REFORM OF COAL MINE CLOSURE GUIDELINES TO SUPPORT A COMPREHENSIVE MINE CLOSURE FRAMEWORK BASED ON JUST TRANSITION PRINCIPLES

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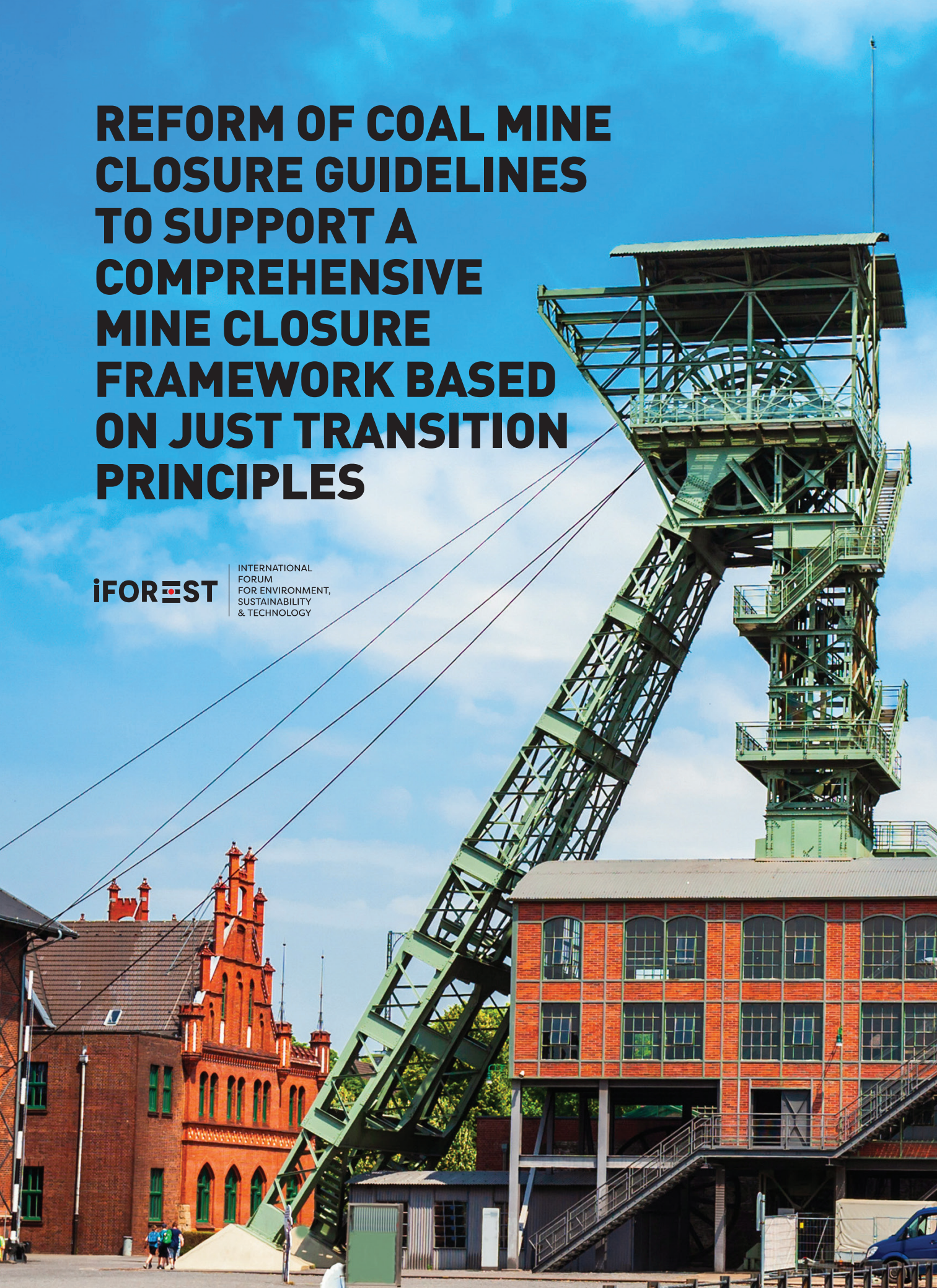

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Summary for Stakeholders

Mine closure is a complex and multifaceted issue that includes environmental, social, economic, and safety concerns. However, the existing coal mine closure guidelines primarily focus on bringing back the mining land as much as possible to pre-mining conditions and undertaking afforestation measures.

Reforming the coal mine closure guideline based on principles of just transition as the Ministry of Coal envisages, is crucial for ensuring sustainable development of regions historically reliant on coal mining. A comprehensive guideline addressing environmental, social, and economic aspects will help to promote environmental sustainability and socio-economic vitality in these regions once the mines are closed.

Key observations

i. The mine closure guidelines primarily focus on afforestation activities in the mined-out area.

The coal mine closure guidelines of 2009 and the subsequent amendments emphasises restoring the mining land to its original form post closure and undertaking afforestation measures in the mined-out area. Since on average about 90% of the pre-mining land use for opencast mines comes under agricultural land, forestland, grazing land, and wasteland, therefore, the focus on 'per-mining conditions' has restricted post-mining land use to primarily raising plantations, besides some measures of horticulture, developing eco-parks, etc. The scope of repurposing the land for gainful economic use to benefit the local community and generate revenue for the government has been undermined.

ii. The guidelines limit the scope of leaving the post-mining land to a feasible standard for other economic activities.

The closure guidelines attempt to minimise the land under external overburden (OB) dumps to abate land degradation as much as possible. For this, an increase of dump height to the maximum extent (considering the safety requirements) has been allowed. The mine closure plans, as designed, also allow significantly high OB dumps to exist outside the pits, as well as internal dumps of considerable height inside the pits.

Such practices mean that the land will not be ready for repurposing once mines are closed. Ideally for repurposing, extreme undulations in the closed mine area need to be minimised to maximise the availability of usable surfaces.

iii. The escrow amount of coal mine closure is grossly inadequate to support land repurposing.

The assessment of closure costs of representative opencast mines in various coalfields of India shows that the current escrow amount is insufficient to ensure repurposing.

The cost of coal mine closure for repurposing ranges from ₹25 per tonne to ₹300 per tonne of remaining extractable reserve depending on the mine reserve and characteristics. However, the escrow amount is only ₹5 per tonne to ₹25 per tonne of remaining extractable reserve. Therefore, the escrow amount is significantly lower considering the unit costs of repurposing. Also, the relationship between the closure cost and the lease area is insubstantial.

iv. Land laws related to mine closure lack clarity on the transfer of land post closure for promoting repurposing.

The land-related laws, such as the Coal Bearing Areas (Acquisition and Development) Act, 1957 (CBA Act) and the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and

Resettlement Act, 2013 (LARR Act), lack clarity on mechanisms of transferring the land to the state government once mines are closed.

There is also a lack of synergy between the provisions of the CBA Act and the coal mine closure guidelines. While the CBA Act remains ambiguous about returning the mining land to the concerned government authorities post closure, and therefore the land remains with the coal companies, the guidelines specify that the land needs to be surrendered to the state government after undertaking all final mine closure activities and obtaining a closure certificate from the Coal Controller.

Recommendations

i. Mine closure guidelines should be developed with the philosophy of maintaining economic continuity in mining areas along with ensuring environmental sustainability.

The basic philosophy of mine closure should change to develop a comprehensive mine closure framework based on just transition principles. Mine closure and post closure measures should be conceptualised and designed to ensure economic continuity in the areas where these mines have been operating, along with environmental sustainability.

The mine closure guidelines need to be revised to remove the chief focus on afforestation or bringing back the land to pre-mining conditions. The guidelines should specify that progressive and final mine closure planning should be undertaken to ensure positive social, economic, and environmental outcomes for the local community and the region post closure. The plans should also be designed in a manner to maximise the land available for repurposing for gainful economic activities.

ii. A social transition plan should be mandated as part of mine closure planning.

Social transition plans recognise the local dependence on a mine and the risks associated with the closure, and consequently create opportunities to encourage the development of sustainable post-closure options to minimise the negative impacts of mine closure on workers and the local community.

The mine closure guidelines should mandate the development of a social transition plan and outline mechanisms for implementation of the same. The social transition plan should be developed when the mining operations are still ongoing. The plan may be developed 10 years before the anticipated closure date (and revised subsequently depending on changing conditions) allowing sufficient time for social transition before the mine is closed.

A social transition team needs to be set up within the sustainability and/or just transition division of the mining company, to coordinate with internal and external stakeholders on social transition planning, determine the costs of transition, and identify necessary resources to implement the plan and monitor implementation measures.

iii. The financial provisions for mine closure for operational mines should be revised based on a well-defined methodology that is site and context-specific and includes social transition costs.

The costs of mine closure should be based on a well-defined and documented cost-estimating methodology that is project and site-specific. The cost estimation should be based on general and site-specific cost assumptions, and site uncertainties, risks, and contingency measures. The methodology should also integrate the costs of social transition.

The closure cost estimates of a mine need to be regularly reviewed to reflect changing circumstances and levels of risk. This will ensure that the accuracy of closure costs is refined and improved with time, and will assist with effective and timely management and mitigation of closure risks.

iv. A methodology should be separately developed for estimating the closure costs of non-operational (closed before 2009) mines.

A specific methodology and formula should be developed for determining the closure costs of 'non-operational mines', including discontinued, abandoned, and closed mines. For mines where only a 'temporary mine closure plan' should be prepared (such as for discontinued mines), a separate method for cost estimation should be developed.

Overall, the Government may consider developing a detailed guideline for the closure of non-operational mines, including outlining mechanisms of preparing mine closure plans for such mines to maximise the scope of repurposing the land for economic use, and estimating closure costs accordingly.

v. The land-related laws need to be amended to maximise the scope of repurposing.

While the industry has an important role to play in land repurposing, outlining mechanisms for returning the land to the state government will be important for maximising the scope of land repurposing. This will require amendments to be introduced in the land laws.

The CBA Act needs to be revised to provide specific directions on the surrendering of land once mines are closed. The revisions in the Act should be synergised with the coal mine closure to allow the surrendering/transfer of the land to the concerned state government. Similarly, amendments need to be introduced in the LARR Act, to allow returning the public land post closure (and after acquiring the closure certificate) to the concerned government, synergising with the provisions of the coal mine closure guidelines.