



TRADE & INDUSTRIAL POLICY STRATEGIES

Trade & Industrial Policy Strategies (TIPS) is a research organisation that facilitates policy development and dialogue across three focus areas: trade and industrial policy, inequality and economic inclusion, and sustainable growth

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Policy Brief

for the Presidential Climate Commission

FINANCE AND THE JUST TRANSITION

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PRESIDENTIAL CLIMATE COMMISSION

TOWARDS A JUST TRANSITION

This policy brief has been commissioned by South Africa’s Presidential Climate Commission (PCC) as an input to the process of planning for a just transition. Specifically, this policy brief forms part of a series of briefs that will provide an evidence-based foundation for a new “Framework for a Just Transition”—a practical guide to ensure that South Africa’s transition to a low-emissions economy is well-managed, just, and equitable. The Framework will also build on existing just transition debates in the country, the vision set out by the National Planning Commission, and a new series of thematic and social-partner consultations that will gather a diverse range of views on what it means to achieve a just transition.

The views expressed in this policy brief represent those of its authors, and do not necessarily reflect the views of the PCC or its Commissioners.

About the Presidential Climate Commission:

The PCC is a multi-stakeholder body established by the President of the Republic of South Africa to advise on the country’s climate change response and pathways to a low-carbon climate-resilient economy and society. In building this society, we need to ensure decent work for all, social inclusion, and the eradication of poverty. We also need to protect those most vulnerable to climate change, including women, children, people with disabilities, the poor and the unemployed, and protect workers’ jobs and livelihoods. The PCC facilitates dialogue between social partners on these issues—and in particular, defining the type of society we want to achieve, and detailed pathways for how to get there.

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List of Abbreviations

COP	Conference of Parties
DBSA	Development Bank of Southern Africa
DFI	Development Finance Institutions
ESG	Environmental, Social and Corporate Governance
EU	European Union
IDC	Industrial Development Corporation
IFC	International Finance Corporation
IFI	International Financial Institution
JSE	Johannesburg Stock Exchange
KPI	Key Performance Indicator
NBI	National Business Initiative
NT	National Treasury
PCC	Presidential Climate Commission
PIC	Public Investment Corporation
R&D	Research and Development
SA	South Africa
SAA	South African Air Ways
SOC	State Owned Companies
UK	United Kingdom
UN	United Nations
WB	World Bank

Executive Summary

The brief aims to move the ‘financing a just transition’ discourse forward by proposing a framework which considers a spectrum of just transition ambitions, different project funding characteristics and their implications for fund mobilisation and deployment. Using place based, action research, a project sample of self-identified just transition projects in Mpumalanga’s coal dependent regions are analysed based on their: procedural, distributive and restorative impacts, their ticket size and their funding requirements. Although the evidence based work focuses on the just energy transition in Mpumalanga the findings will be applicable to all sector and locations.

The paper’s initial findings suggest that projects with low just transition ambitions are likely to be funded within the existing financial eco system albeit with some innovations related to instruments, mechanisms and transactional process. Projects with higher just transition ambitions (which would support systemic or transformative societal change) are however less likely to be funded by the existing financial eco system. This implies that for a high just transition ambition agenda in South Africa a system level change in the financial eco system will be required. As both high and low ambition projects will characterise South Africa’s transition to net zero; an extensive agenda of research, policy, regulatory and enabling legislation will be needed covering not only innovation of the existing financial eco system but also fundamental system level change.

All actors in the financial eco system will have a role to play and the brief considers a possible tool kit for government, off shore international finance institutions, as well as an action agenda for private sector stakeholders. Collaboration, co-ordination and consultation between the public and private sector will be crucial in provide an enabling environment which delivers increased mobilisation and deployment of just transition financing.

1. Introduction

In a series of interviews with South African financial eco system players the vast majority expressed the view that the terms climate finance and just transition finance were conflated in the local discourse leading to a lack of clarity about what is meant by just transition financing. Interestingly those local stakeholders who had substantial interaction with off shore markets felt they had a better understanding of what a just transition meant and what its financing challenges are compared to those who operated predominantly in the local market (Martens 2021). This may be because in the global North the distinction between climate and just transition finance is clearer and more widely understood. Climate finance relates to funding the decarbonisation of the economy including climate actions such as mitigation, adaptation and increased resilience. Climate finance in the South African case would for example include investments in renewable energy, electric vehicles and green hydrogen as agreed with the climate envoys. Climate finance is packaged to deliver this decarbonising climate action; but is not designed to carry the additional burden of also financing the real economy consequences and impacts of these decarbonising activities to vulnerable workers and communities.

Box 1: Introduction Climate Finance

[Climate finance](#) refers to local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change. The Convention, the Kyoto Protocol and the Paris Agreement call for financial assistance from Parties with more financial resources to those that are less endowed and more vulnerable.

The Convention states that the operation of the financial mechanism can be entrusted to one or more existing international entities. The [Global Environment Facility](#) (GEF) has served as an operating entity of the financial mechanism since the Convention's entry into force in 1994. At COP 16, in 2010, Parties established the [Green Climate Fund](#) (GCF) and in 2011 also designated it as an operating entity of the financial mechanism. The financial mechanism is accountable to the COP, which decides on its policies, programme priorities and eligibility criteria for funding.

In addition to providing guidance to the GEF and the GCF, Parties have established two special funds—the [Special Climate Change Fund](#) (SCCF) and the [Least Developed Countries Fund](#) (LDCF), both managed by the GEF—and the [Adaptation Fund](#) (AF) established under the Kyoto Protocol in 2001.

United Nations Climate Change 2021

Just transition financing on the other hand is seen in the global North as climate action **plus social inclusion** (Robins 2019). In this approach climate finance works to deliver climate action, which is then **complemented** with just transition financing. Just transition financing is focused on **societal and developmental goals for those negatively impacted by climate action**. Just transition finance is about financing the 'management of the consequences' of decarbonising activities funded by climate finance. The climate finance pot of money and just transition pot of money are separate funding sources even though they may use *some* similar products such as concessional finance, first loss provision, extended tenors, patient capital and quasi equity.

This separation can be seen in the EU where a 100billion Euro package of climate finance is available to fund the Green Deal in the EU which includes mitigation, adaptation and improved resilience investments. A separate 17 billion Euro just transition fund exists to invest in social and developmental goals including: micro enterprises, education institutions, digital innovations and connectivity to increase social inclusion, renewable energy for communities, worker retraining and re-skilling and industrial diversification (Sustainable finance handbook 2021). As such the EU's just transition fund looks to "pivot capital deployment towards activities in the real economy that align with societal and developmental goals and capture and promote the opportunity created by the transitioning economy." Multi-lateral and bi lateral development finance institutions, as well as, global north private sector institutional investors are developing specific ring fenced funding instruments, mechanisms and schemes designed to deal with the impacts of decarbonising transitions on local economies and proximate communities. Interest in deploying these financial innovations in the global South is increasing exponentially in the lead up to COP 26.

To facilitate just transition flows an enabling environment must be created just as it has been (and continues to be) for climate finance. This will entail understanding what constitutes a just transition project, what metrics will be used and how they will be measured, issues of disclosure and reporting, taxonomies, labelling and standards. It has taken 20 years for clarity to begin to emerge on these issues in relation to climate finance. The equivalent journey for just transition finance is just beginning.

Given the timing of the energy transition in South Africa it is crucial that thinking related to the mobilisation and deployment of just transition finance for all sectors and locations is fast tracked across both the public and private sector. Time is of the essence not only because of the imminent loss of coal jobs in Mpumalanga, but because South Africa's just transition context is exponentially more complex than the equivalent understanding in the global North. As a legacy of colonialism, apartheid and sustained low domestic growth the starting baseline for climate action in South Africa is inherently unjust as exemplified by high levels of poverty, inequality and unemployment. This means that what would constitute a just transition transaction in the global north will in all likelihood not be considered a just transition transaction in South Africa (CIF, 2020).

As local financial resources for the just transition will need to be bolstered by global north funding, achieving consensus on what will be labelled just transition and what indicators will be used in the South African context is crucial to begin enabling offshore funding to flow. Moreover, it is equally crucial that South Africa understands the characteristics of our context specific just transition activities so that the just transition funding which is mobilised is appropriate and fit for purpose in the South African context. The just transition finance issue is thus as much about the quantity of just transition financing as the quality of just transition financing.

2. Point of departure

In framing the challenge of funding a just transition in South Africa it is crucial to articulate the problem that solutions are being sought for. This in turn hinges on how a just transition is understood. In August the Presidential Climate Commission's Just Transition Framework Project Steering Committee decided that for the purposes of future research on a just transition framework the National Planning Commission's view be adopted¹.

With this as a point of departure the framing of the finance challenge becomes how to use (and change) the existing South African financial eco system (which includes the private sector, public sector and access to foreign capital) to ultimately transform social, environmental and economic systems within the country. Because of the scope and breadth of the challenge all players in the South African financial ecosystem will have an important role to play (i.e. the public sector and the private sector), as well as the international community (donors, DFI's, foreign governments).

In this framing the just transition becomes a process over time and not an outcome. As such it will require multiple layers of issue engagement ranging from the institutional, to the regulatory, to capabilities, capacities and incentivisation. At its heart the challenge becomes one of how to get a financial ecosystem, which is currently designed on the assumptions of orthodox financial theory (which sees environmental and social factors as externalities); to systemically engage with, and directly support social and environmental objectives. Zadok (2018) writes that a new financial eco system will be characterised by deeply rooted changes in how finance works, its relationship with the real economy, and its relationship with broader national policy ambitions.

The Presidential Climate Commission's Just Transition Framework Project Steering Committee also agreed that for the purposes of progressing work on the just transition framework that the ILO definition of a just transition be used; and that different stakeholders and beneficiaries would exhibit a range of just transition ambition in relation to the procedural, distributive and restorative justice dimensions of such a transition.

Pulling together the ideas of : a just transition as a process that will take time; a just transition which ultimately supports transformative outcomes but is also inclusive of varying degrees of justice ambition -allows for multiple different framings of what the just transition financing

¹ The NPC defines achieving a just transition as "putting people, especially those living in poverty and the vulnerable at the forefront, South Africa will have achieved a zero-carbon [net-zero carbon] economy by 2050. We have built the resilience of our economy and our people through affordable, decentralised, diversely owned renewable energy systems; conservation of our natural resources; equitable access of our water resources; and sustainable, equitable and inclusive land-use for all, especially for the most vulnerable. The high value we place on healthy ecosystems, land, water and air underpins our future, and ensures a better life for all who live in South Africa."

challenge is in South Africa. The challenge can be framed broadly or narrowly, deeply or shallowly and across different time horizons, asset classes and role players.

Although the idea of a just transition was raised by the American labour movement in the 1970's (and by Cosatu in 2011); it is only since the 2015 Paris Agreement that debate regarding a just transition has been mainstreamed at both a local and global level. It is unremarkable that as an embryotic concept in the policy space, the discourse around what such a just transition entails, and how to fund it, is currently highly abstract and theoretical. Robins (2021) describes the level of policy debate as "stratospheric". Unfortunately in hotspots such as Mpumalanga's coal dependant districts the negative impacts of moving out of coal are a near term reality and vulnerable parties including workers, communities and SME's cannot wait for a stratospheric debate to evolve to implementable actions on the ground.

As such the decision to frame an *initial* articulation of the challenge of funding a just transition in South Africa is focused on understanding the financing needs of current just transition projects (demand) and what the existing financial eco system offers (supply). A misalignment between supply and demand is observed. This misalignment manifests not only in relation to the mobilisation of sufficient funds (i.e. the quantity of finance) but more importantly in relation to the appropriate deployment of such funds (i.e. the quality of finance). Research on interventions to increase the quantity and quality of just transition funding mobilisation and deployment remains nascent and highly embryonic. No current body of *evidence* exists to inform policy choices or assess the effectiveness of different approaches to support such flows.

This policy brief begins with a cursory overview of the existing private and public financial eco system and recent sustainable finance flows. It then looks at the demand for just transition funding using the primary research on current just transition projects being developed in Mpumalanga. The demand and supply of just transition funding is then put together to reveal a fundamental mismatch. The final section of the policy brief considers broadly the potential role of government to support innovation and development to deal with this mismatch and facilitate just transition funding in both the short and the long run. Local and international work in this area is nascent and much of the literature is based on processes to encourage movement rather than specific policy measures. At this time an in principle tool box of possible measures is briefly presented but future research will be required to unpack such options, their costs and risks as well as their intended and unintended consequences. Timing, sequencing and prioritisation will also need to be researched and considered.

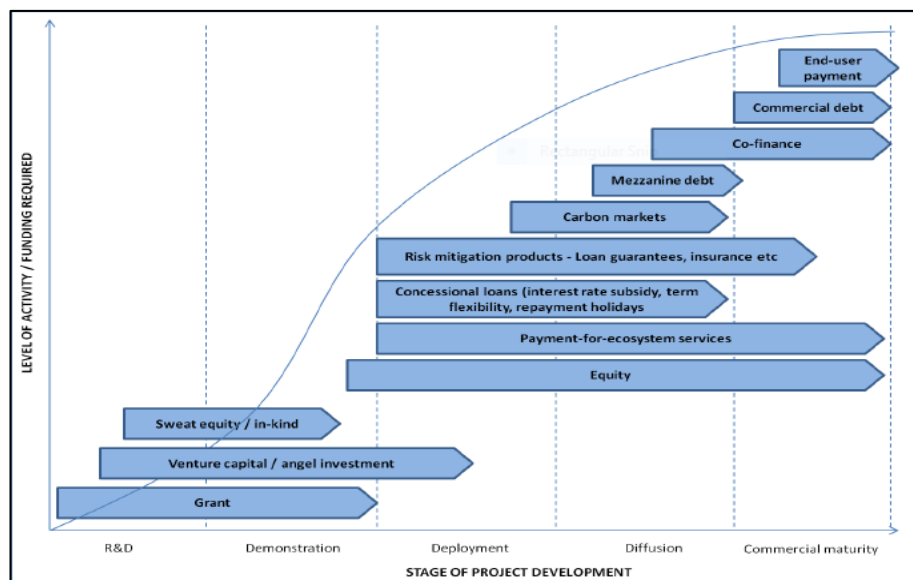
3. The current financial eco system – the supply of funding

A financial eco system is a broad catchall which includes financial: suppliers, distributors, customers, auxiliary service providers, regulators, legislators and agencies in the private sector, the public sector; domestically, and offshore based. The South African financial eco system was designed and established in the 1880's to support the burgeoning mining

industry. Over time the system grew to support the broader mineral energy complex and has not changed at a systemic level for over a century.

It is well known that economic activities have changing financing requirements over the lifecycle of a project (a new product, process or technology). Diagram 1, shows that in the early stages of a new R&D led project being launched, access to: grant funding, venture capital and angel investors is usually required. This is followed at the early deployment stage by the need for financial products on a better than commercial basis such as quasi equity and concessional loans and de-risking products such as loan guarantees and first loss positions. Once a project has made it to the diffusion and market stage commercial maturity is usually established and at this point market related products such as: mezzanine debt, co-finance and commercial debt is required.

Diagram 1: Project Lifecycle/ Funding Requirements



Source: NBI, 2013

South African studies (NBI 2013, 2016, GreenCape, Climate Policy Initiative and Bertha 2021, GIIN 2015) show that in South Africa the majority of funding available (from public, private and off shore sources) is for projects which are already well developed and are operating in the diffusion or commercial maturity end of their life cycle. The types of projects funded are predominantly large ticket price projects (billions rather than millions), using established and tested technology, with low risk profiles and predictable financial returns. The financial system is thus well designed to fund and replicate the existing dominant mineral energy complex and to support existing large enterprises.

On the other end of the spectrum there is a system level failure to provide finance for: early stage (often pre-commercial), small scale (less than R100 million), higher risk, novel technology (with limited track record) based projects. The lack of grant, venture capital and

angel investment necessary to support demonstration and early deployment activities is due to: a small and nascent local venture capital industry; a reluctance of private equity firms to assume technological and developmental risks associated with early stage projects (and a fear of being unable to exit within 5 to 7 years); and the limited availability of grant funding globally since 2008. Domestically grant funding is hard to come by due to the limited fiscal space in which government currently operates. Some grant funding is available directly from national line departments (such as DFFE and DTIC) through their budget or through the IDC or DBSA administering funds on the department's behalf. Contrary to popular belief, the country's DFI's do not issue grant or meaningfully concessional funding directly since the government is unable to underwrite their losses. This means that the country's DFI's need to operate on a for profit basis despite their developmental mandate. Collectively these blockages amount to a structural barrier of the financial sector to support the space where the majority of breakthrough green technology and new business models and inclusive approaches are likely to appear.

A second category of challenges facing the existing finance eco system relates to skills and capacity. While there are numerous examples of skills and capacity constraints across the eco system; three examples are highlighted as particularly significant in relation of just transition project funding. The first relates to the differing skills and capacity of various parties involved in just transition projects. One of the identified characteristics of these projects is that because of their inclusive nature they often involve multiple parties to a single transaction (for example a role for the local authority, a local community and a private sector listed firm). What research reveals is that often one project partner demonstrates high capacity credentials and a good implementation record; while other partners (most often the communities or local authorities) have less capacity and no credible track record. In these instances given the current finance eco system the totality of the project fails to reach the necessary capacity requirements for bankability and funding.

An additional area of capacity constraint relates to a lack of project developers in South Africa, and also, a lack of financing skills within the existing project development community. Research shows that often just transition projects which are co-created through community participation processes cannot be further developed because of a lack of project developers. Moreover, even when so called project developers are identified, many of them lack the skills and ability to compose and present effective business plans which are a minimum requirement for funders looking for bankable projects within the current financial ecosystem. These examples of capacity limitation underpin the recurrent complaint of financial institutions that South Africa lacks a strong, reliable and good quality project pipeline.

While the project pipeline is a well understood challenge in the South African context it must also be noted that potentially viable projects are also often not funded through the pipeline due to capacity limitations within the finance ecosystem. South African financial institutions generally lack internal capacity to source and evaluate low carbon and just transition projects. Sector players readily admit that many local institutions lack the internal skills to technically assess projects especially when the projects are based on innovative and novel technology which is not in the mainstream. When risk assessment also needs to include: new transacting

parties, new business models and mixed results indicators (ESG's environmental social and governance returns) the capacity challenge in the existing financial eco system is heightened. Due to a constrained ability to undertake technical and other risk assessments financial institutions often misprice risk and make inappropriate funding decisions.

The third category of barriers that inhibit current climate finance flows in South Africa and which may likely impact on just transition funding relate to fund design. The point raised in research to date is that there is a financing bias in South Africa towards energy efficiency and renewable energy projects and that few (if any) funds flow towards agriculture, water, transport and other non-energy projects. This is largely due to the high level of certainty and transparency in the energy sector due to clear government policy making and enabling legislation. Guaranteed off-takes at prearranged prices have also been fundamental to attracting finance to the sector. Equivalent conditions do not yet exist for other low carbon sectors in South Africa, including important mitigation sectors such as waste and water.

Many of these identified barriers can be seen in actual climate finance flows in South Africa in the recent past. In 2021, Climate Policy Initiative, GreenCape and Bertha published (the most up to date climate finance data) in a study on the South Africa climate finance landscape. In the report researchers traced climate action tagged financial flows in South Africa between 2017 and 2018. The results support the supply discourse that currently both the quantity and quality of climate finance in South Africa are below what is required and that these patterns bode poorly for just transition funding unless key decisions are taken and actions taken.

4. Sustainable Finance Flows - The Data

Based on South Africa's 2015 NDC (which is presently being updated ahead of COP26) the country committed to reduce greenhouse gas emissions so as to keep them within a range from 389 to 440 Mt CO₂ eq for 2025 to 2050. It was calculated by the IFC in 2016 that to achieve such a reduction initial investments of R8.9trillion would be required between 2015 and 2030 which amounted to an annual investment target of R596 billion per annum for 15 years. In the Climate Finance Landscape report a mere R62.2 billion of climate finance was tracked between 2017 and 2018. This investment represents little more than 10% of the required IFC calculated funding.

One of the key findings of the Landscape Report was that the public sector accounted for only 35% (R22billion) of climate finance flows between 2017 and 2018. Of this R22billion 60% was comprised of South African National Government spending which was predominantly focused towards seeding adaptation projects which were viewed by the private financial sector as more public goods than profitable investments. Key projects financed included water infrastructure, flood protection, social safety nets and disaster management. Besides the focus of government spending it is also important to note the very limited scale of such spending. This reinforces the view that the South African government has created very limited fiscal space to support pathways to net zero and that increased climate finance flows from

the public sector will in all likelihood continue to come from the re-prioritisation of existing budgetary allocations rather than new (increased) allocations from National Treasury.

Collectively South Africa's DFI's (dominated by IDC and DBSA) accounted for just 25% of total public sector investment amounting to approximately R6billion. In the year under consideration the vast majority of these funds flowed to mitigation projects in energy efficiency and renewables. This supports the above point that local DFI's continue to support projects which are profit driven rather than development driven; and potentially fund projects on similar terms to those that commercial banks would offer. It also demonstrates the point raised concerning fund design and an inability to properly assess and price risk related to new technologies. The lack of investments in water, agriculture, transport and waste also indicates the limitations of government failing to ensure that an enabling environment is in place for new low carbon activities.

The final contributors to public sector climate finance in South Africa from 2017 to 2018 came from international donors and governments (20%). Flows of R4.4 billion were captured of which the majority (65%) flowed from the EU. The majority of climate finance flows tracked in 2017/2018 arose from the private sector whose R35billion worth of funding accounted for 57% of all climate finance flows tracked. The R35billion invested by the private sector was relatively evenly split between non state controlled financial players (banks, institutional investors, fund managers, private equity and venture capital) who invested R19billion; and non- financial sector corporates (corporates, philanthropic foundations, donors and NGO's) who invested R16billion.

While the report did not track private sector funding across stages of project development it found that of the R35billion invested by the private sector just R4.8billion was from institutional investors, private equity and venture capital. This suggests that the structural barriers that perpetuate a market gap for early stage development projects while supporting a preference for later development stage projects which are already commercially viable remains stubbornly in place. In addition the report's disaggregation of climate finance by instrument suggests that the majority of climate funding in South Africa between 2017 and 2018 was non- concessionary debt (46%) and non-concessionary equity (23%).

Just R7billion of funding was concessional debt but unsurprisingly 62% of this concessional debt was raised from blended finance sources of which 100% was accounted for by international governments and international DFI's. This supports the view that the local South African financial ecosystem does not readily support concessional funding even though such funding is crucial to explore innovative new products, processes, technologies, business models and implementation schemes which characterise climate action and social inclusion.

In terms of the use of funds, the report found that 100% of private sector climate finance flowed to the clean energy sector supporting the view that private sector funding in South Africa continues to support climate finance initiatives which are low risk and which (by now)

have essentially become mainstream technologies with predictable cash flows and risk-returns profiles. The only real support of early stage projects and non-energy projects was sourced from blended finance sources which accounted for 8% (R5billion) of total climate financial flows between 2017 and 2018.

Although blended finance projects included R2.2billion in clean energy projects, the projects were at a smaller scale than those funded by the private sector financial sector players or South African DFI's. In addition to these clean energy projects, 10% of blended financing flowed to demand side management projects in energy, 32% flowed to low carbon transport projects and a further 5% to water projects. More importantly 62% of blended financial flows were concessional debt although none of these flows were funded by the South African financial eco system.

The latest data shows that both the quantity and quality of climate change funding in South Africa require serious consideration in order to meet the requirements of the NDC. If the notion of a transition which is just (as per the NDP) is added to the climate change mix - the challenge facing the financial eco-system becomes exponentially more complex as essentially the system is being asked to take into account not just the challenges of pricing and assessing risk and return related to new technology but to also now grapple with non-monetary risk and return related to social objectives. Lazarus (2008) calls this a super wicked problem.

5. Just Transition projects - Demand

A study (Lowitt, 2021) of 26 projects currently being planned in Mpumalanga's coal dependant districts provides the first evidence of the characteristics of South African projects which (self) identify themselves as being just transition projects. Projects for the research sample were sourced from: local, provincial and national government, mines, the power utility, private sector companies, chambers of commerce, CSIR and SPV's set up to support the just transition such as the Investment Catalyst and Mine Water Co-ordinating Body. To maximise the sample size and breadth of projects, eligibility requirements were kept to a minimum. Fossil fuel-based and brown projects were excluded.

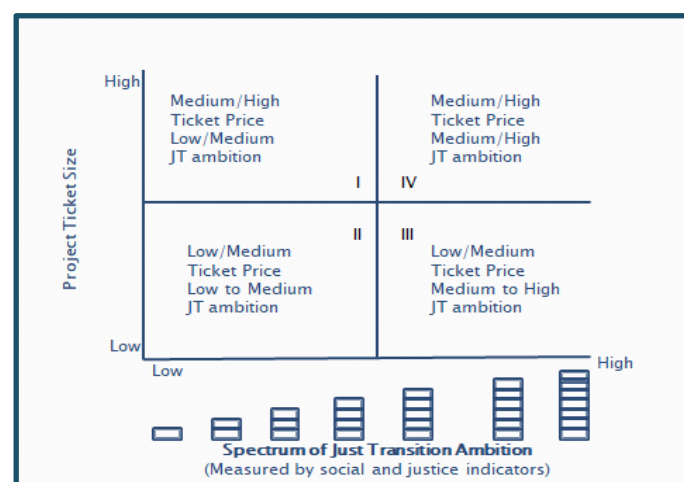
Economic diversification projects which were not necessarily green (but were not brown) were included, as were all green projects². Projects at all stages of development were considered as long as they met the basic requirements of having a dedicated project developer or champion who was resourced to develop the project further and had access to at least some preliminary funding to undertake initial development. Although the project sample was geographically specific and focused on a just energy transition it is argued that

² It is important to note that just transition projects seek to identify non carbon intensive economic diversification opportunities in areas which are negatively impacted from a transition to net zero. While it would be optimal for projects to positively support climate change, economic diversification is a sufficient outcome as long as the new opportunity is not brown.

generally observed project characteristics are likely to be applicable to any location and sector, thus giving the characteristics (and their financing implications) general applicability.

The projects captured in the sample identified themselves as being just transition projects despite varying levels of ambition (as suggested by Montmasson – Clair 2021) in each project’s projected impact and outcomes. All projects are commercially viable although some projects include suites of activities some of which are commercially viable and some of which are not. This will require novel approaches to suite financing and will be one of a number of innovations required in South African just transition funding. In addition some projects will only become commercially viable overtime and as the project development cycles unfolds. This too will require innovative solutions as such funding is typically hard to raise in the existing financial eco system. All projects were deemed to be important to the economic diversification and opportunity generation of the area. Diagram 2 illustrates a framework in which to consider just transition projects of varying levels of ambition as well as varying ticket price.

Diagram 2: Just Transition Finance Framework



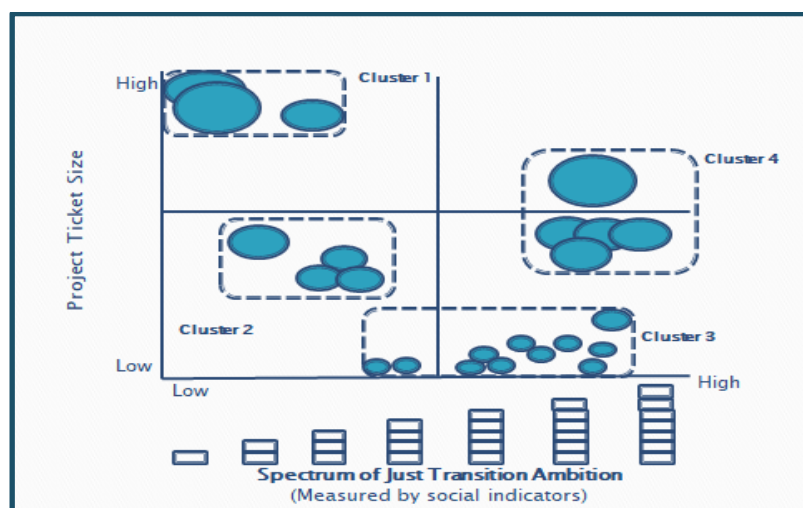
Source: Lowitt (2021)

Project ticket size is chosen as the vertical axis variable as it is the most basic measure by which to indicate whether a project is likely to attract the interest of financiers in South Africa or not. Stakeholders in the financial sector supported the view that low to medium ticket size projects in South Africa will fail to attract mainstream financial sector interest (or funding) because of the lack of venture capital, limited private equity interest in smaller projects, no angel funding and the fact that due diligence costs will be greater than the value of the transaction in small ticket-sized projects, making transaction costs too high to be profitable for the banking sector. Moreover the continued existence of medium- to large-scale investment opportunities available in the South African market means that mainstream funders are not actively seeking new investment spaces in which to participate. This suggests that funding for quadrants II and III in Diagram 2 will be hard to source; while funding for quadrants I and IV will be of greater interest to the financial eco system.

The horizontal axis measures just transition ambitions and will be measured in terms of quantifiable social (and hopefully) justice indicators. Work on these indicators is forthcoming. At this stage, for illustrative purposes a low just transition ambition project may seek simply to provide alternative employment for workers directly impacted by the transition away from coal. This alternative decent employment opportunity would be shown in the single box on the left hand side of the horizontal axis. On the right-hand side of the horizontal axis multiple social indicators and justice measurements would be attained in a high ambition project, as shown by the cumulative stack of indicator boxes on the right of the axis. Illustratively such indicators could include: decent alternative employment opportunities at improved salaries to those earned in the coal sector, new and sustainable livelihoods for the impacted community, new asset ownership by communities and workers, job retraining and reskilling and the up-skilling of communities, restoration of land and waterways to ameliorate environmental abuse of the past, empowered community participation in programme development, and increased access to services, especially energy, water, sanitation, health and education.

The 26 Mpumalanga projects were plotted in the above framework and four clusters of projects are observed, as depicted in Diagram 3.

Diagram 3: Project Clusters



Source: Lowitt (2021)

Clusters 1 projects are high ticket price projects valued at between 2 to 35 billion Rands. The projects are technology driven and focus on mitigation. They utilise technology with some international track record and risk profile. They have limited just transition ambitions and will create jobs in the tens to hundreds, although they do potentially create substantial (longer term) downstream opportunities if they are realized. The projects do support the idea of

procedural justice and community engagement is included. It is likely that due to the project's high ticket price and some degree of knowledge and comfort regarding technological risk these projects will be funded quite easily by the existing financial eco-system although some innovative transaction structuring may arise³.

Cluster 2 projects have a ticket price of 500 to 900million Rands. The projects are focused mainly on mitigation with one project focused on adaptation and increased resilience. The projects utilise technology which may not have a track record in South Africa but is proven internationally. The projects are driven by large listed corporates and off take agreements are likely to be put in place prior to funding being sought. The projects also have limited just transition ambitions focused mainly on decent job creation and community inclusion in consultation and decision making. These projects are likely to attract some domestic financial sector interest because of the project originators, the medium price tags and the international technology track record. The local financial sector is, however likely to be nervous about the returns and cash flows associated with such domestically unknown projects and will in all likelihood require (local and, or international) DFI's to come to the funding party with some type of blended finance, de-risking or guarantees.

Cluster 3 projects have a low ticket price ranging from a low of 1million Rands to a high of 25 million Rands. Most are mitigation projects with some adaptation activities. Most projects are related to the circular economy (waste re-use) and water. The projects exhibit higher just transition ambitions. Most projects in this cluster include as core elements: alternative livelihoods for proximate community members, retraining and reskilling, new asset ownership and revenue generation opportunities. The projects are almost all based on new and novel technology and new and novel business models including deal participants with no commercial track record. This makes it hard for the existing financial eco-system to assess and price project risk. In addition the cost structure of most South African financial sector players is such that the cost of completing due diligence on a new project with a ticket price in the cluster 3 range is higher than the final project investment. This means that the transaction costs are prohibitive and as a result such projects will not be considered let alone funded. Cluster 3 projects, which are likely to be the dominant exemplar of just transition projects in South Africa going forward, are unlikely to be funded by the existing financial eco-system. Issues of scale, scalability and replicability are notable in relation to the cluster.

Cluster 4 has been nicknamed the unicorn cluster as it exhibits both an attractive ticket price (6billion Rands) for the financial eco system and a very high level of just transition ambition (including livelihood opportunities for up to 1.2million vulnerable people, reskilling and retraining, creation of entirely new value chains, new asset ownership models, new business

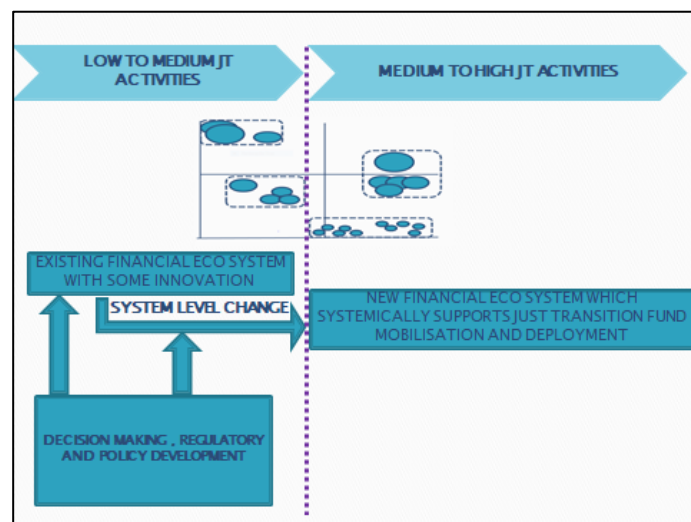
³ There has been much debate about the inclusion of cluster 1 projects in the sample. The projects as major decarbonisation activities in South Africa's transition to net zero will be funded by climate finance which is able to offer attractive term sheets and which will fill in the lack of early stage investment in new technology which characterises the South African economy. The reason why cluster 1 has been included as a just transition project is the project developers self-identification of the project as such and the reality that repowering and repurposing coal fired power plants will constitute economic diversification and hence new jobs and livelihood opportunities.

models, increased access to services and positive environmental impacts). The project includes totally novel technology with a very limited international track record, a totally novel approach to project design and architecture, new deal participants and multi layered funding requirements all of which will need to be secured at the beginning of the program of work. The project suite will require grant funding, impact investing, concessionary funding and commercial market related funding. The novelty of the project and its design will make it difficult for the existing financial eco-system to fund cluster 4.

6. Putting Supply and Demand Together – the parameters of a just transition finance agenda

Extrapolating from the four clusters there is an observable trend. Projects with lower levels of just transition ambition (which equate to projects which include: business as usual, managerial reform and market based scenarios) are more likely to be funded through the existing financial eco system than projects with higher levels of just transition ambition (which equate to structural and transformative scenarios). This implies that less ambitious just transition ambition projects can successfully be funded by the existing financial ecosystem albeit that such flows will be supported if instrument, mechanism and transaction innovations are forthcoming. If, however, funds are to be mobilised and deployed in support of higher just transition ambition projects it appears that tweaking and innovating in the existing eco system will be insufficient. In this scenario fundamental system level change will be required. This is illustrated in Diagram 4.

Diagram 4: Dual Challenge Road Map Requirements



Source: Lowitt (2021a)

Essentially the diagram illustrates that low to medium just transition ambition projects (clusters 1 and 2) on the left hand side of the framework are likely to be able to be financed (mobilisation and deployment of capital) by the existing financial eco system with some degree of innovation. It is unlikely that these innovations will be market driven alone and

direction and support will need to be provided by government working in close consultation with a broad array of (local and international) eco system stakeholders.

In relation to medium to high just transition ambition projects (clusters 3 and 4) on the right hand side of the framework it is unlikely that the current financial eco system (even with some innovation) will mainstream the funding needs of such projects. To enable projects with the characteristics of cluster 3 and 4 projects to be easily funded a fundamental system level change is required which will result in a new financial ecosystem emerging in time. This system will have a new and different relationship with the real economy and government policy objectives (especially those related to social and environmental goals).

Based on the characteristics of the sample projects, some of the challenges to be dealt with by a just transition financial eco system include:

- The need for a just transition financial ecosystem to become involved in project development processes earlier than in the current system. Some suggest that a just transition ecosystem will need to ‘make deals’ as well as ‘buy deals’.
- A just transition financial ecosystem will also in all likelihood be required to facilitate (or directly provide) increased financial sector education and capacity building to parties to transactions as a normal course of business.
- A just transition financial ecosystem will need the capacity and structures to deal with non-traditional parties approaching them with deals and multiple and new voices talking to capital.
- A just transition financial ecosystem will need to develop approaches to projects being inclusive of multiple partners, many of which will have limited (or no) commercial track record.
- A just transition financial ecosystem will need to, at a systems level, provide increased technical assistance support as project pipeline drivers are increasingly likely to lack the skills necessary to bring a project to a point where a financing decision can be made.
- A just transition financial ecosystem will need to adopt and experiment with new and different approaches to where in a financial organisation funding decision-making occurs. This could include structural and hierarchical changes to the traditional role of the credit committee; and decision-making matrixes that expand beyond only monetary returns and narrow ESG interpretations.
- A just transition financial ecosystem will need to be innovative and creative in terms of instruments, mechanisms, facilities and processes. Innovation to deal with a range of challenges will include seeking solutions to, inter alia: increasing tenors and extending the role of patient capital; increased deal complexity, which includes both impact investing and return-driven investing simultaneously; increased use of blended finance; and de-risking activities.

In addition, solutions would be required to allocate appropriate funding instruments to pre-commercial and SMME-scale activities; improved methods of assessing and pricing technology risk and environmental risk; working with the public sector to create smart subsidies; approaches to deal with funding suites of projects with mixed ticket prices; new

avenues and methods of collaborating with foreign investors and DFIs; utilising novel technologies including block chain; accommodating different and novel business and ownership models; and increased use of funding of funds.

- Finally, none of the above will occur unless a just transition financial ecosystem has in place a new set of Key Performance Indicators and an Incentive Structure. Unless transacting bankers and fund managers are incentivised to increase the mobilisation and deployment of funds into just transition activities, and until institutions are reporting on achievements regarding such investments in their normal course of business (in a consistent manner which can be tracked), there will be no meaningful change.

7. The possible scope of a Tool kit for government to support just transition financing

Research on interventions to increase the quantity and quality of just transition funding mobilisation and deployment remains nascent and highly embryonic. No current body of *evidence* exists to inform policy choices or assess the effectiveness of different approaches to support such flows.

Unsurprisingly just transition finance thinking borrows heavily from the experience of creating an enabling environment for climate finance. As such there is a tendency to fall into the trap of conflating climate finance with just transition finance. As explained in the introduction the two are different sources of funding and have different purposes and goals requiring different product innovations and enabling requirements. Conflating the two runs the risk of minimising the very specific challenges of deploying funding to projects and programming which have as their core aim – the provision of alternative and diversified good quality livelihoods and employment opportunities for vulnerable and affected communities negatively impacted by decarbonising climate actions to shift to a net zero economy. The just transition finance challenge is thus to learn from climate finance and utilise macro level levers and system innovation and development to deliver on the ground micro economic outcomes which positively impact beneficiaries lives and socio-economic circumstances.

Diagram 5: Differences between Climate Finance and Just Transition Finance.

	CLIMATE FINANCE	JUST TRANSITION FINANCE
Definition	Global taxonomies in place which identify qualifying investments	No agreed definition and no taxonomy
Goal	Decarbonisation	Management of social and developmental implications of decarbonising climate action
Measurement	Mandatory and voluntary ESG disclosures ; Globally converging principles and tool kits	No consensus on indicators, measurement or disclosure
Project characteristics	National projects, large ticket prices; big infrastructure projects; high replicability; new value chain development	Local or regional projects, smaller ticket prices; community level infrastructure
Parties to the Transaction	Traditional formal and listed companies, medium and large enterprises with solid commercial and technology track records	Non traditional participants with limited or no commercial or technology track records and limited financial literacy
Project skills	High level of skills, limited (if any) need for technical assistance (TA)	Highly constrained skills base, high TA requirement and financial input early in project process
Business Models	Traditional	Novel
Financing Instruments	Concessionary loans, grant funding, de-risking (first loss, patient capital, quasi equity and debt, blended finance, risk buy down schemes, state backed guarantees, political risk insurance, subordinated debt, risk pooling facilities.)	Same concessionary, grant and de-risking as climate finance but in addition: Blending of grant, impact and commercial lending within a given project; fund of funds; complimentary investing, on-going financial support and others to be determined by on-going research

Source: Author

It is also important to remember that after 20 years of debate the climate finance community are still grappling with the complex issues of measurement, taxonomy, labelling, standards and disclosure related to what counts as a green project or investment and how information related to such an initiative is reported and compared to other projects and investments. This signals strongly that the just transition finance toolbox still has a long way to go before anything like national or international consensus (or even convergence) is achieved. Where there is consensus, however, is that the creation of an enabling and supportive system of finance to fund just transition activities will take a substantial length of time to be created and is thus a long term goal of some sort of roadmap process spanning short, medium and long term horizons.

There is also consensus that the end goal of a financial eco system which mainstreams support for just transition activities will be fundamentally different to the current financial eco system in terms of how it relates to the real economy and public policy; as well as the instruments, mechanisms and transaction which it will develop and innovate in response to differing finance demands. For such change to occur over time there is global consensus that it is crucial that the broad eco system experiment at scale and learn by doing. The corollary to this is that learning in the first instance should occur at a transaction level (like the 26 projects described above), then a project level and then a portfolio level. As such a joint bottom up and top down approach to conceptualising a just transition finance roadmap for South Africa appears to be the most credible way forward.

Finally there is consensus that every actor in the economy will have a role to play in delivering a just transition and that in relation to just transition finance both the public and private sectors will need to become ‘development partners’ in South Africa’s road to net zero (national treasury 2020). International climate finance experience shows clearly that the private and public sectors need to consult extensively and collaborate at all levels to jointly and collectively determine a roadmap towards the mainstreaming of climate action and just transition funding as integral parts of their normal activities. South Africa has embraced this collective approach and is currently running several consultation and collaboration initiatives such as the national Treasury Sustainable Finance Initiative; the NBI-Carbon Trust-National treasury Initiative to develop a Green taxonomy for South Africa and the JSE’s work with private sector players to develop green bonds and a possible new just transition bond with qualifying guidelines determined from international best practice.

The section below is a first attempt in the South African context to broadly sketch out the scope of a possible just transition finance policy toolbox for the public sector. This is then followed by an examination of the possible activities which the private sector can pursue to support an increase in the quantity and quality of just transition financing. This first iteration makes a simplifying assumption that just transition ambitions can be covered by using existing understandings of Environment, Social and Governance (ESG) approaches. The iteration also draws strongly on broader climate and sustainable finance policy experience and knowledge. The views of financial eco system players and just transition project developers interviewed have also informed the proposed public and private tool box.

It is accepted that the scale of the just transition financing challenge will be greater than what the public sector alone can fund. Any public sector contribution will need to be supported by the full force of the private sector (and in the case of the global South – the support of the Global North). Every actor in the broad financial eco system will have a role to play. The National Climate Change Response Paper 2011, NT Technical paper on Sustainable finance 2020, and the Sustainable Finance Handbook, 2021 all cite the need for all financial stakeholders to become active developmental partners in a net zero just transition and that the entirety of financial decision making across stakeholders and asset classes will be required. This means that crucial elements of the toolbox will be how state policy makers and regulators collaborate with the private sector to create an enabling environment to support market led developments in the private sector.

The South African government is part of the financial eco system and interacts with it in many ways. It is the owner of development finance institutions (DFIs) such as the IDC and DBSA; it is the regulator and supervisor of the finance eco system through the National Treasury, Reserve Bank and regulatory authorities; it is an important institutional investor through the Public Investment Cooperation (PIC); and it is a service provider that supplies goods such as housing and schools, and services through SOC’s such as Transnet and Eskom.

Due to these diverse roles, the government can support the quantity and quality of just transition flows in a variety of ways.

Four key categories of policy options are identified: direct public finance measures; indirect public finance measures in the real economy; providing direction, support and co-ordination in creating an enabling environment for just transition financial flows; and leveraging international financial institutions.

7.1. Direct Public Finance Measures in the Financial Eco System

The first category of action the government can consider to support the flow of just transition funding in South Africa is **direct public finance measures i.e. to actively engage in financing just transition activities within the existing financial eco system**. Five measures can be considered.

A first public finance measure could be for the government to provide grant and concessional financial resources to just transition projects through the country's DFI's and commercial banks. These soft resources could then be given or loaned to project developers and enterprises implementing just transition projects. These soft resources would crowd in additional funding as they change the risk profile of the project. This is essentially the idea behind blended finance. As shown blended finance has been used in sustainable funding in South Africa but none of the concessionary funding (roughly R4.4billion in 2017-2018) was made available by the South African government, but rather from the donor community. This is largely due to the limited fiscal space the government currently faces; a situation which is unlikely to change in the near future.

A second policy option would be to use targeted credit enhancement tools which essentially reduce the risk of the project to the funder. Options could include risk buy down schemes, state backed guarantees, first loss provision, political risk insurance, subordinated debt or the creation of risk pooling facilities. Guarantee and risk sharing schemes allow the risk profile of a project to be lowered which will increase its attractiveness to funders. Currently the government does not make such facilities available at scale to the country's DFIs and banks again because of its limited fiscal space, a narrow understanding of the important crowding effect such measures support and its current exposure in terms of existing guarantee liabilities for State Owned Companies (SOC's) such as Eskom and South African Airways (SAA).

A third policy option would be for the government to directly fund just transition projects through innovatively structured transactions using line department budgets and possibly special purpose vehicles. The idea here would be for the state to 'demonstrate by doing'. Government's innovative demonstration transaction would provide proof of concept for a

new type of funding approach which would then hopefully trigger the development of new and appropriate products in the private sector.

While such an option is unlikely as a national programme, national line department budgets or provincial or local government funding could be used to support such innovation demonstration albeit that capacity constraints and track records suggest that such activity might be limited⁴.

A fourth policy option would be for the government to foster the creation of new instruments and mechanisms by providing tax advantages to investors such as tax free status for interest and other income received from just transition instruments. This tax break would de facto increase the return to an investor on providing funding for a just transition project or process. In most of the current literature emphasis is also placed on the need for consistency and problems with tax incentives for just transition activities while other brown subsidies are still in place⁵.

Box 1: Sustainable Finance Interventions

SA Government Interventions to Support the Flow of Sustainable Finance in SA to date:

The National Treasury technical paper on sustainable finance lists 11 policy actions the Government has adopted to support the flow of sustainable finance:

- Placing a price on Carbon
- Renewable Energy Independent Power Producer Programme
- Tax exemption for revenue earned from trading certified emissions
- Accelerated depreciation for machinery used for renewable electricity generation and bio fuel
- R&D tax incentive for green technology
- Energy efficiency savings tax allowance
- Departmental Fiscal allocations
- Motor Vehicle emissions tax
- Incandescent globe tax

Source: National Treasury 2020

A final direct finance policy option would be for the government to structure and fund just transition programming which is not commercially viable such as the provision of social protection measures or retraining and reskilling programmes for workers negatively impacted by transitions to low carbon trajectories across sectors and locations.

⁴ Industry players have noted that the PFMA is a major obstacle in this regard.

⁵ The fossil fuel subsidy is the most notable example of this.

In Europe such funding was achieved via the creation of a Just Transition Fund of 17 billion Euros which was funded by governments over and above the 100billion Euro Green Deal which dealt with the technology transition to a low carbon economy.

All five of the above options have fiscal implications either in the form of financial outlays or revenue forgone. While the instruments are all potentially powerful they are unlikely to feature in the forefront of just transition funding in South Africa in the near term because of constrained government finances. Incentives may be an exception to this generalisation. As will be shown below opportunity exists (given the commitments of the Global North in the signing of the Paris Agreement) that some of these South African public sector financing limitations could potentially be lessened by foreign donor, DFI and IFI fund deployment (depending on the terms that can be negotiated).

7.2. Indirect Public Finance Measures in the Real Economy

A second category of action the government could consider would be **financing and risk sharing in the real economy, i.e. indirectly facilitating just transition parties improved access to finance**. Essentially this category of interventions is focused on government actions that support an increase in demand for mitigation, adaptation, resilience and economic diversification activities in transitioning mono economies⁶. These policy measures were used quite successfully by the South African government in supporting increased flows of sustainable finance to local solar geyser manufacturers who benefited from increased sales and hence better financing deals on the back of the solar geyser subsidy programme and local government roll out of solar geysers in the real economy.

The indirect tool kit options could include offering R&D grants for eligible real economy activities that are developed specifically to provide alternative livelihoods for impacted workers and communities. Examples include R&D grants for using acid mine drainage water for agricultural irrigation or valorising fly ash from coal fired power plants. Such grants would improve the risk-return profile of such projects and hence likely increase private sector interest in investing. Additional tools could include: tax exemptions and reduced transaction costs for certain just transition activities such as the transfer of mining land to community ownership; and very importantly government procurement policy and preferential treatment of just transition enterprises. Tax exemptions, reduced transaction costs and preferential procurement can all improve the demand outlook for a just transition project and hence alter its risk-return profile. As this profile improves so the beneficiaries of such programmes are likely to find accessing finance easier and on better terms.

⁶ Mono economies typify the types of economies seen in the coal and electricity regions of Mpumalanga

7.3. Providing Direction, Support and Co-ordination in Creating an Enabling Environment

There is general agreement internationally (UN-WB 2017, IPSF 2020, SBN 2019, Robins 2021) that the most important role for the government to play in ensuring there is sufficient funding deployed to finance a just transition to a net zero economy is its role in creating an enabling environment for increased private sector just transition flows. As such **the third (and most important) category of possible government action is related to the government providing direction, support and co-ordination to the creation of an enabling environment for the broad financial eco system** such that the quantity and quality of finance flowing to just transition activities increases in an appropriate manner. This is an area of policy prioritised in all current just transition finance literature and just transition finance roadmaps.

There are two key aspects of an enabling environment which will require government attention. The first relates to ESG (and just transition) disclosure and the creation and transmission of information which will direct capital allocation. The second is the need for financial eco system participants to embrace and mainstream new business models, improve ESG and just transition capabilities, and, align incentives. These latter interventions will in the main be market driven but interviews with financial sector players highlight the desire for the government to provide clear industry direction and signals, foster certainty around expectations, providing proof of concept and providing guidelines or regulations which will assist in convergence and co-ordination related to business models, capacity development and incentive alignment.

ESG and Just Transition disclosure

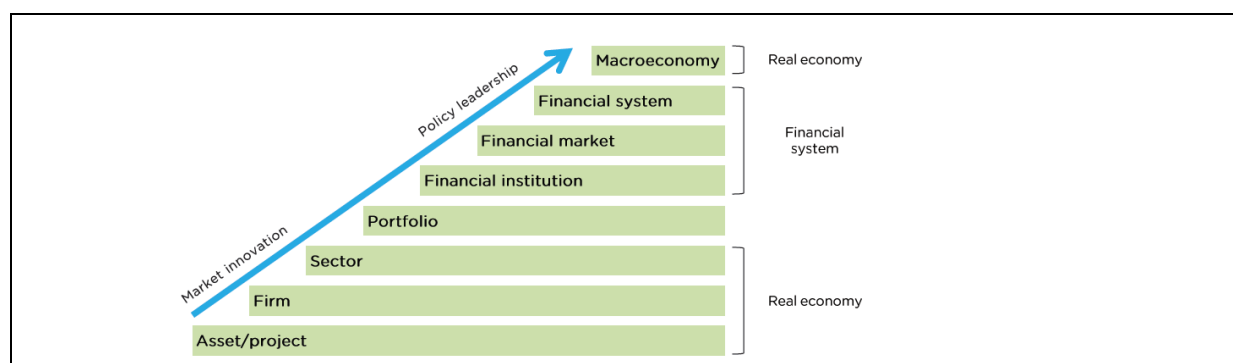
Disclosure refers to the public availability of ESG⁷ information arising from real economy corporates, project developers, financial sector entities, financial institution associations, stock markets, regulators and other financial eco system players. This information is the basic flow of information which will allow investors to select projects, programmes or portfolios aligned with ESG, SDG and Just Transition criteria. It will also allow shareholders to monitor and hold companies accountable for their performance against these commitments; and for policy makers and society at large to measure progress towards ESG, SDG and Just Transition goals. For example if an issuer wishes to create a just transition bond on the Johannesburg Stock Exchange (JSE) what will be measured to identify if a project is eligible for such funding or not; how will an investor be able to weight the risk of that investment versus a green sustainability bond investment and will foreign investors accept the South African labelling of a just transition bond and be eligible to invest offshore funds into such an instrument?

⁷ In time it is anticipated that a distinction will be made regarding ESG, SDG and Just Transition measures and disclosures. At this early stage of developing a just transition financing roadmap, the international norm has been to define just transition as climate change plus social inclusion (UK Investors Roadmap 2019) and hence to use ESG disclosure as an acceptable disclosure of just transition.

The disclosure nut is a hard one to crack. Essentially there are three areas of broad concern related to disclosure: i) the need for appropriate disclosure across *all* layers of the real and financial economy; ii) the lack of a common approach to what should be measured; and iii) whether disclosures should be voluntary or mandatory.

In relation to who is going to have to disclose just transition information in order to facilitate an increased flow of just transition fund mobilisation and deployment it is necessary for all players in the broader economy to adopt such disclosures. So for example if an investor is to make an informed decision on how to allocate their capital in support of just transition activity they will need to be able to assess the just transition metrics of the companies they are investing in, or the just transition metrics of an equivalent labelled portfolio. This means that ESG disclosure is not only required in the financial eco system but in the real economy as well. It is unlikely that consistent and compatible disclosures will arise from solely self-regulatory market driven processes thus there is an envisaged role for the state to play in ensuring that disclosure measures, metrics and applications across the real and financial systems are sufficiently coherent to support increased financial flows to just transition projects, programmes, companies, portfolios and instruments. The state will have a role to play in co-ordination and directional leadership but this should not result in regulatory fiat. The majority of disclosure progress will be driven by the private sector and through advocacy, partnership, collaboration and consensus building, the public and private sectors should arrive at a convergent and acceptable set of disclosures and metrics.

Diagram 5: Disclosure across the economy



Source: UN-WB 2019

The government will also need to take the lead in ensuring that South African disclosure decision making converges with international disclosure decision making so that the country is able to attract off shore investment into ESG, SDG and Just Transition instruments and mechanisms.

The second challenge in relation to ESG disclosure is what exactly should be measured. This question is even more vexing in relation to just transition. Box 2 below shows the different

approaches to disclosure measurement in the sustainable finance space. Given that there is no agreed definition of a just transition in South Africa, the existence of differing levels of just transition ambition, and the difficulty in identifying suitable variables to reflect procedural, distributive and restorative justice the debate on what should be measured to disclose just transition activity or impact will remain a difficult challenge which will need to be addressed. Financial eco system participants are already looking to government to provide some guidance and direction on what will count as a just transition investment and what will not. Work is underway to generate a matrix of indicators reflective of different levels of ambition and appropriate to South Africa's specific socio economic context. This first step of research provides a matrix of possible indicators which will eventually need to be augmented by work on what metrics will be used to measure performance and impact related to the indicators. The matrix of indicators will be available for engagement and public comment before the end of 2021⁸.

Box 2 Sustainable Finance disclosure Approaches

Current efforts to move to a more advanced

disclosure paradigm is uneven across asset classes and jurisdictions, but consensus is building around methodologies for the disclosure of certain types of information (such as the carbon footprint of investment portfolios). Emerging approaches can be grouped into five categories:

1. Process. Information relating to the operational processing of sustainability factors, such as ESG integration into investment disclosure and the overall mix of products aligned with sustainability considerations. Key tools include disclosure of investment policies.
2. Performance. Information relating to the performance of financial portfolios with respect to different green indicators or policy objectives (for example, decarbonization). Key tools include benchmarking against indices and exposure assessment (for example, exposure to fossil fuel holdings).
3. Impact. Information relating to positive impact achieved on sustainability objectives within the real economy, such as pollution abated or green jobs created. Key tools involve life-cycle assessment, monitoring, and evaluation.
4. Scenario/strategic alignment. Information relating to alignment with a low-carbon future, specifically examining exposure and performance of an institutional portfolio over a two-degree future scenario for the economy. Key tools involve scenario analysis and the use of asset-level data.
5. Identification. Information relating to the environmental characteristics of all financial assets. Key tools involve the tagging of green assets or the use of established data registries.

United Nations-World Bank 2019

⁸ This work has been commissioned by TIPS from industry experts.

The third disclosure related facet which the government will need to take a position on relates to whether ESG disclosures are voluntary or mandatory. In the voluntary scenario the government issues guidelines on suggested disclosures – this is known as the soft approach and encourages companies to disclose according to a set of principles (of which many exist globally such as the Equator Principles or the Task Force on Climate Disclosure recommendations). In the mandatory scenario the government issues legally binding regulations which require selected companies to disclose certain information. The details of measurement in mandatory disclosure may be specific (forcing companies to provide information in a set format and using a specific measurement approach) or mandatory disclosure may leave the measurement decision and methodology up to the company (most common). This latter approach has been problematic in South Africa where certain firms have undertaken ESG disclosures (required by the JSE not the government) but used different measurement approaches and metrics across years making trend analysis difficult.

A wide range of approaches are identified internationally. In the EU large public entities are required by law to complete ESG disclosure but the specific metrics to be used are not specified. In India the country's Top 100 companies are required by law to make ESG disclosures; while in Singapore the requirement for ESG disclosure arises not from the government but from the Singapore Stock Exchange. In Switzerland and New Zealand ESG disclosure is voluntary. Most countries are attempting to use international frameworks for ESG disclosure so as to ensure cross border consistency which will support inbound flows. This is especially important in terms of labelling where for example a South African Green Bond needs to meet certain international green bond disclosure requirements in order for an off shore green investor to feel comfortable such a bond is consistent with their green portfolio criteria.

New Business Model development, Capability Support and Incentive Alignment

In order for the financial eco system to mainstream the allocation of capital to just transition activities it is necessary for all financial institutions (public and private) to make the just transition a primary component of their business strategy. The just transition must become a strategic pillar of organisations and not continue as a niche activity driven by a small handful of personnel. In order for owners, managers and staff to make the just transition a core element of their business model, financial institutions will need to ensure that they have the capacity, capability and systems to support such a strategic shift. They will also need to have the right metrics in place (KPI's) to impact allocations and a system of incentives which are aligned to mainstreaming such behaviours. Although all of these requirements exist at an institutional level and will be driven by owners and boards of directors, it is possible for the government to play an important role in signalling intent (e.g. such as the 2011 amendment to regulation 28 which required SA insurers to take ES risks into account); supporting capacity building (e.g. training of regulators, policy makers and broader players in the system) and demonstrating by doing (e.g. European regulators have explicitly added ESG risks to pay

guidelines which will be implemented in January 2022 and some banks such as UniCredit have allocated 10% of their pay scorecard of senior management to ESG ratings).

Research by multilateral organisations such as the UN-WB (2019) UN (2017), IFC (2014) all identify a lack of familiarity, understanding and capabilities of practitioners as a barrier to increased institutional consideration of broad sustainability issues (which will apply to just transition issues as well). This view has been stressed in interviews in the local market as well. The research suggests that even though companies may have an appetite for investing in sustainable or just transition activities: gaps in skills, inadequate institutional frameworks and a lack of clear leadership signals all undermine the ability of staff to manage and use sustainability or just transition information, and use it in their decision making. Government can through industry associations work to co-create mechanisms to up skill and upgrade domestic sector knowledge and systems.

Finally there is global consensus that incentives shape practice in financial institutions. In order to achieve a cultural change within a financial institution the first driver will be to change the culture of management. Once management is aligned the institution will need to establish mechanisms to ensure the new orientation permeates down through the organisation. The third driver of change will be for the institution to set just transition targets through departmental and employee key performance indicators (KPI's). Finally, financial compensation must be aligned to these KPI's. This should be applied not just to financing transacting business units of the institution but also to procurement and facilities management performance.

It is suggested that implementing such capacity building, business model development and incentive alignment action in public sector financial institutions would be a strong signal to the market as well as a concrete exemplar of demonstration by doing. Programming at government owned institutions such as the Development Bank of Southern Africa (DBSA), Public Investment Corporation (PIC) or Industrial Development Corporation (IDC) would provide direction, leadership and valuable lessons to the private sector of how such an approach can be adopted and implemented.

7.4. Leveraging International Finance Institutions

The fourth and final category of possible action the government can take to support increased mobilisation and deployment of just transition funding is to **actively leverage and maximise the role of international financial institutions (IFI's) including international DFI's and multilateral facilities such as the Green Climate Fund**. International funding should be seen as an enhancement to local financing actions and not a substitute for national action. However international financial institutions can assist in four areas. First they can facilitate the development of an enabling environment for the economy such as the seminal work of the Financial Stability Board's 2017 Recommendations of the Task Force on Climate Related Financial Disclosures or the Sustainable Banking Networks guidelines for commercial banks. IFI's can also provide long term financing bundled with technical support. As such IFI's could

accompany the South African government as funders while also providing technical assistance to help with capacity constraints in the current financial eco system. Thirdly IFI's can support innovative transactions and kick start new markets such as the IFC's financing of South Africa's first renewable wind farm in Sere. Finally in the area of policy and regulations which is changing and evolving so rapidly the South African government could also leverage IFI's to share technical knowledge with the existing stakeholders in the financial eco system to accelerate and support their ability to supply the required quantity and quality of finance needed for a just transition in South Africa.

There remains a chasm between what IFI's are currently offering the global South in terms of support to decarbonise in a manner which is just and the actual needs of the global South as evidenced by real economy project and programme development on the ground. The government will have a pivotal role to play in communicating South Africa's actual on the ground just transition financing needs to IFI's and to work with the local market to maximize the benefits which can be realised if IFI's make available applicable financing. In addition just transition funding will require new layers of co-ordination between financial eco system players and the state will have to take responsibility for planning, engaging and finally implementing new co-ordination roles and mechanism not just between domestic and international funders but even within the domestic financial eco system.

7.5. Market Led Developments

As shown above the public sector and particularly financial sector policy makers, regulators and prudential authorities have a pivotal role to play in signalling to the private sector the desired action and outcomes related to funding the just transition in South Africa. This signalling was highlighted as being insufficient at present and interviewed financial eco system players requested that the government increase its communications as soon as possible and increase clarity and certainty regarding its expectation of the private sector in relation to just transition financing (Martens 2021). In an Investors Roadmap for the UK (2020) it is argued that the rationale for investors in the private sector to focus on the just transition relates not just to 'doing the right thing' but that it is the smart thing to do from a commercial perspective. The rationale for investors to focus on the just transition includes: the need to manage systemic risk, the fiduciary responsibility of boards, material value drivers as well as opportunities to generate positive impacts. There are five proposed areas of activity the private sector can initiate to begin actioning the just transition.

The first is for investors to formally incorporate the just transition into their investment strategies. Such inclusion will signal that the institution understands the social dimension of climate action and is prepared to mainstream support activity rather than deal with it as a niche add on. To enable financial institutions to make such changes to their investment strategies international and national standards for environmental and social performance are required as well as the need for providers of sustainability to rating to provide appropriate enabling products. Interviews with local financial eco system players highlight the fact that to date just transition activity is viewed as a niche activity and those internal systems, frameworks and incentives do not support increased investment in this area.

The second suggested activity for private sector financial institutions to undertake to support just transition activity and funding is to increase corporate engagement with the companies they invest in. Conversations with such companies need to progress the move to bring all portfolio companies into line with Paris Agreement requirements as well as engagement on social dimensions of climate action. Financial institutions are perfectly positioned to raise these issues with real economy corporates but such engagement will only progress from adoption of the idea to application and action if performance indicators can be agreed, measured and compared. This intervention has proved highly effective in the climate finance space where financial intermediaries require companies they invest in to disclose emissions and then agree to decrease such values.

The third and most impactful action the private sector can take in support of the just transition relates to a financial institutions allocation of capital. Investors can shift their allocation of capital to specific assets aligned with the just transition such as building a thriving just transition bond market at a national (and especially) local level. Institutions may also allocate capital in support of new and novel leveraging opportunities such as impact investment and blended finance and by creating new fit for purpose instruments, vehicles and mechanisms to deploy funds. In order to facilitate these flows the new business model development, capability support and incentive alignment organising activities of the public sector raised above need to be accelerated to provide certainty and clarity for asset allocation.

The fourth action the private sector can adopt to accelerate just transition fund mobilisation and deployment is to work with the national government, policy makers, regulators and financial authorities to create a strategic framework that will maximise incentives and opportunities for investors to shift their capital allocations. Policy advocacy and partnerships are thus crucial and could cover a multitude of dimensions including: macro and industrial policy, labour and environmental policy and public finance measures including mechanisms to incentivise investors, innovative options for funding sustainable infrastructure and funding of retraining and reskilling.

Finally and perhaps most importantly the roadmap to increased just transition funding is for the private financial eco-system to experiment at scale with good monitoring and evaluation and sharing these outcomes with other players in the private sector as well as the public sector. The idea of experimentation is highlighted in all just transition finance literature. This is because the just transition is such a new policy concept and a new area of financial activity. The National Treasury (2020) suggest that experimentation begin at a single project level, and then expanded to a transaction level and finally a portfolio level. Projects such as those identified in the Mpumalanga sample would offer a broad spectrum of innovative financing challenges and could be a start for such experimentation.

8. Conclusion

Ensuring the mobilisation of sufficient funds to finance the just transition in South Africa is one challenge. A second challenge is ensuring that the type of funding available is a match for the funding demand emanating from the real economy and especially vulnerable communities. As such the just transition financing challenge is both about the quantity and the quality of finance mobilised and deployed.

Due to restricted project and programming pipelines in South Africa the immediate just transition financing challenge relates more to the quality of finance rather than the quantity of finance⁹. This is an important distinction as it suggests the short term prioritisation of state interventions focused specifically on alignment issues between the financial instruments, mechanisms and services the existing financial eco system supplies (local and international) and on the ground demand of current (and planned) just transition projects and programmes.

Dealing with this misalignment will require a dual strategy. On the one hand innovation and development within the existing financial eco system can overcome the financing constraints of certain categories of just transition ambition projects. These high ticket price projects which are more conventionally structured and focus on reform rather than transformation, can be funded by the existing eco system and current behaviour, but new innovation and development (especially related to de-risking) can and will increase the volume of such projects being funded.

On the other hand projects with very high levels of just transition ambition which will result in structural change or even transformation change at a local level will require actual system level changes in the existing eco system. These changes will take time to occur and will fundamentally change how financial institutions relate to the real economy and government policy (especially in relation to social inclusion and the environment). It is hoped that over time a critical mass of place based high just transition ambition projects will create macroeconomic transformative change and being to drive down national unemployment, inequality and poverty indicators.

Policy makers will need to deal with both strategies simultaneously and must ensure that shorter term innovation and development interventions are consistent with and leverage the longer term more systemic changes required in the system itself. For this reason all short term actions must be carefully weighted and understood in terms of not only their immediate short term implications and consequences but their impact and influence on the long term agenda to mainstream just transition financing in the South African economy.

⁹ This will probably change over time.

A final concluding point to consider is that while a more granular understanding of on the ground financing needs of current and future just transition projects is emerging; the discourse of policy tool kit options remains very high level. Research in the near term will need to concentrate on developing a more granular and targeted set of policy tools.

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