



Harnessing transparency initiatives to improve India's environmental clearance process for the mineral mining sector

Mining comprises only a modest share of India's economic activity, but the sector is large by global standards and widespread across the country. The environmental clearance process, which requires all major capital investment projects by the private sector or government to seek regulatory approval before beginning construction, is one of the key environmental regulations of development in India.

Although the clearance process applies across sectors of the economy, it plays a particularly important role in oversight of the mining sector, where environmental impacts are diffuse and diverse. In 2006, a notification by the Ministry of Environment, Forest and Climate Change dramatically overhauled this process, requiring more scrutiny of the projected environmental and social impacts of projects and greater transparency in the approval process.

The reforms decentralised the process into a two-tiered system of central and state-level processes. A 3ie-supported impact evaluation evaluated the 2006 environmental clearance reforms in India, particularly the expanded requirement that all mines 5 hectares or larger should hold a public hearing.

Highlights

- There was no evidence that public hearings significantly altered the costs or benefits of the clearance process.
- Mines that applied for clearance after the reforms experienced substantially shorter clearance times and were more likely to deforest illegally before receiving clearance.
- The reforms had large, immediate and permanent effects on the size of new mines.
- Mine proponents saw the reforms as costly.
- Public hearing requirements did not significantly alter the environmental performance of the mines.

Intervention

The study evaluated the impact of a set of reforms to the clearance process, which included using hearings to subject larger projects to scrutiny from regulators, independent experts and the public. They also matched publicly available administrative data on mines' clearance applications with satellite data on pollution and vegetation coverage to measure the mines' environmental performance. The public consultation requirement was designed to provide an official channel for the public to provide inputs on mitigating the socio-environmental risks associated with mines before their development.

The public hearing process requires mine proponents to consult with the public via two channels – holding a public hearing near the mine site and eliciting written comments from other stakeholders. Mine proponents initiate the public hearing process by submitting a written request and draft copies of the Environmental Impact Assessment to the State Pollution Control Board.

Upon receiving a request, the State Pollution Control Board fixed a date and venue for the public hearing, which was mandated to be held in proximity to the mining location. The hearing covered findings from the impact assessment, including the project size, location, baseline environmental characteristics,

anticipated environmental impacts and mitigation measures, and social costs and benefits, including any plans for relocating residents of surrounding villages.

Board representatives video-recorded the proceedings, prepared a written summary and, after the district magistrate signed the summary, shared it with the Ministry of Environment, Forest and Climate Change for the project's clearance deliberation. The summary had to be translated into English and the local language and be publicly displayed by local authorities, district authorities and the State Pollution Control Board. The hearing was to be completed within 45 days of the project proponent's initial request.



Main findings

The environmental clearance reforms appeared to have had a large, immediate and permanent effect on the size of new mines. In particular, there was a large increase in applications for leases of mines smaller than 5 hectares. There was also a marked fall in the number of leases granted to mines between 5 and 15 hectares. However, there was no visible change in application trends for any category of mines larger than 15 hectares. The results demonstrated limited selection for mines close to the 25-hectare cut-off.

The results also indicate that mine proponents saw the 2006 reforms as costly, but show no significant impact of the public hearing requirement on a mine's total costs.

The study also indicates that public hearing requirements did not significantly alter the environmental performance of mines. The researchers found no evidence that this requirement significantly changed mines' pre- to post-clearance vegetation coverage, nor did they find any significant change in these trends for mines that applied for clearances after the 2006 reform.

Although the study does not find any significant impact of the public hearing requirement on mines' deforestation compliance, it did find that mines applying for clearance after the 2006 notification were generally less likely to comply. The study also shows no evidence that the public hearing requirement significantly altered air or water pollution at mine sites.

Implications

Policy and programming

Enforcing particular details, including advertising the hearings well in advance, holding the hearings at convenient locations and times, and making information on environmental risks clear and accessible, may be crucial to ensuring effective public engagement in the clearance process.

To ensure public hearings are productive settings for public engagement, their implementation should be systematically monitored by the government.

Research

Future research could explore the possibility of using remote sensing data to measure a range of environmental and economic outcome variables, as demonstrated by the use of satellite remote sensing vegetation data in this impact evaluation. The data are low-cost, cover a wide geographical area and are available at the spatial resolution needed to be useful.

There is a need to better synthesise publicly available data on mines. A central mining database would enable more meaningful public scrutiny of mines throughout their lifetime.





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About this brief

This brief is based on an impact evaluation report by Rohini Pande and Anant Sudarshan,

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