

A tale of life and death: The coal value chain's impact on local communities in South Africa

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TOWARDS A JUST TRANSITION - THE ROLE OF INDUSTRIAL POLICY

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Introduction

The coal value chain plays a structural role in the South African economy it is core to electricity, petrochemical and other industrial activities, however it is also a primary source of GHG emissions

As international and domestic climate change action increases, coal will face significant risk

Domestic and international risk

- IRP 2019 coal-powered generation capacity will decline from about 80% in 2019 to 43% in 2030
 - Eskom decommissioning plan for aging power plants – 8 by 2035 and a further 3 by 2045
 - Sasol plans to cut 6-10% of GHG emissions
 - 3 main export destinations India (56% of exports), Pakistan (16% of exports) South Korea (5% of exports) are planning to reduce coal imports build energy reliance and are shifting energy mix towards renewable energy
 - Disinvestment in coal internationally and domestically
- The transition away from coal has already began, workers and communities where coal is concentrated are most vulnerable to this transition

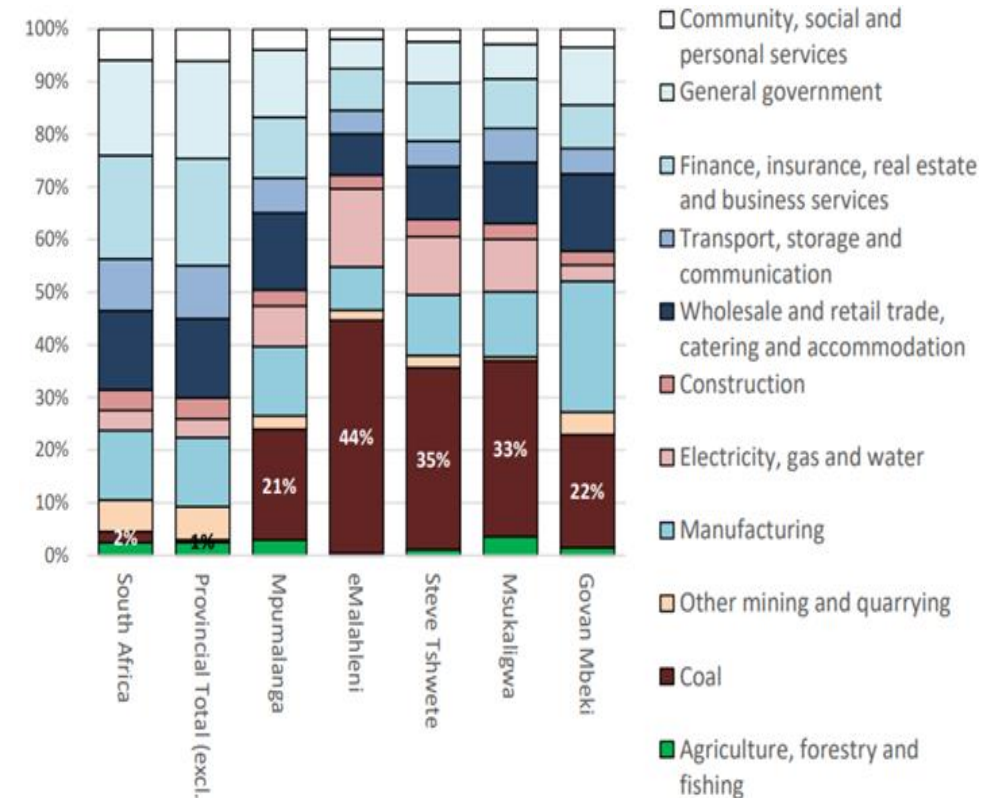
Calls have been made for the transition to be a Just Transition

- Just transition is an inclusive process and outcome which offers social protection and guarantees to workers communities and small business in industries that are in decline due to climate change impacts.
- The just transition agenda is rooted in democracy and social dialogue between workers, communities, government and businesses.
- It aims to ensure minimum disruptions for workers and communities that are dependent on unsustainable industries and energy resources, and ideally sets a course through which these vulnerable communities and workers are better off

A source of economic activity, employment and livelihood

- The coal value chain runs deep, from coal mining and transport to power generation, petrochemical production, steel making and cement production. Other industrial activities such as aluminum smelting which consume large amounts of coal based electricity
 - Coal mining contributed to export revenue (4.5bn) and GDP (5%)
 - Primary source of electricity in South Africa – 80% installed capacity
 - Sasol which consumes 10% of SA coal produced 25% of liquid fuels needs using coal as feedstock
 - Coal value chain employs about 150 000 people
 - 91600 coal mining
 - Transport-related jobs stand around 15 000
 - power generation about 10 000
 - petrochemical production close to 18 000
 - steelmaking more than 6500
 - cement production about 7000
- The coal value chain is concentrated in Mpumalanga
 - 80% of coal production occurs in four municipalities, namely eMalahleni, Steve Tshwete, Govan Mbeki and Msukaligwa
 - 11 out of 13 Eskom coal-fired power stations located in Mpulamanga
 - Sasol’s CTL facility located in Secunda in the Govan Mbeki municipality

Figure 1: GVA segmentation for selected locations, 2018



Workers in the value chain fare better than many other parts of the economy and employment in the value chain is furthermore a key source of social safety

Access to infrastructure and services

Coal value chain has build up strategic infrastructure to support activities. The development of bulk infrastructure has, to some extent, trickle down to the provision of services at the community level

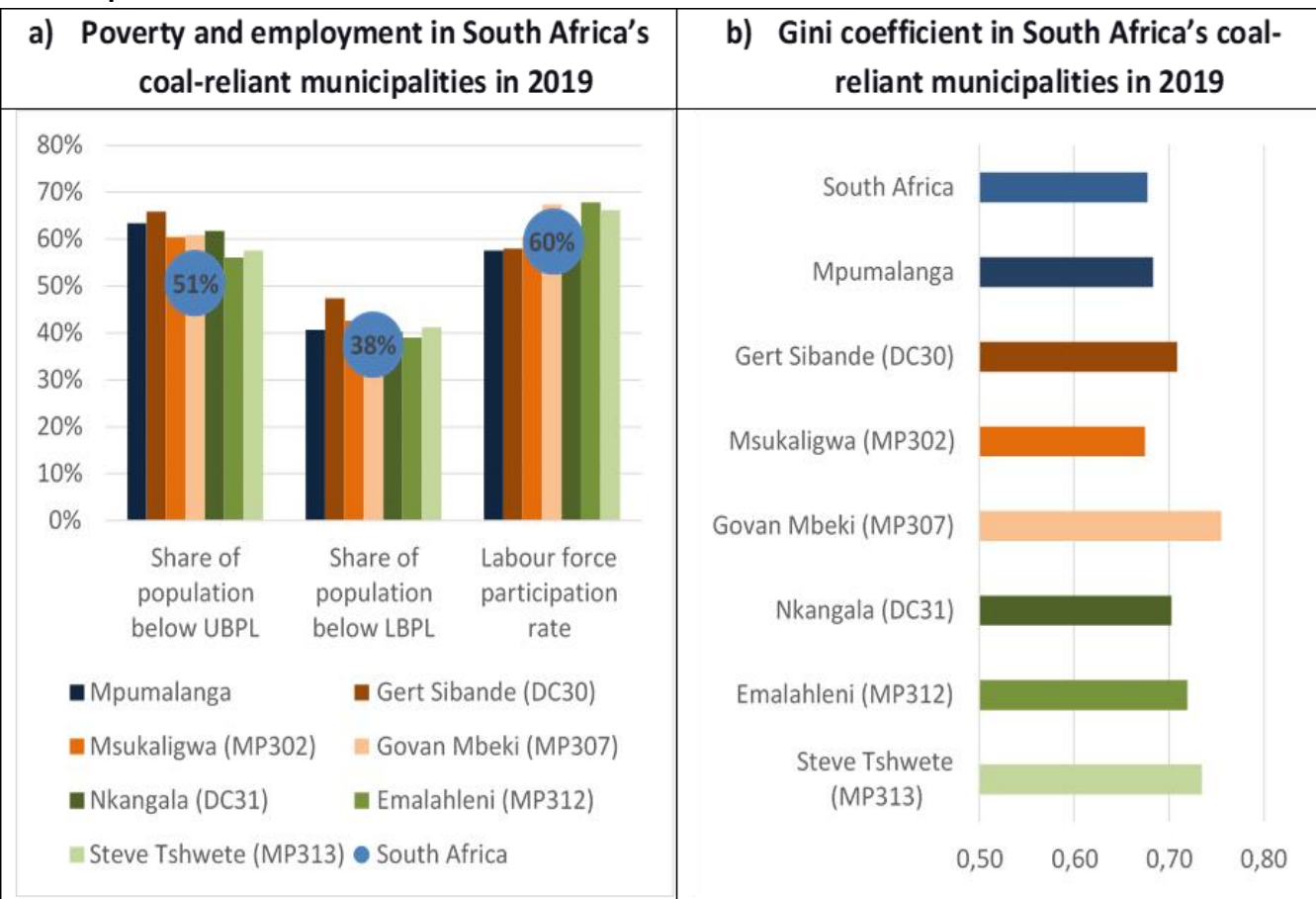
- Transport infrastructure: The building of roads, Richards Bay Harbour and the Richards Bay Freight Coal Line
- Electricity: The electrification of SA households, schools and hospitals
- Water: building of pipelines and distribution systems to service the mines and power stations

The key players have also supported the provision of services in these communities

- Sasol upgraded the Greylingstad sewer and wastewater treatment works, constructed a water pipeline from eMbalenhle to Charl Cilliers. Sasol has also supported the establishment of HIV support facilities and healthcare facilities improvement.
- Anglo American has a early childhood development programme project which has supported 100 EDC sites and non-fee primary schools in their communities.
- At the Hendrina Power Station, Eskom owns the only petrol station and store in the locality

Poverty issues, economic displacement and dependency

Figure 4: a) Poverty, employment and Gini coefficient in South Africa's coal-reliant municipalities in 2019



- In the country's coalfields, the economic activity and employment brought by coal have not led to an improved performance in terms of poverty and inequality.
- As the country transitions towards a low-carbon trajectory, the impact of the closure and restructuring of power, mining and industrial facilities will be greatly felt by local communities and workers, with impacts on employment, economic activity and government revenues.
- Coal has displaced other economic sectors in the province
- Agriculture and tourism have been pushed to other areas
- Other activities, except for some manufacturing and agricultural production, are directly or indirectly linked to the coal value chain
- Economic activities, such as retail, transport, food and accommodation, and even government services, largely support coal value chain activities and the people employed in them.

Employment vulnerability and negative impact on other productive activities

The four municipalities have heavily undiversified economies relying on coal and coal-related activities. Coal mining and power generation account for 5% of Mpumalanga's formal employment, with 76% of coal employment located in the four hotspots of Mpumalanga

- eMalahleni 26%
- Steve Tshwete 17%
- Msukaligwa 14%
- Govan Mbeki 11%

In terms of education and skills

- Education levels in coal mining are slightly lower than the norm for other formal workers.
- Coal mine workers with a matric or less comprised 80% of the coal labour force
- The workforce receives specialist training not easily transferable to other industries

Mining activities has had adverse effects on other productive activities

- sterilisation of soil and the contamination of ground and surface water impacts agricultural
- a loss of biodiversity and wildlife affects tourism activities

A source of health impacts and social-cultural degradation

Air pollution

- Mpumalanga has some of the most polluted air in the country. It is a hotspot for nitrogen dioxide, a pollutant that comes from burning coal and other fossil fuels
- The air pollution can result in cancer and silicosis, asthma, heart and lung diseases and other respiratory issues

Land and water pollution

- Burning coal to produce electricity is a water-intensive process. In about one second, Eskom consumes the same amount of water as a single person uses in a year
- In addition to large water consumption, Acid Mine Drainage AMD contaminates water systems
- AMD results in highly acidic water that contains sulphides, salts and high concentrations of metals which can have serious consequences on health, wildlife and biodiversity

Blasting and noise pollution

- Blasting and noise pollution from coal mining has resulted in hearing loss and increased anxiety
- Dust particles from blasting can cause or lung disease, aggravated asthma other respiratory issues
- Sinkholes from blasting place residence in danger

Social-cultural degradation

The dispossessed many indigenous people from their ancestral land

The relocation of communities and the desecration of their ancestral graves

Fragmented the social structure of local communities.

Conclusion

Planning for and implementing a just transition is urgent.

- While coal-related activities have been a source of economic development they have had disastrous impacts on communities and their environment
- The communities of eMalahleni, Steve Tshwete, Govan Mbeki and Msukaligwa are the most valuable communities in the transition away from coal
- These communities are artificially stuck between the need for employment and livelihood, and the right to a healthy environment, safety and well-being. The just transition agenda offers an opportunity, and effectively commands, to overcome this false dichotomy

The Just transition requires

- First to acknowledge the starting point, the past and current situation in the coalfields is highly unjust
- Second the scale of the distress created by the transition ought to be internalised by all decision-makers. The absence of a strong response, with economic diversification and social support at its core, would lead to ghost towns, widespread destitution and an increase in poverty and inequality
- Third, achieving a just transition requires to marshal all stakeholders into action. Only collaborative thinking and implementation will garner the necessary human, financial and knowledge resources to establish the conditions for a just transition.

While the just transition journey will be incremental, it should be ushered.

It is important that the actions taken ensure that no one is left behind and remedial action is taken for those who already have

Thank you

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