Western Cape Government

Department of Environmental Affairs
and Development Planning

WESTERN CAPE CLIMATE CHANGE RESPONSE STRATEGY

Implementation Plan

March 2023

ABOUT THIS IMPLEMENTATION PLAN

'A Policy lacks impact if it doesn't translate into action'

During 2020-2021, the Climate Change Directorate of the Western Cape Government's Department of Environmental Affairs and Development Planning led the revision of the Western Cape Climate Change Response Strategy (2014), in order to update its core messaging and bring it in line with the state of the global climate emergency and the South African socio-economic reality. The revision, branded as 'Vision 2050', however, is not only about responding to the slowly unfolding disaster, but also about making the most of the opportunities for rapid developmental gains that are possible through responses to climate change.

It is recognised though that a strategy on its own does not represent a step forward – it must be translated into meaningful action. Action that leads to change, and to positive impact on the lives of people. As an accompaniment to the **Western Cape Climate Change Response Strategy: Vision 2050**, this **Implementation Plan** is intended to accelerate the province's climate response actions to mitigate our greenhouse gas emissions footprint and increase our resilience. It details **50 responses required in the lead-up to 2050**. This acceleration will require coordination of existing initiatives and institutional structures, at the provincial and local levels, to align with the objectives and targets of the Western Cape Climate Change Response Strategy and our 2050 Vision.

The Implementation Plan adds detail to the response actions outlined in the strategy and identifies the role players required to drive the actions. It also specifies timeframes for the actions and a framework within which the actions can be evaluated to measure progress and overall impact.

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ABBREVIATIONS AND ACRONYMS

DEA&DP	Department of Environmental Affairs and Development Planning
DEDAT	Department of Economic Development and Tourism (Provincial)
GHG	Greenhouse Gas
M&E	Monitoring & Evaluation
NMT	Non-Motorised Transport
SmartAgri	Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector
WCCCRS	Western Cape Climate Change Response Strategy
WCG	Western Cape Government
WCIDWRP	Western Cape Integrated Drought and Water Response Plan
WCSWMP	Western Cape Sustainable Water Management Plan

VISION 2050 - LET'S GET STARTED

"It takes 25 years – a generation – to transform an industrial sector and all the value chains. To be ready in 2050, decisions and actions need to be taken in the next five years."

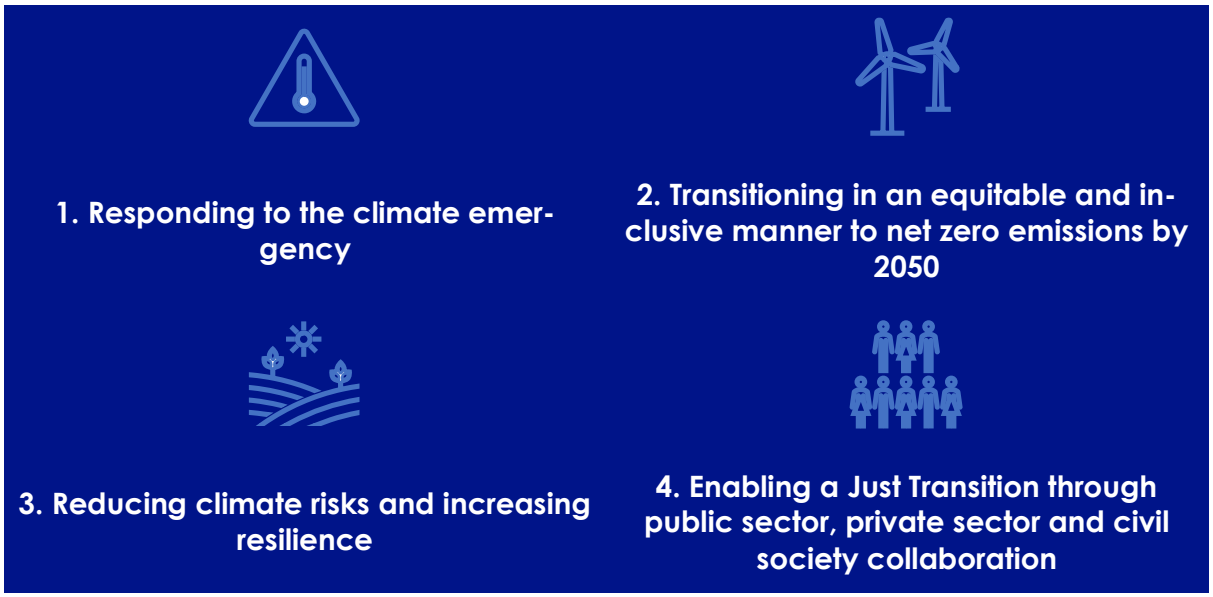
(from: The European Green Deal[1])

Whilst climate change is being mainstreamed across sectors with varying degrees of success, the current implementation of climate change response is still limited. In some respects, we lag behind our global peers in terms of our ability to keep pace with changes. Importantly, the change requires deep-seated fast-tracking.

The vision of the **Western Cape Climate Change Response Strategy: Vision 2050** (WCCCRS) describes a climate future that the Western Cape province will strive towards:

Our Vision is to be a net zero emissions and climate resilient province by 2050, built on an equitable and inclusive economy and society that thrives despite the shocks and stresses posed by climate change.

This vision is unpacked as four **guiding objectives** for climate change response, namely:



The vision and each of the guiding objectives are supported by a preliminary list of key responses and institutional structures, further detailed in this Implementation Plan, to be refined through on-going stakeholder engagements, sector planning processes, and associated projects such as an envisaged 2050 Emissions Pathway exercise

[1] The European Green Deal - https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

aimed at plotting a course for net zero greenhouse gas (GHG) emissions in the province (Figure 1).

Figure 1. Structure of the WCCCRS: Vision 2050

Given the potential for the cascading effects of climate change to erode any gains in social and economic development, our highest priority is to ensure that both the foundational and interim development programmes in the province, and especially the focus on Jobs, Safety and Well-being, are climate resilient. In other words, our plans, programmes and actions across all sectors must be informed by the already changing climate and the way it will manifest in people's lives in both the local and global economy – the Implementation Plan will guide the actions and priorities of Western Cape Government (WCG) and non-Government stakeholders alike in taking this work forward in the Western Cape as a whole.

Effective coordination of climate change responses is greatly dependent on alignment of the strategies, plans, programmes and projects of stakeholders, especially government departments and their operational units. The WCCCRS: Vision 2050 informs sector responses as well as certain provincial scale strategic positions, such as those related to energy, transportation and spatial planning, and land use management. All the while ensuring the integration of the latest scientific knowledge throughout the network of connected plans. The strategy also identifies certain gaps in knowledge or strategic positions, which subsequently need to be filled to complete the knowledge base and economic positioning of the Western Cape.

The responses contained in this Implementation Plan are also considered as contributing to collective 'climate action pathways' that, like a storyline, describe various states of responsiveness that the Western Cape wants to achieve at points in the future (See **Annexures: Summary of Responses**). The items in the response baskets identified under the four guiding objectives represent the actions that are required across all sectors. Note that successful implementation of a broad climate change response strategy requires a private and public sector commitment to complement the initiatives from the Western Cape Government.

GUIDING OBJECTIVES AND CLIMATE ACTION PATHWAYS

Objective 1: Responding to the Climate Emergency

We are currently in the 'now or never' decade[2] as far as reducing the scale and impacts of climate change goes. We are currently on a trajectory for a 3ºC rise in average global temperature by 2100. Although no change to the climate would be the ideal, we potentially still have it in our power to limit a further increase beyond the already unavoidable 1.5ºC with its associated impacts. However, this window of opportunity is only open until 2030[3]. Deferring action any longer will make it increasingly hard (if not impossible) to achieve the global goal of limiting warming to current levels.

Not only do we have to urgently address the required emissions reduction, but we must also take action in respect of adapting to the now inevitable impacts of climate change. Whilst overall Western Cape conditions will heat up and dry out, sudden, extreme climatic events will result in natural disasters that take a toll in terms of lives, livelihoods, infrastructure, ecosystems, and the viability of certain economic activities. Common sense, backed by science, says that if we are already struggling to assure human wellbeing at a 1.1ºC rise, then it will become very hard by the time we reach a 1.5ºC rise. At 3ºC, many of the adaptation options would be unattainable due to the significantly altered climatic conditions[4].

Response pathway

Our Climate Action Pathway in respect to responding effectively to the Climate Emergency requires a rapid shift in cultural response to risk and resilience, whilst doing our part in the global mitigation of greenhouse gas emissions. In the next few years, we must make sure that our Disaster Risk Reduction and Response systems are climate-ready, and that we avoid spatial and development planning decisions that place people and infrastructure in harm's way. Vulnerable people, especially those living in informal settlements, need to be made more resilient through disaster response plans, innovative services delivery. Over time, we have to prepare our coastline for the inevitable effects of sea level rise.

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[2] United Nations General Assembly – High level Meeting on Climate and Sustainable Development, 28 March 2019 https://www.un.org/press/en/2019/ga12131.doc.htm

[3] IPCC, 2018. Special Report on Global Warming of 1.5 °C https://www.ipcc.ch/sr15/chapter/spm/; The UN Sustainable Development Goals https://www.un.org/sustainabledevelopment/climate-action/

[4] IPCC, 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/)

Objective 2: Transitioning in an equitable and inclusive manner to net zero emissions by 2050

It is the Western Cape Government's intention to become a net zero emissions province by 2050 as part of our commitment to the international Under2 Coalition[5]. This is an ambitious target, but can be achieved if efforts to decarbonise energy, transport, industry and the built environment are aligned at a local, provincial and national level. The required behavioural changes, and low-carbon lifestyles, will be supported by technological transitions, which will be implemented in the Western Cape as part of the economic growth strategy and promotion of the circular economy in pursuit of a net zero aim.

Two crucial transitions are (1) a shift from internal combustion engines to electric mobility, and (2) a massive shift from fossil fuel-based energy to renewable energy sources. These expected shifts are deemed realistic, given the rapid development in renewable energy and energy storage technologies. Increasingly, the combination of the two will outcompete fossil fuels on cost, and therefore naturally facilitate a change in the energy and transport markets[6]. There is also a need to plan our urban settlements and supply chains for reduced dependence on private transport or unsustainable public transport.

In parallel to a longer-term emissions reduction programme, the province will require an immediate focus on **short-lived climate forcers**. Short-lived climate forcers - such as black carbon, methane, tropospheric ozone, and hydrofluorocarbons - have a shorter atmospheric lifetime but have a high global warming potential, meaning they can warm the earth faster than carbon dioxide. Targeted efforts to reduce these emissions by 2030 can slow the pace of global warming by 0.6°C by 2050[7].

Access to clean, adequate, affordable and reliable forms of energy is vital for human well-being and development[8]. In the context of climate change, access to modern energy is important for building resilience to the impacts of extreme weather events and accessing unique and exciting opportunities to address energy poverty using cleaner fuels and alternative energy technologies while simultaneously unlocking employment opportunities.

Response pathway

The Climate Action Pathway, in respect to our net zero pathways and ambition, requires critical targets to steer investment and implementation planning. Raising the bar on our response in order to contribute to the collective societal change is required at this stage if we are to manage the emissions of short-lived climate forcers. There is an immediate need to plan our energy transition, whilst we continue to invest in land

[5] The Western Cape Government is a signatory to the *Under2 Coalition*, which is a global community of state and regional governments committed to ambitious climate action in line with the Paris Agreement. Our commitment as signatory is to initially complete a 2050 Emissions Pathway exercise followed by a net zero emissions target for 2050.
[6] IRENA, 2017. Electricity storage and renewables: Costs and markets to 2030 https://www.irena.org/publications/2017/Oct/Electricity-storage-and-renewables-costs-and-markets
[7] IPCC, 2018. Special Report on Global Warming of 1.5 °C https://www.ipcc.ch/sr15/chapter/spm/; The UN Sustainable Development Goals https://www.un.org/sustainabledevelopment/climate-action/
[8] International Energy Agency: https://www.iea.org/articles/defining-energy-access-2020-methodology

restoration and renewable energy. By 2030 the transport transition must be well underway and efficiencies in the built environment, specifically in energy use and buildings, need to have been improved. Later, by 2040, some of the transitions such as in the industrial and manufacturing sectors must have progressed to a point where they are contributing substantially to a low-carbon economy, on route to achieving net zero emissions by 2050.

Objective 3: Reducing climate risks and increasing resilience

Climate change is already having substantial impacts in the Western Cape and cases of simultaneous extreme events in the future will compound risks such as reduced food production across the agricultural value chain and fisheries, increased heat related mortality, heat related loss of labour productivity, and flooding. The risks and impacts of climate change can be reduced through adaptation measures – actions by humans and nature to adjust to the new conditions. The end goal is therefore to improve our 'climate resilience'; i.e. the ability to buffer ourselves from the impacts of climate change and maintain our way of life. However, our capacity for adaptation is determined in part by the severity of the changes, and in part by systemic social and economic limitations. The longer we wait, the fewer opportunities for adaptation remain available.

Well-managed natural systems, that can cope with the increasing climate impacts are pivotal to the overall success of the Western Cape as a whole, and in implementing the Climate Change Response Strategy in the future. This will not only require strategies to maintain ecosystem form and function where it still exists, but concerted efforts to rehabilitate and regenerate ecosystems wherever possible, and particularly in regions at risk from climate impacts such as the coastal zone. Agriculture has a key role to play and is already leading in promoting farming practices that both restore soils and relationships with surrounding ecosystems, to reduce risks in drought years, as well as risks from fires, floods, and pests. Ecosystem rehabilitation, however, requires cross-sector integration for maximum effect and benefits.

Response pathway

The Climate Action Pathway in respect of reducing risk and increasing resilience focuses on using investment in natural capital as a means to take advantage of natural ecosystem services, and will aim to restore ecosystem functioning at scale. Further, adaptation business cases could be used to leverage the much-needed private sector finance to close the adaptation gaps for the province. Immediate actions must protect and restore natural areas and start protecting our water resources. By 2030, an about-turn is required in terms of the declining health of our natural systems, whilst improving food security and access to basic services.

Objective 4: Enabling a just transition through public sector, private sector and civil society collaboration

Climate change is often a multiplier factor, adding to the already existing high levels of poverty, inequality and vulnerability in South Africa. This means **climate change is**

a human rights issue as it has the potential to exacerbate existing human rights infringements and undo any achievements made in this area. Apart from threatening our very existence, climate change bears harmful impacts on the rights to life, health, food, water, housing and livelihoods and service delivery – or lack thereof.

Inequality and the climate crisis are interwoven, and **climate change does not manifest universally – some people are more vulnerable than others**. It is important to note that the impacts of climate change usually reinforce existing inequalities: depending on who we are, where we live, and what livelihoods we depend on.

Response action can, and must, be led by government, responding to both threats and opportunities across the spectrum of economic and social development, and government services. The Western Cape is striving to amend many injustices of the past, and to advance the wellbeing of citizens of the province as it relates to job security, economic activity, safety and health of communities. Without incorporating a climate change-responsive approach in government programmes, we cannot create the necessary momentum for collective action – with government providing an accommodating space for private sector investment. Climate action (esp. mitigation) need not result in new systems or require additional budget; it can be driven by current issues and mainstreamed through existing governance systems and innovative planning.

The WCCCRS cannot remain a stand-alone policy that is not fully integrated across Western Cape Government as it provides the overriding policy direction for achieving the low-carbon and climate resilient objectives of the province. The guidance from the WCCCRS must feed directly into the implementation of the Provincial Strategic Plan and feature fundamentally in the core of service-delivery of the province (via the Annual Performance Plans, performance Representative Indicators of all staff, and the nature of financial resource allocation) – as recommended by an independent evaluation undertaken of the 2014 WCCCRS[9]. **It is important that the climate governance is driven from a senior and executive government level**.

Response pathway

Our Climate Action Pathway in respect of an equitable and inclusive transition will strive to reduce vulnerabilities and specifically improve on the representation of gender and youth in climate change responses. This will be achieved through innovation in how government structures include a science-based and participatory perspective in their decision-making, and a focus on planning inclusive transitions in key sectors. The end goal is to ensure the people of the Western Cape can access the services they require for climate resilience, and that their voice is heard in the planning of the climate resilient development path. By the end of the 'Climate Decade', i.e., in 2030, we must have better access to national and international climate finance and have a plan to ensure water security in the province – for both economic activity and households. This will require changes in how government finances are applied and how government and the private sector cooperate.

[9] A review done for the Climate Change Directorate of DEA&DP in 2018 – available from the Department

RESPONSE PROGRAMMES

To turn each of the four **objectives** of the WCCCRS: Vision 2050 into actionable response, the Implementation Plan below details the corresponding **responses** identified in the WCCCRS with several high-level **actions,** all grouped under 20 distinct **Programmes**. These actions are further refined with relevant **activities**-(Figure 2). Each action is linked to potential lead responsible agents and entities where the intention is for further associated role-players to self-identify and collaborate to achieve the action implementation. Forecasted timeframes for each action are also set out as they fit into the Climate Action Pathway.

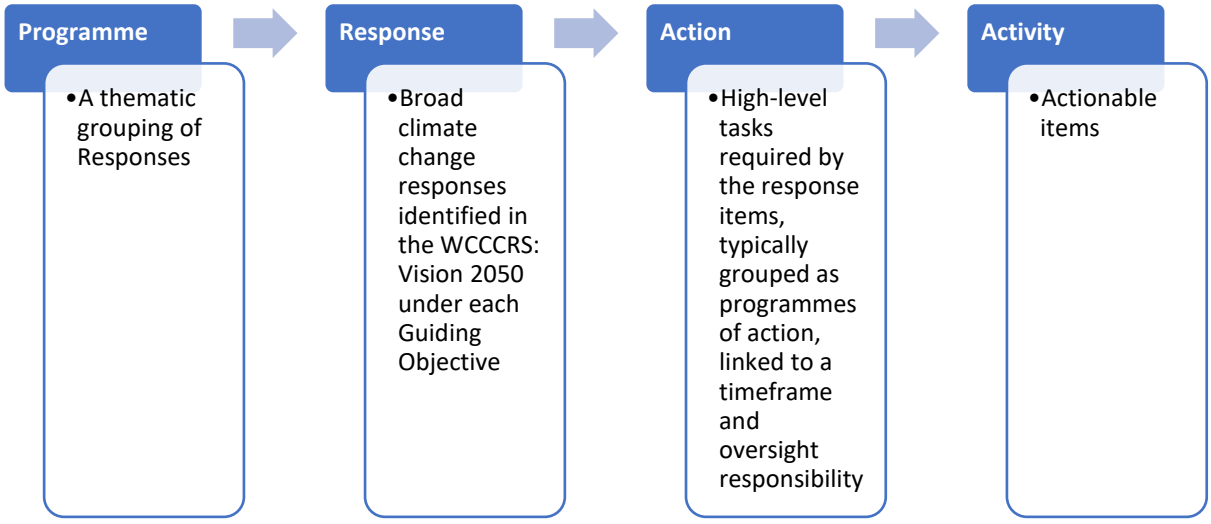

Figure 2: Structure of the Implementation Plan

The 20 Response Programmes of the WCCCRS Implementation Plan are:

1	**Adaptation Plan**	**11**	**Low-carbon Economy**
2	**Disaster Management**	**12**	**Energy Security**
3	**Community Resilience**	**13**	**Waste Sector**
4	**Resilient Built Environment**	**14**	**Agriculture**
5	**Transport Sector**	**15**	**Health Sector**
6	**Coastal Management**	**16**	**Governance**
7	**Ecosystem-based Adaptation & Nature-based Solutions**	**17**	**Climate Finance**
8	**Water Security**	**18**	**Monitoring, Evaluation and Review**
9	**Net Zero by 2050**	**19**	**Climate Change Communication and Awareness**
10	**Green and Blue Carbon**	**20**	**Skills Development**

1. Adaptation Plan

2022 Baseline	Representative Indicator
An Adaptation Pathway is committed to, and preparatory work underway to determine a way forward for the detailing of focussed pathways.	A suite of official adaptation pathways by 2025

1.1. Detail an Adaptation Pathway for the Western Cape

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Develop an Adaptation Pathway aligned with the WCCCRS	Research and consultation on approaches to adaptation planning and policy Scoping of existing adaptation policy and practice Developing an Adaptation Pathway Align the Adaptation Pathway with the requirements of the anticipated Climate Change Act	Department of Environmental Affairs & Development Planning (DEA&DP): Climate Change	2023	2025

2. Disaster Management

2022 Baseline	Representative Indicator
Data on long-term climate change attribution (loss and damage) are limited to *ad hoc* reporting through academic programmes (e.g. from Stellenbosch University's Research Alliance for. Disaster and Risk Reduction), state-of-disaster related government financial support and sector-specific (sometimes anecdotal) reporting (e.g. agricultural losses)	Loss and damage reporting with provision for avoided losses due to disaster risk reduction activities

2.1. Improve Disaster Risk Management Systems

OBJECTIVE 1: Climate Emergency				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Improve early warning systems	Improve extreme weather assessments Identify or confirm needs and opportunities for improved early warning communication Ensure that early warning systems are matched by health sector preparedness in terms of extreme events	South African Weather Services Provincial Disaster Management Centre District and Metro Disaster Management Centres Department of Health and Wellness		2025
OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Improve the availability of weather and climate data	Climate modelling for long-term (decadal) climate forecasts	South African Weather Services		2025

	Make medium and long-term forecasts and projections publicly available and accessible Make historical weather data accessible to municipalities			
Engagement between stakeholders in the Disaster Risk Management sector	Ensure continued functioning of the Disaster Management Advisory Forum	Provincial Disaster Management Centre	2023	
Improved climate risk data assimilation and sharing	Consultation on how environmental and climate Risk & Vulnerability Information can be shared and improved Ensure risk and vulnerability mapping products are accessible and available	Department of Local Government DEA&DP: Climate Change Department of the Premier (Provincial Data Office)		2025
Generate data on loss and damage	Assess the cost of climate-induced risk, loss and damage related to disasters	Academia DEA&DP: Climate Change		2025

2.2. Make Disaster Risk Management Plans climate resilient

OBJECTIVE 1: Climate Emergency				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Develop extreme heat response plans	Assessment of the risk of extreme heat and added risk from climate change Formulation of provincial response protocol	Provincial Disaster Management Centre District and Metro Disaster Management Centres	2025	

	Formulate a generic extreme heat event action plan and standard operating procedure for use by municipalities Alignment of municipal and provincial responses Ensure extreme heat events risks are included in monitoring and early warning systems	Department of Health and Wellness		
Improve flood risk management	Develop a fine scale understanding of (inland and coastal) flooding risks, dynamics and impacts at a local level Scope the risk that flooding poses to agriculture	Provincial Disaster Management Centre District and Metro Disaster Management Centres DEA&DP: Spatial Planning DEA&DP: Development Facilitation DEA&DP: Coastal Management Department of Agriculture		
OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Integrate climate change considerations into Disaster Risk Assessments	Capacitate Disaster Risk Assessment compilers in respect of climate change considerations	Provincial Disaster Management Centre DEA&DP: Climate Change	2023	

Make disaster risk management plans more climate resilient	Prepare Disaster Response Plans in accordance with increased disaster risks stemming from climate change Capacitate municipalities in terms of climate change and disaster risk overlaps Ensure disaster risk management interventions recognise the specific vulnerabilities of women and the youth Equip vulnerable groups with the knowledge, skills and resources to be more resilient Align disaster risk management plans with the Climate Adaptation Pathways	Disaster Risk owners Provincial Disaster Management Centre District and Metro Disaster Management Centres DEA&DP: Spatial Planning DEA&DP: Development Facilitation Department of Social Development	2023	

2.3. Reducing the overall climate related Disaster Risk profile of informal settlements in hazardous locations in the province

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Avoid informal settling in at-risk areas	Communications campaign focused on highlighting spatial and weather-related risks Rapid response to land invasions in locations that are exposed to extreme natural events	Department of Infrastructure Department of Human Settlements DEA&DP: Spatial Planning Municipalities	2025	

		Safety and Security Cluster		

3. Community Resilience

2022 Baseline	Representative Indicator
13.2% of households occasionally run out of money to buy food (2016 Community Survey). Food access inadequacy rate for the Western Cape in 2021 was 19.5% (Provincial Economic Review and Outlook, 2022).	Measurement of food insecurity in terms of household access to food

3.1. Capacitate people living in informal settlements to become resilient through innovative responses to climate risks

OBJECTIVE 1: Climate Emergency				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Innovation in informal settlement management to ensure resilience of settlements in response to climate change impacts	Review the Western Cape Informal Settlements Strategic Framework to include a risk and vulnerability assessment and current data on urbanisation and gender specific risks Address informal settlements in at-risk locations in human settlements and safety and security policy and strategies. Support to community-based organisations that work in informal settlements Develop a facilitated settlement programme on land that is not exposed to climate related risk	Department of Social Development DEA&DP: Development Management Department of Human Settlements DEA&DP: Spatial Planning Municipalities		2030

Improved health by reducing ambient and indoor air pollution in informal settlements	Reduction of PM_{10} emissions related to residential fuel burning by promoting the use of alternative forms of heating and cooking in informal areas Support to municipal alternative household energy programmes	DEA&DP: Air Quality Management	2023	
OBJECTIVE 3: Risk and Resilience				
Reduce fire risk at the urban-wildland interface	Campaign to increase community awareness around vegetation fire risks	District and Metro Disaster Management Centres	2023	

3.2. Ensure involvement of local communities by applying community-based adaptation principles in resilience-building programmes

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Improving community level understanding and responses to disaster risks	Capacity building amongst community-based and disaster relief organisations to understand and implement disaster risk management linked to climate change resilience. Capacitation of youth and vulnerable groups on how to respond to disaster risks on a policy and implementation level Capacitation of Disaster Management sector community outreach programmes Integrate into the school curriculum	District and Metro Disaster Management Centres Provincial Disaster Management Centre DEA&DP: Sustainability Department of Education	2030	

	Collaboration on local government level communication initiatives			
Support to and capacitation of organisations that are active in resilience programmes	Consultation programme to improve understanding of the needs of non-governmental actors Define a set of principles for community-based adaptation in the Western Cape Support community-based organisations with communication materials and capacity building Capacitation of community workers in respect of community-based adaptation	Department of Agriculture Department of Health and Wellness Department of Community Safety Department of Social Development	2030	

3.3. Increase food system resilience

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Protect well-located agricultural land within the City of Cape Town and other major towns	Identify opportunities or mechanisms for enhancing the protection of agricultural land in spatial and development planning (IDPs, SDFs, EMFs) Address weaknesses in the environmental assessment and land use planning application processes that lead to the loss of well-located agricultural land Implement the City of Cape Town Food System Programme	National Department of Agriculture, Land Reform and Rural Development Department of Agriculture DEA&DP: Spatial Planning DEA&DP: Development Management City of Cape Town	2023	2030
Support urban agricultural activities	Raise awareness of the function of commonage in municipal areas, and ensure municipalities	Department of Agriculture	2023	2030

	manage communal land in the interest of vulnerable groups Ensure land use management schemes adequately accommodate and protect urban agricultural activities Municipalities to provide support for informal food systems Ensure involvement of youth and local community members in urban agricultural initiatives	DEA&DP: Spatial Planning Municipalities		

3.4. Achieve universal access to basic services as a fundamental requirement for a resilient population

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Reduce household and community vulnerability by making basic services available to all	Refer to *social development programmes and municipal planning* Increase the sustainability of municipal services Invest funding in development of alternative services delivery models	Department of Local Government Department of Social Development Municipalities		2040
Design innovative energy service delivery for low-income communities, particularly looking at cleaner fuels and alternative energy technologies	Research and development in alternative energy services Identify gaps in / opportunities for services provision	DEA&DP: Climate Change	2030	

	Engage stakeholders on a platform for project support Establish a platform where peer learning and project support is offered Assess the successes and failures of the solar water heater programme and apply the learnings	Technical Climate Change Working Group[10] City of Cape Town		
Mainstream climate change linked resilience thinking into social welfare systems that extend to food security and mental health support	Research and development in social welfare and climate change linkages, gaps in / opportunities to link climate change resilience thinking into social welfare systems Establish and engage stakeholders on a platform for project support (including civil society organisations and general public)	Department of Health and Wellness Department of Social Development Technical Climate Change Working Group	2030	

4. Resilient Built Environment

2022 Baseline	Representative Indicator
Building performance measurements are limited to land, energy and water use (e.g. WCG Building Efficiency Report for public sector buildings), although some municipal indices of broader spatial efficiencies are emerging	Resource efficiency reporting at building and settlement/city levels

[10] New technical intergovernmental committee to be established by DEA&DP

4.1. Ensuring that spatial planning and development planning reduces risks to people, infrastructure and assets through integration of climate change considerations

OBJECTIVE 1: Climate Emergency				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Align transport planning with climate resilient spatial development planning	Identify targets or design specifications for Non-Motorised Transport (NMT) and public transport accessibility and uptake in new residential and commercial developments Specify targets for NMT and public transport uptake in Integrated Transport Plans and link the targets to Departmental performance targets/ metrics Create a mechanism for the review of transport network planning that can ensure that resilience considerations challenge outdated design and planning norms	Department of Infrastructure Department of Mobility DEA&DP: Spatial Planning	2023	
Integrate climate change considerations into existing spatial and development planning processes	Identify opportunities or mechanisms for integrating climate change into land use planning and land development for urbanisation, urban and rural development processes (including by-laws and zoning controls, sector plans, policy guidelines, intergovernmental initiatives and practice notes as well as development management schemes including the provincial, regional, and municipal spatial development frameworks) Interpret the National Guideline for Consideration of Climate Change Implications in Applications for Environmental Authorisations, Atmospheric Emission Licences and Waste Management Licences to increase relevance in the Western Cape context	DEA&DP: Development Facilitation DEA&DP: Spatial Planning DEA&DP: Coastal Management Municipalities		2023

	Climate resilience considerations applied in the Environmental Impact Assessment regulatory scheme Align planning and decision-making at local and provincial level in a manner that avoids infrastructure development in at-risk locations (including the coast, estuaries, floodplains, fire-prone areas) in accordance with Section 12(1)(j) of the Spatial Planning and Land Use Management Act, 2013			
Capacitate municipalities in respect of climate resilient planning	Collaboration between partners (e.g. SALGA, DEA&DP, Department of Forestry, Fisheries & the Environment) to develop municipal guidelines on climate resilient planning Through a consultation process with all coastal municipalities develop a decision-making framework for coastal management and a set of agreed methodologies Formulate standard operational procedures for integrating climate change into project preparation and budget approval process at municipal and provincial levels	DEA&DP: Development Facilitation DEA&DP: Coastal Management Municipalities		2025
Use spatial performance indicators to inform ongoing progress reporting and improved planning and land use decision-making	Monitor the loss of vegetation caused by new spatial development Identify spatial indicators that show spatial efficiency and socio-economic vulnerability linked to urban development patterns	DEA&DP: Development Facilitation DEA&DP: Spatial Planning CapeNature	2023	

4.2. Ensure new-build projects take climate risks into consideration (placement of infrastructure and communities, building resilience and building back better)

OBJECTIVE 1: Climate Emergency				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Report on resource efficiency of buildings	Continue with monitoring and reporting for the WCG Property Efficiency Report Monitor and report private facility resource efficiency Integrate energy efficiency and climate change considerations in all user and custodian asset management plans	Department of Infrastructure Building owners	2023	
OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Implement best practice standards for sustainable and resilient development	Municipal capacity building in respect of best practice climate resilient development Implementation and enforcement of SANS 10400 XA building standards focussed on resource efficiency Consideration of life cycle costing in development planning NMT component to be included in all transport related projects Ensure state-subsidised settlements are energy efficient and climate resilient and that low-income residents have equitable access to essential services	Municipalities	2023	

4.3. Reduce the carbon footprint in the built environment, specifically addressing embodied energy, transport infrastructure and energy consumption in buildings

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Energy Performance Certificates	Facilitate uptake of Energy Performance Certificates Monitor the costs of compliance with Energy Performance Certificates	National Department of Mineral Resources and Energy		2025
Incentivising and facilitating building standards for sustainable and resilient development	Municipal capacity building in respect of best practice climate resilient development	Municipalities DEA&DP: Development Planning Intelligence Management and Research	2023	
Reduce the carbon intensity in construction	Research decarbonisation initiatives in the construction industry Engage with construction industry Pilot a net zero construction project Maximise the crushing and re-use of building rubble	DEA&DP: Climate Change DEA&DP: Air Quality Management DEA&DP: Waste Management Department of Infrastructure	2023	
Reduce the carbon intensity of WCG facilities	Collect government facility performance data compatible with the WCG Property Efficiency Report Integrate energy efficiency and climate change considerations in all user and custodian asset management plans	Department of Infrastructure Department of Education Western Cape Department of Health and Wellness	2023	

Reduce the carbon intensity of private facilities and facilities of other spheres government	Maintain sector building performance monitoring and reporting systems Promote best practice and peer learning amongst private facilities Continue with municipal operations' energy efficiency retrofit, energy audit, and energy and water metering programmes Develop a programme plan to achieve net zero carbon for all new and existing municipal buildings by 2030	Building owners City of Cape Town (Energy, Waste and Water Forum) Municipalities	2023	
Set infrastructure performance standards for resource efficiency in the transport sector	Review of current best practice for the transport related infrastructure Development performance standards for infrastructure design	Construction sector representative bodies Department of Infrastructure		2030

5. Transport Sector

2022 Baseline	Representative Indicator
At a policy level, most development plans and transport plans acknowledge the need for more efficient low-carbon transport, but implementation at scale is limited – poor rail services, only two BRT systems, very limited NMT infrastructure and private taxis filling the gaps. Little to no government support for a shift to electric vehicles. Rail recovery is core to the overall rehabilitation and integration of the different modes of transport.	Shift of passengers and freight to rail Uptake of electric vehicles for private and public transport

5.1. Increase the climate resilience of transport sector planning, with the aim to improve efficiencies in operation and decarbonise the sector over time

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsi-bility**	**Start by**	**Achieve by**
Development of Climate Change Sector Plan for the Transport Sector	Development of a sector plan that incorporates adaptation and mitigation responses as they relate to the transport sector and improved air quality in the Western Cape Create mechanisms for ensuring that climate resilience forms an integral part of the Provincial Land Transport Framework, as well as municipal Integrated Transport Plans and Integrated Public Transport Networks	Department of Mobility Department of Infrastructure	2023	
Integrate non-motorised transport into a low-carbon transport system	Create mechanisms for ensuring that non-motorised transport forms an integral part of the Provincial Land Transport Framework, as well as municipal Integrated Transport Plans and Integrated Public Transport Networks for all municipalities	Department of Mobility Municipalities	2030	

5.2. Reduce the GHG footprint of the transport sector

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Invest in and manage public transport systems with a strong focus on improving the functionality of rail services	Private and public advocacy programmes	Department of Mobility PRASA		2030

	Investment in infrastructure upgrades, security services and efficiency of public transport services Restore and rehabilitate the rail system	City of Cape Town George Municipality		
Travel Demand Management	Assess and institute programmes for Travel Demand Management in both public and private sector Facilitate / incentivise higher vehicle occupancy	Department of Mobility Municipalities		
Prepare for a rapid transition to electric mobility in private and public transport (passenger vehicles, buses, minibus-taxis, motorcycles, e-bicycles etc.)	Create the necessary policy environment, infrastructure and oversight mechanisms Include anticipated transport-related electricity demand considerations in the provincial energy master plan Compile information on EV viability in different government fleet use cases, contextualised with a guideline for EV procurement in government Implement the WCG Electric Vehicle strategy Partnerships between government and private initiatives Awareness and information campaign for potential users Funding system set up to facilitate the electric vehicle roll-out	Department of Mobility Municipalities DEDAT	2025	

	Strategy for internal combustion engine phase-out in public transport and public fleet vehicles			
Implement renewable energy as the primary source of energy for electric vehicles	Identify all electric vehicle charging sites across the Western Cape (both private and public) Investigate the feasibility of renewable energy installations at charging sites Put together business case for roll out of renewable energy at charging stations	Government Motor Transport Private sector (particularly around the investment in charging stations)	2030	

6. Coastal Management

2022 Baseline	Representative Indicator
Information on infrastructure in harm's way is limited to Mossel Bay Municipality	Number and nature of public and private infrastructure and structures with coastal risk zones

6.1. Coastal risk assessment, policy and regulatory framework

OBJECTIVE 1: Climate Emergency				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Conduct a provincial coastal vulnerability and risk assessment to understand the risk posed by climate change	Coastal Vulnerability and Risk Assessment analysis as per Provincial Coastal Management Programme	DEA&DP: Coastal Management		2023

Develop a coastal risk policy that details the role of coastal management lines and active retreat	Development of a coastal risk policy Provincial Coastal Protocol for response to coastal vulnerability, risk and damage Development of Western Cape policy for Coastal Risk Management	DEA&DP: Coastal Management		2023
Development of the legal framework for implementation of Coastal Management Lines	Regulatory framework for implementation of a Coastal Management Lines, estuarine floodlines and coastal risk information endorsed by the provincial Minister Establishment of the Coastal Management Lines for the West Coast, Garden Route and Overberg Districts by the provincial Minister Support National Government and SANParks with the establishment of Coastal Management Lines in national parks located within the WC	DEA&DP: Coastal Management	2023	2025
OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Capacitate municipalities to deal with coastal risk	Promote and conduct training opportunities for municipalities (such as National Environmental Management: Integrated Coastal Management Act training)	DEA&DP: Coastal Management	2023	

6.2. Reduce coastal risks through development management, coastal defence reinforcement, and deployment of natural defences

OBJECTIVE 1: Climate Emergency				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Interventions for priority coastal defence or retreat projects	Scope and assess intervention alternatives – both 'hard' and 'soft' approaches Programme developed to inform infrastructure investment and achieve the goals of the coastal management programme and to support work creation Institute measures to reduce overall coastal risk exposure which includes ecosystem-based adaptation measures such as dune and wetland rehabilitation and ecosystem rehabilitation within climate risk hotspots Scope funding mechanisms An assessment of the extent of historically active dune systems and the feasibility of remobilizing mobile sand systems to aid ecosystem functioning Initiate the planning, development and execution of a coastal and sea-defence decision framework for Cape Town	Coastal municipalities DEA&DP: Coastal Management		2025
Reduce estuarine risk through development and implementation of climate resilient estuarine management plans	Use the latest climate change projections in all new or revised estuarine management plans Use information on expected climate change impacts to inform risk reduction in and around estuaries	DEA&DP: Coastal Management Coastal Municipalities	2023	

		Conservation agencies		

7. Ecosystem-based Adaptation & Nature-based Solutions

2022 Baseline	Representative Indicator
Environmental indicators consistently track downwards (State of Environment reports)	River health indices

7.1. Co-ordinate Ecosystem-based Adaptation activities through the implementation of the Western Cape Ecological Infrastructure Investment Framework

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Implement the Ecological infrastructure Investment Framework	Refer to the *Ecological Infrastructure Investment Framework* Continue motivating for the necessary implementation funding in relation to catchment management, invasive alien clearing, biomass beneficiation and river health management	DEA&DP: Biodiversity Management	2030	

7.2. Continue to manage ecosystems, wilderness areas and the conservation estate

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Effective management of the conservation estate	Refer to conservation sector plans Provincial strategy for prevention of and response to land invasion of conservation areas	CapeNature DEA&DP: Biodiversity Management	2030	
Increasing areas under conservation protection, with a specific focus on under-protected ecosystems, critical biodiversity areas and strategic water source areas	Refer to conservation sector plans Achieve protected area targets Utilise stewardship mechanisms and Other Effective Area-based Conservation Measures	Conservation agencies Department of Agriculture (Landcare) Environmental agencies (e.g. WWF)	2030	

7.3. Restore the ecological functioning and water quality in our watercourses

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Halting water pollution	Continued work to improve municipal wastewater treatment works and operation of reticulation networks	Municipalities	2023	

	Enforcement of water discharge quality standards and permits Awareness-raising within the agricultural sector Hazardous materials spill response plans and capacitation of response teams Management of urban stormwater drainage systems to counter watercourse litter pollution	DEA&DP: Pollution and Chemicals Management DEA&DP: Waste Management District and Metro Disaster Management Centres		
Ensuring that watercourses and their riparian zones retain an ecological base flow	Regular review and verification of the Resource Quality Objectives for watercourses in the province Enforcement of water use licence conditions and prosecution of illegal abstraction Improve freshwater supply to estuaries in accordance with Estuarine Management Plans	National Department of Water and Sanitation	2023	
Protect and restore ecological infrastructure that perform a flood attenuation function	Strengthened protection and rehabilitation of wetlands and peatlands Ensure the strategic protection and rehabilitation of aquatic ecosystems Control the spread of alien invasive plants in riparian zones	Municipalities Protected area management agencies Department of Agriculture National Department of Water and Sanitation	2023	

7.4. Expand natural systems in urban environments (or utilise ecological infrastructure approaches where this is not viable) and restore their functioning

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Pursue and support urban ecosystem rehabilitation and urban greening projects to reduce urban vulnerability	Increase urban wetland rehabilitation though incorporation of green infrastructure in urban development and upgrades Capacitate work programmes for coastal and estuary management Continued management of Municipal conservation areas Greening, including tree-planting, programmes in city and town centres to reduce the heat island effect and provide shading	Municipalities Conservation agencies Non-Governmental Organisations DEA&DP: Coastal Management	2030	

7.5. Continue with efforts at removing alien vegetation infestations

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Assessment of alien invasive eradication efforts in priority catchments	Stakeholder engagement Clarify responsibility and capacity Database maintenance Funding oversight	DEA&DP: Biodiversity Management CapeNature	2025	

Assessment of alien invasive eradication efforts in municipalities	Capacitate a municipal support programme Coordinate alien clearing and funding programmes for maximum impact	DEA&DP: Biodiversity Management Department of Agriculture	2025	

7.6. Wildfire management through risk mitigation of wildland-urban and wildland-agriculture interface fires and appropriate ecosystem management

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Ecosystem-based fire management interventions incorporated into provincial scale wildfire management system	Ensure that disaster risk management planning incorporates ecosystem-based fire management that is climate resilient Enable and promote the implementation of fuel load reduction strategies at the landscape level Facilitate a strategic initiative related to forestry exist areas Include fuel load management in urban disaster management planning Ensure wildfire disaster risk management communication reaches potentially directly affected community members	Provincial Disaster Management Centre District and Metro Disaster Management Centres Protected area management agencies Landowners	2025	
OBJECTIVE 4: Just Transition				

Actions	Activities Required	Responsibility	Start by	Achieve by
Support Fire Protection Associations with resources	Budget allocation to Fire Protection Associations Support Fire Protection Associations in the drafting of fire risk assessments and plans and incorporate these into development planning at a provincial and local scale	District Fire Services	2023	

8. Water Security

2022 Baseline	Representative Indicators
Clear trends towards drought conditions over the past 20 years, when evaporation is included in the drought index, suggests that increasing temperatures observed since the 1980s, and predicted for the future, are driving increasing drought risk in the Western Cape.	Supply-demand ratio positive for a 15-year horizon, taking climate change into account (Quarterly reporting by/to a relevant Sustainable Water Management forum)

8.1. Ensure that a water security plan is in place

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Align risk and vulnerability assessments related to water security and availability (including fitness-for-use) carried out by various role-players to ensure a complete and accurate risk profile and risk exposure informs a strategic water security plan	*Refer to the Growth for Jobs Strategic Framework and Strategy, WCSWMP & WCIDWRP*[11] Transversal participation in water security planning forums Continuous updating of the provincial, municipal and City of Cape Town water security plans Address the need for securing water for agricultural use in the water resource planning Identify ways to augment Cape Town's water supply to ensure the long-term sustainability of supply	National Department of Water and Sanitation DEDAT DEA&DP: Pollution and chemicals management City of Cape Town	2025	

[11] Western Cape Sustainable Water Management Plan and Western Cape Integrated Drought and Water Response Plan

8.2. Improve the effectiveness of water resource allocation and management to ensure the sustainability of water resources

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Perform the implementation actions recommended by the strategic water management planning	*Refer to the Growth for Jobs Strategic Framework and Strategy, WCSWMP & WCIDWRP* Assess, stimulate and initiate programmes and projects related to catchment improvement, decentralised water supply systems and improved bulk water supply management Optimise water supply at source, including the development of scaled ecological rehabilitation and alien vegetation removal especially in Strategic Water Source Areas	National Department of Water and Sanitation DEA&DP: Pollution and chemicals management City of Cape Town	2025	
Enhance the knowledge and capacity of land use planners, engineers and other technical experts to integrate the protection and rehabilitation of Strategic Water Source Areas into land use planning at various scales	Ensure access to spatial datasets such as Strategic Water Source Areas to planners in order to protect water source areas (surface and underground).	Technical Climate Change Working Group DEA&DP: Spatial Planning	2025	
Ensure water resource allocation and management responds to climate change projections	Ensure water governance is sufficiently coordinated and capacitated	National Department of Water and Sanitation	2023	

	Regular review and verification of the Resource Quality Objectives for water-courses in the province Enforcement of water use licence conditions and prosecution of illegal abstraction			
Promote and enable demand management as adaptation option	Continued implementation of the City of Cape Town and Provincial demand-side management programmes Province-wide communications campaigning for water-use reduction Implementation of water conservation strategies for the agricultural sector Ensure use and maintenance of efficient water infrastructure, and streamline associated supply chain processes Maintain waterways and canals	Municipalities City of Cape Town	2023	

9. Net Zero by 2050

2022 Baseline	Representative Indicator
Greenhouse gas emissions inventory completed, as well as initial mitigation options identification process. Full first-generation mitigation pathway to be developed by March 2023.	GHG emissions inventory, as well as specific reporting on methane emissions

9.1. Identify ways to manage our release of short-lived climate forcers such as methane and black carbon, linked to the Western Cape Air Quality Management Plan

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Develop a strategy for reducing the emission of short-lived climate forcers	Status quo assessment of short-lived climate forcers Engagement with partners Allocation of responsibility, scoping of work and formalising of a workplan Strategy development	DEA&DP: Climate Change DEA&DP: Air Quality Management		2025
Monitor Short-lived Climate Forcers	Establish a monitoring programme for Short-lived Climate Forcers Identify, and collaborate with, local and international data providers	DEA&DP: Climate Change DEA&DP: Air Quality Management	2023	
Reducing agricultural methane emissions	*Refer to Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector (SmartAgri), Integrated Waste Management Plan and Air Quality Management Plan* Consultation with sectoral partners Implement policy actions in respect of agrochemicals	Department of Agriculture	2025	

9.2. Detail a plan to get the province to Net Zero emissions by 2050

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Complete a 2050 Emissions Pathway exercise	Model an emissions trajectory to a net zero future (Pathway) Integrate the pathway into the WCCCRS, and other related policies and strategies such as the Western Cape energy planning	DEA&DP: Climate Change	2023	
Emissions monitoring	Update the Western Cape's GHG inventory Formalise a monitoring programme for all GHGs Identify, and collaborate with, local and international data providers	DEA&DP: Climate Change National Department of Forestry, Fisheries and the Environment	2025	
Establish a position on carbon offsets	Assess opportunities and mechanisms for internationally recognised and verified carbon offsets	DEA&DP: Climate Change National Department of Forestry, Fisheries and the Environment		2025

10. Green and Blue Carbon

2022 Baseline	**Representative Indicators**
Conservation Agriculture argued to have penetrated around 60% of agriculture in the Western Cape. Regenerative farming is an emerging sector. Small gains and possibly larger losses in terms of ecosystem restoration in general.	Verified uptake of Conservation and Regenerative Agriculture according to specified topologies Rehabilitation of degraded wetlands, peatlands, seagrass, submerged macrophyte habitats and salt marshes

10.1. Enhance soil carbon sequestration and other carbon sinks in the natural environment, through increased focus on conservation and regenerative agricultural practices.

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Increase the uptake of Conservation Agriculture	Make available long-term evidence regarding the production, financial and environmental benefits of Conservation Agriculture at scale (with grain and other field crops) Increase the spatial extent of Conservation Agriculture practices through awareness, education, training and extension activities Drive greater uptake of Conservation Agriculture through active and collaborative support structures Address initial inhibitory financial hurdles and create long-term financial incentives to sustain the expansion of Conservation Agriculture practices Expand research on the carbon sequestration and GHG emission aspects of Conservation Agriculture in a broad range of Western Cape commodities and contexts	Department of Agriculture Conservation agencies	2025	
Rehabilitation of degraded natural areas to increase carbon capture potential	Establish and promote long-term and co-ordinated monitoring of veld condition to maximise soil carbon sequestration in conservation areas Rehabilitation of gullies Rehabilitation of wetlands, peatlands, seagrass, submerged macrophyte habitats and salt marshes	DEA&DP: Biodiversity Management DEA&DP: Coastal Management	2025	

	Develop understanding of mechanisms to promote voluntary carbon markets	CapeNature SANParks		
Increase carbon capture through improved agricultural land management	Establish and promote long-term and co-ordinated monitoring of veld condition to enable rehabilitation Maintain, enhance and extend the support provided to livestock farmers for the implementation of sustainable agricultural practices Assess the location and extent of abandoned and marginal agricultural land that could be converted to indigenous vegetation, through appropriate stewardship and conservancy agreements with landowners Support landowners who want to invest in multi-year projects with bridging finance and/or risk cover	Department of Agriculture CapeNature Private sector (insurance) AgriSA DEDAT	2023	

11. Low-carbon Economy

2022 Baseline	Representative Indicator
The Western Cape has potential for growth in the low-carbon economy, but this requires a clear government position and the necessary support from an institutional and infrastructure development perspective	Provincial Economic Review and Outlook (or similar) reporting on low-carbon economic activity • Renewable energy industry • Electric mobility industry

11.1. Promote a Climate Resilient Low-carbon Development trajectory for economic development

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Integrate low-emissions planning and budgeting into macro-economic planning (including the Economic Growth Strategy amongst others)	Identification of appropriate mechanisms and processes to assess and align economic planning with climate resilient development considerations Scoping of knowledge gaps Research in specific economic themes Set macro-economic decarbonisation targets Identify macro-economic indicators of climate resilient development	DEDAT Provincial Treasury	2025	
Ensure that the net zero emissions pathway does not inadvertently increase risk exposure to climate impacts.	Risk Assessment conducted on the net zero emissions pathway	DEA&DP: Climate Change	2025	
Address the employment risks of a transition of economic activities to low-carbon sectors, specifically taking gender and youth into consideration.	Conduct a risk assessment / economic study focusing on employment forecasting and planning, linked to Just Transition Planning	DEDAT	2025	

11.2. Have significant local manufacturing in support of low-carbon activities (e.g. electric vehicle components, batteries, solar photovoltaic systems).

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities required**	**Responsi-bility**	**Start by**	**Achieve by**
Support low-carbon related business invest-ment facilitation	Promotion of and support to low-carbon related business in the Atlantis Special Economic Zone, Saldanha Industrial Development Zone as well as other industrial development zones in the province Development of a provincial strategy for investment in low-carbon business development, including the promotion of youth, women and previously disadvantaged persons as owners and investors Maintain a stakeholder engagement platform for consultation be-tween private sector and government, and between investment pro-grammes	DEDAT City of Cape Town Wesgro	2025	2040

11.3. Through red-tape reduction and incentive schemes, create an institutional environment that encourages private sector innovation and investment in climate-proof development projects

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Focussed red tape reduction and incentive schemes	Refer to *Red Tape Reduction pro-grammes* Identify and resolve bureaucratic constraints to low-carbon and cli-mate-proof development	DEDAT DEA&DP Wesgro	2025	

	Ensure that a line of communication is present for consultation between the private sector and government			
Red tape reduction for emergency responses	Continue work on clarifying Hazard Owner responsibilities and associated disaster risk reduction processes	Provincial Disaster Management Centre	2023	
Collaborate with provincial development facilitation programmes to provide stimulus for private sector responses that align with the vision and objectives for climate change response	Identify and facilitate collaboration engagements for accelerating climate responsible private sector initiatives	DEA&DP: Climate Change	2025	

12. Energy Security

2022 Baseline	Representative Indicator
The WCG Municipal Energy Resilience / Growth 4 Jobs Energy programme is underway, with several avenues of research on-going aiming at supporting selected municipalities in accessing reliable renewable energy. The City of Cape Town will be procuring 300 MW of electricity from private suppliers and the Western Cape province has as a goal of 15 Terawatt hours (~5,700MW) of grid power demand offset through demand management and renewable energy generation by 2035.	Amount / percentage of electricity from renewable sources accessed by municipalities

12.1. Detail and implement a plan for energy resilience and an energy transition in the province that is aligned with the 2050 emissions reduction pathway

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Re-sponsi-bility**	**Start by**	**Achieve by**
Develop an energy master plan that is aligned with the transitions required by the 2050 Emissions Pathway	*Refer to the Growth for Jobs Strategic Framework and Strategy, and Municipal Energy Resilience programme* Develop a long-term energy master plan, inclusive of an Integrated Resource Plan, that is compatible with the 2050 GHG Emissions Pathway Research and develop a gas position for the Western Cape Research and develop a Green Hydrogen position for the Western Cape	DEDAT	2023	
Implement programmes and projects to increase energy efficiency and the role of renewable energy in the Western Cape	*Refer to the Growth for Jobs Strategic Framework and Strategy, and Municipal Energy Resilience programme* Develop a provincial energy efficiency / demand side management programme Assess, stimulate and initiate programmes and projects for generation, procurement and wheeling of low-carbon energy Assess and plan for utility-scale energy storage	DEDAT	2023	

	Maintain and expand energy infrastructure, and align with Eskom transmission and distribution network developments Increase investment in the energy sector through a coordinated intervention programme			

12.2. Co-ordination of municipal access to renewable energy

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Facilitate greater access by all municipalities to renewable energy, including through independent power producer contracts	*Refer to the Growth for Jobs Strategic Framework and Strategy, and Municipal Energy Resilience programme* Implementation of the pioneering energy projects in identified candidate municipalities Include energy and electricity planning support in municipal support programmes where municipal capacity is low, addressing Small-Scale Embedded Generation, wheeling and feed-in facilitation Support municipalities with Independent Power Producer procurement Collaborate with other stakeholders to support municipalities in adapting their municipal electricity grids to the new operational conditions 15 Terawatt hours (~5,700MW) of renewable energy generation	DEDAT Municipalities	2023	2035

12.3. Continue energy related programmes aimed at improving access to low-carbon energy at household level

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Innovation in energy services provision to ensure low-carbon energy access in low-income areas	Research in alternative energy services Identify gaps in / opportunities for services provision Engage stakeholders on a platform for project support Establish a platform where peer learning and project support is offered	DEA&DP: Climate Change Department of Infrastructure Municipalities DEDAT	2025	

13. Waste Sector

2022 Baseline	**Representative Indicator**
Efforts underway to improve the reliability of waste data and to improve waste management systems to reduce the volume of waste going to landfill	Amount / volume of waste going to landfill

13.1. Reduce greenhouse gas emissions from organic waste

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Eliminate organic waste going to landfill	Refer to *Integrated Waste Management Plan* Implement mandatory segregation of recyclables and organics, and collection at all municipal buildings and facilities Maximise the diversion of garden and food waste	DEA&DP: Waste Management Municipalities		2027
Develop waste-to-energy projects for organic waste	Implement and expand the beneficiation of wastewater sludges and associated recovery of biogas, heat and nutrients at wastewater treatment works Complete landfill gas-to-energy projects at all major landfill sites	DEA&DP: Waste Management Municipalities		

13.2. Emissions reduction strategy for general waste streams

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Improved GHG emissions data for the Waste sector	Improve the quality of waste stream data obtained from municipalities and service providers Align Western Cape GHG emissions inventory with the national Integrated Pollutant and Waste Information System Identification of waste types responsible for GHG emissions in the Western Cape	DEA&DP: Waste Management DEA&DP: Climate Change	2023	

OBJECTIVE 2: Net Zero by 2050				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Reduce emissions from general waste streams	Refer to *Integrated Waste Management Plan* Develop an emission reduction strategy for general waste streams as part of the 2050 GHG Mitigation Pathway Engage private sector with regards to the beneficiation of identified large waste generators Promote the diversion of construction and demolition waste Promote the diversion of packaging waste	DEA&DP: Waste Management DEA&DP: Climate Change		2030

14. Agriculture

2022 Baseline	Representative Indicators
Currently rolling out the recommendations from an evaluation of the original SmartAgri Plan. This includes a partial revision of the Plan and deeper penetration of the SmartAgri programme.	Continued long-term productivity of soils and agricultural landscapes

14.1. Update the SmartAgri plan and deepen its implementation in pursuit of building climate resilience across the agricultural sector

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Improve climate response by agriculture sector by keeping the SmartAgri Plan current	*Refer to SmartAgri* Revision of the SmartAgri Plan in accordance with the evaluation and management improvement plan	Department of Agriculture		2023

14.2. Deepen the implementation of the SmartAgri plan in pursuit of building of climate resilience across the agricultural sector

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Improved climate response by agriculture sector in accordance with the SmartAgri Plan	*Refer to SmartAgri* On-going implementation of the SmartAgri Plan	Department of Agriculture	2023	
Develop local and new export markets needed for new products developed as a result of climate change	Investigate the standards and requirements for market access for new products as identified in the SmartAgri plan and conduct a market analysis Incorporate consideration of water and carbon footprints and other sustainability criteria in the	Department of Agriculture Department of Economic Development and Tourism / Wesgro	2023	

	understanding of opportunities in new markets for new products Provide support to climate-aligned certification schemes, such as carbon footprint certification			

15. Health Sector

2022 Baseline	Representative Indicators
Pressure on the health sector must surely be building in terms of demands on health facilities due to excessive heat, increased communicable diseases, increased population related to climate migrants etc. Although the health facilities sector is responding to the need for resource efficiency, not much is known about the overall health services' response.	Incidence of heat related illness and death Incidence of respiratory diseases

15.1. Formulate a plan to adapt our health systems to the realities of a harsher climate and increased vulnerabilities

OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Formulate a health sector plan	Identification of roles, responsibilities and ownership Development of a sector strategy	Department of Health and Wellness		2025
Bolstering the capacities and climate awareness of community health worker networks	Adapt existing capacity building programmes for community health worker networks to include climate change awareness	Department of Health and Wellness	2025	

Improve understanding of the link between health and climate change	Research the link between health data and climate change related impacts and vulnerability, with special focus on gender specific impacts Research mental health as related to climate change Conduct air quality health risk assessment studies, linked to air quality related diseases	Department of Health and Wellness DEA&DP: Air Quality Management	2030	

16. Governance

2022 Baseline	Representative Indicator
Acknowledgement of climate change in WCG strategic documents but no systematic integration of concerns into operational plans.	Climate budget tagging in WCG and Municipalities

16.1. Firm up the governance framework for climate change response

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Convene a climate change management committee as an accountability platform for government planning and actions	Define the institutional components required for a coordinated climate change response programme in WCG Investigate the viability of a Climate Change Management Committee at Ministerial level associated with the Minister for Local Government,	DEA&DP: Climate Change		2025

	Environmental Affairs and Development Planning, and with a reporting line to the Provincial Cabinet and Office of the Premier Formalise the operational arrangements, reporting and accountability function of the Climate Change Management Committee Create opportunities for civil society and private sector participation in government forums Coordinate and incentivise climate change response research priorities			
Support municipal action on climate change though intergovernmental structures	Establish operational procedures for including climate change as a standing agenda item on the Premier's Coordinating Forum, the MINMAY Forum, District Coordinating Forums and Joint District and Metro Approach Interface Teams Align the climate change mandate of the Intergovernmental Forums with the prescriptions of the Climate Change Bill	Department of the Premier		2025
Align climate change responses between the different provincial government departments and national counterparts, and between provincial projects and programmes	Align climate change responses using the Provincial Spatial Development Framework, Environmental Implementation Plan and Provincial Strategic Plan Bring climate change response actions into the Transversal Management System Work towards alignment between provincial and national climate change projects and programmes in the National Working Group 9 Work plan	DEA&DP: Climate Change		2025

16.2. Prioritise the capacitation of local government

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Maintain a Municipal Support Programme to ensure vertical alignment, support local authorities in exploiting opportunities for climate change responses, and address cross-boundary issues	Assess the scope and function of existing municipal support programmes Identify opportunities for better climate change response capacitation Identify opportunities for collaborative response action and access to climate finance Support municipalities with compliance to the anticipated Climate Change Act Capacitation programme to ensure the Climate Change Act is integrated into municipal strategies and policies	DEA&DP: Climate Change	2023	

16.3. Initiate a Climate Assembly, within a broader participatory engagement platform

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Initiate a Climate Assembly within a broader participatory engagement platform	Establish WCG support for a Climate Assembly Conceptualise the form and function, and placement, of the Climate Assembly	DEA&DP: Climate Change		2025

	Ensure inclusion of previously marginalised groups like women and the youth through consultation with representative organisations Plan and resource the Climate Assembly process			
Use the existing Western Cape Climate Change Forum database and mailing list to coordinate, facilitate and share information on climate change responses among all stakeholders	Standardise the flow of information and peer learning as part of a Climate Change Knowledge Exchange	DEA&DP: Climate Change		2025

16.4. Detail a roadmap for the formulation of sector-specific climate change response strategies

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Compile a roadmap for compiling climate change strategies for key sectors in the WCG	Consultation with sector departments and directorates Detailing of the roadmap, including timeframe and prioritisation of sector strategies Endorsement of the roadmap by Provincial Executive	DEA&DP: Climate Change	2023	

17. Climate Finance

2022 Baseline	Representative Indicators
Acknowledgement of climate change in WCG strategic documents but no systematic integration of concerns into operational budgets. There is an abundance of and willingness from international funding sources for climate projects in the region, but current key limitations are applicant capacitation and a perceived preference for climate mitigation responses to adaptation projects.	Climate budget tagging in WCG and Municipalities

17.1. Access international climate finance to stimulate and support climate-responsible economic and social development or investment

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Populate a pipeline of projects that can qualify for funding	Utilise findings of a finance needs analysis to detail intervention projects in consultation with implementing partners, including private sector, civil society and other government stakeholders Develop concept notes and project proposals	DEA&DP: Climate Change Provincial Treasury	2025	
Capacitate and support applications for climate finance	Stakeholder engagement to identify need and establish partnerships Ensure capacity and technical expertise within WCG to assist with proposal writing Participation in specific funding applications	DEA&DP: Climate Change Provincial Treasury	2025	

	Make application and submitted information available for peer learning Investigate options for a shared public database of national and international climate change and sustainability funding Investigate municipal capacity requirements and technical limitations, as well as financing mechanisms that can assist poorly capacitated municipalities to access finance			
Pursue existing and new Green Climate Fund or other large international climate fund applications	Ensure continuous effort in the formulating of existing funding applications Identify and act on opportunities for new applications	DEA&DP: Climate Change Provincial Treasury	2023	

17.2. Advance fossil fuel disinvestment by public funds

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Progressive disinvestment from fossil fuels	Develop a Provincial strategy for fossil fuel disinvestment Audit of Western Cape-based public funds and their exposure to fossil fuel-linked investments or companies Annual adjustment to exposure to fossil fuel-linked investments and companies to progressively reduce fossil-fuel based interests	Provincial Treasury DEDAT	2025	2030

17.3. Support Sustainable Public Procurement to support low-carbon and more socially responsible goods and services

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Build capacity and align the protocols, guidance and assessment criteria for government financial structures to mainstream low-carbon, climate-proof planning, budgeting, procurement and project management	Refer to the *Sustainable Public Procurement programme* Localise best practice for application of sustainable public procurement in provincial and municipal financial structures Prescribe mechanisms and requirements for low-carbon and climate-proof planning, budgeting, procurement and project management in government Create a mechanism for verifying application of the sustainable procurement and climate-resilient financial management Operationalise the evolving national guidance on procurement of Green Vehicles for public fleets	DEA&DP: Sustainability Provincial Treasury		2030

17.4. Utilise new and innovative public finance tools to advance climate responsive government finances

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Enable climate budget tagging in provincial and	Review National Guidance on climate budget tagging Research best practice	Provincial Treasury	2025	

municipal administrations	Localise a tool for climate budget tagging Implement a climate budget tagging pilot Revise the budget tool and implement throughout WCG to ensure that climate change is fully integrated into the budget prioritisation framework / criteria in the preparation of the budget and that it makes provision for climate budget tagging			
Utilise innovative finance mechanisms to advance adaptation and mitigation	Investigate innovative insurance mechanisms for addressing climate change adaptation and resilience	DEA&DP: Sustainability DEA&DP: Climate Change Provincial Treasury		2023

17.5. Expand national and international networking, exchange programmes and learning from other regions

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Access international peer support	Maintain provincial membership of the Under2 Coalition Maintain Global Green and Healthy Hospitals participation City of Cape Town continues to participate in non-partisan collaborative planning and action for carbon neutrality and climate resilience with C40 partner cities	DEA&DP: Climate Change Department of Health and Wellness City of Cape Town	2023	

	Other relevant memberships, on international, provincial and local government level, to be identified and encouraged through consultation (e.g. Race to Resilience and Alliance for Climate Action)			

18. Monitoring, Evaluation and Review

2022 Baseline	Representative Indicator
No climate risk-specific data being collected, especially not with any gender differentiation	Gender disaggregated data for: • Vulnerability • Energy use • Natural disaster attribution • Health system impacts

18.1. Continuously improve the Monitoring & Evaluation system related to climate change

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Detail a Monitoring & Evaluation system related to the Western Cape Climate Change Response Strategy	Engage stakeholders on the Monitoring & Evaluation (M&E) requirements and proposed framework Develop indicators for gender mainstreaming Formalise an M&E framework and implementation plan aligned with the WCCCRS	DEA&DP: Climate Change		2025

Adjust the WCCCRS to ensure it remains current	Detail a review schedule Detail a review and stakeholder consultation process Undertake review and update	DEA&DP: Climate Change	2025	

18.2. Create reporting mechanisms that will collect climate change related data, with a specific focus on gender disaggregated data

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Establish a systematic climate change data collection environment	Conduct a data needs assessment, inclusive of gender disaggregation and climate responsive investment Stakeholder engagement to assess existing data collection initiatives Formalise protocols for data access and storage	DEA&DP: Climate Change DEA&DP: Development Planning Intelligence Management and Research	2025	
OBJECTIVE 3: Risk and Resilience				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Improved health surveillance with a climate change focus	Improve health surveillance to household or community level, focussing on tracing of climate related health impacts	Department of Health and Wellness	2030	

19. Climate Change Communication and Awareness

2022 Baseline	Representative Indicator
Low level of climate literacy among South Africans.	Climate literacy among people living in the Western Cape

19.1. Increasing awareness of the climate emergency amongst the citizens, private sector and public sector

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Detail and implement a climate change awareness raising plan	Identify target groups Identify potential partnerships in the climate change communication field Identify funding opportunities Formulate a process for collaborative design of an awareness raising programme, and ensure broad public involvement or contribution Ensure that the programme is accessible by people in different social contexts and in different languages, with a focus on gender, youth and vulnerable groups	Department of the Premier DEA&DP: Sustainability DEA&DP: Communications Municipalities	2025	
Bolster the climate change messaging within the education sector	Support the Western Cape Environmental Education Forum with appropriate climate change content Ensure Western Cape education curriculum addresses climate change and disaster risk reduction	DEA&DP: Sustainability Department of Education	2023	

Improve the understanding of climate change impacts within government	Detail and implement communications plans for Provincial and Municipal employees Create a platform for peer learning between project managers as related to innovative climate change response actions Include climate change in the mandatory orientation and refresher programme for all government officials	Department of the Premier Municipalities	2025	
Generate general communication material	Determine focus area / audience Collect information on climate change response interventions in the Western Cape Commission or source communications material	DEA&DP: Climate Change	2023	
Ensure public access to information	Disseminate climate change information through several platforms including a central WCG climate change web portal Within a larger communications plan, ensure regular climate change information sharing with the public Government-led climate change outreach in communities, with a special focus on youth	DEA&DP: Climate Change Department of the Premier	2023	

20. Skills Development

2022 Baseline	Representative Indicator
National efforts to develop transition plans linked to the Just Transition, but likely no specific provincial initiatives.	Employment shift to climate-responsive industries

20.1. As appropriate to different sectors, especially transport, energy and agriculture, develop education, training and skills development plans

OBJECTIVE 4: Just Transition				
Actions	**Activities Required**	**Responsibility**	**Start by**	**Achieve by**
Sector-based skills development plans	Just transition skills gap assessment linked to the growth for jobs strategy, with a focus on youth and gender Sector-specific skills development plans Partnerships and collaboration on initiatives at municipal level Increase provincial investment in climate change-related research and development	DEDAT Sector Education and Training Authorities		2025
Capacitation of agricultural workers	Develop a long-term teaching and skills development programme in partnership with a host institution Create a basic introduction to climate change and disaster risk reduction responses for extension officers and smallholder farmers Investigate the viability and impact of intensive practical workshops or training sessions at demonstration projects Capacitate suppliers to the agricultural sector in terms of climate change resilience	Department of Agriculture Department of Education	2024	

INSTITUTIONAL ARRANGEMENTS

Due to the diverse nature of climate change responses, an institutional framework is required that will ensure co-ordination and oversight, as well as technical co-operation and information dissemination, at both general / transversal and specific / thematic levels.

Given historical transversal management structures and building on existing intergovernmental structures, the institutional framework as shown in Figure 3 is proposed for engagement on, and co-ordination of, climate change matters in the Western Cape. More detail is provided below:

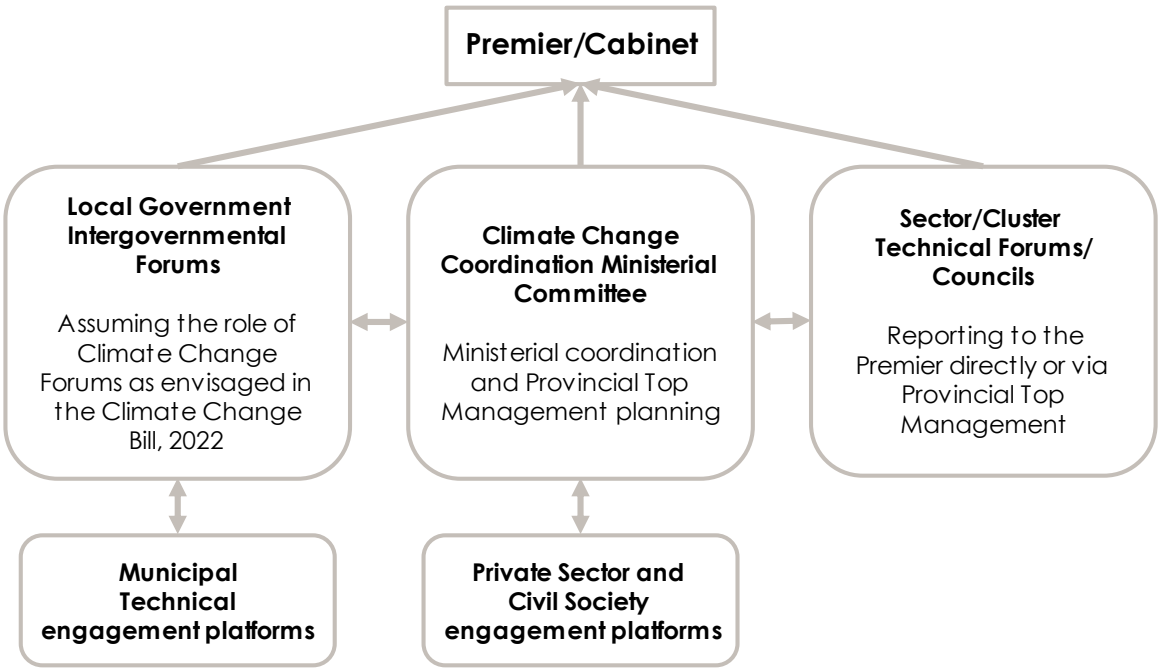

Figure 3: Proposed Climate Change Response Implementation institutional framework

1. A proposed new Ministerial Committee internal to WCG that institutionalises feedback from existing clusters on their climate change response responsibilities / commitments
2. It recognises the existing intergovernmental structures related to municipal-provincial interaction anchored by the MINMAY (Minister-Mayor) engagements.
3. Sector or cluster-based forums, such as for water & climate change, energy, agriculture and economic development.
4. A multi-platform forum where private sector, civil society and provincial and municipal technical stakeholders can participate.

Each of these structures will be informed on technical implementation matters by specifically constituted existing climate change related committees or work groups.

Existing Municipal-Provincial intergovernmental structures

The Climate Change Bill (2022) proposes an institutional structure related to climate change matters in provinces that consists of the following:

- **Provincial Forum on Climate Change** – in the Western Cape, the existing Premier's Coordinating Forum can fulfil this role
- **Municipal Forums on Climate Change** – similarly in the Western Cape, the existing 'MINMAY' Forum (Minister of Local Government and Mayors), District Coordinating Forums reporting to the Provincial Forum, and Joint District and Metro Approach Interface Teams can fulfil expectations of this role.

Both Intergovernmental Forums are established in terms of section 16 of the Intergovernmental Relations Framework Act, 2005 (see text box).

These intergovernmental structures are primarily tasked with municipal-municipal and municipal-provincial co-operation and co-ordination. They function as a reporting structure from municipal level through the Minister for Local Government to the Premier, and ultimately the President, but also as a mechanism to support municipalities where they require assistance in reducing their climate related risk or capitalising on opportunities presented by climate change.

This structure is envisaged as supporting the process of climate-proofing municipal planning and budgeting. It can also coordinate or facilitate access to climate finance available in different sectors.

Provincial Forum on Climate Change (Premier's Intergovernmental Forum)

Purpose**:** In the interest of intergovernmental coordination and strategic provincial planning, the Climate Change Bill, 2022 proposes that a provincial Premier's intergovernmental forum also serve as a Provincial Forum on Climate Change to "…*coordinate climate change response actions in the relevant province*" (Section 8(3)(a) of the Bill).

Accountability: The Provincial Forum on Climate Change must provide a report to its national equivalent, the Presidential Coordinating Council.

Municipal Forums on Climate Change (District Intergovernmental Forum)

Purpose**:** Municipalities, especially, play a vital role in addressing the country's social, economic and environmental needs. Local government is tasked with the provision of services in a sustainable and equitable manner which includes climate change resilience, the facilitation of socio and economic development and the promotion of a safe and healthy environment for all. Climate change and climate variability already have a direct impact on the ability of municipalities to meet these objectives. The Climate Change Bill, 2022 thus proposes that intergovernmental forums at district level* also serve as a Municipal Forums on Climate Change to "…*coordinate climate change response actions for those activities within its operational control of the relevant municipality*" (Section 9(3)(a) of the Bill).

Accountability: The Municipal Forums will report to the Provincial Forum on Climate Change.

** note that the Intergovernmental Relations Framework Act, 2005 does not make specific provision for Metropolitan Municipalities other than as participants in the Premier's Intergovernmental Forum*

Proposed Climate Change Coordination Ministerial Committee

The proposed Climate Change Coordination Committee is a partial refresh of previous structures instituted under the Transversal Management System of WCG. It is proposed as convened and chaired by the Minister for Local Government, Environmental Affairs and Development Planning, with support from the Minister for Agriculture.

This committee will represent an institutionalised engagement for WCG representatives in different clusters to provide feedback on progress against their implementation roles and responsibilities. As members, WCG Departments will report to this committee on their progress or challenges in implementing their responsibilities as identified in the Provincial Climate Change Response Strategy Implementation Plan and Departmental Annual Performance Plans.

The Coordination Committee will be convened by the office of the Minister, and supported by the Climate Change Directorate of DEA&DP that will act as Secretariat. The Committee will furthermore be supported by a WCG internal Technical Climate Change working group – a platform where officials ('climate change champions') from sector Departments can engage on specific technical and policy issues. The Technical Climate Change Working Group may function as a working group within provincial strategic planning processes.

Sector or cluster-based forums

Different cluster-specific structures with reporting lines to the Premier, directly or via Provincial Top Management, will serve the specific needs of sectors or clusters. Some existing examples are the water & climate change enterprise risk management structure, the newly established Energy Council, the SmartAgri Steering Committee representing agriculture, and economic development working groups under the Growth for Jobs strategic framework.

The various clusters have dissimilar models of engagement on technical levels and different reporting protocols as relevant to the cluster. The requirement is for sector representatives to participate at the forums.

Proposed multi-platform structure for private and public engagement

The multi-platform structure is seen as an entry point for the public, private sector and non-government organisations. The exact nature of these structures in terms of meeting scheduling and the agendas of the engagements will be flexible and based on the needs of specific groups of stakeholders.

Platforms proposed under this cluster are:

A *Public Environmental Forum* - will function as a sustained platform for civil society, private sector, academia, women, youth groups and all other stakeholders to engage on environmental issues in the Western Cape. It is proposed that a specific component of the Forum focuses on climate change actions. The forum can take the form of an open invitation public engagement or a facilitated dialogue between representatives of different parts of society; the latter being the norm internationally. It will

be an opportunity for open dialogue on the progress of climate change implementation amongst all stakeholders, and to share information about strategies and projects at all levels. It may continuously inform the Implementation Plan for the Western Cape and assist in shaping government policy and action related to climate change.

A *Climate Change and Economy Platform* - A climate change and economy-focussed platform for engagement with the private sector that is not a replacement for other already existing platforms but specifically focussed on climate change response implementation actions.

An *Adaptation Platform* – with an invitation for organisations to participate on matters relating to building the resilience of the province to climate change. This responds to the current dearth of adaptation-specific engagement. Provisionally, this is to be led by the Climate Change Directorate and will likely be *ad hoc* engagements at first to refine a terms of reference and more formal engagement programme.

An *External Technical Forum on Climate Change* – to focus on priority responses that fall outside the formal government structures and need coordinated responses in order to be taken forward. This forum can also be used to coordinate funding applications and multi-sector programmes and projects that respond to climate change in the Western Cape. It will be a space for technical knowledge exchange amongst implementors, researchers and organisations in the climate change space. Meetings taking place under this platform will cover representatives from spheres of government, the private sector, civil society, youth, academia and other key stakeholders. The platform will also establish processes for information dissemination and exchange. The Technical Forum will be coordinated by the Climate Change Directorate.

MONITORING, REPORTING AND EVALUATION

It is important to ensure that the implementation of the Strategy is in accordance with the stated objectives and targets. Monitoring progress in implementation is crucial within a framework of reflexive adjustment – the need to reassess and adjust as conditions or parameters change. We have recently seen how a pandemic can cause major disruption, and hence should be prepared to face further future shocks. A good understanding of our climate change response trajectories and progress will allow for the necessary 'course adjustments' along the way, as informed by monitoring and evaluation. However, within the context of the climate emergency, the focus must be on action and impact, and the achievement of response outcomes.

Reporting within a national context is a further consideration, as there is a need to consolidate knowledge and data on a national scale to facilitate planning and policy. Accordingly, the WCCCRS progress indicators will align with national ones where relevant. Care must be taken to prevent the creation of elaborate reporting systems that detract from implementation action or add little to the understanding of climate change response initiatives and their impact.

Although each response action in the WCCCRS should be tracked individually, too much uncertainty remains in terms of the response actions and activities, as well as the progress timeframes. It is therefore resolved that the detail on response and action level be monitored by the Climate Change Directorate of DEA&DP and the various entities identified as holding responsibility for the implementation. This will distribute the monitoring burden more equally.

Rather, the monitoring and evaluation framework for the Western Cape Climate Change Response Strategy: Vision 2050 will track overall outcomes through indicators at Programme level. This framework will therefore track and evaluate the overall performance of the province in terms of **key indicators of climate change adaptation and emissions mitigation.**

The register of representative indicators to be tracked is provided in Table 1, and is also reflected against the relevant Programmes throughout the Implementation Plan.

The compilation of **WCCCRS Biennial Monitoring and Evaluation Reports** will act to consolidate information about how the Western Cape is doing in respect of achieving the critical actions outlined in the Strategy. The reporting will inform programmatic adjustment where implementation lags, and a regular reconsideration of the Climate Change Response Strategy to compensate for unanticipated contextual changes. The reports are released publicly via the online channels of WCG.

In many cases, programmatic reporting takes place within existing programmes or projects, and it is not necessary for the WCCCRS to duplicate the tracking. It is therefore important to align the reporting done for the WCCCRS with the Western Cape State of Environment reporting programme and outputs.

In anticipation of the requirements of the Climate Change Act, the Climate Change Implementation Plan will be integrated into the Provincial **Environmental Implementation Plan** compiled by the Department of Environmental Affairs and Development

Planning. This regulatory tool creates a framework for aligning the objectives and outcomes of policies and programmes in the province and matches them to priority representative indicators that can be tracked over time, ensuring that performance tracking is aligned and not duplicated.

Table 1: Framework for tracking the implementation of the WCCCRS

Programme Number	Programme Name	2022 Baseline	Representative Indicator
1.	**Adaptation Plan**	An Adaptation Pathway is committed to, and preparatory work underway to determine a way forward for the detailing of focused pathways.	A suite of official adaptation pathways by 2025
2.	**Disaster Management**	Data on long-term climate change attribution (loss and damage) are limited to ad hoc reporting through academic programmes (e.g. Stellenbosch University's Research Alliance for. Disaster and Risk Reduction report), state-of-disaster related government financial support and sector-specific (sometimes anecdotal) reporting (e.g. agricultural losses)	Loss and damage reporting with provision for avoided losses due to disaster risk reduction activities
3.	**Community Resilience**	13.2% of households ran out of money to buy food (2016 Community Survey). Food access inadequacy rate for the Western Cape in 2021 was 19.5% (Provincial Economic Review and Outlook, 2022).	Measurement of food insecurity in terms of household access to food
4.	**Resilient Built Environment**	Building performance measurements limited to land, energy and water use (e.g. WCG Building Efficiency Report for public sector buildings), with some municipal indices of broader spatial efficiencies emerging	Resource efficiency reporting at building and settlement/city levels
5.	**Transport Sector**	At a policy level, most development plans and transport plans acknowledge the need for more efficient low-carbon transport, but implementation at scale is limited – poor rail services, two BRT systems, very limited Non-Motorised Transport infrastructure and private taxis filling the gaps. Little to no government support for a shift to electric vehicles. Rail recovery is core to the overall rehabilitation and integration of the different modes of transport.	Shift of passengers and freight to rail Uptake of electric vehicles for private and public transport
6.	**Coastal Management**	Information on infrastructure in harm's way is limited to Mossel Bay Municipality	Number and nature of public and private infrastructure and structures with coastal risk zones

Programme Number	Programme Name	2022 Baseline	Representative Indicator
7.	**Ecosystem-based Adaptation & Nature-based Solutions**	Environmental indicators consistently track downwards (State of Environment reports)	River health indicators
8.	**Water Security**	Clear trends towards drought conditions over the past 20 years, when evaporation is included in the drought index, suggests that increasing temperatures observed since the 1980s, and predicted for the future, are driving increasing drought risk in the Western Cape.	Supply-demand ratio positive for a 15-year horizon, taking climate change into account (Quarterly reporting by/to a relevant Sustainable Water Management forum)
9.	**Net Zero by 2050**	Greenhouse gas emissions inventory completed, as well as initial mitigation options identification process. Full first-generation mitigation pathway to be developed by March 2023.	GHG emissions inventory, as well as specific reporting on methane emissions
10.	**Green and Blue Carbon**	Conservation Agriculture argued to have penetrated around 60% of agriculture in the Western Cape. Regenerative farming is an emerging sector. Small gains and possibly larger losses in terms of ecosystem restoration in general.	Verified uptake of Conservation and Regenerative Agriculture according to specified topologies Rehabilitation of degraded wetlands, peatlands, seagrass, submerged macrophyte habitats and salt marshes
11.	**Low-carbon Economy**	The WC has potential for growth in the low-carbon economy, but this requires a clear government position and the necessary support from an institutional and infrastructure development perspective	Provincial Economic Review and Outlook / GreenCape reporting on low-carbon economic activity • Renewable energy industry • Electric mobility industry
12.	**Energy Security**	WCG MER programme is underway, with several avenues of research on-going aiming at supporting selected municipalities in accessing reliable renewable energy. The City of Cape Town will	Amount / percentage of electricity from renewable sources accessed by municipalities

Programme Number	Programme Name	2022 Baseline	Representative Indicator
		be procuring 300 MW of electricity from private suppliers and the Western Cape province has as a goal of 15 Terawatt hours (~5,700MW) of grid power demand offset through demand management and renewable energy generation by 2035	
13.	**Waste Sector**	Efforts underway to improve the reliability of waste data and to improve waste management systems to reduce the volume of waste going to landfill	Amount / volume of waste going to landfill
14.	**Agriculture**	Currently rolling out the recommendations from an evaluation of the original SmartAgri Plan. This includes a partial revision of the Plan and deeper penetration of the SmartAgri programme.	Continued long-term productivity of soils and agricultural landscapes
15.	**Health Sector**	Pressure on the health sector must surely be building in terms of demands on health facilities due to excessive heat, increased communicable diseases, increased population related to climate migrants etc. Although the health facilities sector is responding to the need for resource efficiency, not much is known about the overall health services' response.	Incidence of heat related illness and death Incidence of respiratory diseases
16.	**Governance**	Acknowledgement of climate change in WCG strategic documents but no systematic integration of concerns into operational plans.	Climate budget tagging in WCG and Municipalities
17.	**Climate Finance**	Acknowledgement of climate change in WCG strategic documents but no systematic integration of concerns into operational budgets.	Climate budget tagging in WCG and Municipalities
18.	**Monitoring, Evaluation and Review**	No climate risk-specific data being collected	Gender disaggregated data for: • Vulnerability • Energy use • Natural disaster attribution • Health system impacts

Programme Number	Programme Name	2022 Baseline	Representative Indicator
19.	**Climate Change Communication and Awareness**	Low level of climate literacy among South Africans.	Climate literacy among people living in the Western Cape
20.	**Skills Development**	National efforts to develop transition plans linked to the Just Transition, but likely no specific provincial initiatives.	Employment shift to climate-responsive industries

ANNEXURES

References

AQMP	2021	**Air Quality Management Plan** compiled by the Air Quality Management Directorate of the Department of Environmental Affairs & Development Planning. https://www.westerncape.gov.za/eadp/files/atoms/files/AQMP%202021_Web_1.pdf
Cape Town CAP	2021	**City Of Cape Town Climate Change Action Plan** https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies%2c%20plans%20and%20frameworks/CCT_Climate_Change_Action_Plan.pdf
EIIF	2021	**Ecological Infrastructure Investment Framework** compiled by the Biodiversity and Coastal Management Directorate of the Department of Environmental Affairs & Development Planning. https://www.westerncape.gov.za/eadp/about-us/meet-chief-directorates/environmental-sustainability/biodiversity-and-coastal-management-1
G4J	Draft, 2023	**Growth for Jobs Strategic Framework and Strategy** being developed by the Department of the Premier in accordance with the approach of the Jobs Priority under the current Provincial Strategic Implementation Plan.
MER	2022	The **Municipal Energy Resilience Initiative** is spearheaded by the Department of Economic Development and Tourism's (DEDAT) Green Economy Chief Directorate. Its key objectives are the provision of support and capacity building to implement renewable energy projects in municipalities. Municipal Energy Resilience (MER) Initiative | 110% Green (westerncape.gov.za)
PCMP	Draft, 2022	**Provincial Coastal Management Programme** compiled by the Biodiversity and Coastal Management Directorate of the Department of Environmental Affairs & Development Planning. https://www.westerncape.gov.za/eadp/about-us/meet-chief-directorates/environmental-sustainability/biodiversity-and-coastal-management
SmartAgri	2016	The **Western Cape Climate Change Response Framework and Implementation Plan for the Agricultural Sector** was a collaborative project between the Western Cape Department of Agriculture, DEA&DP and the University of Cape Town's African Climate and Development Initiative (ACDI). https://www.greenagri.org.za/smartagri-2/about/

WCCCRS	2022	**Western Cape Climate Change Response Strategy: Vision 20250** compiled by the Climate Change Directorate of the Department of Environmental Affairs & Development Planning. https://www.westerncape.gov.za/eadp/files/atoms/files/WCCCRS%20Vision%202050%20March%202022.pdf
WCIDWRP	Draft, 2022	**Western Cape Integrated Drought and Water Response Plan** being compiled on behalf of the Western Cape Department of Local Government
WCSWMP	2018	**Sustainable Water Management Plan** compiled by the Department of Environmental Affairs & Development Planning. https://www.westerncape.gov.za/eadp/about-us/meet-chief-directorates/environmental-quality/pollution-and-chemicals-management

Glossary of Terms[12]

Adaptation (in the context of climate change)	This describes the process of adjustment of human systems to both current and anticipated effects of a changing climate to moderate harm or enable exploitation of beneficial opportunities.
Carbon footprint	Measure of the exclusive total amount of emissions of carbon dioxide (CO_2) that is directly and indirectly caused by an activity or is accumulated over the life stages of a product
Climate Assembly	An engagement platform that facilitates public participation and contribution in regard to the formulation of climate related policy, typically formed by randomly selected citizens[13].
Climate change	A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic

[12] Unless otherwise indicated, taken from: IPCC, 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change: Annex II (https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_Annex-II.pdf
IPCC, 2018: Annex I: Glossary [Matthews, J.B.R. (ed.)]. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Portner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Pean, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)].

[13] https://en.wikipedia.org/wiki/Citizens%27_assembly

	changes in the composition of the atmosphere or in land use. (In the context of this document intended to specifically refer to out of the ordinary changes induced by human activities since the industrial revolution)
Climate decade	Refers to the period 2020-2030 during which urgent action is needed to deliver on the Paris Agreement and halve global emissions by 2030. This action is required to avoid catastrophic impacts of climate change by 2100 and achieve net zero emissions by 2050 to keep the global temperature increase below 2°C.[14]
Climate emergency	The idea that global warming and climate change have progressed to a point where, unless drastic ('emergency') action is taken, globally disastrous consequences will result.[15]
Climate literacy	Awareness of what anthropogenic climate change is, how it manifests and how it affects different aspects of society and life. It can also involve the ability to interpret climate-related news and data, understanding personal, tangible climate impacts, as well as some basic and practical adaptation strategies
Climate resilient development	Refers to the process of implementing greenhouse gas mitigation and adaptation measures to support sustainable development for all.
Coastal Management Line	A risk-based planning tool for designating development-compatible coastal land.[16]
Ecological Infrastructure	The naturally functioning ecosystems that deliver valuable services to people, such as water and climate regulation, soil formation and disaster risk reduction. It is the nature-based equivalent of built or hard infrastructure and can be just as important for providing services and underpinning socio-economic development. Ecological infrastructure does this by providing cost effective, long-term solutions to service delivery that can supplement, and sometimes-even substitute, built infrastructure solutions. Ecological infrastructure includes healthy mountain catchments, rivers, wetlands, coastal dunes, and nodes and corridors of natural habitat, which together form a network of interconnected structural elements in the landscape. [17]

[14] https://globescan.com/report-2020-climate-survey-evaluating-progress/
[15] https://en.wikipedia.org/wiki/Climate_emergency_declaration
[16] https://www.westerncape.gov.za/eadp/about-us/meet-chief-directorates/environmental-sustainability/biodiversity-and-coastal-management
[17] South African National Biodiversity Institute (SANBI)

Ecosystem-based adaptation	The use of ecosystem management activities to increase the resilience and reduce the vulnerability of people and ecosystems to climate change.
Emissions pathway	Modelled trajectories of global anthropogenic emissions over the 21st century.
Global warming	Global warming refers to the increase in global surface temperature relative to a baseline reference period, averaging over a period sufficient to remove interannual variations (e.g., 20 or 30 years).
Green Economy	This is an economic term used to define a low-carbon, resource efficient and socially inclusive economy that is aimed at reducing environmental risks and achieving sustainable development.[18]
Greenhouse gas (also 'carbon emissions')	Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of radiation emitted by the Earth's ocean and land surface, by the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and ozone (O_3) are the primary GHGs in the Earth's atmosphere. Human-made GHGs include sulphur hexafluoride (SF6), hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs) and perfluorocarbons (PFCs); several of these are also O_3-depleting (and are regulated under the Montreal Protocol).
Greenhouse gas inventory	This is a catalogue of all greenhouse gas emissions produced from different sectors/activities within a geographic region. They form a conceptual basis in which to understand emission trends, develop action plans, set reduction targets/goals and track progress at reducing emissions.[19]
Just Transition	A set of principles, processes and practices that aim to ensure that no people, workers, places, sectors, countries or regions are left behind in the transition from a high-carbon to a low-carbon economy. It stresses the need for targeted and proactive measures from governments, agencies, and authorities to ensure that any negative social, environmental or economic impacts of economy-wide transitions are minimized, whilst benefits are maximized for those disproportionally affected.

[18] https://www.unenvironment.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy

[19] https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/reporting-requirements

Maladaptation	Actions that may lead to increased risk of adverse climate-related outcomes, including via increased greenhouse gas (GHG) emissions, increased or shifted vulnerability to climate change, more inequitable outcomes, or diminished welfare, now or in the future. Most often, maladaptation is an unintended consequence.
Mitigation (in the context of climate change)	This entails human interventions that can be in the form of technology, processes or practices that act to reduce emissions or enhance sinks of greenhouse gases.
Natural Capital	Refers to the world's stocks of natural assets. Examples of these assets include soil, water, air and all living things[20]. These assets form the basis from which ecosystem services (such as food provision and climate regulation) are derived to enable human life to be possible. From a climate change perspective, investment in natural capital can contribute to developing resilience to negative impacts associated with an altered climate. [21]
Net Zero (GHG emissions)	Condition in which anthropogenic greenhouse gas emissions such as carbon dioxide, methane and nitrous oxide are balanced with its removal or elimination of emission over a specified period.
Resilience	The capacity of interconnected social, economic and ecological systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure.
Short lived climate forcers	Short-lived climate forcers (SLCFs) A set of chemically reactive compounds with short (relative to CO_2) atmospheric lifetimes (from hours to decades) but characterised by different physiochemical properties and environmental effects. Their emission or formation has a significant effect on radiative forcing over a period determined by their respective atmospheric lifetimes. Changes in their emissions can also induce long-term climate effects via, in particular, their interactions with some biogeochemical cycles. SLCFs are classified as direct or indirect, with direct SLCFs exerting climate effects through their radiative forcing and indirect SLCFs being the precursors of other direct climate forcers. Direct SLCFs include methane (CH_4), ozone (O_3), primary aerosols and some halogenated species. Indirect SLCFs are precursors of ozone or secondary aerosols. SLCFs can be cooling or warming through interactions with radiation and clouds. They are also referred to as near-term climate forcers (NTCFs). Many SLCFs are also air pollutants. A subset of exclusively warming SLCFs is also referred to as

[20] https://naturalcapitalforum.com/about/
[21] https://www.worldbank.org/en/topic/natural-capital#1

	short-lived climate pollutants (SLCPs), including methane, ozone, and black carbon.
Vulnerability	The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

Summary of Responses

Table 2: Summary of the WCCCRS Response Programmes and Response Actions

Programme	Responses to commence 2023-2025	Responses to commence 2025-2030
Adaptation Plan	1.1 Detail an Adaptation Pathway for the Western Cape	
Disaster Management	2.1 Improve Disaster Risk Management Systems	
	2.2 Make Disaster Risk Management Plans climate resilient	2.3 Reducing the overall climate related Disaster Risk profile of informal settlements in hazardous locations in the province
Community Resilience		3.1 Capacitate people living in informal settlements to become resilient through innovative responses to climate risks
	3.2 Ensure involvement of local communities by applying community-based adaptation principles in resilience-building programmes	3.3 Increase food system resilience
		3.4 Achieve universal access to basic services as a fundamental requirement for a resilient population
Resilient Built Environment	4.1 Ensuring that spatial planning and development planning reduces risks to people, infrastructure and assets through integration of climate change considerations	4.2 Ensure new-build projects take climate risks into consideration (placement of infrastructure and communities, building in resilience and building back better)
		4.3 Reduce the carbon footprint in the built environment, specifically addressing embodied energy, transport infrastructure and energy consumption in buildings
Transport Sector	5.1 Increase the climate resilience of transport sector planning, with the aim to improve efficiencies in operation and decarbonise the sector over time	5.2 Reduce the GHG footprint of the transport sector

Programme	Responses to commence 2023-2025	Responses to commence 2025-2030
Coastal Management	6.1 Coastal risk assessment, policy and regulatory framework	6.2 Reduce coastal risks through development management, coastal defence reinforcement, and deployment of natural defences
Ecosystem-based Adaptation & Nature-based Solutions	7.1 Co-ordinate Ecosystem-based Adaptation activities through the implementation of the Western Cape Ecological Infrastructure Investment Framework	
	7.2 Continue to manage ecosystems, wilderness areas and the conservation estate	7.3 Restore the ecological functioning and water quality in our watercourses
		7.4 Expand natural systems in urban environments (or utilise ecological infrastructure approaches where this is not viable) and restore their functioning
	7.5 Continue with efforts at removing alien vegetation infestations	
	7.6 Wildfire management through risk mitigation of wildland-urban and wildland-agriculture interface fires and appropriate ecosystem management	
Water Security	8.1 Ensure that a water security plan is in place	
	8.2 Improve the effectiveness of water resource allocation and management to ensure the sustainability of water resources	
Net Zero by 2050	9.1 Identify ways to manage our release of short-lived climate forcers such as methane and black carbon, linked to the Western Cape Air Quality Management Plan	
	9.2 Detail a plan to get the province to Net Zero emissions by 2050	
Green and Blue Carbon	10.1 Enhance soil carbon sequestration and other carbon sinks in the natural environment, through increased focus on conservation and regenerative agricultural practices.	
Low-carbon Economy	11.1 Promote a Climate Resilient Low-carbon Development trajectory for economic development	11.2 Have significant local manufacturing in support of low-carbon activities (e.g. electric vehicle components, batteries, solar photovoltaic systems).

Programme	Responses to commence 2023-2025	Responses to commence 2025-2030
		11.3 Through red-tape reduction and incentive schemes, create an institutional environment that encourages private sector innovation and investment in climate-proof development projects
Energy Security	12.1 Detail and implement a plan for energy resilience and an energy transition in the province that is aligned with the 2050 emissions reduction pathway	12.2 Co-ordination of municipal access to renewable energy
		12.3 Continue energy related programmes aimed at improving access to low-carbon energy at household level
Waste Sector		13.1 Reduce greenhouse gas emissions from organic waste
		13.2 Emissions reduction strategy for general waste streams
Agriculture	14.1 Update the SmartAgri plan and deepen its implementation in pursuit of building climate resilience across the agricultural sector	
Health Sector	15.1 Formulate a plan to adapt our health systems to the realities of a harsher climate and increased vulnerabilities	
Governance	16.1 Firm up the governance framework for climate change response	
	16.2 Prioritise the capacitation of local government	
	16.3 Initiate a Climate Assembly, within a broader participatory engagement platform	
	16.4 Detail a roadmap for the formulation of sector-specific climate change response strategies	
Climate Finance		17.1 Access international climate finance to stimulate and support climate-responsible economic and social development or investment
		17.2 Advance fossil fuel disinvestment by public funds

Programme	Responses to commence 2023-2025	Responses to commence 2025-2030
		17.3 Support Sustainable Public Procurement to support low-carbon and more socially responsible goods and services
	17.4 Utilise new and innovative public finance tools to advance climate responsive government finances	
	17.5 Expand national and international networking, exchange programmes and learning from other regions	
Monitoring, Evaluation and Review	18.1 Continuously improve the Monitoring & Evaluation system related to climate change	18.2 Create reporting mechanisms that will collect climate change related data, with a specific focus on gender disaggregated data
Climate Change Communication and Awareness	19.1 Increasing awareness of the climate emergency amongst citizens, private and public sector of the province	
Skills Development		20.1 As appropriate to different sectors, especially transport, energy and agriculture, develop education, training and skills development plans

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