal sector to many sectors meant that a multi-dimensional approach to policy formulation and planning was required for the sector. It was stressed that the coal sector cannot be planned without considering the power sector and in particular, the crisis-ridden power distribution sector, given the close connection between them<sup>2</sup>.

### **3.6 Captive mining**

Captive mining of coal has been in the news recently. Many participants felt that captive mining is a sub-optimal approach to coal mining for various reasons. Block sizes would typically have to be uneconomically small to be sufficient to meet one end-user's requirement. Larger blocks awarded jointly to multiple end-use companies also do not work as it is not easy to arrive at contractual arrangements between the various end-use companies sharing a block. End-use companies do not have the capacity or expertise in mining coal. For all these reasons, it was felt that captive mining as an approach to increase coal production or attracting private sector participation was unlikely to succeed.

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<sup>2</sup> About 70% of electricity is currently produced from coal, and about 80% of domestically produced coal is used to produce electricity. The price of coal forms about half the price of distributing coal-based electricity.

### 3.7 Other issues

The discussion also threw up a few more interesting points which are summarised below:

- Coal-bed methane (CBM) is unlikely to be economical in India as it is too little and diffuse. Allocating blocks separately for CBM is only likely to delay extracting coal from those blocks.
- Coal sector planning also needs to consider coal evacuation. A dissonance between the two currently leads to many mines being less productive than they could be.
- The coal washing sector, though important and necessary, has been very slow to develop in India.
- The current coal allocation strategy was criticized and it was felt that many sectors that require coal, particularly small consumers, do not get access to them. This is one of the key reasons behind coal diversion.

## 4 Key insights

The discussions at the roundtable provided some important insights that can help guide the future of the coal sector. These insights are summarised below.

1. **Approach:** Developing a future roadmap for the coal sector is a complex problem given the sector's multiple linkages to other sectors and the various stakeholders involved. Therefore, the design of any roadmap for the coal sector's future should be undertaken based on consultations with all the stakeholders in a transparent, participative manner within a multiple-objective framework. In particular, the stakeholders to be consulted should include, apart from coal sector representatives, representatives and experts from sectors such as power, environment, labour and rural and tribal welfare. It should also factor in issues such as potentially lesser coal reserves than generally understood, potential constraints on coal usage with increasing climate change concerns and the gestations and lock-ins for investments in the coal value chain. Given the possibility of a limited time window available for coal, this also imposes a certain amount of urgency on reforming the coal sector.
2. **Extractable reserves:** There is an urgent need for greater clarity regarding actual mineable coal reserves in India, and the costs of accessing such coal given current technology. A resource-mapping mission on these lines could be a first step towards charting a future course for the coal sector. This may require CMPDI to be separated from CIL and become an arm of the Government, or the task to be undertaken by some other suitable agency such as the Geological Survey of India.
3. **Market structure and pricing:** This is a controversial issue with a whole spectrum of views being presented ranging from complete privatization through partial privatization (though tariff-based bidding or mine development operators) and greater competition among public sector entities, to retaining the current structure with CIL as the dominant player. This divergence of viewpoints underscores the need for wide consultations and addressing the concerns of those whose position may not be reflected in the final roadmap. The issue of deciding a future market structure is also closely related to the issue of coal pricing (and hence price of electricity).
4. **Institutional design and processes:** Irrespective of the laws and policies that define the theoretical future of the coal sector, its real future would be determined by the institutions that govern the

sector and their practices. Therefore, it is critical to carefully design the structure and processes of these governing institutions, so that they have sufficient capacity and independence, while also being transparent and accountable. We believe this needs emphasis because these aspects generally tend to be ignored in India.

5. **Socio-environmental concerns:** These need to be given more prominence than they have received so far, particularly considering that coal bearing areas in the country overlap significantly with its most under-developed areas. In particular, these issues need to be considered upfront while considering the development of a certain coal block. Moreover, coal mining and its impacts should not be seen in isolation but considered along with other associated activities such as coal handling, evacuation infrastructure and coal consuming industries, because citizens face the cumulative impact of all these activities undertaken together. Addressing these issues requires innovative thinking and more democratic and devolved decision making with greater involvement of affected citizens through all stages of the coal life cycle.
6. **Labour practices:** The current trends regarding labour safety and increased contractualization are a matter of concern. Spokespersons for labour interests are naturally worried about the situation worsening if oversight mechanisms are not strengthened and private sector entry is permitted. Their concerns need to be addressed by devising suitable safety mechanisms.
7. **Captive mining:** Captive mining as an approach to increasing coal production or productivity is unlikely to work. Therefore, this practice should perhaps be withdrawn going forward.

## 5 Conclusions

The coal sector is likely to be an important part of the Indian energy sector for the short to medium term. There is a strong case for a comprehensive reform of the sector given the multitude of problems faced by it. The discussions at the roundtable highlighted some important insights that need to be factored in while such reforms are being designed. These include the need for a consultative multi-stakeholder approach, need to consider institutional designs and processes and not just market structure or policies, need to give primacy to socio-environmental concerns and labour issues, and consider the close relationship between the coal and power sectors. Developing a roadmap factoring in all these concerns may not be easy, but there may be no easy choices if one has to work towards a healthy but fair and responsible coal sector.

## 6 Appendix

### List of participants at the roundtable

Sr. No.	Name	Affiliation
1	Mr. Ajay Shankar	Former Secretary, Government of India and Member Secretary, National Manufacturing Competitiveness Council
2	Mr. Pramod Deo	Former Chairman, Central Electricity Regulatory Commission
3	Ms. Kanchi Kohli	Environmental researcher
4	Mr. Ashim Roy	Vice President, New Trade Union Initiative
5	Mr. Pravat Mandal	Former Advisor (Projects), Ministry of Coal
6	Mr. Amulya Charan	Former Managing Director, Tata Power Trading Company and Former Chief Mentor of Tata Power
7	Mr. Darshan Singh Bhullar	Punjab State Electricity Board Engineers Association
8	Ms. Manju Menon	CPR and Namati Environmental Justice Program
9	Mr. Somit Dasgupta	Advisor (Power), Planning Commission, Government of India
10	Mr. Anish De	Partner, KPMG
11	Mr. Shri Prakash	Distinguished Fellow, TERI and Former Member, Board of Directors, CIL
12	Mr. Daljit Singh	Independent energy policy researcher
13	Mr. Navroz Dubash	CPR
14	Mr. Sudhir Chella Rajan	Indian Institute of Technology, Madras
15	Mr. Surya Sethi	Former Advisor (Energy), Planning Commission, Government of India
16	Mr. Jibon Roy	President, Indian Coal Workers Federation
17	Mr. Ch. Vijaya Rao	Director (Planning & Projects), Singareni Collieries and Coalfields Ltd.
18	Ms. Radhika Khosla	CPR
19	Mr. Partha Mukhopadhyay	CPR
20	Mr. Chakshu Roy	PRS Legislative Research
21	Mr. Vaibhav Gupta	Council on Energy, Environment and Water
22	Ms. Anu Jogesh	CPR
23	Mr. Rahul Sharma	CPR
24	Mr. Shantanu Dixit	Prayas (Energy Group)
25	Mr. Ashok Sreenivas	Prayas (Energy Group)
26	Mr. Shripad Dharmadhikary	Prayas (Energy Group) and Manthan Adhyayan Kendra
27	Ms. Krutuja Bhosale	Prayas (Energy Group)