

# EXECUTIVE SUMMARY 2018

A study on the potential  
private sector investment  
priorities that support  
South Africa's climate  
change outcomes



RENMERE



## ABOUT THIS STUDY

The Green Climate Fund (GCF)<sup>1</sup> aims to mobilise private sector investment at scale in activities that are central to a developing country's climate change objectives. The GCF has a dedicated Facility that seeks to engage the private sector in financing climate related interventions,

The GCF's Private Sector Facility (PSF) aims to address barriers to private sector investment in adaptation and mitigation activities. The PSF is mandated by the GCF's Governing Instrument to support GCF's goals in a country-driven manner, especially by promoting the participation of local actors, including small- and medium-sized enterprises and local financial intermediaries. The Governing Instrument also mandates a focus on activities to enable private sector involvement in Least Developed Countries and Small Island Developing States.

The purpose of the study was to scope potential innovative, high-impact interventions, programmes and/or projects relevant to South Africa's Nationally Determined Contribution (NDC) and for which:

- private sector investment is most accessible and
- GCF funding support is an essential catalyst for leveraging additional finance.

The Southern Africa Climate Finance Partnership commissioned this independent study to support the Government of South Africa's conceptualisation of their GCF country programming and to advance business unusual thinking within South Africa.

Audiences who will find the full study of particular value include investors considering their green economy portfolios' alignment with public policy, entrepreneurs assessing green economy opportunities and public sector officials interfacing with the private sector actors who are seeking to contribute towards South Africa's growing green economy.

The full study is available online at the following link: <http://renmere.co.za/a-study-on-the-potential-private-sector-investment-priorities-that-support-south-africas-climate-change-outcomes/>

## National context and climate change response

The Global Risks Report 2018<sup>2</sup>, identifies 'extreme weather events', 'natural disasters' and 'failure of climate-change mitigation and adaptation' as three of the five global risks with the highest impact on the global economy.

While climate change affects all sectors of the South African economy and society, it is the poor who remain the most vulnerable in terms of extreme weather events, (such as droughts and floods), water scarcity and food security.

South Africa, with its resource-weighted economy, is still heavily reliant on coal-based energy generation, which means that the country continues to be a major emitter of global greenhouse gases (GHG), with emissions that are 43 percent higher than the global average.<sup>3</sup>

The energy sector is the single largest contributor to the country's total GHG emissions (81.7% in 2012). Despite the significant increase in renewable energy to the national energy mix from 2000 to 2012, the overall carbon intensity of the national energy system remained fairly constant.<sup>4</sup>



National Government, South Africa

1 [www.greenclimate.fund](http://www.greenclimate.fund)

2 World Economic Forum, Global Risks Report, 2018

3 <https://www.giz.de/en/worldwide/17807.html>

4 DEA, Tracking South Africa's Nationally Determined Contributions, 2017



## KEY MESSAGES

The South African government has committed to its shared responsibility for responding to climate change, through the ratification of the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement. In terms of South Africa's Nationally Determined Contributions, South Africa has committed to a GHG emission trajectory that peaks between 2020 and 2025, plateau for approximately a decade (until 2035) and begin declining in absolute terms thereafter.

There is an urgent need to respond decisively and timeously to the impacts of (i) historic and future GHG emissions through sustained reduction efforts and (ii) building resilience to the impacts of climate change, whilst simultaneously growing the South African economy, reducing unemployment, poverty and income inequality.

South Africa has taken important steps towards implementing its national climate policy and has played a leading role in international climate negotiations<sup>3</sup>.

The Department of Environmental Affairs (DEA), other key national government departments and implementation partners (local and international) are intensifying their efforts towards the development, implementation and scaling-up of climate action in their respective sectors, through the Priority Climate Change Flagship Programmes.

- 1 "The Priority [Climate Change] Flagship Programmes are South Africa's response to implementing climate action at scale and provide the greatest opportunity for attracting, mobilising and leveraging investment from both the private and public sectors towards South Africa's Nationally Determined Contribution" (DEA, 2018).
- 2 However, some of the key challenges that need to be addressed in implementing these programmes, include:
  - 2.1. The development of robust programme level governance structures and the bolstering of climate change monitoring and evaluation.
  - 2.2. The need for a greater level of coordination and rigour in the development of concrete and detailed business plans for the implementation of national-scale climate action.
  - 2.3. Strengthening the institutional mechanisms for funding the Climate Change Flagship Programmes.
- 3 The private sector's role in addressing the impacts of climate change should move beyond marketing or corporate social responsibility. The investment case for engaging with climate change and the SDGs is now more compelling than ever and those corporates who lead the way, have a greater chance of success.
- 4 The level of engagement and partnerships between government, the private sector (industry and financiers), academia and civil society should be intensified in order to find innovative solutions to persistent barriers (policy/regulatory, financial, capacity and market) that are preventing large scale private sector investment into projects that support South Africa's NDC.



Bruce Sutherland, City of Cape Town

## Priority investment areas for the private sector in support of South Africa's NDC

The government's Climate Change Priority Flagship Programmes were used as the logical starting point for identifying potential high-impact investments or projects for mobilising and scaling private sector finance in support of South Africa's NDC.

Consideration was given to government-led climate actions as well as literature related to the private sector's climate change response and opportunities, such as the work done by organisations such as the National Business Initiative related to the green economy and the water sector and the Greencape's analysis of the energy efficiency, water and waste sectors.

An initial list of five sectors and 15 priority investment areas (projects /interventions) for the private sector was identified, based on a subjective evaluation of the following factors:

- Potential socio-economic development impact;
- Private sector investment drivers, such as, Revenue and/ cashflow potential, public sector support (co-financing/ incentives);
- Relative maturity of the sector or sub-sector and/or relative readiness to scale, in terms of:
  - Enabling environment and/or potential for reasonable progress towards an enabling environment;
  - Existing and/or emerging technologies, business models; and/or financing solutions.
- High-level fit in terms of the GCF investment criteria and results areas; and
- Potential for using de-risking financial instruments to catalyse the investment.

The prioritised sectors and related projects for mobilising and scaling private sector funding are shown in the adjacent table.

It is acknowledged that other sectors, not included in the adjacent list, may well offer significant potential for private sector investment, for example the transport sector. The author also recognises the interconnectedness between sectors with respect to cross-cutting climate action, for example building low-carbon climate resilient cities, require integration across multiple sectors, such as energy (renewable energy and energy efficiency), waste, water and sustainable transport systems and infrastructure, amongst other.



## KEY MESSAGES

- 5 The analysis provides a preliminary base for a comprehensive evaluation of each of the private sector opportunities. This will ultimately inform the prioritisation of the short-listed projects for implementation and GCF funding support.
- 6 In order to build on the findings of this study, additional work is required in order to:
  - 6.1. Develop a deeper understanding of the evolving business models and innovative financing mechanisms being explored and developed within the identified priority investment areas. This may take the form of detailed case studies.
  - 6.2. Evaluate the effectiveness of existing partnerships and engagement between sector-based government departments and the private-sector developers and financiers, with a view to strengthening existing arrangement and/or establishing new commitments on the scaling of low carbon, climate resilient investments in the priority sectors.
  - 6.3. Evaluate the effectiveness of the GCF readiness preparatory support programmes in strengthening the National Designated Authority (DEA) and regional, national and local entities, to oversee and implement climate change projects and related climate finance in the priority investment areas.
  - 6.4. Evaluate the effectiveness of existing project preparation support programmes and address issues related to lack of capacity and skill development and transfer. One of the key issues is that the existing support programmes fail to address the long-term nature of skills development and skills transfer.
  - 6.5. Assess local options for simplifying and speeding-up access to GCF funding in the priority investment areas, specifically enhancing the role of the four major commercial banks in supporting South Africa's NDC

| Sector                                                               | Subsector/ sub-category                                                                      | Projects / Investment Areas                                                                                                                                                       |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Energy                                                               | Energy Efficiency                                                                            | Energy Efficiency in Public Infrastructure and Buildings                                                                                                                          |
|                                                                      |                                                                                              | Energy Efficiency Private sector (industrial/commercial) and Households                                                                                                           |
|                                                                      | Energy Generation                                                                            | Small Scale Embedded Generation                                                                                                                                                   |
|                                                                      |                                                                                              | Renewable energy based on Non-sovereign-backed Power Purchase Agreements                                                                                                          |
| Waste                                                                | Waste to Energy                                                                              | Waste to Energy (Biogas/Incineration)                                                                                                                                             |
|                                                                      | Waste Diversion/recycling                                                                    | Diversion of solid waste from Landfill / Material Separation Facilities/at source                                                                                                 |
| Water                                                                | Water resource development                                                                   | Renewable Energy desalination plants (seawater, brackish water/other)                                                                                                             |
|                                                                      | Water infrastructure operations, maintenance and rehabilitation                              | Public Private Partnership (PPP) to rehabilitate, operate and maintain public water infrastructure                                                                                |
|                                                                      | Water Harvesting                                                                             | Commercial/Industrial water harvesting                                                                                                                                            |
|                                                                      | Wastewater treatment and Wastewater to energy                                                | Industrial water reuse, recycling and recovery                                                                                                                                    |
|                                                                      |                                                                                              | Wastewater Biogas to electricity                                                                                                                                                  |
| Agriculture, Food Systems and Food Security                          | Climate Smart Agriculture (incorporating weather, water, seeds/varieties, nutrients/markets) | Conservation Agriculture (Climate Smart Agriculture)                                                                                                                              |
|                                                                      |                                                                                              | Controlled Environment Agriculture/Precision Agriculture (Greentech/ICT solutions) (Energy Efficiency/Renewables (Irrigation, Packhouses, cold stores/cellars) (Water Efficiency) |
|                                                                      | Agri-Processing, productions and related foods systems                                       | Agri-parks (agri-production and agri-processing) and Special Economic Zones (SEZ) for Greentech                                                                                   |
| Low Carbon Climate Resilient Built Environment and Human Settlements | Green buildings / Human settlements / Infrastructure                                         | Green buildings for social, low-income housing (RE/EE, Water and Waste Management, sustainable building materials).                                                               |

## Innovative climate finance mechanisms for catalysing private sector funding

The importance of private sector funding in achieving national climate change response actions is recognised in the National Climate Change Response Policy (NCCRP). However, appropriate and innovative climate finance mechanisms are required to catalyse and scale private sector finance for low-carbon climate-resilient development.

A review of selected innovative climate finance mechanisms and/or concepts, has revealed the following emerging themes:

- Use of market aggregator mechanism to create scale, pool risk, reduce costs and improve project viability.
- Funding solutions that address the upfront infrastructure finance gap, by introducing credit-worthy third-party owners and or operators of infrastructure who, in turn, enter into long-term contracts with end-users.
- Risk transfer / reduction through the use of guarantees or appropriate risk allocation between the parties, which improves the risk-return profile of the investment and encourages private sector to invest.
- Blending of finance using a phased approach that apply concessional finance to initial, more risky pilot projects, with scaled-up, follow-on investments that target commercial co-finance from private sector, once the concept is proven.
- Use of technology to drive operational efficiencies and improve viability of investments.
- Introduction of financial and non-financial incentives (e.g. training, access to networks or experience) to stimulate investment into alternative low-carbon investment options.

## Options for targeting standalone climate projects that seek private sector investment

The following are some high-level options for targeting large standalone climate change projects involving the private sector:

- Establish a South African Climate Finance Lab, similar to the Brazil Lab or India Lab, which serves as a mechanism for identifying and incubating standalone high-impact, transformative projects.
- Request for proposals (RFP) by local Accredited Entities (AE) and the major local commercial banks in partnership with AEs, with targeted funding windows, based on either (i) specific GCF results areas (ii) type of funding support required based on stage/maturity of project.
- Sustained capacity building with respect to project development, project finance and project implementation, especially at the sub-national level (municipalities, local project developers and financial institutions), including enabling environment support, policy advocacy and technical assistance including understanding the role of Executing Entities under the GCF.
- Incentives for commercial banks to innovate and scale funding for specific sector-based green projects (e.g. Energy Efficiency, Climate Smart Agriculture, Green Buildings, Social Sustainable Housing), through co-finance and/or outcomes-based grants and highly concessional loans for a specified period to support the building of the respective markets.



## KEY MESSAGES

- 7 Blended finance has a potentially significant role to play in crowding in private sector finance at scale, especially in respect of low-carbon infrastructure projects (such as water infrastructure) or nascent green-tech industries where there is a need to support the development of new low-carbon markets or technologies.
- 8 Green bonds offer a significant opportunity (especially at provincial and municipal level) to mobilise large amounts of private capital earmarked for low-carbon, climate resilient investments. The global green bond market is expected to grow exponentially as governments, cities, municipalities and large corporates seek funding to meet climate change commitments and SDG.
- 9 Green performance-based grant funds (outcomes-based grant funds) could offer private sector institutional investors the opportunity to increase investment in green Small Medium and Micro-Enterprises (SMMEs), by paying for pre-agreed green outcomes, such as (amongst others) green job creation, climate change mitigation and improved water and waste management, subject to matching private sector funding from these private sector institutional investors. An evolution of this performance-based model, could see grants being replaced by concessional or blended finance instruments.



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