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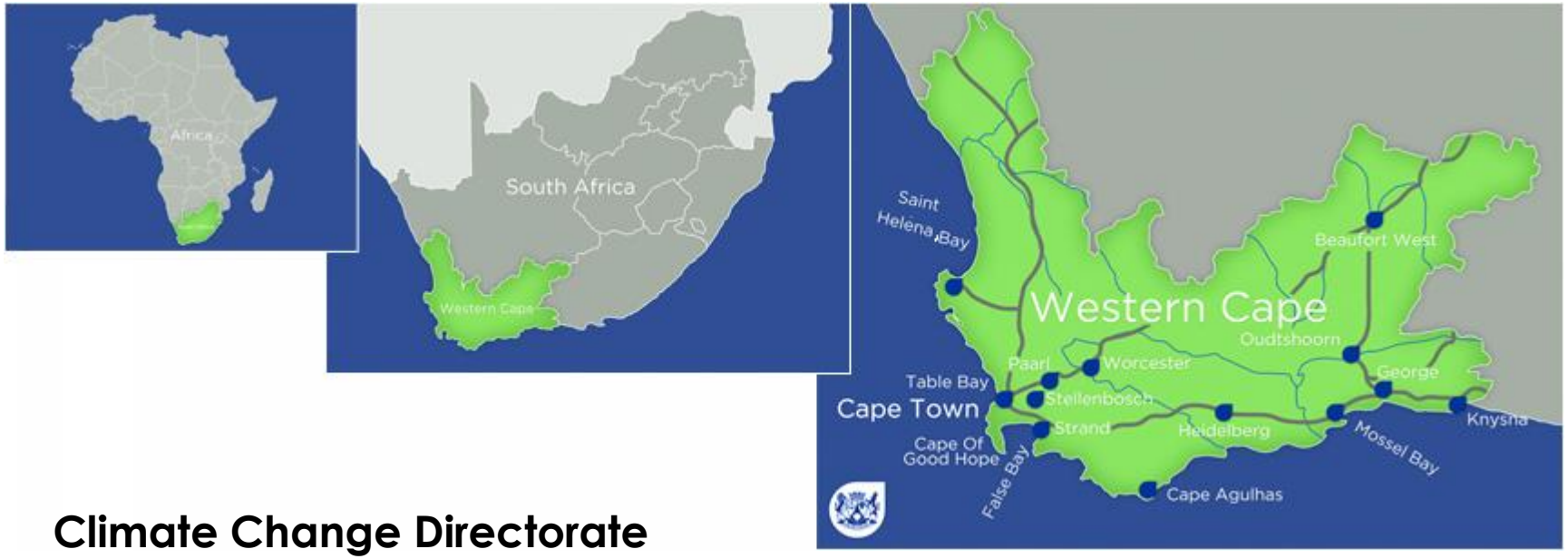
BETTER TOGETHER.

WESTERN CAPE CLIMATE CHANGE RESPONSE : APPROACH AND KEY PROJECTS

Goosain Isaacs
Climate Change Directorate

1 September 2016

Western Cape Climate Change Directorate : Context



Climate Change Directorate

- Director : Goosain Isaacs
- Adaptation - Sarah Birch / Frances van der Merwe
- Mitigation – Lize Jennings-Boom
- Response Integration –
- Admin support and 2 interns

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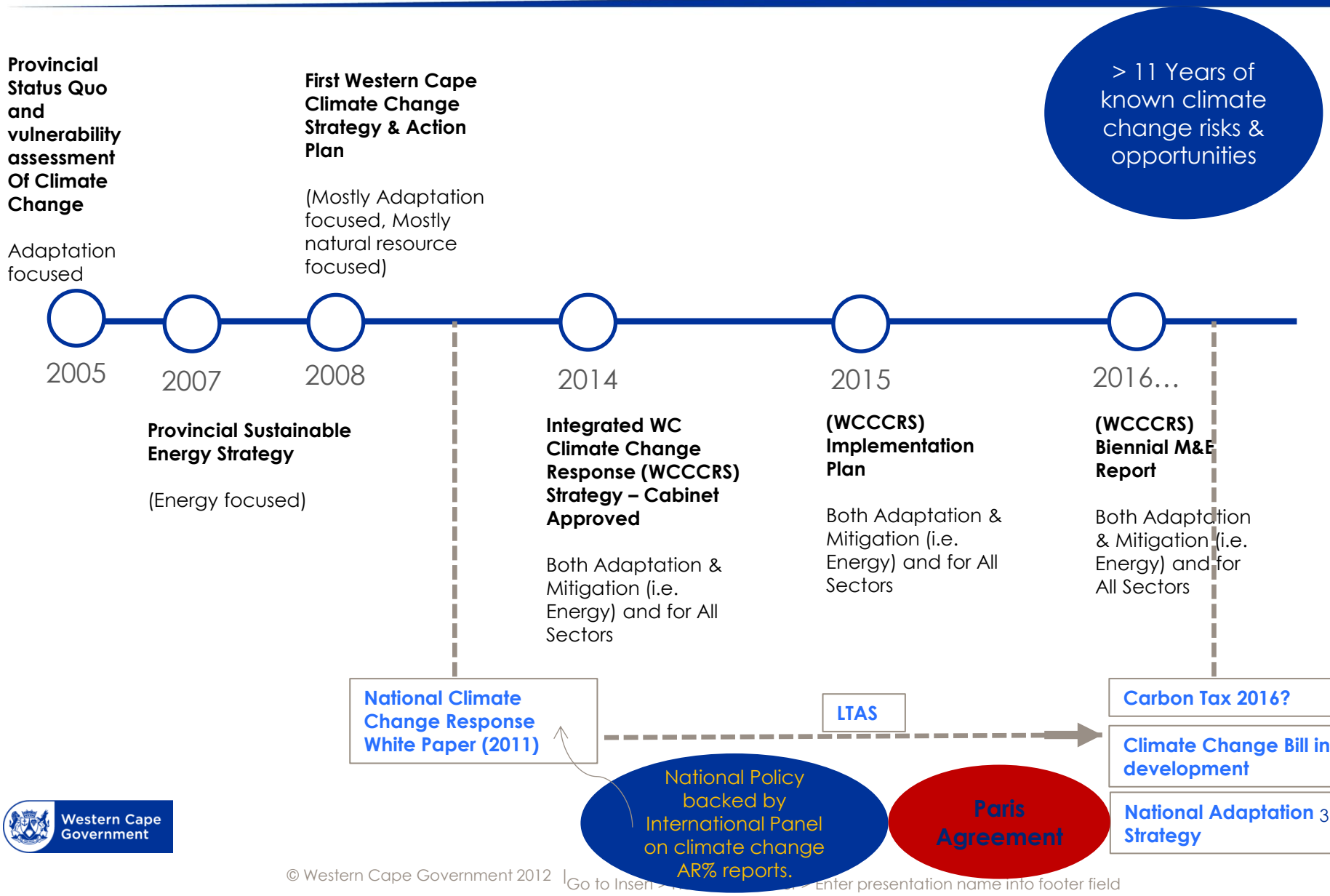
WCG Energy and Climate Change Strategy Timeline



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WCG Climate Change Response: Climate Change Directorate – Enabling, Facilitating

Cabinet endorsed (2014): Western Cape Climate Change Response Strategy & Implementation Framework

1. International Context

- UNFCCC negotiations
- Implications for SA &LGs/ Cities
- International climate science

- Partnerships: The Climate Group, Bavaria

2. National Context

- Climate Change Bill
- Raft of policy/legislation
- WG10 IGCC, 3 other national WGs
- Adaptation prog & Mitigation prog

3. Provincial Internal Mainstreaming (bringing others on board the climate change mainstream)

- Sector responses
  - SmartAgri)
  - Health
  - Transport
- Catalytic projects & Enablers
  - Policy alignment
  - Energy Scenarios,
  - Economic Assessment,
  - Policy research
- M&E Framework
- Biennial M&E Report

4. Coordination

- PSG 4
- Partnership development
- Provincial Working Groups
- Provincial Steering committees (Water plan, disaster etc.),
- GreenCape, CoCT, SALGA, Municipalities etc.

5. Partnerships

- PSG 4 Forum
- Researchers,
- Government
- Organs of state
- SALGA, ICLEI,
- Etc…

6. Finance

- Finance barriers paper
- Funding opportunities
- Finance database
- Mechanisms and Readiness

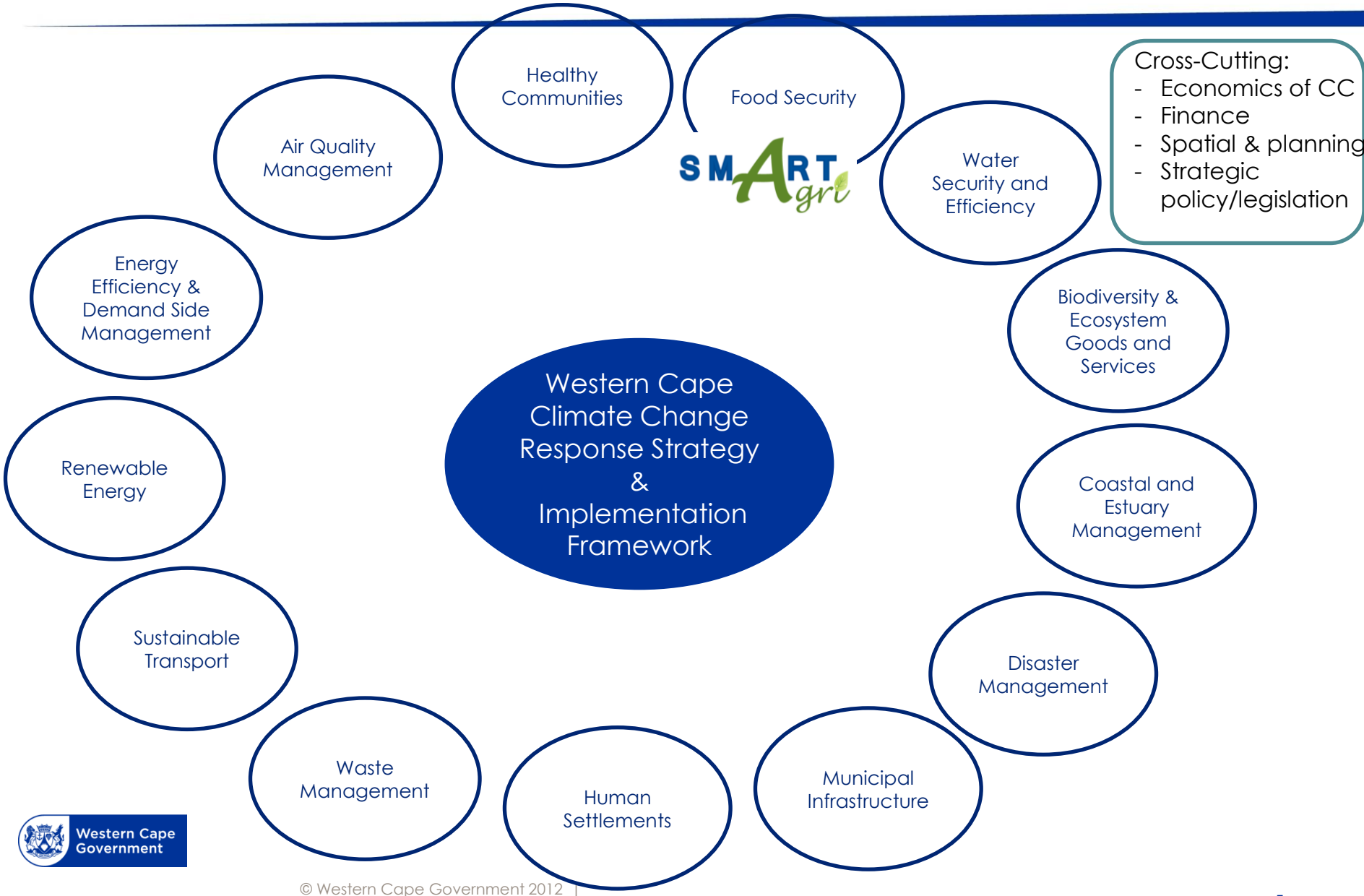
7. Municipal Support

- Strategy development- Yearly focus per district, co-produced through workshops.
- Ongoing ad hoc support – district implementation (meetings, comments etc.)
- Review 30 IDPs annually
- Finance
- MIGs – new focus
- SDF development
- 2016 review = detailed 10 page letter to each LG on all sectors [Feed into new 5 year IDPs]
- GMC

8. Communications & Knowledge Management

- Website
- Projects Database
- Research Database
- Finance Databases
- Contacts database

3. Climate Change Provincial Internal Mainstreaming



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Key Projects

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Western Cape Climate Change Biennial M&E Report

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Intention of the Report

Report was done in house by our Climate Change Directorate team.

One of the longest ongoing discussions was – what is the purpose of this exercise? Why are we doing this? What do we want it to do?

What we aimed for:

- A stocktake – of what we are doing in relation to the strategy
- To initiate a Reporting Platform
- To determine how to feed into the national M&E System in future
- Timely – to reflect given the Paris Agreement
- To start preparing our ideas for our next Strategy Review and for Target Setting
- A tool to raise awareness – decision makers, and opportunities to engage funders/partners
- Forms part of our ongoing making-the-case. We have to continually keep amassing the evidence to make the case for the need for transformative change

What we did NOT want:

- To try to monitor climate change trends itself but our responses, although we did report some noteworthy outliers and economic impacts
- To cover baseline/business as usual and general reduction of vulnerability – this is all covered in other sector and strategic documents. We did not want to repeat and reproduce other documents. To satisfy some of the interests in baseline vulnerability issues we included our State of Environment report into a summary in an annex
- To extensively collect primary data (no capacity or time for this)

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Examples of reporting: Municipal Support

The municipal IDPs are then scored according to one of the following categories, as shown in Figure 1:

- Non-performance: climate change is not included, or only briefly mentioned in the text of the document;
- Compliance performance: specific climate change response programmes/projects are included in the IDP; or
- Optimum performance: specific climate change response programmes / projects with budget and capacity are included in the IDP

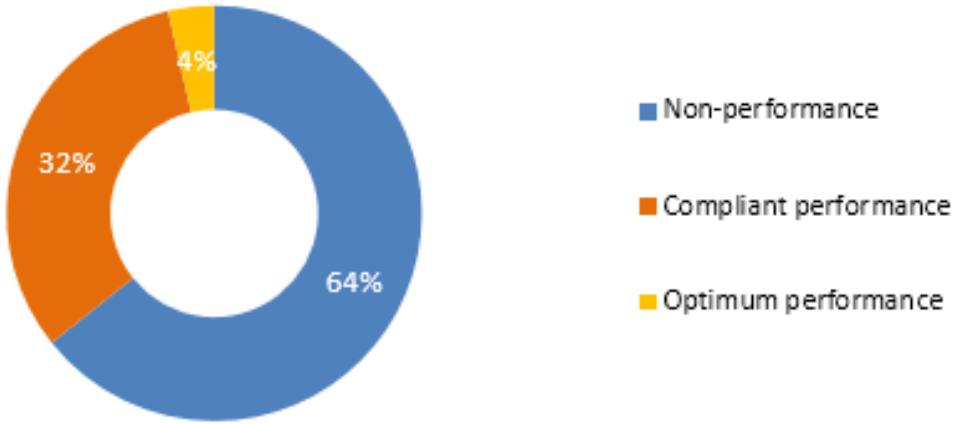

Figure 1. Climate Change IDP Assessment results for the 2015/16 IDP review (based on the Climate Change IDP Assessment Framework)

WC Projects

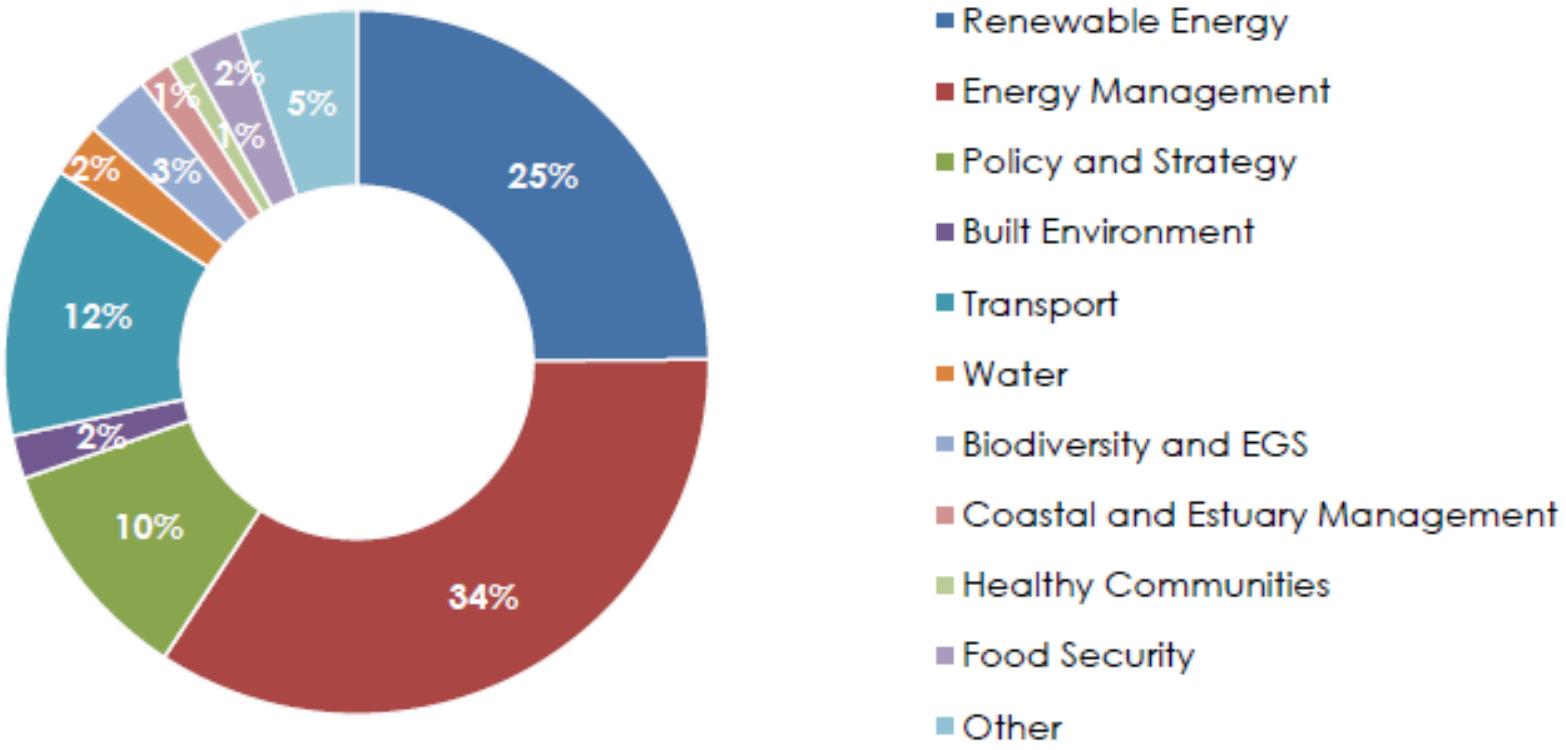

Figure 5. Frequency breakdown of how often Western Cape based climate change response projects fall into particular WCCCRS focus areas (all projects, 2011 – 2015)

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Finance

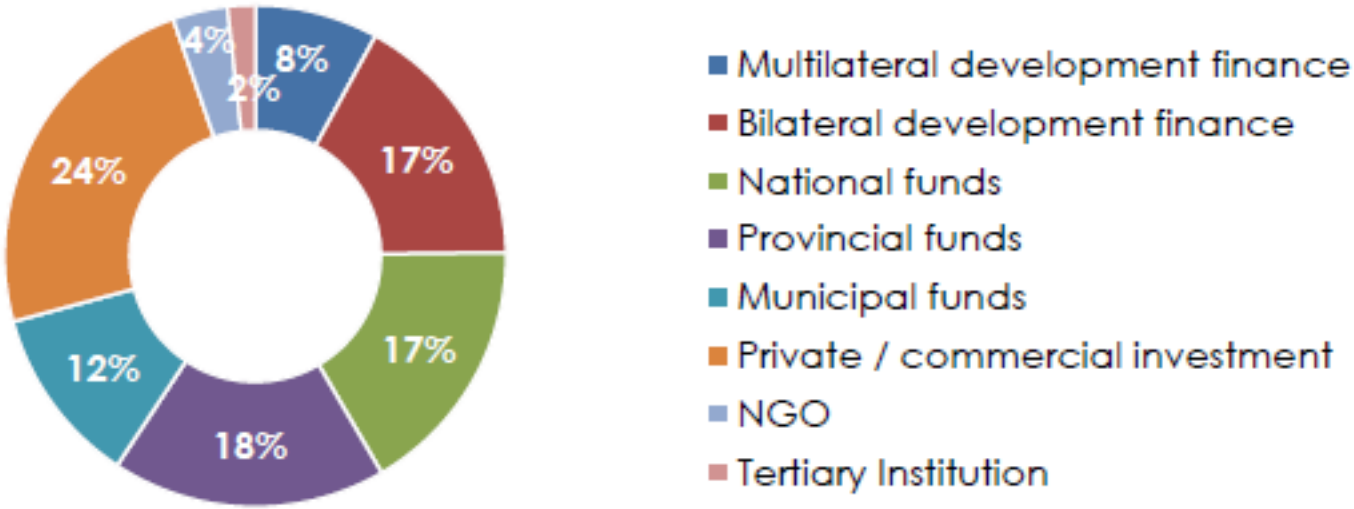

Figure 4. Frequency breakdown of funding sources for self-reported Western Cape based climate change response projects (81 projects, 2011 – 2015). Note that this is not a representation of total funding amounts[16]

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Disaster Management

Table 1. Climate Risk Management Indicators for the WCCCRS

High level category	Indicator	Data
Spatial risk and vulnerability assessment for climate change	Provincial Spatial Climate Change Risk and Vulnerability Assessment.	Provincial Risk profile is under development and will include climate change. A specific spatially explicit climate change R&V assessment has not yet been undertaken.
	Number of Municipal Climate Change Risk and Vulnerability assessments	Varying degrees of Risk and Vulnerability (R&V) assessment exist for municipalities on some climate change related risks (specifically flooding), however, the degree to which these systematically cover the full range of climate change risks is currently not fully assessed.

Table 2. Additional High Level Climate Risk Management Indicators

High level category	Indicator	Data
Economic costs of disasters	Losses from climate related disasters in the Western Cape between 2003 – 2014.	**R 5 billion** (2003 – 2014) (2003 – 2008[17] and 2003-2014[18] data was utilised) (floods and storms)
	Losses from the El Nino and climate change driven drought of 2015/16 and associated fires in the Western Cape.	**± R2 – 4 billion** (Projected impact on Agriculture: loss of 5-10% of normal production)[19]

* There is an overlap in data for these two figures due to the sources.

Water

Table 4. Water Indicators for the WCCCRS

High level category	Indicator	Data
More Crop per Drop	Number of hectares registered for the FruitLook* Tool for broad scale management [indicating increasing water efficiency]	89 623 ha[30]
Alien Clearing	Number of hectares of IAP cleared per annum through Working for Water projects in Western Cape (represents 95% of clearing in the province)	85244 Ha (2015/16) [Initial Ha Cleared = 14865.2 Follow-Up Ha Cleared = 70378.83]

*Fruitlook is discussed in additional detail in the food security, and invasive alien clearing sections of this report

Table 5. Additional High Level Water Related Indicators

High level category	Indicator	Data
Water	Total water supply versus total water demand [for the Western Cape Water Supply System, which supplies CCT and regions downstream of the Berg River]	Supply: 596,000,000.00 m3 Demand: 508,100,000.00m3

Agriculture/Food Security

Table 7. Food Security Indicators for the WCCCRS

High level category	Indicator	Data
Sector climate change strategy	'Smart Agriculture for Climate Resilience' Strategy [SmartAgri] developed and implemented.	Strategy and Implementation Framework published May 2016 and implemented from 2016/17 financial year.
More Crop per Drop	Number of hectares users utilise by the FruitLook Tool [indicating increasing water efficiency]	15 608 hectares for the 2014/15 season[43]
Climate Science backed decision-making	Identification of historical climate trends and projections for future climate in the WC.	SmartAgri Status Quo Assessment report 2014
SmartAgri Research Agenda	Identification of key research areas for stimulating and facilitating shift to climate smart agriculture	Developed under SmartAgri project, sent to Cape Higher Education Consortium (CHEC).

Table 8. Additional High Level Food Security Indicators

High level category	Indicator	Data
Land	Agricultural land improved through	29,076.00 ha[44]

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Energy

Table 9. Energy Indicators for the WCCCRS

High level category	Indicator	Data
GHG emissions	GHG emissions associated with the energy sector	36 345 753 tCO_2e (2012)[49]
Energy Consumption in the Western Cape	Energy Consumption (total)	276 333 250 GJ (2012)[50]
	Sector Breakdown	
	Industry	85 383 982 GJ
	Transport	146 296 370 GJ
	Agriculture	6 968 221 GJ
	Commercial	10 921 301 GJ
	Local Government	2 111 886 GJ
	Residential	24 652 305 GJ
Solar Water Heaters (SWHs)	Number of SWHs installed in the Western Cape	14 889 HP SWH [51]
Renewable energy	Total energy produced from Renewable sources by independent power producers	421.82 MW[52]
	Annual values of renewable energy projects financed by national and international funding sources	R 8 024 mill [53]

Coastal Management

Table 27. Biodiversity and Ecosystem Goods and Services Indicators for the WCCCRS

High level category	Indicator	Data	
Coastal Management	Number of Coastal municipalities using coastal management lines and coastal risk overlays in development planning[98] (out of 14 coastal municipalities)	Coastal management lines determined	9
		Coastal risk overlays determined	9
		Coastal management lines and coastal risk overlays endorsed by MEC	0
		Coastal Management lines and coastal risk overlays incorporated into municipal zoning schemes	1
Estuary Management	Number of Estuary Management Plans that adequately include climate change risks and responses (out of 16 existing plans)[99]	Climate change not mentioned at all	3
		Climate change mentioned briefly	4
		Potential impacts of climate change on estuary discussed	5
		Management actions in response to climate change identified (excluding research and monitoring)	4

A few challenges

Data

- In many cases data doesn't even exist for a whole range of baseline/general vulnerability issues, never mind anything climate related.

Projects

- Ascribing Climate Change: In many cases projects are not being described as climate change, because this can be a tactic to get funded from other funding streams, or to get endorsed by politicians who don't understand the climate change issues.
- Calling anything that is 'environmental' a climate change response - is a problem. The questions we have to start asking is 'what climate change risk are you responding to and tell me how' – then you can be listed.

Taking this report beyond Western Cape Government

- Getting other institutions involved, willing to report and part of this report was an area we were challenged with and an area we hope to strengthen in our next iterations.

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SmartAgri – Climate Change Response for the Agricultural Sector

Western Cape Government

Why SmartAgri?

Considerable potential of the agricultural sector to drive economic growth, job creation and social development in rural areas

The agricultural sector is particularly vulnerable to a changing climate as projected for the Western Cape province

Urgent action needed in guiding and supporting the sector to adapt to the unavoidable impacts of climate change, and reduce its greenhouse gas (GHG) emissions

A strategic and inclusive approach is required to build long-term resilience to climate change through "climate smart agriculture", and for placing the sector on a clear path towards the Green Economy

The SmartAgri Plan builds on the Western Cape Climate Change Response Strategy (WCCCRS 2014) and its Implementation Framework, specifically the focus area of "Food Security" – first sectoral response framework and plan

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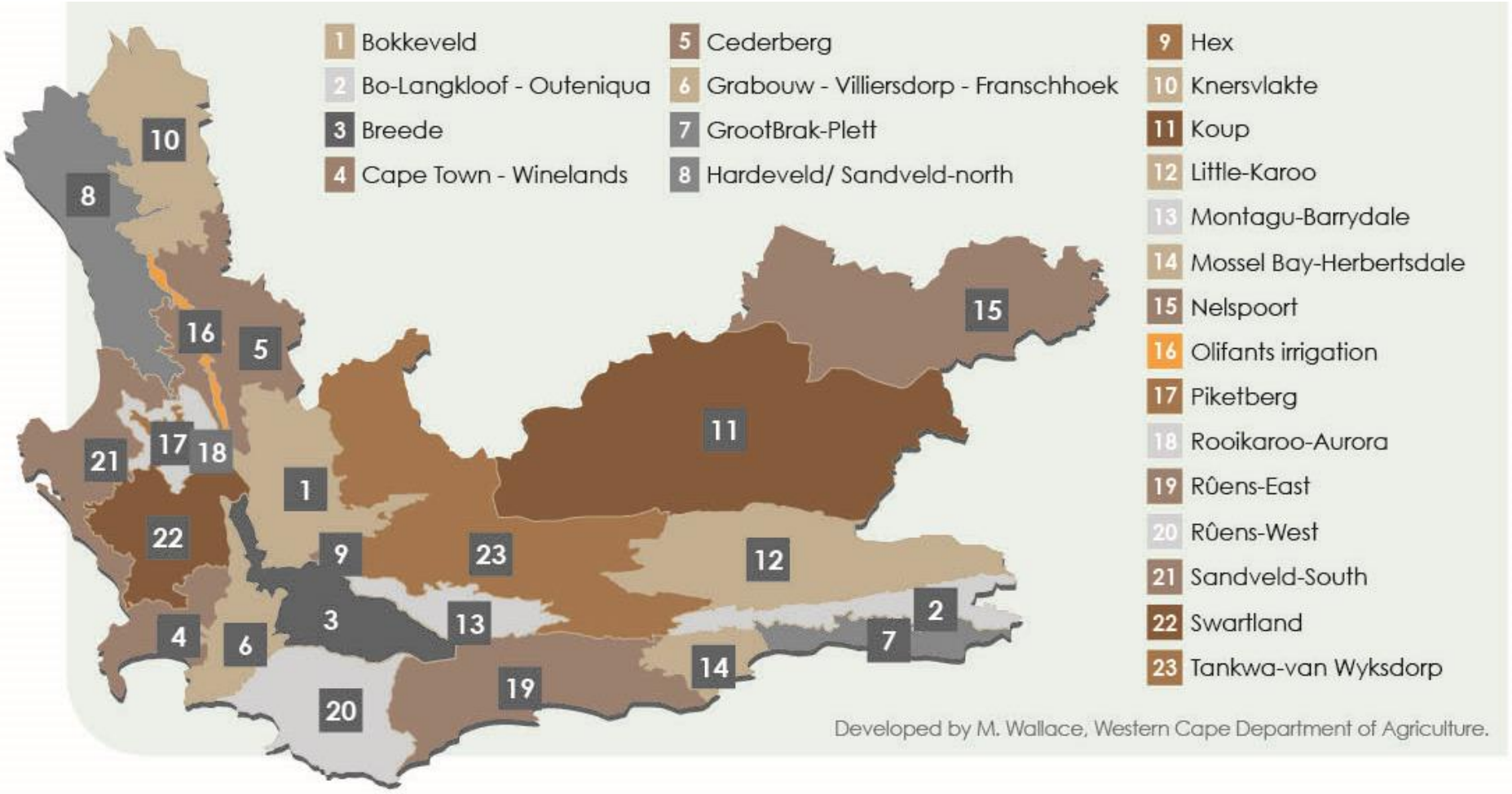
Agriculture

SmartAgri agro-climatic zones



VISION

Leading the Way to a Climate Resilient Agricultural Future for the Western Cape

GOAL

To Equip Agriculture to Respond to Climate Change Risks and Opportunities Through Innovation, Leadership and United Strategic Action

STRATEGIC FOCUS AREAS

1. Promote a climate-resilient low-carbon production system that is productive, competitive, equitable and ecologically sustainable across the value chain
2. Strengthen effective climate disaster risk reduction and management for agriculture
3. Strengthen monitoring and data and knowledge management and sharing, and lead strategic research regarding climate change and agriculture
4. Ensure good co-operative governance and joint planning for effective climate change response implementation for agriculture

Key outcomes

The SmartAgri Plan presents the "road map" for the agricultural sector of the WC to travel towards a more productive and sustainable future, despite the uncertainties around specific climate projections.

Agriculture needs new technologies, investment opportunities and jobs in the green economy, all of which are requirements for the building of climate resilience.

The Province needs a resilient and diversified food system capable of tackling the issue of food and nutritional insecurity in spite of climatic changes.

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Agriculture

SMART Agri

Key outcomes

Some difficult policy trade-off decisions may be required in future, e.g. around the allocation of scarce resources between human settlements, industry, agriculture and ecosystems. Climate change will influence these decision-making processes profoundly.

An integrated systems view that brings to the fore the inter-dependencies between food, energy, water, land and biodiversity is essential in this situation to optimise trade-offs.

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SMART Agri

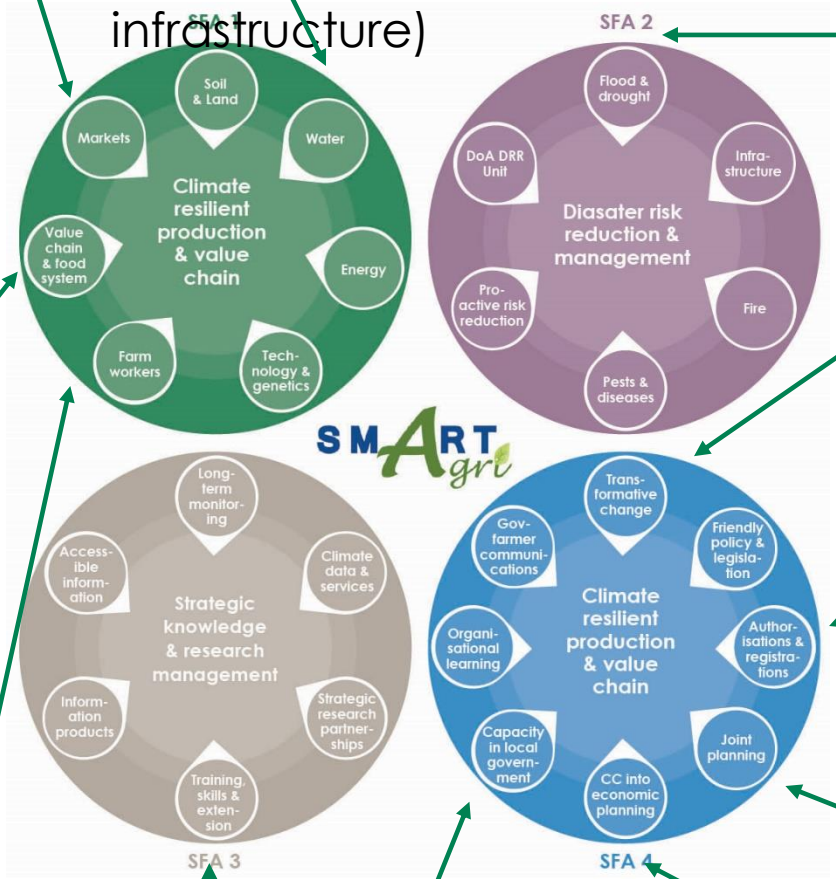
Dept of Economic Development & Tourism (markets)

Dept of Transport & Public Works (built infrastructure)

Disaster Management Center (whole SFA2)

Treasury

Dept of the Premier; Dept of Health (food security); Dept of Human Settlements; Dept Social Development (food gardens); Dept of Transport & Public Works (low-carbon fuels); Dept of Economic Development & Tourism (value chain growth & jobs)



Dept Community Safety (early warning systems)

Dept of the Premier; Dept of Economic Development & Tourism (strategy)

Dept of Economic Development & Tourism (red tape)

Dept of the Premier; Dept Local Government (joint planning)

Dept of Human Settlements; Dept of Health; Dept of Social Development (agri-worker well-being)

Dept of Local Gov.

Dept of Education (agricultural

Dept of Economic Development & Tourism; Dept of Transport & Public Works (econ. dev.

Climate Change Municipal Support Programme

Western Cape Government
Agriculture

7. WCG Municipal Support on Climate Change

Working with partners (SALGA)

Consolidation Phase:
- Developing Integrated (adaptation and mitigation climate change response plans for Districts) response frameworks for Districts –
  - West Coast (completed and approved by Council),
  - Central Karoo (completed, to be approved),
  - Overberg (currently under development)
- Barriers to municipal climate finance study with treasury
- Databases of implementation
- IDP review tools developed
- Case Studies

2012 2013 2014 2015 2016…

Testing Phase:
- Developed 4 Sustainable Energy Plans (George, Mossel Bay, Cape Agulhas, Saldanha Bay)
- 2 Adaptation Plans (Drakenstein, Bergrivier, Eden District)
- Tested best methodologies with variety of partners

Implementation, fast track, readiness
- Mainstream into fiscus /MIGs

Annually:
- Greenest Municipality Competition
- 30 IDP ASSESSMENT reviews
- Some SDF reviews (as they are developed)
- SALGA and COGTA municipal support programme
- Finance
- MIGs – new focus
- Ongoing ad hoc support – district implementation (meetings, comments etc.)

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Thank you for listening!
Questions?

Contact Us


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