



FINANCING CLIMATE CHANGE



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



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Foreword

From 3 to 6 March 2009, South Africans from all spheres of life came together for the national Climate Change Summit 2009 in Midrand to initiate a consultative process to develop the South African Climate Change Response Policy. Although the Summit yielded wide-ranging consensus on a number of proposed climate change responses, it also identified various areas of divergence that required further discussion. With this, the Summit agreed, amongst others, that the National Climate Change Response Policy will be developed through a participatory, multi-stakeholder, consultative and iterative process and that issues raised during the Climate Change Summit 2009 must be addressed in a transparent manner and fed into the policy development process.

During the participatory, multi-stakeholder, consultative and iterative policy development process initiated at the Summit, certain specific issues appeared to be raised again and again in various policy development stakeholder engagements. These recurring areas of concern and/or uncertainty included: Climate Finance; Human Resources and Technology; Adaptation; Mitigation; and Governance.

In keeping with the Summit decisions and with a view to informing and enriching the debates around these issues, the Department of Environmental Affairs commissioned focussed research into these focus areas and used the findings of this research to focus and inform discussions in key stakeholder workshops on each of the topics in February and March 2011.

Although the independent research and findings contained in this publication do not necessarily represent the views, opinions and/or position of Government, the department believes that this research is an important addition to the evolving climate change discourse. Hence, the department is happy to make this work publicly available and accessible.

With this, I would like to thank everyone who contributed to the research papers presented in this book as well as everyone who contributed to the various stakeholder workshops on the topics covered by this research.

Finally, I would also like to thank our German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) partners and their local agent, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), for their generous support for this research and its publication.

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Abbreviations

BFI	Bilateral Funding Institution	IPCC	Intergovernmental Panel on Climate Change
BIG	Business Innovations Group (Pty) Ltd.	JSE	Johannesburg Stock Exchange
BUSA	Business Unity South Africa	LDC	Least Developed Country
CDM	Clean Development Mechanism	MRV	Monitoring, Reporting and Verification
CSIR	Council for Scientific and Industrial Research	Mt	Megatonnes
COP	Conference of the Parties	NBI	National Business Initiative
DBSA	Development Bank of Southern Africa	NGO	Nongovernmental Organisation
DEA	Department of Environmental Affairs	NPC	National Planning Commission
DFI	Development Finance Institution	ODA	Official Development Assistance
DNA	Development Network Africa	R&D	Research and development
DPE	Department of Public Enterprises	SADC	Southern African Development Community
DTI	Department of Trade and Industry	SANBI	South African National Biodiversity Institute
ERC	Energy Research Centre	SARi	Southern African Renewables Initiative
GCF	Green Climate Fund	SSA	Sub-Saharan Africa
GDP	Gross Domestic Product	UCT	University of Cape Town
GEF	Global Environment Fund	UN	United Nations
GHG	Greenhouse Gas	UNEP-FI	United Nations Environment Programme Finance Initiative
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	UNFCCC	United Nations Framework Convention on Climate Change
GW	Gigawatts	US\$	US Dollars
IDC	International Development Cooperation		
IPAP	Industrial Policy Action Plan		

Summary

This report, prepared by the Development Bank of Southern Africa (DBSA), synthesizes research that was conducted in order to strengthen the financing component of the National Climate Change Response White Paper. It is based on three separate studies. These included a desktop study of climate change research, a study on stakeholder engagements, and institutional case studies that were specifically commissioned to develop a better understanding of the obstacles to and solutions for creating an enabling environment for accessing financing for climate related programmes and projects in Southern Africa. Building on these three studies, this synthesis report proposes an appropriate institutional model suited to South Africa for climate finance flows and provides broad policy recommendations for climate finance in general and specific recommendations for the White Paper. It concludes by referring to certain design considerations for a national climate finance mechanism, which may be considered by the Department of Environmental Affairs (DEA) subsequent to the drafting of the White Paper.

The sections below provide an overview of what is contained in the synthesis report.

Key research findings

Globally, the costs of transitioning to a climate resilient economy are staggering and will require significant financial resources. An estimated additional investment of 1 - 2.5% of global GDP per year will be required from 2010 - 2050 to transition to a green economy. While numerous international climate finance mechanisms have been established, these are highly fragmented. It is therefore important that domestic climate finance strategies be developed to augment these international mechanisms. Furthermore, it is clear that the traditional divide between mitigation and adaptation funding should be reconsidered in order to trigger innovative responses that are integrated with the national development agenda.

At a national level, it appears that climate change mitigation is beginning to feature in the strategies and governance practices of South African companies. While several financial institutions have begun to integrate environmental and climate considerations into their financing decisions and are considering new products, this has not yet been

fully mainstreamed into their risk and investment processes. In addition, there is currently limited evidence of adaptation strategies and no significant equity market activity in climate change and/or "green" investments. One of the main reasons for limited investment to date is policy uncertainties. In order to unlock private capital, private financial institutions are calling for development and public finance to provide pre-investment capital, enabling and integrated policy frameworks, risk sharing, and government direction on priority sectors.

Regarding the unlocking of development finance, South Africa has a well-established development finance system across the various tiers of government that could deliver on agreed outcomes for the mainstreaming of climate change into their development mandates and for catalysing climate related investments.

At present, several government climate finance and market-based interventions are emerging, such as the Treasury's Green Fund, the proposed carbon tax and the South African Renewables Initiative. However, these interventions are generally being independently developed in an uncoordinated manner, reducing the potential positive impact of a composite financing strategy geared towards transitioning to a low carbon and climate resilient economy. There is thus a need for a mechanism to coordinate climate finance flows nationally and internationally and to ensure that monitoring, reporting and verification is embedded therein. There is also a clear need for shared information platforms (such as access to credible scientific data and a climate finance portal) that can be used by key decision makers and investors to plan development interventions and response strategies.

The final key finding is that South Africa's climate response strategy should support the development of a climate resilient region. Regional climate programmes would enable SADC countries to co-invest in scalable and replicable climate response strategies that: i) reduce the vulnerability of the region to climate change; ii) create regional production capacity and demand for sustainable technologies; iii) build resilient regional infrastructure; and iv) develop integrated disaster management and response frameworks.

Policy considerations for climate change finance in South Africa

A number of broad policy recommendations are provided in the report. These include the following:

- *Building resilience to climate change requires a grand vision and alternative development path.* South Africa has already signalled a policy shift towards a green economy. Climate change creates an opportunity for an alternative development path upon which job creation, new economic activities, innovation, environmental planning, capacity and greater solidarity can be built. This will not be achieved through isolated and decoupled initiatives such as the traditional division between mitigation and adaptation actions.
- *Paradigm shifts are required in the design, planning and funding of the national development agenda.* The degree of change needed requires a visionary approach aimed at progressively transforming the current economic and social systems, including its patterns of production and consumption.
- *Setting course for a significantly transformed economy requires a sense of direction.* A comprehensive and bold climate financing strategy should be immediately conceptualised that transcends the traditional debates of development, mitigation or adaptation. The strategy should be based on a clear transition plan describing clear short, medium and long-term priority interventions and targets that address both mitigation and adaptation. Initially, government would need to play a dominant role in creating an enabling environment, with different stakeholders assuming increasingly prominent roles along the transition path over time, commensurate with their risk absorption levels.

Specific White Paper Recommendations

Based on the findings and broad recommendations, the report proposes an additional eleven recommendations to augment Section 8.1 contained in the National Climate Change Response Green Paper. These recommendations are worded in such a way that they could be directly incorporated into the White Paper. These additional points help provide a framework for future cooperation between government, the international community and the financial sector, which is essential for establishing a long-term and sustainable climate finance architecture for South Africa's transition to a climate resilient economy and society.

Conclusion

Based on the research conducted for this report, the DBSA research team has come up with certain design considerations for a national climate finance mechanism, which will be separately presented to the DEA. It is important that the design of this mechanism be flexible and adaptable, enabling a Fast Start option for South Africa's interventions. Such a mechanism should be located within a cohesive climate financing strategy for South Africa that addresses the transition costs of climate resilience and a greener growth path

I. Introduction

I.1 Scope of the research

The Development Bank of Southern Africa (DBSA) was commissioned by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Climate Change Support Programme in February 2011 to direct research relating to Climate Financing Models on behalf of the Department of Environmental Affairs (DEA). The research was conducted in order to strengthen the financing contributions of the National Climate Change Response Green Paper (referred to in the rest of the document as the “Green Paper”), specifically Chapter 8, Section 8.1 as part of the policy drafting process for the National Climate Change Response White Paper (referred to in the rest of the document as the “White Paper”) to be assessed by Cabinet during 2011.

The focus of the research is towards creating an enabling financing environment, whereby finance for climate related programmes and projects is broadly accessible when such funds are required. The research aimed to achieve the following:

- Perfect the diagnosis on the current hurdles that limit the financing of climate change related initiatives;
- Identify what solutions could be developed to overcome these difficulties to unlock investment in climate change and more broadly, green economy; and
- Identify an appropriate institutional model suited to South Africa for climate finance flows.

Section 2 of this report synthesises key findings of this research. It proposes policy wording under Section 3 titled ‘Financing for the Future – Policy Recommendations for the White Paper’. The report also highlights certain design considerations for a national climate finance mechanism in Section 4 (which may be considered by the DEA subsequent to the drafting of the White Paper).

A determination of the total funding requirements for climate change interventions based on the national climate priorities in South Africa was outside of the scope of this report. For the purpose of the research, the DBSA applied a working definition of climate finance to be a series of financial flows from developed to developing countries addressing mitigation and adaptation interventions, including carbon markets and official development assistance (ODA)

targeting climate change related impacts. In addition, the DBSA recognises the emerging climate finance subsets related to the financing of a green economy, including innovations such as green and climate bonds, climate insurance and investment guarantee instruments.

I.2 Research context

Climate change is a complex development issue

Recent natural disasters (e.g. Haiti, Japan and New Zealand) show the immense emergent social and humanitarian crisis, as vulnerable geographic regions in both developed and developing countries are subject to the ravages of nature. Developing economies are particularly constrained in their ability to adapt towards climate resilient economies due to existing developmental challenges of poverty alleviation and economic growth. This holds true for South Africa. The current Medium Term Strategic Framework 2014 and New Growth Path “places employment at the centre of government economic policy” (Cabinet statement, 2010) aiming for unemployment levels of 15% within the next ten years. Key growth sectors supported by Cabinet include “infrastructure through massive expansion of transport, energy, water, communications capacity and housing, underpinned by a strong focus on domestic industry to supply components for build programmes” as well as “the green economy with programmes in green energy, component manufacture and services” (Cabinet statement, 2010). The national growth agenda depends on global and regional economic developments, as developed economies slowly rebuild in the aftermath of the sub-prime crisis with a clear “green” agenda. South Africa and the Southern African Development Community (SADC) region will be charged with securing access to: i) incremental capital to fund the cost of transition from higher to lower carbon intensive industries; ii) appropriate technology transfer; iii) technical cooperation for skills development; and iv) strengthened institutional capacities. Given the added challenge that climate change poses to development, it is critical that government, private sector, civil society and development partners collaborate to effectively integrate climate risk into the national and regional development delivery agenda.

Investment in a climate resilient region will strengthen the adaptation efforts of individual countries

Sub-Saharan Africa (SSA) is widely acknowledged as being one of the regions of the world most vulnerable to climate change. The tentative development gains made in SSA are at risk of being undermined by rampant climate change through water scarcity, droughts, land degradation and poor air quality. For SSA and Africa at large, urgent investments in adaptation interventions are necessary to avert a growing humanitarian crisis. Thus, promoting regional investment in natural resources and integrating climate risk into the much needed infrastructure investment on the continent may ultimately reduce individual country vulnerabilities.

South Africa, in particular, as an economic force in the SADC region holds a duty of care to: i) contribute to and promote climate resilience to reduce the vulnerability of its neighbouring countries; ii) promote climate resilient infrastructure; and iii) foster regional development and integration in the context of the climate risks impacting the region.

Significant resources are needed for scaled up action

Significant and scaled up resources are needed for technology transfer, localisation, job creation and building climate resilience across all strata of the economy. Various estimates are available, with total global funding requirements ranging from US\$23-100 billion per year (UNFCCC, 2009). The Copenhagen Accord (UNFCCC, 2009) called upon developed countries to provide “new and incremental sources of funding for climate interventions to developing nations of US\$30 billion in the short term (2010 to 2012) (this is known as Fast Start Financing) and a longer term target to secure US\$100 billion per year by 2020” (UNFCCC, 2009). The Cancun Agreement (UNFCCC, 2010) operationalized this call by appointing a Transitional Committee to design a Global Green Climate Fund (GCF) to be established under the UNFCCC. The final design of the GCF will be presented at the Seventeenth Conference of the Parties (COP17) in Durban, South Africa, at the end of November 2011. Among the critical features of the GCF that the Transitional Committee has been engaging on during 2011 are: i) creating a balanced approach to mitigation and adaptation; and ii) direct access to support. An architecture for climate finance is emerging building on existing environmental funds, development assistance and

national budget systems. While the proliferation of new funds and mechanisms are positive acknowledgement of the need, the urgency to coordinate and develop coherent actions becomes equally apparent. Thus, a comprehensive climate finance package is required.

Financing package for climate resilience in South Africa requires a grand vision

Critical funding gaps exist despite international commitments and private sector innovation. Thus, the state has to play an important catalytic role through public finance and market-based mechanisms. The Green Paper acknowledges the critical role played by different stakeholders within the financial system to finance South Africa’s mitigation and adaptation response strategies. Further, the Green Paper identifies the need to mobilise significant international financing sources to support such interventions, since the South African economy is unable to bear the full transition cost towards achieving climate resilience.

In the South African context, National Treasury’s carbon tax proposal and the allocation of ZAR800 million in the 2011 Budget to fund “green economy” initiatives, are significant indications of future mainstreaming of climate resilience into the national budget frameworks. The private sector is deemed an important stakeholder in the financing of climate change interventions, evidenced by a number of new specialist venture capital, infrastructure and “clean funds” that have been rapidly emerging since 2007. Further, private and corporate philanthropic capital are directing funds towards project development, awareness building and adaptation projects.

International and local evidence shows that the financing package for climate resilience is by necessity a complex blend of capital required at different stages of intervention. Thus, a grand unifying approach whereby all stakeholders harness their resources to invest in the different dimensions and risk profiles of climate change is essential to deliver a positive impact and an urgent response.

An example of the emerging domestic climate finance landscape is the South African Renewables Initiative (SARI), championed initially by the Department of Public Enterprises (DPE) and Department of Trade and Industry (DTI). SARI emerged in recognition of the need for significant capital to unlock the economic potential inherent within a mass roll-out of renewable energy. Estimates indicate that at an annual incremental investment of US\$1.2 billion per

year would be required to achieve a target of 20GW of renewable energy by 2020 (SARi, 2011). While it is a positive initiative, it is limited in scope to renewable energy and needs to be contextualised within a suite of broader climate interventions and the national climate finance architecture.

Strong yet uncoordinated institutional frameworks

Qualitative evidence based on engagements with South African project developers and finance providers suggests that there are certain institutional, legal and regulatory hurdles to overcome to create an enabling investment environment for a coordinated climate change response. Further, in addition to funding shortages, there is also uncertainty regarding South Africa’s climate response priorities.

The Green Paper makes reference to the establishment of a National Climate Change Fund and a climate tracking facility in order to mobilise international financial resources for South Africa’s climate change interventions. Similar mechanisms have emerged in response to environmental investment needs in developed and developing countries such as Brazil (Amazon Fund) and Bangladesh (Multi-donor Climate Resilience Fund). Although South Africa has several strong development institutions, there appears to be a need for a clear climate investment strategy and resource mobilisation plan to assist in raising capital for the most urgent needs and establishing a platform to attract climate finance in future.

1.3 Research Methodology

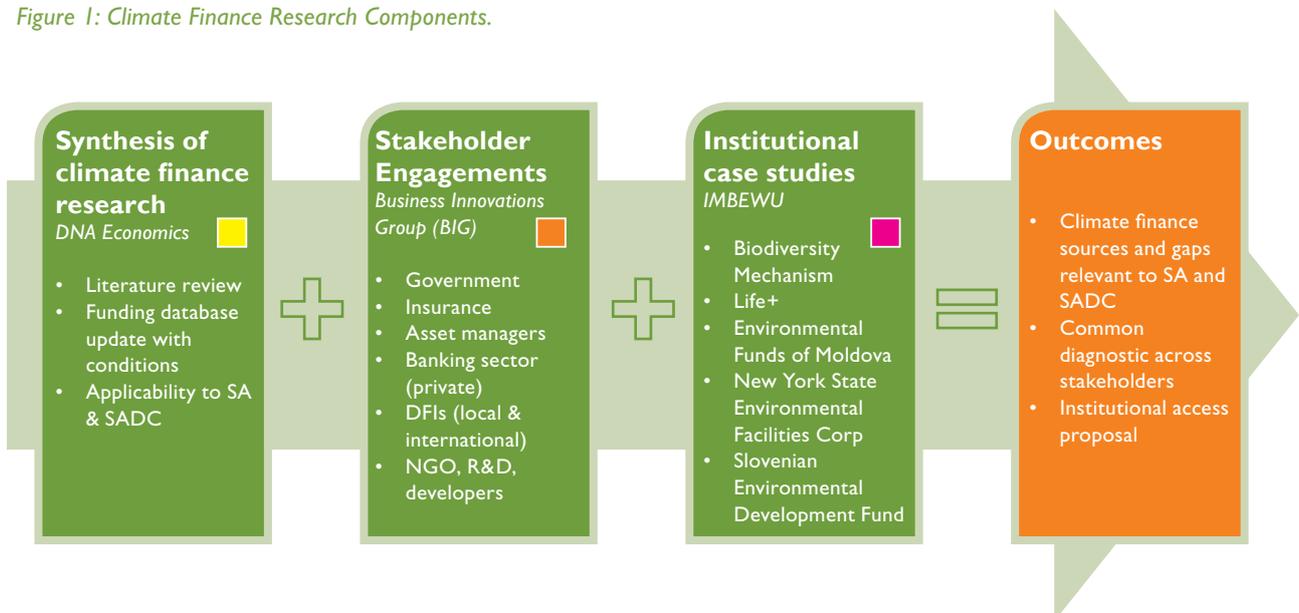
The intended outcome of the research was to determine the requirements for an enabling institutional environment that can support a sustainable climate finance model where mitigation and adaptation actions are funded over the long-term and where this funding is accessible in a timely manner to a broad range of stakeholders.

In order to address the aims articulated in Section 1.1, DBSA commissioned individual research teams to undertake a combination of desktop research, stakeholder engagements and institutional case studies, which focused on the following components:

- Emerging international and South Africa issues in climate finance that could influence South Africa’s fund mobilisation strategy;
- The role of different finance institutions in financing climate change related initiatives, in order to develop a diagnosis of the current hurdles inhibiting investment; and
- Existing national, regional and local institutional models relating to environmental and/or climate related activities, in order to determine global best practices in creating a national financing mechanism.

Individual research papers were prepared by Development Network Africa (DNA), Business Innovations Group (Pty) Ltd (BIG) and Imbewu Legal Sustainability (Pty) Ltd (Imbewu) for each of the research components, which, together, informed the intended outcomes of the research (see Figure 1). The key research findings have been synthesised in Section 2, and the resultant policy recommendations are outlined in Sections 3 and 4.

Figure 1: Climate Finance Research Components.



2. Key Research Findings

Based on the research conducted by the three teams mentioned in Section 1.3, there is a critical and urgent need for South Africa to create an enabling climate investment environment that can initiate and support the transition towards climate resilience and a green economy.

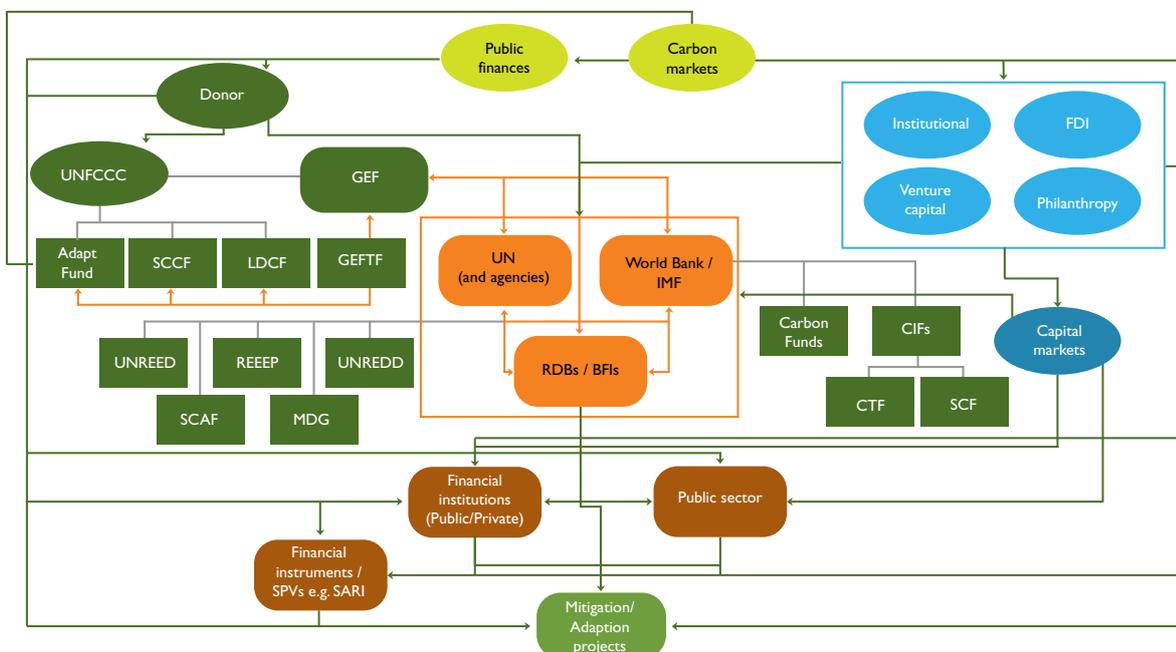
This section summarises the key findings of the individual research reports by DNA, BIG and Imbewu, which are included as appendices to this synthesis report.

2.1 The costs of transitioning to a climate resilient economy are staggering and will require significant financial resources. Utilising secondary research by UNEP-FI (2010), the estimated additional investments to transition to a green economy is in the range of 1 – 2.5% of global GDP per year from 2010 – 2050. According to the UNEP-FI report (ibid), significant investment is required in energy supply and efficiency, transport and buildings, as primary contributors of greenhouse gas emissions.

The UNFCCC (2009) estimates that developing countries will require U\$23 - 67 billion by 2030 to adapt to climate change. A complete estimate of the economic costs to mainstream climate change and green growth into the South African economy is not yet available.

2.2 The international climate finance landscape is fragmented across different institutions. Climate finance is being organised within an evolving and uncertain international institutional framework. The international climate finance architecture under the UNFCCC, UN agencies and multilateral banks has created several environmental and climate finance mechanisms, including the GCF, the Clean Development Mechanism (CDM), the Adaptation Fund, and the Global Environment Fund (GEF). Figure 2 illustrates the different channels for disbursing climate and environmental finance. Financial instruments accessible through the existing institutions include grants, commercial and concessionary loans, technical assistance

Figure 2: International climate finance landscape



Source: DNA Economics

Glossary: SCCF Special Climate Change Fund; LDCF Least Developed Countries Fund; GEF TF Global Environment Facility Technology Fund; UN REED United Nations Rural Enterprise Energy Development; REEEP Renewable Energy and Energy Efficiency Partnership; UN REDD Reducing Emissions from Deforestation and Forest Degradation; SCAF Seed Capital Assistance Facility; MDG Millenium Development Goal; SPV - Special Purpose Vehicle; SARI South African Renewables Initiative; CIF Climate Investment Fund; GTF Clean Technology Fund; SCF - Strategic Climate Fund; FD Foreign Direct Investment; RBI Regional Banking Institutions; BFI's Bilateral Finance Institutions; IMF International Monetary Fund

and grants utilised to channel climate finance and the disbursement rules are also rapidly evolving (DNA, 2011).

The need for convergence of and streamlining access to such facilities is becoming increasingly clear and important. The case for urgent rationalisation and/or linkage of climate finance interventions is further supported by the fact that each of the institutions in Figure 2 represents a unique set that includes, *inter alia*: i) qualifying criteria and conditionalities; ii) monitoring, reporting and verification criteria; and iii) either direct or indirect access to financial and/or technical support. The fragmented architecture reduces the potential effectiveness of the resources being made available and fails to recognise the ultimate beneficiaries, which operate at community and project level.

2.3 Emerging debates around climate finance add to uncertainty and complexity. A number of debates currently dominating climate finance include: i) allocation of resources between mitigation and adaptation; ii) additionality of climate finance in that the funds from developed countries to developing countries should be in addition to existing ODA pledges; iii) monitoring, reporting and verification requirements; and iv) the funding mechanisms and/or institutions through which climate finance is delivered. The ability of developing countries to effectively utilise these resources in their climate responses is largely dependent on how these debates are resolved within the UNFCCC and related structures. For example, the range of Fast Start Financing pledges from developed countries under new and additional scenarios varies between US\$8.2 billion and US\$31.2 billion (see Table 1). A globally effective climate response

requires a predictable and secure commitment of climate finance available to developing countries. It is very difficult for developing countries to plan and resource their climate response strategies effectively.

2.4 Climate finance instruments currently available favour mitigation activities, which highlights the need for a more balanced approach to both mitigation and adaptation. At present, the international climate finance frameworks distinguish between adaptation and mitigation finance. Adaptation activities are described as those that “reduce the vulnerability of natural and human systems against actual or expected climate change effects” (IPCC, 2007). Mitigation activities are those that provide technological advances and substitute current production methods in order to reduce emissions, specifically GHG emissions. Adaptation activities are regarded as more costly to finance and require primarily grant funding to commence, which is not a preferred climate financing instrument (Van Melle et al., 2011).

Evidence to date suggests that mitigation currently attracts higher levels of commitment from developed countries than adaptation. The primary climate finance instrument currently available is loans (61%) and of such loans, over 85% are assigned to mitigation activities (DNA, 2011). However, a comprehensive climate finance package requires additional instruments across a project life cycle to enable risk mitigation and unlock potential investment opportunities, such as guarantees, project development, institutional and technical capacity, green/climate bonds and investment risk insurance (DBSA, 2011).

Table 1: Fast Start Pledges in relation to different Financing Scenarios (Source: Fallasch and De Marez, 2010)

Scenario	Qualifying fund (US\$ billions)	Description
Scenario 1 - No agreed baseline for new and additional	31.2	Contributors have full discretion in defining eligible funding. Funding committed or budgeted prior to December 2009 is included. No restriction in terms of including ODA funds
Scenario 2 - Pledged funding prior to COP15 the baseline for new and additional funds	17.8	Contributions to CIFs, GEF, bilateral initiatives not included
Scenario 3 - Funds must be new and additional to ODA	8.2	Only funding not part of official ODA is eligible

Similarly, Fast Start Financing pledges committed by developed countries to least developed countries (LDCs) by the end of 2010 reveals that 48% of funds were committed to mitigation activities, while only 29% were committed to adaptation activities (DNA, 2011). The uneven distribution between resources made available for mitigation and adaptation activities fails to recognise that the impacts of climate change require differentiated approaches at country level. For example, financing to mainstream adaptation into the development paths of African countries is a priority given the continent's extreme vulnerability to climate change.

2.5 South Africa has to develop a strong, agile and resilient domestic financial sector that is increasingly aware of climate change and able to support investment in South Africa's climate change response through financial innovation. Evidence from the 2010 Carbon Disclosure Report led by the National Business Initiative indicates that 74% of South Africa's Top 100 JSE listed companies have disclosed their carbon reduction strategies, particularly carbon emissions and energy efficiency interventions (BIG, 2011). The high level of participation is acknowledgement that the top companies in South Africa recognise that climate change requires a shift in their business models. South African companies are also showing evidence of partnerships and the integration of climate governance practices into their business models. Although there is currently limited evidence of adaptation strategies and no significant JSE listed equity market activity in climate change/green investments, the JSE acknowledges that this is a growing area of interest globally for both new firm activity and shareholder activism (BIG, 2011).

2.6 The domestic financial sector has a key role to play in financing South Africa's climate response strategy including collaboration with national government to mobilise additional resources. The domestic financial sector including development finance institutions, private banks, microfinance institutions, insurers and asset managers are critical in creating enabling climate finance architecture for South Africa. South Africa has well established and mature capital

markets and the Johannesburg Stock Exchange (JSE) is regarded as one of the world's leading stock exchanges. At least ZAR4.7 trillion total assets are under management in South Africa, with ZAR1.1 trillion held in pension funds (Nedbank, 2010)¹. South Africa is the second country (next to the United Kingdom) to formally encourage its institutional investors to integrate environmental, social and governance issues into their investment decisions and this has translated into an amendment of Regulation 28² of the Pensions Fund. Provided that the climate investment is packaged appropriately, institutional investors represent an important component of South Africa's climate finance strategy. Collaboration between government and the domestic financial sector can utilise these pools of finance coupled with fiscal allocation (e.g. national Green Fund of ZAR800 million and recycling of revenues from proposed carbon tax) to leverage additional private finance. Adopting a collaborative approach would enable South Africa to commence the implementation of its climate response, as the international climate finance architecture is as yet unclear in terms of precise modalities and allocations to developing countries.

2.7 The transition to a climate resilient economy requires a responsive, catalytic and coordinated development finance system. South Africa has a well-established development finance system across national, provincial and local government, with common and differentiated development mandates including infrastructure delivery and industrialisation, microfinance and focused interventions for women, youth, human settlements and land. The existing Development Finance Institutions (DFIs) are able to mainstream climate change into their development mandates and serve as channels to blend climate finance with their respective mandates. For example, South Africa's national infrastructure investment programme of ZAR800 billion is an opportunity to build climate resilient infrastructure, assuming the support for the additional cost of climate proofing such investment is secured. Technology transfer enables new economic activity in renewable energy, energy efficiency and waste management, stimulating the necessary transition towards a climate resilient economy. However, greater coordination and cohesion is required within the DFI system to realise the co-benefits of development (e.g.

¹ The aggregate constitutes of long and short-term insurers, unit trusts, the Public Investment Corporation and other pension funds (Source: Nedbank, 2010).

² Regulation 28 is based on the premise that "prudent investing should give appropriate consideration to any factor which may materially affect the sustainable long term performance of a fund's assets, including factors of an environment, social and governance character" (Source: Government Notice: Amendment of Regulation 28 of the Regulations made under Section 36 of the Pensions Fund Act, 1956).

job creation, economic growth) and climate resilience (e.g. lower emissions, greater adaptive capacity). Existing areas of collaboration and engagement among the DFIs should be intensified, in particular the integration of science into long-term development planning, new sector development, implementation strategies, strengthening institutional capacities and evaluating the transition impact over time. In addition, the DFIs have an important role to play in relation to the private sector in bridging the divide between government interventions and the commercialisation of investment by the private sector.

2.8 Each stakeholder within the financial system has a distinct role to play in supporting a cohesive climate finance framework. Based on the survey conducted by BIG, there are varying degrees of acceptance across different stakeholders in the financial sector of their role in financing climate interventions (BIG, 2011). There is broad acknowledgement that there are investment and economic growth opportunities in financing climate response strategies. However, limited investment has occurred within South Africa, primarily due to policy uncertainties. The insurance sector appears the most advanced in terms of new product and service development, and is also primarily concerned with the physical impacts of climate change, whereas other financial stakeholders are primarily concerned with policy decisions around greenhouse gas emissions. However, there remains a need to raise awareness of climate change to advance climate change investment, especially within microfinance institutions. A common diagnostic emerged across the respondents to the survey in terms of the required actions by government to create a facilitative environment to invest in climate interventions. These include: i) providing political and regulatory certainty over the long term on government's national position; ii) public finance commitment to leverage private capital; iii) integrating climate change into development planning; iv) enhancing government capacity to transition to a green economy and climate resilience; v) new financial incentives and improved processes for emerging technologies; vi) expanding consultations on solutions, partnerships and cooperation opportunities; vii) harmonising and aligning complementary policies; and viii) access to information to assist in risk modelling and predictions.

2.9 Public finance and development finance should serve as leverage to mobilise private capital contributions. Early estimates indicate that at least ZAR20 billion has been committed to South Africa since 2003 for environmental and climate interventions (DBSA, 2010). Of this amount, clean energy programmes accounts for over 80% of domestic and at least 50% of international funding sources. Blending different forms of private and public finance would ensure that funds are directed towards critical investment needs such as water. There is a unanimous call by the private financial institutions for: i) pre-investment capital; ii) enabling and integrated policy frameworks; iii) risk sharing; and iv) government direction on priority sectors in order to unlock private capital. These areas may represent the primary application of public finances to attract private capital.

2.10 A cohesive and coordinated national climate finance strategy is required across government to effectively leverage new sources of finance and support. At present, numerous government climate finance and market-based interventions are emerging. These initiatives include National Treasury's ZAR800 million green budget allocation and carbon tax proposals, SARI, as well as new mechanisms proposed in the Green Paper such as a National Climate Change Fund and Climate Tracking Facility. Initiatives at country level will ultimately be impacted by developments in the international climate finance arena, including the GCF and the potential rationalisation and/or coordination of existing global climate (i.e. environmental) funds.

Emerging criticisms from civil society and private sector in relation to these initiatives suggests that in South Africa there is a lack of clarity of how these interventions are positioned in terms of an overall country response strategy. Adding to the lack of clarity, is the fact that climate finance is presently channelled from international sources on a project-by-project basis directly to national, provincial and local government, which creates significant challenges in tracking the effectiveness of the funds disbursed (Imbewu, 2011). Thus, a national climate financing strategy that is determined on the basis of a country-led programmatic approach with clear climate investment priorities for the short, medium and long term may offer certainty to both international and

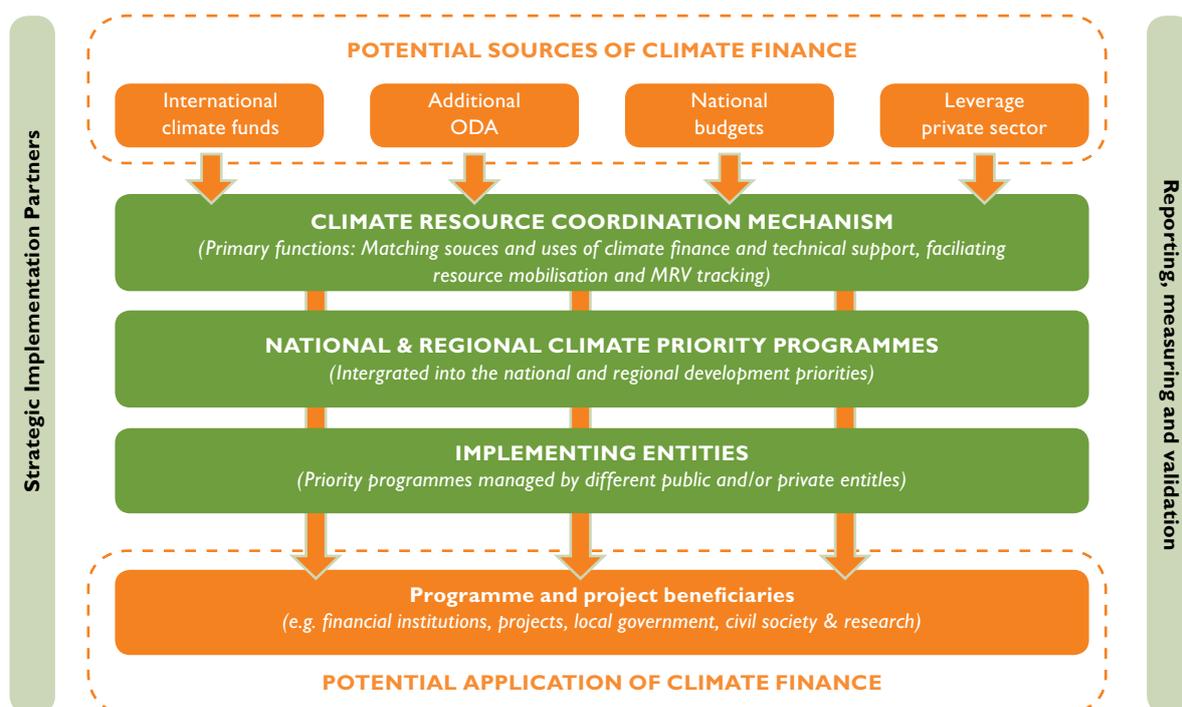
national funding institutions. A clear strategy would enable South Africa to resource its programmes more effectively tracking the effectiveness of the interventions relative to the country’s response strategy and international commitments and attracting private capital.

2.11 A flexible national climate finance mechanism would support resource mobilisation for the national climate change response. The principle of coordinating climate finance flows would be positively received by the financial sector: it would reduce the present inefficiencies associated with disparate interventions, project risks and potentially transactions costs, allowing for more country-driven investment programmes. It would be important that the coordination mechanism be directly aligned with the national climate response programmes such as water, energy, and transport. A sound governance and sustainability reporting framework, such as the Climate Finance Tracking Facility proposed in the Green Paper, should be developed to support any

proposed mechanism. This is necessary in order to track the country’s efforts in reducing greenhouse gas emissions as well as the impact of the disbursed funds. A national climate finance mechanism that is flexible and adaptable in the short term holds potential for South Africa to have a Fast Start approach to mobilising international and national resources for country-driven programmes of action. Official development assistance currently constitutes a supplementary role in the national budget (Zingel, 2011) which is managed through existing donor coordination mechanisms through the National Treasury’s International Development Cooperation (IDC) and the DEA. Climate finance flows from international and national sources may require additional dimensions to effectively track and evaluate the effectiveness of South Africa’s climate response.

An indicative national climate coordination mechanism is presented in Figure 3, depicting both the strategic implementation partners and the monitoring, reporting and verification (MRV) protocol that will be provided through the Climate Tracking Facility.

Figure 3: Climate coordination prototype for South Africa (Source: Adapted from DBSA, 2010 and Imbewu, 2011)



There are a number of environmental and/or climate funding mechanisms currently under development around the world, ranging from traditional fund structures to flexible coordinating mechanisms with multiple implementing agencies. Thus, South Africa has a number of best practices that it can draw on in the process of formulating its own response.

2.12 South Africa's climate response strategy should support the development of a climate resilient region. Regional climate programmes would enable SADC countries to co-invest in scalable and replicable climate response strategies that: i) reduce the vulnerability of the region to climate change; ii) create regional production capacity and demand for sustainable technologies; iii) build resilient regional infrastructure; and iv) develop integrated disaster management and response frameworks.

2.13 Climate risk assessment should be mainstreamed into the decision-making and planning frameworks of government and the financial system to support climate related investment. Several financial institutions have begun to integrate environmental and climate considerations into their financing decisions and are considering new products; however this has not been mainstreamed. For example, within the asset management industry, consequential changes to support such decision making would require the pricing of climate risk within an investment portfolio, access to quality

climate information that enables investment portfolio decisions and the willingness of trustees to extend mandates towards climate change related investments.

2.14 The quality of climate information should be improved to support investment and risk decision making. There is a clear need for shared information platforms that can be used by key decision makers to plan development interventions and response strategies. Providing pertinent climate information would enable investors to identify climate change as a key portfolio indicator and enable fund managers to determine the financial implications thereof. In addition to appropriate climate risk information, there is an urgent short-term need for a national portal describing the climate finance sources available and how these may be accessed.

2.15 Monitoring, reporting and verification (MRV) frameworks are embedded across all international climate finance frameworks. The MRV framework under the proliferation of climate and environmental funds globally increases the transaction costs, as there is no consistent standard across these funds. A country-driven approach to MRV that is aligned with national development priorities is a useful enabler to track the effectiveness of local interventions and the mainstreaming of climate resilience (e.g. institutional readiness, value-for-money and impact assessments). In turn, an appropriate MRV framework would complement the Outcomes Approach being led by the Presidency.

3. Financing the Future: Policy considerations for climate finance mobilisation

The future livelihood of South Africa is emerging against the backdrop of a carbon constrained world, which requires a fundamental societal shift to integrate climate change into our development and industrialisation. In addition, our integration efforts must recognise the poor, disenfranchised and vulnerable communities in South Africa and the SADC region, whose plight becomes even more pronounced in the face of climate change impacts. In this context, South Africa's climate finance mobilisation efforts should seek to promote catalytic developmental interventions aimed at transitioning the country towards low carbon and climate resilient development. Several key messages emerge in the context of policy considerations to finance the future South Africa. These are outlined below.

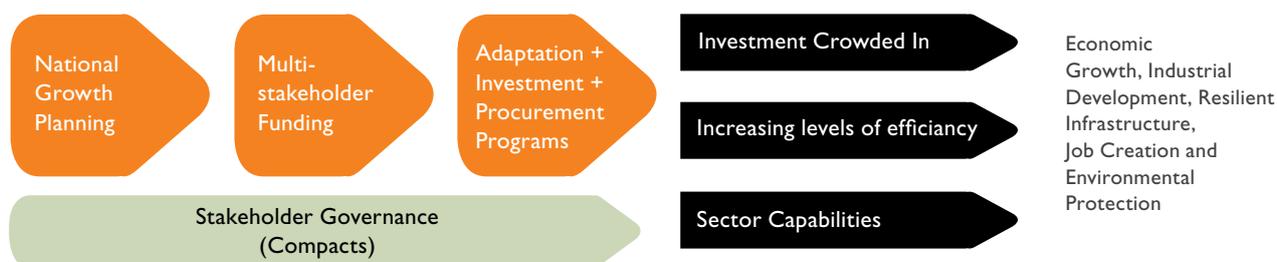
3.1 Paradigm shifts are required in the design, planning and funding of the national development agenda. Bold and urgent actions are required by South Africa to enable the country to transition to a low carbon and climate resilient economy. These actions should be contextualised with the desired future impact in mind and therefore requires certain paradigm shifts in the way development planning and resourcing are currently undertaken. The DPE has developed a framework, which is being applied to catalyse growth and enhance the impact of state owned entities. This is a useful framework to apply in the context of integrating climate change into the national development agenda in that it depicts the multiple planning and engagement layers necessary for: i) crowding in (i.e. mobilising) investment; ii) increasing the levels of efficiency; and iii) developing sector capabilities. Inasmuch as climate change represents a risk to development, the response strategy represents an opportunity for

economic growth, green industrial development, resilient infrastructure, job creation and environmental protection (See Figure 4).

National government, together with multi-stakeholder partners, are able to unlock the investment opportunities in the context of climate change. The South African government has signalled positive policy shift towards a green economy, evidenced by the DTI's Industrial Policy Action Plan (IPAP2) and the Department of Economic Development's New Growth Path focusing on green jobs. These policies, read together with the Climate Change Response Green Paper highlight the new financing and resource challenges underpinning the socio-economic transition. Therefore, national policy convergence should support a sustainable climate finance architecture that delivers the appropriate financial products, services and mechanisms to facilitate a fair and just transition towards a more climate resilient and green economy.

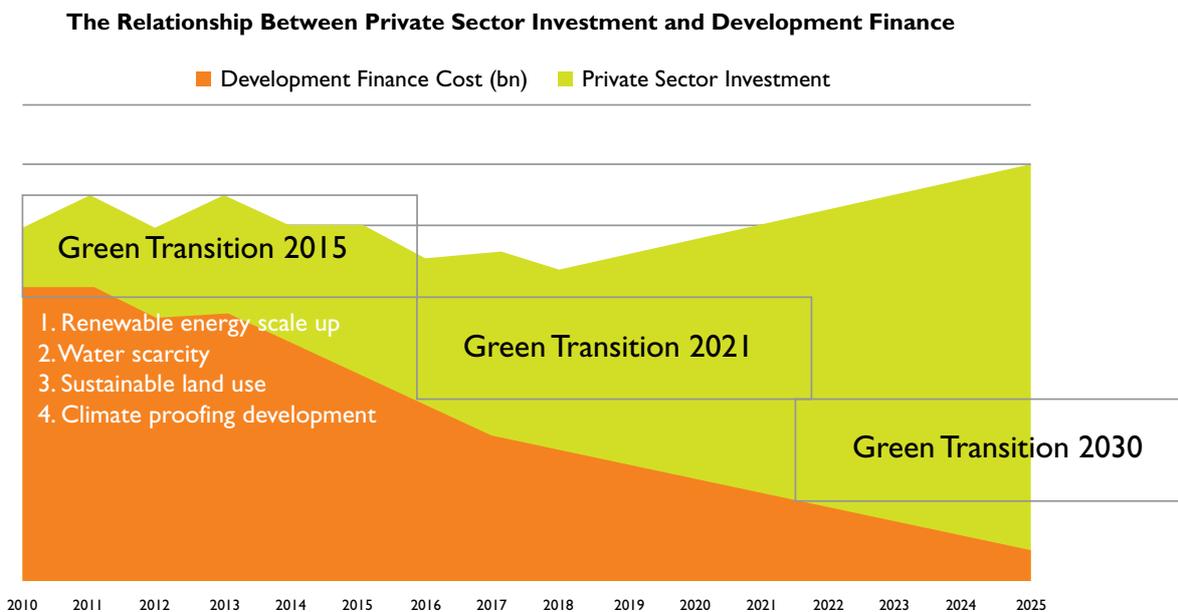
3.2 Building resilience to climate change requires a grand vision and alternative development path. Climate change creates an opportunity for an alternative development path upon which job creation, new economic activities, innovation, environmental planning, capacity and greater solidarity can be built, through a series of separate but clearly connected interventions. However, the degree of change required will not be achieved through isolated and decoupled initiatives: it requires a visionary approach aimed at progressively transforming the current economic and social systems, including its patterns of production and consumption. South Africa's climate response strategy should therefore identify clear mitigation and adaptation

Figure 4: Building blocks for a climate resilient development path (Source: Adapted from DPE Growth Paradigm, 2011)



Source: Adapted from DPE Growth Paradigm 2011

Figure 5: The role of public and private capital in the transition to climate resilience (Source: DBSA, 2010)



priorities for an alternative development path that is both low carbon and climate resilient, and which creates social cohesion in terms of the collective response required. These priorities effectively represent the country's investment plan, which may attract early stage international and national investors.

3.3 Setting course for a significantly transformed economy requires a sense of direction. The global financial system has slowly been emerging from the sub-prime crisis. The secondary impacts on South Africa have been significant. Therefore, caution is justified in terms of the speed of transition towards a green economy, which is dependent on international technology transfer as well as donor funding. Thus, the South African financial system has to develop innovative ways of absorbing the costs of transition required for the structural socio-economic shifts within the economy.

A comprehensive and bold climate financing package or strategy should be conceptualised immediately to enable South Africa to begin its transition towards climate resilience. This strategy should transcend the traditional

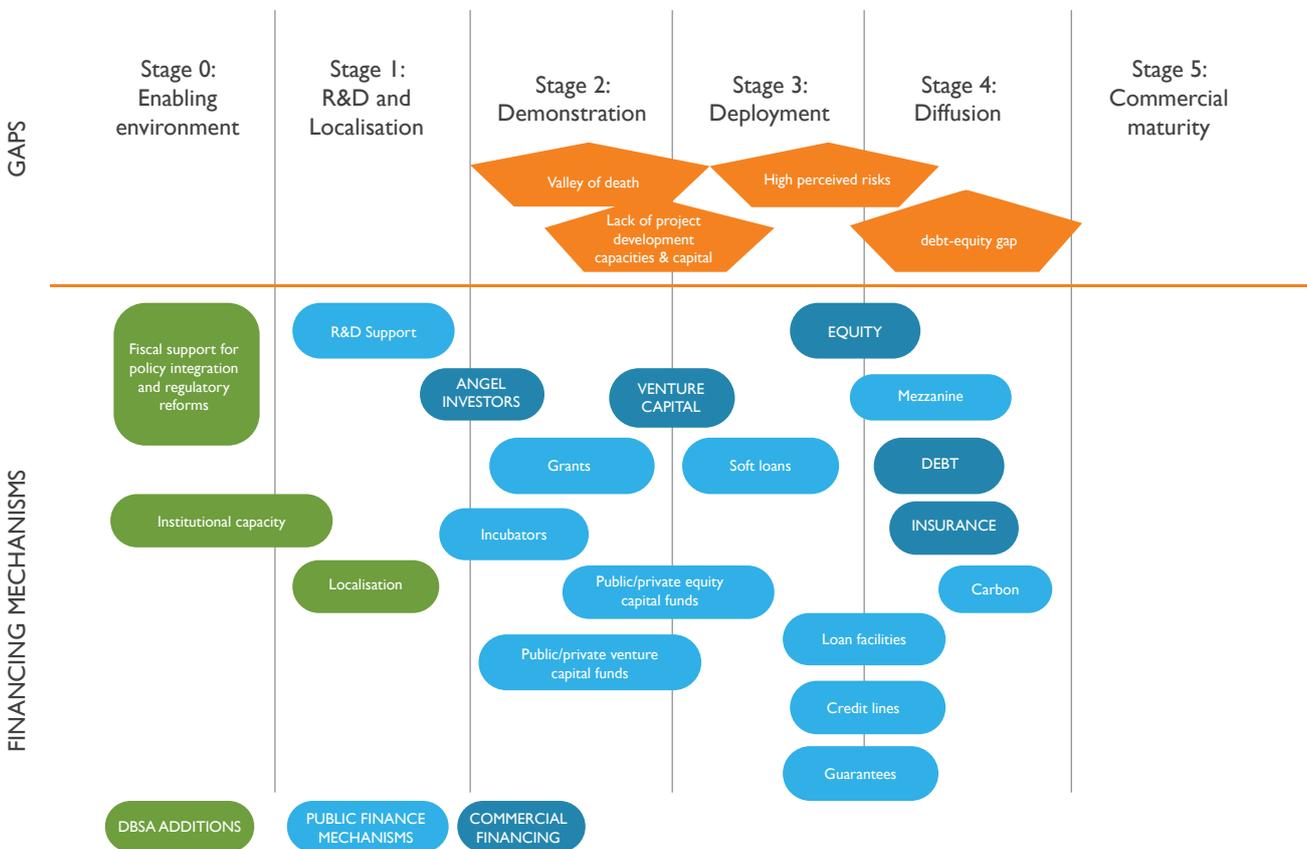
debates of development, mitigation or adaptation, and should be underpinned by a clear signal from the government of South Africa of short, medium and long-term priority interventions and targets that addresses both mitigation and adaptation.

Underpinning the transition towards climate resilience and a green economy is job creation, economic growth and environmental sustainability. As illustrated in Figure 5 above, South Africa is at the brink of transition to a green economy (i.e. Green Transition 2015). At this early stage, government has a prominent role in creating an enabling environment for climate investment. This role includes focusing on reducing risks associated with: i) policy uncertainty; ii) institutional, regulatory and legal barriers; iii) developing local and international support for financing and technology; and iv) crowding in development and investment capital. Through the passage of time, different stakeholders within the economy will assume their natural role along the transition path, commensurate with their risk absorption levels. Inherent within the transition plan is the need to recalibrate and adjust as scientific data and the results of different response approaches emerge. For this reason, the articulation of a clear national transition plan is recommended that identifies

immediate priorities and programmes and which government, private sector and civil society are able to collectively support and deliver. Such a transition plan would serve as the primary reference point in defining the impact and costs associated with transition and therefore, the requirements for secure and long-term climate finance architecture for the country. Furthermore, if government is able to formulate clear national transition programmes based on country priorities, this will attract the incremental (i.e. additional) resources from international and local investors to catalyse actions within each ‘transition window’ (as illustrated in Figure 5). Two research reports on adaptation and mitigation interventions, commissioned by GIZ in support of the White Paper, namely Midgley et al. (2011) and Marquard et al. (2011), may be used to inform the priorities to be assigned to each time period and the required blend of priorities.

3.4 A transition plan for South Africa requires significant resources. As the global finance system and the international climate finance architecture prepares to finance climate interventions, the climate finance package available to developing countries should be comprehensive and include: i) finance; ii) technology transfers; iii) institutional strengthening and readiness; iv) technical assistance; and v) sharing of baseline scientific data, which assists in the national and regional development and climate response planning. At national government level, South Africa’s planning and finance ministries should consider the cradle-to-cradle resourcing of interventions, which is best illustrated in the context of the scope of financing required across a project life cycle in Figure 6 below.

Figure 6: Project life cycle funding needs and gaps (Source: Adapted from UNEP-FI, 2009)



4. White Paper Policy Recommendations

In addition to the wording contained in Section 8.1 of the Green Paper, it is proposed that the text included below (Sections 4.1 – 4.11) be incorporated into the White Paper. This will provide a framework for future cooperation between government, the international community and the financial sector essential for establishing a long-term and sustainable climate finance architecture for South Africa's transition to a climate resilient economy and society.

4.1 National government will promote fair, equitable and transparent access to resources for both mitigation and adaptation actions by the public and private sectors as well as civil society, including financial, technical cooperation and technology transfers. *Rationale:* International climate finance is primarily dominated by mitigation finance, and adaptation financing is difficult to source. Yet it remains an equally important response strategy for developing countries such as South Africa and its neighbours within SADC and is currently underfunded.

4.2 Government recognizes the important role and interdependence of government, the financial services sector, investor community and civil society in facilitating the transition to a climate resilient economy and aims to build an enabling climate finance environment to support local and regional climate resilience interventions. *Rationale:* There is significant scope for more engagement among various stakeholders, which include government, civil society, vulnerable communities and the private sector to develop a cohesive financial response to support climate change interventions.

4.3 Government promotes green growth as an effective climate investment response strategy and will aim to co-develop the resource mobilisation strategies for climate resilience and the green economy. *Rationale:* Alignment between the White Paper and the New Growth Path will build an enabling investment environment to support the transition towards a climate resilient economy that is underpinned by job creation and economic growth.

4.3 Government will promote and mainstream climate change into the fiscal budgetary and planning processes, including the integration of appropriate programme and project planning, design and measurement tools to support national, provincial and local government, development finance institutions and state owned entities' decision-making frameworks. *Rationale:* While the National Treasury has announced a new green budget of ZAR800 million over three years to catalyse and mainstream green initiatives across government, an enabling planning framework to support the mainstreaming and a clear work programme to achieve the desired objective is lacking (e.g. climate proofing infrastructure, industrial sector interventions as well as government's procurement policies).

4.4 Government supports the integration and development of climate change considerations into existing financial practices to enable domestic financing institutions to invest in climate interventions and to promote green growth in South Africa and the region. *Rationale:* Market evidence through the stakeholder engagements highlights the need to mainstream climate risk into decision-making frameworks. In addition, international climate finance is historically inaccessible. Thus, developing and implementing a strategy to finance climate change within the domestic financial system reduces South Africa's dependencies on international support and enables an immediate start.

4.5 Government will promote a climate resilient SADC region and support the development of sustainable technologies and green infrastructure. *Rationale:* Regional investment programmes increase the resilience of the region, promote regional trade and cooperation and reduce the vulnerability of individual countries to cope with future extreme events.

4.7 Government will create capacity for local government to develop and implement climate resilient development and response strategies. *Rationale:* Local government is the primary driver of the socio-economic transition required to support climate

resilience. However, local government's decision and planning frameworks should be enhanced to integrate climate risk into the budgetary, planning and implementation process. In addition, the ability of local government to monitor and evaluate the effectiveness of their interventions relative to the climate change impacts at community level is critical for future planning.

4.8 Government will facilitate the development of a climate finance strategy to ensure that the country's climate change response should not place an unnecessary burden on the economy. A multi-stakeholder technical task team) will be created to develop and integrate such climate finance options into existing and emerging policy instruments. *Rationale:* Several initiatives are under development, which if harmonised, will maximize the collective effectiveness thereof.

4.9 Government will establish a public platform to assemble and disseminate credible climate and technology related research to enable key decision-making. *Rationale:* There is consensus among public and private stakeholders who were engaged during the course of the research, that national government should invest in disseminating credible data on climate risks, new technologies, investment opportunities and access to climate finance.

4.10 Government will develop an interim national climate financing mechanism to mobilize financial and technical assistance and resources for demand-driven programmes to enable an immediate start to the transition towards a climate resilient economy, with oversight functions to be assigned to representatives from government, private sector and civil society. *Rationale:* Establishing a platform to mobilise resources for South Africa's short-term priorities will enable South Africa to immediately commence its response strategy. Such a platform should be developed in a flexible manner to provide for future enhancements to support a long-term financing framework in collaboration with business and civil society.

4.11 The effectiveness of the government's climate change response strategy will be tracked through a climate finance tracking facility that will be housed within the proposed national climate finance mechanism. *Rationale:* MRV can serve to support future policy development and development planning instruments.

5. Conclusions

The White Paper policy considerations and recommendations described in Section 3 and 4 respectively are the foundations upon which to build an implementation and action plan addressing South Africa's climate finance architecture and strategy. Further research and engagement with international and national stakeholders is required to develop and refine the implementation recommendations contained herein.

As a result of the research conducted for the White Paper, the DBSA research team has considered the design considerations for a national climate finance mechanism, which will be separately presented to the DEA. It is important that the design of this mechanism be flexible and adaptable, enabling a Fast Start option for South Africa's interventions. Such a mechanism should be located within a cohesive climate financing strategy for South Africa that addresses the transition costs of climate resilience and green growth.

The policy proposals contained herein are aimed at creating a sustainable climate finance infrastructure within which both international and national climate finance sources are able to cooperate to collectively respond to South Africa's climate change strategy.

6. Acknowledgements

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8. Appendices

- Appendix 1: Report on the synthesis of Climate Finance Literature (DNA, 2011).
- Appendix 2: Report on high-level stakeholder engagements (BIG, 2011).
- Appendix 3: Report on institutional case studies of environmental funds (Imbewu, 2011).

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