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Just Transition for Enabling Green & Inclusive Growth in Jharkhand

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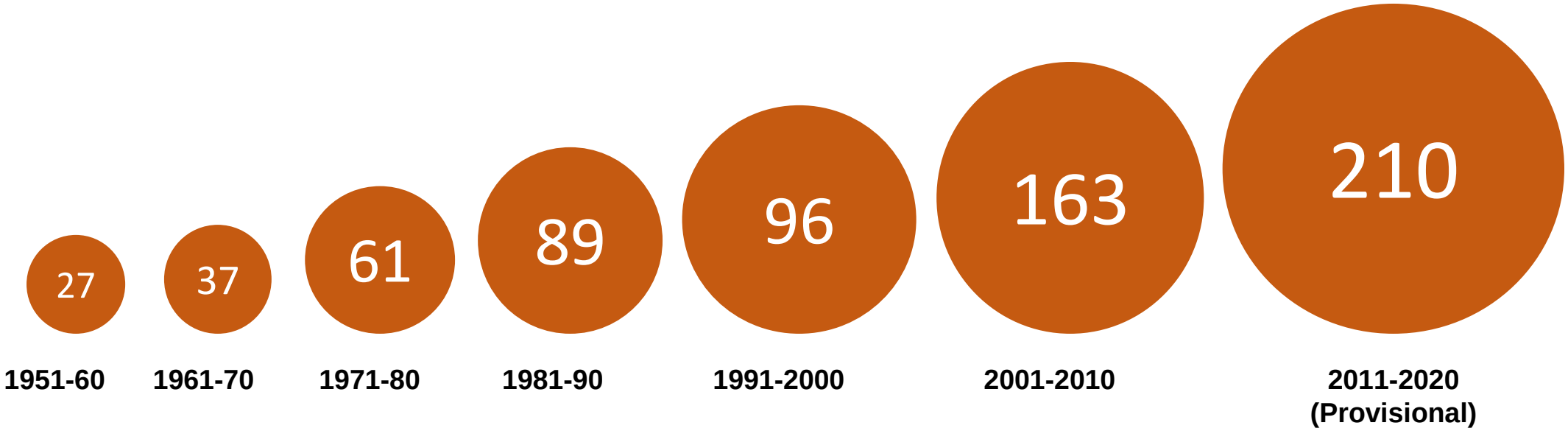
India's climate vulnerability

Number of extreme weather events are increasing steeply --- flood, heatwave, drought.



To deal with the crisis TARGETS are set

1.5°C temp. increase

Net Zero by 2070

Energy Independence by 2047

International Targets

National Targets

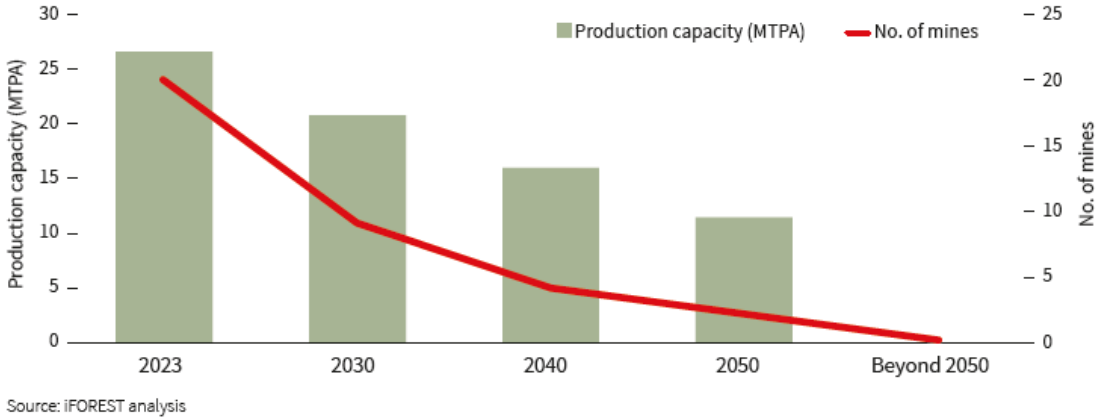
Meeting these targets will require transformative changes in our economic systems (in which our energy use is embedded), as well as our lifestyles in the shortest time.

What Just Transition mean for India & Jharkhand?

A just transition will:

- Substitute the coal and coal-related industries with green industries and economic activities.
- Should be a broad-based socio-economic development, requiring structural changes.
- Create decent work opportunities and social support systems for the people whose lives and livelihood are likely to be affected by the energy transition.
- Improve the socio-economic and environmental conditions of coal mining areas.
- Should be an inclusive process to have a shared vision for a sustainable economy.
- **A just transition should help in eradication of poverty, promotion of green growth, creation of decent work and quality jobs, and supporting pathways for sustainable development during the process of decarbonization.**

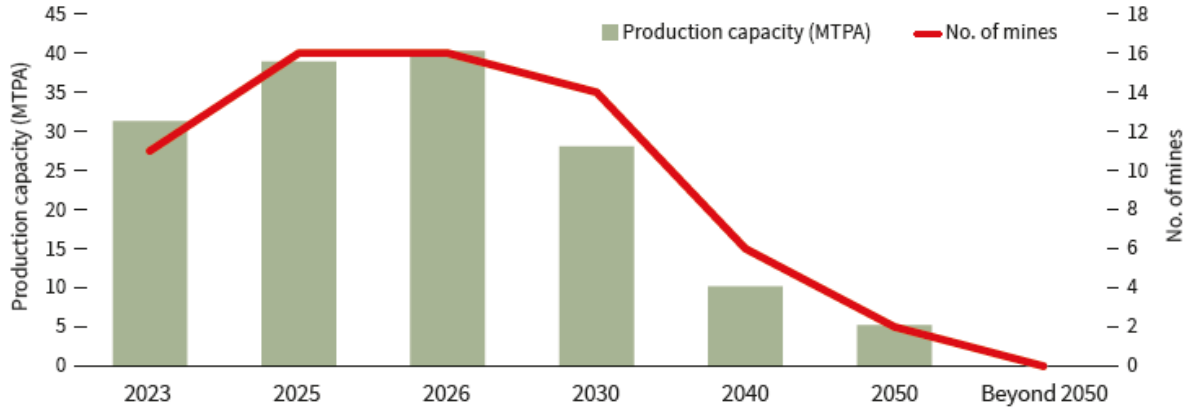
Next 10 years are critical to planning the transition



Source: iFOREST analysis

Ramgarh

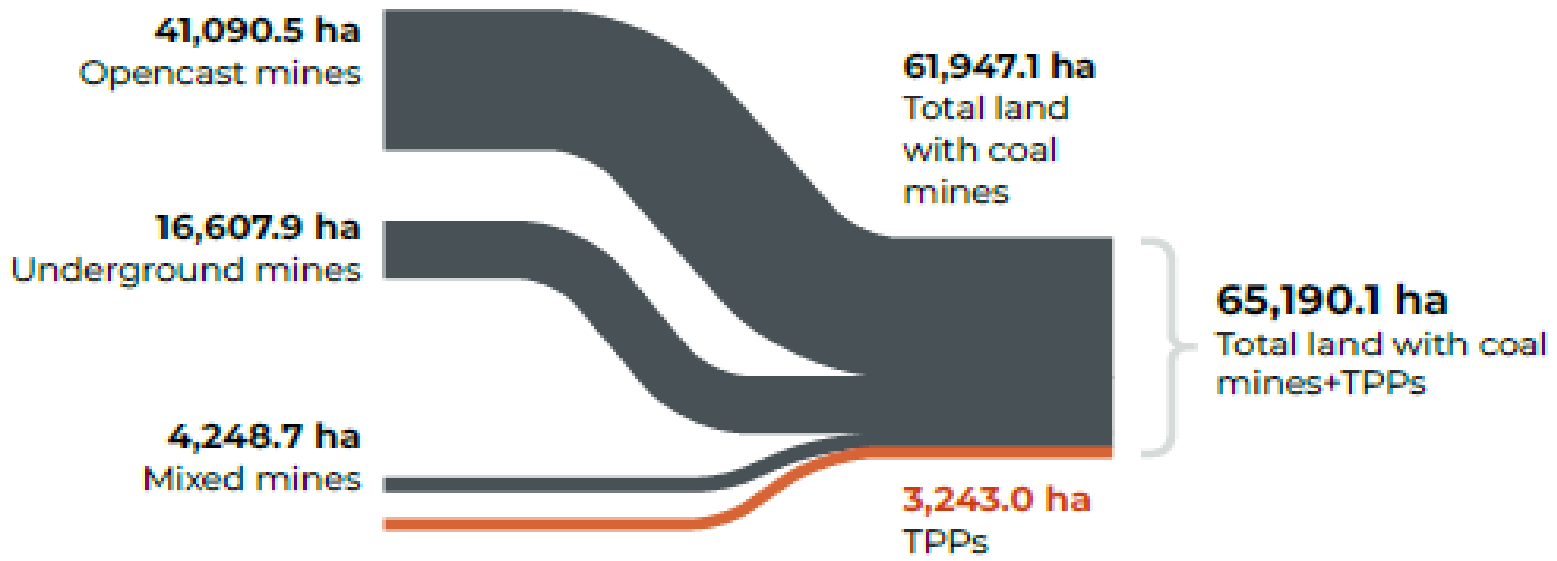
Bokaro



Source: iFOREST analysis

Reclamation and repurposing of coal mining land a crucial opportunity

Over **45,000 ha of land** **available with opencast and mixed mines** is a prime opportunity for repurposing



Source: Land area as per latest available environmental clearance letters of coal mines and TPPs

Top districts with coal mining land

1. **Dhanbad- 36%**
2. **Ramgarh- 18%**
3. **Hazaribagh-10%**
4. **Bokaro-9%**
5. **Chatra- 5.4%**

Opportunities for Just Transition & Sustainable Development in Mining Areas

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Economic

Employment Generation and Local Revenue Substitution

- Large amount of land available with operational and non-operational mines can be repurposed for economic activities/investments to create jobs and substitute revenue.
- Over 3.5 lakh hectares under operational leases, 62% of OC operations.
- Additionally over 287 abandoned/discontinued mines.

Social

Social Infrastructure and Welfare Services

- Infrastructure available with coal companies can be repurposed for local needs- education facilities, training centers, healthcare facilities, etc.
- Colonies can be repurposed particularly for low-income housing.

Environmental

Improved Environmental and Ecological Conditions

- Improvement in air, water and soil conditions. Has implications for public health and livelihood. Improvement of local biodiversity.

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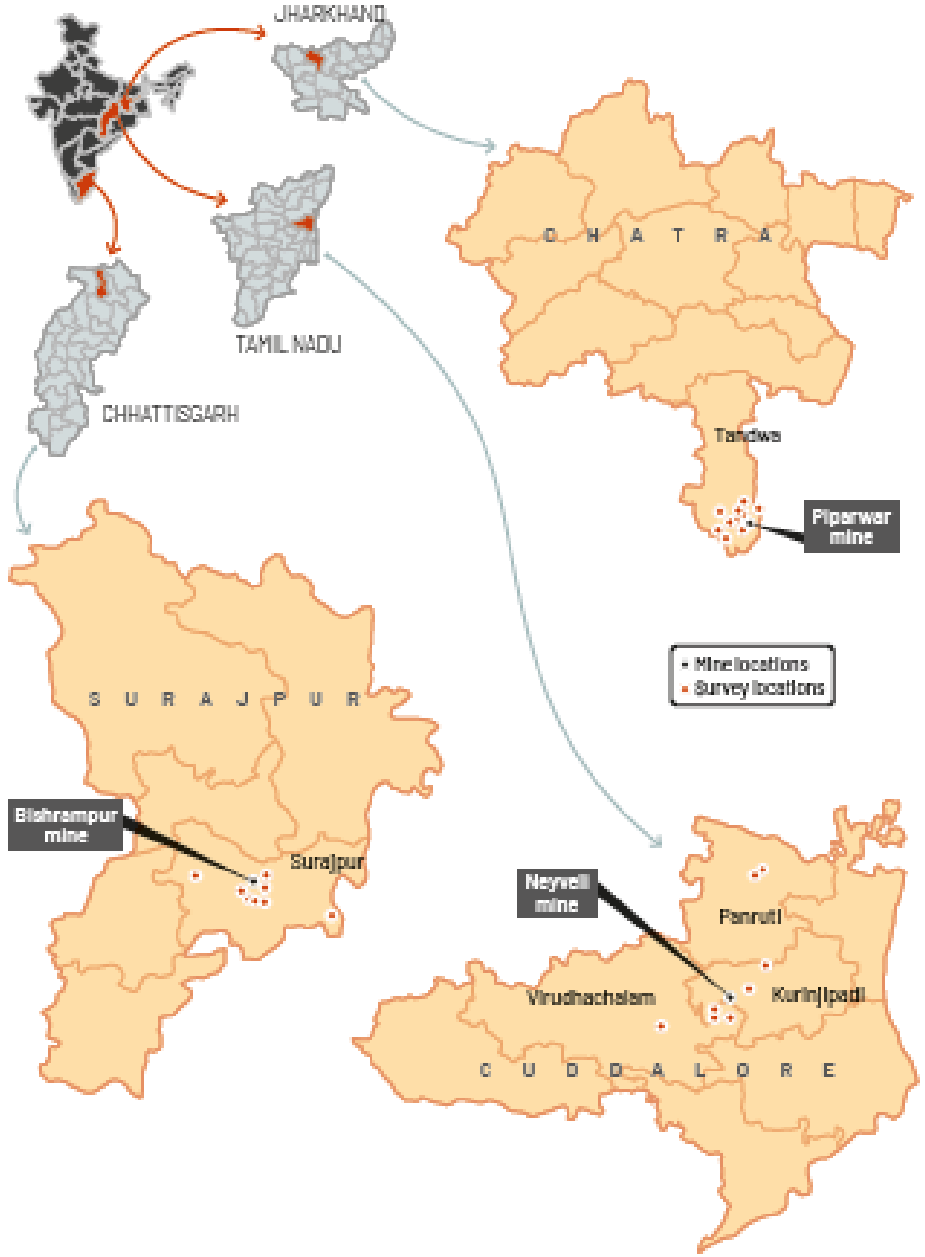
Practices of Mine Land Reclamation and Re-purposing

Experiences from key mining states

Scope of case studies

- 450 household surveys, and stakeholder consultations.
- Assess the impact of the closure of the concerned mine(s), specifically in terms of employment and local economic activities (such as businesses), impacts/benefits of the reclamation and repurposing activities for the local community.
- Engagement of the local community in the decision-making process of mine reclamation and repurposing.



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Key observations

Community characteristics- coal dependence

1. Coal mining is the primary source of livelihood around the mines, especially within 5 km radius- **in Piparwar 30% workers are dependent on coal mining** (including in washeries), in Neyveli 57%. However, in areas with low-producing old mines employment dependence declining, such as in Bishrampur it is 19%.

2. Coal mining is also the best paying jobs in these areas, especially for the departmental employees of the companies and regular contractual workers.

3. The mining districts and blocks are, however, mono-economy regions, which makes them highly vulnerable to any economic shift of the industry without a proper transition plan.

Closure impacts

Indicator	Piparwar	Surajpur	Neyveli Mine I
Jobs	Negligible impacts on formal workers; impact on informal workers	Negligible impacts on formal workers; impact on informal workers	Not visible as compared to other case studies. But coal transport workers impacted.
Local businesses	1/3rd of businesses within 5 km radius of the mines have suffered a loss; nearly 18% businesses incurred over 50% income loss	64% of businesses within 5 km radius of the mines have suffered a loss; nearly 15% businesses incurred over 50% income loss	No significant impact captured, as limited local businesses around mines
Migration	4% households reported at least one person migrating due to lack of opportunities	33% households reported at least one person migrating due to lack of opportunities	Emerging challenge

Reclamation activities- Eg. Piparwar mines

Particulars	Area (ha)	Share of total area (%)
Plantation on backfilled area	481.3	43.4
Plantation (others)	98	8,8
Industrial area	372.9	33.6
Decoaled void	58.7	5.3
Road	7	0.6
Nala	5	0.5
Settlement	45	4.1
Undisturbed area	38.6	3.5
Lagoon	3.8	0.3
Total	1,110.3	100

Source: iFOREST analysis based on EC letter and post-closure land use plan of CCL for Piparwar mine

Reclamation details	Area (ha)
Leasehold area	1,120
Quarry area	540
Backfilled area of quarry	310
Biologically reclaimed area (until May 2024) of total lease area	293

Source: Central Coalfields Limited, 2024

Local benefits of reclamation and repurposing

- **Environmental benefits most pronounced-** over 82% of the households perceive environmental benefits as the most positive impact of the reclamation and eco-park development in Bishrampur.

- **Limited economic benefits- I**n Piparwar about 87% of surveyed households reported no discernible economic impact.

- **Limited engagement of local community-** 6-10% of households reported engagement in reclamation and repurposing.

- **Community consultation lacking:** The process of closure and reclamation is considered as a company responsibility.

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Interventions to Support a Sustainable Transformation, Green Growth & Jobs in Coal Districts

A Just Transition Plan for Mine Closure

What is necessary

1. Change of philosophy of mine closure

2. Regulatory amendments in the mine closure law and guidelines to
   a. Emphasize on new philosophy.
   b. Mandate a social impact assessment (SIA) study for mine closure (the legal basis of which is already well recognized to understand community impacts under the LARR Act 2013).
   c. Development of a just transition plan as part of final mine closure.

Change of Mine Closure Philosophy for a Just Transition

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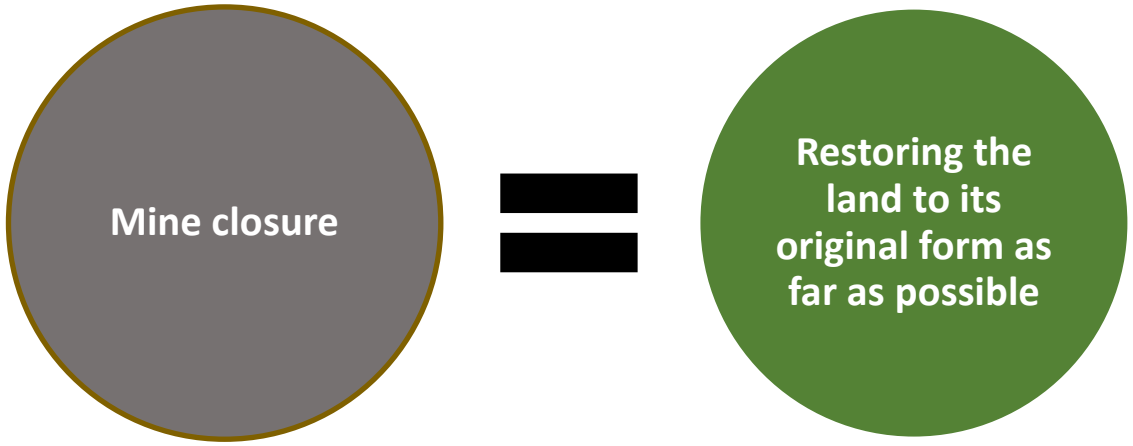
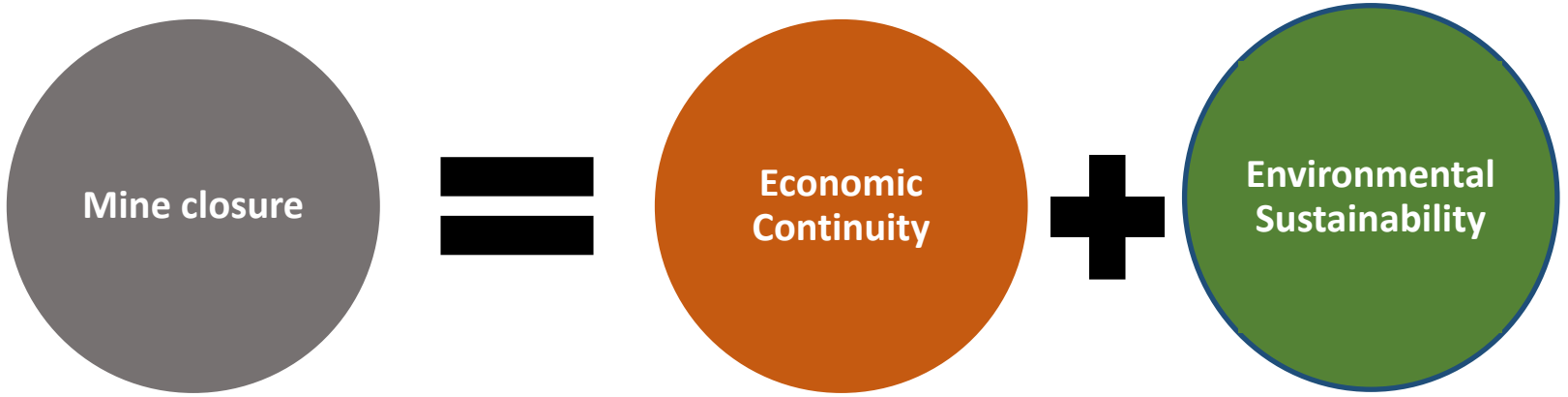
Existing philosophy



New philosophy



Instituting a Just Transition Plan as part of Final Mine Closure

1. **Revision of the Coal Mine Closure Guidelines:** Draft Guidelines issued on June 2024 addresses 'Just Transformation'. Further revisions can strengthen the guidelines

2. **Revisions of the MCDR Rules 2017 and closure guidelines:** Amendments should be introduced to mandate a **Social Impact Assessment (SIA)** study before the closure of the mines, and the preparation of a just transition plan based on the SIA study

3. **SIA and just transition plan for mine closure**
   a. The final mine closure plan, including the just transition plan, should be prepared 10 years before the scheduled closure of the mine.
   b. The plan should be based on a SIA study. All mine leaseholders, shall undertake an SIA study by an accredited agency and prepare a just transition plan
   c. The costs for implementing the just transition plan should be integrated into the final mine closure costs. This cost can be shared between the state government and the mining company.

Continued...

Elements of just transition planning	
	1. Developing a stakeholder engagement strategy
	2. Determining the zone of impact (ZOI) of the mine closure.
	3. Identifying affected workers and communities.
	4. Undertaking a SIA study of mine closure by adopting a participatory appraisal process and through social dialogue
	5. Developing the Just Transition Plan based on the SIA study
	6. Determining transition costs, including outlining potential resources

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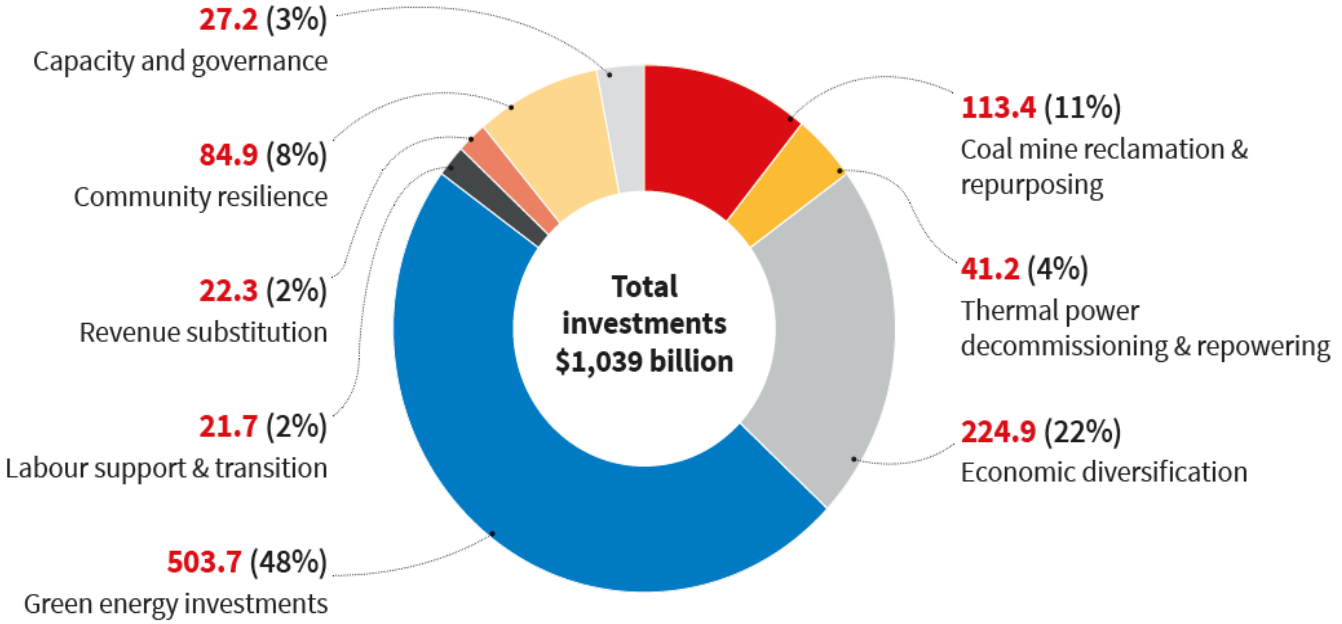
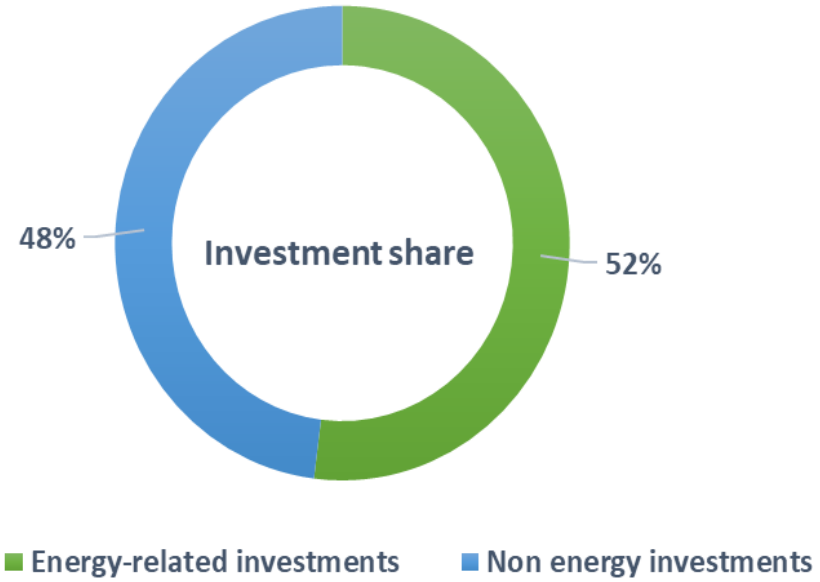
Utilisation of Coal Cess to Support Just Transition

Just Transition Costs for Coal and Thermal Power in India

More than a Trillion Dollars are required over the next 3 Decades





Coal cess a critical resource to support transition

Paid at Rs. 400/tonne of coal production, coal cess is about 40% of GST compensation cess.

Year	GST Comp cess collected (₹ crore)	Estimated amount of coal cess in GST compensation cess (₹ crore)	Share of coal cess in GST compensation cess (%)
2017-18	62,614	28,047	44.8
2018-19	97,369	40,532	41.6
2019-20	98,745	40,977	41.5
2020-21	88,338	38,868	44
2021-22	1,07,708	41,373	38.4
2022-23	1,28,286	47,034	36.7
Total	**5,83,060**	**2,36,831**	**40.6**

Source: iFOREST analysis based on Goods and Service Tax Network report on 6 year of GST.

In coal states, it is the major share of GST Compensation Fund contribution

State name	State contribution to GST compensation fund between 2017-2023 (₹ crores)	Coal cess calculation		
		Coal production between 2017-2023 (MMT)	Estimated amount of coal cess to be accrued @ actual rate of ₹400 per tonne between 2017-2023 (₹ crores) *	Share of coal cess in GST fund contribution (%)
Jharkhand	29,475	799.70	31,988	108
Odisha	38,516	988.86	39,554	97
Chhattisgarh	36,528	959.61	38,384	105
Madhya Pradesh	32,463	773.02	30,921	95

Source: Provisional Coal Statistics 2022-23, Ministry of Coal[25]; GST Council[26]
*Calculated on the basis of yearly coal production and actual rate of coal cess.

The share of coal cess as part of the compensation cess is at instances more than 100%, due to discrepancies in the actual payment period. As the the Clean Energy Cess Rules, 2010 (Section 6), the cess on coal removed for a month can be paid by the 5th of the second month, following the month in which the removals were made. As per clarifications of coal industry officials, therefore, the actual coal production and the actual cess paid (as estimated) in a financial year do not always match, considering such a time lag.

Repurposing the coal cess as Just Energy Transition Cess to support transition measures

- The coal states are some of the receiving a share from the GST compensation fund (considering the revenue shortfall incurred).

- However, if the coal cess is reinstated as a Just Transition Cess, it can be a key resource to support the transition. For this the Finance Act needs to be amended.

- **Between 2023-30 over Rs. 4 lakh crore can be generated from the cess. From 2026-30, over Rs. 2.6 lakh crore can be generated from the coal cess.**

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Domestic coal supply (in MMT)	1,012	1,098	1,192	1,294	1,404	1,488	1,577	**9,065**
Imported coal (in MMT)	178.86	172	172.50	172.50	173	171.50	170	**1,210**
Total (in MMT)	1,190.86	1,270.32	1,364.49	1,466.16	1,577	1,659.49	1,747	**10,275**
Coal cess projection @ ₹400 per tonne (in ₹crores)	47,635	50,813	54,580	58,646	63,080	66,380	69,880	**4,11,013**

Source: iFOREST analysis based on Coal Forecasting, Ministry of Coal;[33,34,35]

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Reclamation and repurposing of coal mining land integrating just transition planning & utilization of **coal cess for repurposing measures** can be vital to support transition measures in Jharkhand

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Thank you