

LTAS Phase 2 Workshop

- Distribute phase 1 technical report box sets and factsheets
- Overview LTAS process, links between phase 1 and 2 research work and scenario planning, obtain stakeholder input
- Present and discuss Phase 2 work, esp. integration of results
 - Climate change vulnerabilities and potential adaptation responses for **human settlements** (urban, rural and coastal); and **disaster risk reduction/management** sectors in South Africa.
 - Climate change vulnerabilities and options for integrated regional (**SADC**) adaptation responses.
 - The **economics of climate change adaptation** under climate futures in South Africa including quantitative modelling of costs and benefits of selected adaptation scenarios.
 - Qualitative adaptation **scenario planning** methodology based on phase 1 products and phase 2 workpackages and stakeholder workshops.
- Future adaptation work including LTAS phase 3, other national processes such as South Africa's Third National Communication



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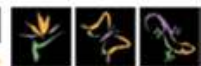
On behalf of



Federal Ministry for the
Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany

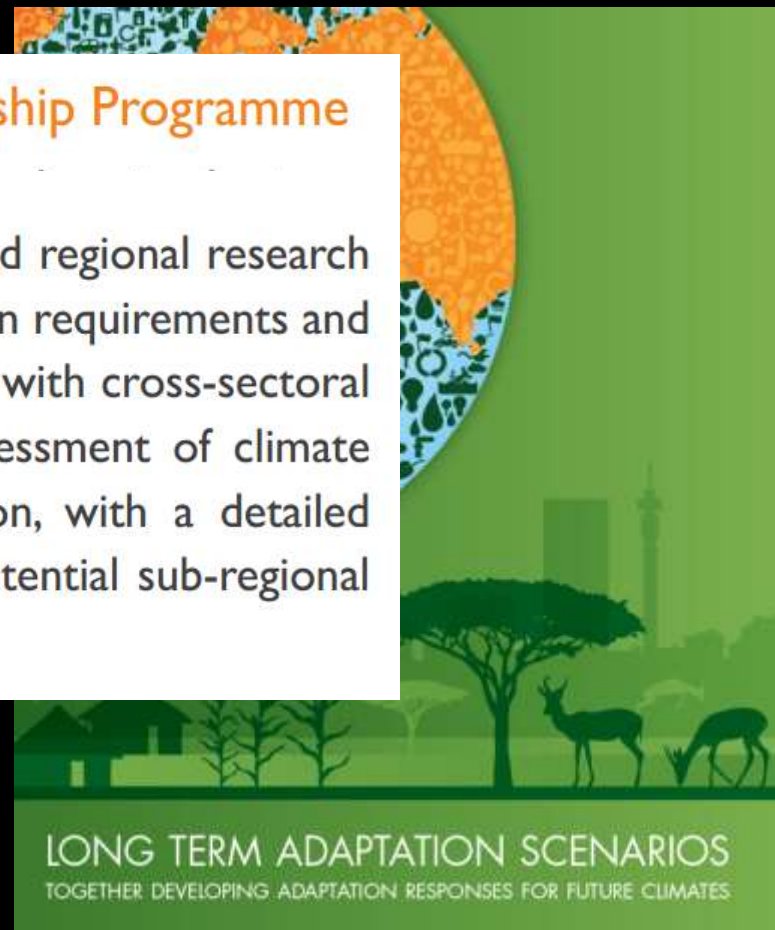
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Flagship Research programme of the National Climate Change Response White Paper (para 8.8)

8.8 The Adaptation Research Flagship Programme

the design and roll-out of a national and regional research programme to scope sectoral adaptation requirements and costs and identify adaptation strategies with cross-sectoral linkages and benefits, including an assessment of climate change vulnerabilities in the sub-region, with a detailed scenario planning process to define potential sub-regional response strategies.



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LTAS Overarching GOAL for South Africa

To develop information and tools to provide information and guidance for integrated adaptation responses in South Africa

Substantial uncertainty w.r.t. future climate and impacts in South and southern Africa

Current information available not yet sufficiently synthesized

No comprehensive tool sets for integrated analysis

Relationship between development aspirations and adaptation needs poorly understood



LTAS Approach

Technical work

Stakeholder
Engagement
and Input

(workshops;
technical
working
group;
review and
commenting
processes)

1. Climate Change Projection and Scenario development
2. Adaptation Policy Review
3. Sector Climate Change Information Review, Syntheses and Consolidation
4. Sector Climate Change Impact Modelling
5. Sub-Regional assessment
6. Integrated Economic Impact/Adaptation Assessment
7. Development and Adaptation Scenario Planning (Quantitative and Qualitative)

**LONG TERM ADAPTATION SCENARIOS FOR
GUIDING ADAPTATION RESPONSES FOR FUTURE
CLIMATES IN SOUTH AFRICA**



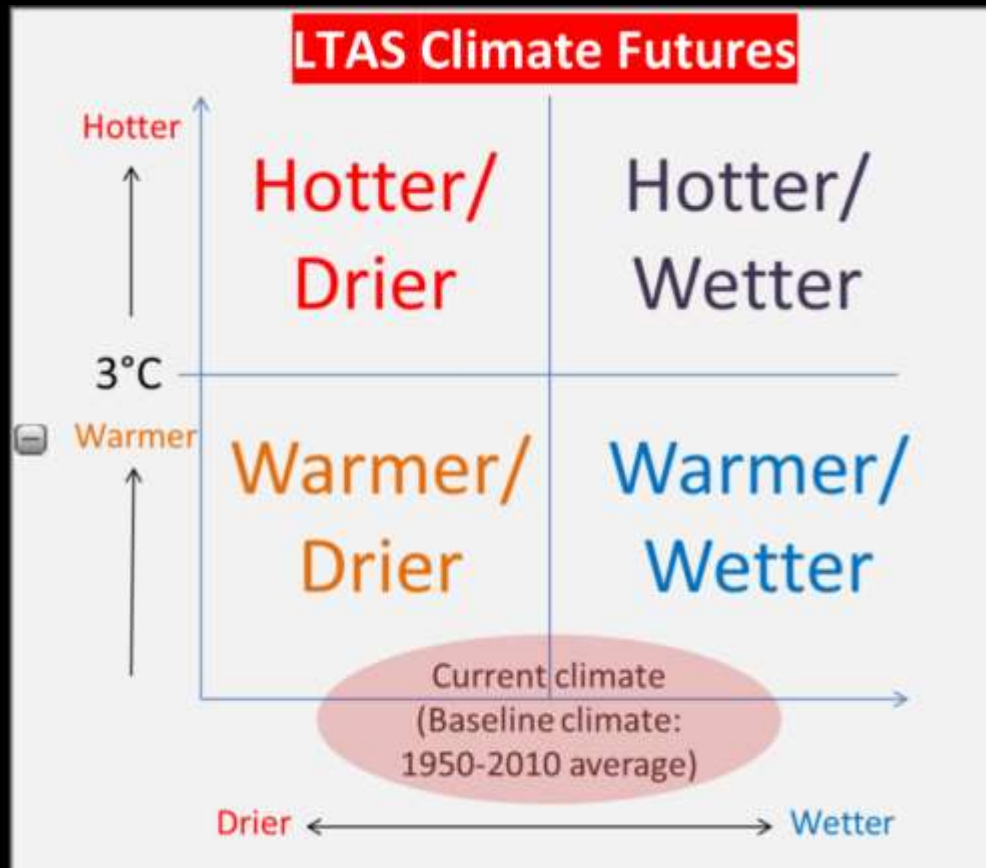
Phase 1 Products



Climate scenarios
Impacts:
Water,
Agriculture and
Forestry; Marine
fisheries, Human
health,
Biodiversity

LTAS PHASE 1

1. Climate Change Projection and Scenario development



Climate Trends and Scenarios for South Africa - *desktop review, trend analysis and climate modelling*

LTAS PHASE 1

2. Adaptation Policy and Law Review

Policy Alignment Process -

initial policy and law review

Adaptation policy and law review (sectors: water, agriculture & forestry, health, biodiversity, human settlements & disaster risk reduction and management)

ITEM	INSTRUMENT	DEVELOPMENT TRAJECTORY		DOES THE INSTRUMENT ADDRESS THE ADAPTATION OBJECTIVES OF THE NATIONAL CLIMATE CHANGE RESPONSE POLICY (NCCRP)?	DISCUSSION POINTS (This column is a broader discussion of the issues raised under "Key Indicators")	HIGH LEVEL POINTS TO NOTE
		GOALS AND OBJECTIVES	KEY INDICATORS			
SECTOR: WATER						
1. Key elements of the NCCRP for water sector: a) Land Based water resources are expected to be exceeded by 2050. b) Immediate actions require balancing water resource allocation between users whilst promoting equitable access and equitable allocation. c) There is a need for improved access to reticulated water and sanitation in rural areas. d) Increases in variable runoffs and variations in water availability across different parts of the country are anticipated. e) Water supply and treatment infrastructure impacts anticipated. f) Agriculture, electricity generation, and some mining and industrial activity indirect impacts anticipated. g) The National Water Resource Strategy is identified as one of the key planning tools for these impacts. h) Short, medium and long term planning processes across different sectors need to take these impacts into account is required. i) The Second Communication by SA to the UNFCCC in November 2011 also notes the following anticipated impacts for the Water sector: Decreasing water availability; flooding; droughts; eutrophication; and contamination. Poor water service provision by municipalities is impacting vulnerable groups, especially in rural areas; who rely on local resources vulnerable to pollution and drought[Agricultural impacts are also anticipated as a result of contaminated irrigation water, flooding, erosion and decreases in availability of water.] <u>Actions (included in the NCCRP and Second Communication to the UNFCCC) to be taken include:</u> a) Water related research and capacity development required. b) Water adaptation measures should be managed regionally. c) Best catchment and water management practices should be implemented with investment in water conservation and water demand management; (demand management is seen as the key requirement in the UNFCCC communication). d) New water resources should be including groundwater; desalination and effluent re-use; groundwater aquifer storage and artificial recharge is seen as a key response in the submission to the UNFCCC. e) There should be a reduction in vulnerability and enhancement of resilience to impacts of climate change in communities and sectors at greatest risk. f) Provide resources and capacity to address long term effects of climate change. g) Focused monitoring and research should be undertaken to ensure efficacy of water adaptation approaches in the long term. h) Water sensitive urban design is needed to improve water capture; and minimising pollution, erosion and disturbance of resources. i) Land use zoning also required greater account of water resources, as is agricultural best practice, and environmental management of contaminants in industrial and mining sectors. Municipal waste water treatment plans require stricter enforcement of effluent standards and significant investment in infrastructure.						
1.	National Water Resource Strategy (2012, DWA) ("NWRSS")	1. Goals a) The NWRSS is the key framework used for the protection, use, development, conservation, management and control of water resources for the whole country. It is the primary	1. Timeframe for implementation The NWRSS sets a strategic direction for 2013-2033, with a focus on priorities and objectives for 2013 to 2017. 2. Quantified Outcomes / Targets The NWRSS sets certain key performance indicators as specified	a) Does the instrument address the key elements for the water sector? If so, how and to what degree? b) The NWRSS addresses most of the anticipated impacts and required interventions identified in Section 5.2. of the NCCRP. It is anticipated that these actions will be elaborated upon in the	1. The premise of the NWRSS is to create an overall framework of broad measures and principles for water resource protection, use, development, conservation, management and control. It is addresses climate change impacts and vulnerabilities but it is anticipated the full extent of these measures will be elaborated upon in the Climate Change Response Strategy for	• The NWRSS is commendable for comprehensiveness and for its far reaching developmental objectives and innovation. It has clear (albeit numerous) strategies to address water resource management. • It is one of the more laudable and far-reaching instruments which