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# Taking stock of the just transition from coal in South Africa

SEI working paper
August 2024

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**Published by**

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A coal mine in Mpumalanga, South Africa © Nigel Jared / Getty Images



DOI: 10.51414/sei2024.034

**Declaration of generative AI and AI-assisted technologies in the writing process**
During the preparation of this work the authors used ChatGPT from OpenAI to improve the readability and language. After using this tool, the authors and editor reviewed and edited the content and take full responsibility for the content of the publication.

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**Acknowledgements**
The authors express their gratitude to all individuals involved in the workshop on participatory impact pathways analysis for just coal transitions, which took place on 18 August 2022 in Pretoria. We would also like to express our appreciation to Jesse Burton, Senior Researcher at the Energy Systems Research group at the University of Cape Town and Senior Associate at global thinktank E3G, who reviewed the manuscript and contributed significantly to enriching its content. We are grateful for the funding provided by the Ford Foundation as well as co-funding from the Swedish International Development Cooperation Agency, Sida.

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# Contents

## Key messages

- **Just transition has emerged as a central theme in energy and broader development debates in South Africa, with actors across several sectors embracing the concept as a means of reducing reliance on coal in a manner that supports local livelihoods.**
- **However, it has become an anchor point for promoting very different economic and political interests. While some embrace the concept as a catalyst for transformative change, others use it narrowly to advance decarbonization without upholding principles of socio-economic justice, or even to entrench the political and economic status quo.**
- **As South Africa embarks on the critical phase of just transition policy implementation, it faces the challenges of balancing top-down and bottom-up change, identifying impacts, and picking "winners" through on-the-ground just transition investments and projects.**
- **Upholding procedural justice and transparent decision-making, particularly regarding resource allocation and project design, is essential to address imbalances in agency and influence and to gain broad-based local support.**
- **While the concept of a just transition has gained widespread acceptance in South Africa, there are real risks that a narrow, environmentally unsustainable and socially conservative interpretation will dominate just transition efforts. This approach may not align with local priorities, threatening societal support for the transition.**

# 1. Introduction

Global thermal coal markets are facing significant uncertainties, including their widely recognized contribution to climate change and air pollution and almost universally cheaper renewable energy prices. The International Energy Agency's Announced Pledges Scenario, which assumes that all current net zero commitments made by governments are achieved fully and on time, foresees that global coal demand will decrease by 70% by 2050 (International Energy Agency, 2022). Keeping global warming to under 1.5°C (with no or limited overshoot) implies an even faster decline, with global coal consumption dropping by about 90% to 95% by 2050 (IEA, 2021; IPCC, 2023). In other words, the future for coal producers is bleak, though some countries have acknowledged this reality more than others.

Within this context, South Africa, a major coal producer, exporter and consumer, finds itself at a critical juncture in its energy landscape and developmental path. The country's heavy reliance on coal-fired power generation and coal-based liquid fuels and chemical production is the biggest contributor to national greenhouse gas emissions – emissions from coal combustion overall having reached 83% of carbon dioxide in 2021 (IEA, 2024), exacerbating global climate change and local air quality challenges (groundWork, 2018). During the last decade, a convergence of economic, environmental and political factors, coupled with numerous thermal plants approaching the end of their operational lifespans, have catalysed an energy transition. At the same time, the national power utility Eskom's financial and operational challenges, including debt burdens and intermittent power supply, have further highlighted the urgency of reforming it (Ashley et al., 2020).

South Africa is among the countries with the greatest economic and energy dependence on coal (International Energy Agency, 2022). The transition away from coal thus raises considerable socio-economic challenges. Here, the concept of just transition has emerged to address these challenges and more. While there is no universal definition of the concept, it broadly draws attention to the need to ensure that decarbonization efforts are "inclusive and integrated with development priorities at all levels" (Lee & Baumgartner, 2022).

In South Africa, the idea of a just transition was initially promoted by trade unions as far back as 2011, and since about 2019, the concept of just transition has become central in energy and broader development discussions in South Africa. Notably, the country has incorporated the just transition into its updated Nationally Determined Contribution and its Low-Emission Development Strategy (SEI et al., 2023). South Africa has also developed a Just Transition Framework in 2022 to guide policymaking, resource allocation and track project implementation (PCC, 2022a). In 2021, it embarked on a long-term Just Energy Transition Partnership (JETP) with France, Germany, the United Kingdom, the European Union, and the United States of America, which aims to support South Africa with accelerating the decarbonization of its economy and the electricity system. In 2022, South Africa's Just Energy Transition Investment Plan (JET IP) was adopted for the years 2023 to 2027, followed by the JET Implementation Plan in December 2023 (see Box 3).

South Africa's transition away from coal requires a deep transformation of the energy system. However, because of coal's central role in the country's political economy, the distribution of power and economic opportunities are at stake. This has led to diverse – sometimes diverging – interpretations of what constitutes a just transition among different stakeholders, with various degrees of ambition (Montmasson-Clair, 2021b). These varying viewpoints on a just transition reflect the complex interplay between the needs and interests of different societal actors and how they aim to mobilize the transition window to further their agendas. South Africa's persistent and historically high levels of inequality further divide societal groups in terms of their positioning around key issues, often creating rigidity in viewpoints.

This report investigates the various framings of just transition promoted by different societal actors and the main barriers to the just transition in the country. It reflects on the power dynamics and distributional politics that shape the transition away from coal and opportunities for change in South Africa. This analysis relies on primary sources – reports and other forms of publications, speeches, blog posts, op-eds, media coverage, and workshops conducted by the authors up to the summer of 2023 – as well as secondary sources – mainly academic and grey literature about the politics of coal in South Africa. The analysis thus does not account for possible changes in policy discourses and strategies resulting from the 2024 national elections.[1] This report is the product of a broader project comparing lessons and experiences of just transitions in the Global South, with a particular focus on Colombia, South Africa and Indonesia (SEI, n.d.).

By tracing the evolution of just transition debates and policies, and situating them within the country's historical political economy, the report provides insights that can support civil society and researchers in their efforts to navigate the complexities of the just transition landscape in South Africa and beyond. South Africa is now well into the process of planning just transition policies and embarking on implementation, and the lessons learned in this process hold significant value for other countries undertaking similar paths.

The paper proceeds as follows: Section 2 explores the history and detail of the coal value chain in South Africa. Section 3 turns to the challenges the just transition poses in the national and regional context. Section 4 explores the evolution of the just transition discourse in South Africa, shedding light on the key actors and their viewpoints and tracking the development of policies and implementation. Section 5 then discusses the analysis, followed by the Section 6 conclusion.

1 The 2024 elections have seen the split of some national departments. For example, the former Department of Mineral Resources and Energy (DMRE) has been split into the Ministry of Electricity and Energy and the Ministry of Mineral and Petroleum Resources. This split will naturally divide the mandates that were previously housed under one department.

# 2. Brief history of coal in South Africa

Coal has a long history in South Africa and has played a pivotal role in the country's modern development. South Africa relies significantly on coal for its energy needs, with around 73% of primary energy being derived from this fuel source in 2020 (IEA, 2022). The country's coal value chain development is intertwined with the political, economic and social challenges that South Africa has faced historically and continue today. In this section, we provide a brief account of the coal sector's development in the country.

## 2.1 Political economy and social context of the coal value chain

The complex political economy and social context of South Africa's coal value chain development is interwoven with the country's political past and industrial state planning during the pre-democracy era, entrenching its reliance on coal as an energy resource well into its democratic transition.

In South Africa's pre-democracy era (pre-1994), the energy sector was characterized by high levels of state ownership and control of electricity generation, steel and petrochemicals production, especially synthetic liquid fuels derived from coal. This approach allowed the industry to benefit from economies of scale, providing large government-guaranteed capital flows and boosting state-sponsored industrialization (Christie, 1984). In 1922, the government established the Electricity Supply Commission (ESCOM), with the mandate of supplying the lowest-cost electricity possible. With the state's backing, ESCOM absorbed private producers and consolidated its market dominance throughout the entire electricity value chain. From the 1920s to the 1940s, South Africa also saw the consolidation of the minerals-energy complex (MEC), which describes the strong linkages between energy from cheap coal, cheap labour and export-oriented mining and minerals beneficiation – turning raw minerals into a higher-grade product – that shaped the country's energy-, capital- and carbon-intensive economy (Fine & Rustomjee, 1996).

In response to the 1970s oil crisis and international sanctions condemning apartheid, ESCOM increased coal-based electricity generation through substantial investments, including the construction of large new power stations close to coal mining resources in Mpumalanga with long-term supply contracts between ESCOM and privately-owned mines. Overall, the capital investments of this period led to escalating costs and, subsequently, higher electricity prices (Eberhard, 2007).

Amid pushback against rising prices in the late 1980s, ESCOM underwent substantial reforms – including transitioning to a profit-based model instead of as a non-profit entity, introducing a national electricity tariff, and implementing changes in its governance structure – and changed name to Eskom (van Niekerk, 2020). A key issue was Eskom's inaccurate prediction of electricity demand, resulting in excess supply capacity and investments in new coal generation that surpassed actual demand (Eberhard, 2007). Eskom thus incentivised increased demand by granting low-cost

electricity contracts to energy-intensive users (Phalatse, 2020). Despite a global trend towards liberalised markets within electricity value chains at the time, Eskom remained vertically integrated and coal-focused.

By the late 1980s there was growing domestic and international pressure on South Africa to abandon apartheid policies. The first democratic elections were held in 1994, signalling the end of apartheid with the African National Congress winning the election and ushering in a new era in South Africa's history. The new government inherited and retained the state-owned companies created by the apartheid government, such as Eskom, and used them to advance the new developmental goals of the state (Hendrickse, 2022), reinforcing the country's reliance on coal power.

An important feature of South Africa's coal value chain is its coal-to-liquids sector, through Sasol, one of the largest current carbon dioxide producers in the country. The government created Sasol in the 1950s with the goals of strengthening fuel sovereignty, diversifying the industrial base away from gold and exploiting cheap coal. Sasol's profitability hinged on cheap coal and cheap labour, combined with state support measures in the form of fuel levies and tariff protection. It also played a key role in South Africa's strategy to address oil sanctions during the apartheid era. Sasol's ambitions to fund two new large coal-to-liquids plants following the oil crisis of the 1970s led to the company's partial privatization in 1979 (Sparks, 2016).

Despite South Africa's democratic shift, the socio-economic structure of the MEC persisted during the 1990s and early 2000s (Baker, 2015; Marquard, 2006). However, starting in 2010, a combination of factors fragmented the MEC: a financial crisis, management issues, and supply-side challenges within Eskom; changes in legislation and costs that incentivized renewable energy development; and more recently, the fragmentation of Eskom's coal supply, with major mining companies recently divesting or separating from the country due to the diminishing investor appeal of coal (Burton et al., 2022). At the same time, the 2010s saw a decline in coal's competitiveness for electricity generation due to increasing costs and decreasing quality (Makgetla & Patel, 2021). Power supply constraints have worsened over the years, leading to rotational power outages and power curtailment, and constitute a real challenge for economic growth (GIZ, 2022; Makgetla & Patel, 2021). As the energy transition unfolds, South Africa faces a deep restructuring of its electricity, liquid fuels and industrial sectors following a history of development challenges rooted in the apartheid era's energy and industrial policies (Burton et al., 2022).

## 2.2 Overview of coal's role in South Africa's economy and energy system

### 2.2.1 Coal production in South Africa

Bituminous coal accounts for most of the coal mined in South Africa. During the 1990s and 2000s, coal production grew rapidly until it peaked in 2014 as the commodity boom ended (IEA, 2022). The declining importance of coal in the domestic and international economy in the 2010s led to stagnation in coal production and exports, and to a gradual decline in investment by large multinational mining companies. Climate risk concerns combined with Eskom's policy to procure from local Black-owned companies – as part of the post-apartheid policies promoting Black ownership and empowerment, particularly in industries like mining where Black South Africans were historically marginalized – has meant that multinational companies have increasingly transferred their mining assets to local South African firms (Makgetla & Patel, 2021). This has transferred the risks of long-term declines in coal assets away from international capital to domestic capital, while also increasing the risks of mines not being properly rehabilitated and environmental damages remaining unaddressed (Human Rights Watch, 2022). However, climate concerns are not the coal industry only challenge: over the past decade, it has faced crises due to cost increases, supply and export demand risks, and low local demand growth (Burton et al., 2018).

Currently, a handful of mining firms account for most of the coal production in the country: Seriti, Thungela, Glencore and Exxaro. The coal industry is also geographically concentrated, with the Mpumalanga province accounting for 84% of the national economic value added by the coal industry and 85% of coal employment in 2022 (Quantec, 2023a).

### 2.2.2 Coal consumption and exports

About 75% of South Africa's coal production by volume is consumed domestically, with the remaining 25% being exported (Eskom, 2021a). Despite exports constituting a smaller share of production, historically, they have generated significantly higher value (Burton et al., 2018). As shown in Figure 1, over the period 2019–2021, while export sales accounted for one-quarter in volume, they represented 40% in revenue terms, highlighting the importance of exports to the value chain's profitability.

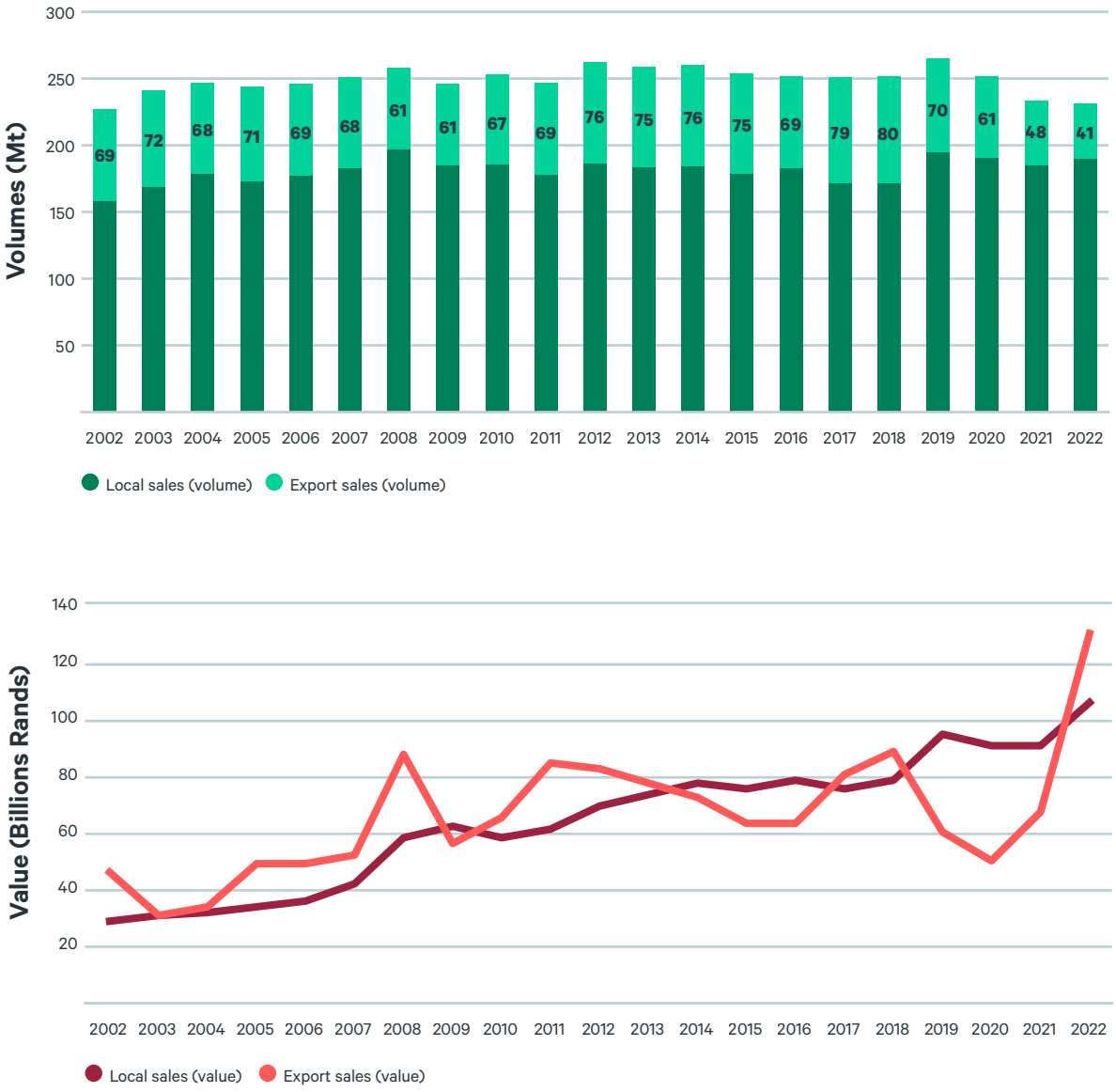
Recent years have seen some fluctuations in South Africa's coal exports. First, the Covid-19 pandemic led to a decline in exported volumes. As depicted in Figure 1, South Africa exported less than 50 megatons (Mt) of thermal coal in 2022, down from the 70–80 Mt exported in 2017 and 2018. The energy crisis ensuing from Russia's invasion of Ukraine in 2022 did not directly lead to increased volume of South African coal exports. However, the value of coal exports nearly doubled to RUB 166 billion (equivalent to more than USD 10 billion) in 2022 compared to 2021, driven by the substantial price surge of thermal coal linked to the conflict (Quantec, 2023c). South Africa's rail infrastructure challenges have also contributed to supply disruptions transporting coal to ports. The state-owned Transnet has struggled to move coal volumes on its rail network due to mismanagement of operations, shortage of locomotives and

the vandalism of infrastructure (Mahlaka, 2024). This prevents the export terminal, Richards Bay Coal Terminal, from exporting its maximum capacity of about 90 Mt per year, prompting the export terminal to revise its projected export volumes downward for the next couple of years. Figure 1 illustrates the decline in exported volumes in 2021 and 2022.

Over the last decade, South African coal export markets had been concentrated in Asian countries, with India, Pakistan and South Korea being the primary consumers of South Africa's thermal coal. However, following the Covid-19 pandemic and the Russian invasion of Ukraine, South Africa's export destinations grew in diversity temporarily over the 2021–22 period, with increased volumes into China, Netherlands, Italy, Mauritius and France (Observatory of Economic Complexity, 2023). South Africa's exports into its traditional Asian destinations also face risks from domestic low-carbon policies in these countries and their efforts to beneficiate local coal (e.g. in India) (Nicholas, 2022; Yang et al., 2024).

In 2022, domestic coal consumption remained concentrated in power generation (69%), dominated by the state-owned monopoly power utility Eskom, and in coal transformation (20%), dominated by Sasol (Enerdata, 2023). In 2019 and 2020, domestic coal sales rose to levels higher than in previous years (see Figure 1). This was due to Eskom's efforts to increase its stockpiles rather than from higher consumption, which has been stagnant due to high levels of rolling blackouts, known as loadshedding (Makgetla & Patel, 2021).

Figure 1. Coal sales in South Africa (2002–2022) in volume and value




*Source: Trade and Industrial Policy Strategies, based on Quantec (2023b)*

Notes: (a) Reflated with Consumer Price Index. Calculated from the Department of Mineral Resources (DMR) Mineral Statistics. Accessed at Quantec EasyData interactive dataset. (b) Export volumes (in Mt) for each year are indicated for exported coal.

# 3. Main challenges for just transition in national and regional contexts

This section highlights some of the main barriers to just transition in South Africa from economic, financial, institutional, environmental and socio-cultural perspectives. While not exhaustive, this section provides a comprehensive picture of South Africa's challenges in the current stage of just transition policy-making and implementation.

## 3.1 Economic and financial challenges

Coal is a significant contributor to South Africa's foreign currency reserves, ranking among the country's top 10 traded commodities. Throughout the 2010s, coal's portion of foreign earnings notably declined, decreasing from 7% in 2011 to 4% in 2020. Consequently, coal export revenues experienced a decline of one-fifth between 2012 and 2020 (Makgetla & Patel, 2021). However, the surge in coal prices following Russia's invasion of Ukraine propelled coal's share of export revenues to 10% (Quantec, 2023b).

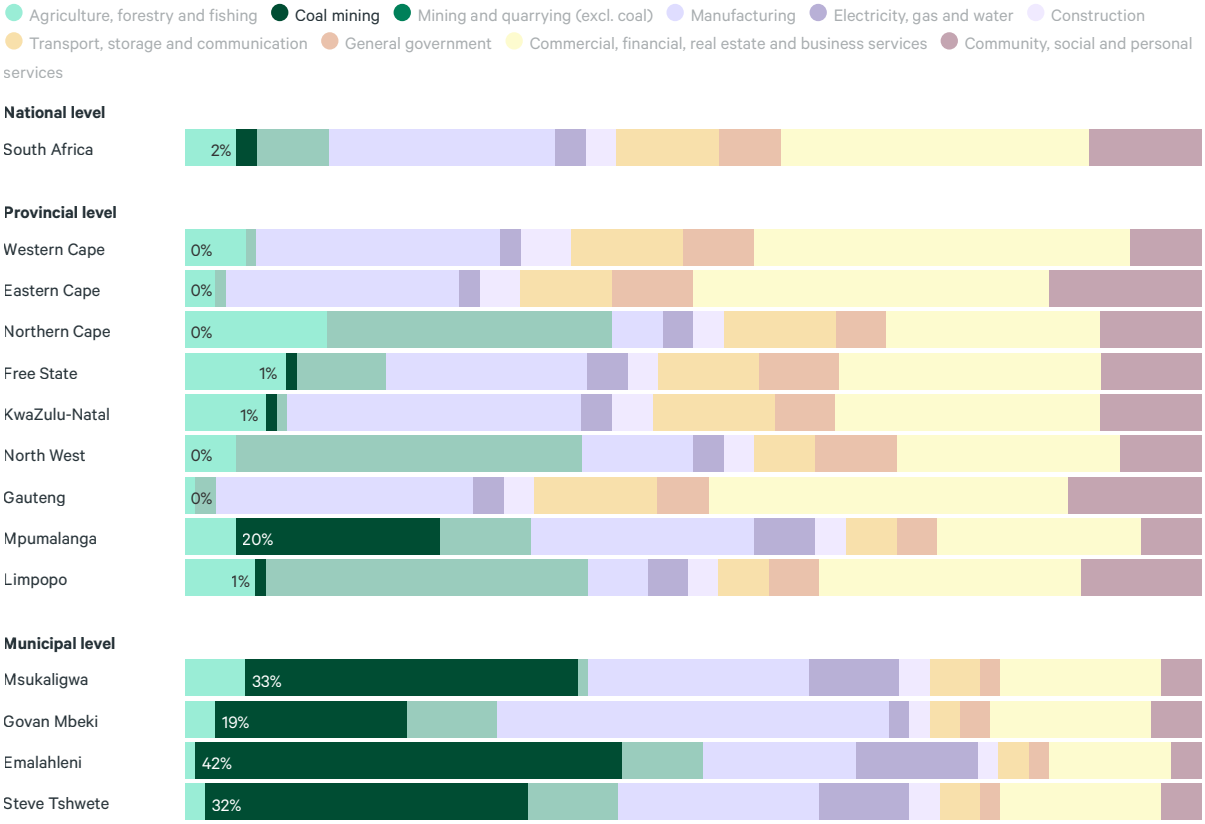
While coal's contribution to the country's GDP decreased from 2.3% in 2011 to 1.9% in 2020 (Makgetla & Patel, 2021), it remains a crucial source of tax and royalty revenue for the state, alongside other vital minerals such as platinum and iron ore. Coal royalties have steadily increased over time in nominal terms, quadrupling to ZAR 3.2 billion in 2021 since 2015. From 2017 to 2021, coal royalties comprised about 17% of total royalty payments to the state (Quantec, 2023e).

As for its role for employment, coal's contribution lags its share in GDP and exports, accounting for 0.7% of total formal employment in the country in 2019 (Makgetla & Patel, 2021). This is a consequence of the increased capital intensity of coal mining since the 1980s (Burton et al., 2018).

As Figure 2 shows, the contribution of coal to the economy is much more prominent in the province of Mpumalanga (20%), which hosts a large share of coal mining and coal power production. This dependence is even more prominent at the municipal level, in Emalahleni, Msukaligwa, Steve Tshwete, and Govan Mbeki, with coal mining representing 19% to 42% of the local economy. Coal's singular dominance implies that a decline in the coal value chain will affect economic activities directly and indirectly, rippling across value chains which depend on coal for survival, such as the retail and hospitality industries (TIPS, 2020). Additionally, informal businesses which provide income to workers and communities – such as retail and service workers – will also be impacted (Blaauw et al., 2022).

Mpumalanga also faces existing poverty and inequity challenges. It ranks among the poorest and most food-insecure provinces in the country, with 34% of its population below the food poverty line and 22% of the population below the international poverty line (Quantec, 2023d).

Figure 2. Gross Value Added (value added as percent of the GDP) of different sectors for South African provinces and coal-dependent municipalities

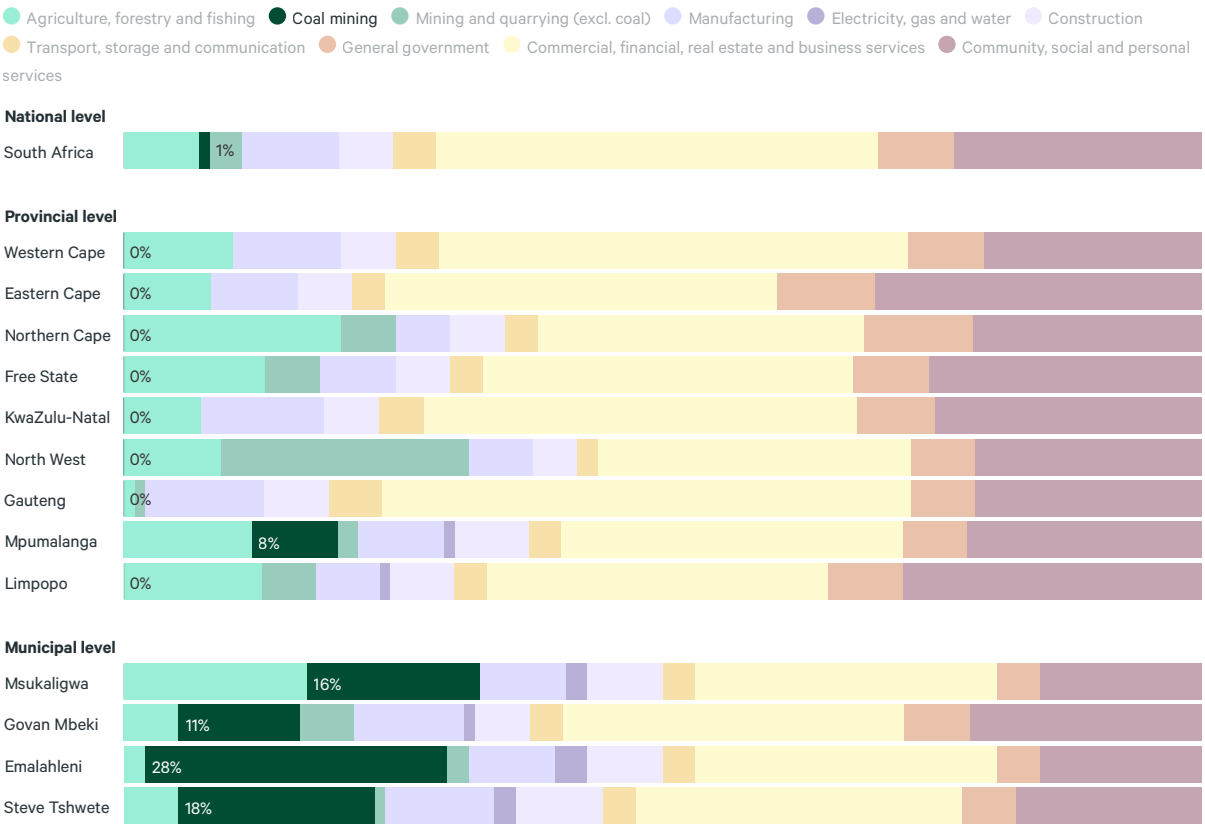



*Source: TIPS, based on Quantec (2023a)*

Note: Coal mining shares indicated as percentages for each geographical unit.

Employment in the coal value chain mirror the regional dynamics outlined above (see Figure 3).

Figure 3. Employment shares of different sectors for South African provinces and local coal municipalities, 2022



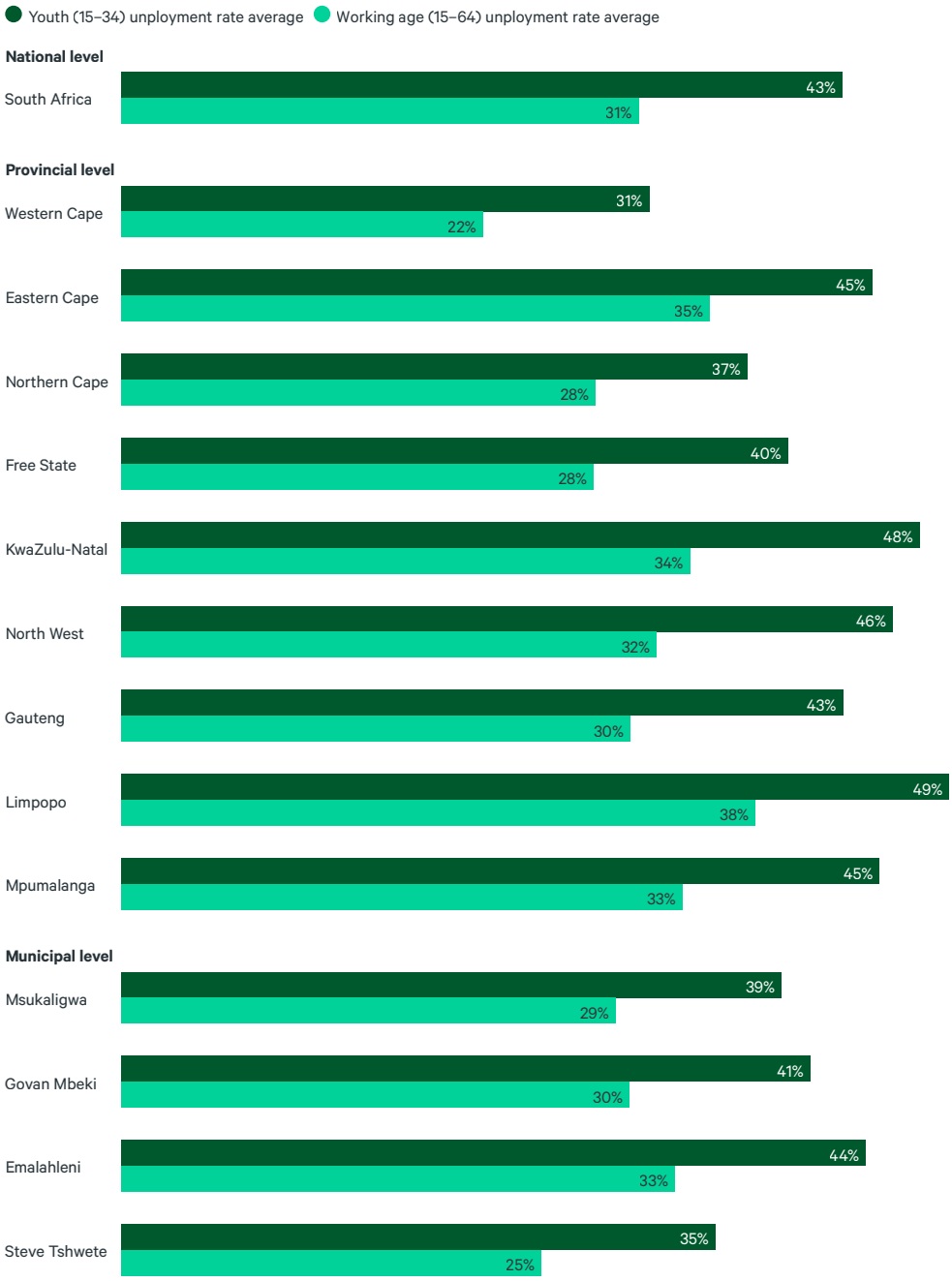

*Source: TIPS, based on Quantec (2024)*

Note: Coal mining shares indicated as percentages for each geographical unit.

Coal mining employment shares in the four key coal municipalities exceed the employment shares for other provinces and the national employment shares.

Although the number of jobs in the coal sector has decreased since the 1980s, the employment consequences of the transition should not be underestimated. Firstly, one miner supports on average three dependents in Mpumalanga (Burton et al., 2018). Yet Mpumalanga is also among the provinces with an unemployment rate above 30%, exceeding the national percentage between 2018 and 2022, as illustrated in Figure 4a. Since the Covid-19 pandemic, unemployment rates have increased across all provinces and Mpumalanga saw unemployment rates rise to about 37% in 2021 and 2022, as shown in Figure 4b. Youth unemployment in the province is higher, jumping from 41% in 2018 to 49% after the onset of Covid-19 (Quantec, 2023f).

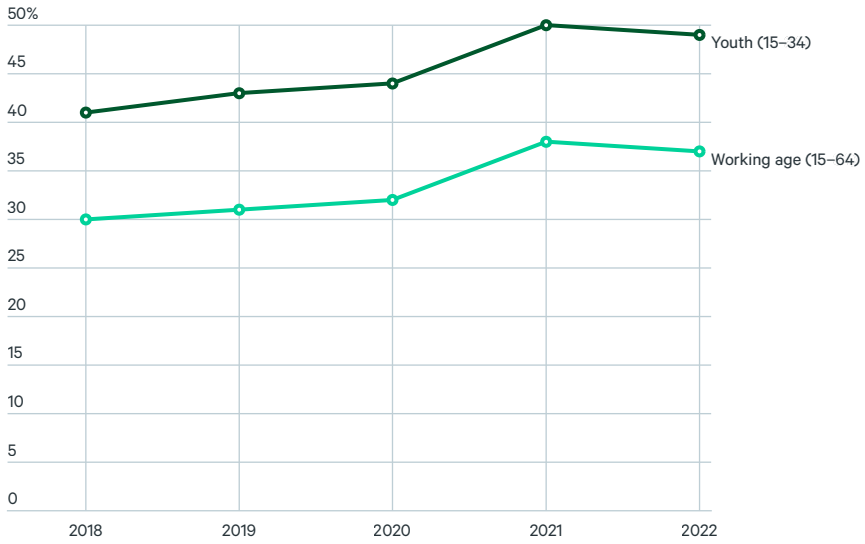
Figure 4a. Unemployment rate by province and municipality, working age population (15–64) and youth (15–34), 2018–2022




*Source: TIPS, based on Quantec (2023f)*

Note: Unemployment rate refers to the narrow definition of unemployment: individuals without jobs, who want a job and who have been searching for four weeks (Dinkelman & Pirouz, 2022).

Figure 4b. Unemployment in Mpumalanga, working age population (15–64) and youth (15–34), 2018–2022




*Source: TIPS, based on Quantec (2023f)*

Note: Unemployment rate refers to the narrow definition of unemployment: individuals without jobs, who want a job and who have been searching for four weeks (Dinkelman & Pirouz, 2022).

Estimating the costs of just transitions is a complex exercise and depends on the scale of decarbonization and social ambition, the mix of measures used, and stakeholder coordination, among other factors. Cruywagen et al. (2022) estimated the costs for active and passive measures to support workers and for transition programs for fossil fuel dependent communities to between ZAR 785 million and ZAR 16 billion. The Just Energy Transition Investment Plan (JET IP) – which includes repurposing coal plants and mining land, improving infrastructure, diversifying local economies, coal workforce support, youth investment, post-mining redevelopment, social ownership models, local manufacturing, and skills development (see next section) – would require approximately ZAR 1.5 trillion of investments over a five-year time frame between 2023 and 2027 (PCC, 2023c).

The national government's budget alone does not have the financial capacity to fund the just transition in South Africa's coal industry. In 2023, the National Treasury's Budget Review revealed several risks, including weak global growth, disruptions to global supply chains and renewed inflationary pressures from the war in Ukraine, the electricity crisis, deteriorating port and rail infrastructure, rising crime, and a declining fiscal outlook (National Treasury, 2023). The state's debt burden is an additional constraint, with debt servicing costs as a proportion of the total budget predicted to rise from 20.7% to 22.1% in 2026–27 (Fraser, 2024). Furthermore, the cost of borrowing has climbed, with South Africa servicing approximately ZAR 1 billion per day. The high costs of borrowing are driven by investor sentiment on the current debt burden and the country's ability to service debt costs, combined with low economic growth and projected high levels of debt into the future (Fraser, 2024; Kantor, 2023).

To date, international donors have contributed pledges or direct support to assist South Africa on its just transition journey. Currently countries have pledged about $11.9 billion, including France, Germany, the UK, the US, the European Union, Denmark, and the Netherlands through the JETP funding process. German development bank KfW and French development bank AfD have provided concessional policy loans of about ZAR 600 million to the National Treasury for cleaner energy investments (National Treasury, 2022). The World Bank also approved a large just transition project, supported by Canada (World Bank, 2023a) (see Box 4).

These funding streams are certainly valuable to South Africa's just transition process, but there remains a significant funding gap based on the estimates of the just transition's true costs in South Africa's coal value chain. Further, most of the funding is based on concessional loan financing. The amount of grant funding, while it has grown since the JETP was declared in 2021, is limited, requiring South Africa to take on further debt to finance the just transition when the debt service costs already constrain the national budget (IMF, 2023).

## 3.2 Institutional challenges

In South Africa's energy system as elsewhere, a key institutional challenge relates to state capture: a situation where private interests significantly influence the decision-making processes of the state to their own advantage, often through illicit means such as bribery, corruption or undue influence (Hellman et al., 2003; Judicial Commission of Inquiry into State Capture, 2022).

Another important challenge is the fragmentation and lack of coordination that characterizes the governance of the coal value chain (Makgetla & Patel, 2021). In South Africa, oversight of the coal value chain is conducted by several state entities.[2] At the national level, the Department of Mineral Resources and Energy (DMRE), the Department of Trade, Industry and Competition (dtic), the Department of Forestry, Fisheries and the Environment (DFFE), the Department of Public Enterprises (DPE), the National Treasury, and the Ministry of Electricity all govern different, and sometimes overlapping, aspects of the coal value chain. Two other key actors shaping decision-making in the coal sector in South Africa are the state-owned Eskom and Transnet – which is the custodian of bulk coal rail lines from mines to the ports and to Eskom – both of whom fall under DPE in terms of shareholding but are overseen by alternate policy-focussed ministries.

Besides, the responsibilities of the DMRE in setting energy policy in the country causes concern among experts. The DMRE's mandate covers both beneficiating South Africa's coal and other mineral resources and ensuring energy security at the lowest cost to

2 As noted in the introduction, the 2024 national elections have instigated changes to the structure and mandates of ministries. Notably, the Ministry of Mineral Resources and Energy has been split into the ministries of Electricity and Energy, and Mineral and Petroleum Resources. The Department of Public Enterprises (DPE), which oversaw the performance of SOEs, was dissolved, with the portfolio being moved to the Presidency.

consumers, while promoting economic growth and development, social equity and environmental sustainability (DMRE, 2023a). However, the evolution of the coal value chain since the 2010s has led these two priorities to conflict, as renewable energy costs have decreased rapidly and failures in coal power generation have become a severe constraint on economic development, as well as a risk to the non-coal mining sector (Baker & Burton, 2023). Severe loadshedding has affected South Africa's industrialization and macroeconomic development, with the South African Reserve Bank estimating a limited GDP growth by 2% in 2023. Besides negative impacts on economic growth, productivity and employment, in the blackouts also significantly constrain service delivery, not least in healthcare and education (Hausmann et al., 2023; Naidoo, 2023).

As for efficient policymaking, the DMRE has been criticized for failing to regularly update the country's Integrated Resource Plan (IRP), its national electricity plan: this key document should be updated regularly to reflect trends in energy markets, but the latest version dates from 2019 and relies on outdated assumptions (Merven et al., 2021). The draft of a new version of the IRP was made public at the beginning of 2024 (DMRE, 2024), which proposes delays in decommissioning coal plants, a significant slow-down of new solar and wind energy deployment, as well as ramping up gas power generation. It has been heavily criticized by energy experts, business groups and civil society organizations due to its failure to disclose cost data and its defiance of global movement toward renewable energy by focusing on large centralized coal, gas and nuclear projects (Creamer, 2024; Nicholas, 2024; Winkler, 2024). This has generated an unclear planning environment for consumers, producers and investors and stalls the shift to lower-carbon sources of electricity. While the draft was released for comment, the progress and implementation of the Plan is currently unclear.

At the subnational level, the Mpumalanga provincial and local governments play a critical role in just transition governance because of their oversight of key components, such as economic development and service delivery. However, just transition policy at the national level remains disjointed from local and district planning tools, as well as provincial resources aimed at enabling this integration, which obstructs just transition policy implementation on the ground (Montmasson-Clair, 2021a; PCC, 2021). Subnational entities face many institutional challenges to shape and implement just transition policies and plans, such as inadequate administrative procedures or restricted finances, not least due to uneven economic development and historical socio-economic inequalities (Hermanus et al., 2022; Palmer et al., 2017).

## 3.3 Environmental challenges

Abandoned mines pose a significant concern in South Africa (AGSA, 2022). Official government records have identified at least 400 abandoned coal mines – out of over 6000 abandoned mines across the country (Almano, 2022; Human Rights Watch, 2022). Research shows dozens of coal mines are expected to close in the next 10 years in Mpumalanga, with risks of significant social and environmental impacts (Cole 2024). In the absence of proper rehabilitation efforts, abandoned mines represent a serious danger for the well-being of surrounding communities and environment, because of the risks of tunnel collapse and accidents, as well as their toxic legacy of polluted land and highly acidic water (Bell et al., 2001; Human Rights Watch, 2022). Failing to properly close and rehabilitate mines also limits opportunities to use the land for new economic activities (Stanley et al., 2018), and for enabling social livelihoods and biodiversity that help the local community adapt and make them more resilient to climate change (Center for Strategic and International Studies, 2022).

There are various legal, institutional and financial challenges with mine closure and environmental rehabilitation. For example, the legal and policy framework for mine closure lacks coherence and fails to address and rectify the long-standing negative impacts and injustices caused by past mining activities (Perkins et al., 2020). Moreover, companies that mine on behalf of Eskom on land for which Eskom holds the mineral rights benefit from special rules and can use vacant land without fully rehabilitating it (Nel et al., 2023). Besides, although the South African law establishes rules for mining companies to set aside funds for rehabilitation, these have been criticized for their lack of transparency. The publicly available information on the allocation of funds is inconsistent, unclear and occasionally unreliable, making it difficult for shareholders or citizens to hold either the companies or regulators responsible (CER, 2018). There is also a lack of resources allocated to enforcement activities and insufficient coordination among institutions responsible for monitoring the situation and enforcing the laws (Perkins et al., 2020; The South African Human Rights Commission, 2018).

In addition, mining companies face disincentives to apply for mine closure certificates due to legal factors, such as perpetual liability, in which a company remains liable for pollution despite having been issued a closure certificate (Watson & Olalde, 2019). A common practice is thus that of placing operations on “care and maintenance”, which effectively ceases production without closing the mine, bypassing rehabilitation. Another is selling mines to smaller companies, which frequently face challenges meeting the rehabilitation obligations mandated by the mining rights associated with these operations (Burton et al., 2022; CER, 2018).

It is also important to highlight that mine closure plans are typically elaborated at the time of licensing without involving the participation of local communities. Civil society organizations have thus called for more participation by those affected by a mine closure at the planning stage, before a mine even opens. They have also highlighted the poor existing standards for rehabilitation and suggested a “binding requirement to develop predetermined and defined post-mining land uses” to ensure processes enable economic diversification in the post-mining era (Sefatsa & Horsfield, 2022).

**BOX 1: SOUTH AFRICA'S NEW DRAFT MINE CLOSURE STRATEGY**

In 2020, South Africa's Department of Mineral Resources and Energy developed a Mine Closure Strategy, which aims to establish an integrated framework to mitigate the environmental and socio-economic impacts of mine closure. One of its main objectives is to support the development of a post-mining economy that is sustainable in the long term. The draft strategy (DMRE, 2020a) was put up for public consultation in 2021, but has not yet been finalized at the time of writing this report.

There are several key positive aspects in the draft Strategy. One of them is attempting to promote a more integrated approach, since both the funding and socio-economic planning of mine closures have been fragmented so far. Another positive element is the regional approach it introduces, which would better account for the cumulative effects of mine closure (Human Rights Watch, 2022). The draft also proposes that mine closure should be approached from a life cycle perspective, planning for mine closure and new land uses from the first stages of mining development up to the implementation of mine closure (CER, 2021), which is now recognized as best practice globally.

Several organizations have also highlighted some drawbacks in the draft Strategy. For instance, the poor enforcement and implementation track record for previous strategies and existing legislation raise concerns about how effective this Strategy would be (The Federation for a Sustainable Environment, 2021). They have also emphasized the need for more effective participation of communities, workers, and marginalized groups, both in the strategy development itself and in mine closure planning, and the need to explicitly refer to just transition processes (CER, 2021; Snyman et al., 2021). Besides, they have drawn attention to loopholes that the Strategy should address to improve mine closure processes and outcomes, such as the common business practice of selling assets to companies with a poor track record on rehabilitation, establishing complex financial structures to dodge liability for mining impacts, and using the "care and maintenance" or "temporary closure" statuses to avoid implementing mine closure activities (CER, 2021; The Federation for a Sustainable Environment, 2021).

Another environmental factor that complicates the just transition is climate change itself. Climate models predict a warmer future and greater variability in rainfall in Mpumalanga (DARDLEA et al., 2016). These, as well as extreme climate events, put livelihoods and food production at risk (Maponya et al., 2013; Netshakhuma, 2021). This not only limits local capacity to cope with the socio-economic effects of coal transition, but also further constrains economic diversification strategies.

## 3.4 Socio-cultural challenges

A key barrier to the just transition in South Africa is the deeply entrenched socio-economic inequalities inherited from colonialism and apartheid. The poverty rate has increased since 2019, reaching 62.6% in 2022 (World Bank, 2023b). South Africa is the most unequal country in the world, with the largest income gap between the poorest

and the richest in the country. Racial and spatial segregation still play a determining role in perpetuating inequalities, including with access to electricity and other public services (Sulla et al., 2022).

These socio-economic inequalities not only affect the capacity of residents to cope with the transition away from coal and the impacts of climate change, but they also shape their ability to influence the transition's direction. The participatory mechanisms established as part of the democratic transition have been progressively captured by the new system's elite, thus restricting who has voice and influence and whose interests are represented in national to local policymaking (ISSC et al., 2016). Moreover, the persistently high inequalities also erode social trust, which is essential for solving collective action problems, and therefore, for carrying out a just transition (Ostrom, 2010; Philip et al., 2014).

A majority of South Africans support transitioning away from coal (PCC, 2024). However, the picture appears more nuanced at the local level. A 2017 survey of residents in the Mpumalanga city of Emalahleni found that a little more than half of the respondents – especially those living in households where all members were employed at the coal mines – thought coal mining had provided benefits to the local community, and that two-thirds believed South Africa should focus on coal to produce electricity (Pretorius & Blaauw, 2021). During the democratic transition, coal towns became the site of new economic opportunities for Black South Africans, leading to a strong attachment from some workers and communities to the industry and a fear of being unfairly trapped in economic decline or having to start over again (Barnes, 2022).

At the same time, residents and workers are well aware of the environmental and health risks associated with coal mining (Mohlakoana et al., 2023; Pretorius & Blaauw, 2021). Moreover, in the 2017 survey, women were more concerned about the harmful effects of coal generation and did not find it as beneficial for the community as men did. People that had lived in the community longer showed more concern about pollution and negative health impacts.

Survey studies also indicate that a large majority of South Africans, as well as Emalahleni residents, support renewable energy for power generation. Many also would like to have a solar panel installation at their home, which may reflect a desire for more energy autonomy due to worsening power outages in the country (Pretorius & Blaauw, 2021). Still, "there is a missing link between a renewable energy future and the injustices people articulate", with renewable energy benefits being sometimes unclear to coal mining-affected communities (Barnes, 2022; Mohlakoana et al., 2023). The predominance of large EU companies in the development and management of renewable energy assets (Burton & Caetano, forthcoming), as well as concerns about job opportunities in the renewable energy value chain and the limited effectiveness of local content requirements, i.e. regulations that mandate a certain percentage of goods, services, or labour used in a project be sourced from within the country (Ettmayr & Lloyd, 2017) also contribute to criticism of the sector.

Another key obstacle to a just transition in South Africa is the existence of multiple and divergent post-carbon understandings of justice or injustice across society. While there might be as many interpretations of what a just transition entails as there are people

using the concept, two different – and possibly irreconcilable – approaches coexist: one that focuses on overall economic stability and policy efficiency while seeking to compensate and support affected regions versus one that focuses on local issues, such as participation, health and other public services, as well as local employment opportunities (Barnes, 2022). The next section elaborates on this in more detail.

# 4. Just transition framings

Compared with other coal-producing countries, the concept of just transition was introduced into policy debates at a relatively early stage and is now mainstreamed in South Africa. Many actors debate what a just transition entails and have contributed to various institutional processes related to just transition planning, such as the National Planning Commission's or the Presidential Climate Commission's consultations on this topic (see Section 1). Overall, there is widespread support for a just transition to a low-carbon economy in South Africa; however, there is a lack of agreement on its definition, scope and appropriate implementation (Montmasson-Clair, 2021b; Ward et al., 2020).

## 4.1 Unions and their federations

Unions and their federations have played a central role in advancing and shaping just transition policy in South Africa. They aligned with the global trade union movement in advocating for a just transition to be included in the 2015 Paris Agreement. Their main concern is the livelihoods of workers and affected communities over profit considerations. For instance, they were central in getting just transition into the 2018 Jobs Summit discussions, which suggested the creation of a Presidential Coordinating Commission to address climate change, including overseeing just transition planning (Cock, 2019).

Labour's view characterizes environmental racism and injustice as rife in South Africa, where poor Black people bear the brunt of energy policies. It does not accept market mechanisms for driving climate action and is averse to commercial and donor funding and foreign investment in energy projects (PCC, 2023c). Unions have made the issue of energy ownership central to the just transition debate (Kalt, 2022; Sweeney & Treat, 2018), strongly opposing private ownership of new renewable energy and supporting a publicly owned and democratically controlled renewable energy sector made up largely of cooperatives and state-owned companies. For example, the two main unions representing workers' interests, the National Union of Mineworkers (NUM) and the National Union of Metalworkers of South Africa (NUMSA), have collaborated with research organizations to develop a series of proposals for reforming Eskom in a way that ensures it is fully public and leads to socially owned renewable energy (Ashley et al., 2020). Nevertheless, the union movement in South Africa is diverse, just transition framings vary among different trade union organizations.

The Congress of South African Trade Unions (COSATU), a confederation that includes a wide range of trade unions, including the NUM as its largest affiliate, ascribes a broad scope to the just transition concept. Reflecting its members' sectoral diversity, its vision and proposed measures for a just transition in South Africa also cover sectors

such as transport and agriculture. Its framing of just transition has been transformative and inclusive, as reflected in the 2012 Policy on Climate Change and then in the 2022 Just Transition Blueprint for Workers (Barrett et al., 2012; COSATU, 2022). COSATU's framing emphasizes that a just transition in South Africa demands addressing key societal challenges, such as poverty, inequality and unemployment, which requires an economy- and society-wide effort. Moreover, COSATU's just transition envisions an eco-socialist state and calls for unity within the labour movement and alliances with other social movements (COSATU, 2022; Mulaisi & Cock, 2022), reflecting the organization's doctrine about the struggle against race- and class-based exploitation. Just transition is presented as radical concept that can galvanize a unifying force for social movements in South Africa that must be grassroots-driven in an alliance led by labour (COSATU, 2022).

With regards to coal, COSATU's just transition framing prioritizes the impacts on and needs of workers and coal-affected communities. Its just transition proposals are relatively specific, measurable and implementable compared with other union and societal actors. They not only cover traditional issues such as workers' participation, social protection, worker reskilling and redeployment, job creation, regional economic development, land rehabilitation, energy and energy-related industrial policy, but also include more transformative elements such as introducing a universal basic income grant, land reform, macroeconomic policy reforms and compensation for communities that have suffered loss and damage – thus including restorative justice in addition to distributive and procedural measures (COSATU, 2022).

However, while COSATU is lauded for its progressive policy stance, in terms of their actions and implementation, they have been criticized by civil society organizations for adopting a reactionary stance to coal value chain challenges and issues (TIPS, 2022). Further criticism also targets the disconnect between the national policy stance and the outlook of local members in Mpumalanga. While national-level policy advocates for a just transition away from coal, local affiliates are immersed in the coal value chain and, in practice, resist the departure from coal. Research also indicates some level of distrust from workers towards unions (Mohlakoana et al., 2023).

The NUM, whose membership includes workers in the coal mining and power generation sector, as well as the broader mining sector, has emphasized that the pace of the transition should not be primarily driven by environmental concerns, but rather equally account for its socio-economic implications across the country. It claims that discontinuing coal use should not happen immediately and maintains that coal, despite its environmental effects, is a valuable national resource with strategic importance that cannot be abandoned (Bulbulia, 2022). NUM's just transition framing has two main components. The first one is its opposition to coal phase-down in the absence of government-established specific just transition measures to support workers and affected communities. A central aspect here is that of reskilling, and the union has been vocal on the mismatch between the skills required by renewable energy compared with those of coal workers (Sguazzin & Cele, 2023). The second component is the rejection of the energy system's privatization, and related criticism towards the introduction of the Renewable Energy Independent Power Producer Procurement Programme (REIPPP) launched in 2011, which aims to promote renewable energy through private sector investment and thus opened the door to private actors

in producing and selling energy (Baker & Wlokas, 2015). NUM frames the current renewable energy development pathway as a form of green structural adjustment led by international finance institutions (Nel et al., 2023) and supports a moratorium on renewable REIPPPP, favouring instead a fully public energy sector (Bulbulia, 2022).

The NUMSA is, together with NUM, the other main union representing coal workers' interests, together with those in the renewable energy, engineering, automotive and infrastructure sectors. In 2011, NUMSA had already committed to embracing renewable energy under social ownership (Cloete, 2018). In comparison to NUM and COSATU, whose engagement favours social dialogue, NUMSA has shown a preference for social movement unionism, which aims to cultivate societal power resources and confront power dynamics to enable societal transformation (Sweeney & Treat, 2018), including within the context of the just transition debate (Kalt, 2022). However, as the REIPPPP expands and support for workers remains elusive in practice, some NUMSA leaders have taken stronger positions against the phase-down of coal (Irvin, 2022). The union's framing also emphasizes the pace of the transition, which they say should adjust to what the country can afford and avoid hardship for workers (Hlubi-Majola, 2022).

In practice, these frames have translated into opposition to transition policy, such as closing coal power plants and expanding renewable energy with private capital. For example, in March 2018, NUMSA, together with a non-governmental organization linked to former president Jacob Zuma, Transformation RSA, filed a legal challenge to the procurement of renewable energy independent power producers (African Energy, 2018). Besides, NUMSA and NUM led a national strike demanding a just transition to protect coal power workers in 2018 and against the REIPPPP in September 2018 (IndustriALL Global Union, 2018; Irvin, 2018). NUMSA has also involved itself in community energy issues, such as participating in campaigns against electricity price increases (Kalt, 2022), or aiming to shape the national government's solar water heaters procurement (Satgar, 2015). With regards to the JETP, unions have highlighted their concerns on how it might accelerate coal closure without credible worker support measures, its debt implications, and labour's limited involvement in the process (Irvin, 2022; PCC, 2023c).

The relationship between unions and environmental and civil society organizations in South Africa is complex and changing. As mentioned above, some unions that are closer to the social movement unionism tradition have allied with environmental and community organizations on just transition, such as through the One Million Climate Jobs campaign or the Climate Justice Coalition (Kalt, 2022). Both call for a radical transformation of the socio-economic system in South Africa (Just Transition Research Collaborative, 2018; The Climate Justice Coalition, 2022). However, labour's growing resistance private renewable energy and halting coal operations has created tensions with some environmental organizations (Cock, 2019). To date, labour feels the state has not been proactive about implementing just transition projects. The JETP-related process has crystallized union resistance to climate action as they perceive the measures put forward burden workers unfairly, resulting from poor consultation and supported by skewed funding arrangements (PCC, 2023c). A key question, therefore, is whether unions will support transition if implementation of just transition improves, or whether they are becoming fundamentally opposed to the transition away from coal.

## 4.2 National institutions

Several national institutions have played an important role shaping just transition policy. In 2018, the National Planning Commission (NPC), which is mandated with developing a long-term development vision and strategic plan for South Africa, launched a multi-stakeholder dialogue to develop a common vision for a just transition to a low-carbon, climate-resilient economy and society. These consultations led to a broad definition of just transition, primarily concerned with equitable economic development. Accordingly, the sectors in focus include not only energy, but also water and land-use, and the attention is not only to climate mitigation, but to adaptation, too. The process highlighted commonalities and differences in stakeholders' understandings and expectations of a just transition, notably regarding resource ownership and governance. When it comes to coal, the consultations showed a consensus that there is not long-term future for coal, although clear disagreements emerged on the ideal energy mix and the timing of coal phase-out (NPC, 2019).

In 2020, President Cyril Ramaphosa established the Presidential Climate Commission (PCC) to define a just transition vision and guide its planning and implementation. The PCC is a multi-stakeholder body with 10 government ministers, as well as members representing labour organizations (NUMSA and COSATU), the public utility Eskom, business (e.g. the Mineral Council and the National Business Initiative), civil society organizations (e.g. groundWork, Earthlife, WWF), as well as researchers and community activists. In June 2023, the PCC appointed a member from the Premier Office in Mpumalanga to help with coordination across government levels.

In the 2022 Just Transition Framework (PCC, 2022a), the PCC's take on the term is broad, covering both mitigation and adaptation, and considering various sectors at risk from climate change and climate policy, such as the coal and automotive value chains, agriculture, and tourism. It recognizes three aspects of justice: distributive, procedural and restorative (see Box 2). While distributive and procedural aspects are mainstreamed in just transition framings across society, the remediation of past harms is not as prevalent. The PCC framing also includes affordable, decentralized and diversely owned renewable energy systems and identifies three key areas for policy development – human resource and skills development; industrial development, economic diversification, and innovation; and social protection measures – with measures for technological change, institutional reform, and infrastructure development across the three areas. As the financial and infrastructural situation of Eskom and power outages have worsened, the PCC has also called for restructuring electricity tariffs as part of the just transition (Labuschagne, 2023).

**BOX 2: JUST TRANSITION FRAMEWORK**

Pressure from numerous stakeholders resulted in the PCC's formulation of the Just Transition Framework in 2022. Building on a comprehensive stakeholder engagement process, the Framework sets out a 2050 shared vision for the just transition in the country, principles to guide the transition, and policies and governance arrangements to give effect to the transition.

The Framework, meant to evolve iteratively, addresses the intersection of climate and development challenges in South Africa, aiming for a reshaped economy that tackles unemployment, poverty and inequality, while responding effectively to climate change: promoting resilience, cutting greenhouse gas emissions and prioritizing community health. The vision includes phasing out coal, shifting transport from petrochemicals, and enhancing climate-smart agriculture and eco-tourism in value chains. Key policy areas – such as skills and education development, industrial development, economic diversification, and social protection – support this vision. The Framework also incorporates a trade dimension, analysing potential effects of punitive measures tied to carbon intensity. The Framework adopts a just transition policy toolbox based on international best practice guidance on achieving just transitions by the International Labour Organization and adapted to the South African context.

The Framework strongly leverages three justice principles, which are embedded in the South African constitution:

- Distributive: fairly distribute the risks and opportunities resulting from the transition across society.
- Procedural: bring justice into the policy planning and implementation process by empowering and supporting workers, communities and small businesses in the transition.
- Restorative: redress historical costs imposed on vulnerable stakeholders, focusing on healing the people and the land.

Following the publication of the JET IP in 2022, the PCC conducted stakeholder consultations that called for a better integration of key just transition concerns, such as social ownership and protection models, energy poverty and energy access, skills development and employment, and economic poverty. Stakeholders also called for a larger share of grants in the financing package and for better governance and oversight mechanisms for all transition funding and climate finance (PCC, 2023c).

**BOX 3: JET INVESTMENT AND IMPLEMENTATION PLANS**

Leading up to COP27 in 2022, South Africa introduced its Just Energy Transition Investment Plan (JET IP) for the period 2023 to 2027. The primary goal of the JET IP is to propel industrial development, foster innovation and facilitate economic diversification, all aimed at decarbonizing the South African economy. The financial requirement, as specified in the JET IP, totals ZAR 1.5 trillion for the outlined five-year period.

The JET IP delineates key sectors requiring infrastructure investments from 2023 to 2027, spanning energy, chemicals, and automotive sectors, with a focus on electricity, green hydrogen, and new energy vehicles. Skill development and strengthening municipal capacity to effectively implement just transition projects serve as cross-cutting priorities supporting these sectors. Notably, the JET IP includes some social protection-related measures, such as redeployment and relocation allowances, as well as income support for workers. However, its primary emphasis (and resource allocation) is on energy infrastructure development.

The Presidency published its Just Energy Transition Implementation Plan in late 2023, which defines short- and medium-term outcomes in the following portfolios: electricity; Mpumalanga just transition; new energy vehicles; green hydrogen; skills; and municipalities. It also indicates what institutions shall lead implementation in each area of work (The Presidency of the Republic of South Africa, 2023).

While the NPC and the PCC's take on just transition is broad in scope and rather transformative in ambition, other parts of the government have maintained a narrower and more conservative framing. This is the case of the Department of Mineral Resources and Energy (DMRE), which regulates and develops policy for the mining and power generation sectors. The DMRE has acknowledged that coal will decline in the long term in various policy documents (DMRE, 2020b, 2021), although it argues that "clean" coal – i.e. technologies such as carbon capture, utilization and storage (CCUS) and high-efficiency, low-emissions coal power plants – could keep coal as a leading energy source in a way that would be compatible with a low-carbon transition and would counter the negative impacts of coal decline (DMRE, 2023b; Evans, 2022a). Nevertheless, despite research and funding for developing CCUS technology, in South Africa there are only incipient pilot projects by Sasol and ArcelorMittal, while the technology's mitigation potential and commercial viability at scale remains highly uncertain globally (SEI et al., 2023). In addition to "clean" coal, the DMRE has strongly advocated for nuclear energy and gas power generation (Burton et al., 2022).

Besides implications for workers and coal-dependent communities and regions, the DMRE highlights transition risks that are relatively less-cited by other actors, such as the risk of stranded assets – infrastructure that could not recoup the money invested into it – and losing public revenues (DMRE, 2021). While the department recognizes the multifaceted and cross-sectoral nature of just transitions, it decided to focus on what it introduced as the "just energy transition", which focuses on the shift away from coal and towards cleaner sources of energy. This narrower approach, it argues,

gives priority to its constituency and prevents conflicting approaches with other governmental bodies on matters unrelated to mining and energy (DMRE, 2021).

The fast-changing global energy context has become central to how Gwede Mantashe, the former Minister for Mineral Resources and Energy, talks about the future of coal and other fossil fuels. The minister, a former coal miner and who has called himself a "coal fundamentalist" (Evans, 2022b), has claimed unfounded opportunities for South Africa to supply in-demand coal following Russia's invasion of Ukraine: "(A)ny suggestion that coal has reached its sell-by date is a myth. Hence, our coal exports have increased by over 700% since the geopolitical conflict between Russia and Ukraine" (DMRE, 2022b). Like union organizations, the former minister has emphasized that South Africa should dictate the pace of its transition, rather than yielding to the global energy transition discourse (DMRE, 2022a; Steyn, 2021). This, however, brushes aside the fact that coal plant closures thus far have not been caused by climate policy, but economic and technical reasons (Burton et al., 2018). It also does not address the impacts of mine closure – at least 15 mines are slated for closure in the coming years due to reaching the end of their lives and stagnant demand (Cole et al., 2023).

Another important governmental actor is the Department of Forestry, Fisheries, and the Environment (DFFE), which is responsible for regulating pollution, preserving natural resources and climate change policy. Its just transition framing follows that of the PCC. One notable feature is the former Minister's emphasis on financing the just transition and the need to transform the global financial architecture to enable just transitions in South Africa and lower-income countries more broadly (Creecy, 2021, 2022, 2023). Also, the DFFE commissioned research that led to the National Employment Vulnerability Assessment and Sector Jobs Resilience Plans, which identified the main climate- and transition-related risks across the coal, metals, petroleum-based transport, agriculture and tourism value chains (Makgetla, 2021).

The broad scope of the just transition vision embodied in the Just Transition Framework requires action by many more sectoral departments (Hermanus et al., 2022; PCC, 2022a). These include the National Treasury, the Department of Trade, Industry and Competition (DTIC), the Department of Science and Innovation (DSI), the Department of Higher Education and Training (DHET), the National Treasury, and the Department of Public Enterprises (DPE), which is responsible for Eskom. Some are particularly focused on coal-related issues in the just transition, such as the DPE, the National Treasury (through the JETP) – and the DHET (with regards to workers training and reskilling). Others, such as the DTIC and the DSI, are more involved in the economic diversification side of the just transition (DTIC, DSI). As for the Presidency, besides its work through the PCC, it also hosts the JETP project management unit, which oversees, monitors and evaluates the JETP implementation and has sought to increase the share of grants versus loans in the support package (Creamer, 2023).

## 4.3 Provincial and local governments

Provincial and local governments also play essential roles in shaping just transition pathways and outcomes. For one, they are responsible for local planning, enabling economic development and delivering social services and infrastructure. Further, they regularly interact with various local stakeholders through participatory planning and possess the knowledge necessary to design just transition measures that are contextually relevant (Hermanus et al., 2022).

The government of Mpumalanga started to engage with the concept of just transition more actively when Eskom began to decommission coal power generation units in 2019. The term did not appear in the Mpumalanga Premier's State of the Province Address until 2020 (Mtshweni-Tsipane, 2020). Over the past few years, it has taken steps to strengthen just transition planning and policy implementation at the provincial level, while also highlighting the role and responsibilities of the national government (Mtshweni-Tsipane, 2023).

The province has developed a Just Transition Strategy, which is yet to be officially approved at the time of writing this report. The Strategy incorporates components of distributive, procedural and restorative justice. It emphasizes and proposes measures for creating jobs, enhancing workers' skills and fostering economic diversification. Additionally, the Strategy includes other aspects of the national Just Transition Framework, such as land rehabilitation in mining areas and ensuring food security. Regarding renewable energy, the Strategy advocates for the developing new power infrastructure, including mini grids and community-owned facilities, as well as the development of its value chain. A major concern for the provincial government is the limited local involvement in national just transition planning (Mtshweni-Tsipane, 2022). Therefore, it has set up a provincial just transition and climate change stakeholder forum. The provincial government also established a Green Cluster Agency, working on green economy development, growth and jobs, focused on energy, water and agriculture sectors (Mpumalanga Green Cluster Agency, 2024).

Municipal governments in Emalahleni, Govan Mbeki and Steve Tshwete have taken longer to incorporate just transition into their integrated development plans, their main development strategy documents (Nel et al., 2023). However, the government of Emalahleni has a climate change strategy which addresses just transition (Emalahleni Local Municipality, 2021). In the Strategy, it highlights the risk of job losses in the coal sector, but also wider potential economic impacts in the agriculture, tourism, mining, energy, transport, manufacturing, and the biodiversity economies. It takes a broad perspective on just transition, emphasizing integrated local development, basic services, job creation and addressing energy poverty and access. It also highlights the importance of bottom-up participation from all stakeholders and a commitment from the national government. However, it does not provide detailed information on specific measures to implement. The Steve Tshwete Local Municipality is in the process of integrating just transition into local planning instruments and identifying just transition projects, together with ICLEI Africa, a chapter of the International Council for Local Environmental Initiatives (ICLEI Africa, 2024).

## 4.4 Major coal-based companies

Major coal-based companies have also embraced the just transition concept in their strategic communication, together with their climate mitigation commitments and diversification efforts. The main coal mining companies, for instance, have announced climate mitigation targets. These have, however, been criticized for mostly covering Scope 1 and 2 emissions only, leaving out the majority (80%) of the emissions resulting from burning coal by their clients (Scope 3), for relying on expensive and unproven technologies, such as CCUS, and for not aligning with the goals established in the Paris Agreement (Groenendaal, 2023; InfluenceMap, 2023; Schuster, 2022). For example, Exxaro, one of the main coal suppliers for Eskom, explicitly stated in its 2020 report on climate change that its strategic planning aligns with a global temperature increase of 2.5 to 3.5°C by 2100, as opposed to the 1.5 to 2°C detailed in the Paris Agreement (Exxaro 2020, p. 10). Sasol, too, announced climate commitments, including a reduction in coal use by 2030, and plans to reduce its greenhouse gas emissions by 30% by 2030 and to net zero by 2050 by switching to renewables, gas, CCUS, green hydrogen and carbon offsetting (Sasol Ltd., 2022). In 2023, however, Sasol announced it already faces challenges in meeting its 2030 targets and that the just energy transition should not be pursued "at all costs" (Banya, 2024).

Major miners have announced their intention to gradually phase out of the sector. For example, in 2015, BHP Billiton separated its South African operations into South32, which subsequently sold its assets to Seriti June 2021. AngloAmerican has also sold off domestic and export mines to Seriti and Thungela, respectively, and no longer mines coal in South Africa, while Glencore has declared a plan for a managed decline of its coal-related assets globally. Exxaro announced it would not invest in new coal mines after completing the Belfast mine in Mpumalanga (Burton et al., 2022). As explained in Section 2.1, this signifies the transfer of climate-related financial risks to domestic capital and increases the risks of significant environmental consequences remaining unaddressed.

Several coal companies in South Africa are starting to invest in renewable energy to supply their own operations as a company decarbonization strategy, or for supplying the national grid as a diversification strategy. Seriti recently purchased the South African assets of WindLab, launching Seriti Green, while Exxaro was an early investor in the REIPPP through Cennergi. The Minerals Council South Africa and Exxaro also identified critical minerals for the low-carbon transition as key sector for diversification (Mgojo, 2021; Minerals Council, 2023).

However, the coal business landscape remains a quickly evolving one. For instance, Seriti announced it would halt its minerals diversification strategy when it acquired the Australian company South32's South African coal assets in 2021 (McKay, 2021). Moreover, amid the coal price surge resulting from Russia's invasion of Ukraine, coal producers hope to maximize income in the short and medium term (Blas, 2023), even though price volatility has led to large profit shocks compared to previous years. For instance, Thungela's annual profit increased by 97% and Exxaro's earnings increased by 78% in 2022, thanks to their coal business performance, enabled by high prices (Banya, 2023a; Exxaro, 2023a), only to see earnings fall again in 2023 after a considerable drop in global prices (Banya, 2023b; McKay, 2024).

Overall, coal-based companies emphasize the procedural and distributive dimensions of just energy transitions. The concept of just transition appears in most companies' recent sustainability and climate change-related reports, often with little detail about what it entails in practice. However, companies sharing similar framing as the DMRE, with the Mineral Council and Thungela highlighting the role of so-called clean coal, a notion challenged by both research and civil society organizations in South Africa because of its reliance on unproven CCUS technology and the persistence of health impacts (Robertson & Mousavian, 2022; Sahu, 2021; WWF South Africa, 2022), the importance of coal for energy security, and the Mineral Council also emphasizing a gradual pace of transition (Just Share, 2022; Minerals Council, 2023). The CEO of Thungela was also the Chair of the World Coal Association (WCA), rebranded to FutureCoal in autumn 2023, and his framing is reflected in the business association's arguments for maintaining coal use (FutureCoal, 2020). At the same time, Exxaro and Seriti have pointed to their renewable energy investments as part of their just transition efforts (Exxaro, 2021). There also appears to be a kind of amalgamation with other concepts related to the social and environmental impacts of mining companies, with Exxaro and Thungela, for instance, framing just transition through the lens of sustainable development or environmental, social and governance investment and corporate responsibility (Creamer, 2022; Exxaro, 2022; Ndlovu, 2023). This is consistent with how many organizations and institutions have articulated just transition vis-à-vis Sustainable Development Goals (Denton et al., 2022; EBRD, 2023).

In practice, besides investing in renewable energy, the just transition measures coal-based companies describe are no different from what they have put in place and communicate in their sustainability reports over the past decade, such as stakeholder dialogue, procuring from local Black-owned small and medium enterprises, generating jobs during infrastructure construction, and investments in local social and environmental infrastructure through Social and Labour Plans (SLPs), which outline commitments a mining company will implement to benefit communities and workers, and is a requirement for obtaining a license ( Creamer, 2022; Exxaro, 2023b; Glencore, 2022; van der Watt & Marais, 2021). Sasol has also set up a JET office, mandated with developing a Just Transition Roadmap through 2050 (Payi, 2022).

## 4.5 Eskom

Eskom, South Africa's state-owned utility, has historically resisted the low-carbon transition, due to institutional inertia and the close relations between coal mining, electricity generation and energy-intensive consumption under the minerals-energy complex (see Section 2) (Fine & Rustomjee, 1996; Ting, 2015; Ting & Byrne, 2020). However, a combination of factors – such as the declining economics of coal power and improving economics of renewable energy, difficulties financing coal, air pollution legislation, civil society opposition, and domestic and international climate ambitions – have forced the utility to open up to the low-carbon transition (Burton et al., 2022). In this context, and as many of its coal power plants will soon reach their end of life, it has also increasingly engaged on the issue of just transition. In addition, the utility faces substantial power struggle and corruption challenges that fuel the call for its radical reform (Lamb & Minx, 2020; Mirzania et al., 2023).

In 2020, Eskom announced its aspirational goal of reaching net zero emissions by 2050 (Burkhardt, 2020) and established a Just Energy Transition Project Office to support Eskom's decarbonization efforts and develop strategies to support affected workers and communities. Eskom plans to close nine coal-fired power stations by 2035, starting with the 56-year-old Komati plant in September 2022. In 2021, it proposed a Just Transition Financing Facility to provide concessional funding for clean energy projects (Eskom, 2021d), and later negotiated successful financing deals with the World Bank and the Climate Investment Funds Accelerating Coal Transition program, comprising a major share of the funding from the JETP (CIF, 2022; World Bank, 2023a). However, Eskom's corruption and operational crises have caused some of the oldest coal plants to keep operating longer than expected in the IRP 2019, in order to meet power needs in the country (Plessis & Acharya, 2023). The draft IRP 2023 proposes further delays to decommissioning coal power plants (DMRE, 2024).

Eskom's just transition framing focuses on the energy sector. It highlights the need for reaching a net zero energy system while creating sustainable jobs and maintaining economic growth, thus generating environmental co-benefits such as improved water availability and air quality (Eskom, 2021c). It emphasizes repowering measures, such as using renewable energy or gas to generate electricity at the decommissioned sites, and repurposing decommissioned plants for other economic activities, such as agriculture and manufacturing (Eskom, 2022a, 2022b). Training and reskilling are important components of Eskom's just transition approach, which also features expanding electricity access through microgrids. Overall, Eskom's communication on just transition underlines the potential benefits of the transition, including job creation across the value chain, deferring the rehabilitation costs of plant closure by repowering and repurposing them, creating new revenue streams, upgrading the technology to improve air quality,[3] reducing greenhouse gas emissions, and achieving other environmental co-benefits (Eskom, 2021b).

Importantly, Eskom frames the just energy transition as a deep transformation of Eskom itself, thus going beyond the diversification narrative that other companies in the coal sector have used. The transition encompasses a change in the utility's business model, including unbundling different business units (generation, transmission, distribution) with the intent to liberalize the electricity market, separating the coal and renewable energy businesses, expanding renewable energy production and developing new revenue streams. It also includes enabling private financing and new public-private partnerships (Eskom, 2021b, 2021f, 2022a). The just energy transition becomes, in this sense, a critical part of Eskom's strategy to regain financial stability (Eskom, 2021c). However, a financial bailout in 2022 by the National Treasury has hindered Eskom's ability to fund just transition efforts by limiting it from taking on further debt and deploying that capital at closing plants (Kumwenda-Mtambo et al., 2023).

3 However, Eskom's retrofit plan does not actually meet air quality standards, as it covers only nitrogen oxide and particulate matter, and fails to adequately address sulphur dioxide emissions (Mullyvirta & Kelly, 2023).

In practice, Eskom has developed a pipeline of projects to be financed under the banner of the just energy transition, primarily for developing clean energy generation – including gas, although research challenges the view it is a clean fuel (Kemfert et al., 2022) – at new sites and expanding the transmission and distribution grid infrastructure (Eskom, 2021d). Its flagship project is the repowering and repurposing of the Komati coal power plant, where the last generating unit was closed in September 2022. The project, financed by a $497 million World Bank loan, comprises a manufacturing plant for assembling renewable energy microgrids, 220 megawatt (MW) renewable (solar photovoltaic and wind) energy production, 150 MW batteries, the creation of a retraining centre managed by Eskom's Academy of Learning, as well as community-driven projects and small, medium and micro enterprises (SMMEs) support (Eskom, 2022a; World Bank, 2023a). Eskom has also started developing repurposing plans for the Grootvlei power station, in partnership with the UK and the Netherlands, with a focus on agriculture-related opportunities (Eskom, 2022a).

## 4.6 Civil society and grassroots organizations

Civil society and grassroots organizations in South Africa play a crucial role in the just transition by advocating for affected communities, influencing policy, conducting research, building institutional and community capacity to participate in just transition planning and implementation processes, and seeking to hold governmental and private actors accountable. Assessing the needs, concerns and challenges of impacted communities is a complicated endeavour. Practically, it is not possible to understand the needs of every community member, so civil society organizations and community leaders often represent communities in public engagement activities such as stakeholder consultations in the NPC process and the PCC Just Transition Framework process. While views of what a just transition precisely entails vary among civil society and grassroot organizations – with some being rather supportive of coal (Molekwa, 2023) – these broadened the scope of the just transition debate and elevated local views and concerns in high-level policy discussions.

Some civil society organizations have engaged in energy, environmental and climate justice for several decades, calling for a deep change in the principles, institutions and practices that sustain the prevailing socio-economic system in South Africa (Earthlife Africa, 2009; groundWork, 2011). This approach has shaped their framing of just transition, in that it ought to be transformative and encompasses a wide range of considerations, from climate mitigation to adaptation, and across various sectors, as reflected in the 2022 Just Transition Open Agenda compiled under the Life After Coal campaign (Life After Coal, 2022). Their framing is also inclusive, as they recognize and convey the needs and concerns of marginalized groups, such as women and youth, and call for their greater inclusion in just transition policy processes (King, 2021; PCC, 2023c).

Civil society organizations have also made significant efforts to highlight the aspects of just transition that, although constitute a core concern at local level, are less discussed in policy circles, such as ensuring food security or access to energy, basic services, resilient housing and local crime levels (Eskom, 2023; Hallowes & Munnik, 2019; Joubert, 2020). They are increasingly active in challenging the narrative of gas as a central pillar of the energy transition (CER, 2022a; WWF South Africa, n.d.), a notion also decried by

scientific research (Kemfert et al., 2022). As mentioned above, they engage in unions' interests too, such as the future of Eskom and the renewable energy ownership model, jobs, and social protection mechanisms (Ashley et al., 2020; Hallowes & Munnik, 2019; Halsey, 2018). Besides these distributional, procedural and recognitional (i.e. the principle of equal respect for all, which in practice draws attention to marginalized groups in the transition (Fraser, 1999)), aspects of the just transition, they have also addressed restorative ones, such as the health and environmental impacts of the coal industry, and the resulting need for compensation and rehabilitation (CER, 2022b; groundWork, 2018; Life After Coal, 2019; Perkins et al., 2020).

This approach significantly shaped the potential course of South Africa's just transition. For instance, together with unions, civil society organizations successfully lobbied to include diverse ownership models for renewable energy in the NPC's 2050 Vision and Pathways for a Just Transition report and the PCC's Framework for a Just Transition (NPC, 2019; PCC, 2022a). Civil society organizations have also been active in the courts. In 2016, Earthlife Africa appealed the environmental authorization for the proposed Thabametsi coal power plant in Limpopo, prompting the Minister of Environmental Affairs to require a climate change impact assessment for a coal power plant for the first time in the country's history (Life after Coal, 2016). In 2022, groundWork and Vukani Environmental Movement won a legal case against the government, after a court determined it breached the constitutional right to clean air (Sguazzin, 2022).

With regards to the JETP process in particular, civil society organizations have raised concerns about the transparency and inclusiveness of the process, its financial constraints, the current governance of renewable energy production, and about how the process will derive local benefits more broadly (Earthlife Africa, 2022; PCC, 2023c). They also demand justification for the prioritizing the green hydrogen sector in the JET IP (PCC, 2023c), and have been increasingly active in challenging the narrative of gas as a central pillar of the transition (CER, 2022a; WWF South Africa, n.d.).

Youth participation has often been ignored or remained a merely tokenistic exercise (Samie et al. 2023). When it comes to the just transition, youth issues are often equated to those associated with women or Indigenous groups, or broadly covered under civil society, thus minimizing youth voices in the just transition (Appies & Maimele, forthcoming). Despite this, South African youth have managed to organize around the just transition process, although mostly in urban areas.

Since the establishment of the PCC, youth voices have started to make stronger headway in climate change debates. In 2023, the PCC organized a Youth and Just Transition Conference together with the South African Youth Economic Council, and has recently launched a "youth perspective" commissioned series of essays to inform South Africa's just transition implementation plan (PCC, 2023d). Youth voices have also gained prominence through climate change demonstrations during South African Youth Month (June) (Hendricks, 2022), and leading projects in the just transition, such as the Climate Ambition to Accountability Project and Youth Climate Champions Programme (Samie et al., 2023).

As much as the PCC and other relevant organizations have engaged youth, youth in the transition still face myriad issues. One key issue of concern is the lack of diversity in stakeholder engagement spaces in terms of gender, race, residence and language (Appies & Maimele, forthcoming). This has been raised during the PCC's extensive community and stakeholder engagements in 2022 by many youth who feel the process is leaving them behind (PCC, 2022b). The perceived lack of inclusiveness in just transition stakeholder engagement remains a significant barrier to involving youth and communities affected by the transition more broadly.

## 4.7 Multilateral development banks and bilateral funders

Multilateral development banks and bilateral funding providers have played a significant role in shaping just transitions in South Africa through mobilizing financial resources, providing technical expertise and policy advice, and promoting partnerships such as the JETP. These actors have a strong interest in cutting South Africa's power generation emissions and in the country's potential for exporting green hydrogen back to donor countries for use in their own decarbonization efforts (Burton et al. 2022). As such, they have primarily engaged in matters related to the decommissioning, repurposing and repowering of Eskom's coal-fired power plants, as well as the development of the green hydrogen sector. The World Bank's Komati and the Climate Investment Funds' Accelerating Coal Transition projects are two examples that reflect this approach, although they also include activities directed to local economic and community development (CIF, 2022; World Bank, 2023a).

### BOX 4. KOMATI POWER STATION DECOMMISSIONING AND JUST TRANSITION INTERVENTION

The Komati power station is located in the Steve Tshwete Municipality in Mpumalanga and was constructed in the 1960s near the Koornfontein and Blinkpan coal mines (Eskom, 2021e). The power station has seen various levels of activity over time. Some units were mothballed during the 1980s and the entire power station was mothballed in the 1990s due to Eskom's overestimates of demand (see section 2.1). During the loadshedding crisis of 2007–08, the power station, along with Grootvlei and Camden, was returned to service to provide additional capacity. The last unit of the power station was retired in October 2022. At that time, the plant had 236 full-time employees with 534 contract employees (Ebrahim, 2023).

As an initial test case of implementing the just transition, the World Bank provided in 2023 a $439.5 million loan to Eskom to support its activities as part of the Eskom Just Energy Transition Project, supplemented by a $47.5 million concessional loan from the Canada-World Bank Clean Energy and Forest Climate Facility, and a $10 million grant from the Energy Sector Management Assistance Program (World Bank, 2023a).

The four- to five-year project aims to decommission the plant and convert the site for renewable energy and battery storage, while creating employment opportunities for displaced workers and surrounding communities (World Bank, 2023a). Specifically, the project aims to install 220 MW of renewable energy generation and storage

solutions between solar, wind and battery power. Some workers were transferred to other power stations, while others took on reskilling to work at renewable plants or accepted voluntary separation packages for those close to retirement. The effort also emphasizes community development projects, skills training, incubation support and business development services for new and existing SMMEs (World Bank, 2023a). Targeted sectors include agriculture, local manufacturing and digital technology.

While the project has set lofty ideals and is viewed as the pilot initiative for other decommissioning just transition processes, its implementation came too late, according to stakeholders within the PCC, who claim that the project should have been initiated as the last unit of the plant was shut down in October 2022 (Ebrahim, 2023). Instead, workers and communities were already impacted while the plans were still being developed. This underscored the DMRE's responsibility to plan decommissioning processes in greater advance.

The engagement plan with workers and communities has also been critiqued by the PCC for lacking inclusivity (PCC, 2023a). Other critiques question the extent to which surrounding communities will be uplifted, pointing to pre-existing problems in under-performing municipalities, such as the lack of access to clinics, hospitals, schools and libraries, and the lack of financing for these services. These complaints highlight the importance of coordinated governance among various government institutions with their respective responsibilities.

Finally, the extent of worker support is another area of concern, especially for employees that were retrenched before the last unit was shut down and contract workers (PCC, 2023b).

# 5. Discussion

In this section, we reflect on the analysis of just transition framings by different actors in South Africa and what it reveals about the domestic and international political economy. We also discuss some key political questions that arise in the context of just transition policy implementation. A central focus of our exploration is to identify the tensions that naturally surface as the just transition policy process evolves from framing to planning and eventual implementation. A critical aspect of these tensions revolves around the scale at which interventions will be implemented, manifesting divergent priorities among stakeholders operating at different levels.

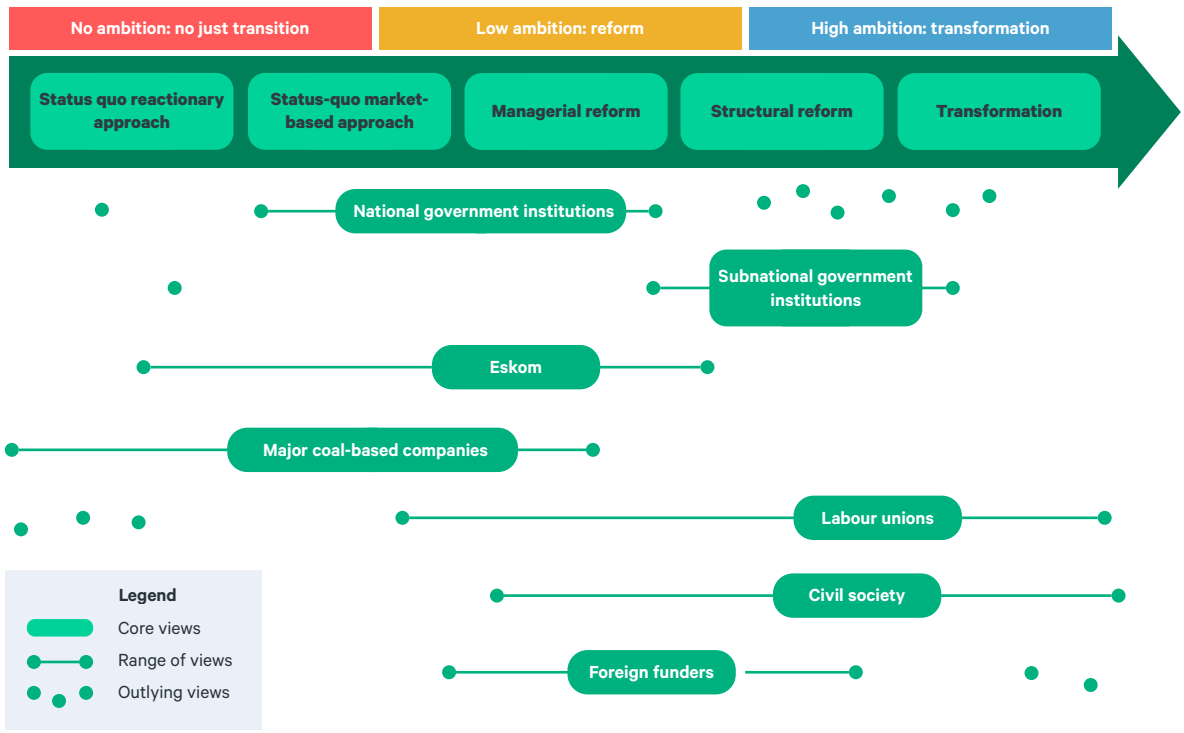
## 5.1 Evolving visions and their variations

The analysis of just transition framings conducted in this study highlights how the concept is used as a political tool to shape the distribution of economic and political power in the country (Montmasson-Clair, 2021b). The concept of just transition has become mainstreamed in energy and climate policy discussions in South Africa, and an anchor point for promoting very different economic and political framings and projects. While some have interpreted the concept in a transformative way and use

it to rally multiple societal actors around a more inclusive and equal development vision, others have used it to promote purely decarbonization efforts and decisions that do not engender justice principles, and even entrench the political and economic status quo. Figure 5 illustrates this variation in interpretations between different types of actors, but also within categories such as labour, government, civil society and business. The arrow indicates different levels of just transition ambitions, from no transition at all, then a mere greening of the economy, through various degrees of attention to mitigating economic and other types of losses, enabling participation and representation, and compensating historical impacts of the coal regime, all the way to empowering and elevating all vulnerable stakeholders, generating a fair distribution of benefits, and including a strong restorative perspective.

Key determinants of the transformational nature of just transitions framings include who is meant to benefit from and pay for the just transition, and which energy technologies will be promoted. This includes discussions around expanding fossil gas and nuclear energy and the governance and ownership models applied to new technologies. The way a just transition framing addresses restorative dimensions also characterizes how transformative it is.

Figure 5: Representation of stakeholders' views and ambition on just transition in South Africa




*Source: Adapted from Montmasson-Clair (2021b)*

When it first started to appear on South Africa's political agenda, the concept of just transition was narrower than today. Given its rise in popularity from the union movement, a lot of emphasis was placed on worker rights and justice. A decade of consultations, culminating in the 2022 Just Transition Framework, have spawned a socially transformative take on just transition, which encompasses a large array of

development challenges. Still, some actors, such as the DMRE and some coal-based companies and business associations, have maintained a narrower vision and approach, which they articulate through a low- (or no-) ambition interpretation of the concept of just energy transition.

The power of the DMRE, the context of the JETP, and more broadly, international funders' interest in renewable energy and hydrogen development, as well as Eskom's crisis, reinforce this narrower perspective in just transition policymaking and implementation at the national level. This perspective oscillates between an approach that seeks to maintain the status quo while implementing a series of market reforms to green the economy and the managerial reform agenda, in which just transition efforts only recognize impacts on workers and stakeholder engagement takes place primarily at the firm level (Montmasson-Clair, 2021b). Despite emphasizing worker support, in practice, efforts are directed primarily to promoting other forms of energy production, from gas and nuclear energy to hydrogen and renewable energy, with little attention to long-term job generation and fostering development.

Further, the ability to lobby and exercise power has also hindered the potential of wider social and economic transformation. Civil society voices that seek to represent communities and workers are often sidelined at national-level policy debates (Montmasson-Clair, 2021b). This is further complicated by the fact that civil society groups attempt the complex task of understanding community needs and voices, where communities' views can be disparate and ascertaining true representation is challenging. This results in the exclusion of transformative and community-led solutions and reduces the likelihood of these solutions filtering into project implementation.

These trends pose significant risks that national policy and just transition resource allocation fail to align with local concerns and priorities, which respond to a more transformative agenda, centred on improving basic services and food security, reducing inequalities, creating local economic opportunities and employment, and enabling climate adaptation (Montmasson-Clair, 2021b). Moreover, the narrow interpretation's support for so-called "clean" coal and gas as central fuels in the country's future energy mix also imply heightened risk of stranded assets and carbon lock-in, as it keeps the country reliant on fossil fuels and traps its economy in a high-carbon future, with investments risking becoming obsolete and making it difficult to transition to low-carbon alternatives, as the rest of the world shifts towards renewable energies. It also generates economic risks associated with adopting of carbon-intensity-related trade restrictions by important trade partners, such as the EU, which could impose tariffs or quotas on carbon-intensive goods, making exports less competitive.

In this sense, most stakeholders' adoption of just transition discourses in South Africa, while a positive step towards addressing environmental and social concerns, carries the risk of "just transition-washing". For example, reducing the transition to technical and financial problems, or solely to the compensation of the formal working force, dilutes the just transition's transformative potential by dissociating it from its social components. There is a real danger of stakeholders using just transition rhetoric as a mere public relations strategy, divorcing it from its roots in social justice and environmental activism.

This study also highlights the differences between just transition-related discourse and practice. Several actors have set transformative ambitions. However, as the process moves from principle and priority-setting to policy planning and funding, and finally to project design and implementation, some stakeholders have seen increasing fragmentation in their ranks, sometimes revising their official positions or taking actions that reflect not only a narrower perspective on the just transition, but sometimes even aim to hinder and delay the process.

While some coal unions and other coal value chain actors can exemplify such dynamics, they are not the only ones. Another example is the increasingly polarized views within the government on just transitions. The former Minister of Mineral Resources and Energy, Gwede Mantashe, and the Minister of Electricity, Kgosientsho Ramokgopa, sought to extend the operation of power plants scheduled for closure under the 2019 IRP due to the electricity crisis and heavily criticize the Komati decommissioning and transition process (Child & Ensor, 2023; Nyathi, 2023a, 2023b).[4] This approach responds to short-term political goals and sows doubt and distrust in the implementation of just transition plans (Davies, 2023; Nyathi, 2023a). It also illustrates how coal interests exploit criticism by civil society towards specific just transition projects – which aim at improving these and future projects – to thwart efforts to fairly transition away from coal.

Another challenge that arises at the implementation stage is that the many stakeholders' transformative ambitions are difficult to achieve through many small projects, and action plans have yet to emerge from the government departments responsible for those policies. And the limitations of the financing ecosystem also constrain transformative ambitions, as the scale of the required transition is far larger than the resources available. Meanwhile, ambitious just transition projects tend to be ill-suited to accessing traditional finance, namely small, high-risk projects that rely on novel technologies and approaches to project design and architecture, involve new participants and multi-layered funding requirements (Lowitt, 2021).

## 5.2 The politics of implementing just transitions

In South Africa, there has been a decade-long process of getting just transition on the policy agenda and defining an agreed-upon, even if not wholly shared, vision among diverse stakeholders through consultations across sectors and geographies. The country is now at a stage where it has not only established principles and objectives for the just transition, but also started to develop more specific plans and policies, and to allocate resources to implement these. Simultaneously, the first coal-fired power plant, Komati, has now closed, and the effects of this closure on workers and surrounding communities are becoming evident. Stakeholders in Mpumalanga also increasingly demand on-the-ground projects that translate just transition policy ideas into practice, fatigued by years of dialogue and yearning for implementation.

4 As noted previously, the structure and mandates of departments have changed following the 2024 national elections. As a result, Minister Mantashe is now the Minister of Mineral and Petroleum Resources, while Minister Ramokgopa is now the Minister of Electricity and Energy.

All these circumstances, coupled with international and bilateral funders' interest in accelerating South Africa's energy transition, mean the country is entering the phase of just transition policy implementation alongside policy-planning. In this stage, new political issues arise while old ones gain renewed prominence. In this subsection, we unpack two of them: balancing top-down- and bottom-up-led change, and how to "pick winners".

### 5.2.1 Balancing top-down and bottom-up led change

Because of the large-scale, multisectoral and coordinated shift that a just transition in South Africa implies, state involvement is critical to plan and engineer the required changes. However, bottom-up processes, where the impacted stakeholders are given agency in the transition, are also essential to challenging existing structures that perpetuate the status quo, and ensuring the direction of change is socially acceptable. There is thus a need for a combination of top-down and bottom-up steering of just transitions to enable coordination and justice (Pueyo & Leining, 2023).

Central here is the procedural dimension of just transition, which seeks to address the imbalance in agency and influence by creating mechanisms to include the views of impacted and vulnerable stakeholders in just transition processes and solutions. Montmasson-Clair (2021a) proposes to apply voice, dignity, respect, transparency, impartiality and trustworthiness as key features of procedural justice in South Africa through mechanisms such as continuous public engagement, permanent community and grassroot forums, active support to vulnerable groups and using a mix of open, direct and representative democracy.

Bottom-up engagement represents a fundamental shift from the way in which energy planning has typically been carried out. South Africa's energy planning processes are centralized, under the mandate of the DMRE and ratified by the Cabinet (Hermanus, 2021). The top-down nature of energy planning results in local stakeholders being impacted by decisions over which they have no control or agency, and which impose economic costs on them. Local governments in coal regions, for example, have no decision power on national energy planning processes; however, they must deliver services to the workers, communities and small businesses that are often part of the coal value chain and will be affected by closures. They do play a key role in leading local economic development, however (Hermanus et al., 2022).

South Africa is a democratic country, and some examples of participation are meant to occur in policymaking. For example, public participation is required as part of the Environmental Impact Assessment (EIA) process. According to the National Environmental Management Act 107 of 1998, public participation is part of the EIA process, to allow stakeholders to join the decision-making process (Montmasson-Clair et al., 2022). The Mineral and Petroleum Resources Development Act 28 of 2002 also requires consultations with affected communities on mining rights applications. Mining companies must consult with the public before finalizing their SLPs (van der Watt & Marais, 2021).

While these existing policy processes seek to inclusivity among impacted stakeholders, in practice, they are often conducted as formalities and plagued with implementation challenges. Further issues include corruption, clientelism, selection bias (only consulting some stakeholders or certain leaders), and a public lack of access to information (due to language or technology barriers) (Montmasson-Clair et al., 2022).

Examining the SLP process reveals the mismatch between policy intent and practice. SLPs intend to stimulate the local economy and ensure that mine-affected communities are left better off throughout and after the mine closure. However, this planning tool has failed to deliver local benefits in practice, due to a lack of democratic consultations, transparency, monitoring and alignment with existing structures and community needs (Centre for Applied Legal Studies, 2018).

Stakeholder engagement with vulnerable parties in coal regions by research organizations often uncovers gaps in participation and knowledge of policies and developments that affect them. The disconnect between national, provincial and local government stakeholders and the exclusion of vulnerable stakeholders reinforces the prevailing top-down nature of policymaking (Montmasson-Clair et al., 2002). For example, local communities in Emalahleni and Steve Tshwete have complained of being excluded from information on new mines opening, abandoned mines and the closure of operations. Often, local government officials are not informed of national-level dynamics that occur between the DMRE and private mining firms, which prevents them from reporting relevant news to local workers and communities.

For the just transition to progress meaningfully, it is vital to bridge top-down and bottom-up processes. Targeted and in-depth consultations on the transition's stakeholder impact is essential. A thorough survey and scoping of impacted workers, communities, and small businesses, among other stakeholders, can provide detailed information on these groups and their needs. The JET IP for example, has made provisions for these forms of data collection, which are now central to the PCC process. The workshops and public forums that have been conducted by the PCC are useful for uncovering broader stakeholder concerns and needs, but lack the granular detail required for defined solutions. Further, public forums tend to be captured by stakeholders with the loudest voices or leverage and may tend to drown out other disenfranchised participants.

Insufficient consultation can result in political economy tensions wherein stakeholders do not buy into proposed solutions and possibly even block them from benefiting their communities. Improving consultation processes is thus paramount. This includes improving stakeholder mapping and engagement plans for all stages of policy-making. A clear and detailed stakeholder engagement plan must precede the development of just transition projects, where impacted communities, workers and small businesses are scoped and consulted at the project initiation stage. The importance of adequate engagement has been a key area of dispute in some of the transition projects, such as the Komati decommissioning, where stakeholders have decried the limited engagement and ambition surrounding plans. Securing key stakeholder support at the onset can also secure community buy-in for the project and boost chances of success.

Consultations and stakeholder engagement are often limited to earlier phases of policy development. However, the South African just transition process shows it is crucial to maintain them in later stages, such as implementation, monitoring and evaluation, to ensure long-term support for large-scale changes. This is also essential to maintaining an adaptive and responsive approach to just transition implementation. Such flexibility can help build societal acceptance by accommodating diverse needs and better responding to changing circumstances (Fernandez-Gimenez et al., 2008).

Undoubtedly, the nature of engagement does place practical constraints on representation. The needs of every single community member cannot feasibly be represented, thus in these cases, it is important that projects identify the true representatives of a community and avoid misrepresentation by those with power. Attempts at representation have been employed in national forums such as NEDLAC, however, there is often a disconnect with national-level initiatives and lacking information about them or participating in them (Montmasson-Clair, 2021b). Employing local councillors in municipalities to engage with stakeholders is also an important conduit for information and representation. Local councillors typically engage with local citizens and have a keen sense of dynamics that unfold on the ground. They can be leveraged to engender a bottom-up approach in policymaking.

Other ways to improve stakeholder engagement include investing in capacity-building at the subnational level, transparent information-sharing, and mechanisms to strengthen local inputs into national-level decision-making. Such improvements would help prevent the “tick box” nature of stakeholder engagement that has been critiqued around policy-planning processes in general and just transition consultations in particular. They also help prevent extractive consultations, where information flows in one direction only, from community members to project developers or policymakers. Since communities and impacted stakeholders will require information to inform their decision-making, this information must be made available to them in a format that is accessible and involves translation and explanation when necessary.

In parallel, maintaining – or regaining – support for just transitions on the ground requires addressing other aspects of the just transition beyond the energy and industry system itself that form the core of communities’ concerns. This includes access to basic services, climate adaptation and food security, among others. While these are included in the Just Transition Framework, they have received far less attention and resources in later stages of policy developments.

### 5.2.2 How to pick winners?

The balancing of top-down and bottom-up-led change is closely linked to that of how to pick winners in the transition, who does it, and according to what criteria.

Debates about just transition in the earlier phases of the just transition policy process have defined broad categories of losers. During this stage, just transition debates and discourses tend to pay more attention to potential losers than the potential winners, which are defined in broad terms. When policy priorities are defined and resources start to be allocated, the actual winners in terms of geographies, technologies and industries become clearer. However, when translating just transition priorities and programs into practice, limitations in available institutional, technical, and financial resources necessitate a choice as to what communities, workers, businesses and other grassroot organizations will receive direct just transition support.

This raises questions about who determines the siting, scope and eligibility criteria for on-the-ground projects, and how to avoid these being seized by a small minority and diverted from intended beneficiaries. This is a particularly salient challenge in South Africa, which has experienced a deep crisis due to the systematic and widespread manipulation of the country's government institutions, policies and decision-making processes by private individuals or entities to advance their own interests (Calland 2023; see also Section 3.2 on institutional challenges).

Research about just transitions has already uncovered some issues arising with the identification of winners. For instance, one question is what workers qualify for just transition support. In the coal sector, workers typically include direct employees of coal mining, coal power generation and other companies in coal-based industries, as well as outsourced workers and informal workers. Another issue is gender. Because the coal sector tends to be male-dominated, and because of gender norms and inequalities in surrounding communities, there is a risk that many opportunities linked to the just transition end up benefiting mostly men (Atteridge & Strambo, 2020). The literature about renewable energy development also highlights some challenges linked to defining the criteria and geographical boundaries that establish what communities will be included in benefit-sharing agreements (Tait et al., 2013).

More broadly, the issue of geography in "picking", or creating, winners in the transition highlights a fundamental distinction between producing aggregate justice in the country versus addressing injustices in specific places (Barnes, 2022). The provinces of Eastern Cape and Limpopo have historically been sources of labour for mining jobs in Mpumalanga (Bhorat et al., 2024; ECSECC, 2023; Stats SA, 2024). Transitioning these workers into renewable projects, which tend to be installed in areas of the country with the highest wind and solar energy potential, including the Eastern Cape, would see migration towards such regions. This, however, does not address the gaps in economic activity post-coal within Mpumalanga and moves skills out of the province, relegating the remaining industries and stakeholders to survive without the coal value chain. Further, renewables plants tend require less labour compared to coal mining and coal-based power stations, limiting the number of workers that can transition to new jobs within the energy value chain. Beyond a declining rate payer base for municipalities in Mpumalanga from out-migration, the local municipalities in the Eastern Cape and other

areas that have typically provided coal labour would face increased demands for basic services, placing a greater strain on those municipalities, as well.

Eligibility criteria and operational preferences from international and bilateral funding agencies also determine the beneficiaries of just transition support. Research on climate adaptation and official development assistance has indicated that funders tend to prefer sites that have a high capacity for using capital effectively, are relatively easy to access, and have hosted aid activities before (Barrett, 2014). In South Africa international donors' primary interest in climate mitigation risks leaving out projects and investments that are considered key for a just transition by local stakeholders, such as climate adaptation measures (Pilling, 2022).

In summary, picking winners determines local support for the transition. Ultimately, success hinges on transparent decision-making processes that involve and empower local communities, ensuring that the benefits of change are equitably shared and foster the overall well-being of the affected regions. This requires addressing institutional limitations to their involvement and making sure that just transition policy implementation includes avenues for addressing local concerns and priorities.

# 6. Conclusion

The trajectory of just transition policies in South Africa, from conceptualization to implementation, is marked by a complex interplay of diverse stakeholder perspectives and evolving political dynamics. The transition from agenda-setting to practical application accentuates the challenges inherent in balancing varied interpretations of just transition, ranging from transformative visions to those maintaining the status quo. As the country navigates the transition, the critical dimensions of local engagement, transparent decision-making, and adaptability come to the forefront, highlighting the need for nuanced approaches that align with local priorities.

Although the just transition concept has been widely adopted in all types of stakeholders' discourses, there are real risks that a narrow, environmentally unsustainable and socially conservative interpretation comes to dominate just transition efforts. Such an approach may not align with local priorities, threatening societal support for the transition. It underscores the importance of ensuring that just transition efforts authentically reflect and address the diverse needs and values of the communities they aim to benefit.

As South Africa enters the critical phase of policy implementation, the focus on balancing top-down and bottom-up change becomes ever more crucial. Procedural justice emerges as a key element, seeking to address imbalances in agency and influence by fostering continuous public engagement. The challenges of picking winners in the transition underscore the necessity for transparent decision-making, particularly regarding resource allocation and project design, to ensure broad-based local support. In navigating these complexities, South Africa's just transition journey serves as a valuable case study, offering insights into the intricate interplay between policy and politics in the context of energy and broader sustainability transitions.

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