



South Africa's 1st Annual Climate Change Report

Climate Change Adaptation Governance and Management

Theme G



environmental affairs

Department:
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REPUBLIC OF SOUTH AFRICA

IMPRINT

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The seven Themes of this Report are:

- ▷ **Theme A:** A Synopsis of South Africa's 2015 Annual Report on Monitoring Climate Change Responses
- ▷ **Theme B:** South Africa's Climate Change Monitoring and Evaluation System
- ▷ **Theme C:** Climate Change Trends, Risks, Impacts and Vulnerabilities
- ▷ **Theme D:** Tracking South Africa's Transition to a Lower Carbon Economy
- ▷ **Theme E:** Monitoring the Adaptation Landscape in South Africa:
Desired Adaptation Outcomes, Adaptation Projects and the Intended Nationally Determined Contribution
- ▷ **Theme F:** Climate Finance
- ▷ **Theme G:** Climate Change Adaptation Governance and Management
- ▷ **Theme H:** Near-Term Priority Climate Change Flagship Programmes
- ▷ **Theme I:** Key Outcomes of COP 21

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FOREWORD BY MS. EDNA MOLEWA

MINISTER OF THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Climate change is one of the greatest challenges of our time. As part of the global community, we know we shoulder an immense responsibility to deal with climate change and its impacts. The more we disrupt our climate, the more we risk severe, pervasive and irreversible impacts. That said - we do indeed have the means to limit climate change and build a more prosperous, sustainable future for our country and world, and all who live in it.


South Africa has endorsed the National Climate Change Response Policy as a vision and a framework for an effective climate change response, and the long-term, just transition to a climate-resilient economy and society. The policy is the product of an extensive consultation process. It sets two high-level objectives:

- **Firstly**, to effectively manage the inevitable climate change impacts through interventions that build and sustain South Africa's social, economic and environmental resilience and emergency response capacity; and
- **Secondly**, to make a fair contribution to the global effort to stabilise greenhouse gas (GHG) concentrations within a timeframe that enables economic, social and environmental development to proceed in a sustainable manner.

South Africa's approach towards an effective climate change response is both developmental and transformational. It is developmental in that we are prioritising climate change responses that have significant mitigation or adaptation benefits, AND have significant economic growth, job creation, public health, risk management and poverty alleviation benefits. It is transformational in that we are seeking to address climate change at a scale of economy that supports the required innovation and finance flows needed for a transition to a lower carbon, efficient, job creating, equitable and competitive economy. In essence, it is about sustainable development.

Work is well advanced in implementing this National Climate Change Response Policy. One of the key elements of the climate change response is a country-wide monitoring and evaluation system that tracks South Africa's transition to a lower carbon and climate resilient economy and society.

The main output of the climate change monitoring and evaluation system is South Africa's annual climate change report. This year, the Department will publish its first annual climate change report. This report focusses on (i) quantifying and profiling the impact of ongoing or recently completed mitigation actions (ii) updating the information on climate finance that was reported in South Africa's



first Biennial Update Report (iii) providing latest available information on climate change risks together with describing ongoing adaptation projects (iv) presenting progress in establishing a credible tracking system for key climate change actions in the country (v) updating the roadmap on climate change flagship programmes (vi) recognising and profiling climate change actions that have been taken by the local government sphere of government and (vii) setting out key outcomes of the 21st Conference of Parties (COP 21) which took place in Paris in December 2015.

Internationally, South Africa submitted its own Intended Nationally Determined Contribution (INDC) to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat in September 2015. Our INDC encompasses three distinct components namely mitigation, adaptation and the means of implementation. The main aim of the next annual report (2016/17) is to initiate an in-depth annual process of reporting progress against South Africa's INDC.

Lastly, there is vast potential for co-operation in producing these annual reports. We recognise and thank all those that have assisted us to produce the first report. For this report, we received contributions from all three spheres of government, the private sector, civil society, foreign

embassies, and academia. In addition, I would like to thank the German government for the extensive support that we have received through GIZ. We invite many others to continue the collaboration with us as we contribute towards the identification of opportunities for further climate change actions and management of current and future climate risks with the view to consolidating the gains that this country has attained so far by improving peoples' livelihoods, conserving biodiversity, and improving human well-being. We believe that by working together; we can save our tomorrow today.

Thank you



MS. EDNA MOLEWA

Minister of the Department of Environmental Affairs

TABLE OF CONTENTS

1. INTRODUCTION	7
2. ENABLING LEGISLATIVE FRAMEWORK	9
2.1 Background	9
2.2 Overarching Legislation with Explicit Reference to Climate Change Adaptation: The Disaster Management Amendment Bill of 2015	10
2.3 Overarching Legislation and Legislative Instruments with Implied Provision for Climate Change Adaptation	10
2.3.1 Disaster Management Act No 57 of 2002	10
2.3.2 Spatial Planning and Land Use Management Act No.16 of 2013	10
2.3.3 National Environmental Management Act No. 107 of 1998	11
2.3.4 National Water Act 36 of 1998	11
2.3.5 National Housing Code Technical and General Guidelines (Part 3)	11
3. ENABLING ENVIRONMENT FOR CLIMATE CHANGE ADAPTATION GOVERNANCE AND MANAGEMENT	12
3.1 Methodology Used to Collect Information on the Enabling Environment	12
3.2 National Departments' Perspective	12
3.2.1 Policy and Planning	12
3.2.1.1 Development of climate change/adaptation strategies and plans	12
3.2.1.2 Mainstreaming of climate/adaptation into other policies and plans	15
3.2.2 Institutional Capacity	19
3.2.3 Coordination Structures	19
3.2.4 Tools to Inform Policy and Decision Making	19
3.2.5 Funding Mechanisms on Climate Resilience: Background	19
3.3 Climate Technology Transfer	20
3.4 Provincial Perspective	21
3.4.1 Policy and Planning	21
3.4.2 Institutional Capacity	21
3.4.3 Coordination Structures	21
3.5 Municipal Perspective	23
3.5.1 Approach / Methodology	24
3.5.2 Drivers of Mainstreaming of Climate Change Adaptation in Municipalities	24



3.5.3 Enabling Environment for Climate Change Adaptation Governance in Metropolitan Municipalities	24
3.6 Local Municipalities	30
3.7 Conclusions and Key Messages on Climate Change Governance	30
REFERENCES	31

LIST OF TABLES

Table 3.1 Summary of key issues prioritised in approved climate change adaptation plans and strategies of National Sector Departments	13
Table 3.2 Key performance areas in climate change sector plan for Agriculture, Forestry and Fisheries	15
Table 3.3 Department of Science and Technology Global Change Research Plan knowledge challenges and research themes	16

LIST OF FIGURES

Figure 2.1 Enabling legislation for climate change adaptation	9
Figure 3.1 Summary of the progress made in policy and planning by sector Departments	17-19
Figure 3.2 Summary of enabling environment in National Sector Departments	20
Figure 3.3 Enabling environment for climate change adaptation governance and management for Provinces	22
Figure 3.4 Enabling environment for climate change adaptation management and governance in Metropolitan Municipalities	27
Figure 3.5 IDPs / SDBIPs targets and key performance indicators on climate change adaptation management and governance in Metropolitan Municipalities	28
Figure 3.6 IDPs / SDBIPs targets and key performance indicators on climate change adaptation for District Municipalities	29

LIST OF ABBREVIATIONS

AFF	Agriculture, Forestry and Fisheries	IDP	Integrated Development Plan
CC	Climate Change	IGCCC	Intergovernmental Committee on Climate change
CSIR	Council for Scientific and Industrial Research	INDC	Intended Nationally Determined Contributions
CTCN	Climate Technology Centre and Network	LM	Local Municipalities
DAFF	Department of Agriculture, Forestry and Fisheries	LTAS	Long-Term Adaptation Scenarios Flagship Research Programme
DBSA	Development Bank of Southern Africa	MM	Metropolitan Municipalities
DEA	Department of Environmental Affairs	NCCC	National Committee on Climate Change
DHS	Department of Human Settlements	NCCRWP	National Climate Change Response White paper
DM	District Municipalities	NCMP	National Coastal Management Programme
DMA	Disaster Management Act	NDT	National Department of Tourism
DMP	Disaster Management Plans	NPC	National Planning Commission
DoH	Department of Health	NDE	National Designated Entities
DPE	Department of Public Enterprises	NEMA	National Environmental Management Act
DRDLR	Department of Rural Development and Land Reform	NHC	National Health Council
DST	Department of Science and Technology	SALGA	South African Local Government Association
DWA	Department of Water Affairs	SANA	Situational Analysis and Needs Assessments
DWS	Department of Water and Sanitation	SARVA	South African Risk and Vulnerability Atlas
EIP	Environmental Implementation Plan	SDBIP	Service Delivery and Budget Implementation Plans
EMF	Environmental Management Frameworks	SDF	Spatial Development Frameworks
EMP	Environmental Management Plans	SPLUMA	Spatial Land Use Management Act
EWS	Early Warning Systems	SOC	State Owned Company
GCRP	Global Change Research Plan		
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit		
ICM	Integrated Coastal Management		

I. INTRODUCTION

The objective of this Theme is to provide an overview of progress made on climate change adaptation governance and management. Climate change adaptation governance and management is one of the key elements for the climate change monitoring and evaluation framework (DEA 2015c) and requires tracking of the following:

- financing of climate resilience activities
- governance and management structures on climate resilience
- policies, plans, strategies, programmes and projects on climate resilience
- progress in implementation of climate resilience measures
- integration of climate risk into existing policies, plans, strategies, programmes and projects
- capacity / ability of systems, institutions and communities to respond to climate change

The Theme focuses on understanding the work that has been done on the climate change adaptation sectors prioritised in the National Climate Change Response

White Paper (DEA 2011b), by national government, provinces, metropolitan municipalities and selected district and local municipalities including:

- financing climate resilience activities
- governance and management structures on climate resilience
- legislation, policies, plans and strategies on climate resilience
- integration of climate risk into existing legislation, policies, plans and strategies
- capacity to respond to climate change
- key research work in metropolitan and selected district and local municipalities
- key climate resilient programmes in metropolitan municipalities and selected district municipalities

The activities under the scope of this work are collectively called the “enabling environment for climate change governance and management” and they will be used as the bases for understanding progress and effectiveness



in the implementation of climate resilient measures. It is important to highlight that, in some instances, both adaptation and mitigation governance and management arrangements are undertaken jointly. The work covered under this section contributes to the following national and international priorities:

- Progress on national priorities, as outlined in Chapter 5 of the National Development Plan (NPC 2011):
 - Development of technical skills and policy capacity to implement adaptation.
 - Local, provincial and national governments will need to embrace climate adaptation by identifying and putting into effect appropriate policies and measures that are well coordinated and credibly motivated.
 - Inclusion of climate risk in national disaster management plans and communication strategies.
- National Climate Change Response White Paper (DEA 2011b):
 - Coordination and alignment of policies and actions to achieve resilience (Section 10.1).
 - Line function National Departments will integrate climate change into their policies and programmes (Section 10.2).
 - Provinces will coordinate provincial adaptation and mitigation responses across their own line departments, as well as between municipalities within the province (Section 10.2.6).
 - Each province will develop a climate response strategy, which evaluates provincial climate risks and impacts (Section 10.2.6).
- Climate change considerations and constraints will be integrated into municipal development planning tools such as Integrated Development Plans (IDPs), and municipal service delivery programmes (Section 10.2.6).

At international level the following goals of South Africa's Intended Nationally Determined Contribution (DEA 2015e) are relevant:

- **Goal 2:** Take into account climate considerations in national development, sub-national and sector policy frameworks
 - Integrate flexible adaptation sector policies and measures into national and sub-national policy frameworks to enable implementation of climate change adaptation programmes and projects.
 - Sector adaptation plans will be integrated into broader sector plans consistent with relevant sector planning or regulatory legislation.
- **Goal 3:** Build the necessary institutional capacity for climate change response planning and implementation
 - National and sub-national policy and legislation development to enable institutional capability to plan and implement catalytic adaptation programmes and projects.
 - Specific adaptation planning at sub-national level, taking into account specific or unique geographical circumstances, will be integrated into sub-national development frameworks, land use schemes and the planning authorisation system in terms of provisions of, and standards set in, the Spatial Planning and Land Use Management Act, 2013 (SPLUMA) (Act No. 16 of 2013).

2. ENABLING LEGISLATIVE FRAMEWORK

2.1 Background

This section provides an overview of the overarching legislative framework with explicit reference to climate change adaptation, in order to encourage action to capitalise on existing legislation for mainstreaming climate change adaptation into policy and planning. It builds on the policy review work commissioned by the Department of Environmental Affairs (Departmental Policy Review

Report as input to preparation for actions required to develop the National Adaptation Plan (DEA 2015b)). It also outlines the legislative framework that can support resilience. **Figure 2.1** summarises the legislation with explicit reference to climate change adaptation, and legislation with implied provision for climate change adaptation.

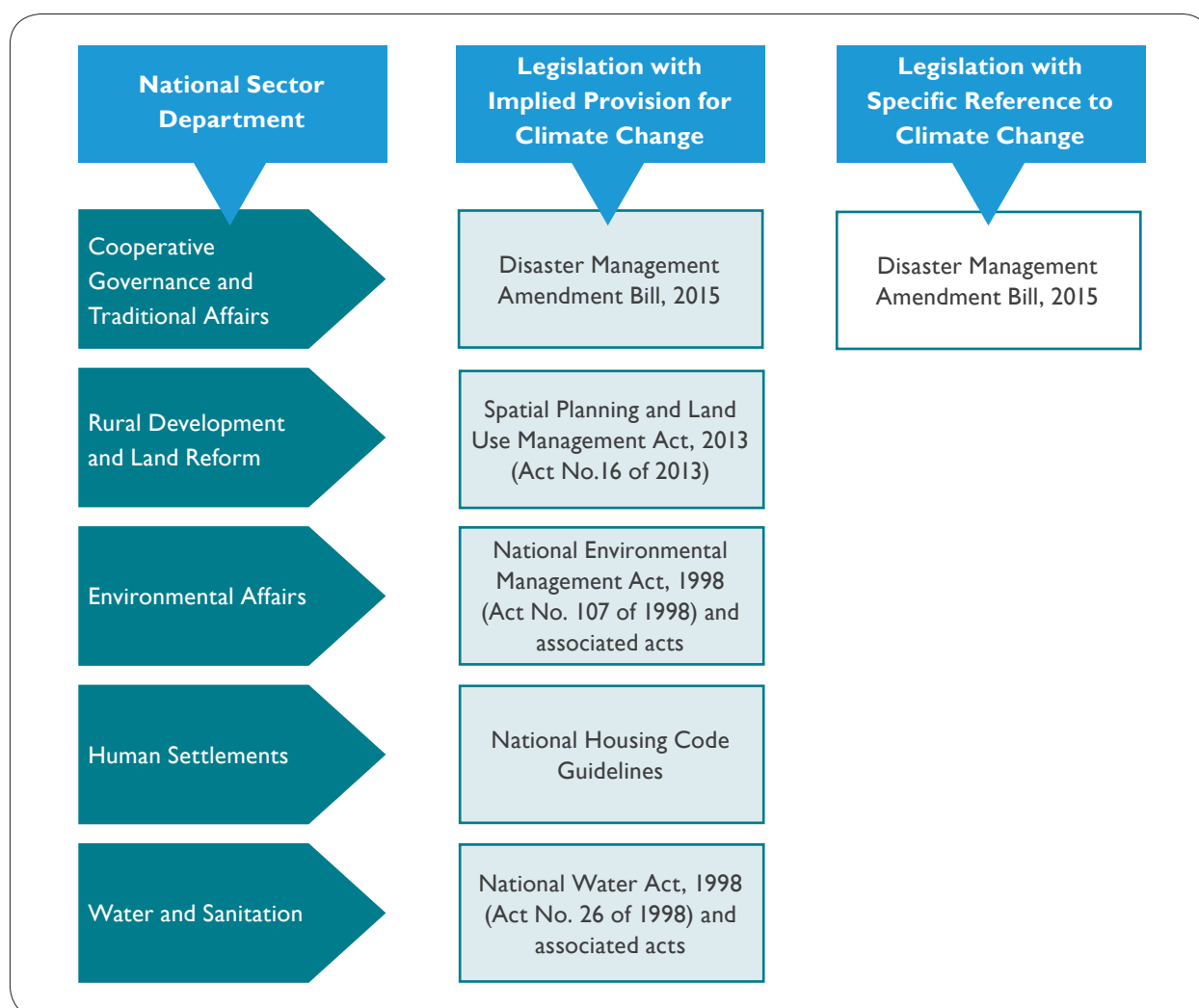


Figure 2.1: Enabling legislation for climate change adaptation

2.2 Overarching Legislation with Explicit Reference to Climate Change Adaptation: The Disaster Management Amendment Bill of 2015

The Bill amends the principal act in this category, the Disaster Management Act, 2002 (Act No. 57 of 2002) to require each national, Section 25(c)(i), each provincial, Section 38(c)(i) and each municipal, Section 52(c)(i) organ of state as well as each province (Section 39) and each municipality (Section 53) to prepare a disaster management plan, setting out the way in which the concept and principles of disaster management are to be applied in its functional area, including expected climate change impacts and risks for the organ of state.

The Amendment Bill further requires that the respective organs of state must indicate how they will invest in disaster risk reduction and climate change adaptation, including ecosystem and community based approaches.

2.3 Overarching Legislation and Legislative Instruments with Implied Provision for Climate Change Adaptation

Legislation and legislative instruments with implied provision for climate change adaptation are defined as legislation or legislative frameworks with no explicit reference to climate change adaptation, but which, through their implementation, can reduce the vulnerability and impacts of other stressors.

2.3.1 Disaster Management Act No 57 of 2002

The Disaster Management Act, 2002 provides for an integrated and coordinated disaster management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery, including climate related disasters.

Sections 20, 33 and 47 of the Act require disaster

management centres across the spheres of government (national, provincial and municipal) to give guidance to organs of state, the private sector, non-governmental organisations, communities and individuals to assess and prevent or reduce the risk of disasters including:

- Ways and means of
 - determining levels of risk
 - assessing the vulnerability of communities and households to disasters that may occur
 - increasing the capacity of communities and households to minimise the risk and impact of disasters that may occur
 - monitoring the likelihood of, and the state of alertness to, disasters that may occur
- The development and implementation of appropriate prevention and mitigation methodologies.
- The integration of prevention and mitigation methodologies with development plans, programmes and initiatives.
- The management of high risk developments.

2.3.2 Spatial Planning and Land Use Management Act No.16 of 2013

Section 12 (l) j of the Spatial Planning and Land Use Management Act requires national and provincial governments as well as each municipality to prepare a spatial development framework to: “Identify the long term risks of particular spatial patterns of growth and development and the policies and strategies necessary to mitigate those risks.”

Section 7 of the Act deals with the principles of “spatial sustainability”, namely spatial planning and land use management that promotes land development in locations that are sustainable, and limits urban sprawl; and “spatial resilience”, namely spatial plans, policies and land use

management systems that “ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks”. (These provisions of the Act should be taken into account when dealing with climate change adaptation (DEA 2015b)).

2.3.3 National Environmental Management Act No. 107 of 1998

The National Environmental Management Act, NEMA, requires the design of Environmental Implementation Plans (EIPs) and Environmental Management Plans (EMPs) by state bodies, including provinces, while Section 46 gives municipalities the power to prepare bylaws to implement the Act to promote sustainability, secure environmental protection and promote environmental governance and thereby contribute to resilience (DEA 2011a).

Several other pieces of legislation that complement or branch off from NEMA include the following:

- the Environment Conservation Act, 1998 (Act No. 73 of 1998)
- the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)
- the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)

- the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
- the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)
- the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)

2.3.4 National Water Act 36 of 1998

The National Water Act, 1998 (Act No. 36 of 1998) together with associated acts such as the Water Services Act, 1997 (Act No. 108 of 1997) and its regulations, for example regulations relating to compulsory national standards and measures to conserve water (GNR 509 of 8 June 2001 (DWAF, 2001)), provide a degree of flexibility both through the opportunity for regulations to evolve and respond to different needs, particularly through the determination of general authorisations and the imposition of compulsory licensing.

2.3.5 National Housing Code Technical and General Guidelines of 2009 (Part 3)

The Housing Code Technical and General Guidelines make provision for environmentally sound housing through sustainable energy and water.



Small-hydro - Neusberg, Kakamas

3. ENABLING ENVIRONMENT FOR CLIMATE CHANGE ADAPTATION GOVERNANCE AND MANAGEMENT

The National Development Plan sets targets and measures to achieve development objectives and adapt to climate change. The National Climate Change Response White Paper (NCCRWP) (DEA 2011b) outlines what needs to be prioritised and implemented. A considerable amount of work has been done to create an enabling environment for climate change management and governance in all spheres of government in response to the NCCRWP. Climate change adaptation governance and management in this context includes relevant policies, plans, strategies, frameworks, coordination structures, institutional capacity and financial resources. A summary of the enabling environment for climate change adaptation governance and management for national sector departments, provinces, metropolitan municipalities and selected district municipalities is provided below. It is important to highlight that only district and local municipalities which have developed a climate change/adaptation strategy, have been included in this work.

3.1 Methodology Used to Collect Information on the Enabling Environment

The information on the enabling environment for climate change adaptation management and governance was collected through:

- Engagements with focal points in key sector departments, provinces and metropolitan municipalities (MM).
- Partnership with DEA Local Government Support to collect information for district municipalities (DM) and local municipalities (LM).
- Analysis of MM and DM Integrated Development Plans (IDPs) and Service Delivery and Budget Implementation Plans (SDBIPs) using the IDPs and SDBIPs from the National Treasury website (2016).

- Engagements with the South African Cities Network, the South African Local Government Association (SALGA) and the Climate Change Adaptation Monitoring and Evaluation (M&E) steering committee.
- Information collected was synthesised in tables, figures and maps.

3.2 National Departments' Perspective

3.2.1 Policy and planning

3.2.1.1 Development of Climate Change / Adaptation Strategies and Plans

Progress has been made towards the implementation of the NCCRWP through the development of sector specific climate change adaptation strategies by most adaptation sectors prioritised in the white paper. These sectors include Water; Agriculture, Forestry and Fisheries; Health; Biodiversity and Rural Development with most of these plans / strategies still going through departmental approval processes (**Figure 3.1**). The plans for the biodiversity, health and water sectors have obtained ministerial approval. The summary of key issues prioritised in climate change / adaptation plans and strategies is outlined in **Table 3.1**.

Table 3.1 Summary of key issues prioritised in climate change/adaptation plans and strategies of National Sector Departments

Key Issues Prioritised	National Climate Change Response Strategy for the Water Sector 2015 (DWS 2015)	National Climate Change and Health Adaptation Plan 2014-2019 (DoH 2014)	Climate Change Adaptation Plans for South Africa's Nine Major Biomes (DEA 2015a)	Draft Climate Change Adaptation Sector Strategy for Rural Human Settlements (DRDLR 2013b)
Key Sectors and Vulnerable Groups / Areas Included in the Plan or Strategy	<ul style="list-style-type: none"> • Agriculture and agro-processing • Minerals and metals • Manufacturing • Construction and infrastructure • Energy • Tourism 	<ul style="list-style-type: none"> • Urban settlements • Rural settlements • Vulnerable groups 	<ul style="list-style-type: none"> • Degraded areas • Water bodies • Natural areas • Transformed areas • Landscape alien species invasions 	<ul style="list-style-type: none"> • Decreased availability of surface water • Reduced agricultural yields • Loss of biodiversity • Environmental health risks • Extreme weather events
Focus / Strategic Areas / Actions	<ul style="list-style-type: none"> • Water governance: building adaptive institutions, intergovernmental relations, awareness, communication and shared learning, research and development, stakeholder participation, regional engagement, climate financing, review of strategy • Infrastructure development, operation and maintenance: multi-purpose water storage, water supply and sanitation, groundwater development, alternative water supply sources, flood protection measures, infrastructure safety, hydro-geo-meteorological monitoring system • Water management: data and information, scenarios and climate modelling, vulnerability assessments, precipitation and flow forecasting, planning, water allocation and authorisation, water conservation and water demand management, groundwater management, water quality management, resource management and protection, disaster management 	<ul style="list-style-type: none"> • Heat stress • Natural disasters • Housing and settlements • Communicable diseases • Exposure to air pollution and respiratory disease • Non-communicable diseases • Vector and rodent-borne diseases • Food insecurity, hunger and malnutrition • Mental illness 	<ul style="list-style-type: none"> • Albany Thicket • Desert and Nama Karoo biomes • Forest • Fynbos • Grassland • Indian Ocean coastal belt • Savanna • Succulent Karoo 	<ul style="list-style-type: none"> • Integration of climate change responses into the Comprehensive Rural Development Programme (CRDP) • Climate resilient land use management and spatial planning • Disaster risk management and planning • Research programme to support climate resilient rural human settlements

3. Enabling Environment for Climate Change Adaptation Governance and Management

Table 3.1 continued...

Key Issues Prioritised	National Climate Change Response Strategy for the Water Sector 2015 (DWS 2015)	National Climate Change and Health Adaptation Plan 2014-2019 (DoH 2014)	Climate Change Adaptation Plans for South Africa's Nine Major Biomes (DEA 2015a)	Draft Climate Change Adaptation Sector Strategy for Rural Human Settlements (DRDLR 2013b)
Key Adaptation Options or Implementation Plan	<ul style="list-style-type: none"> Financing the strategy Roles and responsibilities Monitoring and evaluation 	<ul style="list-style-type: none"> National Climate Change & Health Steering Committee Capacity building interventions Monitoring and surveillance National vulnerability assessments Research and development Health impact assessments Inter-sectoral action for climate change and health Health system readiness Model and pilot climate change and health adaptation projects Scaling up of existing public health interventions and address the social determinants of health International information exchange and cooperation 	<ul style="list-style-type: none"> Spatial planning approaches Management approaches that adjust the way in which land use practices are executed under a changing climate Ecosystem-based adaptation Biodiversity stewardship 	<ul style="list-style-type: none"> Instruments: local adaptation planning; sustainable rural livelihoods; sustainable land management; sustainable ecosystem services; climate resilient infrastructure and services; disaster risk management; research to support rural resilience. Institutional arrangements Financing adaptation Priority programmes and projects: integration of climate change responses into the CRDP; climate resilient land use management and spatial planning; disaster risk management and planning; research programme to support resilient rural human settlement; Monitoring and evaluation framework



Camdeboo Local Municipality – solar panels powering the pump in the waste water treatment plant in Nieu Bethesda

In addition the following key performance areas have been prioritised in the climate change sector plan for Agriculture, Forestry and Fisheries (**Table 3.2**).

Table 3.2 Key performance areas in the climate change sector plan for Agriculture, Forestry and Fisheries

Key Performance Areas	
Institutional Arrangement for Climate Change	<ul style="list-style-type: none"> • Establish arrangements for development and adoption of a climate change policy • Establish arrangements for government cooperation in climate change activities
Vulnerability assessment to climate change	<ul style="list-style-type: none"> • Conduct vulnerability assessment to climate change in the sector • Generate a national climate change vulnerability profile representative of all levels • Monitor and disseminate climate change related information
Mitigation and Adaptation	<ul style="list-style-type: none"> • Ensure stakeholder awareness of relevant mitigation and adaptation strategies related to climate change • Determine priority disaster prone areas, vulnerable communities and households • Identify and develop climate change related plan, projects, systems and programmes • Mainstream climate change awareness and actions into strategic integrating structures and programmes
Response and Recovery	<ul style="list-style-type: none"> • Manage disasters related to climate vulnerability and climate change • Protect livelihoods and manage natural resources in response to climate change • Evaluate effectiveness of early warnings systems (EWS) for climate change

The National Tourism climate change action plan outlines the following outcomes for the plan to deliver:

- Improved understanding of the vulnerabilities of tourism to the physical impacts of climate change in order to build the resilience and adaptive capacity of the industry
- Reduced tourism related greenhouse gas emissions
- A fully informed tourism industry through consistent and effective industry outreach and communications
- A nationally consistent, inclusive and cooperative approach to implementation

- Maintaining effective messaging and positioning in our key markets.

3.2.1.2 Mainstreaming climate change / adaptation into other plans and strategies

Progress has also been made in mainstreaming climate change / adaptation into other plans and strategies (**Figure 3.2**). The Department of Science and Technology Global Change Grand Challenge National Research Plan (2009) identifies four major cross-cutting knowledge challenges and 15 key research themes, which support / enhance resilience. These are summarised in **Table 3.3**.

3. Enabling Environment for Climate Change Adaptation Governance and Management

Table 3.3 Department of Science and Technology Global Change Grand Challenge National Research Plan knowledge challenges and research themes

Knowledge Challenge 1 <i>Understanding a Changing Planet</i>	Knowledge Challenge 2 <i>Reducing the Human Footprint</i>	Knowledge Challenge 3 <i>Adapting the Way We Live</i>	Knowledge Challenge 4 <i>Innovation for Sustainability</i>
<p>Research themes:</p> <ul style="list-style-type: none"> • Observation and monitoring • Dynamics of the oceans around southern Africa • Dynamics of the complex internal earth systems • Linking the land, air and sea • Improving model predictions at different scales 	<p>Research themes:</p> <ul style="list-style-type: none"> • Waste minimisation methods and technologies • Conserving biodiversity and ecosystem services, such as clean drinking water • Institutional integration to manage ecosystems and services 	<p>Research themes:</p> <ul style="list-style-type: none"> • Preparing for rapid change and extreme events • Planning for sustainable urban development in South Africa • Water security for South Africa • Food and fibre security for South Africa 	<p>Research themes:</p> <ul style="list-style-type: none"> • Dynamics of transition at different scales – mechanisms of innovation and learning • Resilience and capability • Options for greening the developmental state

The National Coastal Management Programme of South Africa (DEA 2014c) highlights the following nine priorities which constitute the commitment to implement Integrated Coastal Management (ICM).

- Effective planning for coastal vulnerability to global change (including climate change)
- Ensuring equitable public access in the coastal zone
- Integrating the management of estuaries
- Managing pollution in the coastal zone
- Establishing coastal monitoring and reporting systems to inform decision making
- Establishing mechanisms for effective compliance and enforcement
- Provision of coastal information and research
- Strengthening awareness, education and training to build capacity
- Strengthening partnerships for ICM

The Department of Human Settlements Environmental Implementation Plan (2015) responds to the following outcomes which have been synchronised with requirements in the NCCRWP:

- Environmentally sustainable land use development
- Integrated development planning
- Spatial planning for the development of sustainable human settlements
- Needs and priorities of people in informal settlements
- Environmentally sound low cost housing
- Planning for housing development

The Climate Change Policy Framework for State Owned Companies (2011) emphasises the following policy and planning issues:

- Each State Owned Company (SOC) will develop a climate change related policy drawing on the objectives and principles contained in the framework.
- Each SOC will develop a detailed strategic plan on climate change drawing on objectives and principles in the framework. The plan will:
 - Identify global, national and subnational risks and opportunities related to areas of climate change that impact the SOC. In particular, the plan should quantify direct financial risks to which the SOC will be exposed as a result of policies to reduce carbon emissions, as well as

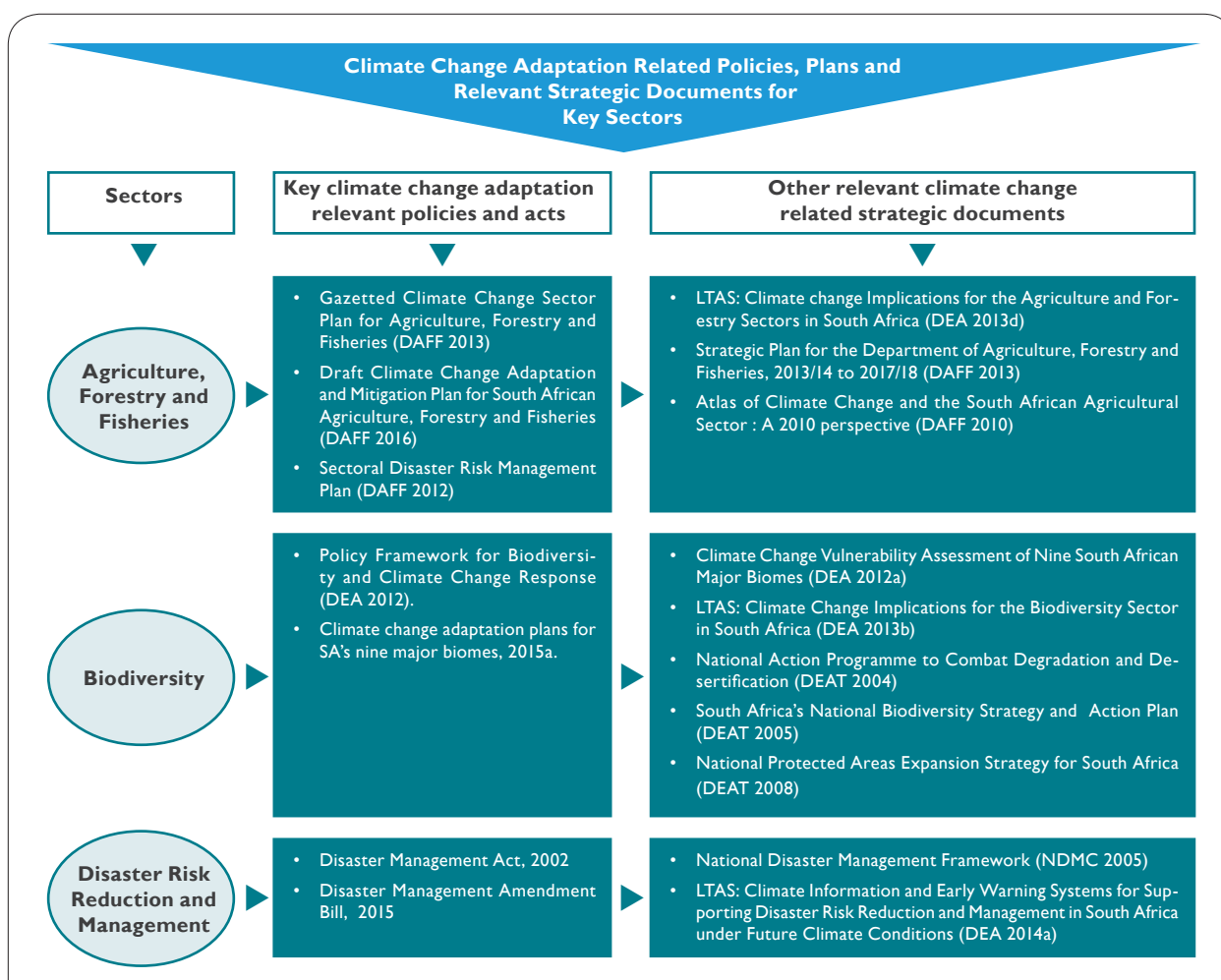
negative impacts on operations related to the need to adapt to climate change.

- Optimise the impact of the SOC on the development of national industrial and technological capabilities associated with the 'green economy'.
- Optimise concrete initiatives that the SOC will take to address the identified risks and opportunities.
- Describe how broader government support and resources can be used to accelerate or enhance implementation of the SOC's plan.

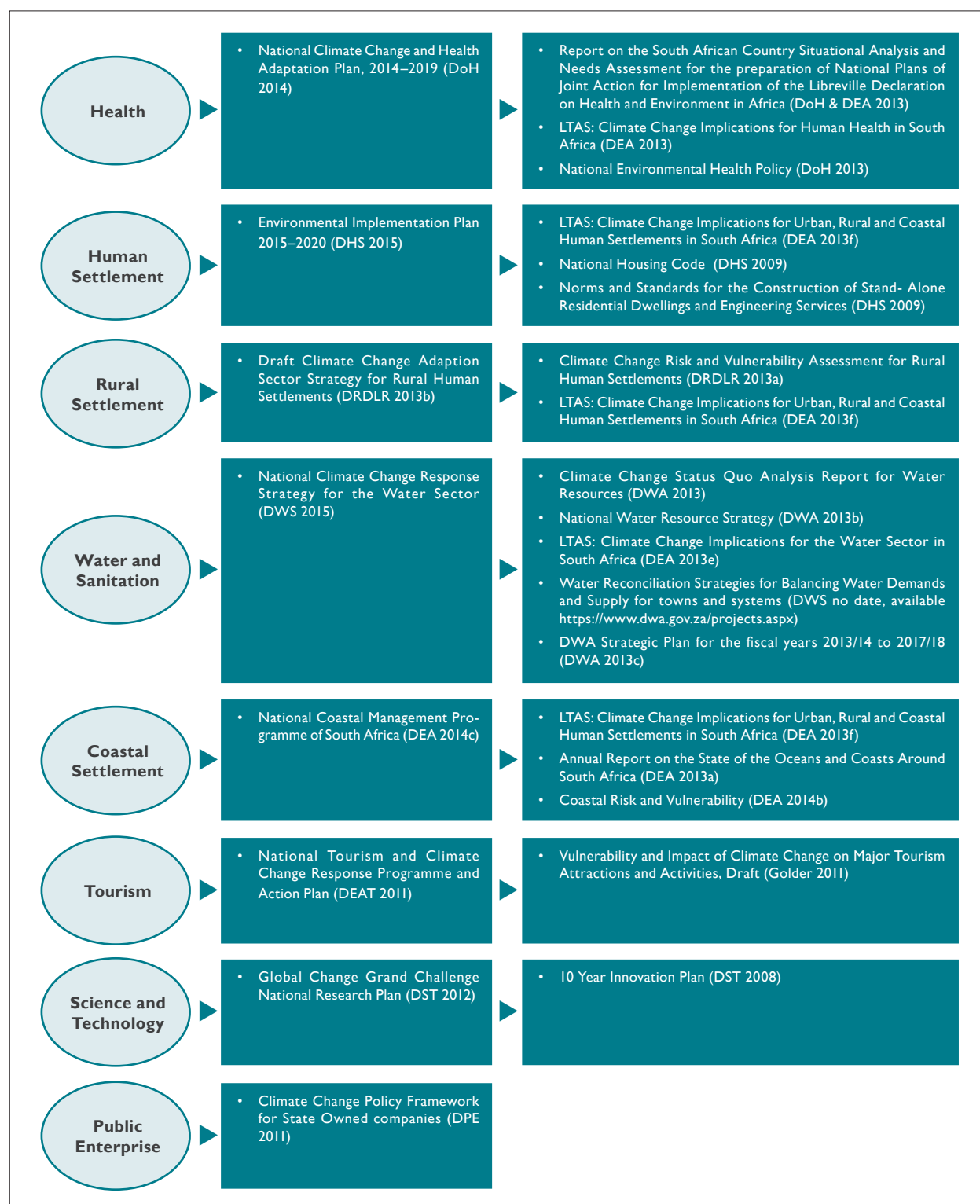
- Provide a description and analysis of the financial impacts of implementing the plan on the SOC and on its customers.

- Provide a reporting framework against which its implementation can be monitored and verified. Greenhouse gas emissions must be included in the reporting framework.

The progress made in mainstreaming climate change / adaptation into other plans and strategies is shown in **Figure 3.2**.



3. Enabling Environment for Climate Change Adaptation Governance and Management



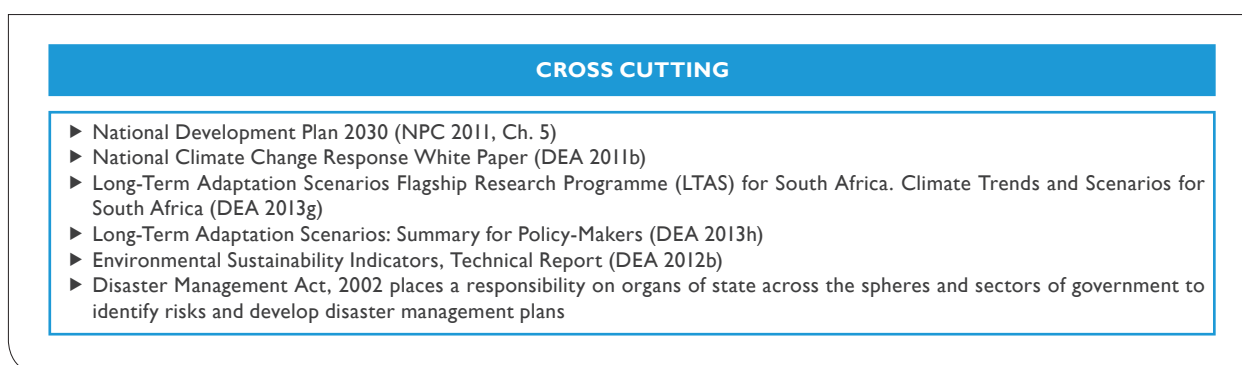


Figure 3.1: Summary of the progress made in policy and planning by sector departments

3.2.2 Institutional Capacity

Climate change work is strategically placed at Deputy Director General level in the Department of Environmental Affairs. Dedicated climate change units have been established in the Department of Water and Sanitation and the Department of Science and Technology. Climate change functions are shared by Environment, Risk Management and Planning Directorates in other sector departments.

3.2.3 Co-ordination Structures

The Department of Environmental Affairs plays an important role in coordinating climate change issues through the Intergovernmental Committee on Climate Change and the National Committee on Climate Change. Other institutional arrangements to support coordination of climate change adaptation efforts include the Department of Health Climate Change Steering Committee and the National Disaster Management Advisory Forum.

In addition, climate change adaptation issues are also discussed in the following stakeholder platforms:

- Organised agriculture, the National Drought Task Team, National Agrometeorological Committee for the agriculture sector
- National Provincial Forum and South African

Municipal Health Service for the health sector

- Internal Planning and Liaison Meeting, Transboundary Commissions and Water Leadership Group for the water sector
- Disaster Management Advisory Forums in provinces and municipalities

3.2.4 Tools to Inform Policy and Decision Making

Tools to inform key decisions on future development and adaptation planning include the Long Term Adaptation Scenarios, the Lets Respond Toolkit and the South African Risk and Vulnerability Atlas. Reporting on climate change adaptation is currently done through the Presidential Outcome 10, Sub-outcome 2.

3.2.5 Funding Mechanisms on Climate Resilience: Background

Various funding sources for climate change resilient programmes, including national public and private finance, as well as international climate finance mechanisms have been documented, including through the work by:

- Technical Assistance Unit and Western Cape Government, 2013
- Development Bank of Southern Africa (DBSA), 2012
- Montmasson-Clair, 2013

- DEA, South Africa 1st Biennial Update Report, 2014
- Draft Public Environmental Expenditure Review and Framework Policy Paper, 2015

Details on funding mechanisms and sources are given in **Theme F**.


3.3 Climate Technology Transfer

Climate technology transfer as a climate change enabler has made progress in South Africa through the Climate

Technology Centre and Network (CTCN). The CTCN is the operational arm of the UNFCCC Technology Mechanism. It exercises its global footprint through its national designated entities (NDEs, with each country having to nominate a NDE in order to access its services), its eleven consortium partners (the Council for Scientific and Industrial Research (CSIR) is one consortium partner) and its global network members. The CTCN facilitates and aims to accelerate climate technology transfer to developing countries through technical assistance, enhancing collaboration and capacity building.

Enabling Environment for National Departments	Mainstreaming	<ul style="list-style-type: none"> • CC and adaptation strategies and plans developed by DAFF, DEA (Biodiversity), DRDLR, Health, Water, Tourism, Public Enterprises • CC risks integrated in DMA, NHC, NCMP
	Prioritisation in strategic plans	<ul style="list-style-type: none"> • DAFF, Water, Health, DEA (climate change)
	Institutional capacity	<ul style="list-style-type: none"> • Dedicated climate change units at DEA, DWS and DST • CC embedded in environment, risk management and planning in other sectors
	Facilitation of access to financial resources	<ul style="list-style-type: none"> • National public finance • International climate funding mechanisms
	Coordination structures	<ul style="list-style-type: none"> • IGCCC / NCCC • Department of Health Climate Change Steering Committee • National Disaster Management Advisory Forum
	Research and technology transfer	<ul style="list-style-type: none"> • DST Global Change Grand Challenge • Research initiatives at universities and state owned entities • CTCN
	Tools to inform policy	<ul style="list-style-type: none"> • SARVA • LTAS • Let's respond toolkit

Figure 3.2: Summary of enabling environment in national sector departments



The South African NDE is the Department of Science and Technology (DST) and is currently fully operational. The SA NDE has issued calls for technical assistance and submitted four technical assistance requests, three of which were accepted for submission to the CTCN for the development of response plans. Activities to create an enabling environment in national sector departments are given in **Figure 3.2**.

3.4 Provincial Perspective

The NCCRWP requires each province to develop a climate response strategy that evaluates provincial risks and impacts. In addition, the NCCRWP requires each province to play an important role in coordinating provincial adaptation responses across their own line departments as well as between municipalities within the province (DEA 2011b, 38). This requires an enabling environment for climate change adaptation management and governance. An overview of the enabling environment for climate change adaptation governance and management in provinces is provided below and summarised in **Figure 3.3** and builds on the work that has been done on provincial situational analysis and needs assessment by the Department of Environmental Affairs (DEA 2015d). This work identified gaps in policy and integration, climate change adaptation coordination platforms, funding, capacity and knowledge, skills and information.

3.4.1 Policy and Planning

Most provinces are in the process of finalising their climate change strategies/plans and action plans. Very few provinces have developed adaptation plans/strategies. Adaptation is integrated into climate change strategies/plans, action plans and green economy frameworks, such as the Wild Coast Environmental Framework, biodiversity sector plans, biodiversity toolkits, spatial development strategies, agricultural risk management plans, environmental outlooks, environmental management frameworks and food security strategies.

Other important work on policy and planning includes assessment by provinces of municipal IDPs for integration of climate change, dedicated provincial municipal support programmes, climate change literacy programmes, climate change project databases, climate change monitoring and evaluation frameworks, and alignment of climate change strategies with provincial policies.

3.4.2 Institutional Capacity

There are a limited number of dedicated climate change units in provinces. Climate change functions are shared with environmental management, environmental planning, and environmental research and planning. This offers an opportunity for integrated environmental planning but efforts should be made to ensure integration into other non-environmental policies and plans.

3.4.3 Co-ordination Structures

Provinces have a great role to play in coordinating climate change responses in their province, and linking national strategic intent to local level implementation, as well as communicating local level realities to the national level to better inform the strategic direction. This coordination role could be enhanced by formation of provincial climate change committees / forums with very well defined implementation plans that fit into the national system and link strongly with municipalities and cities. Provincial climate change forums have been established in the Eastern Cape, the Western Cape, KwaZulu-Natal, Gauteng and the Northern Cape. However, the provincial forums in some provinces are not functional. The outcomes of the work on provincial climate change forums should be shared with decision making forums / committees at national, provincial and municipal level to facilitate an enabling environment for mainstreaming climate change adaptation. In addition, dedicated provincial-municipal support programmes have been formed in the Eastern Cape and the Western Cape to support and assist municipalities in mainstreaming climate change into policy and planning.

3. Enabling Environment for Climate Change Adaptation Governance and Management

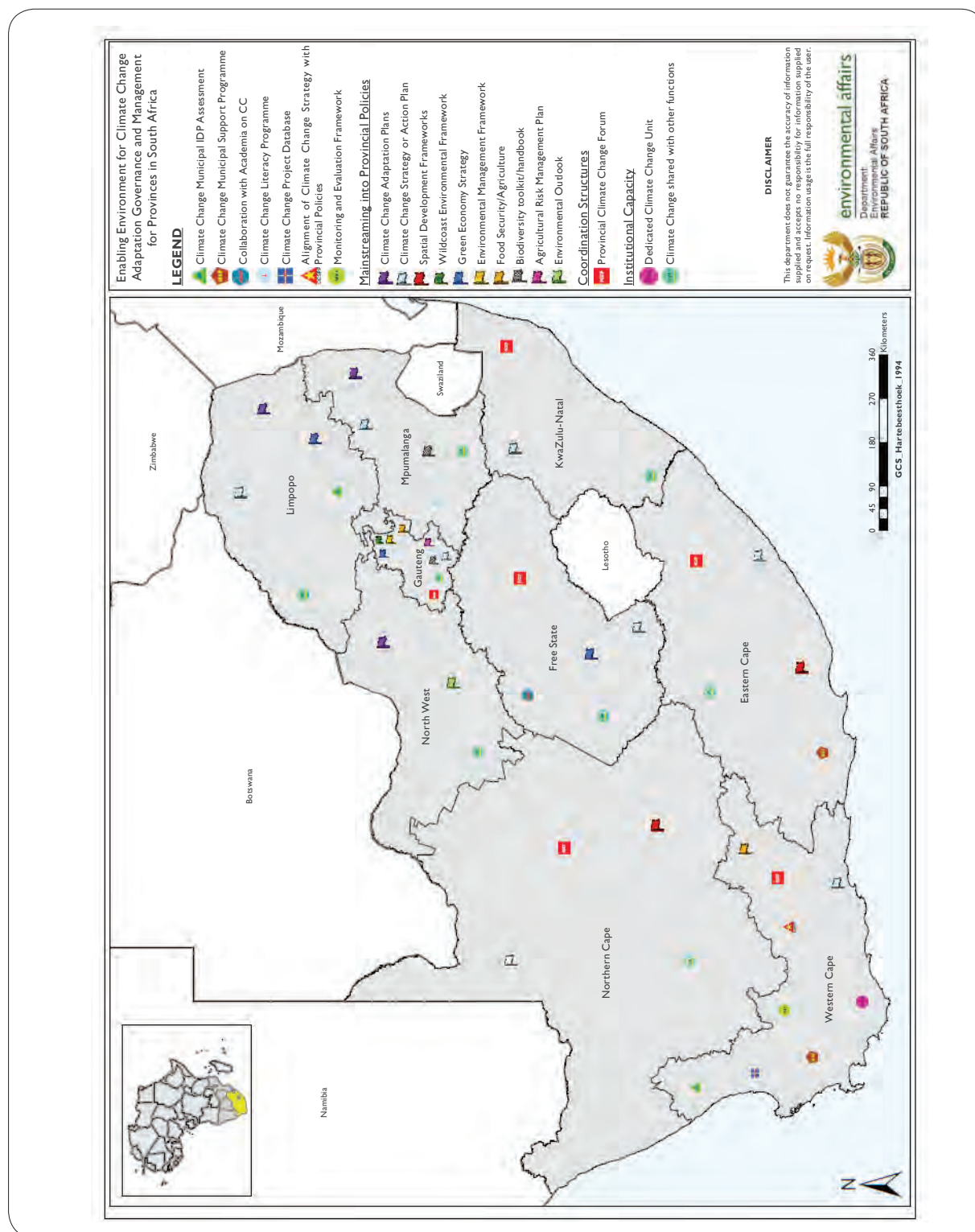


Figure 3.3: Enabling environment for climate change adaptation governance and management for provinces in South Africa

Source: The Authors



Solar Water Heating (SWH) in low income households in Tshwane

3.5 Municipal Perspective

Section 10.2.6 of the NCCRWP (DEA 2011b) requires local government to integrate climate change considerations and constraints into municipal development planning tools such as Integrated Development Plans (IDPs), and municipal service delivery programmes.

This section will focus on identifying climate change adaptation targets and key performance indicators that have been prioritised in IDPs and Service Delivery and Budget Implementation Plans (SDBIPs) of metropolitan and selected district and local municipalities. It will also highlight drivers of mainstreaming climate change adaptation in municipalities and key performance indicators in municipal IDPs. In addition, the enabling environment for governance and management of climate change adaptation in metropolitan municipalities is

outlined; and the extent to which they have considered and acknowledged climate change in their growth and development strategies.

In some cases, municipalities do not develop a stand-alone climate change / adaptation strategy / plan but integrate climate change / adaptation issues into other plans and strategies. These include the municipal spatial development frameworks (SDFs), disaster management plans (DMPs), environmental management frameworks / plans (EMFs), IDPs and Green IQ strategies. A comprehensive assessment of these plans and strategies will be included in the next annual report. Other municipalities have also developed risk and vulnerability assessments as a step towards developing a climate change / adaptation strategy / plan. Some municipalities acknowledge the threats and impacts associated with climate in their IDPs but do not have specific key performance indicators on climate change.

3.5.1 Approach / Methodology

- Analysis of five-year IDPs (2011/16–2012/17) and annual IDP / SDBIP reviews up to 2015/16 for metropolitan and selected district and local municipalities to identify climate change adaptation measures / actions prioritised in IDPs / SDBIPs.
- Compiled and analysed information on climate change adaptation governance (policies / plans, coordination structures, tools and guidelines, research and institutional capacity) for metropolitan municipalities.
- Analysis of the extent to which climate change is considered and acknowledged in the growth and development strategies of metropolitan municipalities.
- Description of measures or actions described in IDPs / SDBIPs.

3.5.2 Drivers of Mainstreaming Climate Change Adaptation in Municipalities

Mainstreaming climate change adaptation in municipalities is driven mainly by the roll-out of the Let's Respond Toolkit which is achieved through implementing the Provincial Municipal Support Programme guided by provincial climate change strategies / plans, championing by municipalities, and technical and financial support from SALGA, the National Department of Environmental Affairs and civil society. The draft report "Let's Respond Toolkit Roll-out: Lessons and Experiences" (DEA, SALGA & GIZ 2015) highlighted the lessons and experiences from the roll-out of the toolkit. This report indicated that climate change is still regarded as an environmental challenge that should be attended to by designated environmental management officials despite its cross-cutting nature. This notion has hindered mainstreaming responses into other sectors such as technical services (infrastructure) or community services (health and community livelihoods) and has limited responses to those within environmental management units. Other challenges faced are those of environmental management

being regarded as an unfunded mandate and the municipal budget being allocated for basic services only.

In some instances climate change issues were incorporated into IDPs but were later excluded during the IDP review process in the following years as a result of lack of championship. It has also been observed that commitment and better understanding of the climate change concept is higher in municipalities where there has been continuity in the form of long service leadership / championship. Despite these challenges, implementing the tool has enhanced service delivery through mainstreaming climate change into municipal planning and sector plans resulting in reduced vulnerability and enhanced resilience.

Other drivers of mainstreaming climate change adaptation in municipalities include indigenous knowledge and business activities / initiatives, legislative requirements in the Disaster Management Act and the proposed Disaster Management Amendment Bill and becoming a signatory to international agreements and / or networks, such as the Durban Adaptation Charter and the C40 Cities Climate Leadership Group. Municipalities that are signatories to international obligations are doing relatively well in terms of responding to climate change, whereas other municipalities are lagging behind as there is no buy-in at high level.

3.5.3 Enabling Environment for Climate Change Adaptation Governance in Metropolitan and District Municipalities

The investigation into the enabling environment for climate change adaptation governance in the eight metropolitan municipalities in South Africa (Buffalo City, City of Cape Town, City of Johannesburg, City of Tshwane, Ekurhuleni, eThekweni, Mangaung and Nelson Mandela Bay) will cover the following:

- policy, planning and mainstreaming
- institutional capacity
- research

- coordination structure
- tools / guidelines
- prioritisation of climate change adaptation measures / actions in IDPs / SDBIPs

The map in **Figure 3.4** provides a summary of the enabling environment for climate change adaptation management and governance in metropolitan municipalities.

- **Policy, planning and mainstreaming**

A lot of work has been done on mainstreaming climate change adaptation into policy and planning in metropolitan municipalities. Climate change adaptation plans / strategies have been developed by the City of Cape Town, City of Johannesburg and eThekweni. Buffalo City, the City of Cape Town, the City of Johannesburg, Ekurhuleni and eThekweni have developed climate strategies / frameworks. The City of Tshwane, Nelson Mandela Bay and Mangaung are in the process of developing and finalising climate change strategies / frameworks. Ekurhuleni has further mainstreamed climate change into internal departments by developing climate change response action plans for them, whereas the City of Cape Town has developed sectorally based action plans. In addition, climate change adaptation is mainstreamed into other policies, plans and programmes (**Figure 3.4**).

Metropolitan municipalities that have acknowledged and considered climate change in their growth and development strategies are indicated in **Figure 3.4**. Analysis of the extent to which climate change is considered and acknowledged in the growth and development strategies of metropolitan municipalities that have considered climate change revealed the following:

- growth and development plans of certain metropolitan municipalities acknowledge climate change and its impacts
- options and actions to respond to climate change are outlined

- climate change contributions to and impacts on growth and development outcomes are highlighted
- the need to develop a climate change monitoring and evaluation system is recognised

- **Institutional capacity**

The City of Cape Town and eThekweni have dedicated climate change / adaptation units whereas the work on climate change is shared with other functions in the City of Tshwane, the City of Johannesburg, Ekurhuleni, Nelson Mandela Bay and Mangaung.

- **Research**

Research is mainly on sea level risk assessment (City of Cape Town), disaster risk assessment (City of Cape Town), cost benefit analysis (City of Johannesburg, eThekweni) and risk and vulnerability assessment (City of Tshwane).

- **Coordination structure**

Dedicated climate change committees or forums



KwaDukuza Community Engagement on climate change planning

are found in the City of Cape Town and eThekweni. Climate change related matters are also discussed in committees and forums on green economy (City of Cape Town) and in the Disaster Management Advisory Forum (eThekweni).

- **Tools and guidelines**

Tools and guidelines with a climate change component include the climate change response guide (Nelson Mandela Bay), sustainability benchmark guidelines (Ekurhuleni) and a sustainable communities planning guide (Nelson Mandela Bay).

- **Measures and actions prioritised in IDPs / SDBIPs of metropolitan municipalities as part of responding to climate change adaptation**

Climate change adaptation targets and key performance indicators prioritised in IDPs / SDBIPs include development and implementation of climate change / adaptation policies and plans, mainstreaming into policies and plans, availability of financial resources for climate change adaptation and coordination, development of risk and vulnerability information system, awareness raising, coordination structures on climate change adaptation and research. **Figure 3.5** outlines IDPs / SDBIPs targets and key performance indicators on climate change adaptation for metropolitan municipalities.

Mainstreaming of climate change adaptation should also be expanded to the following key performance / priority areas in IDPs / SDBIPs of metropolitan municipalities to enable effective climate change adaptation response:

- municipal transformation and organisational development
- service delivery and basic infrastructure
- local economic development
- financial viability and management

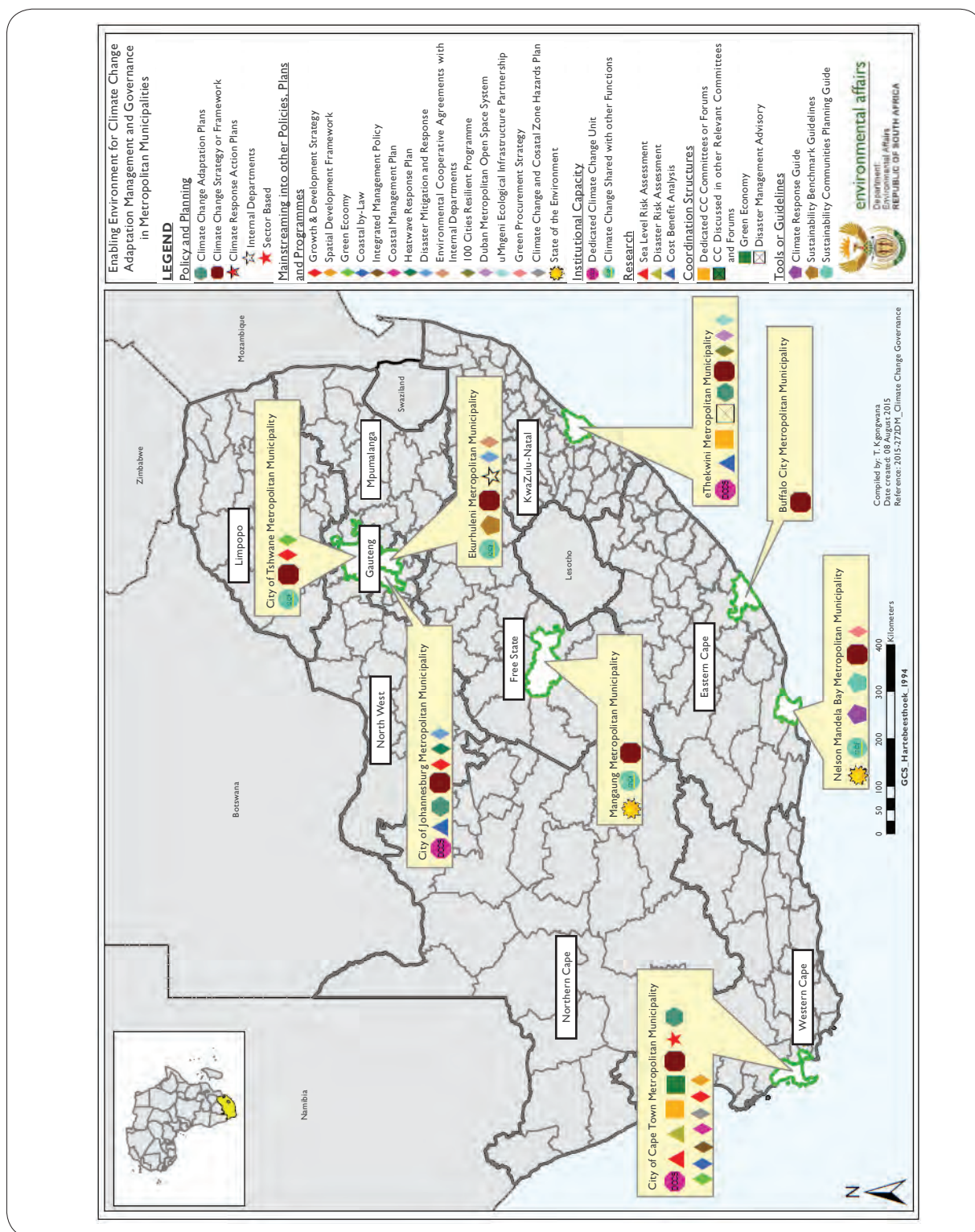
- good governance and public participation
- disaster management (the disaster management plan of the municipality is a core component of the IDP).

- **Measures and actions prioritised in IDPs / SDBIPs of District Municipalities**

District Municipalities which have developed climate change / adaptation strategies / plans were identified and included Amathole, Alfred Nzo, Eden, Chris Hani, uMgungundlovu, Capricorn, Bojanala, Namakwa, Nkangala and West Coast. An attempt was made to analyse the IDPs / SDBIPs of these district municipalities to determine climate change adaptation measures / actions that have been prioritised. The results are indicated in **Figure 3.6** and indicate that most district municipalities are implementing greening projects. Other notable priorities in IDPs / SDBIPs include establishment and functionality of climate change forums, fundraising to implement climate change strategy, retrofitting to reduce water loss, research and reconfiguring planning to accommodate climate change.

The following key performance / priority areas in IDPs / SDBIPs should also mainstream climate change adaptation to ensure effective climate change adaptation response:

- municipal transformation and organisational development
- service delivery and basic infrastructure
- local economic development
- financial viability and management
- good governance and public participation
- disaster management (the disaster management plan of the municipality is a core component of the IDP)



Source: The Authors

Figure 3.4: Enabling environment for climate change adaptation management and governance in Metropolitan Municipalities

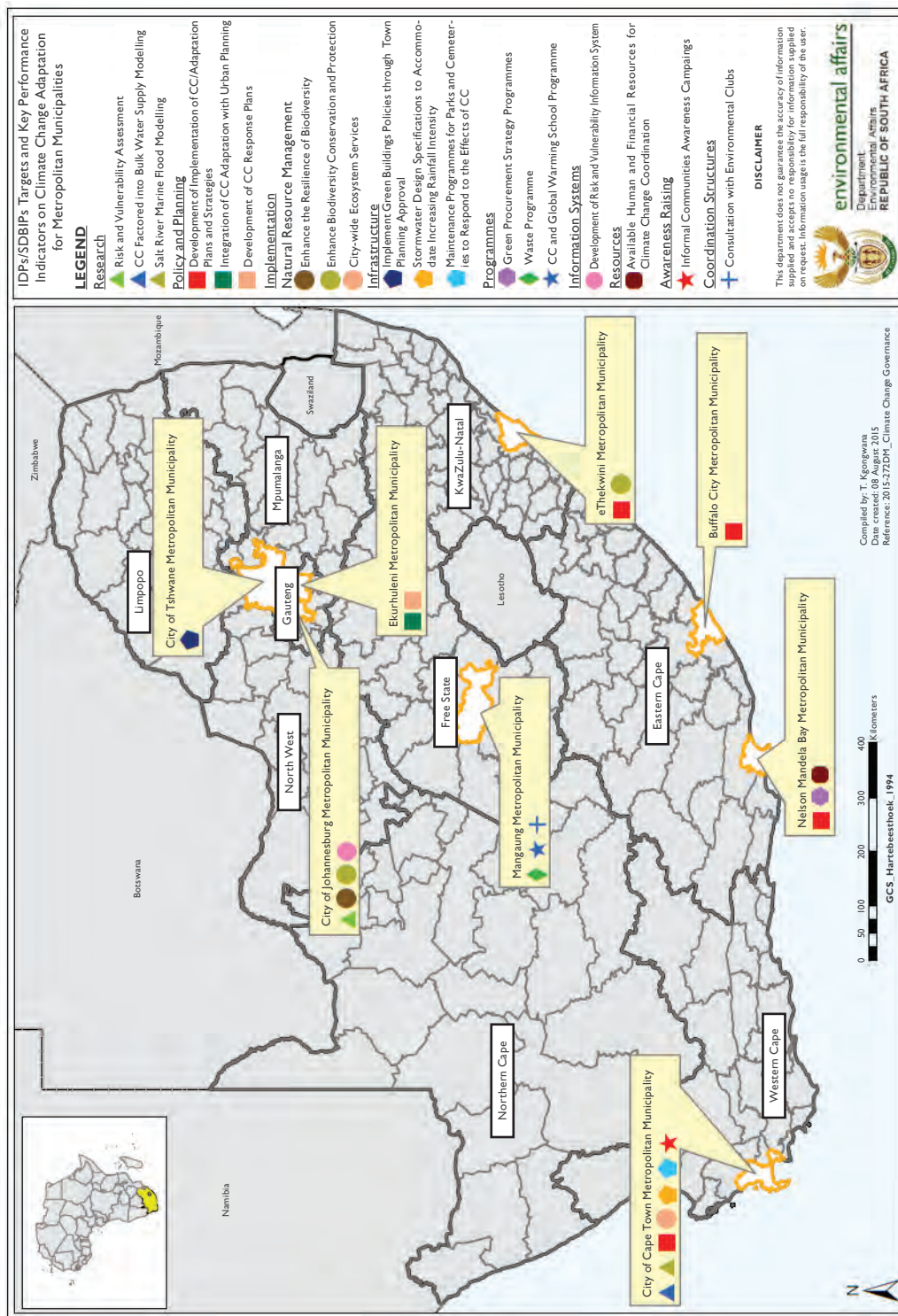


Figure 3.5: IDPs / SDBIPs targets and key performance indicators on climate change adaptation for Metropolitan Municipalities

Source: The Authors

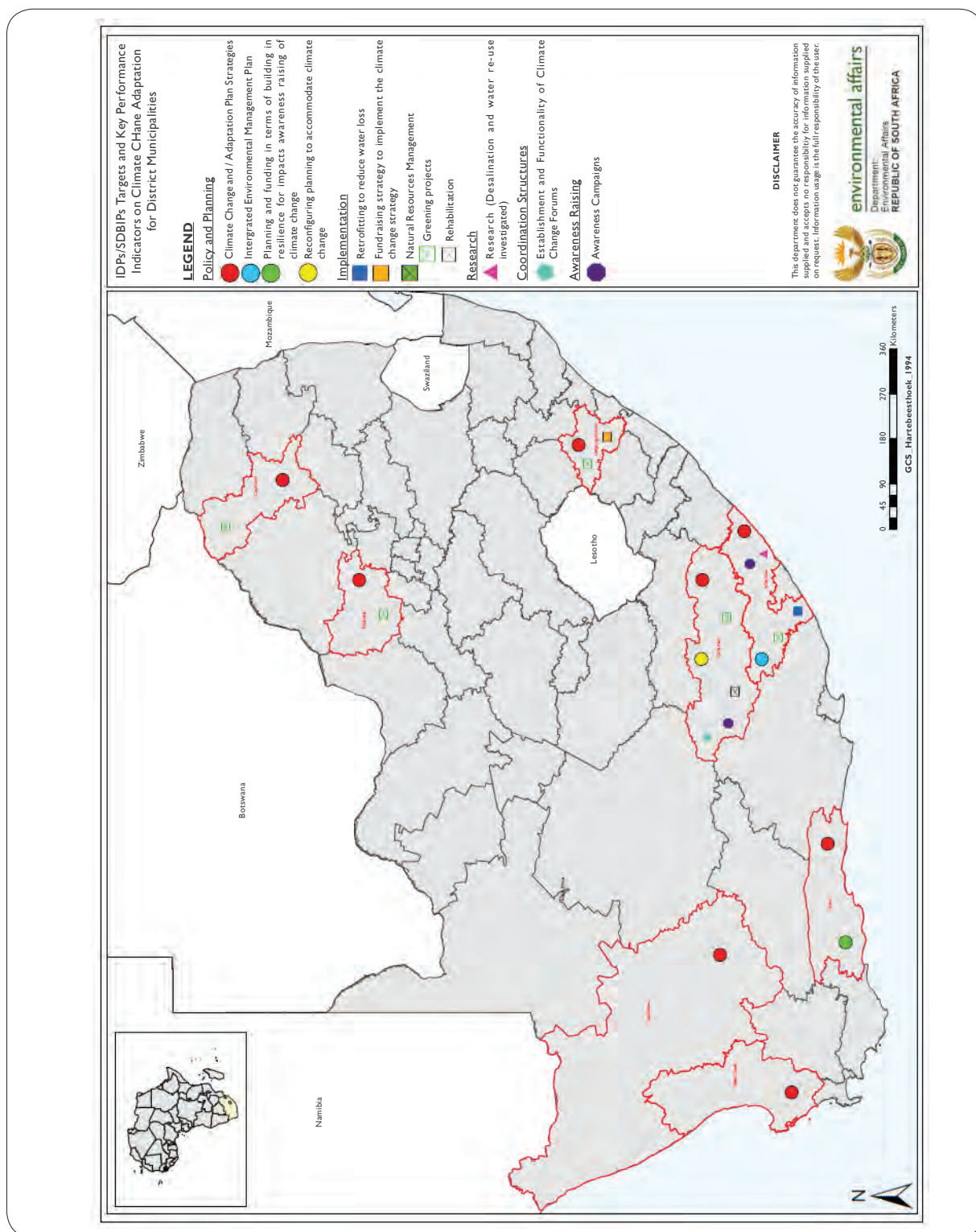


Figure 3.6: IDPs / SDBIPs targets and key performance indicators on climate change adaptation for District Municipalities

Source: The Authors

3.6 Local Municipalities

Climate change/adaptation plans and strategies have been developed by Bergrivier, Thulamela, KwaDuduza, Mbombela, Mogale and Sol Plaatje local municipalities. The IDPs / SDBIPs of Bergrivier, KwaDuduza and Mbombela local municipalities include key performance indicators on climate change/adaptation which cover the following:

- development and implementation of climate change/adaptation plans and strategies
- greening programmes
- awareness raising and competitions
- climate change seminars

3.7 Conclusions and Key Messages on Climate Change Governance

A considerable amount of work has been undertaken in spheres of government to create an enabling environment for climate change governance and management. Most national sector departments prioritised in the NCCRWP have developed climate change / adaptation plans and strategies and a few sectors prioritised in the NCCRWP have mainstreamed climate change into other policies and plans. In addition, other sectors that were not prioritised in the NCCRWP have developed climate change plans / strategies and mainstreamed climate change into other policies, plans and strategies. All provinces have developed climate change / adaptation strategies and plans. However, only a few provinces have mainstreamed climate change / adaptation into other plans and strategies. The same is true of metropolitan municipalities. Only a few district and local municipalities have developed climate change strategies and plans, and mainstreaming into other plans and strategies is also limited.

The enabling environment to respond to climate change, across all spheres of government, would benefit from dedicated resources (human, financial and institutional)

to respond to climate change. These resources appear to be critical in enhancing the integration / inclusion of issues prioritised in climate change / adaptation strategies and plans in strategic and development planning documents.


There is also a need for better distribution of information and rigorous centralised analysis with regular updates. Such an approach will help to achieve sharing of lessons, failures and successes. A structured analysis of successes and challenges, and the sharing of lessons learnt will also play an important role in upscaling success stories. The planned National Adaptation Strategy and the proposed Climate Change Act offer an opportunity to address the challenges identified in this work.



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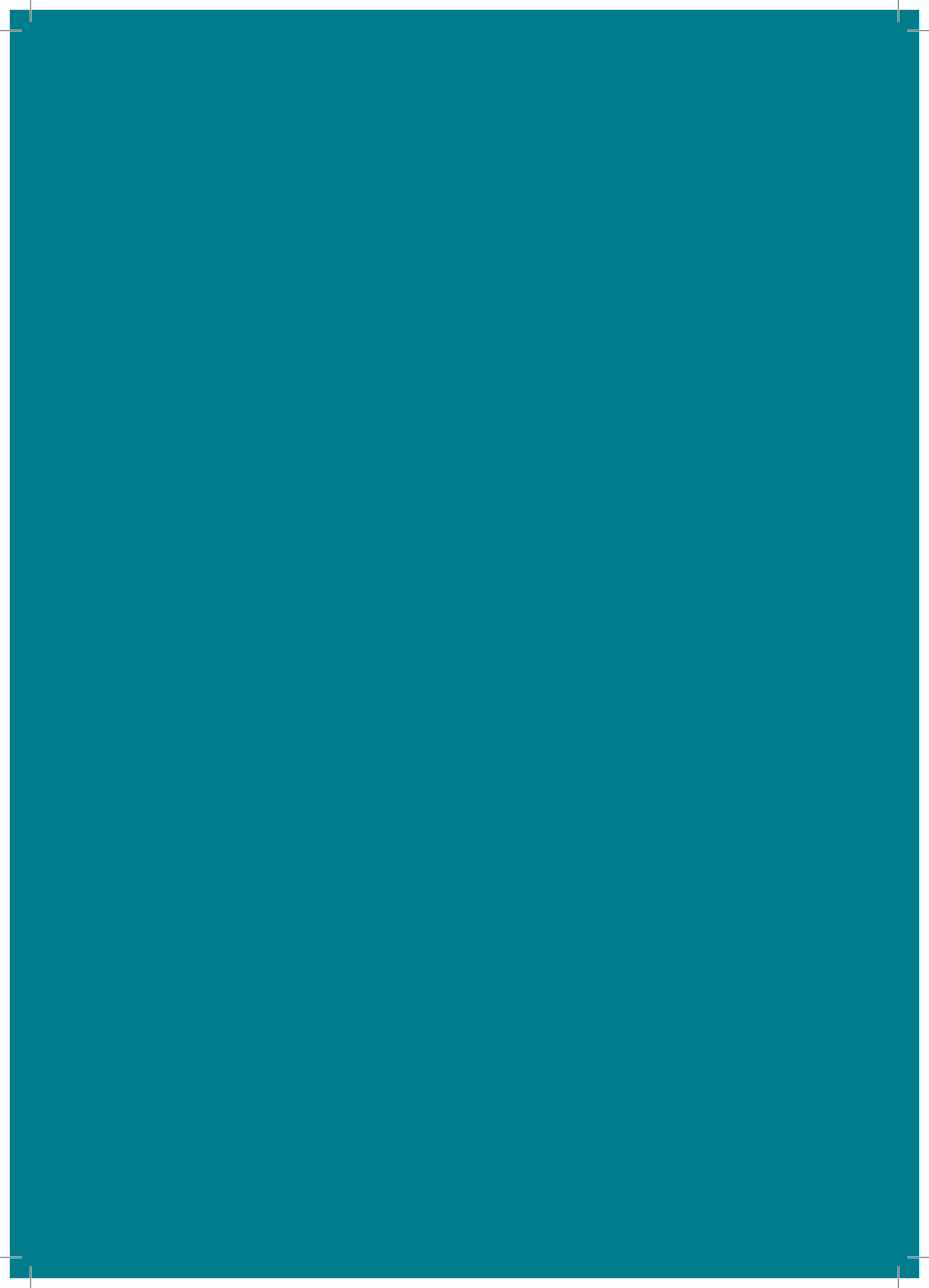
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