Ethnographic Research as a Tool for More Inclusive Just Transition Policies

Lessons from Mpumalanga, South Africa

IISD REPORT

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International Institute for Sustainable Development

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November 2025

Written by Tracy Ledger, Bathandwa Vazi, and Mahlatse Rampedi

Photo: iStock

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The communities of Komati, Phola, Ogies, Kriel, eMalahleni,[1] Middelburg, Mhluze, and eMpumelelweni and the Municipalities of Emalahleni,[2] Steve Tshwete, and Nkangala District.

The Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs

[1] eMalahleni represents the town, the geographical location where the municipality is situated.

[2] Emalahleni is the name of the local municipality for the town of eMalahleni or Witbank.

Executive Summary

South Africa's energy sector faces several challenges, including unequal energy access, aging electricity generation infrastructure, indebted utilities, and a significant reliance on coal. Reforms are necessary to phase out aging coal-fired power stations, increase the use of low-cost renewable energy sources, and improve electricity access. However, this has not been without challenges and projected risks, such as revenue loss from the coal-mining value chain and local economic systems that are built around coal mining and power plants

Reforms at the local government level are necessary to implement the South African Renewable Energy Masterplan, which includes phasing out aging coal-fired power stations, increasing the share of low-cost renewable energy sources at a scale that can mitigate climate change risks, and making overall improvements to electricity access and security. These reforms have the potential to provide economic, environmental, and social benefits but may pose difficulties for communities and industries that depend on fossil fuels and coal value chains.

Just transition policies primarily focus on formal workers and businesses, but they fall short in addressing specific transition impacts on communities, particularly women, informal workers, youth, the elderly, and individuals living with disabilities. These vulnerable groups may be more affected by economic reforms, climate change, and the energy transition due to limited resilience capacities, limited economic agency, and fewer alternative opportunities.

South Africa has prioritized a just transition for its coal-sector reforms. The cabinet approved the *Framework for a Just Transition in South Africa* (2022), which provides overarching principles for the just transition and outlines how the just transition could be implemented holistically, highlighting procedural, restorative, and distributive justice as the guiding principles. The Just Energy Transition Investment Plan supports the framework by detailing the approach for affected sectors, capital investment requirements, and other aspects, such as skills development. The framework recognizes that procedural justice involves prioritizing marginalized groups, including women and children, youth, the elderly, and the disabled. So far, the government's just transition efforts have mainly focused on assessing the economic impacts in the coal mining sector and evaluating potential job losses, old and new value chains, and new economic opportunities that can arise from the transition.

This study was conducted in Mpumalanga and examines whether procedural justice has been effectively implemented during the decommissioning of the Komati Power Station. Mpumalanga is located at the centre of South Africa's coal economy and has been the subject of various studies by government, academic, and private sector organizations due to its significant mining reserves and concentration of coal power stations. However, previous research has not specifically addressed how transitions impact communities involved, including those informally participating in the coal economy. This study therefore assesses the effects of the energy transition on these communities and explores approaches for engaging them through procedural and inclusive justice, with particular attention to women, youth, the elderly, and individuals living with disabilities. The study also acknowledges that

the coal sector has resulted in environmental and health impacts, as well as an informal economy from which marginalized groups may benefit or be disadvantaged.

Using ethnographic research and a pilot study informed by co-production, the project identified gaps in the procedures previously followed in policy development and in presenting community experiences for a just transition. The research report not only examined the dynamics of a just transition but also compared the ethnographic approach to traditional engagement efforts to determine its additional value. The goal was to test methods to assess the needs of marginalized groups in just transition processes across different local jurisdictions and communicate these findings to decision-makers.

Ethnographic research involves building long-term trust; forming close relationships between participants, stakeholders, and researchers; and reducing hesitancy and barriers to participation. This approach often leads to more open and effective engagement, with research results based on higher and more meaningful participation rates compared to formal interviews, surveys, and sessions conducted by unfamiliar entities.

Key Findings

Information gaps and mistrust: Communities lack clear, accessible information about the just transition, particularly regarding the just energy transition. Many view it as externally imposed, driven by international funders rather than local needs.

The exclusion of marginalized groups: Women, youth, informal workers, and small-scale informal businesses, including micro, small, and medium-sized enterprises, are underrepresented in policy design. Though consultations to date have strived to be inclusive of all stakeholders, they have not successfully reached all communities likely to be affected by the transition.

Negative socio-economic impacts: The closure of the Komati coal power plant has worsened unemployment in the Komati community and eroded community services, and the local municipality has not provided a clear direction regarding viable alternatives or taken over the maintenance of services that were previously supported by the mine as part of its corporate social investment initiative at the Komati Power Station.

Unaddressed community priorities: Issues such as food insecurity, childcare gaps, youth unemployment, and infrastructure deficits—which are particularly acute for women—remain overlooked.

Recommendations

Embed ethnographic research to rebuild trust: Commit to long-term, reciprocal community engagement in the local language, rather than one-off consultations in English. Ethnographic fieldwork—living alongside stakeholders, listening to everyday experiences and feedback—demonstrates genuine investment, uncovers deeper insights, and counteracts past engagement failures.

Institutionalize co-production: Co-production involves an intersection between top-down policy drafting and community-driven design. At each stage of the just transition planning, convene joint workshops, focus groups, and participatory mapping exercises so that affected citizens can shape objectives, trade-offs, and implementation measures.

Allocate dedicated transition engagement funds: Ring-fence budget lines for early-stage, sustained community involvement and co-design. By factoring ethnographic and co-production costs into fiscal planning, governments signal that meaningful public participation is a core component—not an optional add-on—of just transition policy and project development.

Strengthen replicable capacity: Invest in training government staff and consider training community leaders in ethnographic methods and co-production facilitation. Establish toolkits, mentoring schemes, and peer-learning platforms to ensure procedural justice practices can be scaled across departments and regions.

This research demonstrates that procedural justice must go beyond box-ticking consultations. When communities feel that their priorities are understood and acted upon, support for the just transition increases. By embracing a co-production approach, the state can build trust, design more effective policies, and ensure a truly inclusive energy transition.

Table of Contents

List of Figures

List of Tables

Abbreviations and Acronyms

DFFE	Department of Forestry, Fisheries and the Environment
DPME	Department of Planning, Monitoring and Evaluation
ECD	early childhood development
IEA	International Energy Agency
IDP	Integrated Development Plan
JET	just energy transition
NGO	non-governmental organizations
PCC	Presidential Climate Commission
UNFCCC	United Nations Framework Convention on Climate Change

1.0 Introduction

This research was conducted in South Africa's Mpumalanga province, focusing on the coal-dependent communities of Emalahleni and Steve Tshwete. It investigates the procedural and redistributive dimensions of the just energy transition (JET), examining both policy and lived experience through a three-part methodology: a literature review, qualitative ethnographic research, and a pilot study. Together, these phases identify critical gaps in current government-led processes and test a more inclusive, community-driven approach to policy development.

The literature review outlines how procedural justice has been addressed in existing just transition frameworks and highlights persistent exclusions—particularly those of women, youth, and other marginalized groups. It situates these challenges within the broader context of the coal mining sector in Mpumalanga, where informal employment, a lack of access to the formal value chain, and gendered barriers have long restricted participation. The review also underscores the risks of social and economic imbalance if job losses in male-dominated mining roles are not matched by support systems that empower women to assume new roles as household providers.

Ethnographic research,[3] applied here in contrast to conventional consultation processes, offers deeper insight into how communities experience the transition. This approach captured the nuanced views, concerns, and aspirations of stakeholders often overlooked in top-down policy-making. The pilot study then tested an alternative engagement model informed by these insights, aiming to improve participation, understanding, and ownership of the just transition process at a local level.

The research addresses three central questions:

1. How do officials, stakeholders, and marginalized groups in Emalahleni Local Municipality and Steve Tshwete Local Municipality understand the existing just transition, and what are their hopes and concerns regarding redistributive justice?
2. How inclusive have current consultation processes been, particularly for women and other marginalized groups, and do the marginalized have the resources and knowledge to engage meaningfully?
3. How does the state's capacity for collaborative problem-solving affect the success of policy implementation?

Concurrently, ethnography is evaluated for its potential benefits over traditional research and engagement approaches, assessing if it returns more meaningful and insightful results on the research question. Findings reveal a consistent disconnect between policy intent and community realities. The report concludes with actionable recommendations for

[3] Ethnographic research is a qualitative method examining evolving patterns of behavior, beliefs, and language within a group (Siregar et al., 2023). By using a life history narrative approach (storytelling) rather than structured surveys or questionnaires, the approach identifies important factors that had not been previously theorized (McLeod, 2024).

government and policy actors to strengthen procedural justice, enhance local engagement, and build inclusive economic pathways as coal mines phase out. It argues that without intentional inclusion, particularly of women and youth, the just transition risks replicating the very inequalities it seeks to redress.

2.0 Background

A just transition is defined by the United Nations Framework Convention on Climate Change (UNFCCC) as a process that ensures that the transition to environmentally sustainable economies and societies is fair and equitable for all workers and communities. It emphasizes the importance of minimizing negative social and economic impacts, especially for vulnerable groups, while promoting decent work, social inclusion, and sustainable development (van der Ree, 2019). JET, on the other hand, is defined as a process concerned with the shift from fossil fuels to renewable energy sources and ensuring it is conducted in a fair, inclusive, and equitable manner (Constantine, 2023). It recognizes that shifting to cleaner energy can negatively impact vulnerable communities (Bohlmann et al., 2023). South Africa's JET focuses on decarbonizing key sectors, including electricity, new energy vehicles, and green hydrogen. It is a complex transition, particularly for coal-dependent economies, and remains an emerging field in developing nations. Ensuring a truly *just* transition remains a key challenge (JETSA, 2021).

This study was undertaken at the Emalahleni and Steve Tshwete local municipalities, located adjacent to each other under the district of Nkangala in the Mpumalanga province. These municipalities together account for the highest number of coal mines in South Africa, making them the coal heartland (Magetla and Patel, 2021). Five of Eskom's major coal power plants are located within the Emalahleni Local Municipality, while three are in the Steve Tshwete Local Municipality. As the focal point of South Africa's energy generation since its inception, this region has experienced decades of environmental and social challenges. The local economy grew around the coal mining value chain, creating a linear and volatile economy dependent on this one sector.

To date, only the Komati coal power plant, located in Steve Tshwete Local Municipality, has closed (Global Energy Monitor, 2025). The decommissioning process is still ongoing. This site has been the focal point for the research and recommendations undertaken by the Presidential Climate Commission (PCC)[4] to conceptualize the transition and provide recommendations for the decommissioning process. Most studies to date, including work done by the PCC, have largely focused on the envisaged socio-economic impacts of coal mine closures and coal power plant closures (PCC, 2024). A gap still exists in exploring the social impacts borne out of the transition.

The South African Climate Change Response Policy (2011) defines two key just transition policy instruments, the National Employment and Vulnerability Assessment and the Sector Job Resilience Plans. The policy defines these two policy instruments that would be used to move employment from a carbon-intensive economy to a low-carbon economy while protecting vulnerable groups that may lose their jobs and livelihoods because of the impacts of climate change and the effects of the energy transition. The National Employment and Vulnerability Assessment considers the climate change and transition impacts on jobs, while the Sector Job Resilience Plans protect vulnerable communities from the transition.

[4] The PCC is an independent, statutory, multistakeholder body established by President Cyril Ramaphosa. Its purpose is to oversee and facilitate a just and equitable transition toward a low-emission and climate-resilient economy.

3.0 Literature Review

This section reviews existing literature on methods used to deliver procedural justice in the context of the just transition and evaluates the extent to which these processes have been inclusive. It identifies gaps in current procedural approaches to policy development, with a focus on how marginalized groups in coal mining communities can be more effectively engaged.

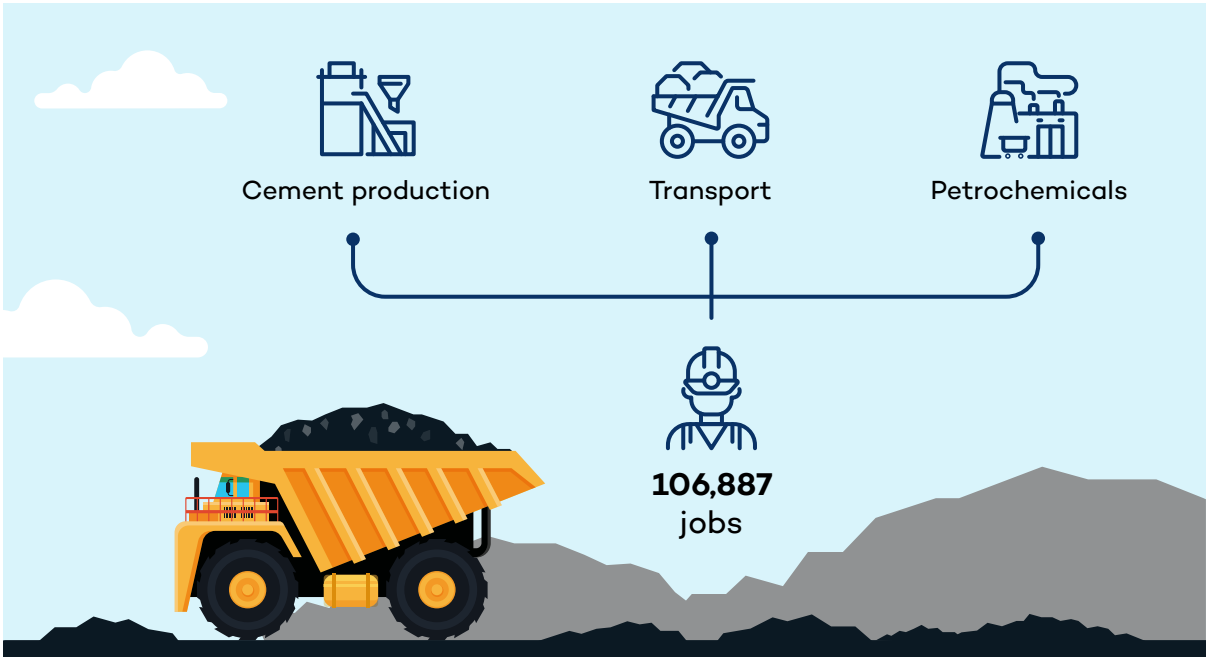
The review also provides background on the coal mining sector in Mpumalanga, examining the historical and ongoing exclusion of women and other marginalized groups. It explores the intersection of economic opportunity and access within the sector, assessing who has benefited and who has been left out. This analysis lays the groundwork for understanding how a just transition can address not only distributive and procedural justice but also ensure genuine inclusion.

The review further considers the economic and social implications of mine closures, particularly the shift in household dynamics. As male-dominated employment in coal mining declines, women may increasingly become primary breadwinners. However, existing structural challenges—such as inadequate service delivery and lack of childcare—complicate this transition. By examining current experiences of women, youth, and children in these communities, the review highlights key areas where the just transition can be designed to bridge existing gaps and foster inclusive, resilient communities.

3.1 The Coal Mining Sector in Mpumalanga

The coal sector in Mpumalanga, including the upstream and downstream value chains, provided an estimated 106,887 direct and indirect jobs as of 2024 (Bhorat et al., 2024; International Energy Agency [IEA], 2023). There are plans to close five coal-fired power stations and 15 mines are planned by 2030, with further closures by 2040 (Cole et al., 2023). This is expected to affect up to 2.5 million people, mainly in Mpumalanga (Centre for Environmental Rights, 2019). With 55% of the South African population living below the poverty line (Statistics South Africa, 2024a) and unemployment at 32.2% (41.1% including discouraged job seekers; Statistics South Africa, 2024b), a just transition must prevent further socio-economic decline. A JET recognizes that shifting to cleaner energy has the potential to negatively impact vulnerable communities, who are already experiencing development challenges (Bohlmann et al., 2023).

Figure 1. Jobs in the coal mining value chain (2024)



Source: Authors' own with data from Bhorat et al., 2024; IEA, 2023.

3.2 Economic Impacts From Phasing Out Coal Mines

The coal mining value chain—which includes transport, petrochemicals, steel, and cement (Hallowes & Munnik, 2022)—is a primary income source in the study area's communities. Power generation (through state-owned Eskom) provides 12,000 jobs, petrochemicals (Sasol) provide 26,000, and small coal truckers make up 2,000. Women make up 15% of coal value chain workers (IEA, 2023). In 2024, Green Building Africa reported that skilled technicians made up 8.7% of jobs, of which electrical engineering technicians (20%), electronics and telecommunications technicians (16%), and safety, health, and quality inspection officers comprised the most jobs (32%). Plant employees were between 22 and 44 years old in 2019 (Green Building Africa, 2024).

Coal mining communities are vulnerable to closures. Each miner typically supports at least three dependents (Burton et al., 2019), so households in South Africa's coal-reliant municipalities face systemic vulnerability (Rossouw & Maritz, 2023). Historically, mine closures in South Africa have led to economic collapse, poverty, crime, and migration (Hallowes & Munnik, 2022; Siyongwana & Shabalala, 2019). Mpumalanga's coal communities fear similar outcomes, including reduced livelihood opportunities and a shrinking informal economy (Cock, 2019).

Coal accounted for approximately 74.31% of electricity generation in South Africa by 2025 (Department of Forestry, Fisheries and the Environment [DFFE], 2025), and coal-fired power plants support communities beyond direct employment and the local economy (Strambo et al., 2024). The coal value chain is typically analyzed through formal economic

activities, ignoring external costs like health impacts and an informal sector that supports the power stations (Makgetla & Patel, 2021).

Local governments, constrained by limited resources, struggle to address existing just transition's welfare challenges, and municipal plans acknowledge revenue losses from mine closures but lack comprehensive action plans and financing support to mitigate their broader socio-economic impacts (Marais et al., 2016; Nel et al., 2023). They have historically filled critical service provision gaps, offering water, refuse collection, road maintenance, and even basic health care through clinics (Monaisa & Montmasson-Clair, 2022). The phasing out of coal mines also means the withdrawal of these services, which is often not acknowledged in energy-transition planning (Hallowes & Munnik, 2022; Van Der Wat & Matebesi, 2021).

These challenges have a significant impact on marginalized communities. Such communities often experience poverty, environmental issues, and limited access to public services, which are associated with the coal economy (Hallowes & Munnik, 2022). The National Employment Vulnerability Assessment and the Sector Jobs Resilience Plans outline ongoing government measures to assist workers and communities during the transition, including support for micro, small, and medium-sized enterprises and youth to access opportunities. A pilot of the Sector Jobs Resilience Plans was implemented by Indalo Inclusive, DFFE, and the Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs, with financial support from Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH at Komati, to address some of these challenges.

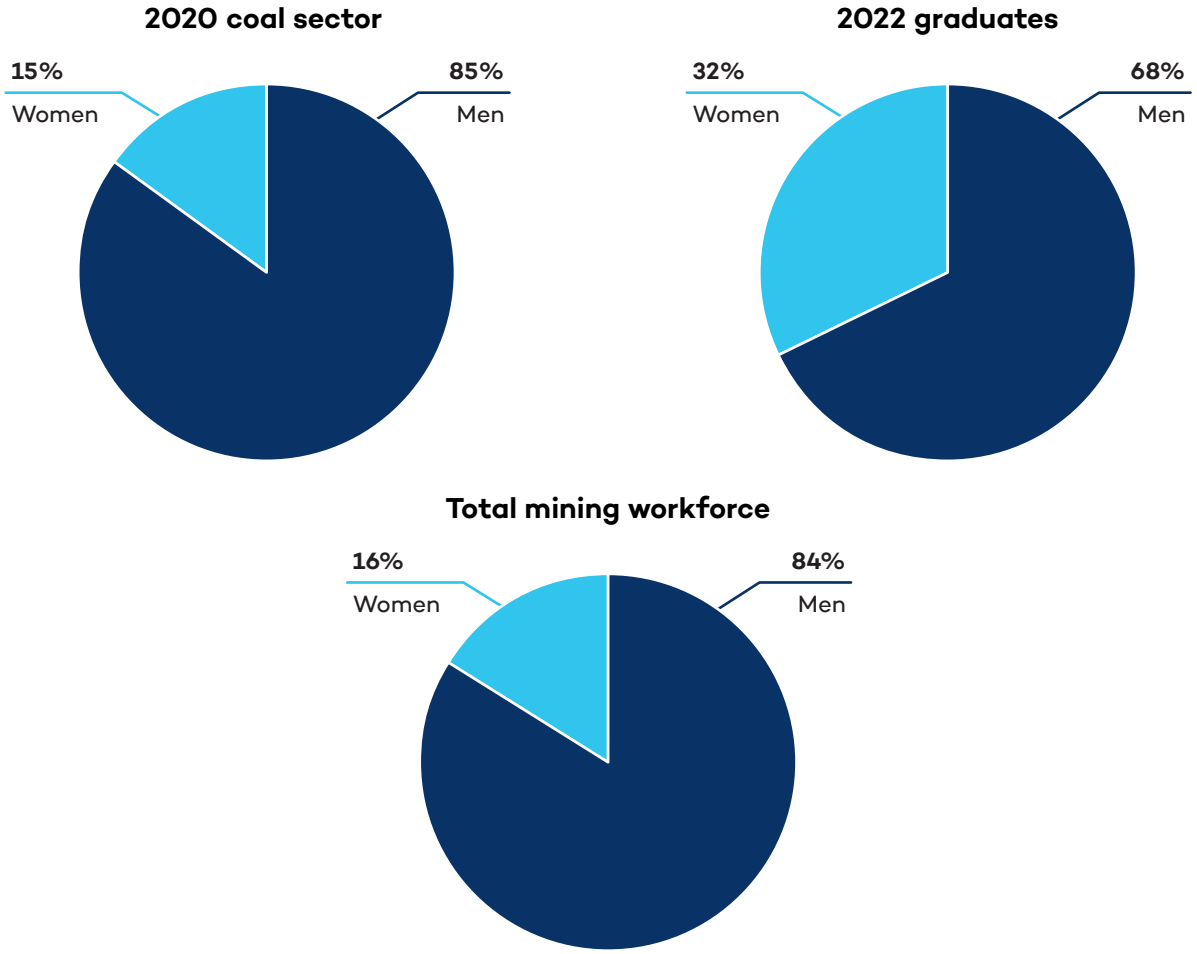
3.3 Impacts of Coal Mining and Coal Mine Closures on Women, Youth, and Marginalized Groups

South Africa's mining culture has long been defined by gendered solidarity, historically excluding women from underground work (Cole et al., 2023). When the Mines and Works Act of 1996 was repealed, it lifted the ban on women working underground (Minerals Council South Africa, 2024). Out of the mining graduates in 2022 (Figure 2), 68% were male and 32% were female. Only 16% of the total mining population is women (Minerals Council South Africa, 2024), and of those employed in the coal sector in 2020, only 15% were women (Cooper et al., 2022). Women's mining-related work is often informal and intertwined with domestic labour, and thus undervalued (Digoro & Mugunyani, 2024). In Mpumalanga, like other regions with coal mining industries, women often face exclusion from the formal economy and primarily engage in secondary mining activities, such as ore processing, equipment sales, and service provision (Mashaba & Botha, 2023).

Given that only 15% of formal coal sector jobs are held by women (IEA, 2023) and women's contributions remain largely invisible in datasets shaping existing just transition and JET policy (Clark, 2022), official data often ignore informal economic actors or underrepresent them, treating costs borne by communities—like pollution-induced health impacts—as externalities (Makgetla & Patel, 2021). Women often face greater negative impacts and fewer benefits than men, yet their experiences during mine closure are often overlooked (Stevens & Tekinbas, 2023). In addition, black women have limited access to property, financial capital, and decision-making roles (Taylor, 2023). According to the Minerals Council of South Africa

(2024) (Figure 2), in 2020, women comprised only 16% of the total mining workforce, and just 15% of employees were women in the coal sector. In 2022, 68% of mining graduates were male and 32% were female.

Figure 2. The persistent gender imbalance in South African mining



Source: Authors' own calculations using data from Cooper et al., 2022; Minerals Council South Africa, 2024.

Women in coal mining regions typically hold low-paying or unpaid jobs, such as domestic work and retail, and they are among the least educated and most economically dependent, with black women representing the largest group of unemployed individuals (Maseko, 2021; Skosana & Cock, 2023; Taylor, 2023). This economic marginalization is heightened in coal-dependent communities (Hallowes & Munnik, 2019). While mine closures have clear negative impacts, the mines' ongoing operation has not ensured widespread benefits for women, who are overrepresented among the poor and unemployed.

Mining disproportionately harms women, especially in rural areas, costing them access to land used for food and fuel, with compensation rarely provided due to limited land rights (Stevens & Tekinbas, 2023). Health risks, exposure to gender-based violence, and increased burdens of unpaid care work intensify with both active mining and closures (Clark, 2022; Kramer, 2022;

Minerals Council South Africa, 2021). These challenges further restrict women's economic opportunities and deepen their dependence on men.

3.4 A Review of Methods for Procedural and Inclusionary Justice in South Africa

In 2022, Parliament adopted the PCC's Just Transition Framework, which outlines procedural, restorative, and distributive justice as guiding principles for the existing just transition, though it stops short of specifying methods for delivering or measuring justice (PCC, 2022). Between March and April 2022, the PCC held community consultations in eight coal-impacted areas—including eMalahleni, Lephalale, Xolobeni, and the South Durban basin. Communities raised concerns over the lack of meaningful government presence, broken trust from unmet promises, tokenistic engagement, poor communication, and insufficient follow-up (PCC, 2022). It remains unclear whether these consultations were intended to implement procedural justice or simply to gather perceptions of the transition. Additionally, the PCC has not explicitly documented these efforts as methods for achieving procedural and inclusionary justice, leaving the process for delivering justice undefined.

The Department of Planning, Monitoring and Evaluation (DPME) developed a collaborative, evidence-based approach to policy-making that emphasizes co-production[5] to bring together government, academics, civil society, and think tanks to shape and apply research. It contains a structured seven-step process to synthesize evidence, ensuring policy questions are co-designed and findings are clearly presented (DPME, 2022). Since the inception of Integrated Development Plans (IDPs) in 1996 (Wüst, 2022), the process has included community participation as one of its levers, involving both the government and communities in forming local government policy. The IDP is created through community-based planning, which allows community members to actively participate in its development (Palesa et al., 2023).

The adoption of the co-production method developed by DPME remains undocumented, and its prevalence is unknown. In contrast, the IDP process is widely recognized and serves as the established approach for forward planning in municipalities. Furthermore, Schulte and Robinson (2024) assert that citizen participation in energy projects is not inherently accessible or inclusive. For a genuinely sustainable energy transition, participatory governance is essential to empowering citizens as active stakeholders with a voice in decision making and a fair share of the benefits (Lennon et al., 2019). Public trust in the government's ability to implement the existing just transition has been low, partly due to trade unions wielding greater policy influence than vulnerable communities (Hallowes & Munnik, 2022).

[5] Co-production is a collaborative approach to policy design and implementation in which the intended users or beneficiaries of a service are engaged as active partners—rather than treated as passive recipients—at every stage of the process. By drawing on the lived experience, knowledge and insights of those whom the policy seeks to serve, co-production enhances problem diagnosis, improves solution design and implementation, builds legitimacy and trust, and advances procedural and distributive justice.

4.0 Research Method

This study employed a multi-pronged approach to uncover both procedural and inclusionary justice dynamics within Mpumalanga's coal communities. First, a focused literature review established the conceptual framing (see Section 3). Building on that, ethnographic fieldwork—characterized by immersion, life-history interviews, and participant observation—provided rich, contextualized insights. Finally, a streamlined pilot of a co-production-informed ethnographic process tested whether a lighter-touch model of co-production could still generate actionable findings for policy uptake.

4.1 Defining the Ethnographic Research Approach

Ethnographic research is a qualitative method examining evolving patterns of behaviour, beliefs, and language within a group (Siregar et al., 2023). By using a life history narrative approach (storytelling) rather than structured surveys or questionnaires, the approach identifies important factors that had not been previously theorized (McLeod, 2024). Ethnography embeds the researcher in the specific setting, making findings inseparable from their social and environmental context (McLeod, 2024). Its sustained presence fosters trust and responsiveness, enabling meaningful stakeholder engagement and more receptive policy interventions.

4.2 How the Research Approach Was Applied in the Study

Beginning in 2023, researchers made repeated one- to two-week exploratory visits to Komati, Hendrina, and Phola in Mpumalanga. Through immersive observation in market stalls, car washes, churches, and neighbourhood walks, they documented daily behaviours and interactions. To build trust, the team engaged as respectful learners—speaking the local vernacular, sharing project goals transparently, and maintaining a constant presence (even on weekends)—so they were seen as familiar community members rather than transient consultants. They communicated in the local vernacular and were transparent about the project's objectives.

This research method was applied following four main pillars, as follows:

- **Immersion over time**: Researchers spent over a year in the research area before they began collecting data. Frequent visits to the community were essential in building trust. PARI researcher Mahlatse Rampedi mentioned that they made regular visits, including weekends, to observe the community's daily life and interact with residents, which helped them become familiar faces and part of the community.
- **Participant observation**: Researchers then began engaging with the community by visiting various places, meeting influential figures, speaking to men who are employed in the coal power plants and coal mines, and understanding the local environment. They spent time in the community to observe and interact with residents, both men and women, which helped them gain insights into the community's dynamics and needs.

- **Trust building**: Building trust was a crucial part of the methodology. Researchers emphasized the importance of being non-threatening, transparent, and familiarizing themselves with the community. Frequent visits and engaging with influential community members helped them build trust and gain more honest responses from participants.
- **Iterative inquiry**: The data collection process included taking field notes, conducting one-on-one interviews, and organizing focus groups. They also took pictures to document their observations. The process began with familiarizing themselves with the community and building rapport before conducting formal interviews.

4.2.1 Application of Ethnography to Pilot Co-Production

In a pilot study, ethnography served both as supplementary fieldwork and as a test of a new community-engagement approach for policy development. Rather than drafting policies with stakeholders, researchers invited community members to articulate their own development visions and how they'd like to participate in energy-transition policy-making, grounded in their priorities, assets, and concerns. This pilot specifically tested the co-production concept during the information-gathering stage.

The pilot was guided by the following questions:

- How can the state involve all communities and stakeholders in an open-ended policy development process?
- How can the state benefit from ethnographic research without getting bogged down in time-consuming, resource-intensive processes?

The pilot drew on three ethnographic tools: (i) an asset-mapping exercise—photographing and mapping physical and social assets (schools, early childhood development [ECD] centres, businesses, clinics); (ii) semi-structured interviews to gauge energy-transition awareness and pinpoint development priorities; and (iii) small focus groups with farmers and youth, convened via community leaders. What sets this apart is the extensive groundwork: by building genuine relationships and spending substantial time in the region, researchers conducted interviews and focus groups within a deeply informed engagement context, yielding richer, more actionable insights than traditional methods alone.

What the pilot did not include, but would be included in a full policy development process:

- developing policies together with community members
- integrating and advancing community-generated proposals into formal government planning processes.

4.3 Disadvantages of This Approach

Early on, researchers faced reluctance from residents to discuss their circumstances or the energy transition, and they had logistical hurdles accessing some facilities. Securing buy-

in from gatekeepers—like ward councillors—proved essential for legitimacy and broader participation. Women were initially hard to engage, with their voices emerging only during the pilot. Finally, past experiences with consultants who collected data without delivering tangible benefits fuelled community wariness, making trust and accurate data collection more difficult.

4.4 Why Ethnographic Research Can Be Useful for Existing Just Transition Research in Other Jurisdictions

Ethnographic research provides profound insights into communities navigating complex transitions—such as energy system reforms, economic restructuring, or service delivery enhancements—by revealing local priorities, informal power dynamics, and the lived consequences of policy shortcomings in ways that structured methods cannot. In Mpumalanga, sustained engagement and rigorous trust building enabled researchers to understand community perspectives authentically. These insights were only made possible through sustained engagement and a commitment to seeing the world from the community's perspective.

The utility of this approach extends beyond this single case. In other regions of South Africa—and indeed across developing countries or other disadvantaged communities (e.g., Indigenous groups) facing the energy transition—ethnographic research can serve as a critical foundation for

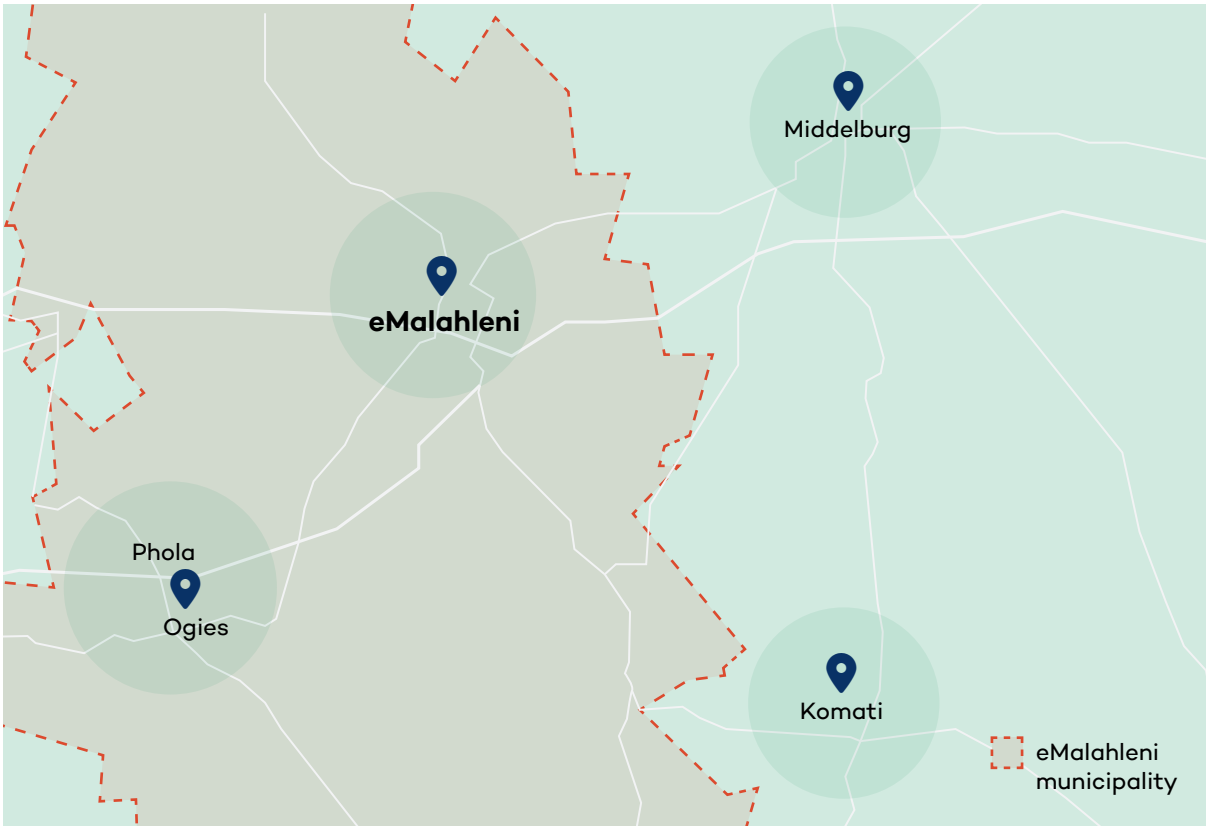
- context-sensitive policy-making, where community needs, culture, and social structures are not assumed, but revealed through lived experience;
- effective co-production, ensuring that citizen participation in governance is rooted in genuine understanding rather than token consultation; and
- equity-focused transitions, by amplifying the voices of marginalized groups who are often excluded from conventional data collection and decision-making processes.

In transitional contexts, where uncertainty, mistrust, and contested priorities often prevail, ethnographic research offers a grounded, relational, and flexible methodology that can build bridges between communities (especially those who have historical trust deficits) and institutions. It is not to be seen as a substitute for quantitative data or formal consultation processes, but a necessary complement—bringing depth, clarity, and human texture to policy design and implementation. As such, it holds strong potential to support just, inclusive, and context-aware transitions in South Africa and comparable settings globally.

4.5 Study Location

The research was undertaken in Emalahleni and Steve Tshwete local municipalities, with data collected primarily from communities adjacent to coal-fired power stations—including Phola, Ogies, Kriel, and eMalahleni town—and from Komati, Middelburg, Mhluze, and eMpumelelweni. These communities situated around coal mines and power plants are integral to South Africa's energy infrastructure, which currently remains the dominant source of electricity generation.

Figure 3. Study area



Source: Google Maps, accessed May 2025.

Table 1. Study areas by proximity to coal power stations

Study area	Coal power station in close proximity
Komati	Komati Power Station
Phola	Kusile Power Station, Kendal Power Station
Orgies	Matla Power Station, Kendal Power Station
Kriel	Kriel Power Station
Mhluze	Duvha Power Station
eMpumelelweni	Kusile Power Station

Source: Authors' own data using Google Maps.

4.6 Demographic Profile of the Study Area

Table 2 summarizes key demographic indicators for Emalahleni and Steve Tshwete local municipalities alongside the broader Mpumalanga province. Emalahleni, with a population of 434,522 and 164,573 households, is nearly twice as large as Steve Tshwete (242,031 people;

80,052 households). Both municipalities' poverty rates—29.6% in Emalahleni and 45.1% in Steve Tshwete—are lower than the provincial average of 50.8% but are still considered high considering the dependence underscoring the stabilizing effect of coal and power sector employment, particularly around Emalahleni's coal-fired plants.

Table 2. Municipal demographic profile

Indicator (2022)	Emalahleni	Steve Tshwete	Mpumalanga
Population	434,522	242,031	5,143,324
Households	164,573	80,052	1,421,721
Women-headed households	42.95%	50.29%	46.9%
Access to electricity (% of households)	84%	93%	93%
Population living below the lower bound poverty line	29.6%	45.1%	50.8%

Source: Department of Economic Development, Tourism and Environmental Affairs, Mpumalanga, 2022; Statistics South Africa, 2024a.[6]

Electricity access is similarly higher than the provincial norm: Steve Tshwete boasts 93% household access, while Emalahleni lags slightly at 84%, likely reflecting infrastructure pressures in its larger, more industrialized communities. Women-headed households account for 42.9% of homes in Emalahleni and 50.3% in Steve Tshwete, both roughly in line with the provincial figure (46.9%). These patterns echo the literature's depiction of a male-dominated workforce in coal-based economies, where secure, sector-driven employment underpins household formation and energy access.

[6] The provincial data is drawn from the 2022 Socio Economic Review & Outlook of Mpumalanga.

5.0 Data Collection

5.1 Data Collected During the Ethnographic Field Study

Over the course of a year, the research team made three field visits—primarily to Phola and surrounding coal towns—to build on ongoing community engagement. The first visit established a local context in Emalahleni Local Municipality: researchers introduced the project at municipal offices, toured Ogies and Kriel, conducted observational walk-throughs, and carried out four structured interviews, seven informal conversations, and one focus group in Phola. These activities yielded early insights into residents' views on the energy transition, coal's role in their lives, and their interaction with policy processes. Simultaneously, the team began mapping the coal value chain—identifying formal actors (mines, transport, power stations) alongside informal participants, such as women who run food stalls serving coal workers.

Next, the team visited Komati and Hendrina in Steve Tshwete Local Municipality to assess the post-decommissioning impacts on infrastructure, livelihoods, and public services, and to evaluate stakeholder engagement around Komati Power Station's closure. They supplemented this with municipal staff interviews in Middelburg before returning to Emalahleni to engage marginalized groups—particularly women—to capture their perspectives on energy-transition dialogues.

A subsequent visit to Kriel yielded two formal interviews and a worker focus group at the coal power plant, including input from a local business manager on the transition's wider economic effects. On the final trip, researchers met with Nkangala District Municipality officials (Head of Communications, General Manager of Corporate Services) to discuss the district's transition role, inclusion strategies and service-delivery implications as mining-linked corporate responsibility wanes. Ultimately, 43 ethnographic research interviews with residents, community leaders, business owners, and public officials were conducted. The fieldwork was concluded by a presentation of preliminary findings to the Municipal Managers' Forum, securing feedback from local policy and planning leaders charged with shaping a just energy transition.

5.2 Data Collected During the Pilot Study

The pilot study built on insights from the ethnographic research and aimed to test alternative methods for surfacing community priorities and concerns around the JET. **Specifically, it explored whether co-production could offer a more inclusive and effective model than existing forms of public participation**, which often rely on one-way consultations with limited responsiveness to local needs.

The pilot study leveraged ethnographic insights to trial co-production as an inclusive alternative to conventional, one-way public consultations on the JET. Drawing on Boyle and Harris's (2009) definition of co-production—delivering public services through an equal, reciprocal partnership between providers and users—and Maila et al.'s (2024) emphasis on

integrating lived experience, the study tested whether genuine collaboration could yield more responsive, legitimate policy outcomes than existing consultative mechanisms (SCIE, 2022).

In South Africa, co-produced policy-making remains underdeveloped. While elements of community engagement exist—such as through IDPs—these processes have largely remained consultative rather than collaborative. The pilot study sought to explore how true co-production could be operationalized in the context of the JET.

The pilot was conducted in the Phola community, in the Emalahleni Local Municipality, an area heavily impacted by the coal phase-out. The aim was to understand how communities envision a thriving post-coal economy, and the pilot focused on informal livelihoods, the care economy, and food systems—critical yet under-recognized pillars of local resilience. After nearly a year of trust building, the team made two targeted visits, beginning with a participatory walk-through that mapped 275 businesses, public assets, and informal support networks. This asset-mapping exercise revealed how local infrastructure and economic activities align with community-defined priorities.

The pilot confirmed that co-production and asset-based methods do more than gather input; they embed procedural and distributive justice into policy design. By foregrounding informal and care-based contributions, this approach not only deepens community ownership but also strengthens the relevance and fairness of existing just transition planning and implementation.

6.0 Results

This section presents the findings from the ethnographic study and the pilot study. Both studies were qualitative in nature, providing data in written format. This allowed for a theme-based analysis, which presents data in tabular format: a heat map examining the frequency of issues mentioned, the intensity of language used in descriptions, direct quotes indicating severity, and the cascading effects on other aspects of life. Both studies aimed to learn more about the impact on women, youth, and other marginalized groups.

6.1 Ethnographic Study Findings

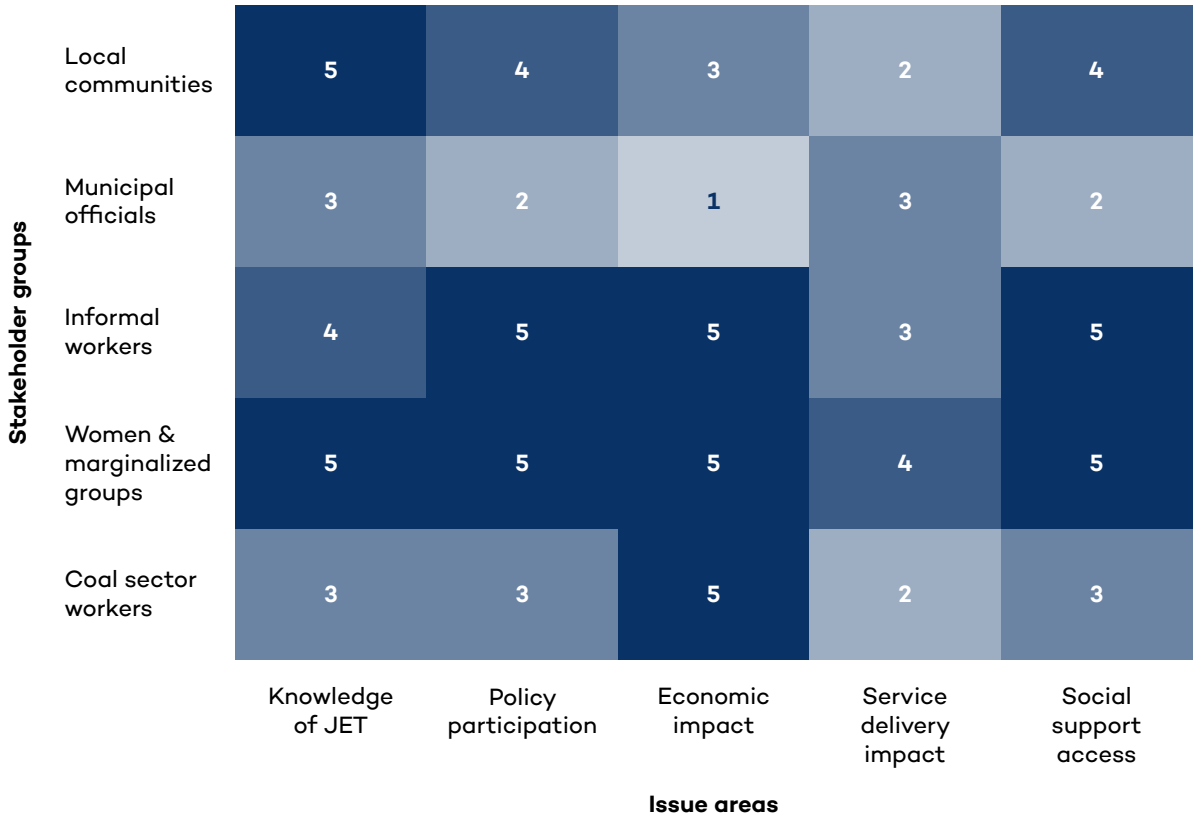
6.1.1 Limited Awareness and Understanding of JET

Data from Figure 4 reveal two critical barriers to effective community engagement in the JET. First, a rating of 5 for "understanding of the JET" confirms pervasive misconceptions and very low awareness—many Phola residents responded with disbelief ("I don't believe you," "that is a lie," "it will never happen") when informed of plans to phase out coal. Second, an equally high rating of 5 for "economic impact on informal workers" underscores widespread concern over job losses as coal mines and power stations close. These closures also threaten the livelihoods of small businesses and informal traders throughout the coal value chain. Together, these findings point to an urgent need for targeted education on the existing just transition and for transition strategies that explicitly protect informal sector actors.

Participants consistently described the existing just transition and JET as an externally imposed, poorly communicated initiative, leaving them unclear about its purpose, benefits, or timelines. As one stakeholder observed, "The JET-IP, as far as I understand it, was proposed externally—not by South Africa." Another lamented the lack of transparency: "Nobody can tell you the exact percentage that we will benefit … they will take all the coal … and nobody is telling us about the advantages and disadvantages for us." Many felt imported solutions ignored local realities: "Bus lanes work well in the Netherlands but did not succeed in Joburg, showing we can't simply adopt solutions from elsewhere."

Local business leaders acknowledged the necessity of an energy transition but criticized its rapid pace and the government's execution strategy: "We may not agree with the steps … but there is no doubt … that the business community … supports and sees its fundamental need to have a more renewable, more sustainable energy mix. … It's not about the policy position; it's the execution of that policy where we may have a difference."

Figure 4. Impact analysis of the JET



Note: 1–3 is least to medium severe impact, 4–5 is more severe to extremely severe impact (with widespread impact and multiple negative consequences).

Source: Authors' own data, developed using Python analysis on Julius AI.

Municipal officials admitted they, too, struggled to interpret and relay existing just transition details, reporting constant "pressure … to explain to people what is going on." This lack of clarity at both the community and official levels underscores the critical need for transparent, locally grounded communication strategies to build understanding and buy-in for the transition.

6.1.2 Socio-Economic Impacts of Coal Mine Closures

Qualitative responses from the ethnographic study were coded and visualized in a heatmap (Figure 4), with severity ratings from 1 (low frequency/impact) to 5 (high frequency/impact). This graphical scale highlights which themes—such as job loss, service deficits, or information gaps—dominate community concerns. While this intensity metric clarifies broad trends, it remains rooted in subjective coding and may understate intersectional or less-reported impacts.

It is important to note that the rating system has limitations due to its reliance on qualitative data and the potential underrepresentation of certain impacts. Notably, intersectional effects may be more severe than suggested by individual ratings.

Communities reported widespread negative impacts from the closure of the coal-based power station in Komati, with many informal livelihoods disrupted. The heatmap highlights severe and widespread impacts on women and marginalized groups, depicted by a rating of 5

across multiple categories due to a range of compounding factors (see themed findings in Table 3). From the findings, it is noted that job and livelihood losses have disproportionately affected women and other marginalized groups, exacerbating existing inequalities, with serious consequences, such as women being "forced to stay with a man who has a job in order to pay the rent."

Participants highlighted the profound implications of economic disruption, especially for those operating within the informal economy. One respondent reflected, "You know, if you were a supplier of accommodation around the power plant, you no longer have that informal economy; it's been killed."

Informal traders, small-scale service providers, food vendors, and domestic workers had all built their livelihoods around the presence of coal-fired power stations and mines. These workers are largely invisible in formal statistics, yet their dependence on the coal economy was profound. As one participant explained, "There was a huge informal economy around Komati; accommodation providers, transport providers, food and so on that we have not really quantified. So, if I'm being honest, I think there is a bit of trust that is lost in how things were done."

The closure of the Komati Power Station abruptly cut off these livelihood streams. A local informant expressed the resulting distress: "I think it is terrible for them [the currently unemployed in Komati] because they were working, some of them as casual workers. If they needed something, they could go, and there was always money coming in, even if they did not have permanent jobs. And the first thing that stopped was that."

Specific themed findings are presented in Table 3.

Table 3. Cross-cutting issues for the existing just transition and JET around coal mine and coal power plant closures

Common theme	Key findings
Disproportionate impacts on marginalized groups	• Job and livelihood losses, occurring in both formal and informal sectors, have disproportionately affected women and other marginalized groups, exacerbating existing inequalities. • Women and marginalized groups are notably overrepresented in these exclusions, exacerbating inequalities.
Loss of infrastructure for the provision of services	• Existing just transition policies have not acknowledged contributions made by coal mines and power stations in providing certain services to communities. • Loss of these services in the Komati area is detrimentally affecting the quality of life in these communities.

Common theme	Key findings
Low perception of procedural justice	• Coal value chain segments are overlooked in policy formulation. • There is mistrust in community consultation processes, and the perception is that the transition has been imposed. • There is a mismatch between community needs and transition objectives. • Communities express a lack of clarity about procedural justice. • There is a lack of belief that their concerns have been adequately addressed or heard during the transition process.

Source: Interview subjects.

The study found that coal mines and Eskom provide a certain level of essential services to communities, such as water, refuse removal, infrastructure maintenance, and community health centres, to improve living conditions over and above their duty to pay for municipal services used within their operations. The existing just transition plans have overlooked this, contributing to negative perceptions of coal mine and power plant closures as not just livelihood losses but also a community development setback. Some respondents echoed these views:

> "Two of these buildings used to work, but they are no longer working. We used to have a swimming pool, and it's no longer working. You can see the netball court is no longer being used because no one takes care of it. The building here used to be a community building, but it's no longer working. At the back of this building, it's a sport field. This is where we used to produce our kids from a foundation phase. It has been abandoned."

> "In the past, we received many donations from the mines. If we needed something, they provided it willingly, especially before the mines declined and the power station was mothballed for the first time. We had great support; for instance, if we had an athletics meeting, they asked what we needed and supplied it. Due to heavy rain in the last two years, our athletic field is now unusable because the track is underwater. Before the year 2000, if this happened, they sent a pump to remove the water."

> "Even if you look at Carolina, we can say that these mines sometimes, they are damaging the environment, obviously with the water problem, the land problem, and the air pollution. But they are doing good as well. We've got a community of 12 households, [and] they built them houses, nice houses, like not your RDP,[7] but nice big houses with the ramps for the disability, for the guys with the wheelchairs and stuff."

[7] RDP is a term used to refer to free houses provided to citizens by the government. They are low cost and do not fit into the social housing bracket. RDP has become the accepted "slang" term used to refer to those houses. RDP stands for Redistributive Development Programme, a policy introduced after 1994 to address housing shortages and land access in previously disadvantages communities.

Community members highlighted that mines were often very generous in response to community needs when no other funding was available. In the same vein, they also acknowledged that mines had caused some environmental degradation and air pollution.

6.1.3 Gaps in Procedural Justice and Meaningful Participation

Participants across multiple communities expressed a profound sense of exclusion from decision-making processes. Despite public engagement events held by the PCC and other institutions, community members reported that these processes often felt performative rather than participatory. Information was presented in pre-prepared formats that left little room for local voices or lived concerns to shape the agenda. A participant echoed this sentiment:

> "The thing is that the question that the people have isn't what they're telling them on the screen.… They know the power station is closing. But the questions that they have, they are afraid to ask, and the one who stands up to answer can't give a response that's understandable or helpful."

This sentiment was echoed repeatedly: community consultations were perceived as technical, top-down presentations, where residents were expected to listen but not genuinely participate. As one respondent put it:

> "They said a lot of things, but actually they said nothing. We want to know: how is this going to affect our school, our jobs, our living situation? But they couldn't answer us."

Even among stakeholders assumed to be better informed—such as organized labour—there was evidence of confusion and disillusionment. A union member remarked:

> "There's a fundamental issue about how consultation is happening—it's happening so quickly. There are knowledge asymmetries and very little transparency about what has already been agreed to. Unionists come to meetings thinking decisions are still on the table, when they've already been made."

Community members noted that senior representatives from the PCC had not visited Komati before the closure of the power station—highlighting significant gaps in the delivery of procedural justice. The community members remarked that:

> "The PCC has this transition framework document with the three justices, blah blah blah… but they never visited Komati before it was closed."

> "If it is a just transition, it must include us. They must ask us."

In principle, procedural justice is intended to ensure that policies reflect the realities and priorities of those most affected. In practice, the research found a deep mismatch between the formal consultation processes and the daily concerns of communities.

6.2 Findings From the Pilot

The findings from the study present an alternative procedural method tested in the communities to find out how communities interpret JET, how they want the engagement process to unfold, and how co-produced plans and policies can be delivered, from their own understanding.

6.2.1 Findings From the Local Food Economy and Links to Distributive and Procedural Justice

The pilot study revealed a small but vibrant local food economy in Phola, with residents engaged in small-scale farming to support their households and, in some cases, generate supplemental income. Interviews and observations confirmed that many more residents are eager to participate in food production but are constrained by several critical barriers: a lack of access to land; an inconsistent and unsafe water supply; the absence of essential inputs, such as seeds and compost; and inadequate infrastructure, like fencing to protect crops.

> "We have been promised water, help with planting, installation of nets—these are all empty promises.… We work with food; we need a safe, consistent water supply, which we have been promised."

> "It's the small things. If we could be sponsored with water or water tanks, we would be able to sustain ourselves."

The research highlighted that many Phola residents would like to have the opportunity to produce their own food. They are currently unable to do so due to not having access to land, water, and small-scale financial support. This is compounded by deep cynicism toward government-led development, rooted in past unfulfilled promises, a lack of transparency, and exclusion from decision-making processes. Respondents remarked that:

> "We have been hoping for farming land. They promised that those who farm spinach and onions will get it."

> "Those young men farming at that corner do not belong here.… They just went there and started farming without permission."

These unmet promises have undermined trust in government and implementing agencies, revealing a gap in **procedural justice**—specifically, the failure to deliver meaningful engagement and follow-through on commitments made during community consultations. Residents also highlighted ongoing land disputes and a lack of formal access to farming plots.

6.2.2 Findings in the Care Economy

Findings revealed that Phola was experiencing significant challenges within the care economy. Many children in Phola live in dire conditions, facing neglect, abuse, and a lack of state support. Teachers highlighted the need for trained social workers and educational psychologists, resources that are severely lacking in the province. There is a general shortage of social workers across the province, and essentially no state educational psychology resources available. Only one psychologist serves over 500 schools in the Nkangala District. Many

children cannot access ECD due to high costs and a lack of infrastructure. Some respondents remarked that:

> "We cannot communicate properly with the children because we are not trained. We do not know how to deal with certain situations."

> "There are a lot of children who fit the profiles of learning disabilities, but they cannot be diagnosed. These children cannot get enrolled in my centre because I need a psychologist's report."

Teachers at a local primary school reported the positive impact on students of regular visits from an organization that focused on the children's problems. The service stopped due to a lack of funding.

6.2.3 Inclusion of Women

Data from the pilot has shown that due to their vulnerable status, women are significantly impacted by care, food, and informal economies in Phola. The pilot study highlighted areas where community development gaps particularly affect women, as summarized in Table 4.

Table 4. Women, inclusion, and coal mining impacts

Theme	Findings
Women as primary caregivers	• A heavy burden is placed on women due to gaps in childcare, social services, and education. • A lack of trained social workers disproportionately affects women, leading to unpaid care work.
ECD gaps	• Women are primary caregivers, but poverty limits access to ECD centres. • Many mothers cannot work due to a lack of affordable childcare.
Women in the informal economy	• Many women rely on precarious informal jobs for survival. • Barriers to scaling businesses: lack of access to land, capital, and infrastructure.
Food security and women's role	• Women play a key role in local food production but face barriers to land, water, and resources.
Gendered impacts of poor services	• Women bear the brunt of water and sanitation issues, spending more time on unpaid labour. • Poor basic services increase safety risks for women and girls.

Source: Interview subjects.

Women shoulder a disproportionate share of care and coping responsibilities in these coal-dependent communities. Gaps in childcare, social services, and education force them into unpaid care work, a burden intensified by a shortage of trained social workers. Although women are pivotal caregivers, poverty often blocks their access to ECD centres.

Outside the home, many women subsist on precarious informal jobs—street vending, subsistence farming, and small-scale enterprises—that lack reliable access to land, capital, and infrastructure, limiting opportunities for growth. In the local food system, women drive production and distribution but struggle with water shortages, land tenure issues, and insufficient resources.

Finally, inadequate basic services—especially water and sanitation—exacerbate unpaid labour demands and heighten safety risks for women and girls. Together, these interlocking challenges reveal how service deficits, economic precarity, and infrastructure shortfalls compound gendered vulnerability during the energy transition.

7.0 Conclusions

This study had two objectives. First, it assessed ethnographic research as a trust-building engagement method suited to just transition contexts marked by skepticism toward outsiders and prior unfulfilled promises. Second, it deployed this approach in a pilot to capture community perceptions of the JET and test co-production pathways.

By embedding researchers in daily life over an extended period, the ethnographic method overcame initial wariness—rooted in past engagements that yielded little tangible benefit—and elicited candid feedback on transition processes. Sustained presence, transparent communication, and genuine listening enabled participants to share deep-seated concerns and aspirations that conventional consultations had failed to surface. These trust-anchored insights demonstrate ethnography's potential both to enhance stakeholder engagement and to lay the groundwork for meaningful co-production in energy-transition policy-making.

A criticism of this approach is that it takes a lot of time and investment and, therefore, is more expensive. This is true. It is also true that, particularly if the stakeholders have been engaged previously, it may not lead to findings that are substantially different from those that a desk study, traditional interviews, or surveys might find. The difference is in the process itself, and the meaning it can provide for stakeholders, who feel more engaged in the process, are speaking to people who have earned their trust, and therefore are likely more open and less skeptical of what would follow. As a way to recover a positive relationship with stakeholders, there is value in taking the extra time to build trust. This can also help stakeholders feel more ownership over the process because their engagement is over time and meaningful, not "in and out."

In contexts where past engagements have failed or where marginalized groups remain unheard, immersive ethnographic research offers a path to genuine stakeholder buy-in and richer insights, ultimately benefiting those most affected by policy decisions. However, ethnographic research may not be required in settings where trust in engagement processes is robust and conventional methodologies yield reliable insights.

As to the findings of the engagement process itself, ethnographic findings reveal that procedural justice—as envisioned in the Just Transition Framework—has not been meaningfully delivered (contributing to the trust deficit mentioned above). The state's engagement processes have been largely top-down, through traditional means, and bureaucratic, with predetermined plans presented to communities rather than collaboratively developed with them. Community members describe these engagements as one-directional presentations, lacking the space to voice their realities or influence outcomes. As a result, a negative relationship has built up, creating a barrier to finding a positive way forward.

This reflects a fundamental flaw in the design and execution of current participation mechanisms. Ethnographic approaches, and the evidence they present, suggest that community input has not shaped policy substance, impeding the principle that affected groups should have an equal say in decisions that impact them, something that is essential for a transition to be considered "just."

Using co-production methods, the ethnography-focused pilot study in Phola sought to correct this flaw by involving the community from the beginning in identifying development priorities. Residents—and, in particular, women—in the care economy co-mapped public assets, food gardens, care networks, and informal businesses, surfacing needs and solutions that had not been recognized by external planners. This process affirmed that genuine co-production enhances procedural justice by anchoring decisions in the lived experiences of communities. The use of ethnography in conducting the pilot also speaks to its ability to recover from past trust deficits and rebuild meaningful engagement relationships.

The **ethnographic method was essential in uncovering this reality**. Where conventional data capture excluded informal and non-unionized workers, ethnography revealed the full extent of the ecosystem affected by coal closures. People who were skeptical of past interactions were also convinced to provide meaningful feedback and input to the pilot study over time. The **pilot in Phola** further demonstrated that **supporting small-scale agriculture and care work**—often overlooked by formal policy—can contribute to more equitable economic outcomes, particularly for women and older residents, if they are engaged meaningfully.

Inclusionary justice requires not only fair outcomes and participation, but also the **recognition of community knowledge, social practices, and ways of organizing**. This is where the ethnographic and pilot studies were especially revealing. Communities in Mpumalanga often operate through informal systems of cooperation—such as allotment-style food gardens or school-based pastoral committees—not captured by formal state frameworks.

Yet many state and donor programs **impose cooperative models or funding structures** that force residents into unfamiliar or unsuitable organizational forms, thereby **excluding them from accessing support**.

By using ethnographic co-production, the pilot aligned support with existing community structures instead of trying to overwrite them. This approach offered a model for **delivering inclusionary justice** by recognizing and amplifying community-defined forms of development, rather than imposing technocratic solutions from above.

Could these outcomes have been reached with more traditional engagement methods? It is possible, but the degree of mistrust and "engagement burnout" leads to a strong possibility that many stakeholders would have been reticent to participate. The longer-term investment in the community by researchers helps lead to a higher likelihood of success and buy-in. So, while the cost of research and engagement is higher, the risk of failure or negative outcomes is significantly lower.

7.1 Applicability and Replicability in Other Places

The research approach can be replicated in other parts of South Africa and other developing countries that are undergoing a transition. Where it is most useful could be areas where there is a history of poor engagement leading to trust deficits or in communities where positive relationships with researchers and policy-makers are historically lower, traditional methods may be less successful because of stakeholder pre-conceptions, and there is skepticism about

past engagement or a lack of understanding about local dynamics. If applied, this method should follow these strict principles of deploying ethnography.

7.1.1 Historical Context

Understanding the historical context forms the foundation for a successful ethnographic study. Researchers should spend a minimum of a year in their research location, making observations about the local economy, various centres of power and influence, assets, and an overall understanding of how people live.

7.1.2 Trust-Building Exercises

Once the researcher has established a historical context and gained sufficient familiarity, they can begin conducting interviews with participants. This familiarity helps reduce participants' apprehension when speaking with someone they know compared to a stranger. Consequently, participants tend to share more detailed information than what might be obtained through structured interviews or surveys.

7.1.3 Data Collection Process

The researcher may choose a data collection method, such as interviews or group discussions, based on the type of information sought and the nature of the discussion desired. Ethnographic research prioritizes the perspectives and experiences of participants, with the researcher posing guiding questions. The aim is not to steer a specific narrative or ask "yes or no" questions, but to create an environment where participants can share their stories with minimal interruptions. This allows participants to provide their own views on how they perceive issues and are impacted by them, and suggest potential improvements.

7.1.4 Employing Co-Production

Co-production remains a validated method for data collection and policy development. Consequently, it is regarded as a final outcome in the ethnographic research process (for data collection), with the objective of developing meaningful and inclusive policies or programs that genuinely reflect community perspectives. This approach can be integrated with the other three steps (mentioned above) if the researcher or data collector is a recognized figure within the community, such as a municipal ward councillor, municipal official, or government official. It is crucial to implement co-production at the outset of the policy or planning development process.

7.1.5 Cost Implications for Ethnographic Research

Ethnographic studies typically cost about three times more than standard surveys, driven largely by the extended fieldwork and the additional time needed for data processing (e.g., translation or interpretation). Training costs remain minimal—one day of site-specific orientation suffices if researchers already hold a social science degree with hands-on ethnography experience.

Co-production carries its own premium due to the depth of analysis and sustained engagement it demands. While more expensive than brief questionnaires or presentation-style consultations, these upfront investments can prevent far greater losses associated with community disengagement, misaligned interventions, or project delays—risks that are difficult to quantify but often exceed the initial outlay.

8.0 Recommendations

To ensure a just transition is both fair and inclusive, South Africa must move to adopt practical, community-centred strategies that reflect the realities of those most affected—particularly women, informal workers, youth, and the elderly. The following recommendations are designed to improve procedural justice, strengthen local participation, and align policies with lived community priorities.

Adopt Co-Production as a Core Planning Principle

Incorporate co-production in the design and implementation of JET policies at local, provincial, and national levels. This includes incorporating community members, especially marginalized groups, in early decision-making stages—not just post-policy consultation. A way to do this would be to incorporate existing community forums in each transition-affected municipality with existing local government policy planning processes, to enable continuous dialogue between communities, government, and implementing agencies. Ensure that the forums are well-resourced, gender-balanced, and youth-inclusive.

Develop Ethnographic Research Capacity Within Government

Develop capacity-building programs to equip officials with the skills to conduct ethnographic research. Skills could include asset mapping, trust building in the community, and creating spaces for inclusive engagement, moving beyond standard public consultation models.

Build in Data Collection Processes to Strengthen JET Planning Processes

Before decommissioning any coal facility, it would be useful to begin building interactions and visibility in communities toward a more ethnographic assessment of local economic, care, and social systems. This should be used to inform job transition planning, retraining schemes, and support services.

Align IDPs With the JET Planning Process

Municipalities can also integrate co-production outcomes into their IDPs, ensuring the community participation aspect of the IDP reflects locally mapped and adequately engaged strategies and, for energy-transition planning, ensure adequate coverage of JET-related risks and opportunities.

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Appendix A. A Framework for Effective Co-Production

The tools for delivering co-produced solutions must operate within an overarching "enabling framework" of guiding principles, as outlined below. Without this framework, the effectiveness of these tools will be significantly diminished.

Thoughtful Planning and Phased Implementation

Effective co-production requires careful planning to maximize information collection with minimal community interactions. "Survey fatigue" is prevalent, where repeated research efforts without tangible outcomes erode community trust and participation. To avoid this, engagement must be streamlined and purposeful, ensuring that community interactions yield meaningful benefits. An actionable response should be to

Establish a co-production coordination unit:

- **What**: a dedicated team to oversee, resource, and support co-production processes across transition-affected municipalities.
- **Who**: Department Resources and Energy in partnership with the Department of Planning, Monitoring and Evaluation, and the Presidential Climate Commission (PCC), cooperative governance, and municipalities.
- **Purpose**: to provide technical guidance, deploy ethnographic researchers, and ensure consistency across sites.

Delivering Tangible Benefits Quickly

To secure long-term community buy-in, some benefits must be visible in the short term. While not all community-driven programs can be immediately operational, efforts should be made to deliver tangible, short-term benefits aligned with community inputs. This approach fosters trust and creates a positive environment for ongoing collaboration. An actionable response should be to

Deliver a "quick win" in each community within 6 months of engagement:

- **What**: select and implement at least one short-term, visible project based on initial community input (e.g., refurbishing a clinic, restarting early childhood development centres, restoring boreholes).
- **Who**: local just energy transition (JET) delivery teams (municipalities + PCC + community groups).
- **Purpose**: build trust, demonstrate state responsiveness, and improve buy-in for long-term collaboration.

Leveraging Existing Assets and Resources

A fundamental principle of the co-production infused with the asset-based community development approach is to work with existing structures and activities rather than replacing them unnecessarily. For example, developing the local food economy should be done in collaboration with community priorities rather than imposing external initiatives. This method ensures sustainability and prevents disruption. In communities with limited economic activity and high poverty rates, leveraging public infrastructure upgrades, social services like the care economy, and local community economies must be explored. An actionable response should be to

Prioritize support for informal and care economies:

- **What**:
    - allocate resources and support for informal early childhood development centres and disability care providers
    - allocate land, fencing, and water access for local food gardens or look at government-led initiatives with the community as shared owners
    - improve communication on how municipalities process informal traders' permits and access to business training.
- **Who**: Department of Social Development and small business; Department of Forestry, Fisheries and the Environment; local municipalities; non-governmental organizations (NGOs); the department responsible for women, youth, and the disabled.
- **Purpose**: recognize and scale up existing economic activities central to resilience and community well-being.

Aligning Funding with Community Priorities

For procedural justice to be meaningful, funding mechanisms must be restructured to support initiatives that reflect community priorities. The current funding models often favour externally designed initiatives, neglecting community-driven proposals. Justice cannot be achieved unless appropriate funding is made accessible in formats that empower local communities. An actionable response should include the following:

Shift project design processes to the post-consultation phase

- **What**: incorporate co-production mapping in the Integrated Development Plan and other infrastructure planning processes, especially for a just transition.
- **Who**: all affected programs, departments, and entities involved in the JET work (i.e., Eskom, Just Energy Transition Partnership financiers, Development Finance Institutions, local municipalities).
- **Purpose**: Ensure that plans reflect lived realities and that projects are built on actual community needs.

Fund and implement local ethnographic mapping teams

- **What**: incorporate some funds from the employee development allocations within corporate departments to train employees involved in community engagements and communications on ethnographic surveys and asset mapping.
- **Who**: local municipalities supported by district municipalities; Department of Social Development and small business; Department of Forestry, Fisheries and the Environment; local municipalities; NGOs; the department responsible for women, youth, and the disabled; Department of Mineral Resources and Energy and PCC, working with academic partners (e.g., universities, research NGOs).
- **Purpose**: Identify community priorities and informal economic assets as a foundation for program design.

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