



# Understand key elements of just transition

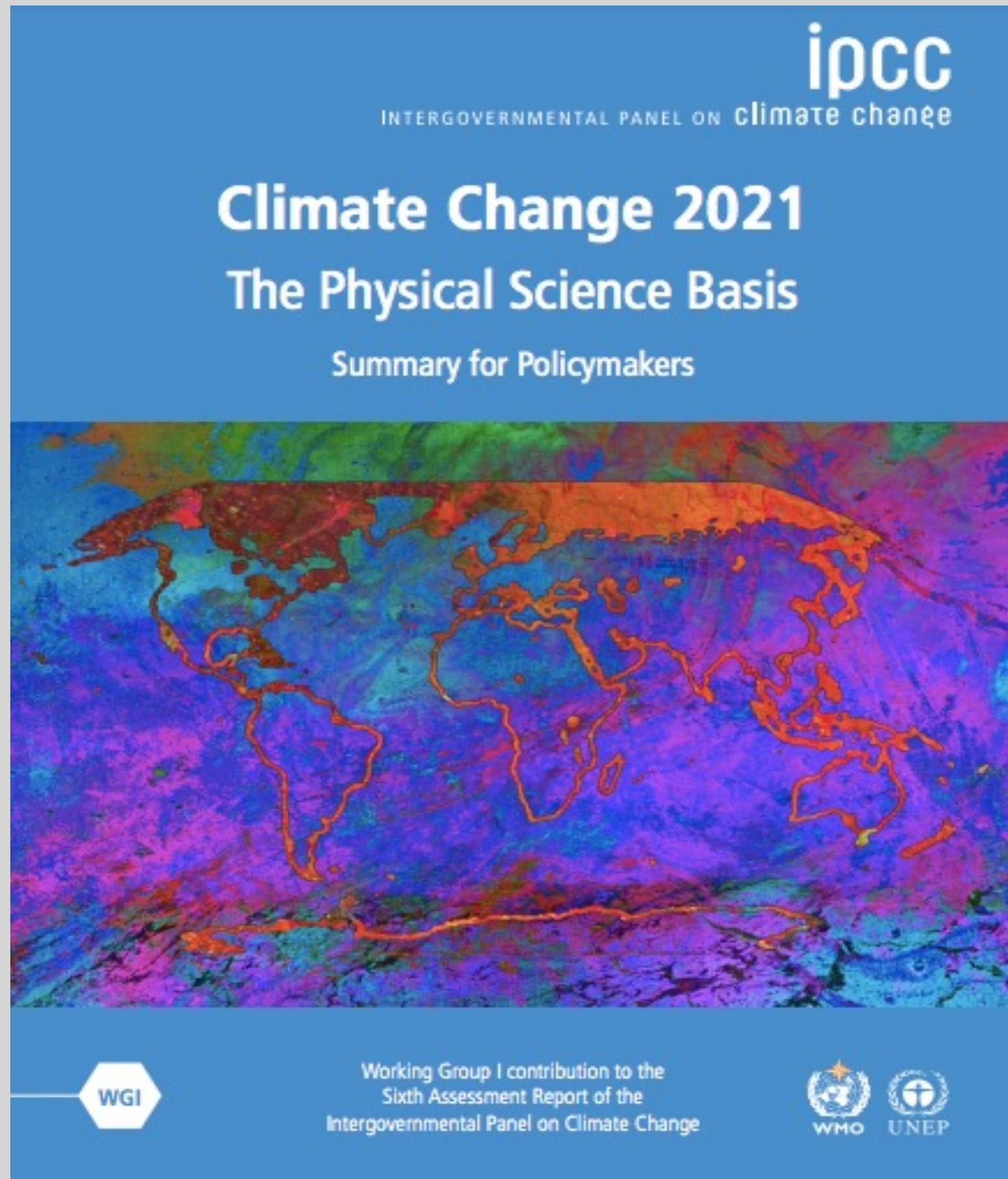
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# Context: Rapid Climate Action



Meeting global climate targets means fossil fuels need to decline rapidly





## Energy systems transitions



**What will happen to the future of millions of fossil fuel workers such as coal workers, their communities & dependent regions as the world moves away from fossil fuels?**

# Global importance of just transition

JUST TRANSITION  
SOLIDARNA TRANSFORMACJA



COP24 KATOWICE 2018  
UNITED NATIONS CLIMATE CHANGE CONFERENCE

## Solidarity and Just Transition Silesia Declaration

We, the Heads of State and Government,


Emphasizing that climate change is one of the greatest challenges of our time and a common concern of humankind and that Parties to the Paris Agreement recognized the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge;

Stressing that addressing climate change requires a paradigm shift towards building a low greenhouse gas emission and climate resilient economies and societies for all that offers substantial opportunities and ensures continued high growth and sustainable development, while ensuring a just transition of the workforce that creates decent work and quality jobs;

- ❑ The fossil fuel workers and communities have worked hard to provide fuel that built the modern world
- ❑ From a justice point of view it's important to plan for fossil fuel workers and their communities
- ❑ Just transition:
  - ❑ ILO
  - ❑ UNFCCC
  - ❑ IPCC



# Many governments such as the U.S., Canada, the UK, Germany, South Africa have formulated just transition policies

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## Task Force: Just Transition for Canadian Coal Power Workers and Communities

In early 2019, the Task Force provided two reports to us on how to make the transition away from coal-fired electricity a fair one for Canadian coal workers and communities. Made up of a broad range of experts, the Task Force has completed its mandate.

**Scottish Government**  
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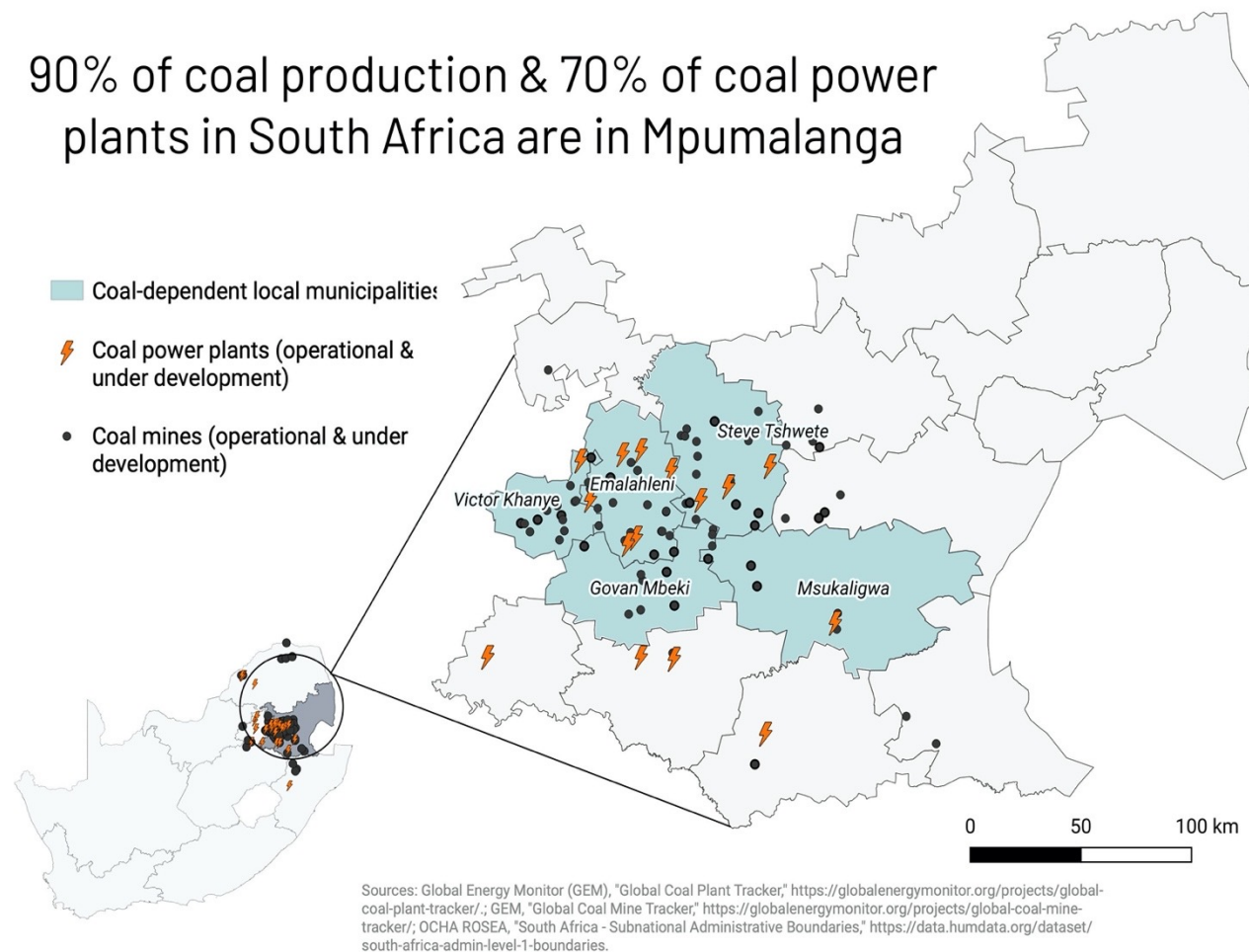
**PUBLICATION - INDEPENDENT REPORT**

## Just Transition Commission Interim Report

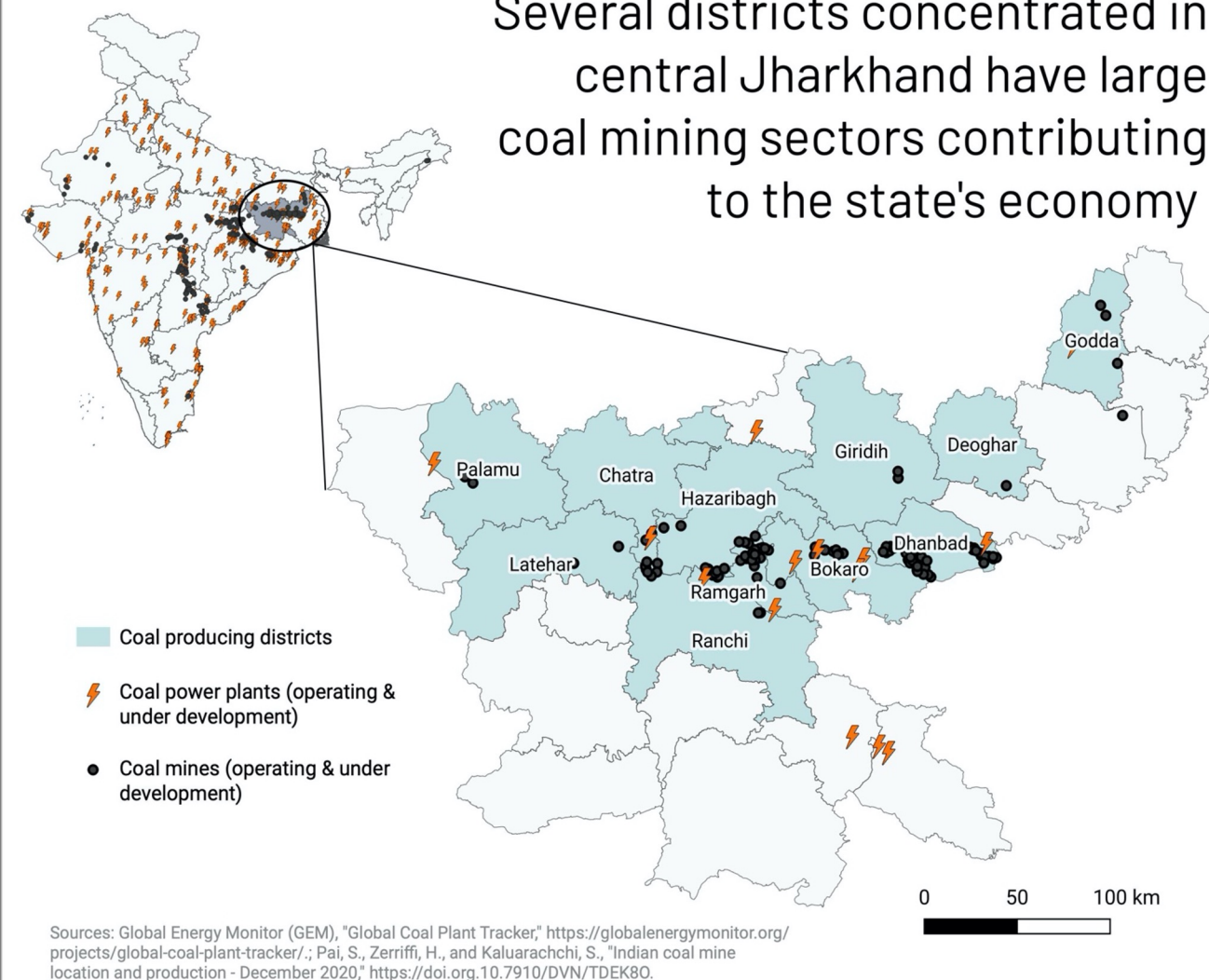


# Case studies from emerging economies: Mpumalanga, South Africa & Jharkhand, India

90% of coal production & 70% of coal power plants in South Africa are in Mpumalanga



Several districts concentrated in central Jharkhand have large coal mining sectors contributing to the state's economy

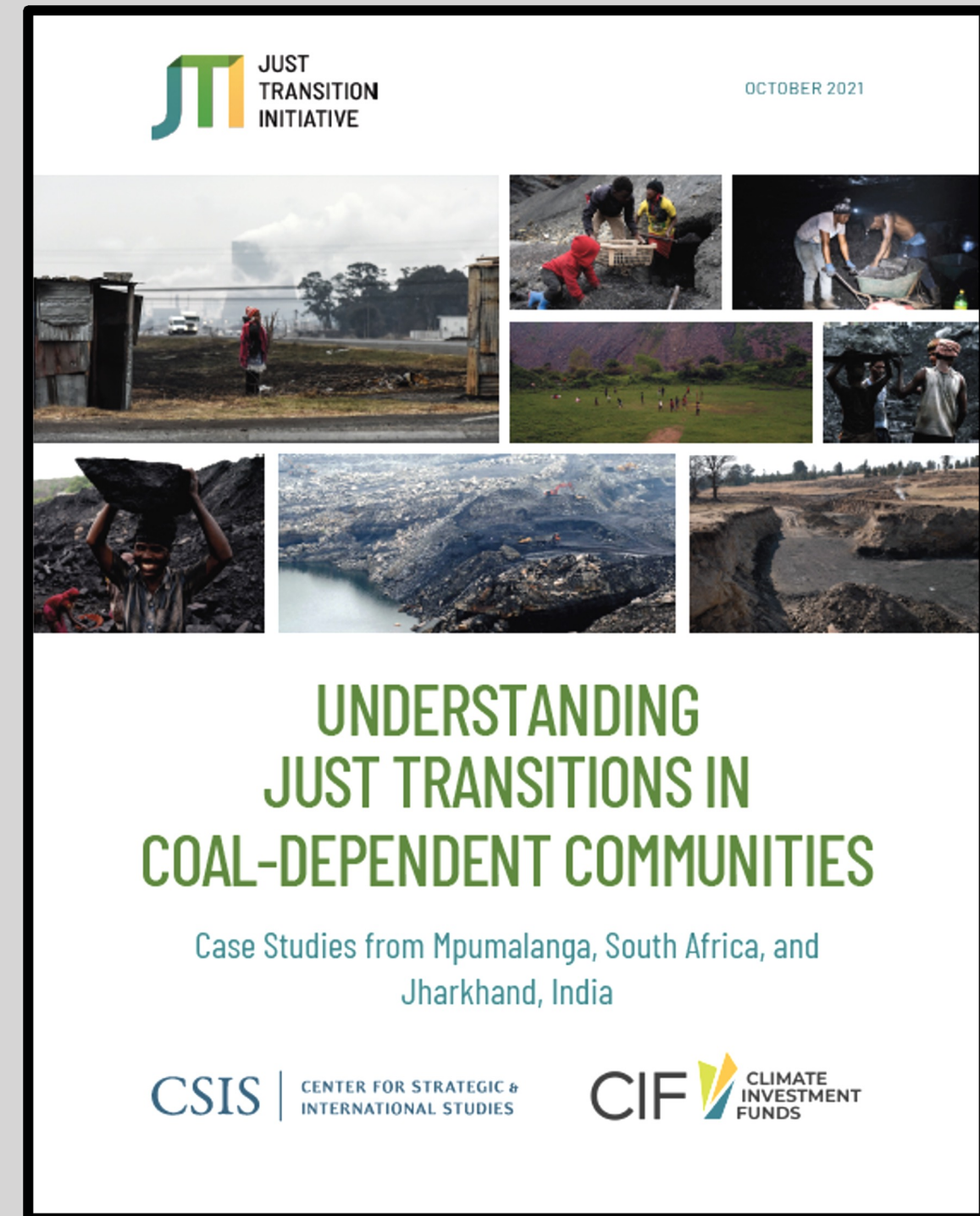


# Report focuses on:

Understanding coal-related socio-economic dependency in Mpumalanga and Jharkhand

And three key elements of just transition...

- Regional economic diversification
- Environmental rehabilitation
- Stakeholder mapping



# Study methodology

- 25 expert interviews in Mpumalanga & Jharkhand
  - Regional government
  - Trade unions
  - Local community groups
  - Coal companies
  - Industry associations
  - Academia
- 10 interviews with coal workers
- Literature review & analysis of policy documents
- Data collection & analysis



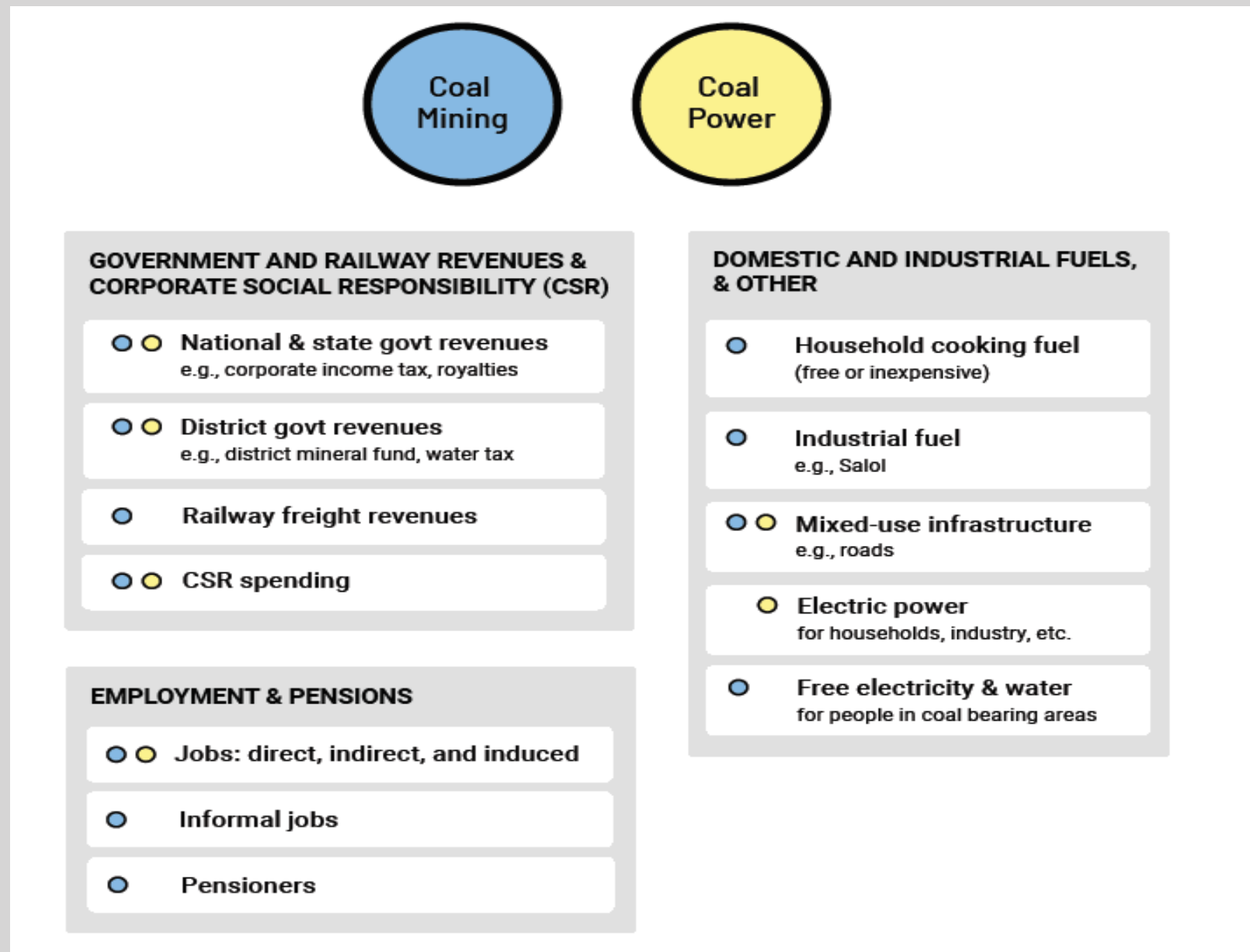
# Coal ecosystem in Jharkhand/India

❑ National and local revenues

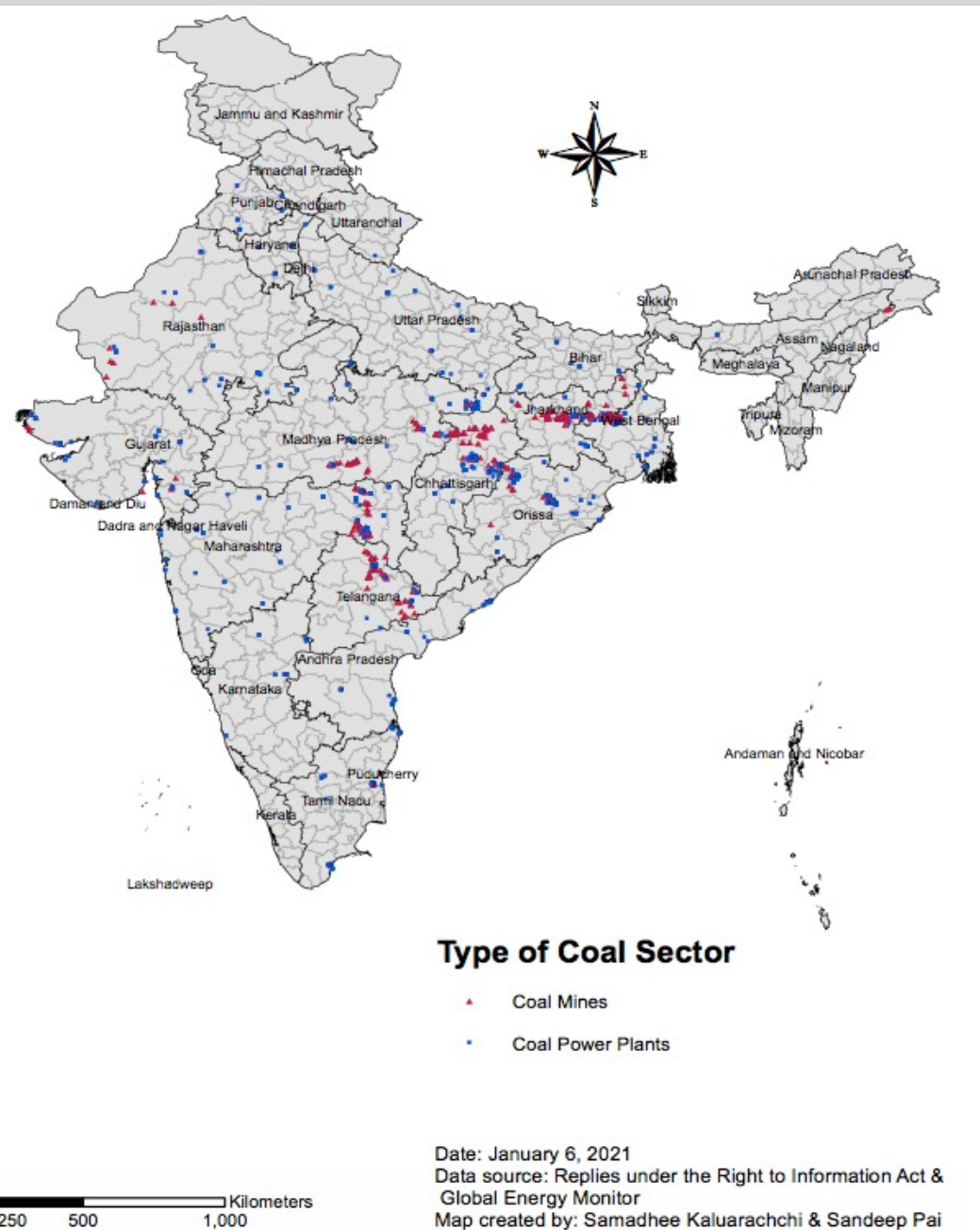
❑ Direct, indirect, induced & informal jobs

❑ Coal pensioners

❑ Industrial & domestic fuel



# Coal sectors' spillover effects in 284 districts with varying levels of dependency



**1. Direct & indirect coal jobs in 159 districts**

□ 3.8 million jobs

**2. Coal pensioners in 199 districts**

□ 0.5 million pensioners

**3. CSR spending in about 90 districts**

□ 144 million US\$ spending

**4. DMF in 52 coal districts**

□ 0.5 billion US\$

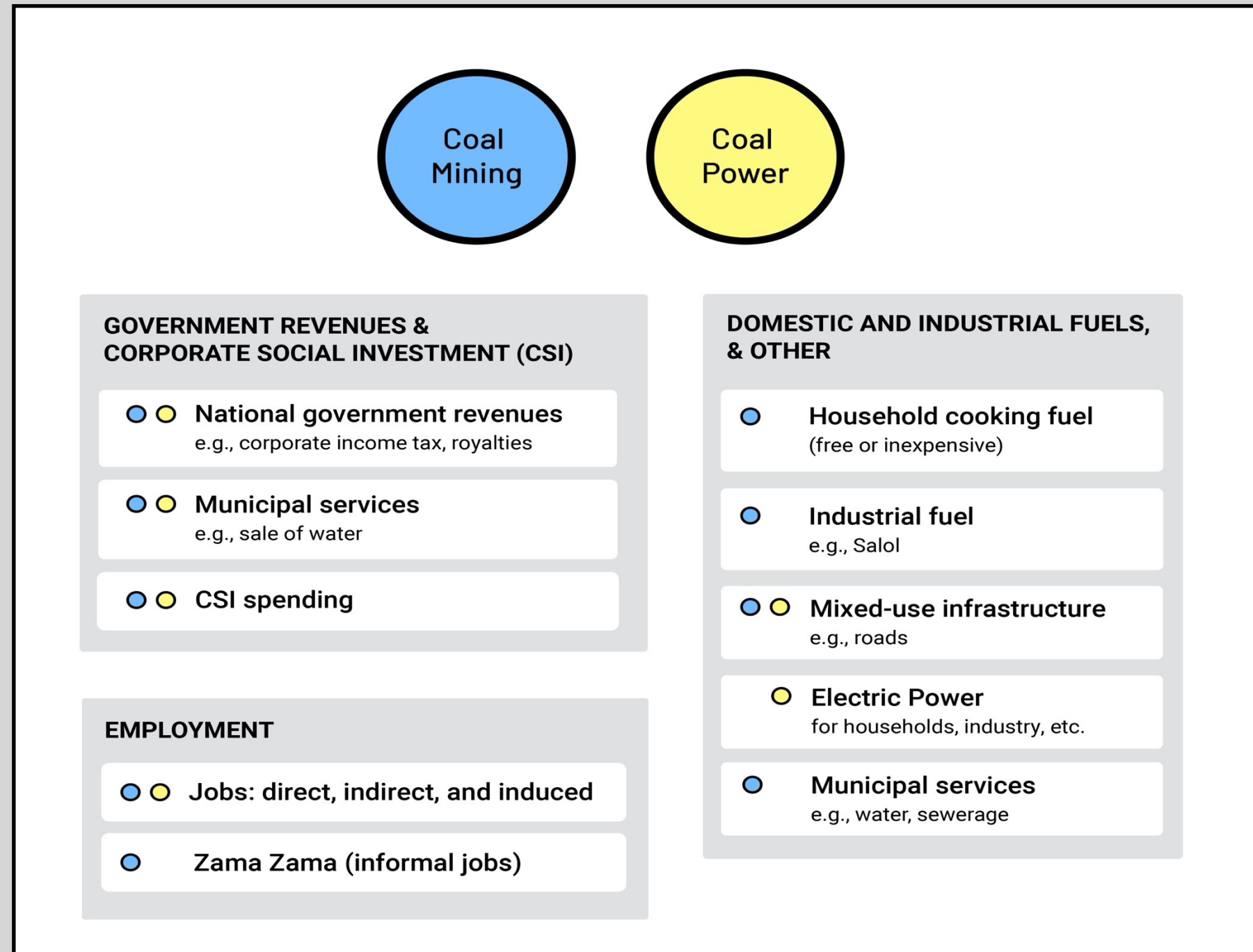


# Coal ecosystem in Mpumalanga/South Africa

❑ National and local revenues

❑ Direct, indirect, induced & informal jobs

❑ Industrial & domestic fuel



# Coal ecosystem: Insights & recommendations

## Insights

- Beyond jobs dependency, the coal ecosystem has many elements and varies in different regions
- Many elements of the ecosystem have not been quantified. Example: number of induced & informal jobs

## Recommendations

- Any just transition work on early coal retirement needs to focus on the whole ecosystem rather than just jobs



# Regional economic diversification

(Example: Mpumalanga)

- Focusing on provincial diversification
- Focusing on business diversification of coal mining/power companies

| General Drivers  |  | Barriers to Expansion  |  |
|--|--|--|--|
| Agriculture  |  |  |  |
| <ul style="list-style-type: none"><li>• About 24 percent of the provincial land is arable, and 14 percent of the land is available for natural grazing.</li><li>• Only 1.5 percent of South Africa’s soil is considered high potential, and 46.6 percent of this land is in Mpumalanga.<sup>i</sup></li><li>• The province is a leading producer of fruits and nuts, among other agricultural crops.</li></ul>   |  | <ul style="list-style-type: none"><li>• The wages in the agriculture sector are low in comparison to those in coal-related sectors, and many view conditions on white farms as “a return to the slavery of the past.”<sup>iii</sup></li><li>• The land is badly degraded in places where coal mining happens, making expansion of agriculture in these areas difficult.</li></ul>  |  |
| Tourism  |  |  |  |
| <ul style="list-style-type: none"><li>• The province attracts millions of national and international tourists every year.</li><li>• The eastern part of the province is home to tourist hot spots, such as Kruger National Park.</li><li>• There are several sites of historical and cultural significance, including the Botshabelo Heritage Site and the Loskop and Middleburg dams, in coal-dependent municipalities such as Steve Tshwete that could become tourism hot spots.<sup>iii</sup></li></ul> |  | <ul style="list-style-type: none"><li>• Coal mines and power plants are located in the western and central parts of the province, but the tourism centers are located in the east. There is a spatial mismatch between these two sectors, making it hard to determine who will derive benefits from a transition.</li><li>• Coal-dependent local municipalities face severe environmental threats such as water pollution and land degradation. This remains a challenge for converting coal-dependent municipalities into tourism centers</li></ul> |  |
| Manufacturing  |  |  |  |
| <ul style="list-style-type: none"><li>• Manufacturing industries already account for about 14 percent of provincial GDP.</li><li>• There is high availability of skilled manufacturing labor, a quality electricity network, and emerging service industries.</li></ul>  |  | <ul style="list-style-type: none"><li>• The manufacturing industries largely rely on coal as an input fuel. These industries include petrochemicals, steel, and metals.</li><li>• The Mpumalanga Industrial Development Plan (MIDP) and its roadmap identifies manufacturing industries linked to mining sectors as “centers of competence” for promoting the manufacturing sector.</li></ul>  |  |
| Renewable Energy Production  |  |  |  |
| <ul style="list-style-type: none"><li>• There is high availability of land and transmission and distribution lines.</li><li>• There are suitable solar resources in most coal areas.</li></ul>   |  | <ul style="list-style-type: none"><li>• South African laws do not allow private companies to build more than 100 MW of generating capacity without obtaining a generating license. Given the low employment intensity of renewables compared to coal mining or power, the 100 MW limit restricts job creation potential for these sectors.</li></ul>   |  |

# **Regional economic diversification: Insights & recommendations**

## **Insights**

- Mpumalanga and Jharkhand can diversify into sectors like agriculture, tourism, & renewable energy but need to overcome specific challenges
- State-owned coal/power companies such as Eskom and CIL planned business diversification has the potential to further just transitions

## **Recommendations**

- Long-term pathways for diversification to alternate sectors need to be developed and should be grounded in local priorities
- Government and coal company diversification plans need to be better coordinated to ensure transitions are well planned and inclusive



# Environmental rehabilitation of legacy and existing coal mines & power plants





# **Environmental rehabilitation: Insights & recommendations**

## **Insights**

- Mpumalanga and Jharkhand face various regulatory, institutional, and financial challenges in ensuring adequate rehabilitation of coal infrastructure
- The rehabilitation of current and legacy coal mines must be based on land use policies in consultation with local stakeholders

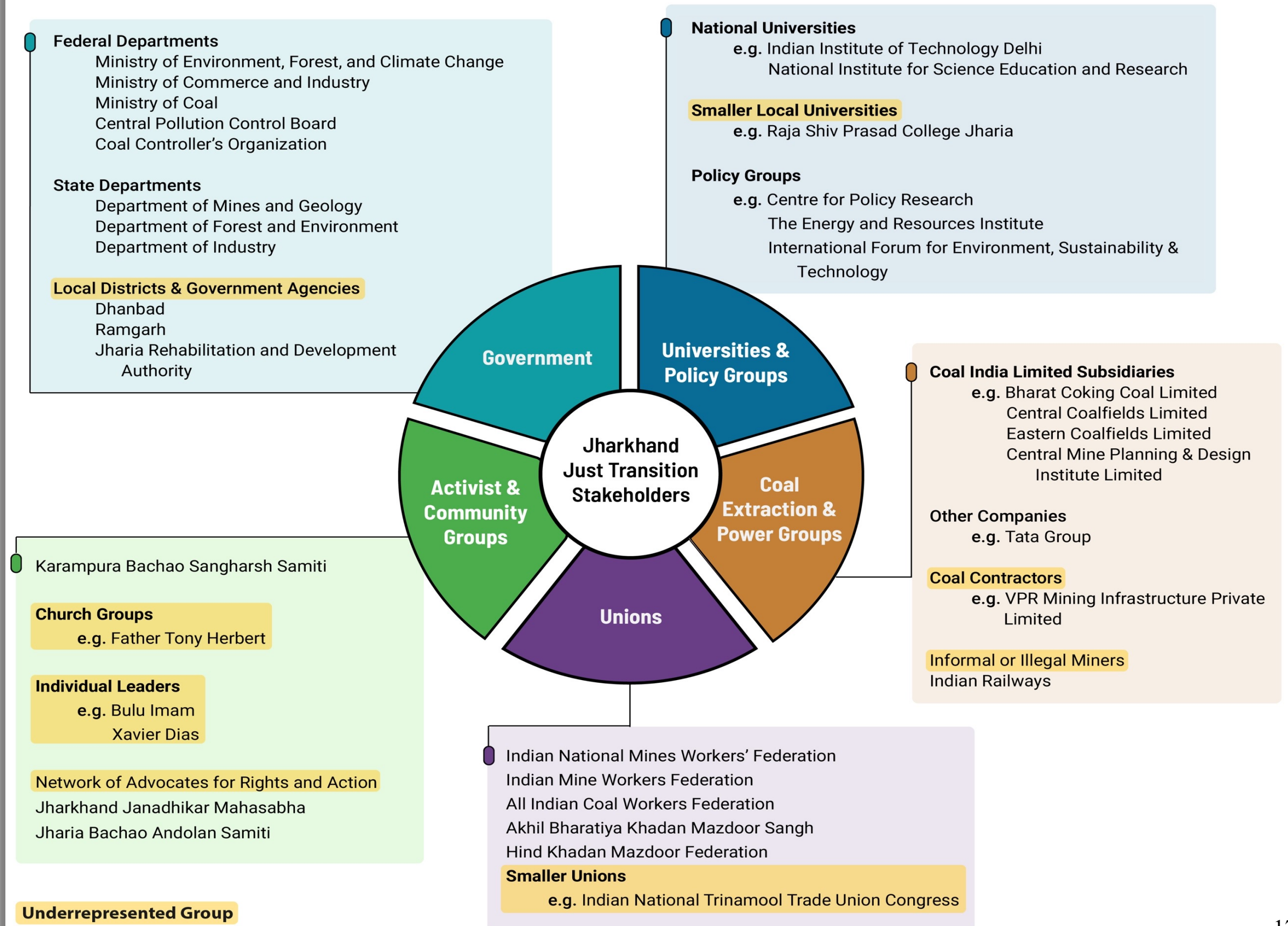
## **Recommendations**

- Strengthened regulatory regimes are needed for the effective environmental rehabilitation of current and legacy coal mines and power plants
- Following mine closures, robust land use policies are needed to ensure effective environmental rehabilitation



# Stakeholder mapping

## (Example: Jharkhand)



# **Stakeholder mapping: Insights & recommendations**

## **Insights**

- There are at least five categories of stakeholders important to just transition planning
- There are many underrepresented stakeholders in both Mpumalanga and Jharkhand not currently engaged in transition discussions

## **Recommendations**

- Local stakeholders, including underrepresented stakeholders, must be meaningfully engaged throughout the transition process to ensure inclusive outcomes and buy-in

# Thank you

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