

MULTI-LEVEL CLIMATE GOVERNANCE IN SOUTH AFRICA

Catalysing finance for
local climate action



V-LED | STIMULATING
URBAN CLIMATE ACTION



VERTICAL INTEGRATION AND LEARNING FOR
LOW-EMISSION DEVELOPMENT IN AFRICA AND SOUTHEAST ASIA

MULTI-LEVEL CLIMATE GOVERNANCE IN SOUTH AFRICA

Catalysing finance for local climate action

By OneWorld Sustainable Investments, Sustainable Energy Africa and adelphi

www.localclimateaction.org





The Vertical Integration and Learning for Low-Emission Development in Africa and Southeast Asia (V-LED) project is implemented between 2015 and 2019 in Kenya, Philippines, South Africa and Vietnam. It is led by adelphi in partnership with the Institute for Law and Environmental Governance (ILEG), UN-Habitat, OneWorld Sustainable Investments and Sustainable Energy Africa (SEA).

The project and this publication are supported by the German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU) as part of its International Climate Initiative.

Publisher:	adelphi Alt-Moabit 91 10559 Berlin Germany www.adelphi.de	OneWorld Sustainable Investments Equity House 107 St Georges Mall Cape Town 8001 South Africa www.oneworldgroup.co.za	Sustainable Energy Africa (SEA) The Green Building 9B Bell Crescent Close Cape Town 7945 South Africa www.sustainable.org.za
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Authors: Belynda Petrie (OneWorld), Peta Wolpe (SEA), Yachika Reddy (SEA), Paola Adriázola (adelphi), Michael Gerhard (OneWorld), Tucker Landesman (adelphi), Lisa Strauch (adelphi), Anais Marie (OneWorld).

Suggested citation: Petrie, Belynda; Peta Wolpe; Yachika Reddy; Paola Adriázola; Michael Gerhard; Tucker Landesman; Lisa Strauch and Anais Marie 2018: Multi-level climate governance in South Africa. Catalysing finance for local climate action. Berlin/ Cape Town: OneWorld, Sustainable Energy Africa, adelphi..

Pictures: Cover photo: Delpixel - shutterstock.com

Design: Studio Grafico, Berlin – www.studio-grafico.de
Illustrations (p. 1, 5, 7, 11, 39, 57 and back cover) by www.mataimedia.com

Acknowledgements: The report benefited greatly from its reviewers. The authors wish to thank Judy Nkosi, Director of Local Government Financial Policy at the National Treasury; Julie Clarke, Environmental Analyst at the Development Bank of Southern Africa and Kamleshan Pillay, Researcher & Project Manager at SouthSouthNorth for their valuable feedback and input.

Place and date of publication: Berlin/ Cape Town, January 2019

Disclaimer: The analysis, results and recommendations in this study represent the opinions of the authors and are not necessarily representative of the position of any of the organisations listed above.

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based on a decision of the Parliament of the Federal Republic of Germany

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Acronyms

BEPPs	Built Environment Performance Plans
CoGTA	Department of Cooperative Governance and Traditional Affairs
DBSA	Development Bank of Southern Africa
DEA	Department of Environmental Affairs
GHG	Greenhouse gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Development Agency)
IGCCC	Intergovernmental Climate Change Committee
IDP	Integrated Development Plan
IUDG	Integrated Urban Development Grant
KPI	Key Performance Indicator
NDC	Nationally Determined Contribution
OneWorld	One World Sustainable Investments
SALGA	South African Local Government Association
SEA	Sustainable Energy Africa
SEM	Sustainable Energy Markets (City of Cape Town)
UNFCCC	United Nations Framework Convention on Climate Change
V-LED	Vertical Integration and Learning for Low-Emission Development



Executive summary

Avoiding the disastrous effects of climate change calls for a global transformation that strengthens resilience to a changing climate and reduces global greenhouse gas emissions (GHG) to zero shortly after the middle of the century. This is a structural change of enormous scale and speed that requires joint action by all sectors of society and levels of government. Coordinating these efforts and ensuring their coherence within a multi-level governance system is key to driving forward effective, efficient and ambitious climate actions.

This study summarises the important progress South Africa has made in developing its policy and institutional architecture in response to climate change through the lens of multi-level governance and multi-stakeholder climate action. It is written for both policy makers and development practitioners working in South Africa and is based on the four-year project known as V-LED, or Vertical Integration and Learning for Low-Emission Development in Africa and Southeast Asia. From 2015 through 2018, V-LED aimed to stimulate local climate finance and action by rallying ambition and connecting national institutions, provinces, municipalities, communities and businesses. Based on experience gained from this project and additional research, the study analyses climate governance and finance in practice, highlighting encouraging practices and continuing challenges of effective multi-level climate action.

South Africa's response to climate change takes place in the context of the historical injustices and inequalities resulting from Apartheid rule. The country strives to address poverty, inequality and unemployment (the 'triple challenge') while pursuing sustainable development goals. Cities and local governments are tasked with driving inclusive socio-economic growth, which too often is seen in opposition to climate change priorities. Promisingly, a growing number of officials are recognising climate action as a local governing mandate; however there is a lack of clarity regarding specific roles and responsibilities of sub-national governments. The national government is advancing a National Climate Change Bill and a National Adaptation Plan, but vertical integration lags as multi-level governance has yet to be effectively institutionalised.

As sub-national governments tackle the complexities of a changing climate, they confront overlapping mandates, frustratingly inaccessible finance options and a fragmented governance system in which they feel disempowered. Small and rural municipalities generate little or no revenue, operate with small budgets and often lack authority to intervene in the provision of water, energy, transportation and land-use/urban planning. A conflict of interest between revenue-generating service delivery and potential mitigation or climate proofing of the corresponding sector is a persistent barrier to action.

Nonetheless, sub-national governments large and small, urban and rural, are responding to governance challenges. Local governing associations advocate for authority to increase the share of renewable energy in the supply grid. Cities are investing in mainstreaming climate change into development plans and successfully leveraging those plans to increase budget transfers from the National Treasury. And green bonds are being offered by large metropolises as well as smaller cities (pooled bonds) as ring-fenced finance to fund sustainable development projects.

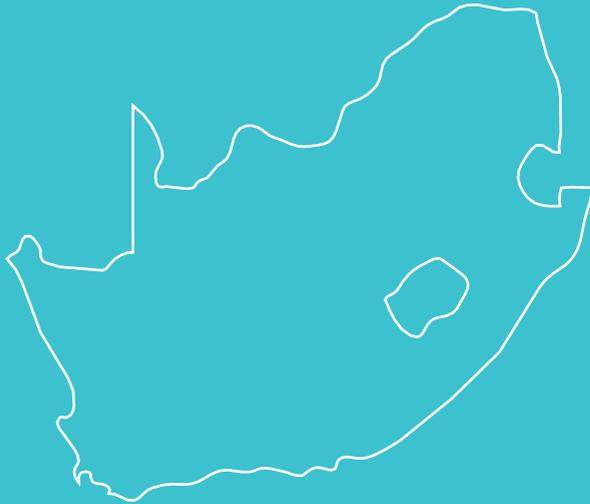
To continue addressing the triple challenge while simultaneously implementing the Nationally Determined Contribution, South Africa will need to institutionalise multi-level governance and finance mechanisms to scale up bold local climate action. This study identifies a number of entry points across governing levels to advance the country's climate response. Among them:

- **Raise awareness of the co-benefits of climate resilient, low-emission development.** Clearly articulating climate action's co-benefits for job creation, education, equitable growth and avoided losses to climate impacts can increase political buy-in, resulting in capacitation, climate mainstreaming and the uptake of existing tools to develop a suite of bankable climate projects.
- **Mainstream climate change into municipal development finances.** Mainstreaming climate change into development and sectoral plans is critical to transformative, sustained climate action. The most immediate entry point in South Africa is to mainstream climate change into the Intergovernmental Grant system.
- **Identify and implement innovative finance arrangements to unlock barriers to capital markets.** A number of innovative options exist for smaller and larger local governments to increase climate finance individually or by pooling resources and partnering with regional or national governing agencies.

- **Establish monitoring, review and verification frameworks specific to climate change.** Tracking climate projects and climate finance through robust monitoring, review and verification frameworks is likely to increase access to climate finance as municipalities are better equipped to shift spending priorities in response to proven effective strategies.

As South Africa continues to advance national policies of sustainable development and a number of finance mechanisms for climate action, now is the time to invest in effective vertical and horizontal coordination mechanisms to ensure that resources reach local governments on the front line of responding to climate change.





South Africa key facts:

- The Republic of South Africa is home to 56.72 million people and has 11 official languages.¹
- South Africa is an upper-middle-income country, its economy is the second-largest in Africa.
- Yet, 27.3 per cent of the population is unemployed and 16.6 lives below the poverty line.²
- It is the most unequal country in the world in terms of income distribution.¹
- South Africa is the world's 14th largest emitter of greenhouse gases.³
- It is the seventh largest producer and fifth largest exporter of coal in the world, 88 per cent of national energy needs are provided by coal.³

Sources: 1) The World Bank 2018; 2) CIA; 3) Carbon Brief 2018.

1 • Introduction

South Africa is both vulnerable to climate change impacts and a major greenhouse gas emitter due to its dependency on coal for energy and the high-emissions mining and industrial sectors. Struggling to overcome the historically rooted challenges of inequality and poverty, the country is highly exposed to the effects of climate change, which disproportionately affect the poor and disenfranchised. In its transition towards a low-emission society, national, provincial and local governments will need to strike a delicate balance between the country's mitigation commitments, adaptation needs and ambitions to create an inclusive economy.

South Africa is the highest greenhouse gas (GHG) emitter on the African continent and the 14th highest emitter globally (Global Carbon Project 2016). The mining and industrial sectors, which are responsible for 82 per cent of GHG emissions, are major components of the national economy and dominate some local economies (Wolpe and Reddy 2015). According to Carbon Brief (2018), coal produced 88 per cent of South Africa's electricity in 2017. Energy demands are rising with a growing urban population: 70 per cent of the population is expected to live in cities by 2030 and 80 per cent by 2050 (Wolpe and Reddy 2015).

At the same time, exposure to climate impacts is high. Large parts of the country are at risk of water scarcity (Davis-Reddy and Vincent 2017), made evident by the recent 2018 Cape Town water crisis. Droughts as well as severe rainfall events in the region are likely to increase over time and South Africa (and the greater region) has experienced rising average temperatures since the 1980s (Niang et al. 2014: 1206). South Africa is scientifically well-equipped to monitor changing climatic conditions and research short- and long-term adaptation scenarios; however policies and implementation have tended to be sectorally focussed on the short-term and strategies to protect particularly vulnerable populations face various institutional and structural barriers (Ziervogel et al. 2014; Shackleton et al. 2015).

The social and physical geographic diversity within South Africa necessitates a concerted and dynamic response to climate change at each governing level. Whereas national governing actors provide comprehensive policy frameworks, stewardship, and technical support; sub-national governments must also show leadership, own climate action as a cross-sectoral local priority and be integrated into national policy and decision making.

Local climate actions are crucial for South Africa to meet its Nationally Determined Contribution (NDC) under the Paris Agreement, while simultaneously delivering on the promise of poverty alleviation, equality and employment. The country's 18 largest cities are engines of economic growth, accounting for approximately 80 per cent of the country's wealth and roughly half of its electricity and petrol consumption (Wolpe and Reddy 2015). However, a changing climate affects the mandates of sub-national governments to deliver basic services such as water and sanitation, electricity and transport services. Municipalities already face economic losses due to increasingly frequent extreme weather events. Communities living in economic and environmental insecurity are especially vulnerable to climate change effects, further complicating local governments' mandates to drive socio-economic development and deliver equality-based basic services to all (Ziervogel et al. 2014).

1.1 Addressing the local in global climate scenarios

A number of questions emerge as sub-national governments and non-state actors gain momentum in responding to climate change as well as greater recognition within the United Nations Framework Convention for Climate Change (UNFCCC): how can local and non-state actors increase national climate ambitions? What support do sub-national governments need to implement national policies and follow through on NDCs? How can climate policies be aligned across local, provincial and national governance levels to drive cross-sectoral transformative climate action?

The **V-LED project**—Vertical Integration and Learning for Low-Emission Development in South East Asia and Africa—was designed to respond to the above questions. Working as a coalition with partners in South Africa, Kenya, Viet Nam, the Philippines and Germany, the project facilitated meaningful dialogue between various stakeholders across governing levels to better integrate sub-national governments into national policy and implementation frameworks, increase adaptation and mitigation capacity and learn from existing pioneering efforts.

This study examines climate change governance and action in South Africa through a multi-level governance perspective with a topical focus on financing local climate action and governing arrangements that facilitate or hinder the flow of substantive, stable funding to the sub-national level. The following questions guided the study:

-  How is the South African climate governance architecture organised across local, regional and national levels?
-  What are the enabling factors and barriers to financing local climate action?
-  How are the needs for local climate action changing national processes and what are the implications for national governing processes?

1.2 Structure of the study

The study is divided into five chapters. Chapter Two introduces the reader to the theoretical background of the study, acknowledging the importance of a coherent and coordinated multi-level governance approach for ambitious climate actions. The chapter additionally gives an overview of the research methods used to gather and analyse data in the writing of this study. Chapter Three broadly surveys South Africa's climate change governance and finance architecture: how authority is institutionalised, responsibility delegated, and finance accessed with particular emphasis placed on the needs of sub-national governments and the interplay with national counterparts. How such policies, regulations and relationships play out in practice, the perceptions of policy makers and implementers, and the challenges faced by local governments are presented in Chapter Four. Of particular interest are the factors enabling or impeding financing for local climate action. To conclude, we present a series of entry points in Chapter Five. Our entry points are meant as constructive points for future action by policy makers and implementers at all levels of government as well as advocates, civil society and development partners.

2. Theoretical background and research methods

The avoidance of dangerous climate change calls for a global transformation process towards a low-carbon society that reduces global greenhouse gas emissions to zero shortly after the middle of the century (UNFCCC 2015). This is a structural change of enormous scale and speed that requires joint action by all sectors of society and levels of government. Coordinating these efforts and ensuring their coherence within a multi-level governance system is key to driving forward effective, efficient and ambitious climate actions.

2.1 Transformative multi-level climate governance: global trends

With the adoption of the landmark 2015 Paris Agreement, the global climate regime shifted towards a more inclusive climate governance system, applicable to all countries. Unlike the former approach of the Kyoto Protocol (UNFCCC 1998) – under which only some countries, representing 14 per cent of global CO₂ emissions, were subject to emissions reduction targets (Annex I Parties) – under the Paris Agreement, all countries share the responsibility for a global climate response. The Paris Agreement gives national governments the opportunity to set their own mitigation and adaptation targets through NDCs. In the first round of pledges, 176 countries submitted their NDCs for the period up until 2025/2030. Countries will update these targets every five years from 2020 onwards, with the aim of ratcheting-up their ambition with each submission.

Now, as the Paris Agreement enters into force, the focus of action is shifting from international negotiations to national, regional and local governments that must translate the Paris goals into local climate action. Opportunities for driving climate action forward have increasingly been shaped by a diverse range of both state and non-state actors. Over the past two decades, research has highlighted the critical role of sub-national governments in reducing greenhouse gas emissions. Many of the sectors with high mitigation potential, such as housing, transport, land use, urban planning, infrastructural development and waste, are often under the control of sub-national government entities. Leveraging this

“transformative power”, an increasing groundswell of sub-national actors has set ambitious GHG reduction goals and moved ahead even in the absence of national leadership or significant international progress (Chan et al. 2015; C40 and Arup 2015; UN Habitat 2016; WBGU–German Advisory Council on Global Change 2016).

At the same time, companies and civil society actors are making their own climate commitments and are driving action through a plethora of collective (trans-national) climate action networks and coalitions. One example is the “We Are Still In” movement that unites sub-national and non-state actors across the US who declared their continued support for climate action to meet the Paris Agreement, after President Trump’s decision to withdraw from the agreement. Therefore, sub-national governments and non-state actors play an important role in implementing climate actions that support national GHG emissions targets and drive ambition up. Given this reality, the decision accompanying the Paris Agreement explicitly encourages governments to work more closely with non-party stakeholders including cities and regions (UNFCCC 2015). Alongside the negotiations, sub-national and non-state actors were declared a “fourth pillar” of the 21st Conference of the Parties (COP 21) and cited as critical drivers of the successful outcome (Hale 2016). Inclusion of such actors was further boosted by, among others, the launch of the Global Climate Action Agenda, the Talanoa Dialogue process and most recently, the 2018 Global Climate Action Summit in San Francisco that set out to advance cooperative climate action across levels of government and with non-state actors.

Despite the promising blueprint of the Paris Agreement, the combined national pledges to date fall well short of the objective to hold global temperature rise to below 2°C, let alone 1.5°C (Robiou du Pont et al. 2017; UNEP 2017). Furthermore, as the range of climate actors broadens and becomes more complex, the resulting polycentric climate governance landscape increases the risk of fragmentation (van Asselt 2014; Biermann et al. 2009).

If we do not achieve building a shared understanding across the borders of stakeholders and sectors working on different aspects of essentially the same issues, we will remain in the silos that work in isolation, being weaker, or even undermining each other’s efforts.

At the global level, an increasingly dispersed range of trans-national climate actors outside the United Nations Framework Convention on Climate Change (UNFCCC) regime might not work towards the same goals and may therefore undermine coherence whereby different components “are compatible and mutually reinforcing” (Keohane and Victor G. David 2011).

In other words: “If we do not achieve building a shared understanding across the borders of stakeholders and sectors working on different aspects of essentially the same issues, we will remain in the silos that work in isolation, being weaker, or even undermining each other’s efforts” (Hemmati and Rogers 2015).

At the domestic level, climate efforts are often still disconnected from or not responsive to each other, resulting in inefficient overlaps, missed opportunities for collaboration and even maladaptation. Many of the NDCs were produced quickly, with inadequate consultation and do not reflect local priorities (LEDS GP 2017). To date, few countries have systematically linked activities on the ground to national priorities and policies, and vice versa. While sub-national governments have contributed or even pioneered low-emissions pathways, their efforts alone cannot replace national actions or achieve transformational changes independent of other levels of government. Local actors depend on regional and national regulatory frameworks that provide incentives and resources (Corfee-Morlot et al. 2009; UNEP 2017). Conversely, sub-national initiatives may hold the key to transformative ideas that could be scaled up and help shape enabling frameworks at the national level (Fuhr et al. 2018). Furthermore, in many cases there is a lack of coherence between countries’ sector plans (especially the energy sector) and their NDCs (LEDS GP 2017).

Many of the NDCs were produced quickly, with inadequate consultation and do not reflect local priorities.

A multi-level climate governance approach can bring about greater alignment or “orchestration” of climate actions (Abbott 2017; Zelli and van Asselt 2013; Chan et al. 2015). The importance of multi-level governance for transformative climate action has gained increasing global traction. The recent IPCC special report on global warming of 1.5 °C stresses that “climate action requires multi-level governance from the local and community level to national, regional and international levels” (IPCC 2007) and recognises the concept as an important enabler for systemic transformation. To close the emissions gap and achieve transformative levels of climate action, we urgently need an “all hands on deck” approach (Hale 2016) with coordinated climate action across political levels, sectors and actors. The scale and the speed of the transformation needed to protect our life supporting system require states to critically examine and enhance their existing multi-level governance frameworks to enable vertically and horizontally coordinated action, which is a synergistic division of labour and collaborative institutional arrangement.

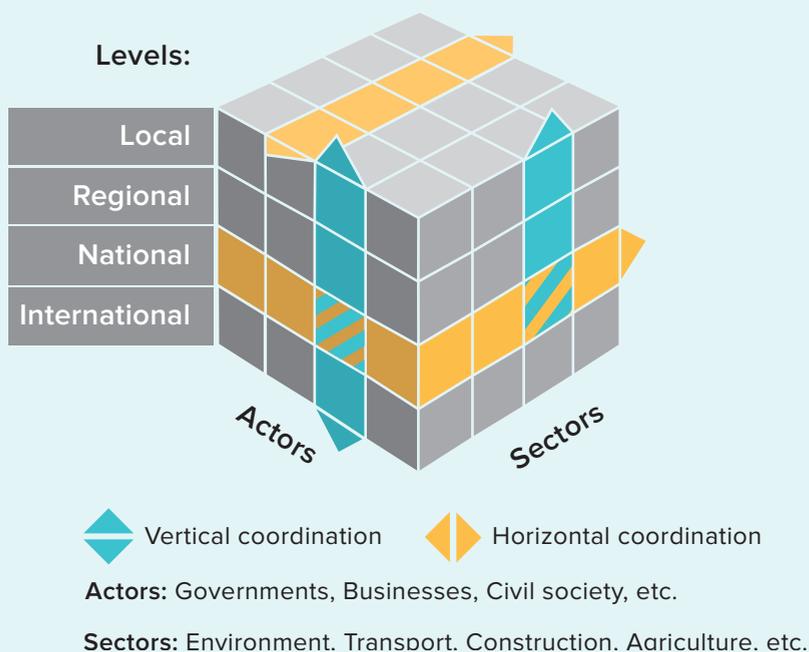
2.2 Terminology and definitions

We consider **climate action** to encompass measures and initiatives that:

1. reduce the sources of GHG emissions (mitigation) and
2. reduce vulnerability to climate change, enhance resilience and manage the impacts of climate change (adaptation)

Multi-level climate governance is the synergistic interplay between different levels of government, as well as between a variety of non-state actors, in governing climate action (see Figure 1). The notion of multi-level governance implies that tackling climate change requires collaborative processes and actors operating at multiple interlinked scales. It also brings into focus both **vertical** and **horizontal** forms of coordination.

Figure 1: Multi-level climate governance encompasses vertical and horizontal types of coordination (adapted from Jänicke 2013).



Vertical coordination occurs across different governance levels, encompassing local, regional and national governments within the same state, but also supra-national and international scales such as the UNFCCC climate regime (Bulkeley 2010; Corfee-Morlot et al. 2009; Hooghe and Marks 2003; Jänicke 2017). Vertical interactions are two-way relationships that can be top-down or bottom-up. In a top-down multi-level governance framework, the central government defines how sub-national actors engage in climate action through methods like national climate policies and laws that regulate climate-relevant sectors, or funding schemes that incentivise specific local actions (Adriázola et al. 2018). In a bottom-up framework, local authorities have substantial autonomy to develop policies and actions that can be scaled up and influence national climate policies. Most climate governance frameworks combine elements of both vertical approaches in a hybrid system.

Multi-level climate governance is the synergistic interplay between different levels of government, as well as between a variety of non-state actors, in governing climate action.

Horizontal coordination refers to actor-to-actor interactions at the same governance level, such as national sector forums, regional governance bodies and bilateral city-to-city cooperation agreements, as well as wider (transnational) local government networks.

Enabling factors for local climate action include:

- enabling policy frameworks, including clear mandates aligned to planning frameworks and budgetary cycles across levels of government and ministries;
- strong institutional capacities;
- local autonomy, including control over assets, policies, and development strategies;
- high levels of awareness and knowledge, combined with high levels of climate stress;
- availability of financial resources and incentives, paired with existing socio-economic co-benefits of climate action;
- an environmentally concerned civil society;
- membership in transnational municipal climate action networks; and,
- political leadership, such as climate champions.

See, e.g. (Adriázola et al. 2018; Bulkeley 2010; C40 and Arup 2015; Charbit 2011; Charbit and Michalun 2009; Fuhr et al. 2017; Salon et al. 2014).

2.3 Data collection and analytical framework

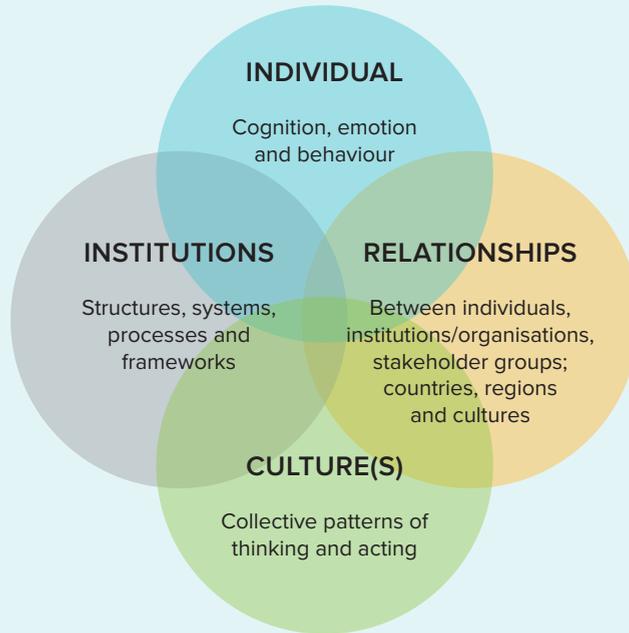
This study used qualitative research methods to collect empirical data and evidence. Semi-structured interviews were carried out with stakeholders from civil society, local, provincial and national government, academia and development partners (see list of interviews on p. 66/67). In total 41 interviews were conducted. For reasons of confidentiality individual interviewees have not been named.

Insights were additionally gathered during events and workshops of the V-LED project and other related thematic conferences. Policy analysis of national and sub-national climate change strategy was conducted in relation to the collected qualitative data as well as existing literature.

Our **analytical lens** is inspired by the academic discussion of multi-level climate governance described above and by the four “dimensions of collaborative initiatives for sustainability” outlined by Hemmati and Rodgers (2015): institutions, cultures, individuals and relationships (see Figure 2). The institutional and cultural dimensions are the structural conditions that enable or hinder coordination for local climate action (e.g., the institutional climate regime, the policy framework and the behaviours, attitudes and norms that influence how climate change decisions are made in the country). The individual dimension examines the factors that drive actors (understood as individuals, groups, networks, and organisations—both state and non-state—at multiple governance levels) to engage in climate action, such as their perceptions, ideas and visions. The fourth dimension looks at the relationships between actors, scales and regions that enable or hinder coordinated climate action, such as trust and respect.

The four dimensions influenced the design of the interview questions as well as the analysis of the factors that enable local climate action, allowing for an integral perspective. The literature on multi-level governance provided the means to assess the architecture of the climate change regime both in policy (Chapter 3) and in practice (Chapter 4).

Figure 2: Four dimensions of collaborative initiatives (adapted from Hemmati and Rodgers 2015).



3. Chapter highlights:

- South Africa's climate governance is shaped by the country's unique history of apartheid and inequality. In response to the 'triple challenge' of poverty, inequality and unemployment, climate policies prioritise green growth.
- Multi-level climate governance has yet to be formally and effectively institutionalised. Climate change affects many local government mandates, but clear roles and responsibilities to respond to climate change at the sub-national governing level are lacking.
- With limited federal funds earmarked for local climate action, some local governments are mainstreaming climate change into available funding streams and plans in order to finance climate action.
- International climate finance does not reach local governments in substantial amounts. Direct aid typically funds research, trainings and feasibility studies. More substantial funding from global climate funds is available to local governments if they coordinate proposals with nationally accredited entities.

3. South Africa's climate change governance and finance architecture

South Africa's history of racial oppression and reconciliation shape its unique post-apartheid system of cooperative intergovernmental relations in which local governments are viewed as drivers of socio-economic development. Since South Africa ratified the UNFCCC, the country has developed a robust set of policies and institutions to respond to climate change. Local governments however experience difficulties in raising substantial financial resources necessary for transformative climate action.

South Africa signed the UNFCCC in 1993 and ratified it in 1997. Since then the country has primarily relied on policies and plans rather than major legislation to respond to both mitigation and adaptation. Nonetheless, South Africa has a robust system of policies and institutions with the authority to respond to climate change. The national **Department of Environmental Affairs** (DEA) holds the official mandate to coordinate the country's climate change response.

South Africa's history of racial oppression and reconciliation shapes the country's response to climate change. Within the context of multi-level governance, the country established a post-apartheid system of "cooperative intergovernmental relations" between the national, provincial and local government levels (Government of South Africa 1996, Art. 41.1) and a strong mandate for "developmental local government" to drive socio-economic progress (Government of South Africa 1998). In the apartheid era, the three-tier central-provincial-local government governance structure was regarded hierarchical. However, in the post-apartheid context, the constitution defines local, provincial and national governments as three separate, yet interrelated, spheres (Pieterse and van Donk 2008). The **Department of Cooperative Governance and Traditional Affairs** (CoGTA) is mandated to institutionalise multi-level governance among local, regional and national levels. This process, referred to in South Africa as intergovernmental relations or cooperative governance, is ongoing. The **South African Local Government Association** (SALGA) represents the interests of the country's 257 local governments in intergovernmental relations and supports them in fulfilling their mandates.

Also responding to a legacy of racialized socio-economic inequality entrenched in South African society, Chapter 7 of the Constitution demands that local governments (i) ensure the provision of services to communities in a sustainable and developmental manner; (ii) promote social and economic development, (iii) promote a safe and healthy environment and (iv) encourage the participation of communities in matters of local government.¹ Local governments have made significant progress in their post-1994 mandates but continue to face considerable challenges. One such challenge is how to interpret local government's mandate and authority in responding to climate change and how to integrate climate action into the above priorities.

This chapter provides background on the climate change institutional and policy architectures across South Africa's government levels and considers the flows of domestic and international climate finance. In the absence of flagship legislation, Section 3.1 overviews the complex policy and regulatory framework that shapes South Africa's national climate response. Section 3.2 focuses on sub-national governance, where governing mandates in regards to climate change are unclear, widely interpreted and under-funded. Section 3.3 moves the focus to climate finance, first detailing domestic then international flows (or trickles) of funds for local climate action.

3.1 National climate governance

The South African national government relies on a series of policies, plans and a white paper to guide its response to climate change. Foundationally, the **1996 National Constitution** enshrines citizens' rights "to an environment that is not harmful to their health or well-being" and "to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures".² Most saliently, the government's **National Climate Change Response Policy (NCCRP)**, which was formally published as a White Paper in 2011, endows the DEA with the institutional authority to coordinate climate policy development and implementation. At the time of writing this report, the DEA had published a **Draft Climate Change Bill** for public consultation and was in the process of drafting a **National Adaptation Strategy**.

The above-mentioned White Paper articulates South Africa's vision and approach to managing the transition to a climate-resilient, low-emission economy and society as being "in a manner that simultaneously addresses South Africa's over-riding national priorities

1) Constitution of the Republic of South Africa, Article 152(1).

2) Constitution of the Republic of South Africa, Section 24

for sustainable development, job creation, improved public and environmental health, poverty eradication and social equality” (Government of South Africa 2011). The White Paper, which was preceded by a **2004 Climate Change Response Strategy** as well as a **2008 Long-Term Mitigation Strategy**, created eight priority programmes addressing (1) public works, (2) water conservation and demand management, (3) renewable energy, (4) energy efficiency and demand management, (5) transport, (6) waste management, (7) carbon capture and sequestration and (8) adaptation research. These programmes have informed the draft National Adaptation Strategy and draft Climate Change Bill.

Directives related to climate change and green growth are found across South Africa’s development policy framework, which is shaped by the country’s **“triple challenge” of inequality, poverty and unemployment**. For example, the **National Development Plan 2030** frames climate change resilience and low-carbon development as a growth priority. The document underlines that science and technology should allow the country to respond to climate change “without undermining growth” (Government of South Africa 2012, 75). In service of the Development Plan, the **Medium-Term Strategic Framework 2014-2019** states, “to address climate change, market-based instruments such as a carbon tax, carbon budgets and support for low-carbon technologies will be employed, together with measures to enhance the resilience of communities and the economy to changing climate conditions” (Government of South Africa 2014, 30). Additional relevant plans include the Framework for a New Growth Path (2010), The National Strategy for Sustainable Development (2011) and the National Energy Efficiency Strategy (2005 and 2015).

South Africa’s NDC reiterates the country’s need to pursue development in response to the triple challenge, albeit with a focus on sustainable development. A milestone of the 2015 NDC was the transition from a relative mitigation commitment to reduce emissions by 34 per cent compared to business-as-usual scenario by 2020 and 42 percent by 2025 to absolute targets: between 398 and 614 Mt CO₂e reduction over the period 2025-2030 and an additional 212 to 428 Mt CO₂e reduction by 2050. The mitigation strategy is referred to as the **Peak-Plateau and Decline trajectory**, with GHG emissions peaking between 2020 and 2025, plateauing for approximately 10 years and then declining in absolute terms thereafter. Green growth is central to this strategy and the **2011 Green Economy Accord** under the Department of Economic Development pledged an enabling policy environment for green growth and to create 300,000 green jobs by 2020.

Per-capita CO₂ emissions in South Africa (1.8 tCO₂/capita) are at the level of Germany, which is 30 times higher than Kenya and more than 40 per cent above the EU average

(see World Bank Development Indicators). The mitigation component of South Africa's NDC is considered inconsistent with the Paris Agreement under any metrics of ambition (accounting for capacity to pay, historical responsibility or population) (Robiou du Pont et al. 2017). If all countries followed South Africa's ambitions, global temperature would rise beyond 5 °C (Robiou du Pont and Meinshausen 2018).

South Africa has been following an outdated **Integrated Resource Plan** (2010-2030) that neither prioritised renewable energy nor positioned local governments as potential generators of energy. The plan should be updated every two years, but the last update ratified by the national government was in 2011 (Winkler 2018). A new 2018 draft of the plan could significantly shift energy policy away from coal and nuclear towards renewables and gas. The target generating capacity for coal would nearly halve to 44 per cent, while wind would increase to 15 per cent and solar to 10 per cent of total energy supply (Bungane 2018). The plan has received praise for decreasing the country's reliance on coal, however SALGA criticised the proposed annual limits on solar and wind uptake as against the interests of local governments and falling short of a least-cost based approach (EGSA 2018).

As mentioned, the South African government created a federal department to facilitate cooperative governance between national and sub-national levels, the CoGTA. While the Department of Environmental Affairs is charged with overall implementation of climate policy, the CoGTA is mandated to oversee municipal integration and to coordinate cooperation among the national, provincial and local governments. As such the DEA chairs two corresponding committees: the **Intergovernmental Climate Change Committee**, concerned with policy coordination and consultation across government levels, and the **National Climate Change Committee**, meant to promote cross-sectoral coordination with participation from government, civil society, the private sectors and labour representatives. For its part, the CoGTA oversees various municipal programmes and grants at the intersection of economic development and climate resilience (discussed below).

The Draft Climate Change Bill further requires the appointment of a ministerial committee on climate change with responsibility for the coordination of climate change responses across all sector departments and spheres of government; and a committee on climate change for each province (Business Tech 2018).

3.2 Sub-national climate governance: provinces and municipalities

South African cities are essential to forging more sustainable and resilient low-carbon development paths. Just as cities have the potential for significant contribution to maintaining global warming below 2°C (Adriázola et al. 2018), achieving national targets in South Africa will depend on climate action at the urban level (Reddy and Wolpe 2017).

There is a lack of clarity regarding the roles and responsibilities of sub-national governments in response to climate change. The National Climate Change Response White Paper devotes a section to the importance of developing bottom-up strategies and calls for a coordinated approach between the three levels of government (Government of South Africa 2011: 11); however, local governments are not bound by mandate to enact municipal, or implement national, climate-specific policies (Wolpe and Reddy 2015). Schedules 4B and 5B of the Constitution endow municipal governments with authority to establish regulations, codes and plans regarding spatial, transportation and economic planning; air and water quality controls, and water, waste, electricity and gas reticulation (Reddy and Wolpe 2017). The Constitution further states that municipalities are “to provide democratic and accountable government for local communities; to ensure the provision of services to communities in a sustainable manner; to promote social and economic development; to promote a safe and healthy environment; and to encourage the involvement of communities in the matters of local government” (paragraph 152). Provincial governments (nine in total) are charged with ensuring municipal governments fulfil their mandates and intervene in the case of serious problems.

A growing number of government officials are adopting the position that responding to climate change is implicitly included in sub-national mandates. Climate change plainly affects municipal governments’ constitutional mandates in regards to service provision and environmental protection. Moreover, low-emission development is a stated priority for national economic growth, which is driven by municipal governments. Nonetheless, during two participative processes with local governing officials regarding energy efficiency, renewable energy and climate change in 2014 (South African Local Government Association (SALGA) 2014) and in 2016 (Department of Environmental Affairs 2016), local governments responded that service delivery remains their top priority. Energy efficiency and renewable energy were seen as feasible if and when they correspond to the economic interests of the government. This is particularly true for small and medium sized municipalities.

The pressure on municipalities to address inequality and unemployment and deliver quality services in an equitable manner creates real challenges for implementation of climate change policy. Despite the potential co-benefits of climate action and clear linkages between climate effects and local mandates; responding to climate change remains an unspecified and unfunded mandate at the local level.

There has been climate response at the sub-national level, and seven of the nine provinces have launched or are developing green economic or climate change strategies. Many municipalities have also developed climate response strategies ranging from energy efficiency to adaptation. Larger municipalities have shown a commitment to green growth (Reddy and Wolpe 2017) and energy efficiency; and development of renewable energy sources is seen as a means to simultaneously reduce emissions and dependency on South Africa's highly centralised energy system (further explored in Chapter Four).

3.3 Financing local climate action

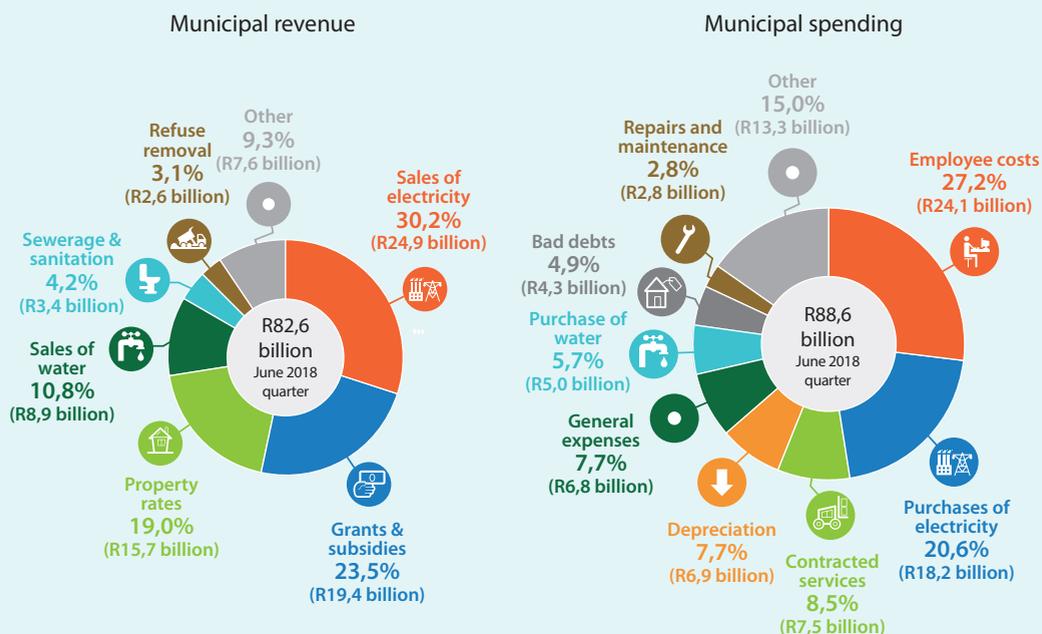
The current funding options for local climate action in South Africa are a mix of domestic, bilateral and multilateral funding streams. There are few domestic sources of finance specifically earmarked for climate mitigation and adaptation objectives, meaning that municipalities must integrate climate action into their annual budgets and requests for intergovernmental grants in order to access predictable sources of finance. Multi- and bilateral funds tend to target specific climate change response actions, depending on the agenda of the fund or donor. Beneficiaries are often required to follow the funder's agenda, particularly in the case of bilateral finance. As a result, municipalities have begun to seek other sources of finance for climate-related priorities. This section articulates the available sources of finance at the domestic, bilateral and multilateral levels.

Domestic climate finance flows

The South African fiscal system relies on a broad tax base at the national level that constitutes the national budget and a more limited revenue raising power at the provincial and local levels. Municipalities have two main sources of revenue—own revenue and intergovernmental transfers—and a number of additional sources that are project-specific or otherwise sporadic. Own-revenue sources include service charges, fees and taxes (such as property taxes). Sources of smaller income also include rents, licencing and permits and traffic fines among other municipal charges (Tänzler et al. 2017b: 58).

The main source of sub-national revenue stems from national budget allocations as submitted annually to the National Treasury. An overview of municipal revenue and spending can be found in figure 4.

Figure 4: Municipal revenue and spending (adapted from Statistics South Africa 2018).



Data source: Quarterly financial statistic of municipalities for the quarter ended June 2018.

Climate finance can be sought through this mechanism if the local government mainstreams climate change into their mandated planning processes, the Integrated Development Plan, the Spatial Development Framework or relevant sectoral plans. The Integrated Development Plan is a five-year master policy framework that serves as a basis for annual budgets and policy implementation. Notably, environmental planning is not mandated. In theory this five-year planning tool is informed by the 20-year Spatial Development Framework, however there are no policy mechanisms that require cohesion between the two. Additional intergovernmental transfers are designed as a range of targeted grants,

Table 1: Overview of intergovernmental grants and transfers.

GRANT	PURPOSE
Municipal Infrastructure Grant	Capital financing for basic municipal infrastructure which includes poor communities.
Energy Efficiency Demand-Side Management Grant	Funding for energy efficiency projects related to municipal buildings, traffic lights, streetlights and water pumps.
Integrated City Development Grant	For metros and a focus on investment.
Human settlements Development Grant	Open to all municipalities to focus on land acquisition and housing.
Regional bulk infrastructure grant	Targets water and wastewater projects.
Neighbourhood Development Partnership Grant for Cities	To assist with planning and increase third party investment in neighbourhood-scale infrastructure.
Urban Settlement Development Grant	Open to metropolitan municipalities, largely to upgrade informal housing settlements.
Public transport network grant	Allocated on project basis for public and non-motorised transport in metros.
Integrated national electrification programme grant	For electrification and installation of solar home systems of non-electrified formal houses.
Equitable Share Transfer	For provision of basic services to the poor.

for example the widely accessed Municipal Infrastructure Grant, the Integrated City Development Grant or the Energy Efficiency Demand-Side Management Grant. With the exception of the latter, none of the intergovernmental grants are climate proofed in that they explicitly respond to future risks of climate change effects. See table 1 for a summary of available intergovernmental grants.

Beyond own revenue and the regular intergovernmental grants, sub-national governments may access finance through the issuing of bonds or taking out loans from development or commercial banks (further examined in Chapter Five) or through applying to specially created national programme funds. Relevant sources of this kind are briefly listed and described below:

National Treasury's Cities Support Programme

This programme works across national departments to facilitate policy shifts that enable sustainable and inclusive urban growth and management in the country's eight large 'metropolitan municipalities' (or 'metros' for short). They also work directly with metro governments (at their request) on a number of topical issues. In 2017 the Programme incorporated 'climate resilience' as a core component and focussed on environmental planning, air quality control and mainstreaming climate change actions across urban management sectors. Significantly, a priority has been assisting cities in climate proofing their Integrated Development Plan and Built Environment Performance Plan.

Secondary Cities Support Programme

Still in pilot project phase, the CoGTA (with support from the World Bank and the Swiss government) is developing a programme to financially support sustainable urban development in small and mid-size cities. After its official launch, cities will be able to access support through grant proposals.

Infrastructure Investment Programme for South Africa

A 100 million euro fund jointly established by the Government of South Africa and the European Union, this fund aims to encourage large infrastructure projects by leveraging grants to attract additional loans from participating investment banks. The Development Bank of Southern Africa is the appointed fund manager and solicits proposals from various government levels.

The Green Fund

The national government, through the DEA and managed by the Development Bank of Southern Africa (DBSA), established the Green Fund in 2012 with an initial R800 million. The fund's objective is to lay the groundwork for the country's transition to a low-carbon, resource efficient and climate resilient development path. The fund responds to market weaknesses and finances projects that would otherwise not be implemented through thematic calls for proposals and tenders. While 'Green Cities and Towns' is a stated funding priority, relatively little money has flowed to municipalities (Tänzler et al. 2017a). Rather the Fund appears to favour private sector partnerships with civil society to expand investment in a national green economy. The most recent (2018) call for proposals focussed on wastewater treatment and energy capture.

The Expanded Public Works Programme

In response to high unemployment, The Department of Public Works administers grants that create temporary jobs in four priority areas: infrastructure, non-state (non-profit civil society), environment and culture and social (education and care work). Notably, the associated 'Working for Water' programme has created 90.000 jobs since 1995 through rehabilitating ecosystems. Additionally, the Expanded Public works Programme guidelines note that green jobs should be prioritised within infrastructure grants (Public Works and International Labour Office (ILO) 2015). Thus the Programme has great potential to co-finance sustainable infrastructure and highlight the co-benefits of green investment.

Climate Finance Facility

In 2018 the UNFCCC Green Climate Fund awarded \$55.6 million to the Development Bank of Southern Africa (DBSA) to establish the Climate Finance Facility for Southern Africa. With matching funding from both the DBSA and a yet to be announced national funding body, the Facility will begin with R2 billion. The Facility will 'crowd in capital' in order scale up climate finance for sustainable infrastructure and private sector mitigation and adaptation efforts (DBSA 2018).

International climate finance flows

Important climate funding is available through bilateral and multilateral support and financing. South Africa's NDC stipulates that international finance and aid will be critical to achieving the country's mitigation targets and adaptation strategies.

Direct aid comes through donor countries' development agencies or regional programmes supported by donor countries. For example, the Cities and Climate Change in Africa Programme, supported by various EU countries, funds adaptation and mitigation measures with the aim to incentivise future investment. By in large, aid normally arrives at the local level in small amounts to fund feasibility studies, risk assessments, capacity building and social entrepreneurship. Rarely are bilateral funds substantial at the scale of large infrastructure or sector development.

Major donor governments investing in climate-related projects in South Africa include the German, Swiss, Flemish, French and British governments. We cannot map out these investments or systematically evaluate their impact because no formal tracking system currently exists. At the time of writing this report, the National Treasury had taken initial steps to establish a monitoring system but lacked human resources.

South Africa seeks financial support for climate action from all available multilateral climate funds. These include the Green Climate Fund, the Adaptation Fund and the Global Environmental Facility Trust Fund (which manages additional funds such as the UNFCCC-established Least Developed Countries Fund and the Special Climate Change Fund). In order for sub-national governments to access these global funds the national government has established direct access modalities so that municipal and provincial governments may submit proposals jointly with nationally accredited entities, namely the South African National Biodiversity Institute (SANBI), a DEA agency and the Development Bank of Southern Africa (DBSA).

Aid normally arrives at the local level in small amounts to fund feasibility studies, risk assessments, capacity building and social entrepreneurship. Rarely are bilateral funds substantial at the scale of large infrastructure or sector development.

Box 1: Overview of South Africa's climate governance architecture.

Key climate policies

- National Strategy for Sustainable Development and Action Plan, NSSD (2011-2014)
- The Green Economy Accord, GEA (2011) within the Framework for the New Growth Path, NGP (2010)
- National Climate Change Response Policy White Paper, NCCRP (2011)
- Draft National Energy Efficiency Strategy (2015)
- Nationally Determined Contribution, NDC (2015)
- Draft National Adaptation Strategy, NAS (2016)
- Draft Climate Change Bill (2018)

Key climate governance bodies

- The Department of Environmental Affairs (DEA) has the mandate for coordinating South Africa's climate change responses.
- The Intergovernmental Climate Change Committee is concerned with policy coordination.
- The National Climate Change Committee is meant to promote cross-sectoral coordination with participation from government, civil society, the private sectors and labour representatives.

Key climate finance mechanisms

- Global climate finance is accessed through SANBI (Adaptation Fund and Green Climate Fund); the Development Bank of Southern Africa is accredited to access the GCF for larger scale finance.
- Local government may finance climate actions through own revenue, direct transfers via the National Budget, intergovernmental grants from specific national programmes, loans from commercial and development banks and grants and direct aid from international funders.



4. Chapter highlights:

- South Africa's climate response is fragmented both vertically and horizontally. While advancing drafts of a Climate Change Bill and a National Adaptation Plan, the country lacks policy that clearly defines the roles and responsibilities of sub-national governments and streamlines intergovernmental coordination.
- Overlapping sectoral mandates hinders climate action. In many cases, local governments have a service-delivery mandate but limited authority over supply infrastructure. This hampers climate-proofing infrastructure, uptake of renewable energy or planning for sustainable cities.
- Fragmented governance hinders the flow of substantial and reliable funds to local governments. Mainstreaming climate change into planning policies is important to increase funding from the national government; but due to lack of human resources and technical capacity, many municipalities respond to climate change on a small scale as a sub-sectoral environmental issue.
- Despite challenges, many municipalities have successfully increased climate finance, for example through the Integrated Urban Development Grant pilot programme, enacting climate change response strategies that justify an increase in National Budget transfers, the issuing of green bonds.

4. Multi-level climate governance and finance in practice

South Africa has sophisticated climate governance arrangements and a complex finance system; but in practice governing actors experience difficulties raising substantial funds necessary for transformative climate action. The fragmented system of finance is due in large measure to the still evolving multi-level governance system.

This chapter explores how the complexity of the governance system impacts the ability of sub-national actors to implement climate change policy and access climate finance. What follows is an analysis of the governance and financial architecture in practice based on the perceptions and experiences of actors as they manage, plan and budget in relation to climate change and sustainable development.

First, the chapter deals with multi-level governance arrangements and notes that climate governance is fragmented both vertically and horizontally. While there has been progress on establishing climate change as a necessary focal point of local governments, mainstreaming and climate proofing major plans and policies remain challenging. Furthermore, a number of conflicts of interests arise when analysing the management of resources and services.

The chapter then focuses on sub-national climate finance. Our research demonstrates that local governments face a number of barriers in accessing substantial and reliable climate financing. Barriers include complicated regulatory frameworks, poor credit ratings or a lack of capacity and technical expertise. Nonetheless, some municipalities have pioneered strategies to increase funds available for sustainable development and climate change response strategies.

4.1 Governance arrangements

South Africa lacks flagship legislation concerning climate change, as noted previously, but does address the changing climate in important national planning documents and policy frameworks. Principally, climate change is addressed through the lens of a green(er) economy and sustainable development. While important national policy documents

rhetorically address climate change as a priority in establishing a sustainable, equitable economy, upon close inspection mitigation and adaptation are treated topically rather than integrally. For example, the National Development Plan devotes a chapter to climate change titled 'Environmental sustainability - an equitable transition to a low-carbon economy.' A close reading of the document establishes climate change as a topical challenge to be directly addressed rather than a profound process that shapes nearly every aspect of socio-economic development.

Responsibility for responding to climate change at the local level is fragmented and unclear. While the DEA is responsible for overseeing local climate action, the national department has no authority to enforce policy at sub-national levels (a limitation that frustrated more than one interviewee). Experiences from the V-LED project reinforce existing reports, which note that even though national government policies, plans and frameworks generally acknowledge the role of local governments, they fail to endow municipal governments with the authority and resources necessary to respond to national targets (Perine and Keuck 2018; Reddy and Wolpe 2017).

Municipal environmental committees and departments operate with small budgets and lack authority to interfere with the mandates of departments dealing with water, energy, transportation and land-use/urban planning.

Within municipal governments, climate change usually corresponds to the environmental department (where such departments exist). Smaller and rural local governments might have ad-hoc environmental committees in lieu of formal departments (Mokwena 2009). Rarely do departments or committees wield substantial power. They generate little or no

revenue, operate with relatively small budgets and lack authority to interfere with the mandates of departments dealing with water, energy, transportation and land-use/urban planning. Such departments are most often focussed on key, immediate deliverables that correspond to the relevant sectoral plans and campaign promises. One interviewee from a local government association said:

"In reality, local governments, any city on any given day, is obsessing about the business at hand, which is implementing its basic mandates and its IDP. It's obsessing about making sure there's water in the taps and that the streets are clean. [...] The climate discussion becomes a little charged when it is seen to be contradicting the service mandate."

As a result, neither climate change mitigation nor adaptation is addressed by the majority of municipal departments. Exceptions exist, in particular in the better-resourced metros (see the Cape Town example in Box 2) and in cases where renewable energy, energy efficiency and/or sustainable development have been integrated into municipal Integrated Development Plans. We may nonetheless generalise that climate change response remains highly fragmented at the local government level.

An important and persistent barrier to climate action observed is a conflict of interest regarding revenue-generating service delivery and potential climate proofing of the corresponding sector or mitigation efforts. Most saliently, energy efficiency or reduced energy demand decreases municipal revenues which rely on that income to subsidise service delivery to poor residents. Municipal governments already feel pressured as wealthy households and companies opt-out of the public grid and invest in their own alternative energy services. An interviewee from a local government association said:

“When ESKOM, our main provider of energy, came up with hiking prices – the industrial sectors and companies turned to the use of their own solar panels.”

This conflict of interest is evident in many of South Africa’s large metropolitan municipal governments, including Johannesburg

Box 2: Planning for sustainable energy in Cape Town

Recognising the unsustainability of the current energy model and the city’s stated carbon reduction targets, in 2015 the City of Cape Town adopted the ambitious Cape Town Energy 2040 Goal. With a vision of a resilient, resource efficiency and equitable future, the city committed to diversifying its energy supply, increasing energy efficiency and reducing carbon emissions. Following this commitment, the city created the Sustainable Energy Markets Department (SEM) in 2017, which expanded the city’s role in the supplying electricity through a collaborative approach while employing a highly skilled team. Under the new Energy Directorate, SEM aims to:

- 1) work towards energy security and independence and drive low-carbon innovation in energy supply,
- 2) address the provision/support of access by low-income households to the best possible sustainable energy services, lower the cost to all parties of cleaner energy, and
- 3) coordinate and drive the city’s climate change mitigation work.

These actions represent an important shift in South African urban governance, moving away from simple energy distribution and towards energy generation, diversification and independence. As more cities begin to address energy supply and climate change we can expect to see this trend continue, albeit there are unresolved regulatory issues and conflict of interests that we will explore further below.

and Durban where city managers responsible for revenue generation have repeatedly used their authority to veto potential projects that would scale up renewable energy to the current maximum permitted by national regulations.

In addition to internal conflicts of interests, local governments face a series of overlapping mandates in climate-relevant sectors.

4.2 Overlapping mandates

Overlapping mandates exist within municipal governance structures and between local, regional and national governments. Such overlaps impact the delivery of basic services and hinder climate action. As detailed below in short paragraphs concerning the electricity, water, housing and transport sectors, municipal governments often lack governing authority over infrastructure or land that could be pivotal to long-term climate change planning.

The energy sector

Perhaps the most contentious mandate prevents municipal governments from operating increased control over the power supply. South Africa has a vertically integrated electricity value chain dominated by the country's largest state-owned enterprise, Eskom. Eskom generates over half of all electricity consumed in the country, 88 per cent of which is coal-fired (Carbon Brief 2018) and wields considerable influence over both the market and regulatory bodies. Eskom shares a mandate with municipal governments to provide electricity. Although municipalities own the power grids, regulations restrict their ability to generate or bulk-purchase power from any provider other than Eskom, whose economic interests align with the status quo (Montmasson-Clair 2017). As such governments are unable to invest in long-term energy generation projects that would both reduce emissions and boost the local economy. Major changes in the energy matrix could take place in the next decade if the new draft of the Integrated Resource Plan is ratified and implemented in order to significantly increase renewable energy. However, even though the new Plan recognises embedded generation, SALGA charges that it vastly underestimates embedded generation potential (Energy Governance South Africa (EGSA) 2018).

Despite the above conflict, cities have been pushing for the uptake of renewable energy. First, small-scale embedded generation allows for the consumption of renewable energy at the local scale. Residential communities, individual households and businesses are permitted to generate up to 1 MW with the approval of a Licensing Exemption and Regis-

tration Notice (Department of Energy (DoE) 2017). While small-scale embedded generation has been welcomed by municipalities such as the Nelson Mandela Bay Metropolitan Municipality as a way to achieve their goal of 10 per cent renewable consumption, other local governments are weary since opting out of the Eskom-generated energy supply reduces municipal revenue. Second, regulations restricting municipal authority are being challenged directly in court. The City of Cape Town, one of the strongest proponents of municipal energy independence, has been requesting ministerial approval to bulk-purchase electricity from independent power producers. Having never received a response from the Department of Energy, in July 2017 the city sued the Energy Minister and national regulatory body. In their legal complaint, the city alleges that the lack of response amounts to forcing municipalities to continue purchasing coal-powered electricity from Eskom (Deklerk 2017).

The urban planning sector

The apartheid urban form of wealthy city centres with distant and dispersed peripheral settlements of poor Black residents has remained largely unchanged since the inception of democratic rule (Maylam 1995; Christopher 2001; Du Plessis 2014). Urban population density in South Africa is remarkably low in comparison to other large cities both regionally and globally. As a result, transportation and service delivery are costly, inefficient and difficult to maintain at quality levels (Turok 2012). Urban planners encourage higher-density development to confront many contemporary socio-economic urban issues, including mitigating GHG emissions (Turok 2011; Dodman 2009). Historically, provincial governments oversaw the planning and construction of social housing and still do so for smaller municipalities. Recently that mandate was devolved to municipal governments. However, city governments may have difficulty appropriating empty or under-used land centrally located in order to develop low-income housing. Much of this property belongs to the national government under the National Defence Force and other departments, which are often unwilling to cede assets to local government.

The transport sector

Low-density, dispersed cities create challenges for developing efficient, affordable and low-emissions transport systems. Residents in South African metros are predominantly reliant on private vehicles and minibus or taxi services. Accordingly, cities in South Africa consume half of the country's petrol and diesel and modelling suggests that urban energy consumption could double by 2035 (Sustainable Energy Africa (SEA) 2015). To

respond, metros and mid-size intermediate cities need to invest in integrated mass transit solutions as mandated by the National Land Transport Transition Act (1996).

To-date, transport solutions have largely centred on the provision of improved bus systems, some of which have integrated low-emissions vehicles into their fleets. However, if cities wish to invest in passenger rail, they will overlap with the jurisdiction of the Passenger Rail Agency of South Africa, which is responsible for nearly all passenger trains in the country. While rail holds potential for fast, reliable and efficient travel, passengers have been abandoning the train for private transport and the availability of train seats in some of the largest metros have been decreasing (City of Cape Town 2018). The Gauteng Province offers an exception with the Gautrain service linking Johannesburg and Pretoria and offering a quality transport alternative to personal vehicles. Nonetheless, the service is costly and inaccessible to the majority of the urban working class.

The water sector

Under South African law, the national Department of Water Affairs and Sanitation has exclusive jurisdiction over the country's rivers, dams and other water infrastructure. Local governments, on the other hand, are mandated to deliver water services within their jurisdictions but in many instances rely on water boards for the bulk services and/ or the Department of Water Affairs for the provision of water resource infrastructure. This segregation of responsibilities requires close coordination between municipalities, water boards and the Department of Water Affairs. For long-term investment projects for more sustainable water systems, local governments face a complicated and lengthy regulatory process. The recent Cape Town water crisis is a prime example of this conflicting mandate. While drought and increasing demand created the conditions for a water shortage within the city, some specialists maintain that politics and a lack of leadership were the principal factors of the crisis (Petrie 2018).

Vertical climate governance relations

Against the backdrop of overlapping sectoral mandates, greater clarity of local, provincial and national roles and responsibilities for climate action is required. One interviewee from a local government association stressed the importance of policy coherence and intergovernmental coordination to support local climate action:

“We all understand that climate change affects a municipality in a number of functional areas, be it water services, roads and transport, energy or disaster management. You can imagine at a national and provincial level each department is dealing with a sole mandate. [...] A municipality as one institution is dealing with all of them. So there has to be policy coherence. Vertical and horizontal integration would be important because essentially a municipality has to receive a policy message and that is distilled and clear. A municipality has to be enabled to perform its functions. So the more national, provincial and local level government institutions are able to speak to each other and connect and have one policy vision, it becomes a lot more simpler for a municipality to take that mandate and run with it, and respond to those risks and hazards that are presented by climate change” (2016).

A number of intergovernmental coordination mechanisms exist - such as the SALGA, CoGTA and Intergovernmental Climate Change Committee (IGCCC) - but have not yet achieved their full potential in overcoming the challenges presented by the country's long history of centralised decision making (Leck & Simon 2018). The IGCCC includes participation from the three spheres of government and is tasked with defining the parameters of climate action among them. However, led by DEA, it is perceived as a top-down information platform used to present national efforts and request feedback from local government (interview with experts, 2017).

There is more clarity about sectoral and departmental objectives regarding climate change at the national level of government (interview with expert, 2017). However, when it comes to vertical alignment among the national, provincial and local spheres of government, the process is not “as fluid as we would want” (Interview with local government association, 2017). For example, the 2030 mitigation pathways established in Chapter 5 of the National Development Plan 2030 have a sectoral lens. The local-level implementation is where all these sector views “meld together” (Ibid.). But “sometimes it becomes difficult to govern [locally] when there are so many line departments that are responsible for a certain mandate [...] potentially dictating terms, and the local governments are not contributing to targets setting” (Ibid.).

The lack of **voice and contribution** by local government in target-setting is a key challenge. Despite national level efforts to support climate planning and action by municipalities, “when it comes to target-setting around climate change and defining what the country needs to do, local government is often voiceless [...]. Especially related to environmental issues, most of the systems that are in place are focused on the two [levels] of government” - the national and provincial (Interview with local government association, 2017).

One example is the National Integrated Development Plan Forum that assesses municipalities' IDPs regarding their quality, completeness and compliance with national and provincial guidelines. The forum comprises national sector departments, national treasury and representatives from the nine provinces. Local governments themselves are not included in these assessment sessions and are only represented "by proxy", meaning by SALGA (interview with national department, 2017). The implication is that local governments do not have a vehicle to directly respond to the views of the national and provincial level with regard to their local development plans.

Something similar happens with the technical and political intergovernmental relations forums (the MINMECs and MINTECHs). Mostly this is done by proxy and local government presence is "treated as voluntary and not mandatory" (Interview with local government association, 2017). Participants at the V-LED Africa regional workshop (April 2018) argued for stronger local government participation in intergovernmental forums.

"Their voice needs to be heard at the policy-making level. Municipalities' forums and indabas are not enough, municipalities should participate in intergovernmental sector forums as functioning multi-stakeholder platforms can harmonise agenda setting across and between government levels. [...] Intergovernmental relations need to go beyond consultation and really stress collaboration" (statement by local government working group at V-LED regional workshop, 2018).

As a result of the conflicting mandates and the still evolving multi-level climate governance framework, there is growing recognition of the need for transformation in South Africa's water, transport, urban planning and energy sectors, and in the country's intergovernmental coordination mechanisms. The draft National Adaptation Strategy and the proposed Climate Change Bill, aim to articulate the institutional roles and responsibilities of sub-national governments for implementing cross-sectoral climate responses. Several actors in the country have high hopes that the bill will strengthen the coordinating role of DEA and spell out the roles of each sphere of government in climate action (interviews with experts, 2017). Local level stakeholders further hope that these measures will contribute toward resolving some of counterproductive institutional arrangements that currently hinder good practices in climate governance.

4.3 Access to finance flows

Having discussed governing arrangements that shape and sometimes obstruct local climate action, this chapter now focuses on finance. Specifically, we are interested in how the South African multi-level governance system facilitates the flows of funding from national and international sources to municipal governments in relation to low-emission development and climate change mitigation and adaptation. However, as discussed, local governments face a myriad of obstacles in accessing funds that allow for climate-specific investments and/or long-term infrastructure projects with climate co-benefits.

Long-term planning is required to drive climate-smart investments by municipalities

Transformative climate action at the local level requires investment in large-scale, climate-resilient infrastructure that also delivers on emission reduction targets. This requires strategic long-term planning and substantial financial resources as well as coordination between spheres of government. As described in Chapter Three, Integrated Development Plans are the core municipal planning documents developed every four years and updated yearly. While there is growing advocacy to link this short-term planning vision with the twenty-year Spatial Development Framework, the two planning documents operate independently and the degree to which climate change is addressed depends on the political will of local government (efforts to change this fragmentation are being explored by the national government and are discussed further below). As such, long-term capital investment generally lies outside of the four-year planning cycle that dominates a local government's budget.

The perceived high-cost of climate-resilient infrastructure is another challenge. Municipalities tend to favour lower cost capital expenditure without factoring in the future cost savings that climate-resilient infrastructure may provide through increased efficiency, reduced maintenance and reinvestment costs. This is particularly relevant for local governments, which generally underinvest in infrastructure maintenance, increasing vulnerability to climate effects. Likewise, as discussed at a V-LED dialogue event, short-term spending is seen as politically expedient for politicians facing re-election, further discouraging high-expenditure on long-term infrastructure. In summary, local governments, many of which face revenue shortfalls, perceive high-capital infrastructure investment as pitted against investing in immediately tangible service delivery improvements.

Rather than mainstreaming, municipal governments are likely to treat climate change singularly. Most often the department designated with environmental affairs will seek bi-

lateral support or grants to fund a climate change project. A study conducted by the German development agency, GIZ and SALGA in 2015 concluded that municipalities have growing interest in greening services, but they tend to focus on a few sub-sectors related

to climate change or green energy (Ferry and Kalm 2015).

Box 3: Mainstreaming climate change in Johannesburg's urban planning sector

The City of Johannesburg has pushed mainstreaming furthest with its comprehensive Policy for the Promotion of Energy Efficiency in Land Use Development. This policy development involved working across the executive, legislative and managerial spheres of government and recognising the Integrated Development Plan as the highest political planning policy. With high-level political buy-in, the Integrated Development Plan was analysed to climate proof capital expenditure and promote sustainable, compact city development. The legislative sphere contributed with coherent land use planning schemes. A regulatory clause states that all development applications will be assessed through a lens of climate change and resource efficiency. Next steps include building managerial capacity and commitment so that government officials dealing with developers on a daily basis appropriately implement the policy.

Siloed organisations or departments (often environmental departments have limited authority and sway) are less likely to create holistic climate change approaches. There is a need for a climate-facilitator in many local governments—an individual capable of opening doors, fostering political buy-in and forging working relationships between sectors.

Responding to the challenges of climate mainstreaming, the DEA, CoGTA and SALGA have adopted the “Let’s Respond Toolkit”. Currently used by 35 municipalities, the Toolkit is designed to take municipal leaders (elected and corporate) through the necessary steps towards climate responsive planning and provides a set of tools to support the process. Following the guide, developed by V-LED partner organisation, SEA, leaders are able to identify communities and sectors at risk of climate effects and develop cross-sectoral response plans. The tool stresses the importance of mainstreaming climate change into the Integrated Development Plan.

Long-term planning requires strategic procurement and institutional learning

The legal framework concerning municipal procurement is perceived to be restrictive and time consuming. All projects implemented by municipalities must adhere to the Muni-

pal Finance Management Act (MFMA), among other regulations, which requires municipalities to source goods as cost-effectively as possible. The act prescribes procurement through competitive tender processes and determines how a municipality is to contract service providers. In general municipalities are not permitted to sign contracts that result in a delivery period longer than three years. For commitments of more than three years, Section 33 of the MFMA requires a public notification and participation process. Municipalities are reluctant to engage in this process due to lack of experience, limited human resources and the very real threat of appeal from unsuccessful bidders (appeals are common and cause lengthy delays). Multiple interviewees and V-LED project participants cited the long tendering and appeals processes as disincentives to long-term planning projects.

Interpretation of the MFMA regulations by officials is often conservative and this results in the delay of climate projects being implemented. In practice this presents important barriers to innovation, long-term planning and flexibility, three essential characteristics of successful climate action interventions.

Most municipalities face severe capacity constraints. Climate adaptation and mitigation are relatively new concepts at the local level and many officials are still gaining the experience and knowledge necessary to develop sophisticated long-term, cross-sectoral plans, raise the necessary funds and cultivate technical expertise necessary to oversee implementation. Often consultants are appointed for these tasks, but unless carefully managed, knowledge is rarely institutionalised. Large municipalities have better capacitated technical departments, staffed with climate change project-relevant skills.

Box 4: The challenge of reporting and verification systems

Key performance indicators (KPIs) could be used to monitor the implementation of climate change planning and action while increasing transparency as well as investor/donor confidence for accessing long-term finance. But KPIs are a challenge for local governments. First, even where governments are responding to climate change, indicators that measure progress or success are often absent. Because indicators reveal implementation gaps or failures, some local actors may be cautious to invest in measuring and monitoring. Second, there is no mandate that local governments measure or monitor climate action. National authorities (both the DEA and the Department of Mines and Energy) have been drafting regulations, but KPIs have remained in draft stages for many years. Third, municipalities already face staffing shortages and cumbersome reporting requirements. Without a direct mandate and additional funding, local governments lack the human resources and cross-sectoral technical knowledge to develop or adopt strong monitoring and indicator measurement systems.

The intergovernmental grant system is not structured to support local climate action

As discussed in the previous chapter, South African municipalities rely on intergovernmental grants as a major source of revenue. These grants represent both opportunities and challenges for climate action. While there is no climate-specific grant available, a number of grants could be used on mitigation, adaptation or sustainable growth projects. This requires strategic and at times innovative planning when developing grant applications, for example climate proofing infrastructure plans or mainstreaming climate change into city planning.

Municipalities can access a wide range of conditional municipal grants; however, a primary condition underpinning many is that funds must be direct towards a city's poorest residents. Mainstreaming climate change into inclusive growth projects or climate proofing infrastructure plans requires technical knowledge and cost-benefit analysis to demonstrate the potential benefits of climate change action to the poor. This is a challenge for many local governments facing human resource shortages and which often rely on outside consultants for technical aspects of climate planning. Similarly, the majority of grants are output, rather than outcome, driven. This incentivises proposals to focus on low-hanging fruits with clear, short-term and quantifiable results rather than the sometimes intangible results of climate action projects. As such, governing officials at the local level may not know how to strategically incorporate and technically justify climate action into intergovernmental grant applications.

The intergovernmental grant system is perceived as fragmented, complex and confusing. The system is managed vertically and topically, with replicating and overlapping objectives. V-LED participants from local governments confessed that the complexity of the available grants, and the high-level of human resource investment with no guarantee of returns, can result in paralysis. Officials within the National Treasury recognise that many municipal planning offices lack the technical capacity for climate mainstreaming and have, in response, developed the Infrastructure Skills Development Grant which can be used to fund capacity building for climate change mainstreaming.

The National Treasury has been doing important work around the intergovernmental grant system creating a valuable entry point for climate change mainstreaming in local planning.

In addition to exploring ways of incentivising climate change mainstreaming within individual grants such as the Integrated Urban Development Grant described in text box 5, some within the national government are pushing for a mechanism that would

work across the suite of grants offered. The Climate Support Component of the National Treasury's City Support Programme recommends using the Built Environment Performance Plans (BEPPs). BEPPs are required of all large and mid-size municipal governments and bring together planning and budgeting aspects of a city's infrastructure. BEPPs follow guidelines released annually; and according to interviews with corresponding officials, the National Treasury is exploring how to work climate proofing into the guidelines. Because an array of national grants and financing are tied to BEPPs, this could reshape urban financial regulation without needing to undertake difficult and time-consuming legislative reform.

Municipal own revenue models do not enable climate action

South African municipalities are able to access a range of national finance flows, as described above. And despite challenges and limitations, some local governments have had success in using the intergovernmental grant system to fund climate action. But sustained, substantial and reliable financial flows will require municipalities to dedicate and leverage locally-generated revenue for climate action. However, a majority of local political leaders see this as fiscally unworkable given priorities, deficits and limited municipal own revenue. Nonetheless, increasingly fiscal independence is a local imperative beyond climate action.

As South Africa's economic growth has slowed, national government has made it clear that generating their own sources of finance is necessary for the continued growth of municipalities. In both short and long terms, improving efficiency of service delivery, decreasing energy costs, and making smart investments in climate-resilient infrastructure

Box 5. The Integrated Urban Development Grant

The CoGTA and National Treasury are currently piloting the Integrated Urban Development Grant (IUDG) with the intention of financing “spatial transformation—creating liveable, inclusive and resilient towns and cities while reversing the apartheid spatial legacy” (Nel 2018). The IUDG is currently piloted in intermediary cities and provides funding for public investment in infrastructure for the poor and promote increased access to municipal own sources of capital finance. The grant incentivises cities to link their development expenditure to their long-term Spatial Development Frameworks (discussed above). The Spatial Development Mechanisms are currently underutilised by local government but hold potential for long-term climate change planning. The CoGTA is exploring how to further incentivise coherence between the IUDG and long-term sustainable planning which holds further potential to mainstream climate change and leverage additional financial resources to encourage climate change mainstreaming into the Strategic Development Framework.

are all strategic moves for South African municipalities.

As discussed, national regulations limit local governments' ability to develop their own independent sources of clean energy. Eskom effectively monopolises the national market and municipalities are unable to enter into bulk purchase agreements from independent power producers or generate and sell their own power. There is also a local conflict of interest (discussed in section 4.2): on average about 35 per cent of municipal own revenue comes from the sale of electricity which is largely used to cross-subsidise service delivery to poor residents.

Currently, one option is to encourage small-scale embedded generation. Smart regulation and streamlined bureaucracy will prevent electricity grid defections from wealthier residents and allow consumers and the municipality to generate their own reliable and clean energy at a fixed and predictable cost (Filipova and Morris 2018). Some municipalities may hesitate to encourage consumer-generated electricity since it potentially means lower sales; however a few governments have begun experimenting with different regulatory models and the effect on municipal revenues is negligible (Reddy and Wolpe 2017). Indeed, as more consumer-generators feed unused power into the grid, municipalities will be able to reduce bulk purchases of coal-fired energy from Eskom.

A number of constraints limit municipal access to capital markets

A majority of municipalities are unable to access substantial amount of finance needed to invest in large-scale climate action, often because they lack creditworthiness. With operational budgets that exceed revenue collection plus national transfers, many local governments have severely limited borrowing capabilities. This is especially true for smaller municipalities without large industry, growing real estate markets or strong tourist economies.

Adequately responding to climate change will require large scale infrastructure and project finances, but cash-strapped cities weigh long-term investments against immediate budget needs. Access to international finance requires approval from the Ministry of Finance, which takes time and may make international lenders weary. Even progressing that far is a challenge for many municipal officials interviewed for this report, as lenders and donors prefer to provide top-up funds that complete or finance to scale-up existing long-term investment programmes (further substantiating the above discussion on strategic long-term procurement processes).

One possible solution pioneered by larger metros is issuing so-called green bonds, which can be competitively priced and paid out over a longer time period than traditional loans. In 2014 Johannesburg launched South Africa's first Green Bond and raised R1.4 billion. Cape Town followed suit and raised R1 billion for sustainable water infrastructure and electric buses. Bonds may not only be for large metros. The Western Cape Province is encouragingly in the process of launching a pooled Green Bond for a group of small municipalities. Finally the Johannesburg Stock Exchange launched a Green Bond Segment in October 2017 as a mechanism for 'socially responsible investing' companies and other institutions to raise funds ring-fenced for low-carbon initiatives.

International climate finance is available but perceived to be difficult to access

While the South African government has institutionalised a process through which municipal and provincial governments can apply to international climate change funds, a number of barriers exist. First, as the funds move away from business-as-usual scenarios to climate-resilient development, funders encourage responses that are scalable, replicable and transformational. Especially small local governments lack the capacity and human resources to create suites of proposals that meet funders' criteria. As one interviewee from a local government association put it:

"One of the barriers to accessing climate finance is the ability of municipalities to generate credible proposals that are competitive in nature. If domestically you look at smaller municipalities, B3s and B4s³, and they put in a proposal to GEF through one of the NIEs, and Durban has put in a proposal as well, in all likelihood that project will go to Durban because they have the capability to draw up a proposal that is credible, bankable and they often have co-funding ability" (2017).

However, even large metros skilled at obtaining national grants report difficulty navigating the international fund landscape. The prospect of investing time and resources into grant proposals that may not be funded, make many officials weary of trying. The potential payoffs, nonetheless, are perceived to be significant if an application is successful.

Second, the current trend in blended finance mechanisms is unappealing to many local governing actors. The Development Bank of Southern Africa holds the largest share of loans to SA municipalities (R62 billion), and the latest climate action grant on offer is

3) South Africa's constitution distinguishes three types of municipalities: metropolitan (category A), local (category B) and district (category C) municipalities. Category B municipalities are subdivided into four categories (B1-4). B3 municipalities include only small towns and B4 municipalities are mostly rural.

blended with mandatory loans. Municipal leaders interviewed expressed hesitation at the interest rates and conditions now packaged with grants, and are thus weary of this new finance mechanism.

Third, available financing is geared towards hard infrastructure and favours mitigation over adaptation. Additionally, international climate finance currently requires projects be climate-specific, such that applicants have to differentiate between climate action and development.

Fourth, international funding cycles do not align with national funding cycles. Furthermore, such funds cannot be considered reliable and therefore cannot be integrated into budget planning. The result is a start-stop approach, in which cities implement climate action when money is available but often have to stop mid-way when funding runs out.

Overseas development aid is an alternative to international loans or grants from global funds. However bilateral aid is largely directed at national governments and coalitional organisations (e.g. SALGA or C40). When targeted at the local scale, direct aid is rarely given in significant amounts and normally funds small projects, research and feasibility studies. Furthermore, in order to access such finance directly, local governments will need to navigate foreign bureaucracy and technical reporting requirements as well as respond to donor country agendas. Nonetheless, political will and good relations with donor agencies can result in finance flows. As noted by multiple interviewees, an equally important challenge is how local governments can position themselves to both receive donor aid and drive their own locally-situated climate agendas.



5. Synthesis and entry points

The complex challenges presented by climate change require sub-national authorities to invest in planning, budgeting and implementing transformative local climate actions. Yet, they face various obstacles in accessing adequate finance. This section concludes the study by presenting a number of entry points for enhanced local access to climate finance.

International and South African domestic climate finance mechanisms are evolving in tandem. Two key factors affect South Africa to keep pace with ambitious climate action. First, the country continues to struggle with poverty, inequality and unemployment; and even though global discourse recognises socio-economic development and climate action as mutually dependent rather than mutually exclusive, too often South African leaders view climate action as unrelated to the nation's triple challenge. Political buy-in lacks in part because energy and mining are historically central to the national economy and would be naturally targeted in a transition towards low-emission development. Second, a lack of action by major emitter countries and low ambition among many wealthy countries reduces the political pressure on and ambition of South Africa to curb emissions and invest in climate response.

It is evident that the increasing flows of international finance for climate action is helpful as a catalyst for change, but it is not enough. Structured, global flows are unreliable, making long-term planning and programmatic approaches difficult. Nor are they designed with local climate action in mind, making them less accessible for small cities and peri-urban and rural towns.

Throughout this report we have highlighted barriers and limitations for transformative climate action. Many such barriers require regulatory reform, restructured governance arrangements and a recommitment to more coherent multi-level governance, in which different government levels coordinate and cooperate to ensure consistency of policy and practice. While these challenges will take high-level political buy-in to surmount, there are a number of solutions that local governments can pursue based on their own authority and initiative.

A principal point of this report and the V-LED project is that strategic action from local governments can drive national ambition and impact regulations and structures that are beyond their immediate authority.

5.1 Entry points for enhanced local access to climate finance

This report has highlighted the gaps in multi-level governance and challenges faced by local governments when planning, budgeting and implementing transformative climate action. Nonetheless, a specific objective of the V-LED study is to better understand enabling factors and known strategies of successful climate action. With this in mind, we conclude the report discussing the major entry points identified throughout the V-LED project.

Building high-level commitment emphasising the co-benefits of climate-resilient development



The current financial decision-making processes of municipal governments favour short-term planning shaped by the short-term Integrated Development Plans and election cycles. Climate resilience and low-emission development require ambitious investments and long-term planning.

We must shift perspectives across governance levels and sectors so that **climate action and development are not considered pitted against one another in a zero-sum game**. Clearly articulating climate action's co-benefits for job creation, education, inclusive, equitable growth and benefits of avoided losses to climate impacts, can increase political buy-in after reaching a consensus that **responding to climate change also responds to South Africa's triple challenge of poverty, unemployment and inequality**.

A tangible action is the dissemination of existing and development of **new planning tools and capacitation** that explicate the social and economic benefits of climate resilient, low-emission development. These tools can be included in existing programmes offered to municipal officials such as guidelines and trainings for the Built Environment Performance Plan and Integrated Development Plan.

Advancing long-term climate response planning will facilitate municipal access to international climate funds which favour transformational approaches. To this end the project preparation support offered by the DEA and other National Implementing Entities should be utilised to assist in the development of **a suite of bankable projects**.

National departments, such as the CoGTA, can further cultivate local leadership by investing in communication channels that work to integrate local leaders into national policies and targets respond to local challenges and spotlight successful locally-driven strategies for replication.

Mainstreaming climate change into municipal development finances



Climate Change governance and finance are still treated as stand-alone issues, too often cut off from other relevant planning and decision-making processes.

Mainstreaming climate change into development and sectoral plans is critical to transformative, sustained climate action. The most immediate entry point in South Africa is to **mainstream climate change into the Intergovernmental Grant system**. Local authorities are already familiar with the system and the pilot programme for integrated Urban Development Grant is a valuable opportunity if it is brought to scale by the CoGTA and National Treasury. The need for mainstreaming comes at an opportune moment: The National Treasury is reviewing the intergovernmental grant system with the idea of consolidating the substantial number of current grants offered.

Mainstreaming climate change in policy and programmes is vital, but **implementation will require cooperation across governing levels and sectors**. There is a need for continuous recommitment for multi-level governance with a diversity of stakeholders through sustained dialogue and active working relationships. Local, regional and national leaders should recognise this principle and institutionalise its practice.

Understanding fiscal regulations through the lens of climate change



A pervasive perception among local governing actors is that **national regulations of municipal finance render bold climate action near impossible**. This is more myth than reality. While there are bureaucratic inconveniences, the National Treasury will work with municipalities who seek to engage in long-term climate change planning.

Local governing actors may lobby for regulatory changes, but long-term planning requires a willingness to work within the current regulatory system. The V-LED project and study participants repeatedly expressed a view that certain planning tools were hindered by the Municipal Finance Management Act. Many municipal finance officers interpret this act conservatively and avoid seeking exceptions to certain clauses prohibiting, for example, public contracts extending beyond three years. The National Treasury, aware of this perception, is currently convening seminars and creating new guideline documents to **assist local officials navigate the nuances of the law to enable long-term climate planning and investments**.

Establishing monitoring, review and verification frameworks



There are no established frameworks in place to monitor, review and verify climate action. Transparent tracking of climate projects should increase access to climate finance as municipalities are better equipped to shift spending priorities in response to proven effective strategies.

The Key Performance Indicators, which are used to evaluate municipal officers' work, offers an opportunity to provide clear guidelines for what is expected in terms of mainstreaming climate change into their individual roles and tasks. This is particularly true for planning officers, who could be instructed to include climate change considerations into

existing planning frameworks and/or develop climate-specific plans, such as a Municipal Climate Change Adaptation Plan.

Establishing monitoring, review and verification frameworks are well within the power of municipalities for develop. **Transparent monitoring and evaluation sends strong signals to donors and investors and should make proposals for grants and loans more competitive.** This is particularly true for international climate finance, where such frameworks are critical for technical reporting.

Driving innovation in municipal own revenue models



Cash-strapped municipalities have limited resources from which to invest in climate planning and response. Energy service provision is an important revenue generator for municipalities but is counterproductive, as currently structured, to sustainable development and NDC fulfilment. The legal frameworks, however, are complex and with legal cases pending, large-scale municipal actions are limited in the short-term.

Despite limitations, **municipalities can develop revenue-generating service delivery systems** that simultaneously increase climate resilience, decrease emissions, boost local economic activity and decrease dependence on the national energy monopoly - Eskom. Capitalising on climate response activities, local communities will benefit from added jobs and reduced long-term maintenance costs.

Small-scale embedded generation permits on-site generation and use of renewables up to 1 MVA. By investing and encouraging SSEG, local governments build climate resilient energy systems outside of the state monopoly and prevent electric grid defection. Of course, increased uptake of renewable energy at the local level contributes to achieving South Africa's NDC emissions reduction target.

Identifying and implementing innovative finance arrangements



Municipal governments with poor credit ratings have severely limited access to international finance, and sources of finance that are available do not align with long-term climate planning and/or municipal economic interests.

There are three readily identifiable entry points spanning local, regional and national levels. First, at the national level, the Treasury is considering a **change to the Municipal Borrowing Framework** that would allow local governments to ring-fence some intergovernmental transfer money towards honouring debt occurred from approved projects. This regulatory change could shore-up lender confidence in cases of poor credit ratings for small cities and towns.

Second, as pioneered by Johannesburg and Cape Town, the green bond market has proven potential to create new sources of substantial finance for climate action. **Green bonds have proven attractive to investors and align with service delivery, in particular renewable energy and energy efficiency.** Bonds address key challenges, providing long-term finance beyond the standard three-year timeframe and at significantly lower interest rates than commercial 10-year loans.

Third, as smaller municipalities cannot attract similar interest in bond investments as large metros, **provincial governments can coordinate pooled finance schemes** such as the pooled green bond currently being pioneered by the Western Cape Province. Special Purpose Vehicles can be established at the sub-national regional level to oversee pooled bonds and/or collective grant funding.

Strategic utilisation of available support mechanisms for accessing global climate funds



Municipalities have reduced access to global climate change funds because they are ineligible to apply for funds individually. Local officials perceive applying through nationally accredited entities to be onerous and risky.

National organisations familiar with international grant making and with technical expertise should **partner with municipalities willing to invest in strong applications to global funds**. Institutes that are accredited to co-apply with municipalities already offer some support services for municipalities, which are currently underutilised. The potential payoff for the investment is significant and the steep learning curve of the first application facilitates subsequent applications.

Blended climate finance is gaining recognition as an important mechanism in international arenas but still poorly understood by many local governing actors. When strategically used, initial grants can finance the development of a project pipeline, followed by loans to finance project execution. Bonds or other long-term investment mechanisms can re-finance the original debt in the long-term economic interests of the local government.

There is an important **role for civil society to play in raising awareness about existing support mechanisms and in directly assisting local governments develop suites of bankable projects** necessary to attract enough finance for transformative climate action.

5.2 Conclusion

South Africa has made substantial progress in the regulatory and institutional climate governance framework. At the sub-national level, however, the lack or inaccessibility of climate financing is widely perceived as a major limitation to cross-sectoral and scalable climate action.

Given that sub-national governments play a pivotal role in setting South Africa on a low-emission development pathway, increasing the flow of climate finance from international and national to local governments is a crucial lever for transformative climate action. While this will take high-level political buy-in, this study has also presented a number of solutions that local governments can pursue based on their own authority and initiative. Through these and other entry points, South Africa can empower local governments to become agents of change and secure a sustainable future for its citizens.

List of interviews	LOCAL	PROVICIAL	NATIONAL
PUBLIC SECTOR	<p>eThekwini Municipality: Departments of: Energy, City Management, Finance, Resilient Cities, Environmental Planning and Climate Protection, Environmental Planning and Climate Adaptation, Strategic Spatial Planning and Botanical Gardens of ; Departments/ Offices of: Trade and Investment, Energy and Climate Change.</p> <p>City of Cape Town: Departments of: Environmental Resource Management; Strategic Policy Unit.</p> <p>City of Johannesburg: Departments of: Air Quality, Climate Change and Energy; Climate Change Adaptation and Mitigation; Small Scale Embedded Generation.</p>	Gauteng Department of Agriculture & Rural Development.	National Treasury; Department of Environmental Affairs; Department of Cooperative Governance and Traditional Affairs; South African National Biodiversity Institute.
CIVIL SOCIETY, ACADEMIA, DEVELOPMENT PARTNERS		South African Local Government Association Limpopo.	AFD; C40; GenderCC-Women for Climate Justice; GIZ South Africa; Lawyer & expert on MMFA & regulatory environment; NEPAD Business Foundation; South African Local Government Association; SouthSouthNorth (reviewer of the study); University of Cape Town; WWF South Africa.
PRIVATE SECTOR, BANKS			African Clean Energy Developments; Development Bank of Southern Africa; Infrastructure Finance Corporation Limited (INCA); Old Mutual Investment Group South Africa; Standard Bank, Public Sector Corporate Banking.

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South Africa is both vulnerable to climate change impacts and a major greenhouse gas emitter due to its dependency on coal for energy and the high-emissions mining and industrial sectors. In its transition towards a low-emission society, national, provincial and local governments will need to strike a delicate balance between the country's mitigation commitments, adaptation needs and ambitions to create an inclusive economy.

How can South Africa coordinate ambitious climate action across sectors and governing levels? How can sub-national governments finance and implement climate action?

This report is part of a series of four country studies and one synthesis report that examine climate change governance and action in Kenya, Philippines, South Africa and Vietnam through a multi-level governance lens. The studies are based on the four-year V-LED project – Vertical Integration and Learning for Low-Emission Development in Africa and Southeast Asia – funded by the German Ministry for the Environment (BMU) as part of its International Climate Change Initiative (IKI).

