



# **A greener future and Just Transition**

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# Context

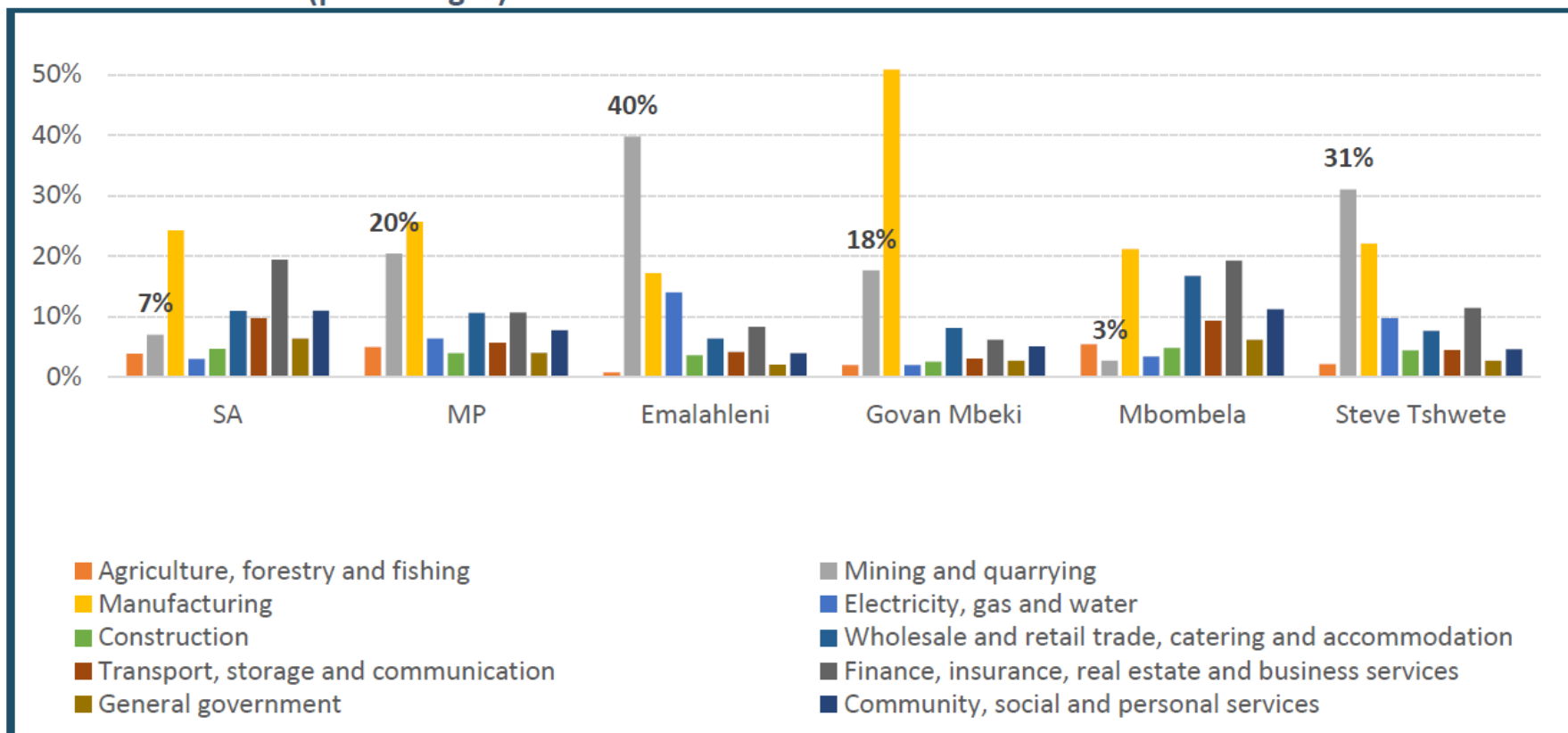
- The Climate Crisis is real and has already begun to change the nature of production systems and economies
- This has been driven by physical and policy impacts
- Markets have begun to transform and in this transformation the Just Transition has been elevated as a developmental priority
- The Just Transition is heavily dependent on **grassroots bottom-up** planning that prioritises inclusivity
- Can also be viewed through a justice lens – participatory, distributive, and restorative lenses
- To be successful requires alignment between stakeholders and understanding the needs of impacted groups

# How has this been unravelling?

- SJRP/NEVA Process (2019) – Assessment of 5 value chains, vulnerability and interventions
- Setting up of the PCC, PCFTT – pivotal in SA's JT trajectory
- Responses by various stakeholders
  - Private sector: NBI pathways, mining firms, Eskom, Sasol
  - Workers and Labour Unions: e.g. COSATU JT Blueprint
  - Civil Society/communities: Life after Coal, Groundwork
  - Provincial depts: MP Recovery and JT plans
- Energy value chains have been the focus of the transition given the potential for mitigation and the urgency of transition

# What does MP currently look like?

Figure 1. GVA shares of mining in major municipalities in Mpumalanga compared to the provincial and national shares (percentages)



Source: Authors, based on data from Quantec, series on Regional Output and GVA at basic prices by industry and 2011 local municipal/ward-based metro region level, downloaded from <https://www.easydata.co.za> in November 2021. Note: Percentage values are based on GVA values, averaged for each level of aggregation over the period 2015-2020.

# What are the assets?

- *Access to market:* Maputo Development Corridor, Gauteng, linked to ports via rail
- *Generation and transmission infrastructure:* most of the Eskom generation fleet combined with solar and wind resources
- *Land availability:* arable land for agriculture, RE and tourism
- *Young and dynamic population:* More than 92% of population below 60

# What are the Challenges?

- *High orientation towards coal*: historic towns developed around mines and power stations. Allied economic activities linked to coal value chain. Once mines and power stations shut down, all economic activities decline
- *In-migration places a burden on service delivery*: Growing population and informal settlements constrain local governments. Affordability constraints and service delivery backlogs are an issue.
- *Impact of mining on households*: state of housing impacted by mining operations and blasting
- *Damage from coal*: decades of environmental and ecosystem neglect and damage, including air, water and land pollution

# What are the opportunities?

- Energy
  - Eskom looking at RE solutions in repurposed power stations and green hydrogen production
  - Sasol exploring RE and green hydrogen options in its operations
  - In Jul 2022 President announced measures for the energy crisis including removal of exemption cap for renewables
  - These measures are likely to increase economic activities related to RE generation and green hydrogen production
  - Also opportunities for coal truckers to transition from the transportation of coal towards the transporting of biomass used in producing SAF for example.
  - Utilisation of mining land for biomass production and/or food production
  - Role for munics in the development of skills in the maintenance and repair of renewable generation infrastructure, the manufacturing of renewable energy generation components and allied services and the use of TVET colleges to train technicians and artisans in green hydrogen technology.
  - Further, the rollout of rooftop solar systems to local households and businesses can also assist local communities in transitioning towards low-carbon energy production

# What are the opportunities?

- Manufacturing
  - Historic manufacturing activities in energy-intensive VCs
  - Metals VCs including iron and steel – with migration towards green steel combined with increasing demand for green steel makes investments into green hydrogen and steel attractive
  - Minerals Processing – Vanadium reserves and existing capacity (Vanchem) and beneficiation into vanadium batteries; Managnese Metals Company (Mbombela) beneficiates manganese for a variety of applications, including lithium-ion battery production
  - Opportunities for RE manufacturing – SAREM has identified balance of system (cables and ancillaries), towers and internals and mounting structures but also turbine hubs, inverters, solar modules, trackers and blade post-moulding for local production – linked to Eskom Komati



# What are the opportunities?

- Coal Ash beneficiation
  - Opportunity to beneficiate liabilities but linked to the use of coal
  - Eskom and Sasol have shown interest in selling the ash that is produced at their processing facilities.
  - Ash can be used to manufacture a diverse array of goods and can be incorporated into processes to serve many needs.
  - E.g.'s cement and bricks, mine backfilling, mine drainage treatment, soil amelioration, and land reclamation.

# What are the opportunities?

- Mining Rehabilitation
  - Unsustainable management of mines and their impacts over their entire lifespans and post-closure is one of the most serious impediments to a just transition in Mpumalanga
  - Rehabilitation activities to restore mining land to a state approximating its pre-mining condition and productive potential
  - Successful rehabilitation requires effective governance mechanisms to monitor the appropriateness of activities and apportioning of costs and liabilities arising over time
  - Failure to rehabilitate land carries an opportunity cost, preventing local authorities from including mining land in economic development plans, rezoning the land for agriculture and tourism, and facilitating the sale thereof.

# What are the opportunities?

- Agriculture
  - MP has favourable land and soil conditions
  - Bureau for Food and Agricultural Policy's forecast for the 2020-2029 period predicts an increase in the area under cultivation for multiple South African crops cultivated in the province (e.g. macadamia nuts, avocados, maize and soybeans) pushed by rising demand in many cases, and overall yield gains.
  - Also opens up export opportunities with the African Continental Free Trade Agreement, which intends to remove tariffs for most goods trade on the continent, and the revised protocol for the export of lemons between South Africa and China (signed in June 2021), which relaxed the regulatory requirements for cold treatment, present opportunities for increased exports out of Mpumalanga, notably citrus products such as lemons and oranges as well as maize, livestock products and nuts

# Local government role

- Local government is often the face of government and the seat of a significant proportion of policy implementation, dealing directly with residents and businesses through administrative and participatory planning
- Municipalities are responsible for, among other things, local planning, the delivery of services and infrastructure, and facilitating local economic development (LED)
- MP has a further imperative to fortify local government since it is the centre of the country's coal value chain
- The coal VC faces considerable long term risks from climate change policy

# Skills in municipalities

- The LGSETA Skill Shortages and Skills Gaps 2021/22 identifies gaps in financial skills, HRM, Municipal Governance, Water and Environmental Management, Learning and Development, Auditing Skills, Municipal Planning, Construction Management, Equipment Maintenance and Engineering, and Occupational Health and Safety
- It is vital that skills are assessed from a transition perspective and weigh the necessary skills and competencies given the evolving landscape:
  - Maintenance and Engineering: wind and solar technicians, fuel cell and electrolyser mechanics
  - Construction Management: competencies in green building standards and applications to municipal buildings
  - Municipal Planning: integration of various sustainable production activities and co-locating investments with synergies
  - Water and Environmental Management: AMD water use, next generation sanitation, waste beneficiation
  - Staff that track international, national, regional and local dynamics as they pertain to key economic sectors (e.g. coal, RE, green hydrogen, JT) and the impacts on local municipalities

# Concluding remarks

- There is no template for transitions and every country has to weigh its resources and plan for a sustainable future
- SA has to plan for a future away from coal through diversification into sustainable VCs
- There are a number of economic opportunities which present themselves and a coordinated approach to the development of new low carbon and sustainable value chains is required
- There is encouraging support for the JT in SA but much work remains ahead



# Thank you!

Link to policy briefs:

**Economic Diversification:** <https://www.tips.org.za/research-archive/sustainable-growth/green-economy-2/item/4382-beyond-coal-opportunities-to-diversify-the-economies-of-emalahleni-and-steve-tshwete-local-municipalities>

**Local Government Toolbox:** <https://www.tips.org.za/research-archive/sustainable-growth/green-economy-2/item/4383-local-government-toolbox-for-a-just-energy-transition-in-south-africa>

# Trade and Industrial Policy Strategies

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