South Africa's 1st Annual Climate Change Report

Monitoring the Adaptation Landscape in South Africa:

Desired Adaptation Outcomes, Adaptation Projects and the Intended Nationally Determined Contribution

Theme E

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Environmental Affairs
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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*
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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

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Acts Kenya	African Centre for Technology Studies
AIDS	Acquired Immune Deficiency Syndrome
BCAS	Bangladesh Centre for Advanced Studies
CAP	Climate Action Partnership
CBAA	Community-based Adaptation in Africa
CBO	Community-based Organisation
CCAA	Climate Change Adaptation in Africa
CCAP	Climate Change Action Partnership
CEBA	Community Ecosystem-based Adaptation
CMP7	Meeting of the Parties
CO	Carbon Oxide
COP17	Conference of the Parties 17
CSA	Climate Smart Agriculture
CSA	Conservation South Africa
CSCT	Climate Smart Cape Town
CSIR	Council for Scientific and Industrial Research
CURE Malawi	Coordination Unit for the Rehabilitation of the Environment
DAC	Durban Adaptation Charter
DANIDA	Danish International Development Agency
DAO	Desired Adaptation Outcome
DCCP	Durban Climate Change Partnership
DEA	Department of Environmental Affairs
DEADP	Department of Environmental Affairs and Development Planning
DENIVA Uganda	Development Network of Indigenous Voluntary Associations
DGMT	Directory of Grant Making Trusts
DST	Department of Science and Technology
EECZ	Energy and Environmental Concerns for Zambia
EMG	Environmental Monitoring Group
EPMS Tanzania	Environmental Protection and Management Services
EWT	Endangered Wildlife Trust
EWT-RRP	Endangered Wildlife Trust's Riverine Rabbit Programme
GHG	Greenhouse Gas
HBS	Heinrich Böll Stiftung
HIV	Human Immunodeficiency Virus
ICLEI	International Council for Local Environmental Initiatives
IDRC	International Development Research Centre
IIED	International Institute for Environment and Development
INDC	Intended Nationally Determined Contribution
KZN	KwaZulu-Natal
NCCRP	National Climate Change Response Policy
NCCRWP	National Climate Change Response White Paper
NGO	Non-Governmental Organisation
NWI	Namaqualand Wilderness Initiative
RMB	Rand Merchant Bank
SA	South Africa
SAEON	South African Environmental Observation Network

SEI	Stockholm Environment Institute
SSNC	Swedish Society for Nature Conservation
START	System for Analysis, Research, and Training
UCT	University of Cape Town
UK	United Kingdom
USAID	United States Agency for International Development
WCT	Wildlands Conservation Trust
WESSA	Wildlife and Environment Society of South Africa
WfW	Working for Water
WRC	Water Research Commission
WWF	World Wide Fund for Nature
ZERO	ZERO Regional Environment Organisation

1. DESIRED ADAPTATION OUTCOMES FOR MONITORING AND EVALUATING CLIMATE RESILIENCE

1.1 Objectives and List of Desired Adaptation Outcomes

The objective of developing Desired Adaptation Outcomes (DAOs) is to inform and focus the monitoring and evaluation of the progress of South Africa towards a climate resilient society. The DAOs were developed from sector specific adaptation priorities which are described in Chapter 5 of the National Climate Change Response White Paper (NCCRWP). To date, consultations on DAOs have been held with the Department of Environmental Affairs (DEA; Biodiversity branch), Department of Water and Sanitation (DWS), Department of Health (DOH), Department of Human Settlements (DHS) and the National Disaster Management Centre. During these consultations, the DAOs were broadly accepted. The list of Desired Adaptation Outcomes is provided in **Figure 1.1**.

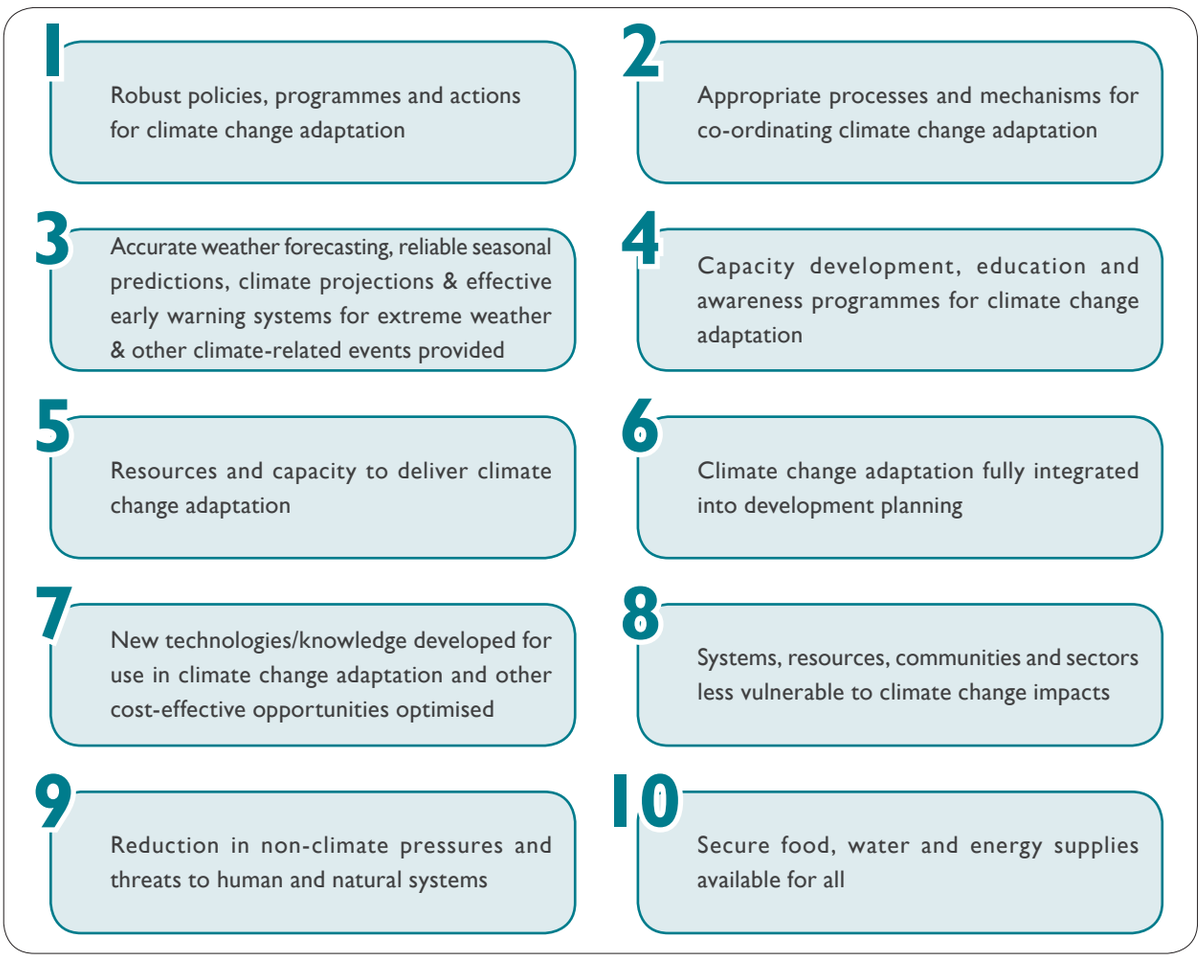


Figure 1.1: List of Desired Adaptation Outcomes

1.2 Key Messages and the Way Forward on Desired Adaptation Outcomes

The Desired Adaptation Outcomes describe a desired dynamic state that will enable South Africa to be resilient to climate change. The Department of Environmental Affairs is in the process of finalising these desired outcomes with a view to monitoring the country's progress towards their achievement.

During the 2016/17 financial year, the work on Desired Adaptation Outcomes will focus on three main activities, namely:

- Further consultations with other key stakeholders with a view to broadening the buy-in and acceptance of these Desired Adaptation Outcomes.
- Identifying the information needed to understand each of the DAOs.
- Identifying the information sources and understanding the availability and accessibility of the information required to understand each of the DAOs.

Progress on these activities and subsequent steps will be reported in the next Climate Change Annual Report.

Watering the crops

2. CLIMATE CHANGE ADAPTATION PROJECTS

2.1 Objectives

This section provides an overview of projects that address adaptation to climate change. Monitoring and evaluation of projects addressing resilience to climate change are also included in this section.

2.2 Approach

An analysis was undertaken of existing climate change adaptation projects from four databases in order to identify projects that, by design, address climate change adaptation and where the title and scope of the projects refer specifically to communities and associated community benefits.

The selection of projects was limited to projects that met these criteria. The databases were:

- the National Climate Change Response Database,
- the Adaptation Network Database,
- Ci:grasp, and the
- Oxfam database.

2.3 Results

The results are summarised in Table 2.1. These projects indicated that adapting to climate change can be recognised through:

- ***Biodiversity stewardship, restoration and rehabilitation of degraded systems and habitats,*** with resilience enhanced through:
  - job creation
  - skills development
  - provision of ecosystem services
  - sustainable natural resource management

- ***Training and knowledge sharing,*** with resilience enhanced through:
  - awareness raising
  - skills development
  - capacity building
- ***Climate smart agriculture, conservation agriculture, community gardening, access to climate information and training,*** with resilience enhanced through:
  - food security
  - awareness raising and
  - reduced emissions
- ***Early warning,*** with resilience enhanced through:
  - preparedness of local communities to respond to extreme climate and weather events
- ***Incorporation of green infrastructure opportunities into community level infrastructure upgrades, climate proofing of infrastructure and of houses***
- I***nvolving communities*** and farmers in monitoring and evaluation, with resilience enhanced through:
  - documentation of monitoring and evaluation of projects, along with information on effectiveness and cost of projects
- ***Addressing multiple livelihood stressors,*** with resilience enhanced through:
  - improvement in economic development
  - improvement in health care
  - empowerment of rural communities
- ***Monitoring and evaluation***, with resilience enhanced through:
  - archiving of responses to facilitate information and knowledge sharing
  - assessing the effectiveness and cost of responses
- ***Development and implementation of policies for climate change adaptation***, with resilience enhanced through:
  - understanding of risk and vulnerability hotspots
  - implementation of actions to enhance resilience and build capacity
- ***Public private partnerships***, with resilience enhanced through:
  - structured co-ordinated mechanisms and processes on climate change adaptation
- ***Development and provision of climate change adaptation technologies for individuals, business, institutions and communities***, with resilience enhanced through:
  - empowering individuals, business, institutions and communities to respond positively to climate change

Table 2.1: Overview of projects from existing databases

Adaptation Responses – A Southern Cape Case Study	
Geographical coverage	Eden District, Western Cape
Role players	Environmental Monitoring Group
Scope	"A look at the Eden municipalities' responses to the worst drought on record. These are being documented along with information on their effectiveness and cost. Also being looked at is how the pressure to reduce consumption has impacted on municipal revenues, and how they have balanced the shortage with the demand for freebasic water and services to poorer communities."
Source	Oxfam climate change adaptation project mapping

Building Resilience in the Greater uMngeni Catchment	
Geographical coverage	uMgungundlovu District Municipality (Msunduzi peri-urban settlements, Swayimani, Vulindlela, Nhalzuka)
Role players	South African National Biodiversity Institute (SANBI – Implementing Entity), uMgungundlovu District Municipality (Executing Entity), Adaptation Fund, National Department of Environmental Affairs
Scope	"The overall objective of the project is to reduce climate vulnerability and increase the resilience and adaptive capacity in rural and peri-urban settlements and for small scale farmers in productive landscapes in the uMgungundlovu District Municipality that are threatened by climate variability and change, through an integrated adaptation approach. The project will adopt a suite of complementary project interventions, focusing on: • early warning and response systems • a combination of ecological and engineering infrastructure solutions specifically focused on vulnerable groups in rural and peri-urban settlements • integrating climate variability and change responses into agricultural practices and infrastructure, and • Disseminating adaptation lessons learnt and policy recommendations, to facilitate upscaling and replication."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Citigroup Programme: Skeppies Building Resilience to Climate Change	
Geographical coverage	Northern Cape, South Africa
Role players	CitiGroup, Conservation South Africa, The Climate Action Partnership (CAP)
Scope	"The projects monitor local weather patterns, participate in regular climate change related workshops and training and knowledge sharing sessions, and work with local experts to develop sound business plans that ensure social, economic, and environmental benefits for the project implementers, their communities, and natural resources. The intention of the programme is to build resilience and reduce vulnerability to climate change in the participating projects."
Source	Oxfam climate change adaptation project mapping

Climate Change Adaptation and Energy Efficient Technology	
Geographical coverage	Northern Cape, Namakwa District Municipality, Western Cape, Cape Town Metropolitan Municipality, Cederberg Local Municipality
Role players	Green Connection, Conservation International, Climate Action Partnership, Conservation International, DG Murray Trust, Critical Ecosystem Partnership Fund
Scope	"The Green Connection is currently working on a project aimed at rolling out fuel efficient wood stoves to rural communities in the Cape. These stoves produce less CO_2 emissions than ordinary wood stoves; they burn less wood (energy efficient and resource-friendly) and cook quicker, resulting in quantifiable benefits for the users. Simultaneously the Green Connection has been providing information and facts on climate change and adaptation to people across the Succulent Karoo and Western Cape, and thus providing them with the salient facts that can help change lives, and empower communities to respond positively to climate change."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Climate Change Adaptation in the Swartland	
Geographical coverage	Swartland, Western Cape
Role players	Indigo: Development and Change, Project 90x2030, Climate Change Adaptation in Africa (CCAA) (Funder), Associate Rhoda Malgas
Scope	"The project focused on increasing the resilience of small-scale farmers in the Swartland to climate change through offering a range of activities and climate change preparedness workshops to farmers. With the use of historical timelines, small-scale farmers related their experiences of changes in weather over the past few years and shared with members of other farming communities in the region how they were able to respond to these changes."
Source	Oxfam climate change adaptation project mapping

Climate Change and Livestock Management in the Succulent Karoo	
Geographical coverage	Northern Cape, Namakwa District Municipality, Hantam Local Municipality.
Role players	University of the Witwatersrand, System for Analysis, Research, and Training (START), World Wide Fund for Nature (WWF) Nedbank Green Trust, Indigo Development and Change
Scope	"The project works to enhance our understanding of how marginal communities can adapt lifestyles and livelihoods in the face of committed and expected climate change, and involves a unique combination of understanding present and predicted patterns of livestock use of the environment. It does so by combining livestock monitoring, both qualitative observations by farmers and digital monitoring using GPS and temperature loggers on sheep, with climate monitoring in order to understand how sheep behave and deal with current weather extremes, such as very high temperatures. The understanding of the present will then be incorporated into an analysis of future climate change projections, identifying thresholds and then investigating possible adaptation options together with the local farming community."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Climate Change and Livestock Management in the Succulent Karoo	
Geographical coverage	Northern Cape, Karoo District Municipality
Role players	United Way International, Conservation International
Scope	"This project is part of the larger Namaqualand Wilderness Initiative (NWI) and focuses on the implementation of conservation stewardship. The project works with livestock farmers to find sustainable climate change adaptation solutions, and will encourage and enable farmers to derive tangible income benefits from implementing holistic farming practices."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Climate Change and Water – Risks, Impacts and Options for Poor Urban Households (Western Cape Province, South Africa)	
Geographical coverage	Southern Cape (Western Cape)
Role players	Environmental Monitoring Group, Open Society Foundation
Scope	"The study will look at the current drought in the southern coastal region of the Western Cape Province (southern Cape) to try to understand the dynamics among water scarcity, the responses by local authorities and the impact of those responses on urban poor communities. The overall aim is to contribute to building climate change resilience of poor urban communities by identifying risks, vulnerabilities and knowledge gaps associated with their access to water under climate change conditions. The project includes the following objectives: • Investigate and critically assess how each of the municipalities in the declared southern Cape disaster areas has responded to the drought with respect to domestic water provision and how it is financed. • Pilot a consultative process with an affected community in the southern Cape to build an understanding of knowledge gaps and obstacles, share information, strengthen community structures and facilitate engagement with local authorities. • Develop resource materials that will assist vulnerable urban communities and municipalities in South Africa adapt to climate change and associated water scarcity. • Influence policy, practice and financing relating to water services in a climate-constrained world."
Source	http://cigrasp.pik-potsdam.de/adaptations/climate-change-and-water-risks-impacts-and-options-for-poor-urban-households

Climate Change Proofing Water Services	
Geographical coverage	Cape Town, Western Cape
Role players	Environmental Monitoring Group (EMG), Heinrich Böll Stiftung
Scope	"The program aims to contribute to building the resilience of communities and government in the larger Cape Town area, in order to respond to the impacts of climate change on water in just and developmental ways. Through a seminar series that brings representatives from civil society, academia and government together, the links between water and climate change, how we respond and the consequences of not responding, are explored. The programme focuses on the impact of climate change on water services for urban poor communities. The programme has several key activities: • Action research on specific topics, for example, on water management devices, which are being rolled out in Cape Town with little thought to the problems they present to many households. • Dialogue with local authorities and lobbying. • Network building: work with urban and rural communities affiliated to the Western Cape Water Caucus (which brings together a wide range of non-governmental organisations (NGOs) and community based organisations (CBOs) working on water issues in the city of Cape Town and surrounds). • Awareness raising and education: for example, rainwater harvesting and repairing water leaks."
Source	http://cigrasp.pik-potsdam.de/adaptations/climate-change-proofing-water-services

Climate Smart Cape Town	
Geographical coverage	Western Cape, Cape Town Metropolitan Municipality
Role players	The City of Cape Town, Coalition Partners and Exte, City of Cape Town
Scope	"Climate Smart Cape Town (CSCT) is a campaign to help educate residents of Cape Town about climate change and how they can take action. It will also inform them about the actions the City and other leading public and private sector organisations have already taken to mitigate and adapt to climate change. The vision of this campaign is to become a more compact and resource efficient, lower carbon city that adapts well to the impacts of climate change, protecting its most vulnerable citizens and building an economic future based on clean development, localisation and jobs for all. Cape Town aims to inspire and assist other regional, national and continental cities to achieve similar ends."
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Coastal Adaptation Intervention	
Geographical coverage	Western Cape, Cape Town Metropolitan Municipality
Role players	The City of Cape Town
Scope	"The City of Cape Town is currently working on a number of coastal adaptation interventions. These primarily focus on policy, by-laws, and spatial planning mechanisms."
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Community-Based Adaptation in Africa (CBAA)	
Geographical coverage	South Africa, Malawi, Zambia, Zimbabwe, Uganda, Kenya, Tanzania, Sudan
Role players	Indigo development and change, International Institute for Environment and Development (IIED UK), SEI Oxford, BCAS - Bangladesh, University of Khartoum Sudan, ACTS Kenya, EPMS Tanzania, DENIVA Uganda, CURE Malawi, EECZ Zambia, ZERO Zimbabwe, and SSN-Africa South Africa
Scope	"This project proposes to create greater awareness about climate change in eight African countries. It will do this through testing a methodology which specifically targets groups most vulnerable to climate change. Particular consideration will be given to women, who are particularly vulnerable to climate change impacts. Participatory and consultative approaches will be adopted and a learning-by-doing approach applied to reduce vulnerability to climate change at the community level. The project will identify ways of communicating climate information to poor and vulnerable communities, and from communities to other stakeholders. Capacity building and support will be given to NGOs and communities through training to facilitate integration of climate change into their plans and activities. The project will generate information on community based climate change adaptation; disseminate these to inform other stakeholders including researchers, NGOs, national and international policy and decision makers etc."
Source	http://www.adaptationnetwork.org.za/projects/development/development-project-6/

Community-Based Climate Change Adaptation for Small-Scale Farmers and Artisanal Fishers	
Geographical coverage	Northern Cape: Namakwa District Municipality, Hantam Local Municipality Western Cape: Cape Town Metropolitan Municipality, Cederberg Local Municipality
Role players	Environmental Monitoring Group, Comic Relief UK, National Lotteries Board, Indigo development and change
Scope	"The aim of the project is to explore responses to climate change through participatory action-research. The organisations involved work with farmers (Suid-Bokkeveld, Wupperthal and Ericaville) and artisanal fishers groups (Lamberts Bay/Dooringbaai and Buffelsjagbaai), assisting them in the development of indigenous and locally appropriate response strategies that strengthen the resilience of their communities."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

COP17/CMP7 Event Greening Programme	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	eThekwini Metropolitan Municipality
Scope	"This programme aims to reduce the ecological impact associated with hosting the COP17 / CMP7 event. The core focus areas are carbon neutrality, resource and energy efficiency, ecological footprinting, the production of event greening guidelines and an awareness campaign around responsible accommodation and tourism approaches. It has also provided a platform for the development of the community ecosystem-based adaptation (CEBA) concept."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Greening of Training Stadia for the 2010 Fifa World	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	DEA Urban Environmental Management Programme, eThekwini Metropolitan Municipality, Danish International Development Agency (DANIDA)
Scope	"A best-fit greening intervention was determined for each venue to achieve energy efficiency, water conservation, waste management and climate protection using funds provided by eThekwini Municipality and the Danish International Development Agency (DANIDA). Water conservation is achieved through the use of rainwater harvesting, flow restraint valves, intelligent pitch irrigation, the hi-tech pitch at KwaMashu and dual-flush toilets and tap aerators. Energy efficiency is achieved through heat pumps, motion detection lighting, daylight timer switches and flood control lighting. Environmental management systems were developed for maximum operational efficiency. Key Learning: Profiling green technologies at these training venues demonstrates a responsible approach to infrastructure provision that can be viewed by a broad stakeholder base. Stadia have particular use patterns which make renewable energy systems appear non-feasible in cost-benefit analyses. This is unfortunate as the iconic nature of the facilities make them powerful messaging tools. Basing decisions on which green technologies to employ for event venues simply on a financial cost benefit basis undervalues other potential benefits of such approaches."
Source	http://nccrd.environment.gov.za/DEAT/ViewProjects.aspx?id=10264

Design Floodline Planning	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	eThekwini Metropolitan Municipality
Scope	"Storm water pipe and culvert designs are being adjusted to accommodate the predicted increase in rainfall and stream flow intensities. Flood lines are being revised to accommodate this increase in order to ensure that new developments in or adjacent to rivers are not negatively impacted. Developers will be requested to include the 15% increase in intensity of rainfall in their calculations for post development runoff, while using the existing rainfall curves for the pre-development runoff calculations. Key Learning: Climate change adaptation is another factor requiring attention in engineering design, not a standalone requirement. Where climate change considerations are used to guide the application of existing policies it is easier to get climate change incorporated into the design. An example of this is the adjustment of the design rainfall figures by 15%".
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Durban Adaptation Charter (DAC)	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	International Council for Local Environmental Initiatives (ICLEI), United States Agency for International Development (USAID), eThekwini Metropolitan Municipality
Scope	"The DAC complements existing local government climate change mitigation initiatives, such as the Mexico City Pact (signed prior to COP16 in 2010) and the associated carbonn Cities Climate Registry. The Mexico City Pact commits local governments to mitigation actions (by reducing their Greenhouse Gas emissions through implementing energy efficiency and renewable energy programmes) to reduce the severity of future climate change, while the DAC commits local governments to take the necessary steps to prepare their cities for whatever climate change impacts will be experienced."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Durban Climate Change Partnership (DCCP)	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan municipality
Role players	eThekwini Metropolitan Municipality
Scope	"The DCCP unites diverse sectors, including partnerships with sectors, business, industry, government, civil society, academia, people with disabilities and the youth in addressing the climate change challenge. Seed funding was provided by eThekwini Municipality to facilitate the formation of this body, which will become independently funded and administered in the longer term."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Pikitup Events Recycling Truck

Eco-Schools Programme	
Geographical coverage	Across the Eco-Schools network (National)
Role players	CAP, DG Murray Trust, WWF, Wildlife and Environment Society of South Africa (WESSA)
Scope	"Eco-Schools Programme (WESSA/WWF) has been supported by CAP to tackle climate change. The programme has become a valuable curriculum framework for schools to work toward sustainable development goals. Since it was launched in South Africa in 2003, the numbers of schools that have registered has increased. Implemented by WESSA the programme in SA is fast being recognised by schools and those involved in education and in education for sustainable development as one of the key ways in which to improve curriculum learning and to build the capacity of educators and learners, and to improve school management with an emphasis on environmental sustainability."
Source	Oxfam climate change adaptation project mapping

Mayor Masina engages with renewable energy developers at the Doornkop Solar Energy expo, 2015

Education for Climate Change Adaptation in South Africa	
Geographical coverage	Sutherland, Northern Cape
Role players	Green Connection
Scope	"The project involves two main phases: • The first phase is to develop a framework for involving communities in environmental monitoring, including lessons learnt from other projects and recommendations for future projects. • The second phase involves developing a small-scale climate change adaptation project in the Northern Cape, particularly in Sutherland and Wupperthal."
Source	Oxfam climate change adaptation project mapping

Endangered Wildlife Trust – Drylands Conservation Programme	
Geographical coverage	Northern Cape, Karoo District Municipality, Ubuntu Local Municipality, Pixely Ka Seme District Municipality
Role players	Endangered Wildlife Trust EWT, Altron, Lindt, DEA, DG Murray
Scope	"The project aims to redress environmental degradation and habitat fragmentation along seasonal river courses in the Karoo in order to restore ecosystem functions and ensure the conservation of the biodiversity which provides natural resilience to ecosystems. An integrated approach is taken whereby aspects of biodiversity conservation are integrated with agriculture, and social upliftment. Objectives: • To restore natural riparian vegetation along seasonal rivers in the Karoo in order to restore ecosystem health (improved ecosystem services and processes) and concomitantly improve resilience to climate change. • To develop a model of ecosystem-based adaptation which could be replicated along rivers in other arid systems and lead to landscape level climate change adaptation, in South Africa, Africa and possibly other arid regions worldwide. • To integrate ecosystem restoration with sustainable land management principles and socio-economic upliftment of local communities. • To facilitate the mainstreaming of climate change adaptation into local government outlooks and perspectives. • To improve the capacity and understanding of local Karoo communities and authorities to the need and the means to adapt to climate change. Expected outcomes: • The resilience of Karoo ecosystems to impacts of climate change is enhanced, through improved site ecosystem services and processes and through sustainable land management practices. • Through improved resilience and sustainable management, natural resource utilisation is improved. • The capacity of local authorities to engage with climate change adaptation is improved. • The economics of local communities are improved through employment and training opportunities provided through restoration. • The ecosystem-based model is replicable and accountable and is applicable and relevant to other arid systems. • Conservation of biodiversity is enhanced, as indicated by improved survival of critically endangered riverine rabbit populations."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Gender and Climate Change (CC): Raising Awareness, Building Capacity, and Influencing Policy (North-West)	
Geographical coverage	North-West, Limpopo, Western Cape and some peri-urban parts of Gauteng province
Role players	GenderCC
Scope	The overall goal of the pilot project is to contribute to integrating gender in climate change related policy making and adaptation strategies in South Africa. Focus areas are: • Awareness-raising on the expected consequences and risks of climate change. • Documentation of women's experiences of climate change impacts on agriculture, water, housing, fisheries and related livelihood issues • Feeding into the process of developing adaptation policies and strategies for local, provincial and national government. • "Climate change is expected to affect many sectors of the natural and man-made sectors of the environment in South Africa, and many of them are of particular relevance to the work and livelihoods of women. Women living in poverty are the most threatened by the dangers that stem from climate change. South African women are not immune to these climate change threats. In rural communities women are largely dependent on natural resources and agriculture for their livelihoods. Climate change will mean that the supply of natural resources will be threatened. Agriculture may become less viable."
Source	Oxfam climate change adaptation project mapping

Gender CC Capacity Building Workshops (Gauteng)	
Geographical coverage	Gauteng, Western Cape
Role players	GenderCC, Malibongwe
Scope	Through a partnership with Malibongwe, a South African women's development organisation, Gender CC held 14 workshops in Gauteng's peri-urban and rural areas as well as in the Western Cape, with 13 to 150 women and youth participating. The majority of participants were unemployed and involved in volunteer community projects, or in community development structures, and have formed struggling cooperatives mainly in agriculture, recycling, making clothing, and so on. "Climate change is expected to affect many sectors of the natural and man-made sectors of the environment in South Africa, and many of them are of particular relevance to the work and livelihoods of women. Women living in poverty are the most threatened by the dangers that stem from climate change. South African women are not immune to these climate change threats. In rural communities women are largely dependent on natural resources and agriculture for their livelihoods. Climate change will mean that the supply of natural resources will be threatened. Agriculture may become less viable,"
Source	Oxfam climate change adaptation project mapping

Green Guideline Series	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	eThekwini Metropolitan Municipality
Scope	"The Green Guideline series provides practical tools to guide individuals, businesses and institutions in living and working more sustainably in Durban. They are concise, practical and focused documents providing clear information about choosing appropriate 'green interventions'. Key Learning: High demand for the series confirms the need for concise, simple and useful information that makes transformation and change to sustainability more understandable and accessible."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Increasing the Resilience of Small-Scale Tea Farmers in Responding to Climate Change (Suid Bokkeveld)	
Geographical coverage	Hantam Local Municipality, Namaqua District, Northern Cape Province, South Africa.
Role players	WWF South Africa, Environmental Monitoring Group, Climate Systems Analysis Group (UCT), Table Mountain Fund
Scope	"This project was designed to provide concrete recommendations and to develop strategies to build resilience to climate change amongst small-scale tea growers, and mainstreaming adaptation to projected increasing climate risk. The following measures were undertaken to improve the resilience of the small-scale farmers: • Through quarterly climate preparedness workshops farmers together with scientists discussed climate change projections and trends in the Suid Bokkeveld region, including adaptation options and long term strategies. In the workshops farmers learned to integrate seasonal weather forecast into their decision making. • Mentor farmers trained their fellow farmers in soil erosion control and the removal of alien species. As a result of the training farmers created wind breaks and retention buffers in their tea production areas. • Through the learning process initiated by the project farmers changed to more sustainable agricultural practices e.g. mulching as a method to conserve moisture and increase plant nutrients. • Finally, farmers learned to monitor the growth of wild and cultivated rooibos stands, and were able to enhance their management abilities according to findings. In the participatory research farmers discovered that wild rooibos has a greater resilience to severe climatic events than cultivated varieties. Two communities of small-scale rooibos farmers currently organised as the Heiveld Co-operative and the Wupperthal Tea Association, have been harvesting wild and cultivated rooibos, and have become the de facto guardians of the wild rooibos genetic stock".
Source	http://cigrasp.pik-potsdam.de/adaptations/increasing-the-resilience-of-small-scale-tea-farmers-in-responding-to-climate-change

Integrated Assessment Tool for Climate Change Adaptation	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	eThekwini Metropolitan Municipality
Scope	"This project involved a detailed analysis of multiple sector impacts (using downscaled temperature and rainfall projections) and the development of a standalone software platform for the spatial display and interrogation of sector impact modules. Key Learning: In an attempt to produce a tool which could be easily utilised and which was still technically comprehensive, the overall outcome is a platform that is too difficult for decision makers to utilise and not sufficiently sophisticated to provide meaningful technical guidance to more expert users. This has highlighted the difficulty of developing an appropriate climate protection tool box for local government. Further work is thus required to determine an appropriate way forward".
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Karoo Climate Change Adaptation Corridors: Riparian Habitat Rehabilitation Project	
Geographical coverage	Loxton, Northern Cape
Role players	EWT, CAP
Scope	"This project is aimed at developing and implementing strategies to rehabilitate the precious, but heavily degraded freshwater systems in the Karoo. The project, based in the small town of Loxton in the Northern Cape, aims to combine sustainable water and biodiversity conservation with job creation and the development of skills for members of the local community".
Source	Oxfam climate change adaptation project mapping

Karoo Climate Change Adaptation Corridors: Riverine Rabbit Programme	
Geographical coverage	Nama Karoo
Role players	EWT, CAP
Scope	"The Endangered Wildlife Trust's Riverine Rabbit Programme (EWT-RRP) is aimed at the conservation and protection of the critically endangered riverine rabbit (*Bunolagus monticularis*). The riverine rabbit is endemic to the seasonal riverine systems in the Nama Karoo. It is an important biological indicator species, the absence of riverine rabbit in confirmed suitable habitat suggests that the riparian system in question is not functioning as it should. Nama Karoo river systems have been damaged by farming practices and other human activities that have resulted in extensive erosion and degradation in and around riparian habitats of the riverine rabbit. This degradation coupled with the expected impacts of climate change in South Africa's arid and semi-arid zones provides a strong incentive for the rehabilitation and restoration of these habitats. The programme also provides employment for communities and facilitates ecosystem restoration on landowners farms."
Source	Oxfam climate change adaptation project mapping

Flowers in bloom

Climate Change Adaptation Corridors: KZN Biodiversity Stewardship	
Geographical coverage	Six sites throughout KwaZulu-Natal; Dalton Private Reserve, Red Desert Nature Reserve, Umgano Reserve, Somkhanda Game Reserve, Usuthu Gorge, and Mweni community project
Role players	CAP, Ezemvelo KZN Wildlife, The Dalton Trust, Mveni Community
Scope	"This project aims to create an environment that enables communities and biodiversity to adapt to a changing climate by securing core conservation areas, applying a biodiversity stewardship approach and improving the land use and conservation management of these sites."
Source	http://www.adaptationnetwork.org.za/projects/stewardship/stewardship-project-3/

Learning about Adaptation in Eco Schools	
Geographical coverage	Western Cape, Mpumalanga, Eastern Cape, Free State and KwaZulu-Natal
Role players	WESSA, WWF South Africa, Wildlands Conservation Trust and CAP
Scope	"The aim of the Eco-School Climate Change project is to facilitate and empower schools as drivers of community action, learning and social change toward reducing and offsetting greenhouse gas emissions. This is being achieved by encouraging climate-friendly behaviour through lessons and action projects that link with the curriculum. In the process biodiversity conservation and healthy ecosystems are promoted as part of climate change mitigation and adaptation. The framework of the current WESSA / WWF Eco-Schools programme forms the basis through which this is achieved, as it has a well-researched and peer reviewed process framework that fosters whole school learning and education for sustainable living. Although there is no requirement to expand on the number of schools in the six climate change nodes, the number of schools has increased in 2010 from 144 to 240 and this is growing in number in all nodes, in almost all cases. Specific measures include: • 39 lessons on the curriculum relating to climate change • development of a climate change cartoon and theme specific educational puzzle • vegetable gardens and • wetland rehabilitation activities."
Source	http://cigrasp.pik-potsdam.de/adaptations/learning-about-adaptation-in-eco-schools

Luganda School Water Harvesting and Micro Agricultural Water Management Technology	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	eThekwini Metropolitan Municipality
Scope	"The project involves harvesting roof (clean) water from classroom roofs and surface (grey) water from school grounds into two separate storage tank systems. This water is used by members of the community in gardens established on school grounds, down slope from the water storage structures. Water is accessed by means of valves, with each gardener equipped with a valve key connected to a hose-pipe for watering crops throughout the year. Key Learning: Despite the success of Phase 1, a lack of sustained institutional support and resourcing has put this pilot project at risk and provides a compelling argument for the Durban community ecosystem-based adaptation (CEBA) initiative as a means by which a structured and programmatic approach could guarantee ongoing adaptation action."
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Matimba Dry-Cooled Power Station	
Geographical coverage	Limpopo: Waterberg District Municipality, Lephalale Local Municipality, Ellisras
Role players	Eskom
Scope	"Matimba represent the largest direct dry-cooled power station in the world, with an output of more than 4000 MW. The use of dry-cooled technology was selected due to the scarcity of water in the region. Water consumption is estimated at 0.1 litres per kWh of power produced significantly less than 1.9 litres in wet-cooled power stations."
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Mitigation and Adaptation to Climate Variability and Change in the Thabo Mofutsanyane District (Free State Province, South Africa): Multidisciplinary Approach Through an Integrated Crop-Livestock System	
Geographical coverage	Thabo Mofutsanyane district (Free State Province, South Africa)
Role players	Department of Agriculture, Forestry and Fisheries
Scope	"To introduce and encourage agricultural practices that are potentially capable of mitigating climate change and adapting to adverse effects of climate change through: • The production of bioenergy as a substitute for high GHG emitting sources of energy • Introduction of conservation agricultural practices to the community • Use of appropriate weather and climate information to aid farmers in their major agricultural decision-making related to animal and crop production • To raise awareness and conduct training on climate variability and climate change in rural agricultural communities".
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Municipal Adaptation Plans Cost-Benefit Analysis	
Geographical coverage	KwaZulu-Natal, eThekwini Metropolitan Municipality
Role players	eThekwini Metropolitan Municipality
Scope	"The adaptation planning process employed a multi-criteria assessment approach to rank a list of adaptive responses in each of the three sectors. The final score was derived using a combination of merit (of the plan) and urgency. To further prioritise interventions in terms of implementation, an innovative cost-benefit analysis is being undertaken whereby the number of people benefiting from an intervention is used to assess priority instead of the usual financial metrics. This is a more suitable approach within cities of the Global South, such as Durban, where human need and adaptation are two sides of the development coin. Key Learning: The development of sector specific adaptation plans that are fully aligned with existing business plans, development objectives and available funding and skills is critical to success and the only practical means by which to begin mainstreaming the process of adaptation at the local level. The prioritisation of disaster risk reduction is also central to any municipal adaptation planning process."
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Namaqualand Climate Change Adaptation Corridors: Fountain of Life	
Geographical coverage	Kamiesberg Mountains, Northern Cape
Role players	CAP, the Namaqualand Wilderness Initiative (NWI), Conservation South Africa (CSA)
Scope	"CSA supported the local farmers' group to restore their wetland by eradicating non-native species, removing waste from the spring's wells, building fences, and planting native wetland species. The results were impressive. A total of 52 poplar trees were removed and infrastructure was repaired to generate tremendous water, biodiversity and community benefits. In all, 26 000 litres of water are now available per day for use by the local community instead of the alien trees. The 224 households that rely on the spring use 558.6 litres per hour during the driest months of December and January. Nine wetland species have been rediscovered in the wetland after the removal of the alien trees, and the community now saves $13 000 a year on water."
Source	Oxfam climate change adaptation project mapping

Namaqualand Climate Change Adaptation Corridors: South Africa Organic Garden of Hope	
Geographical coverage	Carolusberg (Namaqualand region), Northern Cape
Role players	CAP, NWI, CSA, Spar
Scope	"A community garden project that produces fresh produce as well as providing food parcels for the town's ill and old, and sustains a weekly soup day for the local school children. Supermarkets such as Spar in nearby Springbok, the "capital" of Namaqualand, are also partnering with the project, providing supplementary soup bones and bread."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Namaqualand Climate Change Adaptation Corridors: Water for All	
Geographical coverage	Namaqualand, Northern Cape
Role players	CAP, NWI, CSA
Scope	"As a result of the arid conditions, Namaqualand is also an area where food security is already tenuous and likely to become more strained as a result of global climate changes. Combining local farmer knowledge with relevant external knowledge, CSA strives to enable Namaqualand farmers to adapt to climate threats by adopting holistic livestock farming practices."
Source	Oxfam climate change adaptation project mapping

Ntuzuma Adaptation Programme (eThekwini Municipality Community Adaptation Programme)	
Geographical coverage	eThekwini Metropolitan Municipality
Role players	Golder Associates, eThekwini Metropolitan Municipality
Scope	"The main objective of the project is to assist communities in coping with changes in food security (particularly from traditional crops) as a result of changing environmental conditions due to climate change. An important consideration in the testing of alternative crops is their social acceptability amongst communities. Community cook-offs have taken place at the two sites where alternative crop planting was done: Ntuzuma and Ntshongweni. At these cook-offs the alternative crops were cooked using various interesting recipes such as fufu, cassava bread, cassava chips, sorghum bread, pumpkin soup and amadumbe soup. These were tasted by community members to see how they responded to the new foods."
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Revision of the Western Cape Climate Change Response Strategy	
Geographical coverage	Western Cape, Cape Town Metropolitan Municipality
Role players	WCG, Department of Environmental Affairs and Development Planning (DEADP)
Scope	"Update 2008 Climate Change Response Strategy and Action Plan to ensure alignment with all current policy and set clear targets and responsibilities."
Source	Oxfam climate change adaptation project mapping

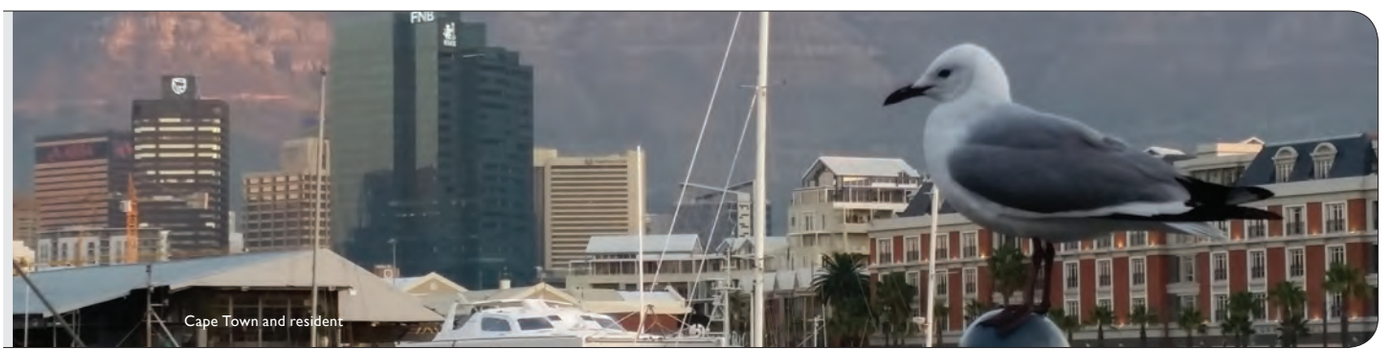
Riparian Habitat Rehabilitation Project	
Geographical coverage	Northern Cape, Karoo District Municipality, Ubuntu Local Municipality
Role players	EWT, CAP through Directory of Grant Making Trusts (DGMT), Rand Merchant Bank (RMB), Altron, Altech, Bytes, Powertech, Altech, Netstar
Scope	"This project promotes the importance of soil and water conservation in the Nama Karoo by helping farmers, farm workers and local workers to acquire the skills needed for implementing soil and water conservation. Through improving ecosystem resilience of riparian corridors, Karoo fauna and flora have greater potential to persist and / or adapt to the potential impacts of climate change in the semi-arid interior of South Africa."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

Rooibos and Climate Change	
Geographical coverage	Northern Cape, Namakwa District Municipality
Role players	EMG, Misc
Scope	"Assisting small scale rooibos farmers in Northern Cape to explore and implement appropriate farming techniques, such as soil and water conservation, mulching, etc. Also assistance with organic production methods, conservation of wild rooibos genetic stock, upgrading tea production and processing, alternative markets, etc."
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

South African Risk and Vulnerability Atlas under the Department of Science and Technology Global Grand Challenge and ten year innovation plan	
Geographical coverage	Nationwide
Role players	Council for Scientific and Industrial Research (CSIR), South African Environmental Observation Network (SAEON), Department of Science and Technology (DST)
Scope	"The South African Risk and Vulnerability Atlas (SARVA) is one of the flagship projects under the Department of Science and Technology's 10 year Global Change Grand Challenge and is meant to bridge the gap between science and policy, by providing information to decision makers on risk, vulnerability and impacts of global change. In 2008, the DST adopted a Ten-Year Innovation Plan aimed at propelling the country towards a knowledge economy. The Ten-Year Plan is underpinned by five grand challenges, one of which is Science and Technology for Global Change."
Source	http://nccrd.environment.gov.za/DEAT/Project.aspx?id=10674

Taking Adaptation to the Ground: A Small Grants Facility for Enabling Local Level Responses to Climate Change	
Geographical coverage	Mopani District (Limpopo Province) and the Namakwa District (Northern Cape Province)
Role players	SANBI (Implementing Entity), SouthSouthNorth Trust (Executing Entity), Mopani District and Namakwa district, Adaptation Fund, National Department of Environmental Affairs
Scope	The small grants will support grant recipients to implement adaptation responses in: • **Climate smart agriculture** (such as the construction of livestock shelters, introduction and implementation of mulching techniques, introduction of agroforestry and planting of locally appropriate drought resistant crops) • **Climate resilient livelihoods** (such as the development of trader stalls that protect people and products from the heat, installation of cooling facilities for food traders, provision of shade clothes for vegetable production at kindergartens and the introduction of savings groups) • **Climate proof settlements** (such as improving housing structures, construction of small-scale coastal storm protection, improving the structure of bridges and restoring degraded wetlands)
Source	http://nccrd.environment.gov.za/DEAT/Login.aspx?

The Adaptation Network	
Geographical coverage	Western Cape, Cape Town Metropolitan Municipality
Role players	Indigo Development and Change, Environmental Monitoring Group
Scope	"The Adaptation Network is a professional network for information sharing and learning on climate change adaptation issues that brings together actors from civil society, government, academia and business. It was founded in 2009, when it was recognised that climate change adaptation work in South Africa lacked both coordination and a forum where those involved in adaptation work could network, share information and make inputs to national and international policy processes. The aim of the network is thus to provide a creative space for knowledge exchange and information sharing. Its approach is centred around sharing and exchange through workshops, an emailing list and a website."
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx



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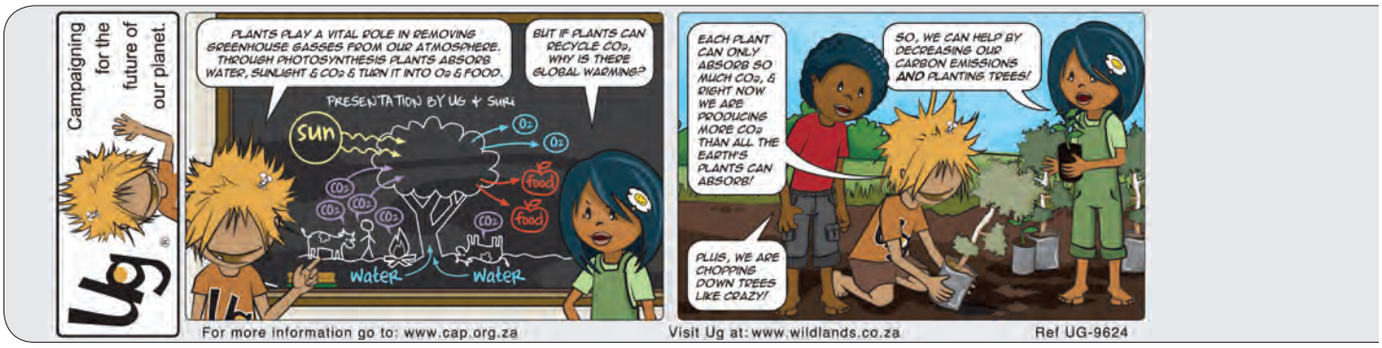

Ug Educational Cartoon	
Geographical coverage	National
Role players	CAP, Wildlands Conservation Trust
Scope	"An educational cartoon (Ug) that CAP and the Wildlands Conservation Trust have jointly developed to use with climate change/adaptation activities. Ug uses the creative medium of cartoons to communicate climate change and biodiversity conservation messages to schoolchildren in a fun and interactive way. CAP and WCT are linking the cartoons to competitions and lesson plans with activity pages and there are plans to distribute the cartoon through local media, Eco-Schools and partner organisation websites."
Source	http://www.adaptationnetwork.org.za/projects/education/education-project-2/

Vulnerability, Coping and Adaptation within the Context of Climate Change and HIV/AIDS in South Africa: Near Queenstown	
Geographical coverage	Close to Queenstown, South of Coffee Bay
Role players	Department of Environmental Science: Rhodes University, International Development Research Centre (IDRC), University of Alberta (Canada)
Scope	"The project looks at multiple stressors, specifically health and environmental issues, and how these are impacted by changes in climatic conditions in order to identify and implement appropriate community-based adaptation practices through a social learning approach. The main objectives of the project are to: • increase the understanding of the complex inter-relationships between climate change, HIV/AIDS, vulnerability and food security, and adaptation responses within the Eastern Cape • support the identification and implementation of community-based adaptation practices though a social learning research process • to develop partnerships and constituencies to help bring about relevant change to policy and practice • build capacity amongst multiple stakeholders, from students to municipal officials and community members, to understand the complex processes around vulnerability and the ability to cope and adapt with multiple livelihood stressors."
Source	http://cigrasp.pik-potsdam.de/adaptations/vulnerability-coping-and-adaptation-within-the-context-of-climate-change-and-hiv-aids

Water and Climate Change	
Geographical coverage	Ngqushwa Local Municipality, AMathole District Municipality, Eastern Cape; Cape Town Metropolitan Municipality, Western Cape
Role players	SSNC, HBS, WRC, EMG
Scope	"In large parts of the country, climate change will impact the state's ability to provide adequate and affordable water to the poor. This project aims to highlight the links between climate change and water services in rural and urban areas with a broader look at livelihoods security, including rain water conservation, community mobilisation, and food security. This project integrates science and action to provide policy recommendations and other research outputs".
Source	http://nccrd.environment.gov.za/DEAT/Iframe.aspx

Western Cape Climate Adaptation Database	
Geographical coverage	Western Cape, Cape Town Metropolitan Municipality
Role players	Western Cape Government
Scope	"A database of climate adaptation projects has been developed of all Western Cape projects and some of the research on the subject".
Source	Oxfam climate change adaptation project mapping

2.4 Key Messages

The projects listed in this section indicate that adapting to climate change brings multiple benefits through

- job creation
- skills development,
- sustainable natural resources management
- emissions reductions
- food security
- information and knowledge management
- awareness raising
- economic development
- improved health care
- infrastructure design, education, livelihoods

Therefore, understanding the multiple benefits of adaptation responses should be an important component of the monitoring and evaluation process and these benefits could provide decision support tools for planning and scaling up.

Subsequent annual reports will focus on assessing the effectiveness of projects in enhancing climate resilience and assessing the respective contributions of the projects to the Desired Adaptation Outcomes and to the goals that have been identified in South Africa's Intended Nationally Determined Contribution.

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3. SETTING THE SCENE FOR MONITORING PROGRESS TOWARDS ACHIEVING THE INTENDED NATIONALLY DETERMINED CONTRIBUTION FROM SOUTH AFRICA

3.1 Components and Goals

South Africa submitted its Intended Nationally Determined Contribution (INDC) in September 2015. The adaptation component of the INDC is made up of two components, namely:

- A policy framework (including implementation) made up of six goals, which are discussed in more detail below.
- A support component focusing on key programmes for scaling up (RSA 2015).

The policy framework undertakes to address adaptation through the following six goals for the period 2020–2030:

- **Goal 1:** Develop a National Adaptation Plan, and begin to operationalise it as part of implementing the NCCRP for the period from 2020 to 2025 and for the period 2025 to 2030.
- **Goal 2:** Take into account climate considerations in national development, sub-national and sectoral policy frameworks for the period 2020 to 2030.
- **Goal 3:** Build the necessary institutional capacity for climate change response planning and implementation for the period 2020 to 2030.
- **Goal 4:** Develop an early warning, vulnerability and adaptation monitoring system for key climate vulnerable sectors and geographic areas for the period 2020 to 2030, and report on those in terms of the National Adaptation Plan, with rolling five-year implementation periods.
- **Goal 5:** Develop a vulnerability assessment and adaptation needs framework by 2020 to support a continuous presentation of adaptation needs.
- **Goal 6:** Communicate past investments in adaptation for education and awareness as well as for international recognition (RSA 2015 3–6).

The INDC further outlines the following key programmes that will have to be scaled up:

- Working for Water (WfW) and Working on Fire
- Working on Wetlands
- Water Conservation and Demand Management
- Land restoration (RSA 2015 9).

South Africa's Annual Climate Change Report and its Third Biennial Update Report will showcase progress achieved under each of the INDC goals and the programmes that have been identified for scaling up.

3.2 Reference

Republic of South Africa (RSA). 2015. South Africa's Intended Nationally Determined Contribution (INDC), 2015. Available: http://www4.unfccc.int/submissions/INDC/Published%20Documents/South%20Africa/1/South%20Africa.pdf

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