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Just Transition MEL Framework Scoping Report and Literature Review

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Acronyms and abbreviations

CCRMES	Climate Change Response Monitoring and Evaluation System
CRD	Climate-Resilient Development
DALRRD	Department of Agriculture, Land Reform and Rural Development
DFFE	Department of Forestry, Fisheries and the Environment
DHS	Department of Human Settlements
DMRE	Department of Mineral Resources and Energy
DoH	Department of Health
DoT	Department of Transport
DPE	Department of Public Enterprises
DSI	Department of Science and Innovation
DTIC	Department of Trade and Industry and Competition
DWS	Department of Water and Sanitation
GHG	Greenhouse Gas
IRP	Integrated Resource Plan
JET	Just Energy Transition
JET IP	Just Energy Transition Investment Plan
MEC	Minerals-Energy Complex
MEL	Monitoring, Evaluation and Learning
NDC	Nationally Determined Contribution
NEMA	National Environmental Management Act
NZC	Net Zero Carbon
OECD	Organisation for Economic Co-operation and Development
PCC	Presidential Climate Commission
TVET	Technical Vocational Education and Training
UNFCCC	United Nations Framework Convention on Climate Change

Executive Summary

Taken together, the Just Transition will involve mitigation, adaptation, climate finance and employment/innovation across multiple geographies, sectors, levels and actors and must achieve restorative, procedural, and distributive justice, in a context of great uncertainty and change.

A Monitoring, Evaluation, and Learning (MEL) framework will set the parameters for evaluation of the JTF (and ultimately the JT), addressing the question: 'how goes the battle?'. It will articulate an organizing framework able to encapsulate the broad landscape of just climate transition, identify priority outcomes and the systems that determine those outcomes (causality), and avail well-chosen evidence to inform an enhanced and clearer direction to what must be achieved.

The MEL Framework must be 'socially owned', generating evidence for all stakeholders. It should complement existing monitoring and evaluation efforts through a justice-driven, transformative evaluation approach. It should complement conventional, established monitoring and evaluation methods, by facilitating the identification, generation and appropriate incorporation of evaluative evidence from a broad range of methods, including those generated by communities.

The elements of the final MEL Framework will include:

Organizing Framework encapsulating the focal areas and dimensions of the JT drawing on suitable theoretical discussions and literature.

Articulation of causality: for each focal area to be tracked, this section will articulate causality, relationships, and interdependencies. This will clarify critical aspects to be measured, help enunciate the data points, and surface the evidence users and processes of evidence sharing.

Monitoring, analysis and reporting Plan: this will contain the list of indicators for regular monitoring, likely grouped by focal area in the Organizing Framework, and then as per the causal logic. A table will detail who generates the data and system of data collection. It will incorporate a wide variety of evidence types based on a set of criteria.

Evaluation and learning Plan: this will lay out a series of evaluations to undertake across different time frames and levels and focal areas/aspects of the JTF – and as such would be undertaken by a variety of JT stakeholders. A variety of evaluative designs and methodologies will be incorporated.

Operationalization: outlining roles and responsibilities in putting the framework into practice.

This scoping, or preparatory report focusses on the Organizing Framework. It unpacks the key dimensions of the Just Transition in South Africa – the content and focus of a MEL Framework (a literature review) and outlines the climate policy, mandates and the evidence system across government. It then presents a theoretical discussion on the M&E frameworks available in support of a MEL Framework for the JTF and proposes an Organising Framework for discussion.

The JTF presents a broad spectrum of outcomes to be achieved by multiple policies and programs, across a variety of spaces, levels, sectors and actors. Success is dependent on interdependent factors, including (but not limited to) the integration of solutions, participatory governance, political and institutional factors, willingness to change, cumulative effects, etc., but centrally a unified pathway to decarbonisation (or steps thereof) and a perception of fairness in the distribution of benefits, risks and opportunities.

Cornerstones of a successful JT are the transferability of skills, labour plans, and investment in diversifying skills and the economy. A capable state and in particular local government is key to protecting vulnerable communities through access to services. Equitable service delivery, access to healthcare and land redistribution and rehabilitation are core to empowerment and restorative justice in the transition.

Ultimately, the ability to re-orient to new economic pathways depends on a willingness to change and perceptions of justice often matter more than quantifiable measures of justice. People need to feel heard, have dignity and experience recourse to justice/redress.

The MEL Framework must track all these facets of the JTF. One of the challenges of developing this Framework is to "map" its scope in such a way as to express the interrelationships between the interventions and outcomes of interest. This helps to delineate scope and to ensure that pieces of evidence are viewed properly within the "big picture" rather than in isolation.

The literature on climate-related and sustainability frameworks, particularly in the Adaptation space provide insight on mapping scope given the continuum of actions which have a bearing on the outcomes of JT (causality). These frameworks and guidance for M&E have no 'ready-made' conceptual framework for 'justice', and this is important given that justice and vulnerability lie at the heart of the JTF. Therefore, building on these, it will be important to incorporate principles and concepts from systems thinking and African evaluation scholarship; and to draw on the emerging body of work demonstrating how these may apply to evaluations on climate/ecosystems health and equity. Notions of transformative engagement, as well as criteria for enunciating 'transformative intent' offer value to designing evaluative frameworks. A variety of types of evidence is emphasised in the literature and the importance of the framework itself contributing to the urgent need for transformation. MEL has the power to direct change by advocating for justice-oriented definitions of success and sharing and elucidating evidence with stakeholders.

While a whole-system view is important in framing the evidence, the framework must pay attention to what emerges at each layer/level of specificity down to on the ground through action. This is encapsulated within the embryonic Organizing Framework presented for discussion. Below is an emerging "organizing frame" for discussion, laying out the areas that the MEL framework will potentially focus on and describing. An initial tabular diagram assisted in capturing the extent of the JT elements but was limited by the fact that not all elements or dimensions lend themselves to obvious vertical or horizontal sequencing (sectors and the pathways). A model / diagram that adequately provides for the emphasis on "justice" has not yet been developed, hence this diagram suggests that justice be "overlaid" over each cell in the table, so that the question is, for instance, "what will constitute procedural justice for mitigation actions in the automotive industry in Gqeberha?" (See also the alternative models presented in the full report, section 4.)

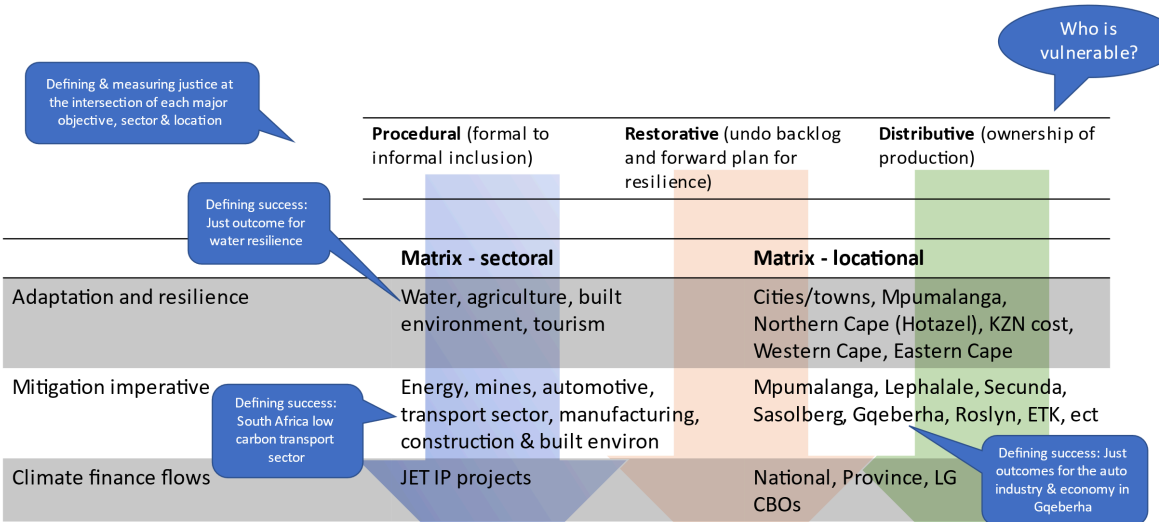


Figure i. Emerging "organising frame" for the JTF: a tabulation

Once the desired outcomes are defined, the system(s) and key interrelationships that will generate those outcomes can be described – including policies, interventions, capacities, and contextual factors. This is critical to avoid isolated or over-simplistic or techno-managerial measures, but the final framework will include traditional indicators and be simple enough to allow all stakeholders to understand the evidence and be able to say something meaningful about action.

What are people's concerns in the JT? How will they access the evidence to track the outcomes? A MEL Framework positions voices and will establish the systems and practice for learning and adaptive management. Early consultation across stakeholders will drive this, building stakeholders' understanding and anticipation for the data and evidence that the M&E framework will yield once implemented, and explore barriers to participation. This should 'pulse' into ongoing PCC stakeholder efforts – avoiding duplication in engagement activities and building on/leveraging consultation already done.

The information presented in this scoping report is gathered from the literature as well as initial conversations with the Presidential Climate Commission (PCC) commissioners, line managers and other relevant role players.

It provides stakeholders with an indication of the team's understanding and emerging approach. It should be viewed as a discussion document and informant to upcoming stakeholder consultations.

1. Background and Introduction

1.1. Introduction

South Africa is one of the most carbon-intensive countries in the world, heavily reliant on fossil fuels for its energy needs. At the same time, the country also experiences the triple challenge of significant levels of poverty, inequality (the highest in the world), and unemployment. These need to be addressed to overcome the legacy of colonialism and apartheid and achieve social and economic progress. In response to these challenges, South Africa has chosen to embark on a just transition (JT) to respond to both the climate crisis and advance its economic and social development objectives.

South Africa is widely regarded as a leader in the development and implementation of a JT, and the country's efforts have received recognition and support from various international organizations and initiatives. The large body of work undertaken to date has culminated in the adoption of the 'A Framework for a Just Transition in South Africa' policy document in 2022 (referred to as the JTF from here onwards). This framework aims to guide the country's transition towards a zero-emissions, climate-resilient, and socio-economically just society. Implementation of this framework is urgently required to buffer the impacts of climate change and still make economic progress, all in the rapidly changing context of global shifts in the climate and energy landscape.

A Monitoring, Evaluation, and Learning (MEL) framework will set the parameters for evaluation of the JTF (and ultimately the JT), addressing the question: 'how goes the battle?'. It will articulate an organizing framework able to encapsulate the broad landscape of just climate transition, identify priority outcomes and the systems that determine those outcomes and avail well-chosen evidence to inform an enhanced and clearer direction to what must be achieved. The MEL process also points stakeholders to what policies and plans are working and what is not, and what needs to change considering a changing context. It will complement existing tracking efforts in the country but will be deliberately situated outside of the statutory planning and reporting and compliance processes.

Justice and vulnerability lie at the heart of the JTF. The MEL and chosen indicators need to reflect the need to protect vulnerable communities against the impacts of climate change and devastating weather events across the country, as well as take into consideration the changing economies of cities and towns as they adapt to the energy transition across multiple sectors. Taken together, the Just Transition will involve mitigation, adaptation, climate finance and employment/innovation and using these primary intervention areas, it will need to address the overall outcomes of achieving restorative, procedural, and distributive justice.

The scoping exercise reflected in this report covers:

1. Unpacking of the key dimensions of the Just Transition in South Africa – the content and focus of a MEL Framework (a literature review).
2. Climate policy, mandates and the evidence system across government
3. A theoretical discussion of MEL frameworks and evaluative approaches in relation to climate change and justice, looking at relevant international experience and guidance and assessing the potential applicability to South Africa.
4. The presentation of insights and an embryonic 'organizing framework' for a justice-focussed MEL framework that is presented for discussion and further engagement on in the upcoming project phase.
5. A stakeholder partnering approach

The information presented in this scoping report is gathered from the literature as well as initial conversations with the Presidential Climate Commission (PCC) commissioners, line managers and other relevant role players.

It provides stakeholders with an indication of the team's understanding and emerging approach. It should be viewed as a discussion document and informant to upcoming stakeholder consultations.

1.2. MEL framework guiding principles, workplan and outline of final deliverable

The MEL framework will set out an approach for tracking progress towards South Africa's just transition. It will be guided by the following broad principles, as laid out within the project brief, and further detailed in the scoping process:

Socially owned: The framework and evidence it generates is intended to be of use by all social partners: all levels of government, civil society, business, labour and communities. To achieve this, the framework must be developed in consultation with all key stakeholders, so that it is seen as 'our framework'. Clearly establishing the objective/purpose of the M&E framework and developing credible evidence to meet this purpose is core to this.

Complementary and bounded: The MEL framework sets out to complement existing monitoring efforts and will not duplicate or provide a summation of other monitoring exercises. In line with the JTF – and explored below - it will focus on the socio-economic consequences of climate policy, with the most vulnerable at its core. Given the vast terrain of the JTF, this requires setting the boundaries to enable tracking all facets of JT with sufficient focus to be 'doable'. Coordination and alignment with key stakeholders and building on existing monitoring processes and databases will be essential.

Justice-driven: The MEL framework proposes an approach that is transformative - political rather than technocratic, driven by all of society and deliberately situated outside of the statutory, legal, regulatory or compliance approaches. It commits to bringing the voice of the most marginalised fully into the process, minimizing the risk of participating and ensuring capability to speak, be heard, evaluate and act. Partnership and continuous learning through consultation and discussion with stakeholders as early as possible will be key, including drawing on the experience and work of international peers.

Practical recommendations: The MEL framework will be designed to enable adaptive management in a context of great uncertainty, providing useful feedback to improve policy-/decision-making. This requires that the evidence generated be simple and easy to understand, allowing users to evaluate JT goals. The process itself, the tracking and evaluation of evidence must be transparent, and stakeholder driven, drawing on both quantitative and qualitative transitional impacts.

The framework development process will be undertaken in 4 phases:

1. **Project preparation**: Scoping report based on literature review and key informant interviews.
2. **Framework design**: Evaluation approach design: objectives, questions, indicators and data approach and methods. Consultation with future evidence users.
3. **Apply the approach/MEL framework report**: clarify data collection methods and sources (various), develop operationalisation of the framework (who leads, learning spaces, adaptive management impact). Consultation with evidence generation ecosystem.
4. **Communication and outreach**: building on continuous stakeholder engagement throughout, ensuring the framework is understood and adopted.

An overview of the final (draft) deliverable provides a useful frame within which to understand the dimensions of this Scoping Report. The areas of focus within this Scoping Report are positioned in the boxed area.

Table 1. South Africa Just Transition MEL Framework overview articulation

South Africa Just Transition MEL Framework

Foreword and Executive Summary

Introduction, Purpose & Intended Audience / Users

This will be a framework that can be used by all major social partners in South Africa (all levels of government, civil society, business, labour, and communities) to track JT progress, focussed initially on the JTF.

How the Framework was developed

Process, methodology and principles / approaches applied.

Theoretical Framework

The theories, ideas, and concepts that underlie the Just Transition. This will draw mainly on what is in the JTF already, but some key concepts may require further articulation to justify the approach taken below.

Organizing Framework / Focal Areas

An initial Organizing framework outlining the scope of the JT for our context will be developed. It will spell out the dimensions of the JTF for tracking, and prioritization of focal areas.

Articulation of causality / relationships and interdependencies

For each focal area to be measured (indicator or evidence development), this section will articulate causality, i.e., causal chains (intended actions, changes, and their results), relationships, interdependencies and other assumptions. The most suitable tools to use for this remain to be confirmed.

Evidence users / decision makers and mechanisms by which evidence will be shared

Building on the brief reference to the purpose and intended audience earlier, this section will set out in more detail the primary intended evidence users – those who are intended to engage with the M&E evidence to be generated and make use of it to make decisions – the PCC itself and others, including to social partners. This will work closely with the partnering implementation model under development in the PCC.

It will also situate them within the larger "evidence use and decision-making ecosystem". (Note: this is to be distinguished from the evidence generation ecosystem even though there will be overlaps.)

Monitoring, Analysis & Reporting Plan

The list of indicators for regular / routine monitoring, likely grouped by focal area in the Organizing Framework and then as per the causal logic (above). The table will detail who generates the data, as part of which broader data collection exercise (if relevant), how often, and provide brief notes on the calculation and interpretation of the indicator if needed. It will list both existing data and recommended changes / additions to what is being monitored. As appropriate, different monitoring methods will be incorporated, including scientific measurement of natural phenomena; compilation of performance data; and surveying of public / community perceptions – and analysis such as tracking trends, and updating of forecasting models with last data.

In addition to listing the indicators, this section will discuss:

1. How the key evidence users / decision makers will engage with latest data from these indicators (e.g., general dissemination; tabling of a standard report at quarterly meetings; incorporation of evidence into annual strategic planning processes of key entities, etc);
2. Political, regulatory and/or administrative processes that must be undertaken for the identified evidence to be generated and shared for JT M&E purposes;
3. The recommended, longer-term data and evidence maturity process for Just Transition stakeholders, to fill the gaps in available data that have been identified.

Evaluation and Continuous Learning Plan
This section will lay out a series of evaluations to undertake of the medium and long term. These will include evaluations at different levels (e.g., local vs. national sphere of government) and focal areas / aspects of the Just Transition – and as such would be undertaken by a variety of Just Transition stakeholders.
Again, a variety of evaluation designs and methodologies will be incorporated as appropriate, including methods that deal with contribution, attribution, and modelling of counterfactual outcomes (forward-looking or backward-looking).
Roles and responsibilities; practical operationalisation
Making it explicit how the framework will be put into practice – reflecting decisions already made; positions already created etc. as well as recommendations for further institutionalisation, capacity development, etc.
The section will include arrangements for when and how to review this framework

2. Investigating the Dimensions of the Just Transition

2.1. Principles, objectives and focal areas

The justices: guiding principles and objectives

The transition must embrace the principles of restorative, procedural, and distributive justice to achieve fairness and equity for all stakeholders (PCC, 2022a).

Restorative justice involves repairing past injustices caused by environmental degradation and social inequality. Restorative justice is crucial for healing past divisions and rebuilding trust among stakeholders. Key pillars that require attention and monitoring under restorative justice include a green decent work agenda, social protection and access to health care, land reform and environmental rehabilitation (Baloyi et al., 2022, p. 14; PCC, 2022c).

Procedural justice focusses on inclusive and transparent decision-making processes, achieved through mechanisms such as public hearings and stakeholder consultations that enable all affected parties to provide meaningful input. New work on a Partnering Implementation Model by EDP for the PCC indicate that this should go beyond participation to real partnership in action (EDP, 2023).

The objective of distributive justice is to ensure that the costs and benefits of the transition are shared equitably through social protection programs, employment training and placement, and community-based renewable energy initiatives (PCC, 2022a; PCC 2022, p. 9). The JTF roots itself in defence of the most vulnerable in our society and environment.

Sector dimension: Addressing economic sectors at risk

An effective JT must consider the differentiated sectoral needs of communities and workers who are adversely affected by climate change and the geopolitics of low-carbon transition. The livelihoods of workers in specific sectors could be affected by droughts, floods or extreme weather events and therefore specific vulnerable sectors must adapt and build resilience to climate change. Other sectors may need to shift away from high-emitting means of production to remain competitive in international markets and/or to attract finance. The JTF identifies four at-risk sectors. These are 1) the coal value chain, 2) the auto value chain, 3) agriculture, and 4) tourism (PCC, 2022a). The development sector of water is identified and addressed within the adaptation space.

Geographic dimension: A spatially just transition

In many cases, these at-risk industries are in hubs or clusters within cities or local municipalities that have become highly dependent on them for income and employment. Spatial justice is a theoretical framework that is used to examine questions of equity and fairness of the JT from an explicitly geographical perspective. It investigates the role of geography in driving or determining socio-economic inequality. Both the predicted impacts of climate change and the impacts of the low-carbon transition will vary significantly across the country. Specific regions will experience higher transition risk. Spatial injustice is of particular importance in South Africa, with its high levels of inequality and poverty, and the large variations in opportunities, levels of governance and access to services across local municipalities (Ledger, 2020).

Temporal dimension: the JTF implementation plan

Time scales in the JT are long and there is a need to develop interim indicators to be able to track progress, even where the outcomes are not apparent. The PCC has commissioned a service provider to develop a JTF Implementation Plan. This will consolidate the time frames for JTF goals and interventions and provide insight into implementation indicators that will enable tracking of interim 'progress'. It is worth noting that the JTF MEL Framework will draw on the JTF implementation plan M&E process but will not replicate this.

2.2. Conceptual pathways of the JTF: Mitigation, Adaptation and Resilience

The Mitigation imperative

The structural economic changes we must make to decarbonize are significant and have consequences for communities around the country. The concept of "path dependency" refers to the difficulty of developing new economic pathways due to entrenched institutional systems, narrow worker skills, poor environmental conditions, physical isolation, and lack of interest by alternative investors (Nel et al., 2023). The failure to transition can lead to job losses, weakening institutions, and physical dereliction of infrastructure. Climate change mitigation is critical to the South African JT in its efforts to support the creation of new pathways towards a low-emissions and climate-resilient economy. The PCC mitigation imperative is multifaceted and includes understanding the technical pathways as well as their social and economic consequences[1]. Regions that suffer from extreme dependence on a single high-emitting product are particularly vulnerable in the transition. These mono-economy regions can skew the structure of local economies, labour, transport, and institutional systems through underinvestment in other sectors and limited skills diversification (Nel et al., 2023).

[1] https://www.climatecommission.org.za/mitigation

South Africa has a high dependence on its 'minerals-energy complex' (MEC), which has created deep links among mining, power production, the refining of iron, steel and various non-ferrous metals, petro-chemicals, fertilizers, and heavy industry in general (DFFE, 2023; Nel et al., 2023). The MEC has been described as the core of the South African economy, which boomed on the back of abundant cheap labour and electricity (Cloete & Marais, 2021). The MEC is now under threat, with rising energy costs, unreliable electricity supply, and the need to decarbonize the economy. The South African economy has failed to diversify beyond the core base of the MEC and has developed around a coal-centred path to industrialization (Froestad et al., 2018). The coal value chain consists of mining, energy generation, and petro-chemicals and metal refining (Makgetla et al., 2019). Around 40% of coal mined in South Africa is exported. Most of the remaining downstream consumption is used to generate electricity, followed by petro-chemicals produced by Sasol (Makgetla et al., 2019).

A new global research report revealed that South African institutional investors hold substantial investments in global coal, oil and gas companies worldwide — much of which is invested in Sasol and Eskom (Evans, 2023). The biggest institutional investor in fossil fuel companies is the Government Employees Pension Fund (GEPF) — which has invested roughly $7.4-billion invested in local coal, oil and gas companies, most of which ($5.5-billion) is in Eskom.

The coal value chain is concentrated in Mpumalanga (and to a lesser extent Limpopo and the Free State), with undue exposure to legacy socio-ecological externalities associated with this value chain, as well as high exposure to transition risk. While the impact of the transition will likely be felt most acutely throughout Mpumalanga, there are specific local municipalities that exhibit particularly high dependencies on coal and will be worst affected by the transition. These are Emalahleni, Steve Tshwete, and Govan Mbeki in Mpumalanga, as well as Lephalale local municipality in Limpopo. The communities surrounding the mines and coal-fired power plants are pollution hotspots that experience heightened levels of air pollution, water pollution and acid mine drainage, which has a serious impact on human health (PCC, 2022b). Engagement with community members highlighted the need for rehabilitation of the land surrounding coal mines, improved service delivery and access to health care (PCC, 2022c).

It is essential that local government have a vision, capacity, and resources to respond to the inevitable mine closure, job losses and economic restructuring. The ability of local governments to respond will likely be impacted by the potential loss of local rates and the risk of in-migration of vulnerable people to larger urban centres as mines close. It is unlikely that the local municipalities in these regions will have the capacity to effectively deal with the transition with all the municipalities financially constrained with high debt, and poor revenue collection and service delivery. There is also scant recognition of the risk of looming mine closure in the municipal integrated development plans (Cloete & Marais, 2021).

The regional impact of mine closure

South Africa has seen the impact of the failure to anticipate and plan for mine closure in the past, with the closure of gold mines in the Free State having a detrimental impact on their economy. This led to population loss, unemployment, worker displacement, business closure, a distorted housing market, loss of municipal services, and on-going environmental issues. More than 300 000 jobs were lost in the gold mining industry over the ten-year period from 1990 to 2000 (Cloete & Marais, 2021). Mine closure can often be traumatic for local communities, especially in remote areas, if local government is weak and labour productivity and non-mining income are low and labour mobility

minimal. It has been argued that many of the negative impacts experienced by mining communities in the Free State could have been mitigated by effective planning for a post-mining economy while the mines were still open or even at the point of opening.

On a social level, the experience of the Free State is that mine closure leads to "poverty, deterioration of living standards, increase in outmigration, emergence of crime and diseases, decline in the provision of services, reduction in employment . . . limited money circulation, reduction of buying power and in the payment of rates." (Siyongwana & Shabalala, 2019)

Efforts to reduce greenhouse gas (GHG) emissions in the transport sector globally will lead to an accelerated uptake of electric vehicles. The South African auto industry is highly dependent on exports, with 63% of annual vehicle production exported in 2021 (NAAMSA, 2023). Most of these exports are destined for European countries with plans to ban internal combustion engine vehicles between 2030 and 2035 (SEA, 2022).

While there are national plans for the South African manufacturing sector to transition to new energy vehicles, local manufacturers (of global corporations) have no plans in place to support this transition and currently there are no clear incentives in place to boost the local market. The manufacturing of automotive vehicles is concentrated in Gauteng, the Eastern Cape and Kwazulu-Natal. Gqeberha, in the Eastern Cape, is considered the home of the South African motor vehicle manufacturing industry. Rosslyn, an industrial area in the City of Tshwane, is another automotive manufacturing hub.

In contrast to manufacturing, road transport is distributed throughout the country, in line with the overall population distribution. South Africa's transport sector is another industry that is highly carbon intensive, as people and goods travel long distances to access markets and economic opportunities. South Africa's declining rail capacity has also made it difficult to cut transport and freight-related emissions (DFFE, 2023).

The built environment is responsible for over 30% of national emissions. Building Construction and Real Estate contributed 16.3% to South Africa's GDP in 2019, a very significant economic contribution, which comprises high levels of economic value addition. Re-aligning the construction and real estate value chains to effectively achieve low carbon buildings can have significant long-term benefits for South Africa's economic progress. In addition, low-income households can derive significant comfort, health and economic benefits from energy-efficient buildings. A JT in the built environment requires proactive, sector wide support, including appropriate policy, legislative and regulatory shifts to guide change; support to re-tool or develop technological and productive capacities to adapt or respond to new requirements. Without such structural supports, new industries struggle to compete against more nimble international competitors (CSS, 2020).

Mitigation in a just transition involves planning of the technical pathways to reduce emissions as well as alleviate the detrimental impacts decarbonisation may have on specific sectors and communities. South Africa urgently needs to transition towards a low-carbon economy and diversify away from the minerals-energy complex. For this transition to be just, it is essential that new green jobs are created and that there is economic and skills diversification in the region's most dependant on fossil fuels. There must be an alignment of plans, which acknowledge a unified pathway to decarbonisation at the national, provincial, local and industry level.

At the local level, vulnerable communities must be protected and empowered in the transition process. Willingness to change is often cited as a factor that determines the ability of communities to re-orient to new economic pathways, and perceptions of justice often matter more than other quantifiable measures of justice. Previous engagement with vulnerable communities suggests that equitable service delivery, access to healthcare, and land rehabilitation are core to empowerment and restorative justice in the transition. These factors are equally relevant within the Adaptation theme.

Adaptation

The PCC defines climate change adaptation as "the process of adjusting and responding to current or expected climate change and its effects and impacts[2]." Climate change poses a major threat to long-term development objectives, especially poverty reduction. Climate change is likely to impact South Africa's economy in two ways: 1) undermining the many economic models and livelihoods that are dependent on natural ecosystems, and 2) climate shocks draining fiscal resources, with the poor generally worse affected.

Maladaptation occurs when chosen measures increase the risk profile of communities or heightens the inequality of how risk is distributed (DEA, 2021). Climate change is a global issue that will affect everyone; however, adaptation is a local process. South Africa's climate is more variable than most sub-Saharan African countries. Different regions across the country will experience different climate vulnerabilities and therefore adaptation strategies should be localized. While location and human settlement patterns are important determinants of climate vulnerability, various socio-economic factors such as access to services, dwelling type, poverty and health are also drivers of vulnerability (DEA, 2021).

It is estimated that the effects of climate change will be predominantly felt through the water sector. South Africa is in general a water scarce country and climate change poses a significant threat to water security. Many parts of South Africa have been frequently affected by droughts in the last four decades, with particularly severe and persistent drought conditions impacting parts of the Northern Cape, Eastern Cape, and Western Cape, resulting in a state of disaster being declared in 2021. Droughts and rainfall patterns are likely to be increasingly variable, thus affecting the supply of clean, fresh water. This in turn can compromise hygiene and increase the risk of diarrhoeal disease (DEA, 2021)

Agriculture contributes significantly to livelihoods and local economies. It is a major employer and determinant of food security across South Africa. The agriculture sector is also one of the most unequal sectors in South Africa, with varying degrees of vulnerability depending on the relative ability to adapt to the climate crisis. The level of adaptation required in the agricultural sector will depend on the severity of climate impacts in specific regions, as well as governance and planning. Agriculture has already begun to feel the impacts of climate change and increasing weather fluctuations. Climate-induced change in water availability is likely to have the most immediate and significant impact. The drought conditions in many parts of South Africa are having a severe impact on the sustainability of many farms. Farmers in the Northern Cape, Western Cape and Eastern Cape are still under threat by the continuous drought. Crop yield may also be impacted by increasing temperatures.

[2] https://www.climatecommission.org.za/adaptation

Changes in rainfall patterns and temperatures, and the increased occurrence of short-term floods, will have an impact on human settlements and the built environment. Investment in climate proofing new and existing infrastructure has an important role to play in urban adaptation. Urban in-migration is expected to rise as vulnerable rural communities are at risk of displacement due to climate events. High rates of urban growth in South Africa have typically been accompanied by the expansion of informal settlements on the urban periphery. The effects of climate change are likely to have a disproportionate impact on informal settlements due to the overcrowded and temporary nature of urban informal housing. Prioritizing investment in infrastructure without shifting the distribution of resources and power will perpetuate inequality (Taylor et al., 2022). Some urban adaptation strategies to reduce inequalities are informal settlement upgrades and reallocation, formal planning of low-cost social housing, ecological infrastructure and ecosystem-based adaptation (DEA, 2021). To assist municipalities in developing climate-resilient settlements, the Green Book, an online tool developed by the CSIR, provides guidance on incorporating climate adaptation into planning instruments and processes (CSIR, 2019).

Tourism is considered an important sector for job creation during the transition as well as a sector that is vulnerable to climate risk (PCC, 2022a). Climate related hazards and degradation is expected to adversely impact the tourism industry in regions worst affected by climate change. The 2022 floods in eThekwini resulted in a significant decrease in tourism to the region (IOL, 2022). It is also likely that as the rest of the world transitions to a low carbon economy, international tourism will decline as pressure increases to reduce emissions.

Resilience and Climate-Resilient Development Pathways

Studies increasingly make the linkage between justice and vulnerability. Vulnerability/Justice is thus addressed through resilience, which refers to the ability of social, economic and ecosystems to anticipate, prepare for and respond to hazardous events, trends or disturbances. Climate adaptation, mitigation, and resilience are all interrelated and interdependent and a combination of these three strategies is required for effective climate action. A “climate-resilient development” (CRD) pathways approach for South Africa’s just transition is relevant to stakeholder-driven MEL. It outlines an approach that allows diverse stakeholders to understand the current development trajectory, iteratively monitor and assess climate-related risks, evaluate intervention options, and act in collaboration to redirect the development trajectory toward a more sustainable, cleaner, and inclusive economy and a healthier society – the approach can be applied in different sectors, scales, and contexts (Taylor et al., 2022).

2.3. Conceptual pathways of the JTF: Employment, Skills, Climate Finance and Governance

Employment, Skills and Innovation

A major concern is the potential loss in employment that will result from the transition to low-carbon energy sources. There are currently few overall employment opportunities for the South African labour force, with South Africa facing an unemployment crisis (EDP, 2023). The transition will require a restructuring of the economy away from carbon-intensive industries. There is the potential, if planned properly, for new green jobs to outweigh the jobs lost in fossil fuel industries (RSA, 2022). This will require planning which accounts not only for the transition away from fossil fuels, but also the potential impact of climate change on employment.

South Africa's national plans and sectoral master plans must consider occupational pathways for students entering the industry, to avoid skills mismatches for future green industries. It has been suggested that the Technical Vocational Education and Training (TVET) ecosystem has a transformative role to play in the transition, especially in developing the skills required for South Africa's green hydrogen sector (SAIIA, 2022). Green hydrogen has been highlighted as a priority sector for job-creation and investment in South Africa, with 21% of the JET-IP budget dedicated to advancing green hydrogen in SA (RSA, 2022). For this sector to create employment, the South African workforce must have the relevant skill set. The TVET ecosystem in South Africa is currently facing various challenges, including low graduation rates, skills and training objectives that are misaligned and non-adaptive to industry needs, a negative image, and the reputation of being non-academic (Ronnie, 2023). In South Africa, there is an adverse view of TVET courses and enrolment in these colleges has dropped over the last five years (DHET, 2022). For the TVET ecosystem to be used as a "transformative tool" there must be significant investment in improving TVET colleges. Although 21% of the JET IP is going towards developing a green hydrogen sector, only 0.18% is going towards skills development. Yet skills development is at the core of employment creation within these industries.

Worker's organizations are vital in promoting advocacy and collective bargaining for workers in the transition. They give workers the opportunity to engage with policy and promote procedural justice. Trade union organisation and workers representation must be protected. Collective bargaining and social dialogue must be strengthened.

Work that promotes sustainable livelihoods and resilience must not only be green but decent. The decent work agenda consists of four pillars: job creation, social protection, labour standards and rights at work, and social dialogue (PCC, 2022b).

Effective institutional and governance setup

The concept of a just transition is supported by various institutions, policy and governance frameworks, organized vertically, with different spheres of government having various mandates, and horizontally with different line departments in each sphere having a mandate towards their respective sector. It is also organized spatially between administrative jurisdictions. This comes with reach, but also fragmentation and in-silo challenges.

The country has developed a range of laws and policy that have been delineated as: climate-related policies, electricity-related policies, just transition-related policies, finance-related policies, and industrial-related policies (RSA, 2022). The Presidential Climate Change Commission (PCC) is the steering force behind the JTF and the JET-IP, all of which are premised on the foregoing legislative and policy instruments.

A transparent, responsible, and participatory governance framework is required for a just transition. The establishment of a comprehensive just transition policy framework, the establishment of institutional structures to oversee the just transition, and the development of partnerships between government, civil society, and the private sector must be a key focus of the MEL Framework.

Governance issues are picked up in the many dimensions of the JTF discussed above. Critically the governance context is one that has been dubbed a 'crisis of implementation', with a deep distrust around the ability of the state to deliver on their mandate and the lack of a common agenda across the three major parts of society – government, the private sector and civil society (EDP, 2023).

Climate Finance flows

Climate finance refers to local, national or international mechanisms and fiscal flows, drawn from public and private sources, to address the large-scale investment required to significantly reduce emissions, as well as the significant financial resources needed for communities to adapt to, and minimize the impacts of, the adverse effects of climate change. Achieving a just transition in South Africa will cost an estimated $35 billion in the first 15 years, according to the country's Just Energy Transition Investment Plan (JET-IP). $8.5 bn of this will be sourced from loans, grants and risk-sharing through the Just Energy Transition Partnership, $10 bn will come from Eskom, and it is hoped that the rest will come from foreign investment (RSA, 2022).

The JET-IP outlines the investment strategy for the first five years of the transition, which is in line with South Africa's Nationally Determined Contribution (NDC) (RSA, 2022), and the funding required for the key sectors of electricity (47.2%), new energy vehicles (8.5%), green hydrogen (21.2%), as well as skills development (0.18%) and municipal capacity (21.3%).

Raising this level of finance from the global economy is a challenging task, over and above the country's ability to repay its debts, and a known legacy of corruption (Nel et al., 2023). Care will need to be taken that this financing will result in fast and productive implementation and monitoring that is communicated in such a way to give confidence to outside private sector finance partners. There needs to be strong recourse and government accountability across all spheres of government.

Ease of doing business is an important factor that will influence foreign investment in the South African energy transition. Unfortunately, South Africa is rated relatively low in terms of ease of doing business (Nel et al., 2023). Local municipalities can assist businesses and give investors some security and can promote their area to investors. A significant proportion of the proposed investment must go towards diversifying local economies that are the most vulnerable to job losses in the transition. There are plans to support new renewable energy development in Mpumalanga, as it has some competitive advantage with already-installed transmission infrastructure. Despite this advantage, most of the current renewable projects in South Africa are in the Eastern, Northern and Western Cape. In areas particularly vulnerable to the transition, many municipalities are in a state of crisis, with rising debt, poor revenue collection and declining service delivery. These municipalities are struggling to function and do not have the ability to attract investors.

Climate stabilization projects in South Africa have committed to providing transition support to workers. Over and above the cost of new renewable energy capacity, decommissioning coal mines and power station and supporting new green industry, the transition cost will include retirement packages, pension guarantees, migration of workers to other sectors, and reskilling. A further risk facing these communities is access to capital to assist with transitioning to new sectors if the housing market in these mining towns collapse. Post-1994, mining compounds were dismantled, and home ownership was encouraged (Cloete & Marais, 2021). The closing of mines in smaller mining towns with limited opportunities other than mining-related work presents huge housing risk for homeowners who may need the capital of their investment for early retirement.

2.4. Policies, mandated departments and evidence custodians in government

The **Paris Agreement** forms an orientating treaty for ensuring that all participating countries contribute their share to the mitigation and adaptation efforts in the face of the threat of climate change (UN Treaty Collection). Each signatory is required to outline their **National Determined Contributions** (NDCs), which set out targets for reducing greenhouse gas emissions and adapting to

the impacts of climate change. The South African NDCs, described as, “the cornerstone of South Africa’s climate change response” (Department of Environmental Affairs, 2021), were written by the **Department of Forestry, Fisheries, and the Environment**. The NDC commitments lead the global domain expression of the JTF objectives (Department of Forestry Fisheries and the Environment, 2021).

The NDCs note that the implementation of existing and upcoming policies guides their predictions and influences the downward trajectory of GHG emissions in the country. A plethora of policies, bills, plans and acts directly or tangentially contribute to South Africa’s efforts at climate change mitigation and adaptation (DFFE, 2021).

De-carbonization of the electricity system is an important pillar within the NDCs. The **Integrated Resource Plan** (IRP) written by the **Department of Mineral Resources and Energy** determines the national electricity plan for the country (DMRE, 2019). The Plan aims to strike a balance between energy security and environmental protection. Procurement of new, renewable generation is done through the **Renewable Independent Power Producer Programme** as well as **the Eskom Build Programme**. Recent changes to the Electricity Regulation Act have enabled private investment in renewable generation. The decommissioning of power stations is underway; the implementation of more efficient coal technologies for coal power stations remains on the agenda, however DMRE notes that the stance of the **OECD and financial institutions** influences whether this is a viable option (DMRE, 2019).

Just transition considerations in the environment extend beyond the GHG emissions. The IRP notes the DMRE is accountable to sectoral legislation such as the **National Environmental Management Air Quality Act** (2004)**,** in addition to the **National Environmental Management Act** (1998) (NEMA). The concern for the impacts of coal power plants on air quality is demonstrated by emissions standards outlined here. The Air Quality Act (2004) also requires that DMRE (amongst other contributors to the specified in the Act) provide data on their greenhouse gas emissions activity. This is then used to update and maintain a **National Green House Gas Inventory** which is compiled by the DFFE (2022a). The DFFE utilises this data to produce the National Greenhouse Gas Inventory Report, which later forms part of the UNFCCC Update reports South Africa that is required to produce.

The NEMA (1998: 66) also outlines the requirements of certain departments, “exercising functions which may affect the environment” to create **Environmental Implementation Plans** (EIP). These plans are required to outline, “policies, plans and programmes of a department that performs functions that may impact on the environment and how this department's plans will comply with the NEMA principles and national environmental norms and standards.” (Department of Energy, 2013: 4). The departments that the legislation applies to are: DFFE, the Department of Tourism, DALRRD, DHS, DTIC, DWS, the Department of Transport, the Department of Defence, the Department of Public Enterprises and the Department of Public Works (NEMA, 1998). These are five-yearly plans that could be seen as opportunities for these departments to demonstrate their climate change mitigation and adaptation plans, but there is a lack of consistency of output, and these plans do not seem to be enforceable.

Through the **Climate Change Bill**, the DFFE proposes a cooperative intergovernmental effort to respond to the socio-economic impacts of climate change. The principles set out by the NEMA are acknowledged, but the further acknowledgement of the need for a just transition in the light of the multi-factor influence of climate change, and the two-pronged requirement of mitigation alongside adaption is emphasized. Whilst the act establishes a number of mandates (the creation of provincial and municipal climate change forums and the Presidential Climate Commission, and adequate

climate change policies and measures across organs of the state), it crucially requires the acknowledgement and response to the **National Adaptation Strategy and Plan** and creation **of Climate Change Response Implementation Plans** at provincial, metropolitan and district levels (Department of Forestry Fisheries and the Environment, 2022b).

The **National Climate Change Adaptation Strategy** (NCCAS) (2019) spearheaded by the DFFE, is the country's most coherent response to the severe challenges already evident due to climate change. It outlines the six goals that will result in a "transition to a climate-resilient South Africa" (DFFE, 2019: 19). Additionally, the Strategy outlines sectoral priorities within, and without, the DFFE's authority namely: water, health, human settlements, agriculture and commercial forestry, biodiversity and ecosystems, and disaster risk reduction and management. This aligns with the requirements outlined in the Climate Change Bill (also developed by DFFE) for the creation of a **Sector Adaptation Strategy and Plan** for the following (state) functions: Agriculture; Forestry; Fisheries; Disaster Risk Reduction; Energy; Environment; Health; Human Settlements; Manufacturing; Public Enterprises; Rural Development; Land Reform; Science; Technology; Transport; Water Affairs; and Sanitation. Thus, the departments DALRRD, DFFE, DMRE, DoH, DHS, DSI, Department of Transport, DWS and DPE, along with the applicable state-owned entities, are mandated in taking climate action seriously (DFFE, 2019, 2022b).

The creation of a **Climate Change Response Monitoring and Evaluation System (CCRMES)** is the final objective of the strategy. It is unclear what the progress of CCRMES is, but as per the Climate Change Bill the monitoring and evaluation of the "government's emissions and reduction and adaptation goals" is the function of the PCC. The intent, as outlined by the Bill, is to use the PCC's monitoring and evaluation results to provide information on the necessary changes in the National and Sector Adaptation Strategy and Plans, as well as provide input on the greenhouse gas emission trajectory and inform sectoral emission targets which are applicable to the previously mentioned sectors as well as: Cooperative Governance, Traditional Affairs, Economic Development, International Relations, Public Works. Meaning that COGTA, DIRCO, and DPW along with the previously mentioned departments are accountable for remaining under the applicable emissions target. Ultimately, whilst the Climate Change Bill requires a whole of government approach, it puts the Minister of Environmental Affairs (currently DFFE) as the executor, authority and enforcer of much of the contents of the bill, in turn centring DFFE (2019, 2022b). It is important to better understand the mandates assigned to the PCC vs. DFFE in relation to national mitigation and adaptation tracking.

The NCCAS also outlined the need for, "a coordinated Climate Services system that provides climate products and services for key climate vulnerable sectors and geographic areas" (Department of Forestry Fisheries and the Environment, 2019: 21). The fulfilment of this objective can be seen in the **National Climate Change Information System** which *"is a web-based platform for the tracking, analysis and enhancement of South Africa's progress towards a low carbon and climate resilient economy. The NCCIS offers a series of decision support tools to inform policy and decision-making including a database of adaptation and mitigation actions undertaken by stakeholders across the country"* (DFFE, n.d.). The NCCAS demonstrates the cooperative governance that is possible in tracking systems.

3. International guidance and good practice for M&E of Just Transitions

3.1. Why conventional M&E is inadequate for the JTF

Conventionally, over the past few decades, monitoring and evaluation has focused on "interventions" – policies, programmes, projects, or initiatives, which have developmental aims. It provides evidence about the merit or value of an intervention[3], to inform decision-making with the aim of furthering developmental goals.

Climate interventions require sound evaluative evidence to inform decision-making. However, it has been clearly argued in the literature for over a decade, that conventional monitoring and evaluation tools and approaches are in many ways inappropriate for climate change related initiatives.

The following are some of the challenges commonly discussed in the literature – mainly in relation to adaptation (based predominantly on Spearman & McGray, 2011a, pp. 15–16 with other references added where relevant).

- Needing to achieve results in both long- and short-time frames (GIZ, 2015b)
- High degree of uncertainty in multiple dimensions (environmental, socio-economic, political etc.) (addressed in depth in GIZ, 2022)
- Diverse definitions of adaptation effectiveness / success
- Frequent need for "counterfactuals", including the *absence* of an event or *reducing* negative impact
- Cross-sectoral nature – requiring integration with existing plans and operations; mainstreaming
- Wide scope for potential M&E coverage, wide range of potential evidence users, but limited resources (Spearman & McGray, 2011 p. 50,)
- Limitations to the applicability of experimental and quasi-experimental designs[4] (GIZ, 2015a, p. 24), and shifting from seeking to establish attribution to reducing uncertainty about contribution to an acceptable level (see for instance, Mayne, 2008)

These challenges would apply even in a single adaptation intervention, and they are amplified when the subject matter is broader than just adaptation and encompasses many interventions at different scales, as is the case with the Just Transition.

The JTF has a broad spectrum of objectives to be achieved through multiple policy and programs, across a variety of sectors and geographic spaces and involving a wide variety of actors. As illustrated in the literature review, successful JT is dependent on a variety of interdependent factors including (though not exclusively) the integration of solutions, addressing justice, participatory governance,

[3] "Evaluation grew up in the projects", as Michael Quinn Patton puts it. It was assumed that one could arrive at proven models which could be disseminated and taken to scale. But a narrow project focus is inadequate for evaluating systems change in a world of complexity, rapid change and high uncertainty. (Indeed, he argues that a project focus is inadequate for evaluating any interventions in a complex and turbulent world) (Patton, in Independent Evaluation Group, 2010).

[4] Experimental designs (such as randomised controlled trials) are best suited to interventions with a large population of potential targets/beneficiaries - e.g. households, individuals or businesses – where the intervention can be randomly assigned to some while others serve as a control group. Most mitigation and adaptation interventions are systemic or highly context specific, and thus not amenable to this design.

finding common agendas, accessing finance, perception of fairness, stimulating innovation, willingness to change, policy change and alignment, political and institutional factors.

The approaches and tools that hold potential for this context, considering these challenges, are discussed in the next section.

Evolution of Indicator development and M&E

Conventional M&E methods have been forged using consensus building, however, Kaika (2017) argues that it does not factor the dissensus at the local level, which reveals the complex role of communities, leadership, social learning, networks, institutions, etc. Dissensus can potentially act as live indicators, as signposts of what urgently needs to be addressed and where. Potentially, the methods forged out of dissensus can lead to instituting alternative means to tackle global socio-environmental inequality. These emerging imaginaries of people and environments being and working in common may offer far more efficient, direct and effective ways of addressing access to housing, healthcare, education, water and clean air than any set of indicators or techno-managerial solutions can offer (Kaika, 2017). Additionally, solutions should rather focus on the underlying factors (actors and processes) that result in societal problems rather than tackling the outcomes of these failed processes e.g., what factors lead to poverty vs how to make vulnerable people more resilient.

There is a growing awareness that sustainability or low carbon achievement in one location may result in displacement and growing inequality in another (e.g., where the minerals are mined, or use of cheap migrant labour to build sustainable cities) and an emerging challenge from the ground in relation to the techno-managerial approaches to governance and monitoring. The poor, those least able to defend themselves from environmental hazards and who benefit least from the environmental goods and services, are beginning to demand that they are not just the subjects of sustainability or climate transition, called on to be resilient, but masters of their own futures (Kaika, 2017). Increasingly the necessity of a new paradigm is raised. This is a call for a cultural transformation, one that places the needs of planet earth and its communities, at the forefront of a sharing, 'peer to peer' oriented development (Heinonen & Karjalainen, 2019).

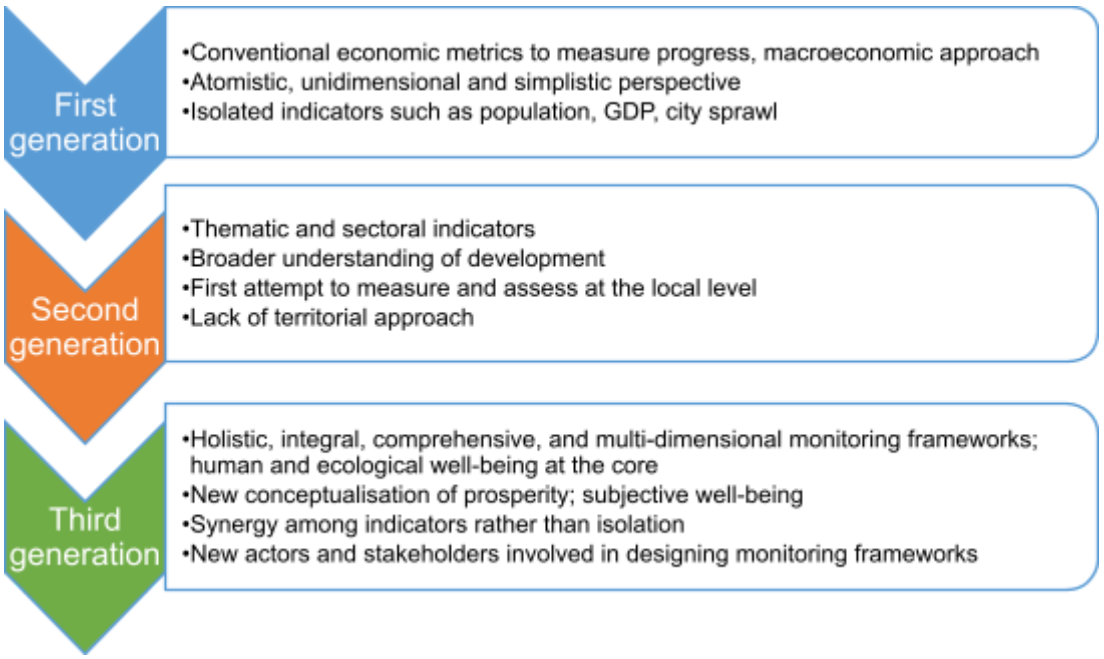


Figure 1. Evolution of Indicator development (Gómez-Álvarez, et al., 2018)

Conventional programme evaluations and programme/performance monitoring will be required, but at the level of a country-wide societal framework there is a large range of other types of evidence, not conventionally relegated to the realm of "monitoring and evaluation", that is critical. This includes (building on OECD, 2021a, p. 115, 2021b):

- Quantitative indicators in relation to climate resilience priorities, targets and/or commitments (including those required for monitoring, reporting and verification (MRV) in relation to carbon emissions)
- Statistics (societal outcomes; economic data; environmental trends)
- Forecasting, modelling and scenario analysis
- National audits and climate expenditure reviews (i.e., climate finance tracking)
- Analyses of political, institutional, market and other critical dynamics, using fit-for-purpose research methods
- Perception research (survey based as well as other)
- Community-based evidence

These diverse types of evidence can be made to fit into a monitoring and evaluation mould (many potentially being described as means to measure risks, assumptions, enablers and external factors on the results chains of interventions). And one could therefore incorporate all of them when coming up with a monitoring plan or designing evaluations. But it may be more beneficial to move away from "monitoring and evaluation" towards "evidence" or "tracking", i.e., an "evidence and learning" framework. Such phrasing would not only give the message that a variety of types of evidence may be incorporated, but it would also help to avoid the negative connotations that "monitoring and evaluation" has among many stakeholders[5] (this was affirmed in discussion with WRI colleagues).

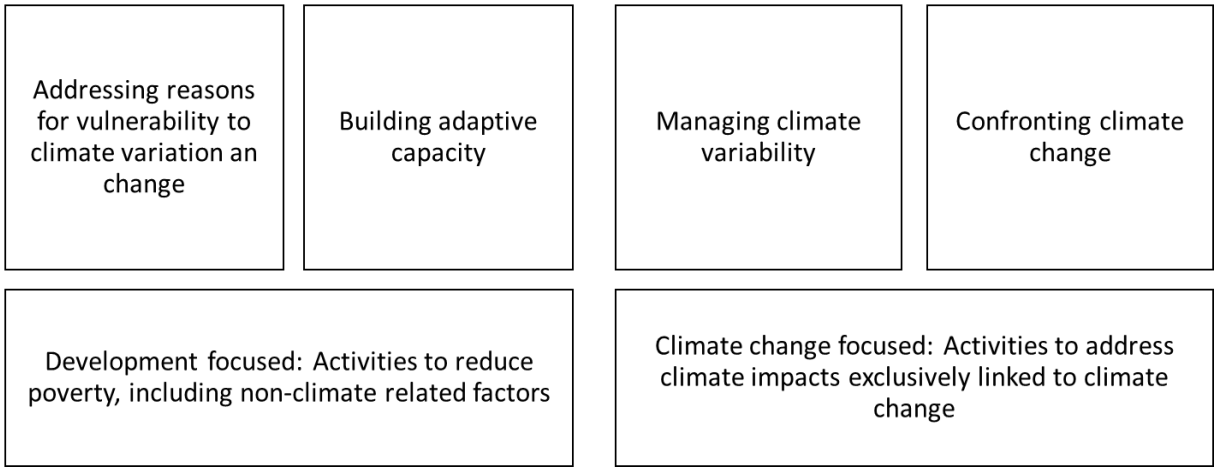
Evaluations of policies, programmes and other interventions will be a core component of the evidence but must deal with complexity in a far more sophisticated manner than is conventionally the case. Promising evaluation theories, to guide our approach, are discussed below.

3.2. Concepts to inform the way in which JTF evidence is framed.

One of the challenges of developing this Framework is to "map" its scope in such a way as to express the interrelationships between the interventions and outcomes of interest. This helps to delineate scope and to ensure that pieces of evidence are viewed properly within the "big picture" rather than in isolation. Some key international resources offer models for the relationships between environmental change, mitigation, adaptation, vulnerability and development. Two are worth noting here:

The Development and Adaptation Continuum maps actions based on how directly they address climate change risks. (This is also in line with the categories of interventions in the "Climate Smart Disaster Risk Management Approach" proposed by Villanueva, 2012)

[5] Stakeholders, even if they have legitimate objections to the formulaic, inappropriate and burdensome ways in which M&E is often practiced, are likely to accept that the Just Transition needs sound "evidence" or needs to be "tracked" in order to inform decision making.



Development and adaptation continuum	Addressing the drivers of vulnerability	Building the response capacity	Climate risk management	Confronting climate change
	Focus on general vulnerability reduction and improved resilience with limited or no direct attention to climate change (focus on existing climate and non-climate risks).	Improving planning processes, communications governance, weather monitoring, early warning systems etc.	Integrating climate considerations and information (projections, risk assessments) into decision-making processes.	Addressing specific climate change impacts and risks through targeted adaptation actions that would not be necessary without climate change.

Figure 2. Adaptation Continuum (Villanueva, 2012)

The **TAMD framework** provides a frame that allows for a continuum in space and overlays geographic levels of specificity (Brooks & Fisher, 2014).

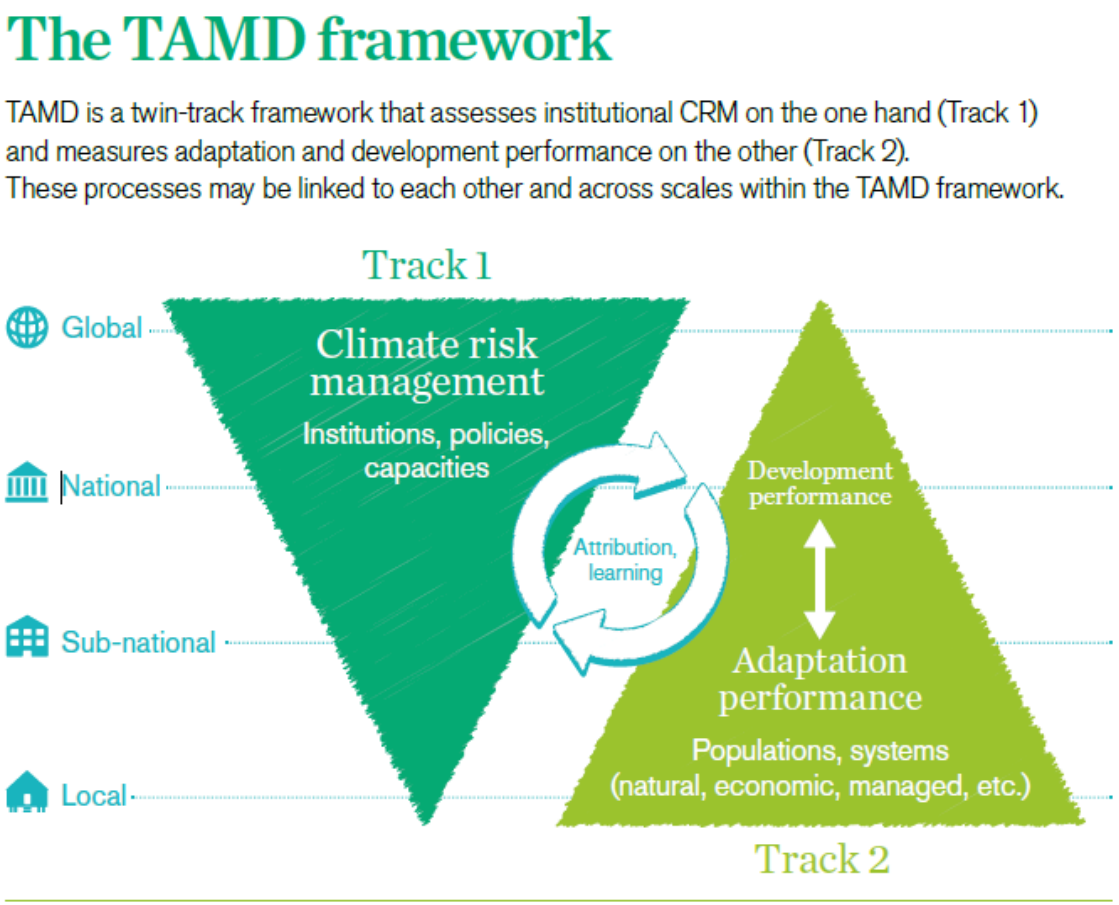


Figure 3. The TAMD Framework

The above frameworks both focus on adaptation. Mitigation can be drawn in when thought of as actions that reduce emissions, thereby reducing the impact of human activity on the environment and thus reducing the climate risks to be managed through Climate Risk Management.

As both the above frameworks suggest, certain types of work may not be directly addressing climate change but are nevertheless relevant to it in terms of human development and thus resilience. One may argue that some policies, programmes and initiatives are relevant to the Just Transition not at the primary but secondary level. Their primary rationale may be articulated in terms of human development, but they are of crucial relevance to the Just Transition. Consider, for instance, food security initiatives that respond to a pre-existing need, but which is heightened and/or transformed by the effects of climate change on agriculture. Furthermore, all interventions should be assessed for potential unintended consequences in relation to the Just Transition, as well as their (continued) relevance in light of anticipated system changes related to climate change and/or the Just Transition. The way in which these interventions are evaluated must incorporate Just Transition elements. The DPME-SAMEA guidance on applying Climate and Ecosystems Health; and Transformative Equity – in evaluating interventions that are not necessarily explicitly focused on these issues - speak to this (DPME & SAMEA, 2022a, 2022b).

The South African JTF differs somewhat from those shown above because it uses *justice* considerations as a starting point. This is a defining feature of the JTF M&E Framework, which means

that most of the adaptation-focused conceptual frameworks presented in the international literature are inadequate. The **African Evaluation Principles** (AfrEA, 2021) align strongly with those of the Just Transition Framework and do bring in several aspects of a justice-focused approach. Among others, they reinforce that *how* evidence is generated and used is just as important as *what* evidence is generated and used. They speak to the inclusion of all actors and the building of capability in this regard, with the process of MEL itself being core to justice.

Summary of the African Evaluation Principles 2021				
P. Powerful for Africans	**T. Technically robust**	**E. Ethically sound**	**A. Africa-centric yet open**	**C. Connected with the world**
P1. Conduct an appropriate, empowering process P2. Encourage reciprocity, including mutual accountability P3. Enable learning for useful insights P4. Value and strengthen domestic capacities	T1. Be systematic and analytical T2. Be transparent and clear T3. Be aware of dispositions T4. Ensure a feasible evaluation T5. Be efficient T6. Be culturally responsive	E1. Be sensitive to stakeholders and relationships E2. Protect the rights of people E3. Safeguard diversity and inclusion E4. Address inequalities and power asymmetries E5. Be free from vested interests E6. Consider tradeoffs	A2. Engage with issues that matter in Africa A2. Consider framings and methods from Africa A3. Learn and adapt from the Global South, indigenous communities, and other contexts.	C1. Acknowledge interdependence and interconnectedness C2. Foster the evaluation of sustainability in keeping with key international agreements and the stewardship of nature C3. Strive to contribute to the urgent need for sustainable and transformative change

Figure 4. Summary of the African Evaluation Principles 2021. Twenty-two Implementation Principles accompany the five Key Principles (AfrEA, 2021).

While there is more to investigate in terms of the application of the African Evaluation Principles to the JTF M&E framework, it is notable that they pick up on the issue of "transformative change" (principle C3). It appears that within evaluation literature, the concept of **transformation, transformative intent, and transformative equity** are potentially useful and may be incorporated or integrated with the frameworks above to ensure the emphasis on justice.

South Africa is a thought leader on this issue, with DPME and SAMEA being in the process of finalising a guideline on integrating a transformative equity criterion into evaluations for promoting transformative systemic change ((DPME & SAMEA, 2022a (draft – with final is forthcoming before the end of 2023)). The evaluation criterion of Transformative Equity is defined as, "The extent to which an intervention's objectives, design, implementation and impact contribute to, or do not contribute to, addressing systemic inequities and promotion of a more inclusive society". Systemic inequities refer to the ways systems have been designed, established and maintained to perpetuate inequities. Transformative equity considers five dimensions:

1. **Population / populace:** *Who* benefits / who loses, who is included / who is excluded;
2. **Cause and effect:** *How* does inequity play out and *How* is the intervention responding to inequity;

3. **Space:** *Where* do key inequities persist and what are the geographical and spatial factors affecting equity;
4. **Content and intention:** *Wha*t is the transformative change potential of the intervention in relation to equity; and
5. **Timing:** When is the intervention / evaluation taking place? How has the equity issue changed over time?

While this requires further unpacking, it is immediately notable that the matters of *population* and *space* have been the subject of much discussion (and shape the content of the Organizing Framework presented in a later section). However, questions of *content and intention* are subject to considerable debate and contestation at present – i.e., what is type of transformative change is to be brought about by the Just Transition in South Africa – what is realistic and what we wish our level of ambition to be.

The theoretical frameworks discussed offer insight into how to ensure the evidence is considered within 'the big picture' and provide pointers towards embedding the transformative intent of the JTF within a MEL Framework.

3.3. Causality, Theory of change and M&E frameworks

From the initial literature scan, the following is clear when it comes to M&E for the Just Transition:

1. A linear approach employing formative and summative evaluations will be woefully inadequate.
2. Causality is essential, but must take a wide lens, with systems thinking and complex theory concepts being more useful than (mere) results-chain based models of causality.
3. Fundamental limitations to our ability to extrapolate from one context to a different time or place, i.e., the question must change from "what works?" to "what will work"? (Beauchamp et al., 2022).
4. The "learning" objective of M&E must take high priority, as much of what is to be achieved is unchartered territory. The interventions should be managed in an adaptive way, with M&E / evidence systems oriented to support learning (ref: STAP 2017).
5. Allow for both localized / contextual *and* aggregate evidence generation (STAP 2017),
6. Avoiding a false dichotomy between programme-focused and system-focused approaches – both are relevant.

The **Blue Marble Evaluation** approach holds potential to guide this work[6]. This approach focuses on a holistic approach to design, implementation and evaluation of global systems transformation efforts. It is not prescriptive about tools and methods, but the application of its overarching principles has significant implications for tools and methods. The principles are:

- Global thinking
- Anthropocene as Context
- Transformative Engagement
- Integration

The third is worth unpacking here as it applies to the articulation of interrelations and causality. **Transformative Engagemen**t is an approach that engages in a way that is consistent with the magnitude, direction, and speed of transformation that is needed and envisioned. As part of this, a

[6] Most of this information is drawn from the Blue Marble Evaluation website, bluemarbleeval.org.

"theory of transformation" is recommended for transformational interventions. Such a theory is research-based and is derived from "knitting together relevant theories of change". This principle also emphasizes the connecting and mapping of initiatives worldwide to generate critical mass tipping points towards global transformation (i.e., and in this way, engaging with the magnitude of transformation that is needed rather than staying within the national or thematic boundaries of the intervention being evaluated). In line with this it may be valuable to articulate the relationship between South Africa's JTF and initiatives to transform systems elsewhere, focusing on those with the strongest interrelationships.

Naturally, the application of the Transformative principle requires application of **systems thinking** to evaluation. There is a growing literature and guidance on applying systems theory in evaluation. A recent guideline by the American Evaluation Association's Topical Interest Group (with some overlap in membership with the BME community) (2018) offers the guidance on how one may take a systems approach in evaluation (and they emphasize, monitoring). They articulate four principles which should be applied to that which is being evaluated, as well as to the evaluation itself. These are Interrelationships, Perspectives, Boundaries and Dynamics.

Interrelationships: Identify, capture, map and track key interrelationships that could and/or should influence that which is being evaluated.

Applying this to the JTF, there will be institutional, policy/mandate, and economic interrelationships that need to be identified. In addition, it is necessary to identify key interrelationships that result from, could result from, and/or should result from that which is being evaluated. This speaks to what the JTF is seeking to catalyze and/or change, including the quality of coordination and coherence among stakeholders, and the actions of stakeholders. This list of interrelationships should be built on in consultation.

Perspectives: This entails capturing, critically deliberating on, and appropriately addressing diverse perspectives. In doing so, it is necessary to attend to the types of power associated with each perspective and consider the consequences.

Applying this to the JTF, it can be anticipated that certain interest groups and communities will have perspectives which should be identified, along with the values on which they are based. The guidance suggests that evaluators "seek dissent as well as consensus" in identifying these perspectives.

Boundaries: This entails critically deliberating on, setting, and explaining the boundaries and boundary decisions that relate to the situation being evaluated. Key boundaries should be identified that could and/or should influence the situation being evaluated; and there should be deliberation on critical boundary choices. Once agreed, boundary choices should be made transparent and justified, while remaining open to revision.

Applying this to the JTF, the boundaries of the Framework are important to discuss, and the boundaries of the M&E framework. Hence it is critical to consult on the organizing framework in the early phases, and consider the trade-offs made in setting boundaries.

Dynamics: Focus on the patterns of change that emerge within the system to understand their influence and significance for the evaluation. This includes dynamics related to time, location, anticipated and unanticipated reactions, and rates of change. The M&E plan needs to be responsive to emergent developments and collect information about what, when, how and why change occurs; and should incorporate learning as it is received.

Applying this to the JTF means identifying ongoing changes/trends/movements in our context; recognizing the multi-directional / non-linear nature of many outcomes that are sought; and anticipating co-evolution and adaptivity within the system. If it is accepted that one of the means by which the JTF will drive change is by strategically sharing evidence with stakeholders, then the role of the M&E itself in shaping dynamics must be particularly carefully considered.

Beyond these theories, it is recognized that *operationalizing* a MEL framework in South Africa will require working with the parameters for monitoring (internal, external or jointly to the state) in relation to existing policy frameworks (the Government-Wide M&E System, Framework for Managing Programme Performance Information, Outcomes approach as applied to the Medium Term Strategic Framework system, SDGs etc.) and evaluation policy (types, approaches etc., with the National Evaluation Policy Framework being a key document). The team will build on its foundational understanding of this as a first step in the next phase.

4. Implications for the Framework and process

4.1. Emerging organizing dimensions and considerations

The literature review provides insight into the dimensions of the JTF and the multiple facets within these dimensions. These dimensions will underpin the prioritisation of concerns or outcomes for which evidence will be generated and enable a sufficiently nuanced and deep exploration of the 'theories of transformation' and complex interplay of elements. The organizing frame must accommodate this, whilst also ensuring the MEL system is 'do-able' and able to deliver sound evidence into the system that enables effective adaptive management of the JTF.

The literature points to a successful JT being dependent on a unified pathway to decarbonisation (or steps thereof) and distributive justice (perception of fairness in the distribution of benefits, risks and opportunities) being a near-universal value of stakeholders. Key to this is the transferability of skills, labour plans, investment in diversifying skills and the economy. A capable state is key to protect vulnerable communities – in particular, local government for access to services, and the local facilities of state entities responsible for social protection. Equitable service delivery, access to healthcare and land redistribution and rehabilitation are core to empowerment and restorative justice in the transition. Ultimately, the ability to re-orient to new economic pathways depends on a willingness to change and perceptions of justice often matter more than quantifiable measures of justice. People need to feel heard, have dignity and experience recourse to justice/redress.

There is no 'ready-made' conceptual framework that has justice as the key organizing concept, but the literature on climate-related and sustainability frameworks, particularly in the Adaptation space provide insight on mapping scope given the continuum of how actions affect the outcome of JT. Notions of 'theory of transformation' and criteria for enunciating 'transformative intent' will contribute to the Framework. A variety of types of evidence is emphasised and the importance of the framework itself contributing to the urgent need for transformation.

The framework must be designed to listen and hear the voices of the most marginalised and establish systems and practice for learning and adaptive management – adjusting approaches should the JTF be failing to achieve the outcomes of concern to stakeholders. It is valuable that there is a parallel process of community based participatory M&E of the JT getting underway. The interaction of the Framework with this initiative will be key – both in the design of the MEL Framework and the ongoing process of MEL.

The Systems approach to evaluation, with the 4 key principles of interrelationships, perspectives, boundaries and dynamics will be drawn on. These offer a way into the complexity and scale of the JTF landscape. While a whole-system view is important in framing the evidence, the framework must pay attention to what emerges at each layer/level of specificity down to on the ground through action.

As noted in the literature, MEL has the power to direct change by advocating for justice-oriented definitions of success and sharing elucidating evidence with stakeholders. In the prevailing culture of audit-bound, compliance monitoring that results in risk-aversion, the MEL Framework should strive to define success to encourage action, implementation and experimentation required to achieve the urgent need for transformation. This power of MEL is also a responsibility, and the system must be set up to be adaptive (and self-reflective) itself – systematically posing the questions: 'what are we not seeing or hearing?'; 'how is the MEL itself influencing outcomes?'

The literature discussed above has affirmed the approach of drafting an Organizing Framework early in the project and refining it in consultation with stakeholders throughout the process. It is the foundational informant to which interrelationships, perspectives, boundaries and dynamics the M&E framework will ultimately focus on. The Organizing Framework is presented below for discussion. Beyond this, specific tools and approaches remain to be identified as we continue our engagements with M&E practitioners and our review of literature and resources.

4.2. Emerging organizing framework

The following is an emerging "organizing frame" for discussion, laying out the areas that the MEL framework will potentially focus on and describing. An initial tabular diagram assisted in capturing the extent of the JT elements but was limited by the fact that not all elements or dimensions lend themselves to obvious vertical or horizontal sequencing (sectors and the pathways). A model / diagram that adequately provides for the emphasis on "justice" has not yet been developed, hence this diagram suggests that justice be "overlaid" over each cell in the table, so that the question is, for instance, "what will constitute procedural justice for mitigation actions in the automotive industry in Gqeberha?" The answer to each of these questions will be contested, but that is the work required in order to arrive at an evidence framework that serves the JTF. It should be anticipated that multiple understandings of justice – even competing understandings of justice – will be worth articulating side by side and generating evidence for.

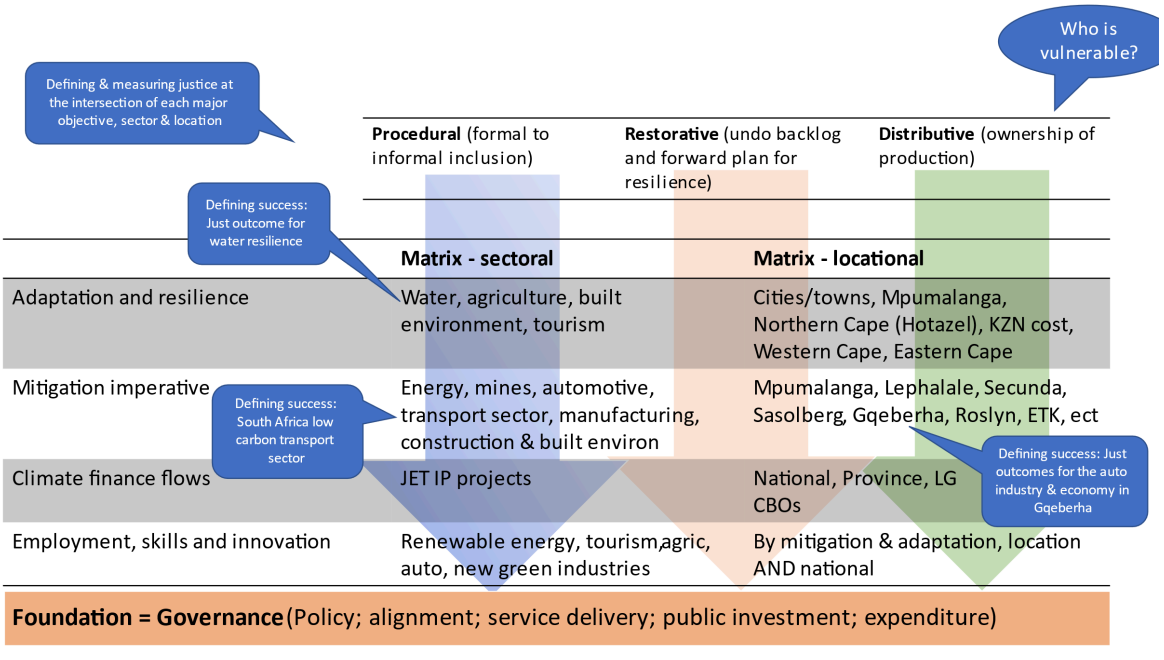


Figure 5. Emerging "organising frame" for the JTF: a tabulation

As the diagram also suggests, we anticipate that the evidence framework needs to allow for both "zooming out" and "zooming in". In other words, it must prioritize both the aggregation of certain critical measures (perhaps, jobs created in renewable energy sectors, nationally) *as well as* focused "meso" level evidence pieces (perhaps, an evaluation of procedural justice outcomes in a region that is highly vulnerable to flooding). These cannot be comprehensive and the choice of which "meso" level focal areas to include will need to be subject to a transparent multi-criteria process.

Additional diagrams (Figure 6 and Figure 7) have been developed for discussion. These aim to capture a greater sense of the continuum of action across the spheres.

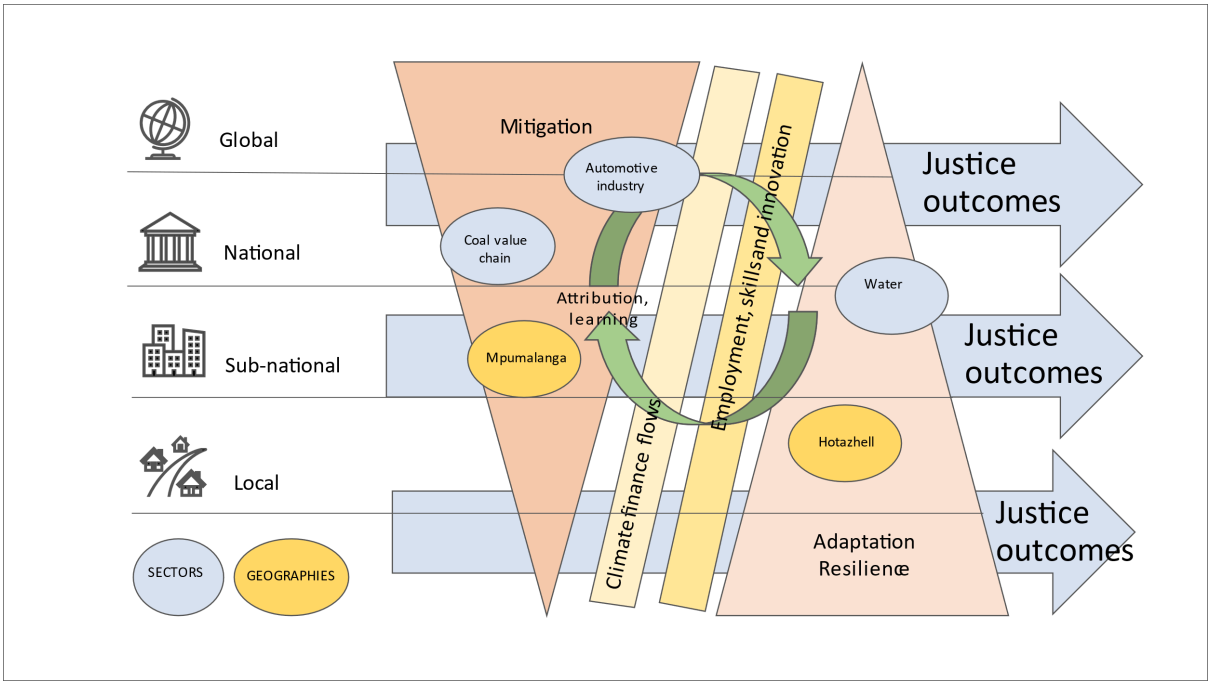


Figure 6. Emerging "organising frame" for the JTF: diagram visually establishing the continuum of action across spheres.

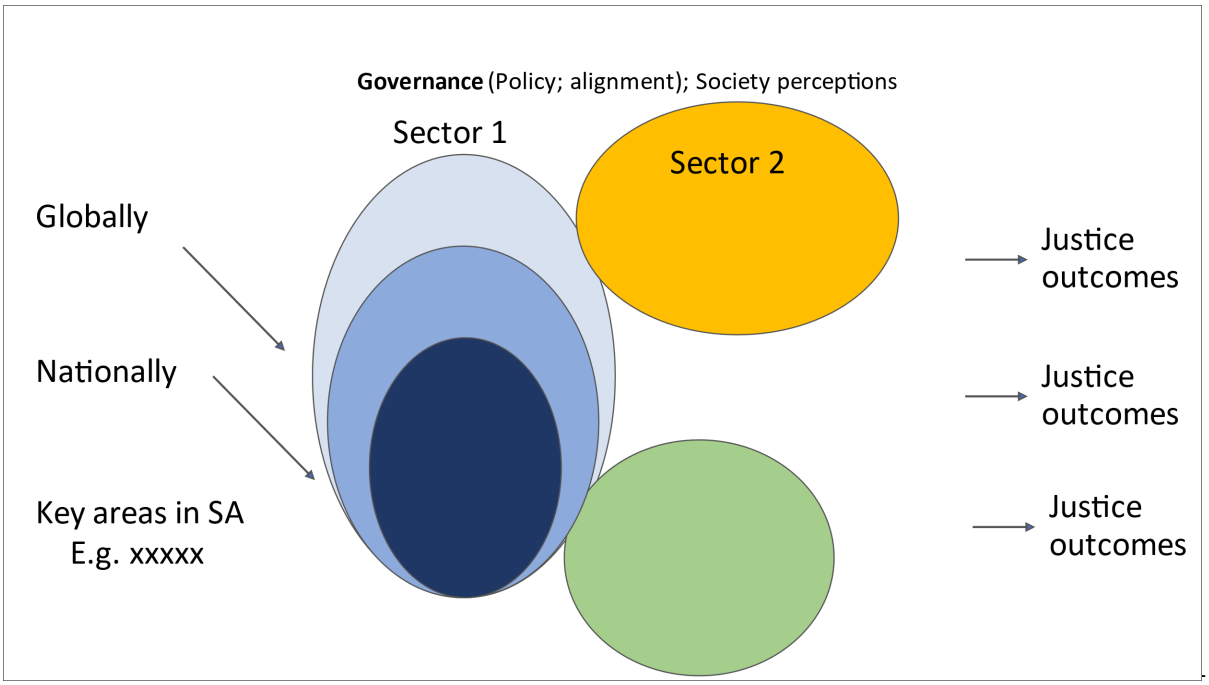


Figure 7. Emerging "organising frame" for the JTF MEL process: diagram arranging the elements by Sector and illustrative of a sector cluster approach.

Once the desired outcomes are defined, the system(s) and key interrelationships that will generate those outcomes can be described – including policies, interventions, capacities, contextual factors, and other factors that influence the outcomes in important ways. This is illustrated in Figure 8 below.

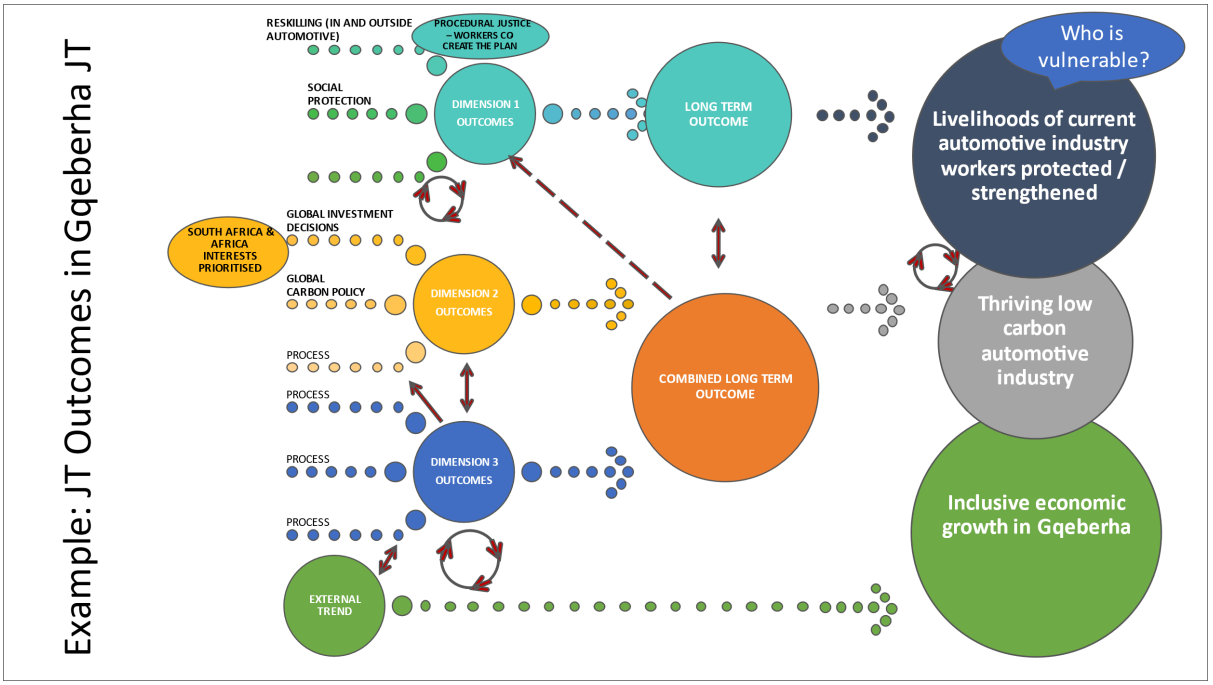


Figure 8. Example of mapping of key interrelationships that will generate the outcomes of interest

It should be taken for granted that the necessity of certain pieces of evidence will only become apparent later. In other words, it is impossible to plan for all the types of evidence that will be critical to South Africa's just transition. The organizing framework will help to define what is relevant, allowing flexibility for the exact types of evidence to be renegotiated. Periodically, it will be justified to redefine the boundaries of the organizing framework itself.

5. A 'socially-owned' MEL: a partnering approach

5.1. Stakeholder engagement: why and how?

"The MEL Framework needs to be sufficiently socialised to be considered 'our indicator set' across stakeholders, but it is not starting from a blank slate either."

PCC Line Manager interview, March 2023

Stakeholders are core to the development of a MEL Framework, which specifically sets out with the objective of asking stakeholders what questions they have of JTF progress/success – what the outcomes are for which they are interested in generating evidence for evaluation. Stakeholders must

be involved in the framework design so that it reflects their interests and elicits their participation in the evidence generation and learning process. The MEL framework must enable an independent and rigorous evaluative 'eye' as well as being a system that itself builds capability and learning within and is itself a partnership in action, contributing to the procedural justice element of the JT Framework (internal).

By its nature the JTF is an exercise of partnership and building an extensive stakeholder base. Several stakeholder consultation exercises have been undertaken in relation to the JTF, as reported in the Community and Stakeholder engagement on Just Transition in South Africa (PCC, 2022a) that summarises the stakeholder concerns raised through 3 community engagements and a multi-stakeholder conference. The PCC has recently undertaken an extensive consultation exercise around the Mitigation recommendations as well as on the JET Investment Plan. MEL Framework design consultation needs to leverage/work into the already existing relationships and structures.

Consultative development of an M&E framework builds willingness to share existing data and an understanding of why specific new types of data collection may be needed. In addition, if consultation and engagements are approached well, they build stakeholders' understanding and anticipation for the data and evidence that the M&E framework will yield once implemented.

Early consultation and a structured approach to consultation is important to ensure that real partnership (not just participation) is established as a cornerstone of MEL and the MEL Framework has the buy-in of all stakeholders. Given the already established and extensive stakeholder engagement efforts, key to this MEL stakeholder process is to:

- Pulse this process of MEL framework development into existing work of the PCC – avoiding duplication in engagement activities and building on/leveraging consultation already done.
- Develop consensus on who the key informants are in the framework design; priority stakeholders for systematic MEL engagement and identify custodians of evidence required for the MEL.
- Engage stakeholder perspectives on priority outcomes and what they consider to be 'success'.
- Identify the spaces for learning and evaluation and systematic way of gathering the evidence and facilitating the evaluation and learning process – how stakeholders will be involved in the MEL itself. MEL offers a critical opportunity for collaboration across the JT actors, supporting trust building, inclusion and partnership.
- Explore options to overcome the barriers of participation in the MEL process – sharing the 'risk and responsibility' of engagement.

As noted above, the MEL stakeholder engagement process will need to be upfront/face 'head-on' the different interests in MEL – the areas of contention as much as those of consensus, and the trade-offs that need to be made. Different interests and priorities exist around the timing of the transition, technology choices, financing, ownership and economic models, priority areas. For real transition and learning/growth to be taking place, these tensions need to be grappled with meaningfully, rather than simply being another technocratic exercise of monitoring. This also offers the opportunity for MEL to contribute to the ongoing exercise of identifying the areas of common agenda, enabling action and implementation of the JTF.

5.2. Partnering for MEL: Who?

Several stakeholder mapping exercises have been undertaken to inform the JTF consultation sessions and more broadly to understand the organisations across the JT landscape. The PCC broadly outlines

their stakeholder groups as outlined in the figure below. In addition, the service provider appointed by the PCC to compile the JET-IP will also be required to compile a more detailed stakeholder map and the EDP Partnering Implementation Model will also develop a Stakeholder engagement strategy.

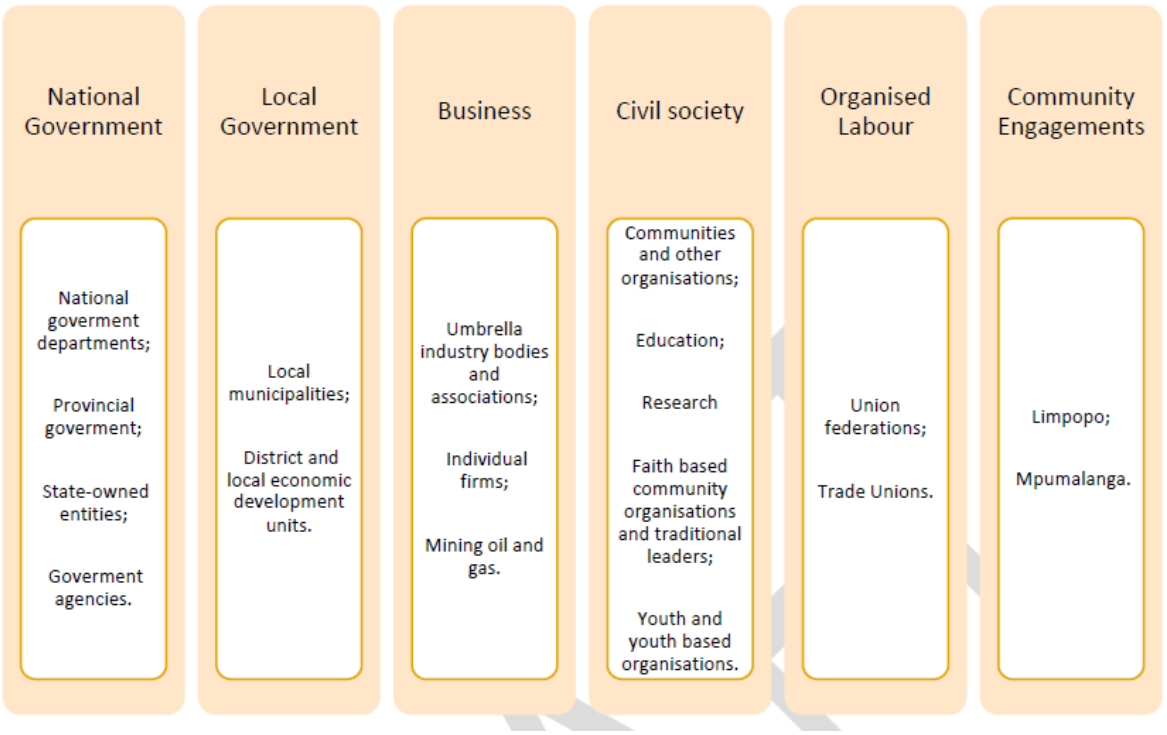


Figure 9. Balanced stakeholder representation, PCC Draft JET-IP Stakeholders Perspectives Report, March 2023

A more detailed map has been developed by the Climate Investment Fund (CIF, 2020), which included in addition to those captured above, international organisations and financial institutions, climate funds, research institutions, NGOs, banks and DFIs. This analysis can be viewed on the mindmap developed by CIF and available through the link: https://www.cif.org/sites/cif_enc/files/knowledge-documents/supporting_just_transitions_south_africa_mindmap.pdf.

Given the MEL Framework's need for an ecosystem of stakeholders that includes both evidence users and evidence generators, the CIF model provides an important contribution. The MEL Framework will build on these. A 'live' (initial) stakeholder mindmap has been developed for the MEL Framework process (see illustration below). This map will emerge to represent the full ecosystem of participants and evidence generators to be consulted with the identification of evidence required to meet the outcomes of interest and an understanding of the systems that determine those outcomes.

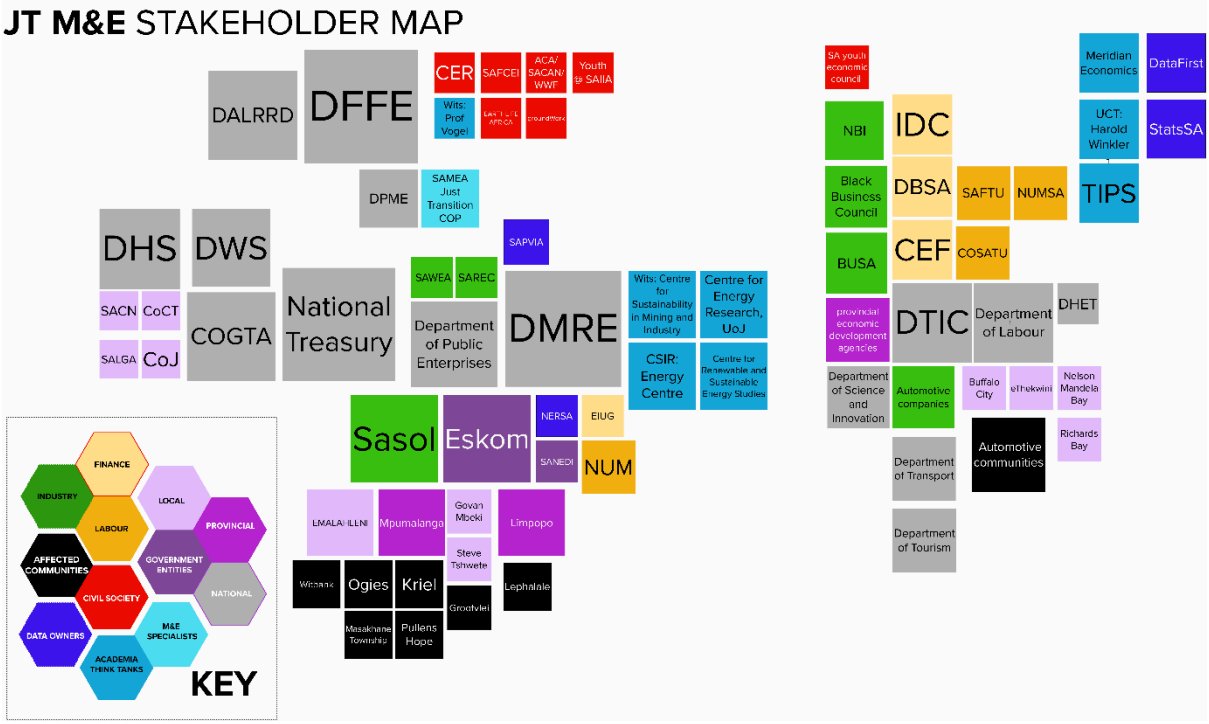


Figure 10. Illustration of the JT MEL Framework stakeholder map

5.3. Custodians of evidence

These custodians of data and evidence include those who (are mandated to) design, commission, generate, manage, own and package information for dissemination.

The full ecosystem of existing evidence custodians will be progressively mapped as the key outcomes and systems are articulated in the next phases of MEL framework. However, as a start, this scoping report has:

(1) briefly laid out the public sector entities who are mandated, through the legal and policy framework, to generate evidence and/or report on important aspects of mitigation and adaptation (section 2.4),
(2) mapped these public sector entities alongside other major role players in the broader data and evidence universe (e.g. think tanks, academia) (in Figure 10 above), and
(3) compiled an initial list of known sets of evidence and their custodians (Appendix 2).

It is important to recognise that these exercises have not yet grappled sufficiently with what evidence exists that may address the *justice* emphasis.

A JT MEL framework will draw on existing reporting and data generation systems. It will also ensure alignment, as far as appropriate, with global JT indicators under development by the WRI. The custodians of existing relevant evidence will be immediately identifiable and will be approached to partner in the MEL framework development and implementation.

Given the critical importance of the just transition to the future development of the country, there is good reason for data custodians to avail data, even if that data that is not generally available. The potential need to negotiate with such custodians will be flagged as the data/evidence sources are identified, linked to the indicators proposed. The process should provide a 'value add' for custodians

of evidence, assisting data to be improved, supporting a move from the existing data point to something more 'ideal' or 'fit for purpose'.

Where gaps exist, it will require conceptualising new forms of evidence, with existing or new evidence custodians.

Given the vast expanse of potential data points, the process will identify points of leverage, for example this could include key vehicles such as the National Treasury budget criteria and Circular 88 (LG) and One Plans in terms of the District Development Model (DDM). In many cases it is anticipated that the JT MEL objectives will be best served by adapting existing evidence sets to reflect JT priorities. For instance, mandatory reporting criteria for specific grants under the Division of Revenue Act (DORA) might be 'tweaked' to provide improved data to the system and ensure a feedback loop to improve the JT elements of national infrastructure and operational spend.

5.4. What should the role of the PCC be?

Although this framework should serve and be bought into by "all stakeholders", it is clear that it will require, at minimum, a *custodian* at the centre. The PCC is best placed for this and will have a legal mandate for it once the Climate Change Bill becomes law. This requires further understanding in the MEL Framework development.

As the previous sections make clear, vast amounts of evidence are already generated in relation to the Just Transition. What is unique about the Just Transition Framework is:

1. Its all-encompassing scope (climate change, mitigation, adaptation, and associated vulnerability and development);
2. Related to the above, its claim to be in some ways an apex plan for South African society, "everybody's business" to contribute to and understand; and
3. Its emphasis on justice.

Therefore, the value of a Just Transition M&E framework is in:

1. (Re-)defining success to incorporate justice;
2. Articulating what evidence is relevant to the JT's definitions of success (and what available evidence is insufficient and should be added to, revised, or refined);
3. Consolidating evidence from all sectors of society (public, private, community, etc.) into a Just Transition conceptual framework pointed towards the JT's definitions of success;
4. Interacting data from disparate sources with each other, to answer the question of "so what" in relation to the Just Transition.

Again, the PCC as custodian of the JTF, would need to act to realize this value add, by advocating for justice-oriented definitions of success, and by mobilizing the many disparate evidence producers and custodians (existing and new) to share, adapt, and expand the evidence base. This is a long-term role, with a life span as long as that of Just Transition itself and evolving along with it.

If owned and driven by the PCC in this way, a JTF M&E Framework holds great potential. Nevertheless, it is worth quoting from a guide on adaptation M&E (which is only one of multiple components of what is envisioned for the JTF M&E Framework):

"In all practicality, a given M&E system will rarely succeed in being all things to all people and will not likely rise to all adaptation challenges successfully. Adaptation practitioners, therefore, need to make difficult choices in designing their M&E systems and must accept trade-offs in what their M&E systems can achieve. Priorities informing the design and implementation of M&E for adaptation depend heavily on a practitioner's point of

reference, and often reflect tensions […] where practitioners often must balance competing needs and uses of M&E. Their choices and the priorities that inform them will be reflected in the kind of information generated by the M&E system, as well as the types of reporting, learning, and management that the in-formation can support." (Spearman & McGray, 2011a, p. 16)

It is also instructive that the Systems Approach guidelines, discussed earlier, place a heavy emphasis on how the act of conducting M&E / working with evidence is an intervention that impacts the system. Thus, in working with the PCC to design an M&E framework, the team must support the PCC to be strategic about the way in which the M&E function will shape the JTF, and mindful of unintentional consequences.

6. Feedback and engagement on this report

The SEA-PDG team welcomes feedback and engagement on the ideas and proposals contained in this report as we take these ideas forward into more structured consultation and engagements towards fleshing out the MEL Framework.

Comments and queries may be directed to Melandri Steenkamp: melandri@sustainable.org.za

7. Acknowledgements

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We would like to thank those that made time available for the initial interviews that contributed to this report.

List of interviewees

Interviewee / document	Affiliation	Date of interview
Dhesigen Naidoo and Michelle Hiestermann	PCC Secretariat, Head Climate Adaptation and Manager Climate Resilience and Adaptation (respectively)	23 March 2023
Steve Nicholls	PCC Secretariat, Head Mitigation	23 March 2023
Devan Pillay and Dipak Patel	PCC Secretariat, Head Employment Strategy and Climate Finance and Innovation (respectively)	23 March 2023
Chelsea Gomez and Neelam Singh	Climate Transparency Project Manager, Climate Program, WRI	5 April 2023
Melissa Fourie	Commissioner and Chair of MEL Working Group	06 April 2023
Thandolwethu Lukuko	Climate Action Network SA; member of SAMEA's Evaluation for Just Transition community of practice	12 April 2023
Jessica Wilson	MEL consultant and EDP staffer	14 April 2023
Brenda Martin	Independent Advisor on SA Just Energy Transition	25 April 2023

Estelle Gautier	PhD student focusing on Adaptation M&E, and member of the Evaluation for Just Transition Community of Practice	26 April 2023
PCC Report, May 2022	Community and Stakeholder Engagement on a Just Transition in South Africa: Summary of 3 community engagements and multi-stakeholder conference (OneWorld)	April 2023

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Appendix 1. Emerging set of 'outcomes' which stakeholders are interested in developing evidence for

The MEL Framework will develop a 'starter' set of key questions, correlated 'indicators' and evidence source; it will also detail the set of tools to be used to ensure evidence provides input to enable an iterative, dynamic and adaptive management approach.

The following provides a rough and initial tabulation of the kinds of questions, outcomes or indicators that have emerged through direct or indirect stakeholder engagement.

PCC secretariat line managers
Adaptation/resilience
In Mpumalanga:
Employment
Diversification of economy
Household income and proportion income allocated to food
Detailed JT engagement process
Inequality
In Gqeberha, Durban and Roslyn:
How many SMMEs built in new business areas
Employment dynamics
Hotazhell/Northern Cape
Water security
Agricultural output
Mitigation imperative
Net zero carbon
Carbon budget tracking
Are Master Plans and Industry Plans aligned with industry level trajectory of PCC, are they implemented, pull some MEL indicators out of these plans
Climate finance flows
Track to sectors – Mitigation and Adaptation
Specific projects impacts
Scale up/mobilising
Track key implementation milestones of JET IP
Employment and *innovation* – linked to above
EDP JT Partnering Implementation Model – draft: concepts for MEL consideration
partnering rather than participation of stakeholders: would include co-design of solutions, project, establishment and usage of engagement principles
who is working together, and how
has JET-IP been integrated into all planning systems of govt
resource flows – are they creating priorities that run counter to intended priorities (e.g. mitigation gets funding, adaptation often not); are they reaching down into communities, creating new value (Sustainable Employment Fund case study example)
focus on implementation and not just plans

is there risk and reward sharing across the stakeholders – this critical basis for trust (e.g., community member may have to donate time and money to get to a meeting vs professional who does it in their working time, etc)
the whole issue – as we have identified – of UNITY: many elements to explore – shared vision or contested, or unclear/lack of consensus vs common understanding, legitimacy, trust, ethical conduct, dignity, solidarity, responsibility, freedom… nb perception
lack of state capacity – part of the exercise is rebuilding a capable state
are resources flowing to intermediary organisations who can provide an important 'backbone' role, working into the 'in between' spaces
PCC Stakeholder consultation process 2022: stakeholder concerns raised
Engagement/trust/governance:
"A seat at the decision table"
Confidence/trust in government
Responsiveness to community/sector submissions/inputs/comments
Regular engagements
Community involvement in repurposing/decommissioning of fossil fuel operations
Space for civil society to frame challenges
Mainstreaming of JET into local/provincial governance; district model for dialogue
Resourcing of civil society engagement
Skills/jobs/education:
Relevant/meaningful skills, focusing on impacted communities
Clarify jobs/benefits/opportunities lost (coal, ICE, etc.) vs. gained (RE, EV, tourism, agriculture, etc.) & where jobs are
Perceptions around renewables & need to increase understanding (cost, jobs, reliability, opportunities)
Climate change & JET integrated in school/tertiary curricula
Changing youth perceptions that main jobs opportunities lie in industry & mining (older people more concerned about health/sustainability of land use)
Service delivery/equitable access:
Access to affordable/effective healthcare (in particular in areas impacted by coal, mining, refining)
Good water service delivery; high maintenance of water systems; limit pollution impact (acid main drainage)
Basic service delivery; improved local governance
Financial:
Financial support for local actors working with communities on climate/JET
Government support for small business opportunities in tourism
Community ownership
Other (reparations/equality/justice?):
Racial division
Gender equality
Rehabilitation of mining land
Reparations for coal health impact
Cleaner technologies for coal
Redistribution of land (protecting against loan exposure in areas where property market crashing)

Appendix 2. Tabulation of emerging data or evidence 'sites' for MEL Framework

The table below is emergent, capturing input from key informant interviews and literature review and will be expanded based on detailed evaluation approach and related evidence or indicators identified as required to answer the questions posed.

National Government	State of Climate Reporting
	JT Implementation Plan
	JET-IP (finance flows)
	PCC case studies
	DFFE: National GHG inventory; South African Atmospheric Emission Licensing and Inventory Portal (SAAELIP)
	StatsSA: source for electricity, gas & water supply statistics. Industries statistical reports. "Electricity generated and available for distribution" statistical release.
	StatsSA: Census & GHS
	StatsSA: Quarterly Labour force reports
	eNatis
	Infrastructure SA
	Green taxonomy (Fiscal and Finance Commission)
	National Treasury
	Department of Agriculture, Land Reform and Rural Development: Statistical Publications
	Department of Water and Sanitation: Blue Drop & Green Drop reports.
	DFFE GHG inventory / State of Climate Report / NDC
	Land, Human Settlements, COGTA
	DMRE: energy balances, fuel sales
	IPP Office: Capacity (MW), energy (MWh), type (PV, wind, etc.), number, location, average cost/kWh of projects rolled out through IPPPP. Also states investment (whether equity, debt, local or international), socio-econ development contributions, enterprise development contributions, emissions reductions, water savings & job creation for SA citizens.
	Eskom: Annual Integrated Report. Data: Emissions (CO_2, NOx, N_2O, SO_2, particulates), radioactive waste produced, ash produced, water used, coal burnt; capacity (MW) of IPPs selling to Eskom, by type (hydro, landfill, PV, wind, etc.); number of environmental legal contraventions; plant performance. Fuel used & emissions produced by individual power plant (for Eskom-owned plants).
	DTIC
	SANBI, CSIR
	NERSA: national electricity generation, split by renewable/clean & conventional
	National Treasury for provincial and local government: Municipal IDPs, District Development plans Municipal Money website: https://municipalmoney.gov.za/. Data: financial performance of municipalities.
	DBSA
Local Government	IDPs
	Circular 88

	Climate Tracking reports (under development)
Private sector and Industry bodies	SAPVIA and related AI PV monitoring data
	GreenCape (finance flows)
	GBCSA
	NBI
	Industry master plans
Research institutions	UCT: DataFirst/SALDRU, ACC, GSB Power Futures
	Wits: Jobs/Skills
	US: Centres for complex systems in transition; CRSES
	Independent research organisations: TIPS
Qualitative or targeted 'in depth'/ Civil society and community	Stories of change
	Case studies
	Civil Society monitoring exercises – surveys, research, etc.
	Perception based studies
	Project specific studies
	Gift of the Giver
Global reports and international organisations	GEF, SDG, NDC
	Global capitalist and others tracking climate related stories Investing in climate chaos: Urgewald, German NGO with the goal to establish strong environmental and social standards for the international finance industry.
New data sets	Social media / mobile and AI technology generated data