





REPORT OF THE INTER-MINISTERIAL COMMITTEE ON JUST TRANSITION FROM COAL

Under Sustainable Growth Pillar of India-US Strategic Clean Energy Partnership









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COMPOSITION OF THE COMMITTEE ON JUST TRANSITION FROM COAL



SI. No.	Name and designation	Role
1.	Sh. BP Pati, Joint Secretary, Ministry of Coal	Chairman
2.	Sh. PN Sharma, Controller of Mines, Indian Bureau of Mines	Member
3.	Sh. Narayan Dash, ED (Safety), Coal India Ltd	Member
4.	Sh. Om Kant Shukla, Director, TETD Div., Central Electricity Authority	Member
5.	Sh. Jagdish Prasad Verma, Director of Mines Safety (Mechanical), Directorate General of Mines Safety	Member
6.	Sh. Abhijit Sinha, GM (Env), Central Mine Planning and Design Institute	Member
7.	Prof Biswajit Paul, IIT (ISM), Dhanbad	Member
8.	Sh. Ashok Srinivas, Prayas (Energy Group)	Member
9.	Ms Apurva Chaturvedi, Sr Clean Energy Specialist, USAID/India	Member
10.	Mr Leon Clarke, Professor, University of Maryland	Member
11.	Ms Bethany Speer, Group Manager, National Renewable Energy Laboratory	Member
12.	Mr. Nikit Abhyankar, Scientist, Lawrence Berkely National Laboratory	Member
13.	Mr Alex Wood, Director, Department of Energy, USA	Member
14.	Sh. Kamil KPS Bhullar, Research Officer, NITI Aayog	Member Convenor

Terms of Reference

- i. The committee will develop actionable policy brief for India for the coal sector, which includes design and testing of policy frameworks that would offer economic opportunities from clean energy value chains to communities negatively impacted by the declining use of coal.
- ii. The committee will carry out a detailed analysis of stranded coal assets and human-centric approach to energy transition in India including assessment of current projects in the pipeline, role of coal in deep decarbonization scenarios, health impacts of coal transitions.
- iii. The committee will explore regional collaboration and strategies, including, sub-national engagements between coal rich US and Indian states can help in sharing best practices on how the states are dealing with decreasing dependence on coal.

FOREWORD



भबानी प्रसाद पति, भा.व.से. संयुक्त सचिव **Bhabani Prasad Pati, IFS** Joint Secretary



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GOVERNMENT OF INDIA
कोयला मंत्रालय
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Foreword

India's current primary energy mix constitutes more than 80% fossil based energy resources. Coal will continue to play a critical role in meeting India's energy requirements for the next few decades. However, as India has taken strides towards clean energy transition and Net Zero by 2070, we envisage significant structural change in the production and consumption of fossil fuels by the economy in the long run. These changes will have a significant influence on the workforce, the local community, and the economies of the districts and states, especially those dependent on coal for income and employment.

The report of the inter-ministerial committee on just transition has examined the key issues to be addressed and the pre-requisites required for a just transition. Based on this the committee has made recommendations with respect to an action plan and an implementation framework. The Ministry of Coal is already working in collaboration with World Bank on closure of mines based on just transition principles. Given this context, this report will add to the discussion around the important policy and institutional issues around just transition.

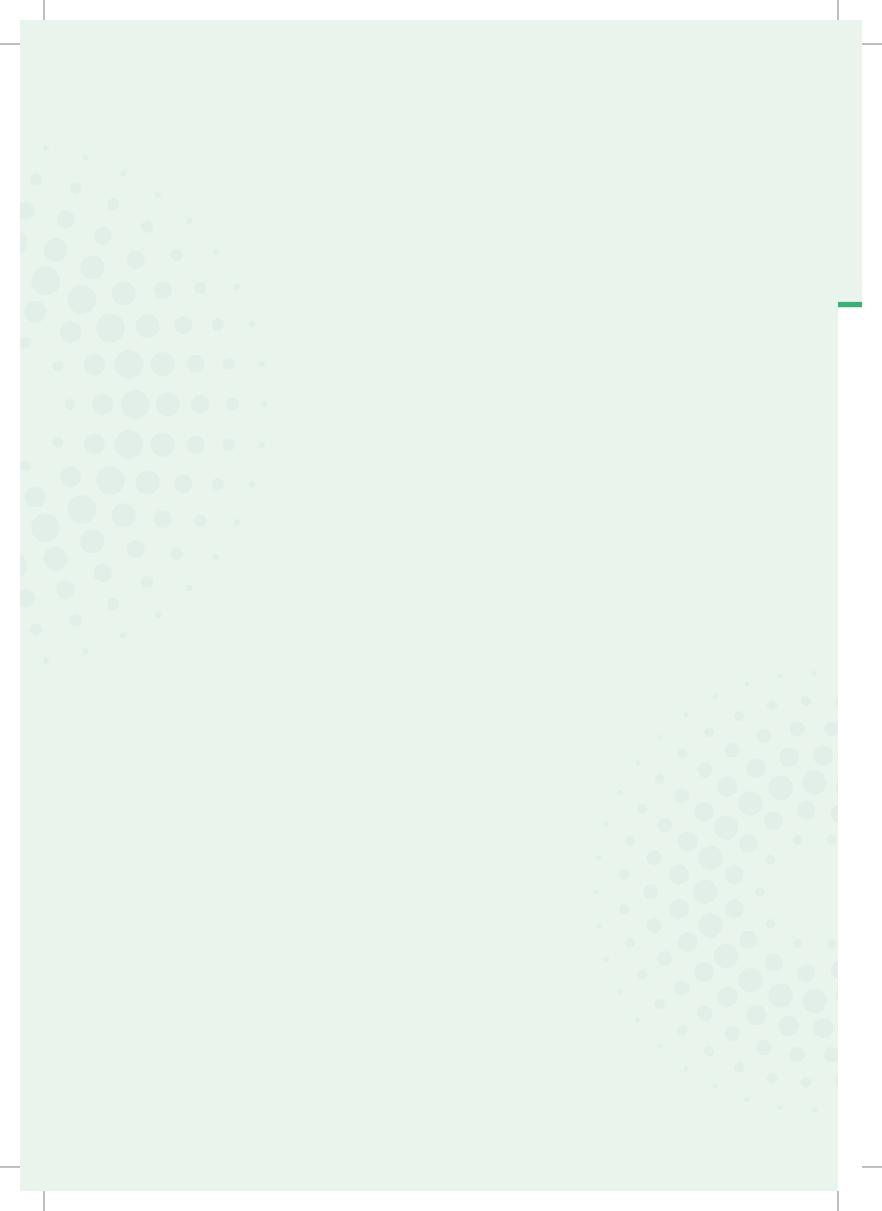
The committee saw the participation of various stakeholders such as ministries/departments, coal related public sector units, academic institutions, think tanks and US lab/agencies, including USAID. I would like to thank all committee members for their valuable contributions to the report.

Bhabani Prasad Pati Joint Secretary Ministry of Coal



CONTENTS

	Committee on Just Transition from Coal	iii
	Foreword	V
1.	Background	1
2.	Introduction	2
3.	Key Issues to be Addressed	4
4.	Pre-requisites to Enable a Just Transition	6
5.	Proposed Action and Implementation Framework	8
	5.1. Institutional architecture to enable implementation of just transition framework	8
	5.2. Action and implementation framework	10
6.	Conclusions and Next Steps	14
Annexure 16		





1. BACKGROUND

In a meeting of Sustainable Growth Pillar held on 12th July 2021 under India-US Strategic Partnership, it was decided to enhance cooperation in the fields of Energy Data Management, Low Carbon Technologies, Carbon Market & Just Transition in Coal Sector and form four committees involving Indian and US counterparts in respective fields.

Accordingly, the committee on Just Transition in Coal Sector involving 18 members from India and US was constituted with following terms of reference:

- i. To develop actionable policy brief for India for the coal sector that includes design and testing of policy frameworks that would offer economic opportunities from clean energy value chains to communities negatively impacted by the declining use of coal.
- ii. To carry out detailed analysis of stranded coal assets and human-centric approach to energy transition in India including assessment of current projects in the pipeline, role of coal in deep decarbonization scenarios, health impacts of coal transitions.
- iii. To explore regional collaboration and strategies, including, subnational engagements between coal rich US and Indian states can help in sharing best practices on how the states are dealing with decreasing dependence on coal.

Based on the discussions held and inputs received from various committee members, the present report on Just Transition in Coal Sector has been prepared.



2. INTRODUCTION

India is the second largest consumer of coal and coal has hitherto played a crucial role in India's energy sector, accounting for 55% of the country's energy needs and over 75% of its electricity needs. In addition, coal is also a vital ingredient and energy source in production of many important material/products viz. Steel, Cement, Fertilizer, Paper etc. With significant availability of indigenous coal reserves and its affordability, coal is likely to continue as primary source of energy for a considerable period of time to meet the developmental needs of rising economy.

Although in line with NDC goals and commitments made in its Panchamrit declaration at COP 26, India will push for renewable/non-fossil based energy, but share of coal in the energy basket is going to remain significant in foreseeable future. Coal demand is yet to peak. The draft Economic Survey 2021-22 projects coal demand in the range of 1.3-1.5 billion tonnes by 2030, an increase of 63 per cent from the current demand. As per one of the assessments of NITI Aayog, although there may be 10 % drop in share of Coal in Primary energy supply in 2035 (BAU) but quantum of coal demand may rise 1.40 time due to increased energy demand driven by rising economy. The IEA also estimates that the share of coal in the overall energy mix steadily declines to 34% in 2040; however, overall demand for coal still remains stronger to meet the rising energy demand of rapidly developing economy. So, any coal transition and related activities are not envisaged both in short and medium term. Rather, new coal mines are going to be open in future to meet the energy and coal demand, which includes consolidation in favour of big mines. Also, there would be significant coal demand for projected adoption of clean coal technologies such as coal gasification, coal liquefaction etc. Given this, NITI Aayog has set up an expert group to look at coal demand and guide investments in the coal sector.

In such a situation, coal consumption in the country is likely to peak somewhere between 2035 and 2040 and may undergo gradual tapering thereafter. This may result in phase-wise measured closure of mines – starting from low capacity mines requiring closure on just transition principles. Besides, coal mines will also close

down in the intervening period due to exhaustion of reserves, safety problems, viability issues etc., requiring proper closure to ensure that there is no loss of income for people dependent on these mines.

In order to ensure that livelihood of people dependent on coal mines, coal washeries etc., (collectively referred to as an 'asset' or a 'coal-based asset' henceforth) and connected community services are sustained post closure, we need to frame a policy and start capacity building right from now to ensure that coal assets are closed seamlessly on principles of just transition. This will enable coal sector developing a comprehensive mine closure framework and robust capacity for implementing mine closure practices on principles of just transition in coal sector by the time tapering of coal demand starts in the long run.

The coal sector is deeply interconnected, not only to other sectors, but also to the local communities. Coal bearing regions have been subsumed into mainly monoculture societies centred around coal mining and its use. This has led to heavy economic and social dependence on the coal sector, with it affecting livelihoods, infrastructure, environmental conditions, state revenues, and quality of life in these regions. Coal in India occurs in states which are economically disadvantaged. People derive some sort of earning directly from mining activities in such areas and indirectly from allied activities.

Thus, the closure of coal-based assets, while an integral part of the transition in the long run, is going to be disruptive to the sector in general and the local communities in particular. But it also provides an avenue to address existing development challenges and provide better opportunities to the concerned communities. It also provides opportunities for reimagining development in these regions, focusing not only on addressing the challenges but also meeting aspirations of the affected communities. Strategising and high-level planning for such reimagined development should happen in a comprehensive manner, across interconnected sectors, at the regional/district level. The rollout, however, will occur at the local/community/asset specific level.

To address these complex and inter sectoral issues, the committee proposes a multi-level action and implementation framework with an aim to build a firm base and capacity to enable seamless handling of closure of coal-based assets happening in long term in a just manner. Toward this end, the suggested framework aims to address the key challenges brought about by the closure of coal-based assets, listed in Section 3. The following section, Section 4, outlines some pre-requisites to enable closure of coal assets on principles of just transition based on the action and implementation framework, proposed in Section 5. Section 6 concludes the report with a summary of the proposed action items and next steps.

3. KEY ISSUES TO BE ADDRESSED



- i. **Livelihoods:** The coal sector provides employment to many people in coal bearing areas, either directly through mining companies, or indirectly through contractors used by the mining companies. People are also employed downstream in the coal value chain, for instance in coal transport services. In addition, many aspects of the local economy are directly or indirectly supported by coal. Closure of coal mines would impact local economies, cause the loss of formal and informal jobs, and affect small enterprises. Any strategy for promoting just transition must address this challenge, and include development of alternate options for employment, such as retraining and reskilling of affected populations, restoration of traditional livelihoods, and identifying new employment and entrepreneurship opportunities¹.
- ii. **Community health:** Communities living in coal regions are provided facilities of medical care through the hospitals/dispensaries run by coal companies. The mine closure framework should ensure that such facilities are continued in some way in post closure period. Also, the entire mining area should be closed in a manner to ensure that the water and air regime is free from any harmful contaminant and land area is stabilized in environmentally sustainable manner.
- iii. **Physical and social infrastructure:** Often, in coal bearing regions, there is lack of sufficient public infrastructure, and poor access to education and clean drinking water. Public sector entities (such as Coal India Ltd.) are known to set up infrastructure in these regions and provide access to these amenities. For instance, schools, hospitals and roads set up by the mining company is used by the local community. The community may also be supplied with water for domestic and irrigation purposes. The framework/policy need to ensure that such social & physical infrastructure is sustained post closure.

¹ Post closure assets could be redeveloped or used to promote livelihood options that are appropriate to the region and consistent with the regional development priorities. For example, livelihood options such as fisheries, tourism enterprises, agro-based or other industries etc. could be developed.

- iv. Repurposing of resources: The coal economy has significant impacts on natural resources such as land, water, and air. Coal mining, particularly the nationally predominant open cast mining, changes the land form by creating large pits and overburden mounds. Loss of forests and biodiversity is also seen with coal-related projects. Redressal of these impacts on the local environment is a challenge that must be dealt with as part of coal mine closure. Additionally, in some cases, it may be possible to repurpose the natural and physical assets to aid in the area's redevelopment. Such options should be explored, while also addressing issues regarding the ownership of such assets.
- v. **Public Finance:** Coal mining and associated activities contribute significantly to the state revenue in coal bearing states. This contribution includes revenue from royalties on mining, District Mineral Fund contributions, and share of GST. The loss of such revenue could impact existing state finances and public spending, and worsen regional inequities. This aspect need to be considered in the policy for just transition.

For effective implementation of a just transition framework, the required preliminary actions are outlined in Section 4. Supported by these enabling actions, the action and implementation framework suggested in Section 5 proposes a comprehensive, consultative, evolving and proactive approach to address the key issues outlined in this Section.

4. PRE-REQUISITES TO ENABLE A JUST TRANSITION



- i. **Coal Transition Policy:** Given the complexity and long duration of the transition, a well-defined policy framework will be required. This will provide the necessary administrative and legal backing to the proposed actions. It is recommended that the Centre should develop a coal just transition policy along the lines suggested in Section 5. This policy should be finalised after adequate consultations with relevant stakeholders (in particular, the concerned states) and providing the general public an opportunity to comment on the policy. The policy should be periodically (say, every five years) revisited and refined based on gathered experience.
- ii. **Regional development framework:** Coal-bearing states should prepare a broad framework and plan for a post closure future in these regions, based on consultations with the local communities. This framework can guide asset-specific redevelopment plans.
- iii. **Geospatial survey of coal bearing areas:** In order to understand the extent of assets being dealt with, and the ground reality regarding the landscape, a detailed geospatial survey of coal bearing regions could be carried out to prepare a roadmap for coal mine closure.
- iv. **Financing:** The transition is likely to require significant financial resources (e.g., for ecological restoration in legacy mines, developing new employment opportunities, industries, reskilling and retraining etc.). Moreover, the coal mine closures in short and long term is likely to adversely affect the finances of coal bearing regions that are already typically resource-starved. Therefore, the Centre should support the just transition process in coal mines by providing requisite financial assistance beyond the means of the project proponent and the concerned state government. Towards this end, a dedicated non-lapsable "Green Energy Transition India Fund" could be established for the explicit purpose of aiding communities, regions and states to chart an alternative development path. Resources for such fund may be raised from various sources such as international

sources (climate finance), issuance of bonds, special levies or cesses, fines collected from polluters, existing resources such as DMF, NMET, Clean Energy Cess and so on. A well-defined mechanism for utilisation of such funds should also be developed to ensure accountability of funds usage.

The above enabling steps can provide the necessary support to ensure the effective implementation of the framework proposed in Section 5.

5. PROPOSED ACTION AND IMPLEMENTATION FRAMEWORK



The proposed framework aims to address the key issues identified in Section 3 and enable the closure of coal mines, both in short and long term on just transition principles.

As seen in Section 3, the challenges associated with the gradual transition are complex and multi-dimensional. The solutions to effectively address them are likely to be equally complex and require a lot of analysis, deliberation and consultation. The efficacy of proposed solutions, however, is dependent on their implementation.

Towards a just, timely, and accountable transition, the closure of coal-based assets must be planned and in adherence to stipulated procedures/policy, which requires a robust institutional architecture. The committee proposes a three-tier Task Force as the institutional architecture to enable just transition in coal sector happening in long term, as detailed in sub section 5.1.

5.1. Institutional architecture to enable implementation of just transition framework

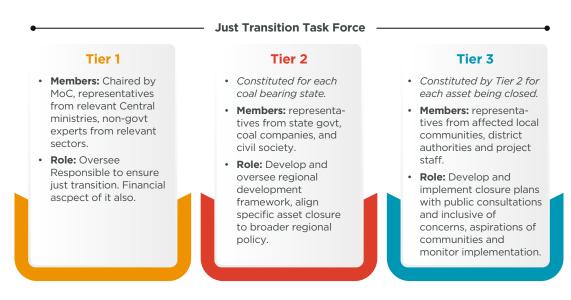


Figure 1: Institutional framework to enable a just transition

- Tier 1, instituted at the central level, should be chaired by the Ministry of Coal (MoC) and consists of representatives from relevant ministries of the Central government, including ministries related to rural development, agriculture, human resources development, environment, etc. It should also include experts from outside the government with experience in relevant sectors such as coal, human development, and environment. This tier has the broad role of ensuring just transition in the process of coal mine closure, and is responsible for setting guidelines and good practices in he process. It should ensure convergence and alignment with existing national policies and programmes, such as MGNREGA, NRHM and NRLM, with the Just Transition policy of coal sector. Its responsibilities also include aspects such as tracking upcoming asset closures, tracking progress of on going asset closures, providing technical and financial assistance as needed, etc. In order to do so, it can convene meetings with relevant members of other tiers, and develop a coordinated strategy for operationalising the suggested framework and to encourage crosslearning across states and assets. Tier 1 should be constituted soon after the Just Transition Policy for coal sector is finalised by the Government.
- Tier 2, instituted at the state level for each coal bearing state, consists of representatives from the corresponding state government, representative from coal companies operating in the State, labour representatives and transition experts from civil society in relevant areas. This tier is responsible for ensuring that the state's concerns (such as employment, revenue, repurposing of resources, etc.) are addressed. In addition to overseeing the plans for each asset closure in that state, Tier 2 is also responsible for developing the regional development framework to include broader regional actions to enable closure of coal mines with just transition principles. This includes providing the necessary skilldevelopment or reskilling, running entrepreneurship programmes, coming up with appropriate industrial policies etc. Tracking and addressing the loss of state revenue from such asset closures also falls under the purview of this tier. Tier 2 is also responsible for aligning existing state policies (related to employment, entrepreneurship, resource repurposing, etc.) and asset-specific closure plans with the regional development framework. Tier 2 should be constituted soon after the Just Transition Policy for coal sector is finalised by the Government.

Tier 3 will be constituted by Tier 2 for each asset being closed. They should be constituted at least 4 years before the asset is closed, so that a consultative asset-specific redevelopment and repurposing plan as detailed in Section 5.2 can be completed before the asset closure.

iii. Tier 3 consists of representatives from the affected local communities, representatives from the project staff and corresponding district administration and agencies. This tier is mandated to develop and implement the redevelopment and repurposing plan (as suggested in Section 5.2) for each asset that is being closed, based on public consultations. This tier is responsible for ensuring that the concerns and aspirations of the community are captured in the framework for the specific asset closure, and its implementation. If local district administrations do not have the requisite capacity for this, they should be strengthened accordingly. Tier 3 may also hire external consultants to assist them with their tasks but the responsibility remains with them.

The lifetime of Tier 3 is based on the particular asset's closure plan.

The proposed Task Force should be constituted with sufficient expertise and capacity to fulfil its mandate. Moreover, it should have a dedicated, functional, publicly accessible website, where details of all the Task Force members are kept up to date. This website should also become the repository for all the reports and plans related to coal asset closure, and should be kept regularly updated. Towards ensuring accountability and accessibility, the reports uploaded on the website should also be available in local languages.

The tiers of this Task Force, individually and jointly, are responsible for the effective implementation of the framework suggested in sub section 5.2.

5.2. Action and implementation framework

Prepare and publish an annual report on planned coal-based asset closures: While some details regarding mine closures are currently reported in various sources, we recommend that such reporting is mandated and streamlined. A detailed list of coal mines, washeries, and other assets that are due to be decommissioned should be prepared and made available on an annual basis. This report should be published by a pre-determined date every year (for example, Dec 31st) and should list coal-based assets up for decommissioning/retirement/closure over the next five year period. (For instance, if the first such report is published in Dec 2022, it should contain information of closures in FY 2023-24, FY 2024-25, FY 2025-26, FY 2026-27, and FY2027-28). This should provide sufficient advance notice and give a window to undertake the steps required to take up the closure on principles of just transition.

For coal mines and washeries, in addition to project information (name, location, peak rated capacity etc.), the report should carry details regarding the proposed date of closure, amount deposited in escrow account for closure, and a link to the progressive and final mine closure plan (and any monitoring reports of the same). Some of this information may be available in the mine closure plan, and can be reused from there. The Coal Controller's Organisation (CCO) should compile this report on an annual basis and make the same available to the public on their website and share it with the Task Force for publication on its website before the pre-determined date.

Tier 1 of the proposed Task Force should ensure that these reports get published annually, and CCO are held accountable for it.

- on wide-spread consultations: As established in earlier sections, coal-based assets are deeply interlinked with local communities. Given that the closure of these projects is going to particularly impact them, strategies for project closure, and the way forward, must include perspectives from community stakeholders. Toward this end, for each coal-based asset that is to be closed, a redevelopment and repurposing plan must be prepared and got approved from Tier 2 level Task Force at least 3 years prior to the expected date of closure. The plan must include strategies to address the impact the coal sector has had on the livelihoods, community health, infrastructure, natural resources, and public finance (elaborated in Section 3) in that region. The redevelopment and repurposing plan should:
 - a. be developed based on public consultations with all affected parties and communities
 - b. be broadly consistent with any regional or district level development plans
 - c. include year-wise strategy (From 3 years before closure of asset till the year of hand over of the site after closure of site in all respects) and action plan to address the challenges of livelihood loss, impact on community health, physical and social infrastructure, repurposing of resources, and impact on public finances (key issues listed in Section 3)
 - d. include details on operationalising and financing of the plans each year
 - e. include the provisions made in the existing mine closure plan of coal asset

At present, mine closure for all the projects, including provisions for an escrow fund, has been planned and mine closure plan (MCP) for every project has been approved. This has been done as per Mine Closure Guidelines, 2013. The MCP is now merged with the mine plan and guidelines to this effect has been issued vide OM dated 29th May, 2020 from MoC. A mine closure status report has also been prepared for mines that were closed prior to issuance of MCP Guidelines, 2009. The mine closure plan and guidelines issued by MoC vide OM dated 29th May 2020 (and its earlier variants) include some technical, financial, social and environmental aspects of asset closure. The redevelopment and repurposing plan may borrow from the mine closure plan for all overlapping issues in consonance with the views of the local communities. The Ministry may also consider revising the mine closure guidelines to include some of these aspects.

The responsibility for preparing such a plan is with Tier 3, based on guidance from Tiers 1 and 2. The funding for developing such a plan must come from the project proponent (whose asset is being closed) and the State and Central government. Creation of a special fund at Centre has already been proposed earlier. Part of DMF fund may also be allocated for the purpose.

For each asset closure, Tier 2 of the Task Force must constitute and oversee Tier 3, which should prepare the redevelopment and repurposing plan for the asset and should ensure that the plan is made after following due consultative process and is published on the Task Force website before the closure of the asset. They can seek assistance from Tier 1 and Tier 2 in this regard. Tier 1 and Tier 2 may get a standard template developed for preparation of redevelopment and repurposing plan.

After closure of the asset, Tier 3 or an agency appointed by Tier 3 should ensure that the asset closure activities are undertaken in accordance with the detailed phase-wise plans and timelines chalked out in the redevelopment and repurposing plan.

iii. Prepare an annual monitoring and oversight report after closure: In order to ensure that the closure is progressing as stipulated in the redevelopment and repurposing plan, Tier 3 or the agency appointed by Tier 3 for implementing the redevelopment and repurposing plan should produce an annual report. This report should track the progress of closure implementation in accordance with the redevelopment and repurposing plan, regarding all the key issues listed in Section 3. It shouldbe vetted and approved by Tier 2 of the Task Force. This annual progress report should be made available publicly on the website of the Task Force. These measures will ensure public accountability for timely and proper implementation of the redevelopment and repurposing plan. Tier 3 should remain active and in-force until the entire redevelopment and repurposing plan is implemented and the various tiers of the task-force have signed off on its successful implementation.

A schematic diagram of the action and implementation framework is illustrated in figure 4.

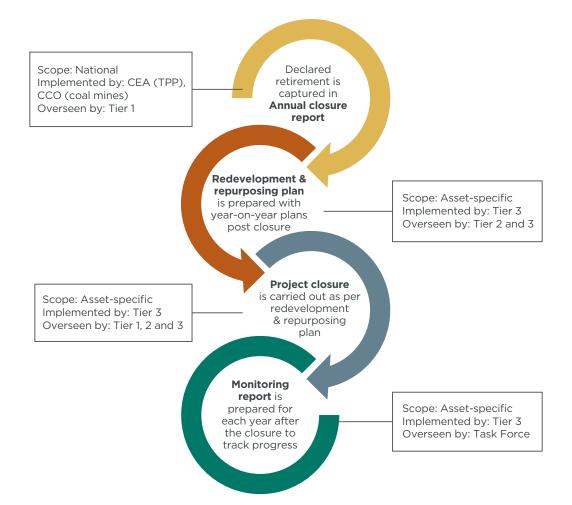


Figure 2: Action and implementation framework

6. CONCLUSIONS AND NEXT STEPS



While the transition away from coal is going to be set over a multi-decadal time frame, some coal mines may close down due to exhaustion of reserves, safety reasons and viability issues. As discussed earlier, such mine closures happening in short term and closures happening in long term due to tapering of coal demand will have impact on the livelihood of local community and also on the economy of coal regions and will present social disruptions, challenges, and opportunities. In order to handle the mine closures happening in long term and also ensure that the long term transition does not take place in an ad hoc fashion, and the affected communities concerns and aspirations are addressed, it is crucial to have a comprehensive mine closure framework, a robust plan and policy in place. Toward this end, the Committee recommends the adoption of the framework suggested in this document. Broadly, this consists of the following steps:

- i. Developing a just transition policy for handling closure of coal mines based on the suggested action and implementation framework and undertaking the associated enabling actions
- ii. Identifying sources of funds to support the said just transition, and developing guidelines for utilisation of such funds to enable the envisaged just transition along the lines proposed
- iii. Setting up a three-tiered Task Force that will be responsible for the operationalisation of the proposed just transition policy
- iv. Ensuring closure related activities are carried out in accordance with the stipulated policy
- v. Developing redevelopment and repurposing plans for each coal asset closure with extensive involvement and consultation with local communities
- vi. Making all information (reports, data etc.) publicly available to enhance accountability, and transparency

An institutional and operational architecture as recommended would help India navigate the challenge of coal mine closures that may happen in short and long term, as deliberated earlier, in a just manner that utilises it as an opportunity to enhance the lives of communities currently dependent on and affected by coal directly or indirectly.

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NITI Bhawan, Sansad Marg New Delhi, Dated 7th September 2021

OFFICE MEMORANDUM

Subject - Constitution of the committee on Just Transition in Coal Sector

The undersigned is directed to convey that a meeting of the Sustainable Growth Pillar under the India-US Strategic Partnership was held on 12th July 2021. Both sides deliberated on the enhanced cooperation in the fields of Energy Data Management, Low Carbon Technologies, Carbon Markets and Just Transition in Coal Sector. It was decided that four committees of Indian and US counterparts would be formed in these fields.

2. Accordingly, it has been decided to form the committee on Just Transition in Coal Sector with the approval of Competent Authority having the following composition;

Sl. No.	Member	Position
1	Sh. BP Pati, Joint Secretary, Ministry of Coal	Chairman
2	Representative from the Ministry of Mines	Member
3	Representative from Coal India Ltd	Member
4	Representative from NITI Aayog	Member
5	Representative from Central Electricity Authority	Member
6	Representative from Coal Controller's Organisation	Member
7	Representative from Singareni Collieries Company Ltd	Member
8	Representative from Neyveli Lignite Corporation	Member
9	Representative from Directorate General of Mines Safety	Member
10	Representative from Central Mine Planning and Design Institute	Member

11	Representative from Prayas (Energy Group)	Member
12	Representative from IIT ISM Dhanbad	Member
13	Representative from USAID	Member -
14	Representative from Department of Energy	Member
15	Representative from Pacific Northwest National Laboratory	Member
16	Representative from Lawrence Berkeley National Laboratory	Member
17	Representative from National Renewable Energy Laboratory	Member
18	Sh. Kamil KPS Bhullar, Research Officer, NITI Aayog	Member Secretary

- 3. The broad terms of reference of the committee are as follows;
 - The committee will develop actionable policy brief for India for the coal sector, which
 includes design and testing of policy frameworks that would offer economic
 opportunities from clean energy value chains to communities negatively impacted by
 the declining use of coal.
 - ii. The committee will carry out a detailed analysis of stranded coal assets and humancentric approach to energy transition in India including assessment of current projects in the pipeline, role of coal in deep decarbonization scenarios, health impacts of coal transitions.
- iii. The committee will explore regional collaboration and strategies, including, subnational engagements between coal rich US and Indian states can help in sharing best practices on how the states are dealing with decreasing dependence on coal.
- 4. The Ministries/organisations are requested to nominate suitable officer/representative as member of the Committee at the earliest. The Committee is required to submit its report within two months from its first meeting.

(Kamil KPS Bhullar) Research Officer Tel-011-23042462

Kamil Bhiller

To,

- 1. The Secretary, Ministry of Mines (with request to nominate suitable officer)
- 2. Chairman, Central Electricity Authority (with request to nominate suitable officer)

- 3. Chairman, Coal India Ltd
- 4. Coal Controller, Coal Controller's Organisation
- 5. Chairman, Singareni Collieries Company Ltd
- 6. Chairman, Neyveli Lignite Corporation
- 7. Director General, Directorate General of Mines Safety
- 8. Chairman-cum-Managing Director, Central Mine Planning and Design Institute
- 9. Director, IIT ISM Dhanbad
- 10. Ashok Sreenivas, Prayas (Energy Group)

Copy to,

1. PS to Sh. BP Pati, Joint Secretary, Ministry of Coal

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