



THREE POLICY RECOMMENDATIONS FOR BUILDING ROBUST CLIMATE CHANGE ADAPTATION MARKETS IN SOUTH AFRICA THROUGH SMMES

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Three policy recommendations for building robust climate change adaptation markets in South Africa through SMMEs

This policy brief links the significant potential of South Africa's SMMEs to drive the transition to a green and inclusive economy with the need for policy action. It looks at how to create an enabling ecosystem in which enterprises can start and scale their products and services. With lessons drawn from an 8-month policy prototyping labs cycle in South Africa and over fifteen years of enterprise support, the policy brief presents three recommendations for policymakers to improve SMMEs' access and contribution to climate change adaptation markets. These recommendations include (1) increasing availability of and access to market information, (2) creating support pipelines between public and private stakeholders, and (3) leveraging intermediaries as key contributors to the implementation and evaluation of market access policies.

AT THE CUSP OF A TRANSITION TO A GREEN AND INCLUSIVE ECONOMY

The transition to a green and inclusive economy in South Africa presents myriad opportunities to develop innovative climate-smart products and services, create quality jobs in green sectors, and integrate marginalised communities. As part of its commitment to the UN Sustainable Development Goals (SDGs), the First Nationally Determined Contribution (NDC) to the Paris Agreement, and Vision 2030, South Africa identifies (1) the reduction of inequality, poverty and unemployment, (2) a move toward clean energy, and (3) increased resilience of communities to climate change risks as cornerstones of this transition. These goals are interlinked: climate change most affects low-income communities, widening inequalities, reversing gains made in poverty reduction, and reducing their resilience to climate shocks.

With an unemployment rate of above 27%¹, a Gini coefficient of 0.63², and a strong reliance on coal for energy³, the transition to a more inclusive and green economy has not yet materialised. South Africa is particularly vulnerable to the effects of climate change. As such, **the development of robust climate change adaptation strategies through supporting communities to identify and**

mitigate their risks, investing in innovations in adaptation products and services, and encouraging the development of a market around these services is key to driving this transition.

The policy landscape relating to climate change adaptation strategies is evolving. The Department for Environment, Forestry and Fisheries (DEFF) is in the process of developing a **Climate Change Bill** that describes the national strategy for mitigating and adapting to climate change. This includes the identification of climate change risks at a local level, and development of strategies to address them. The **National Climate Change Adaptation Strategy** supports this Bill, and outlines a common reference point, priority areas, and indicators for achieving climate resilience and adaptation.

At the same time, policy makers in South Africa are developing policies and strategies to reduce inequality, improve employment rates, and eliminate poverty. Derived from the National Development Plan, these priorities are reflected in the **Draft National SME Accord**, developed by the Department of Small Business Development to coordinate and harmonise among small business policy initiatives and regulations, and to encourage further growth in the sector.

There is a policy opportunity to link across the upcoming National SME Accord, Climate Change Bill, and existing National Adaptation Strategy through investing in the role of eco-inclusive SMMEs to achieve implementation of these objectives. The growth of SMMEs is particularly important to building markets around adaptation efforts. SMMEs are well placed to support community identification of climate change risks, promote awareness of adaptation products and services, and build and replicate innovations in adaptation business models and technologies⁴. These characteristics make them fitting private sector actors in the implementation of objectives in the Climate Change Bill and National Adaptation Strategy.

[1] Statistics South Africa 2019: Youth graduate unemployment rate increases in Q1:2019. Pretoria: Statistics South Africa. Retrieved 01.10.19 at <http://www.statssa.gov.za/?p=12121>

[2] World Bank 2019: South Africa Overview. Retrieved 15.10.19 at <https://www.worldbank.org/en/country/southafrica/overview>

[3] Currently 59% of South Africa's energy comes from coal. Department of Energy 2018: 2018 South African Energy Sector Report. Pretoria: Department of Energy. Retrieved 01.10.19 at <http://www.energy.gov.za/files/media/explained/2018-South-African-Energy-Sector-Report.pdf>

[4] Montmasson-Clair, Gaylor, Shakespear Mudombi and Muhammed Patel 2019: Small business development in the climate change adaptation space in South Africa. Pretoria: TIPS. Retrieved 25.09.19 at <https://www.tips.org.za/research-archives/sustainable-growth/green-economy-2/item/3621-small-business-development-in-the-climate-change-adaptation-space-in-south-africa>

SMMEs AS DRIVERS OF THE TRANSITION

SMMEs are particularly well-suited to building inclusive climate change adaptation markets. By integrating marginalised communities along their value chain, and rapidly prototyping adaptation innovations⁵, SMMEs can ensure community involvement in risk identification, and that products and services respond to adaptation needs.

They cannot do it alone. The vision of an inclusive economy that mitigates climate change and is adapted and resilient to climate risks depends not only on SMMEs, but on an ecosystem of actors which supports them to grow. Through over fifteen years of supporting eco-inclusive SMMEs across the world, SEED has drawn insights on the advisory, financial and policy framework conditions that enable eco-inclusive enterprises to start and scale their solutions. The recommendations shared in this policy brief draw on learnings and conversations from the SEED Practitioner Labs for Policy Prototyping process in South Africa as well as the experiences of our SEED Award enterprise winners.

SEED Practitioner Labs for Policy Prototyping (PLPP). Over a multi-stage labs process, the SEED Practitioner Labs cultivate an ecosystem of actors and instruments to support environmentally sustainable and socially inclusive enterprises. The solutions co-created by policy makers, intermediaries and eco-inclusive enterprises address some of the major policy challenges faced by small and growing enterprises. They also serve to mobilise a community of public, private and financial sector actors around eco-inclusive enterprises in the transition to green and inclusive economies in South Africa and beyond.

UNLOCKING MARKET ACCESS AS AN IMPORTANT FACTOR FOR SMME GROWTH

Across sectors and geographies we can distinguish common key success factors to scaling an enterprise. These include the development of business skills, supportive regulatory environments, access to appropriate and accessible finance – and access to markets. **Access to consumer markets, corporate supply chains, and public procurement⁶ is integral to the growth of an enterprise.** SMMEs that are trying to scale their product or service,

however, face disadvantages in economies of scale when compared to large businesses, which can provide products and services at lower costs and through more established distribution channels, and therefore have a more ready access to markets.

In a recent survey of South African SMMEs, 85% said that they need assistance to access markets, of which 52% require 'a lot of assistance', indicating that an inability to access markets constitutes a major barrier to growth⁷. Policy makers have an interest in supporting SMMEs to access these markets. SMMEs often offer innovations in products and services that are not currently available on the market, and bring their solutions to last mile markets not served by existing distribution channels.

ADDITIONAL CHALLENGES RELATED TO ACCESSING CLIMATE CHANGE ADAPTATION MARKETS

The difficulty an SMME faces in accessing markets is further complicated when the **market responds to new demands or needs**, and where there is **increased uncertainty regarding market size, demand, and pathways to scale**. These additional challenges are present in adaptation markets, where there is less information about current and future market size and demand, low awareness within the market about these products and services, and fewer tested business models and scaling pathways.

Several SMMEs, however, are taking on the challenge of developing innovative products and services for these nascent markets. One such enterprise is the 2019 SEED South Africa Climate Adaptation award winner BN Aqua Solutions (see box). Enterprises that are developing innovative products for nascent markets can be supported through policy initiatives that provide information on the market for these products, on how to access relevant public procurement programmes, and on how to tap into competitive consumer markets.

The following recommendations highlight how implementers of these strategies can leverage the potential of SMMEs active in climate adaptation through improving their access to climate adaptation markets.

[5] Ibid

[6] In 2014, public procurement spending in South Africa represented 29% of South Africa's GDP. Turley, Laura, and Oshani Perera 2014: Implementing Sustainable Public Procurement in South Africa : Where to start. Manitoba: International Institute for Sustainable Development. Retrieved 26.09.19 at https://www.iisd.org/sites/default/files/publications/implementing_spp_south_africa.pdf

[7] SME South Africa 2018: An Assessment of South Africa's SME landscape. Retrieved 25.09.19 at <https://www.smesouthafrica.co.za/sme-landscape-report-2018/>. p. 8



Case Study

Providing innovative water solutions through treatment - BN Aqua

BN Aqua is a small and growing acid mine drainage treatment enterprise. BN Aqua's product prototype uses a metallurgical waste product to treat acidic water to potable stage for human consumption. The treated acid mine water is then sold to mines to save on drinking water costs and reduces dependency on water resources from the municipalities. This innovative process will lead to pollution remediation of the waste material and recover saleable minerals while increasing South Africa's drinking water capacity and contributing to climate change adaptation.

Linking small business activity to South Africa's National Climate Change Adaptation Strategy (NCCAS). BN Aqua's prototype links directly to the objectives outlined in the

Draft National Climate Change Adaptation Strategy by providing technology that can support best practice in the sector for adaptation efforts. Under NCCAS Strategic Intervention 1, which considers building resilience and adaptive capacity, Action 1.1.17 aims to develop guidelines for environmentally responsible mining practices, with the aim of 'ensuring mine operations as well as mine closures consider surrounding ecosystems that will help to build resilience to climate change'⁸. By encouraging the treatment of waste water at mines and reducing mine dependency on municipal water services, BN Aqua's solution reduces the vulnerability of the sector to climate change, and builds resilience in surrounding communities through increased drinking water capacity.

Reduce human and economic vulnerability, ensure resilience of physical capital and ecological infrastructure and build adaptive capacity
(Strategic Intervention 1)

Develop guidelines on environmentally responsible mining practices that promote climate adaptation
(Action 1.1.17)

Translation of guidelines for climate adaptation to implementation through innovative products and services
(Potential Implementation)

[8] Department of Environmental Affairs 2019: Draft National Climate Change Adaptation Strategy. Pretoria: Department of Environmental Affairs. Retrieved 1.10.19 at https://www.gov.za/sites/default/files/gcis_document/201905/42446gon644.pdf. p. 12



Struggles of a small enterprise within the adaptation sector

While doing extensive market research, conducting interviews and gaining knowledge about the needs of mining companies, BN Aqua realised that mines are reluctant to engage with small enterprises with innovative ideas. In this case, limited access to corporate supply chains has been a central issue in accessing the market for the B2B product.

“It’s difficult to crack big industries, it takes time. I’ve grown to accept that it takes time but once it takes off, it will

BN Aqua founder Boitumelo Nkatlo is persistent and believes in his enterprise. He is planning on building a smaller plant which can easily be transported to the mine’s facilities to serve as a demonstration, as “people believe in what they see.”

Partnerships key to unlocking market access challenges

Since access to markets is difficult, Nkatlo relies on networks and partnerships to increase confidence in the prototype and further develop the solution. The development of a good quality prototype, supported by the Council for Scientific and Industrial Research (CSIR), and the support of the University of Johannesburg has increased BN Aqua’s chance of success. BN Aqua is also a winner of the 2019 SEED South Africa Climate Adaptation Awards

The business is currently applying for additional funding and seeking partnerships for further testing in different geographical areas to understand the differences for the treating process and to evaluate the impact of the enterprise.



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Recommendation 1: Increase (accessibility of) information on market demand

Increased activity in adaptation to climate change, including exploiting opportunities that arise from the changes as well as adapting to new environmental conditions will result in new markets. **Information on the current and expected market size** and demand can support enterprises to understand their potential target market and opportunities to scale their product.

Rationale

Access to information on market demand and size reduces the costs of undertaking a feasibility study in a nascent market and mitigates risks in scaling. It also helps the enterprise to identify gaps in supply to meet the demand, leading to business model and product/service innovations.

Notes on implementation

- Policy makers can play a role in coordinating the collection and dissemination of market information for adaptation-related activities.
- The information collated can be organised so that it is accessible to enterprises. This can be through the use of a light online platform, organised along value chain activities so that enterprises can evaluate the costs and benefits at each stage.
- The information can come from (larger) private actors as well from research organisations and universities, government programmes, municipal and national level statistics, and enterprises themselves.
- Sustainable public procurement guidelines can align with preferential procurement to include both BBBEE procurement and favour the green economy.
- Information could include the number of communities at risk to different effects of climate change - for example information from the National Climate Change Information System (CCIS) and in the National Adaptation Strategy, case studies from other SMMEs and corporate programmes that are currently addressing the risk, and links to existing studies on the topic.

- Information should be targeted specifically by market - ie. information specific to Water and Sanitation, and can therefore be more readily taken on by the relevant Department.

Organise information by value chain activity. As part of the SEED PLPP, the Department of Environment, Forestry and Fisheries developed a solution to incentivise activity in the biomass to energy sector through the coupling of value chain information with a policy navigator. The information is designed to be accessed according to specific sector and value chain activity, with the understanding that SMMEs may start at a particular point in the value chain and may also assess opportunities for vertical expansion along the value chain.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

[9] National Climate Change Information System accessible at <https://ccis.environment.gov.za/#/>

Recommendation 2: Create and reinforce pipelines between public and private support

Existing public and private market access programmes for SMMEs, supported by corporate incubators, government and intermediaries, can be leveraged to support enterprises to scale. Often, a lack of coordination between these support programmes lead to a valley of death, in which businesses experience a gap in support between the pilot and scaling stage of their enterprise.

Equipped with an oversight of the sector and support programmes, **policy makers can build pipelines between public and private support programmes, and fill gaps** where support is needed.

Rationale

Different stages of business growth require different support needs - varying types and amounts of funding, mentors, and different markets. At an early pilot stage, businesses need to test their product or service with a core target market to gather feedback and develop a viable product. When scaling, enterprises need to tap into larger distribution channels, supply chains (B2B), and consumer markets (B2C). They might want to diversify their offerings, segment their markets to cross-subsidise or meet a variety of needs through extending their product line. Various support programmes can therefore be pieced together to support an enterprise along its path and ensure transition between programmes.

Notes on implementation

- Use intermediaries to connect support programmes with enterprises. These can include incubators, accelerators, mentorship networks, funders, or research organisations. Intermediaries can also identify the stage and needs of an enterprise to help direct them to the correct support programme.
- For high priority sectors, policy makers in cooperation with intermediaries could design an individual support programme for eligible enterprises to support them to scale their innovation and integrate mentorship and networking support along the way.
- One size does not fit all. Needs of a business depend on its stage, sector, type of product and size. Existing programmes could therefore be adapted to ensure that businesses in adaptation markets access the support they need from public and private stakeholders, whether it is in climate smart agriculture insurance, climate proofing water and sanitation systems, or related to another adaptation activity.
- Public and private stakeholders can work together to bundle demand or put offtake agreements in place for participants of a support programme to connect them directly to markets.

Target the support. Noticing a gap in the support of enterprises in the water and sanitation sector and particularly in new generation sanitation technologies, TIPS developed a prototype to create individualised targeted support to enterprises operating in the sector. If implemented, enterprises would submit an application following a discussion of their eligibility, and then a public-private convenor would design a support programme based on existing initiatives that develops a smooth pipeline and support to scale.



Recommendation 3: Leverage intermediaries as contributors to the implementation and evaluation of policies and adaptation strategies

The integration of enterprise voices into policy design and implementation helps to ensure that programmes and policies are targeted and accessible to their target group. Regular communication with multiple enterprises, however, is difficult for policy makers who often have limited time and resources. Instead, policy makers can leverage the experience and expertise of intermediaries, who can provide insight into enterprise challenges in accessing markets in adaptation-related sectors, and can help to connect enterprises to the appropriate support.

Rationale

Intermediaries can leverage the expertise of working with multiple businesses and a familiarity with the kinds of challenges they face when accessing markets, and share that information with policy makers. Intermediaries can also facilitate relevant and timely feedback from relevant enterprises through their networks. Furthermore, intermediaries can bridge the gap between the policy environment and small business environment by linking the activities of small businesses to National Adaptation Strategies.

Notes on implementation

- Link the activities of SMMEs to national development goals through alignment of intermediary objectives and target groups with policy strategies. This would work towards better identifying the role of SMMEs in achievement of the strategies and aligning indicators to measure success.
- Ensure the link between climate adaptation markets and the need for a just transition, where green sectors are supported to create opportunities and jobs. Intermediaries can be leveraged to support identification of opportunities for marginalised communities and to work with policy makers to ensure framework conditions are in place to ensure that support programmes are targeted to enterprises creating green and inclusive jobs.
- Encourage feedback loops between intermediaries, enterprises and policy makers in monitoring and evaluation systems, to encourage mutual knowledge transfer on market awareness, demand, and market opportunities.

- Use intermediaries to monitor the implementation and accessibility of policy programmes to SMMEs. Public procurement procedures for example could be developed in coordination with intermediaries, who can provide feedback on the accessibility to enterprises and can then connect relevant enterprises to the opportunity.
- Use intermediaries to share best practices in supporting market access across sectors and geographies at local, national and international levels.

Develop mechanisms for continued collaboration.

The South Africa Renewable Energy Incubator (Sarebi) designed a thought group through the SEED PLPP to encourage feedback and information sharing between intermediaries and policy makers on the topic of job absorption by green sector SMMEs. The thought group is designed to ensure that market information is shared with policy makers to target policy initiatives to the specific needs of enterprises in green economy sectors. The proposed thought group aims to align understandings of the role of SMMEs in achieving national development goals, and to coordinate and target support to enterprises to facilitate their growth. This also links climate adaptation entrepreneurship to the need for a just transition, through enabling SMMEs to create quality job opportunities outside of traditional industries.



Connect with the ecosystem. SEED acts as an intermediary to connect financial institutions, policy makers, business development support providers, enterprises and other intermediaries to build an enabling environment for enterprises to build and scale their inclusive and climate-smart products and services. Join us at upcoming SEED events at <https://seed.uno/meet-us>



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