Western Cape Government

Department of Environmental Affairs
and Development Planning

WESTERN CAPE CLIMATE CHANGE RESPONSE STRATEGY

Implementation Plan

Draft July 2022

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 impact on the lives of people. As an accompaniment to the **Western Cape Climate Change Response Strategy: Vision 2050** (WCCCRS), this Implementation Plan is intended to accelerate the province's climate response actions to mitigate our greenhouse gas emissions footprint and increase our resilience to climate change. 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 WCCCRS as guided by 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 in order to measure progress and overall impact.

Due to the consultative approach taken in the development and implementation of this strategy, we are requesting stakeholders and interested parties to assist with the detailing of the response actions, programmes and project contributions, and ensure that the voices of all people in the Western Cape Province are reflected in our overall response.

We call on everyone to be part of the climate solution.

Authors

Jody Brown, Faith Chihumbiri, Déna Jansen, Lize Jennings-Boom & Gerard van Weele

(Western Cape Government, DEA&DP, Climate Change Directorate)

Internal Review

Goosain Isaacs - Director: Climate Change

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"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])

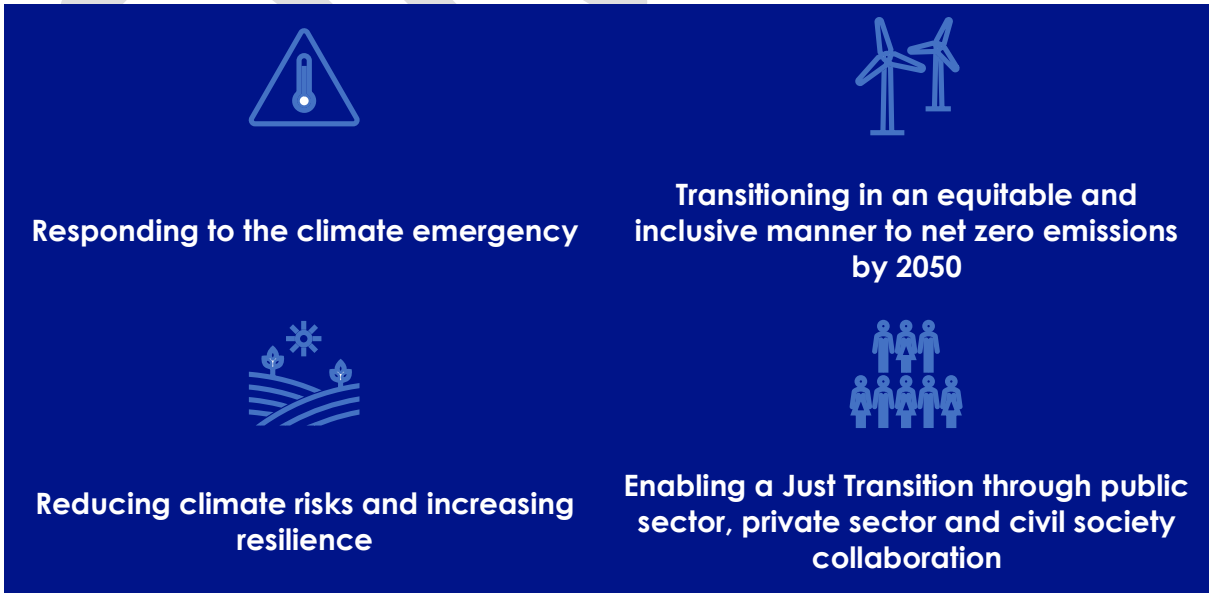
Whilst climate change is being mainstreamed across sectors with varying degrees of success, the current implementation of climate change response is still limited. In some respects, we are lagging behind our global peers in terms of our ability to keep pace with changes. Importantly, the change requires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

The Western Cape (and South Africa) needs a bold and ambitious Climate Change Response Strategy, that takes us toward net zero emissions by 2050, with transformative risk reduction and adaptation actions in place; otherwise, all other development decisions and pathways currently being planned for and implemented are likely to be undermined.

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:



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

The vision and each of the Guiding Objectives are supported by a preliminary list of key responses, further detailed in this Implementation Plan, to be refined with stakeholder engagements, sector planning processes, and associated projects such as an envisaged 2050 Emissions Pathway exercise 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

The responses 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 (Table 1). The items in the response baskets identified under the four Guiding Objectives represent the balance of 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.

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 Climate Action Pathway targets will guide the actions and priorities of Western Cape Government and non-Government stakeholders alike in taking this work forward in the Western Cape as a whole.

Table 1: Climate Action Pathway

Objective	2022-2025	2025-2030	2030-2040	2040-2050
1) Responding to the climate emergency	Early warning systems to provide long-term (decadal) climate forecasts and improved extreme weather assessments Integration of climate change considerations in spatial development and planning Implement coastal risk management tools Climate Change communication and awareness plan Roadmap and mechanism for the formulation of sector-specific climate change response strategies Develop a Short-Lived Climate Forcers Strategy	International climate finance access Water security plan in place Fossil Fuel disinvestment by public funds Capacitate people living in informal settlement		
2) Transitioning in an equitable and inclusive manner to net zero emissions by 2050	Complete the Western Cape's greenhouse gas emissions inventory Detail a 2050 Greenhouse Gas Emissions Pathway Climate change sector strategy for Economic Development Conservation agriculture to increase soil carbon sequestration Coordination of municipal access to renewable energy Improve energy (electricity) access at household level	Climate change sector strategy for Transport Land, water, and energy efficient new buildings Zero organic waste to landfill by 2027 Energy transition and security plan	Phase out internal combustion public transport and public fleet vehicles Localisation of manufacturing linked to low-carbon activities (e.g. electric vehicle components, batteries, solar photovoltaic systems)	Net Zero emissions

Objective	2022-2025	2025-2030	2030-2040	2040-2050
3) Reducing climate risks and increasing resilience	Updated SmartAgri Plan Continued efforts at removing alien vegetation infestations Climate change considerations for Disaster Risk Assessments Extreme heat preparation and response plan Completion of an Adaptation Pathway exercise	Implement Community-based Adaptation Implement Ecosystem-based Adaptation via the Ecological Infrastructure Investment Framework Enhancing natural coastal defences Improved protection of important ecosystems, wildlands and the conservation estate Improved river health Improve urban open space Reduce wildfire risks through ecosystem management Improved climate related Disaster Risk profile Improve food security prospects	Achieve universal access to basic services	
4) Enabling a Just Transition through public sector, private sector and civil society collaboration	Initiate a Climate Assembly Set up climate governance structures Sustainable procurement programme and public employment programmes Climate Change data collection systems Local Government Support Ensure government financial systems prioritise climate resilience	Private sector initiatives supported and facilitated Improved indices of human development and welfare Climate change sector strategy for Health National and international networking Monitoring and Evaluation systems Education, training and skills development plan(s)		

Alignment of Policy and Strategy

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. Central to the coordination effort is the WCCCRS, which outlines the objectives of the overall climate change response effort in the Western Cape.

The WCCCRS informs sector responses as well as certain provincial scale strategic positions, such as those related to energy, transportation 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.

More specific guidance is provided by this Implementation Plan, which adds detail to the broader responses specified in the strategy. The guidance is specifically aimed at sector plans and specific thematic technical plans.

Structure of the Implementation Plan

To turn each of the four **objectives** in the Climate Action Pathway (Table 1) into actionable response, the Implementation Plan details the corresponding **responses** identified in the WCCCRS with several high-level **actions**. These actions are further contextualised with relevant **activities** and the associated and expected responsible agents and parties. Forecasted timeframes for each action are also set out as they fit into the Climate Action Pathway (Figure 2).

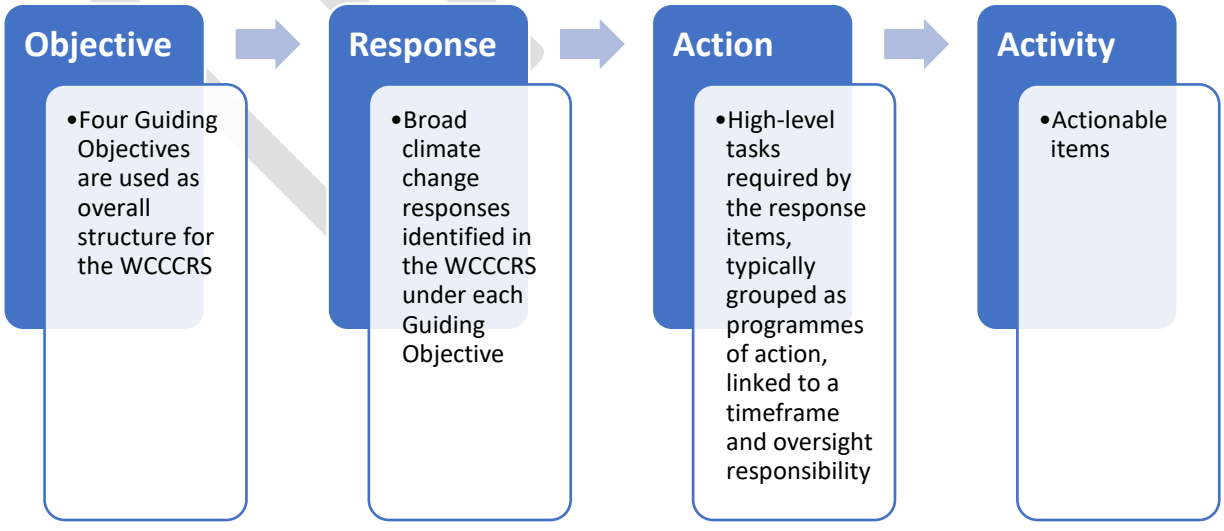


Figure 2: Structure of the Implementation Plan

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. Although no change to the climate would be the ideal, we are on a trajectory for a 3°C rise in average global temperature by 2100. We potentially still have it in our power to limit a further increase beyond the already unavoidable 1.5°C 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 1.1°C rise, then it will become very hard by the time we reach a 1.5°C rise. At 3°C, many of the adaptation options would be unattainable due to the significantly altered climatic conditions[4].

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, up to 2025, 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. 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.

1.1 Disaster Management

Response	Timeframe
Strengthen disaster management response by ensuring that early warning systems provide long-term (decadal) climate forecasts and improved extreme weather assessments and that effective communication systems are in place	2025

[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/)

Actions	Activities Required	Responsibility	Timeframe
Ensure the availability of long-term climate forecasts (decadal)	Finalise climate modelling Make model outputs publicly available and accessible	South African Weather Services	2025
Improve extreme weather assessments	Consultation on opportunities for improvement or identified needs Project plan for improvement steps	Provincial Disaster Management Centre	2025
Improve early warning systems	Consultation on opportunities for improvement or identified needs Project plan for improvement steps	Provincial Disaster Management Centre	2025

1.2 Resilient Built Environment

Response	Timeframe
Ensuring that spatial planning and development planning reduces risks to people, infrastructure and assets through integration of climate change considerations	2025
Make sure new-build projects take climate risks into consideration, both in terms of the placement of infrastructure and communities, and in terms of building in resilience and building back better to suit a changing climate	2025

Actions	Activities Required	Responsibility	Timeframe
Integrate climate change considerations into spatial planning	Identify opportunities or mechanisms for integrating climate change into advisory and regulatory processes including spatial development frameworks Formulate standard operational processes	DEA&DP: Spatial Planning	2023
Integrate climate change considerations into	Identify opportunities or mechanisms for integrating climate change into advisory and regulatory processes	DEA&DP: Development Facilitation	2023

development planning	Interpret the National Guideline for Consideration of Climate Change Implications in Applications for Environmental Authorisations, Atmospheric Emission Licences and Waste Management Licences as relevant to the Western Cape context Formulate standard operational processes Climate resilience considerations applied in the Environmental Impact Assessment regulatory scheme		
Implement standards facilitating building standards for sustainable and resilient development	Municipal capacity building in respect of best practice climate resilient development Implementation and enforcement of SANS building standards focussed on resource efficiency	Municipalities	2023
Report on resource efficiency of buildings	Continue with monitoring and reporting for the Western Cape Government (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	Western Cape Department of Infrastructure Building owners	2025

1.3 Community Resilience

Response	Timeframe
Capacitate people living in informal settlements to become resilient through innovative responses to climate risks	2030

Actions	Activities Required	Responsibility	Timeframe
Innovation in informal settlement management	Review the Western Cape Informal Settlements Strategic Framework to ensure resilience of settlements in response to climate change impacts.	Western Cape Department of Infrastructure	2030
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	Western Cape Disaster Management Centre	2030

1.4 Coastal Management

Response	Timeframe
Reduce coastal risks and public liability through the implementation of coastal management lines in spatial planning, and managed coastal retreat where necessary	2025

Actions	Activities Required	Responsibility	Timeframe
Conduct a provincial coastal risk assessment to understand the risk posed by climate change	Develop a set of criteria for completing the coastal risk assessment In-house or outsourced coastal risk assessment	DEA&DP: Coastal Management	2023
Develop a coastal risk policy that details the role of coastal management lines and active retreat	In-house development of a coastal risk policy	DEA&DP: Coastal Management	2024

Interventions at priority coastal defence or retreat projects	Identify priority risk areas Scope and assess intervention alternatives Institute measures to reduce overall coastal risk exposure	Municipalities	2025

1.5 Climate Change Communication and Awareness

Response	Timeframe
Increasing awareness of the climate emergency amongst citizens, private and public sector of the province by ensuring they have access to information	2025

Actions	Activities Required	Responsibility	Timeframe
Improve public awareness of climate change	Identify partnerships Identify funding opportunities Detail and implement an awareness raising plan Capacitate youth and vulnerable groups on climate change policy and action	DEA&DP: Sustainability / Department of the Premier	2025
Improve the understanding of climate change impacts within government	Scope communications need Detail and implement a Provincial and Municipal communications plan Climate change outreach in communities with special focus on youth	Department of the Premier	2025
Generate general communication material	Determine focus area / audience Collect information on climate change response interventions in the Western Cape	DEA&DP: Climate Change	2023

	Commission or source communications material		

1.6 Governance

Response	Timeframe
Detail a roadmap and mechanism for the formulation of sector-specific climate change response strategies	2025

Actions	Activities Required	Responsibility	Timeframe
Compile a roadmap for compiling climate change strategies for key sectors in the Western Cape Government	Consultation with sector departments and directorates Detailing of the roadmap, including timeframe and prioritisation of sector plans Endorsement of the roadmap by Provincial Executive	DEA&DP: Climate Change	2023

1.7 Net Zero by 2050

Response	Timeframe
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	2025

Actions	Activities Required	Responsibility	Timeframe
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: Air Quality Management	2025

Reducing agricultural methane emissions	Refer to *SmartAgri*	Department of Agriculture	2025

1.8 Climate Finance

Response	Timeframe
Access international climate finance to stimulate and support climate-responsible economic and social development or investment	2030

Actions	Activities Required	Responsibility	Timeframe
Conduct a finance needs analysis to identify major finance gaps	Stakeholder engagement to identify need Identify appropriate sources of funding for project implementation	DEA&DP: Climate Change	2025
Populate a pipeline of projects that can qualify for funding	Utilise findings of the finance needs analysis to detail intervention projects in consultation with implementing partners, including private sector, civil society and other government stakeholders	DEA&DP: Climate Change	2025
Capacitate and support applications for climate finance originating from stakeholders and partners in the Western Cape	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	2025
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	2023

1.9 Public Finance

Response	Timeframe
Advance fossil fuel disinvestment by public funds	2030

Actions	Activities Required	Responsibility	Timeframe
Conduct an audit of public investments to ascertain the level of exposure to fossil fuel interests	In-house or outsourced audit of Western Cape-based public funds and their exposure to fossil fuel-linked investments or companies	Provincial Treasury	2024
Develop a fossil fuel disinvestment strategy for public funds	Develop a Provincial strategy for fossil fuel disinvestment	Provincial Treasury	2025
Progressive disinvestment from fossil fuel	Annual adjustment to exposure to fossil fuel-linked investments and companies to progressively reduce fossil-fuel based interests	Provincial Treasury	2030

1.10 Water Security

Response	Timeframe
Ensure that a water security plan is in place	2030

Actions	Activities Required	Responsibility	Timeframe
Improve Western Cape water security by making sure climate change considerations inform a strategic water security plan	Transversal participation in water security planning forums Continuous updating of the provincial and City of Cape Town water security plans	Department of Water and Sanitation DEA&DP: Pollution and chemicals management City of Cape Town	2025

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 and promotion of the circular economy.

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].

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 modern 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. There is an immediate need to plan our energy transition, whilst we continue to invest in land restoration and renewable energy. By mid-term (2030) the transport transition must be well underway and efficiencies in the built environment, specifically in energy use, need to have been improved. Later, by 2040, some of the

[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

transitions must reach their full potential, on route to achieving net zero emissions by 2050.

2.1 Net Zero by 2050

Response	Timeframe
Detail a plan to get the province to Net Zero emissions by 2050	2025
Reach a net zero emissions position in the Western Cape	2050

Actions	Activities Required	Responsibility	Timeframe
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 WC energy planning Update the Western Cape's greenhouse gas emissions (GHG) inventory	DEA&DP: Climate Change	2025

2.2 Green Carbon

Response	Timeframe
Enhance soil carbon sequestration and other carbon sinks in the natural environment, through increased focus on conservation and regenerative agricultural practices.	2025

Actions	Activities Required	Responsibility	Timeframe
Increase the uptake of Conservation Agriculture (CA) through the provision of long-term evidence regarding the production, financial and environmental benefits of CA at scale (with grain and other field crops).	Increase the spatial extent of CA practices through awareness, education, training and extension activities. Drive greater uptake of CA through active and collaborative support structures Address initial inhibitory financial hurdles and create	Western Cape: Department of Agriculture	2025

	long-term financial incentives to sustain the expansion of CA practices. Expand research on the carbon sequestration and GHG emission aspects of CA in a broad range of Western Cape commodities and contexts.		
Restoration of natural areas to increase carbon capture potential	*Refer to EIIF and SmartAgri* Conversion of abandoned and marginal cultivated areas to indigenous vegetation Restoration of gullies Rehabilitation of wetlands, estuaries and salt marshes	DEA&DP: Biodiversity Management DEA&DP: Coastal Management CapeNature DoA	2025

2.3 Low-carbon Economy

Response	Timeframe
Initiate work on a climate change strategy for a Climate Resilient Low-carbon Development, focussed on economic development planning.	2025
Have significant local manufacturing in support of low-carbon activities (e.g. electric vehicle components, batteries, solar photovoltaic systems).	2040

Actions	Activities Required	Responsibility	Timeframe
Integrate low-emissions planning and budgeting into macro-economic planning (including Economic Growth Strategy amongst others).	Identification of appropriate mechanisms and processes Scoping of knowledge gaps Research in specific economic themes	DEDAT / Provincial Treasury	2025

	Establishment of protocols for integration of low-carbon considerations		
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
Support low-carbon related business investment facilitation e.g. through Wesgro	Promotion of low carbon related business in Atlantis Special Economic Zone Identify opportunities for low carbon business development in the Saldanha IDZ as well as other industrial development zones in the province. Development of a provincial strategy for investment in low carbon development, including the promotion of youth and women as owners and investors.	DEDAT	2040

2.4 Energy Security

Programme	Response	Timeframe
Energy Security	Continue energy related programmes aimed at improving access to low-carbon energy at household level	2025
Energy Security	Coordination of municipal access to renewable energy	2025
Energy Security	Detail a plan for energy security and an energy transition in the province that is aligned with the 2050 emissions reduction pathway	2030

Actions	Activities Required	Responsibility	Timeframe
Facilitate greater access by all municipalities to renewable energy, including through independent power producer contracts	*Refer to MER programme* Identify potential candidate municipalities and pioneering projects Implementation of the pioneering energy projects in identified candidate municipalities Development of master plan for energy projects to be rolled out to all municipalities	DEDAT	2025
Innovation in energy services provision to ensure low-carbon energy is improved in low-income areas	Under the auspices of the Technical Climate Change Working Group: • Research and development 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	2025
Compile an energy security plan that is aligned with the transitions required by the 2050 Emissions Pathway	Research and develop a gas position for the Western Cape Quantify the potential for renewable energy generation and use in the Western Cape, based on the MER programme outputs Develop an energy security plan	DEDAT	2030

2.5 Transport Sector

Response	Timeframe
Sector plan for a transition in the Transport sector, with the aim to improve efficiencies in operation and decarbonise the sector over time	2030
Phase out the use of internal combustion engines in public transport and public fleet vehicles	2040

Actions	Activities Required	Responsibility	Timeframe
Development of Climate Change Sector Plan for the Transport Sector	Development of sector plan incorporate adaptation and mitigation responses as they relate to the transport sector in the Western Cape.	Western Cape Department of Mobility Western Cape Department of Infrastructure (roads component)	2025
Invest in and manage public transport systems with a strong focus on improving the functionality of rail services	Private and public advocacy programmes Investment in infrastructure upgrades, security services and efficiency of public transport services	Western Cape Department of Mobility City of Cape Town George Municipality	2030
Strategy for internal combustion engine phase-out in public transport and public fleet vehicles	Development of a medium-term strategy for phase out of ICE	Western Cape Department of Mobility	2025
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 are in place Partnerships between government and private initiatives Awareness and information campaign for potential users Funding system set up to facilitate the roll-out	Municipalities	2030

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	GMT Private sector (particularly around the investment in charging stations)	2030
Integrate non-motorised transport into a low-carbon transport system	Non-motorised transport plans for all municipalities Integration of climate change responses for NMT in the PLTF Development of a checklist of climate change considerations for NMT infrastructure and planning NMT component to be included in all transport related projects	Western Cape Department of Mobility	2030

2.6 Resilient Built Environment

Response	Timeframe
Reduce the carbon footprint in the built environment, specifically addressing embodied energy, transport infrastructure and energy consumption in buildings	2030

Actions	Activities Required	Responsibility	Timeframe
Enforcement of Energy Performance Certificates	Enforcement of Energy Performance Certificates	Department of Mineral Resources and Energy	2023
Incentivising and facilitating building standards for sustainable and	Municipal capacity building in respect of best practice climate resilient development	Municipalities	2023

resilient development			
Reduce the carbon intensity in construction	Research decarbonisation initiatives in the construction industry Engage with construction industry	DEA&DP: Climate Change	2025
Reduce the carbon intensity of Western Cape Government 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	Western Cape Department of Infrastructure Western Cape Education Department Western Cape Department of Health and Wellness	2025
Reduce the carbon intensity of private facilities and facilities of other spheres government	Maintain sector building performance monitoring and reporting systems	Building owners	2025
Set 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	2030

2.7 Waste Sector

Response	Timeframe
To avoid GHG emissions emanating from waste, ensure that no organic waste is sent to landfills by 2027	2030

Actions	Activities Required	Responsibility	Timeframe
Eliminate organic waste going to landfill	*Refer to Integrated Waste Management Plan*	DEA&DP: Waste Management	2027
Develop emission reduction strategy for general waste streams	Identification of waste types responsible for GHG emissions in the Western Cape	DEA&DP: Waste Management DEA&DP: Climate Change	2030

	Analysis of the relevant contribution of each of the identified type Development of strategy to be implemented to reduce emissions associated with these waste types Integration into Integrated Waste Management Plan		

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 restore and regenerate ecosystems wherever possible, and particularly in regions at risk from climate impacts. 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, risks from fires, floods, and pests.

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 opportunities 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 remove people out of harm's way and start protecting our water resources. By 2030, an about-turn is required in terms of the declining health of our natural systems, and by 2040 we need to ensure society-wide access to basic services.

3.1 Adaptation Plan

Response	Timeframe
Detail an Adaptation Pathway for the Western Cape	2025

Actions	Activities Required	Responsibility	Timeframe
Develop an Adaptation Pathway aligned with the WCCCRS	Research and consultation on approaches to adaptation planning and policy	DEA&DP: Climate Change	2025

	Scoping of existing adaptation policy and practice Developing an Adaptation Pathway Align the Adaptation Pathway with the requirements of the anticipated Climate Change Act		

3.2 Disaster Management

Response	Timeframe
Ensure that climate change is a consideration in all Disaster Risk Assessments	2025
Develop and implement plans to prepare for, and for dealing with extreme heat events	2025
Reducing the overall climate related Disaster Risk profile of the province, with specific recognition of vulnerable groups	2030

Actions	Activities Required	Responsibility	Timeframe
Engagement between stakeholders in the Disaster Risk Management sector	Ensure continued functioning of the Disaster Management Forum	Provincial Disaster Management Centre	2025
Integrate climate change considerations into Disaster Risk Assessments	Capacitate Disaster Risk Assessment compilers in respect of climate change considerations	Provincial Disaster Management Centre	2025
Use the Environmental Risk & Vulnerability Mapping to inform Disaster Risk Assessments	Ongoing development of the Risk & Vulnerability mapping Consultation between DEA&DP and PDMC on how the Risk & Vulnerability Information can be shared and improved Ensure risk and vulnerability mapping products is accessible and available	DEADP: Climate Change	2025

Extreme heat response plans	Assessment of the risk of extreme heat and added risk from climate change Formulation of provincial response protocol Alignment of municipal and provincial responses	Provincial Disaster Management Centre Municipalities	2025
Making disaster risk management plans more climate resilient	Ensure disaster risk management interventions recognise the specific vulnerabilities of women and the youth, and equip them with the knowledge, skills and resources to be more resilient Align disaster risk management plans with Adaptation Pathway in the form of locally appropriate climate change responses	Provincial Disaster Management Centre Municipalities	2030
Avoid informal settling in at-risk areas	Communications campaign focused on highlighting spatial and weather-related 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	Western Cape Department of Infrastructure Municipalities	2030

3.3 Community Resilience

Response	Timeframe
Ensure involvement of local communities by applying community-based adaptation principles in resilience-building programmes	2030
Increase food system resilience	2030
Achieve universal access to basic services as a fundamental requirement for a resilient population	2040

Actions	Activities Required	Responsibility	Timeframe
Support to and capacitation of organisations that	Define a set of principles for community-based	Department of Agriculture	2030

are active in resilience programmes	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 Health and Wellness Department of Community Safety Department of Social Development	
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	Department of Agriculture DEA&DP: Spatial Planning DEA&DP: Development Management	2030
Support urban agricultural activities	Raise awareness of the function of commonage in municipal areas, and ensure municipalities 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	Department of Agriculture DEA&DP: Spatial Planning Municipalities	2030
Make basic services available to all	*Refer to social development programmes and municipal planning*	Department of Local Government Department of Social Development	2040

3.4 Ecosystem-based Adaptation

Response	Timeframe
Continue with efforts at removing alien vegetation infestations	2025
Coordinate Ecosystem-based Adaptation activities through the implementation of the Western Cape Ecological Infrastructure Investment Framework	2030
Manage ecosystems, wildlands and the conservation estate	2030
Expand natural systems in urban environments (or utilise ecological infrastructure approaches where this is not viable) and restore their functioning to reduce vulnerability to climate change and its effects	2030

Actions	Activities Required	Responsibility	Timeframe
Coordination of alien invasive eradication efforts in priority catchments	Stakeholder engagement Clarify responsibility and capacity Database maintenance Funding oversight	DEA&DP: Biodiversity Management	2025
Coordination of alien invasive eradication efforts in municipalities	Capacitate a municipal support programme Coordinate a funding programme	DEA&DP: Biodiversity Management	2025
Implement the Ecological infrastructure Investment Framework	*Refer to the EIIF*	DEA&DP: Biodiversity Management	2030
Effective management of the conservation estate	*Refer to conservation sector plans*	DEA&DP: Biodiversity Management	2030
Pursue and support urban ecosystem restoration projects to reduce urban vulnerability	Improve on: • Urban wetland rehabilitation • Watercourse management • Coastal management including estuary management • Management of Municipal	Municipalities Conservation entities	2030

	conservation areas		
Increasing areas under conservation protection, with a specific focus on under protected ecosystems and strategic landscapes	*Refer to conservation sector plans* Achieve protected area targets	Conservation Agencies	2030

3.5 River Health

Response	Timeframe
Restore the ecological functioning and water quality in our watercourses	2030

Actions	Activities Required	Responsibility	Timeframe
Halting water pollution	Continued work to improve municipal wastewater treatment works 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	2025
Ensuring that watercourses 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	Department of Water and Sanitation	2023

3.6 Coastal Management

Response	Timeframe
Reduce coastal risks through development management, reinforcement, and deployment of natural defences	2030

Actions	Activities Required	Responsibility	Timeframe
Proceed with actions under 1.3			

3.7 Agriculture

Response	Timeframe
Update the SmartAgri plan and deepen its implementation in pursuit of building of climate resilience across the agricultural sector	2025

Actions	Activities Required	Responsibility	Timeframe
Revision of the SmartAgri Plan in accordance with the evaluation plan	*Refer to SmartAgri Plan*	Department of Agriculture	2025
Improved climate response by agriculture sector	*Refer to SmartAgri Plan*	Department of Agriculture	2025

3.8 Fire Management

Response	Timeframe
Mitigate the risk of wildland-urban and wildland-agriculture interface fires through appropriate ecosystem management and support for Fire Protection Associations	2030

Actions	Activities Required	Responsibility	Timeframe
Ecosystem-based fire management interventions incorporated into provincial scale wildfire management system	Disaster risk managements incorporate ecosystem-based fire management	PDMC	2025
Support Fire Protection Associations with resources	Budget allocation to Fire Protection Associations	Municipal Disaster Management	2030

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 metrics 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.

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

4.1 Stakeholder Engagement

Response	Timeframe
Initiate a Climate Assembly, within a broader participatory engagement platform	2025

Actions	Activities Required	Responsibility	Timeframe
Initiate a Climate Assembly within a broader participatory engagement platform	Conceptualise the form and function, and placement, of the Climate Assembly Ensure inclusion of previously marginalised groups like women and the youth through consultation with representative organisations Obtain support from executive management Plan and resource the Climate Assembly process/events	DEA&DP: Climate Change	2025

4.2 Governance

Response	Timeframe
Firm up the governance framework for climate change response	2025
Prioritise the capacitation of local government, as local government programmes are often leading the climate change response	2025

Actions	Activities Required	Responsibility	Timeframe
Convene a climate change advisory committee associated with the Office of the Premier that is also aligned with the requirements to be put in place by the forthcoming Climate Change Act	Facilitate the creation of a Technical Climate Change Working Group with a reporting line to the Office of the Premier Evaluate the form and function, and placement, of the Technical Climate Change Working Group Align the Technical Climate Change Working Group with the	DEA&DP: Climate Change	2025

	prescriptions of the Climate Change Bill Formalise the operational arrangements of the Technical Climate Change Working Group Formalise the reporting and accountability function of the Technical Climate Change Working Group		
Use the existing Western Cape Climate Change Forum to coordinate, facilitate and share information on climate change responses among all stakeholders	Standardise the flow of information and peer learning as part of the Climate Change Knowledge Exchange	DEA&DP: Climate Change	2025
Among other tools, using the Environmental Implementation Plan and Provincial Strategic Plan to ensure alignment of climate change responses between the different provincial government departments and national counterparts, and between provincial projects and programmes	Align climate change responses in the Environmental Implementation Plan Bring climate change response actions into the Transversal Management System Working towards alignment between provincial and national climate change projects and programmes in the National Working Group 9 Work plan.	DEA&DP: Climate Change	2025
Create an accountability platform for government planning and actions	Establish operational procedures for the climate change component of the Premier's Intergovernmental Forum as a requirement of the anticipated Climate Change Act.	Department of the Premier	2025
Maintain a Municipal Support Programme to ensure vertical alignment, support local authorities in	Assess the scope and function of existing municipal support programmes	DEA&DP: Climate Change	2025

exploiting opportunities for climate change responses, and address cross-boundary issues	Identify opportunities for better climate change response capacitation Identify opportunities for collaborative response action and access to climate finance Supporting municipalities with compliance to the anticipated Climate Change Act		

4.3 Public Finance

Response	Timeframe
Support Sustainable Public Procurement to support low-carbon and more socially responsible goods and services	2025
Adjust government financial systems to prioritise low-carbon development	2030

Actions	Activities Required	Responsibility	Timeframe
Sustainable Public Procurement roll-out	*Refer to Sustainable Public Procurement programme*	DEA&DP: Sustainability Provincial Treasury	2025
Build capacity and align the protocols, guidance and assessment criteria for government financial structures to mainstream low-carbon, climate-proof planning, budgeting and procurement	Localise best practice in provincial and municipal financial structures to mainstream low-carbon, climate-proof planning, budgeting and procurement.	Provincial Treasury	2030
Enable climate budget tagging in provincial and municipal administrations	Review National Guidance on climate budget tagging Research best practice Localise tool for climate budget tagging Implement climate budget tagging pilot in DEDAT and DoA	Provincial Treasury	2025

	Revise budget tool and implement throughout WCG to ensure that climate change is fully integrated into budgeting processes		

4.4 Monitoring, Evaluation and Review

Response	Timeframe
Create reporting mechanisms that will collect climate change related data, with a specific focus on gender disaggregated data	2025
Continuously improve the Monitoring & Evaluation system related to climate change	2030

Actions	Activities Required	Responsibility	Timeframe
Detail a Monitoring & Evaluation system related to the Western Cape Climate Change Response Strategy	Develop an M&E framework aligned with the WCCCRS Engage stakeholders on the M&E requirements and proposed framework Develop indicators for gender mainstreaming Formalise an M&E framework and implementation plan	DEA&DP: Climate Change	2025
Establish a climate change data collection system	Conduct a data needs assessment, inclusive of gender disaggregation and climate response investment Stakeholder engagement to assess existing data collection initiatives Formalise protocols for data access and storage	DEA&DP: Climate Change	2025
Adjust the WCCCRS to ensure it remains current	Detail a review schedule Detail a review process Undertake review and update	DEA&DP: Climate Change	2025

4.5 Private Sector

Response	Timeframe
Through red-tape reduction and incentive schemes, create an institutional environment that encourages private sector innovation and investment in climate-proof development projects	2030

Actions	Activities Required	Responsibility	Timeframe
Focussed red tape reduction and incentive schemes	*Refer to Red Tape Reduction programmes – with specific focus on low-carbon and climate-proof development facilitation*	DEDAT	2025
Collaborate with provincial development facilitation programmes to provide stimulus for private sector responses that align with the vision and objectives for climate change response	Collaboration engagements	DEA&DP: Climate Change	2025

4.6 Community Resilience

Response	Timeframe
Ensure that government services have a positive impact on human welfare	2030

Actions	Activities Required	Responsibility	Timeframe
Provide basic services in a manner that is climate- and future-proof	*Refer to 3.3*	Department of Local Government Department of Social Development	2030
Design innovative energy service delivery for low-income communities, particularly looking at cleaner fuels and alternative energy technologies	Under the auspices of the Technical Climate Change Working Group: • Research and development in alternative energy services	DEA&DP: Climate Change	2030

	• 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		
Mainstream climate change linked resilience thinking into social welfare systems that extend to food security and mental health support	Under the auspices of the Technical Climate Change Working Group: • Research and development in social welfare • Identify gaps in / opportunities to link climate change resilience thinking into social welfare systems • Engage stakeholders on a platform for project support (including civil society organisations and general public) • Establish a platform where peer learning and project support is offered	Department of Health and Wellness Department of Social Development	2030

4.7 Health Sector

Response	Timeframe
Formulate a plan to adapt our health systems to the realities of a harsher climate and increased vulnerabilities	2030

Actions	Activities Required	Responsibility	Timeframe
Formulate a health sector plan	Identification of roles, responsibilities and ownership Development of a sector strategy	Department of Health and Wellness	2030

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
Making sure that early warning systems improve health sector responses to extreme events	*Needs to link to 1.1 and 3.2*	Department of Health and Wellness	2025
Improved health surveillance with a climate change focus	Improve health surveillance to household or community resolution Research the link between health data and climate change factors *Needs to link to 4.4*	Department of Health and Wellness	2030

4.8 International Peer Support

Response	Timeframe
Expand national and international networking, exchange programmes and learning from other regions	2030

Actions	Activities Required	Responsibility	Timeframe
Maintain international peer support group memberships	Maintain provincial membership of the *Under2 Coalition* Maintain *Global Green and Healthy Hospitals* participation Maintain Cape Town's *C40* membership (Other relevant memberships to be identified through consultation)	DEA&DP: Climate Change Department of Health and Wellness City of Cape Town	2023
Obtain support for project implementation	Identify a pipeline of projects for potential support from peer networks Develop concept notes *Refer to 1.8*	DEA&DP: Climate Change	2023

4.9 Skills Development

Response	Timeframe
As appropriate to different sectors, especially transport and energy, develop education, training and skills development plans	2030

Actions	Activities Required	Responsibility	Timeframe
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	DEDAT	2030

5 Institutional Arrangements

The Climate Change Bill, 2021, proposes an institutional structure related to climate change matters in provinces that consists of the following:

- **Provincial Forum on Climate Change** - The existing Premier's intergovernmental forum (in the Western Cape, the Premier's Coordinating Forum)
- **Municipal Forum on Climate Change** - The existing District intergovernmental forum reporting to the Provincial Forum

Provincial Forum on Climate Change

Purpose: In the interest of intergovernmental coordination and strategic provincial planning, the Climate Change Bill, 2021 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(a) of the Bill). In the Western Cape, the Premier's Coordinating Forum can fulfil the requirements.

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

Municipal Forums on Climate Change

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, 2021 thus proposes that intergovernmental forums at district level (District and Metropolitan Municipalities) 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(a) of the Bill).

In the Western Cape the District Coordination Forums will serve this purpose.

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

Although important, the Coordinating Forums mostly function as a reporting structure within government, with limited opportunity for interaction between technical officials from different sector departments and municipalities, or for contribution by civil society and business.

So where exactly does the need for engagement and collaborative efforts lie? Or in other words, how will climate change implementation be made to happen? Table 2 provides a provisional list of the institutional structures that are best placed to facilitate coordinated implementation of the response programmes listed in this Implementation Plan.

Table 2: Institutional structures linked to response programmes

Programme	Where is coordination necessary?	Institutional requirement (Who drives it? Where can I/we contribute?)
Disaster Management	Preparation for long-term change and increased disaster frequency/intensity	Provincial Disaster Management Advisory Forum (PDMAF)
	Support to municipalities for their Disaster Risk Assessments and Disaster Management Plans	PDMAF
Resilient Built Environment	Capacitation of spatial and development planning	Strategic Integrated Municipal Engagements (SIME) Western Cape Property Development Forum (WCPDF)
	Coordination between certification schemes, standards, by-laws and reporting schemes	Technical Climate Change Working Group Western Cape Property Development Forum (WCPDF)
Community Resilience	Capacitation of informal sector	
	Coordination of disaster risk reduction intervention actions by NGOs, municipalities and provincial government	PDMAF (Confirm representation)
	Basic services, food security and energy access	Technical Climate Change Working Group
Coastal Management	Coordination of coastal risk management policy and regulation	Provincial Coastal Committee
Communication	Coordinated provincial messaging	DoTP – corporate communications
Governance	Capacitation and peer engagement within government – horizontal and vertical	Technical Climate Change Working Group Climate Change Knowledge Exchange
Net Zero by 2050	Collaboration between national government, provincial Air Quality Directorate, provincial CC Directorate, and affected industries	Air Quality Officers Forum
	Stakeholder inputs on the 2050 Pathway	Climate Assembly Technical Climate Change Working Group SmartAgri Steering Committee 110% Green

Programme	Where is coordination necessary?	Institutional requirement (Who drives it? Where can I/we contribute?)
		Municipal Infrastructure Grant Forum
Climate Finance	Municipalities need support on technical projects for improved project viability and access to finance	Technical Climate Change Working Group
	Private sector initiatives require collaboration with government and financial backers	
	Civil society needs support for grassroots initiatives	
	Collaborative climate finance applications	
Public Finance	Refinement of a budget tagging initiative	Technical Climate Change Working Group
Water Security	Continued long-term water security planning	Greater Cape Town Water Fund Steering Committee Western Cape Water Supply System Strategy Steering Committees Sustainable Water Management Plan Steering Committee
Green Carbon	Coordinated effort by the agriculture, conservation and forestry sectors	SmartAgri Steering Committee
Low-Carbon Economy	Clear policy and regulatory environment, with support from government for initiatives	Technical Climate Change Working Group
Energy Security	Clarity regarding technical system requirements and alignment with overall energy mix strategy	Municipal Energy Resilience (MER) Steering Committee
	DEDAT needs support from government partners for the MER	MER steering committee Technical Climate Change Working Group
	Municipalities need assistance and a clear regulatory environment for IPP, wheeling and SSEG projects	MER steering committee
	Middle- to high-income households need access to information on residential PV systems	Climate Change Knowledge Exchange
	Middle- to low-income households need assistance with reduced reliance on fossil fuels	Technical Climate Change Working Group

Programme	Where is coordination necessary?	Institutional requirement (Who drives it? Where can I/we contribute?)
	Industrial coal, gas and HFO users need collaboration with government to plan a transition away from fossil fuels	Technical Climate Change Working Group
	A hydrogen 'hub' where early mover collaboration can be coordinated, and longer-term strategy discussed	MER steering committee Technical Climate Change Working Group
Transport Sector	Electric mobility businesses need business support, a clear regulatory environment and networking support	Cape Town Electric Vehicle Task Team
	Encourage shift to public transport	Technical Climate Change Working Group Climate Knowledge Exchange
Waste Sector	Support to business initiatives	
	Coordination of municipal waste management	Western Cape Waste Managers Forum
Adaptation Plan	Stakeholder contributions to scope the plan	Climate Assembly Technical Climate Change Working Group Climate Knowledge Exchange SmartAgri Steering Committee Municipal Infrastructure Grant Forum
Ecosystem-based Adaptation	Coordination of ecosystem restoration programmes	DEA&DP: Biodiversity Management
River Health	Functioning catchment management	Catchment Agencies
	Coordination in pollution management and regulation	Sustainable Water Management Steering Committee
Agriculture	SmartAgri implementation coordination	SmartAgri Steering Committee Agri-SA Commodity Groups
Fire Management	Collaboration on early fire detection systems	Western Cape Umbrella Fire Protection Association PDMAF
Stakeholder Engagement	Hosting platform for civil society and private sector	Climate Assembly Climate Knowledge Exchange

Programme	Where is coordination necessary?	Institutional requirement (Who drives it? Where can I/we contribute?)
Monitoring, Reporting and Evaluation	Streamlining and alignment of M&E frameworks for climate change indicators	Technical Climate Change Working Group DOTP M&E
Private Sector	Identification of obstacles to climate-proof business initiatives and resolution thereof	Red Tape Reduction Unit
Health Sector	Clear performance standards for buildings, both public and private	Facilities and Infrastructure Management Climate Change Committee
	Identification of health services challenges	PDMAF Public Private Health Forum (PPHF)
International Peer Support	Alignment of C40, Under2 and other programmes	Technical Climate Change Working Group
Skills Development	Scoping of the education and training needs of sectors with a specific focus on gender and youth	Technical Climate Change Working Group

The need for transversal alignment and coordination of activities, projects and programmes is addressed by having both formal and informal engagement structures in- and outside of government entities. Based on the above table, the following entities need to be formalised or established in the province in addition to the existing structures, forums and working groups:

- **A Climate Assembly** – a structured participatory engagement structure where private sector and civil society can have a voice
- **A Technical Climate Change working group** – for Provincial Sector Departments to engage on technical and policy issues and support to the Provincial Forum on Climate Change
- **The Climate Change Knowledge Exchange** - focus on priority responses that fall outside the formal government structures and need coordinated responses in order to be taken forward

Climate Assembly

Purpose: The Climate Assembly will function as a sustained platform for civil society, private sector, academia, women, youth groups and all other stakeholders to engage on climate change response actions in the Western Cape. It can take the form of an open invitation public engagement or a facilitated dialogue between representatives of different parts of society. 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 shape an action plan for the Western Cape in how it continues to respond to

climate change, be informed about strategies and projects, and assist in shaping government policy and action related to climate change.

Accountability: Potentially, an external third-party organisation will support the convening of a neutral space for dialogue, with support from the Climate Change Directorate.

The discussions at the Assembly will be documented and made available to the public and used to inform discussions taking place in other Climate Change knowledge exchange forums.

Technical Climate Change Working Group

Purpose: To direct and align policy and action within the Western Cape Government structure at a technical, implementation level. The Technical Climate Change Working Group will consist of Senior representatives from all Western Cape Government Departments.

Accountability: Western Cape Government's Climate Change Directorate will be the Secretariat, and the Working Group reports to the Provincial Forum on Climate Change.

Climate Change Knowledge Exchange

Purpose: This forum will 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 involved organisations in the climate change space.

Regular meetings taking place under this platform will involve nominated representatives from all spheres of government, the private sector, civil society, youth, academia and other key stakeholders.

Accountability: Western Cape Government's Climate Change Directorate will be the Secretariat, with reporting to the Technical Climate Change Working Group and Provincial Forum on Climate Change.

6 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. 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.

The monitoring and evaluation framework for the Western Cape Climate Change Response Strategy: Vision 2050 needs to include the following:

- Tracking of progress against the **response actions listed in the WCCCRS**
- Track and evaluate the overall performance of the province in terms of **key indicators of climate change adaptation and emissions mitigation**
- Monitoring and evaluation on **annual, biennial, as well as 5 yearly periods,** as relevant to the reporting focus

6.1 Tracking the implementation of the WCCCRS

Each response action in the WCCCRS can be tracked individually in terms of progress or achievements. The nature of the different responses necessitates a flexible monitoring framework though – some actions start at a particular point and continue indefinitely, whereas others need to be completed by a set deadline. Accordingly, a progress 'dashboard' is created that tracks the response actions by:

1. Whether they have a deadline for having started or needing to have been completed
2. A description of the action targets defined for the time horizons of 2025, 2030, 2040 and 2050 – e.g., it must be underway by 2025, or an action must be completed by 2040
3. A status indicator – 'on course/completed', 'uncertain/dormant' or 'no action'

The full register of responses to be tracked is provided as an annexure.

6.2 Key indicators of Climate Change adaptation and mitigation

It is important to note that the tracking of 'outputs', the response actions, does not equate to the tracking of the 'impact' of the responses. This question, whether the response is having the desired effect, is answered through a more general monitoring of indicators at provincial level.

Whereas monitoring of GHG emissions is relatively straightforward, the selection of indicators of climate adaptation is extremely tricky though, as there is no universal framework available for tracking adaptation.

6.2.1 GHG emissions

The Western Cape Government finalised a **GHG inventory** for the Western Cape, covering the energy (including transport), IPPU, waste and AFOLU sectors. This is a high-level assessment of GHG emissions in the Western Cape which allows us to track the emission profile across sectors. The report and inventory will be updated regularly in alignment with national reporting requirements.

Where there are sectors or activities that are required to report on GHG emissions to national government, particularly under the National Environmental Management: Air Quality Act as well as the Carbon Tax Act, the information is submitted directly by industry to the National Emissions Inventory System (NAEIS).

6.2.2 Adaptation and Resilience

For the purposes of monitoring the impact of the WCCCRS, adaptation is interpreted to mean:

- Reducing our disaster risk faster than climate change increases it
- Ensure economic resilience by adjusting our economic activities faster than climate change constrains them
- Ensuring that the just transitions in the transport and energy sectors are managed in a way that current employees in the sectors are not 'left behind'
- Making our infrastructure future-proof
- Improved individual coping capacity by reducing the absolute number of people that have low adaptation capacity
- Improving the overall status of our natural systems

The framework for monitoring adaptation is therefore structured around the above-mentioned factors. This framework also makes provision for the population of a baseline reference, against which future monitoring iterations can be compared.

It is a reality though that not all the necessary monitoring data are currently being collected. In those cases, progress monitoring should start with confirmation that the necessary monitoring systems have been put in place.

6.3 Other considerations

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. In many cases, programmatic reporting takes place within existing programmes or projects, and it is not necessary for the WCCCRS to duplicate the tracking.

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 indicators that can be tracked over time, ensuring that performance tracking is aligned and not duplicated.

Furthermore, due to the focus on **Human rights and gender mainstreaming** within the Western Cape Government, an additional gender impact lens will be applied for all projects and programmes. This means that all vulnerable groups including women, youth, the elderly and disabled should be considered.

All work aligning with the Climate Change Response Strategy must be evaluated against the following framework:

1. How have all vulnerable groups been considered in the work?
2. Have the implications for different genders, age categories and universal accessibility been considered?
3. Were representatives of vulnerable groups consulted and to what level were women included in the decision making?
4. Who will benefit and will vulnerable groups have equal opportunity to benefits?
5. Are there opportunities to empower women so that they are better equipped/ knowledgeable to participate in decision making?

ANNEXURES

Abbreviations and Acronyms

AFOLU	Agriculture, Forestry and Other Land Use
CA	Conservation Agriculture
DEA&DP	Department of Environmental Affairs and Development Planning
DEDAT	Department of Economic Development and Tourism (Provincial)
DoA	Department of Agriculture (Provincial)
DWS	Department of Water and Sanitation (National)
EIIF	Ecological Infrastructure Investment Framework
GHG	Greenhouse Gas
IPPU	Industrial Products and Product Use
M&E	Monitoring & Evaluation
MER	Municipal Energy Resilience
NAEIS	National Emissions Inventory System
PDMAF	Provincial Disaster Management Advisory Forum
PDMC	Provincial Disaster Management Centre
PPHF	Public Private Health Forum
SIME	Strategic Integrated Municipal Engagements
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
WCPDF	Western Cape Property Development Forum

Glossary of Terms[10]

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[11].
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 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.[12]
Climate emergency	The idea that global warming and climate change have progressed to a point where, unless drastic ('emergency')

[10] 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.)].

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

[12] https://globescan.com/report-2020-climate-survey-evaluating-progress/

	action is taken, globally disastrous consequences will result.[13]
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.[14]
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. [15]
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.[16]
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

[13] https://en.wikipedia.org/wiki/Climate_emergency_declaration
[14] https://www.westerncape.gov.za/eadp/about-us/meet-chief-directorates/environmental-sustainability/biodiversity-and-coastal-management
[15] South African National Biodiversity Institute (SANBI)
[16] https://www.unenvironment.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy

	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.[17]
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.
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[18]. 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. [19]
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.

[17] https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/reporting-requirements
[18] https://naturalcapitalforum.com/about/
[19] https://www.worldbank.org/en/topic/natural-capital#1

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 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.

Monitoring Framework for the WCCCRS response actions

Objective 1: Responding to the climate emergency

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

Objective 3: Reducing climate risks and increasing resilience

Objective 4: Enabling a Just Transition through public sector, private sector and civil society collaboration

Table 3: Framework for tracking the implementation of the WCCCRS

No.	Response	Objective	To start or be completed	Timeframe
1	Bolster our disaster management response by ensuring that early warning systems provide long-term (decadal) climate forecasts and improved extreme weather assessments and that effective communication systems are in place	1	complete	2025
2	Ensuring that spatial planning and development planning reduces risks to people, infrastructure and assets through integration of climate change considerations	1	complete	2025
3	Make sure new-build projects take climate risks into consideration, both in terms of the placement of infrastructure and communities, and in terms of building in resilience and building back better to suit a changing climate	1	start	2025
4	Reduce coastal risks and public liability through the implementation of coastal management lines in spatial planning, and managed coastal retreat where necessary	1	start	2025
5	Increasing awareness of the climate emergency amongst the citizens and the civil service of the province and ensuring they have access to information	1	complete	2025
6	Detail a roadmap and mechanism for the formulation of sector-specific climate change response strategies	1	complete	2025
7	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	1	complete	2025

No.	Response	Objective	To start or be completed	Timeframe
8	Detail a plan to get the province to Net Zero emissions by 2050	2	complete	2025
9	Initiate work on a climate change strategy for a Climate Resilient Low-carbon Development, focussed on economic development planning.	2	complete	2025
10	Enhance soil carbon sequestration and other carbon sinks in the natural environment, through increased focus on conservation and regenerative agricultural practices.	2	start	2025
11	Coordination of municipal access to renewable energy	2	start	2025
12	Continue energy related programmes aimed at improving access to low-carbon energy at household level	2	start	2025
13	Update the SmartAgri plan and deepen its implementation in pursuit of building of climate resilience across the agricultural sector	3	complete	2025
14	Continued efforts at removing alien vegetation infestations	3	start	2025
15	Ensure that climate change is a consideration in all Disaster Risk Assessments	3	start	2025
16	Develop and implement plans to prepare for, and for dealing with extreme heat events	3	complete	2025
17	Detail an Adaptation Pathway for the Western Cape	3	complete	2025
18	Initiate a Climate Assembly, within a broader participatory engagement platform	4	start	2025
19	Firm up the governance framework for climate change response	4	complete	2025
20	Support Sustainable Public Procurement to support low-carbon and more socially responsible goods and services	4	start	2025
21	Create reporting mechanisms that will collect climate change related data, with a specific focus on gender disaggregated data	4	start	2025
22	Prioritise the capacitation of local government, as local government programmes are often leading the climate change response	4	start	2025
23	Make new buildings responsive to climate change	1	start	2025

No.	Response	Objective	To start or be completed	Timeframe
24	Access international climate finance to stimulate and support climate-responsible economic and social development or investment	1	start	2030
25	Ensure that a water security plan is in place	1	complete	2030
26	Advance fossil fuel disinvestment by public funds	1	start	2030
27	Capacitate people living in informal settlements to become resilient through innovative responses to climate risks	1	start	2030
28	Sector plan for a transition in the Transport sector, with the aim to improve efficiencies in operation and decarbonise the sector over time	2	complete	2030
29	Reduce the carbon footprint in the built environment, specifically addressing embodied energy, transport infrastructure and energy consumption in buildings	2	start	2030
30	To avoid GHG emissions emanating from waste, ensure that no organic waste is sent to landfills by 2027	2	complete	2030
31	Detail a plan for energy security and an energy transition in the province that is aligned with the 2050 emissions reduction pathway	2	complete	2030
32	Ensure involvement of local communities by applying community-based adaptation principles in resilience-building programmes	3	start	2030
33	Reduce coastal risks through development management, reinforcement and deployment of natural defences	3	start	2030
34	Manage ecosystems, wildlands and the conservation estate	3	start	2030
35	Restore the ecological functioning and water quality in our watercourses	3	complete	2030
36	Expand natural systems in urban environments (or utilise ecological infrastructure approaches where this is not viable) and restore their functioning to reduce vulnerability to climate change and its effects	3	start	2030
37	Mitigate the risk of wildland-urban and wildland-agriculture interface fires through appropriate ecosystem management and support for Fire Protection Associations	3	complete	2030

No.	Response	Objective	To start or be completed	Timeframe
38	Reducing the overall climate related Disaster Risk profile of the province, with specific recognition of vulnerable groups	3	complete	2030
39	Increase food system resilience	3	complete	2030
40	Coordinate Ecosystem-based Adaptation activities through the implementation of the Western Cape Ecological Infrastructure Investment Framework	3	start	2030
41	Adjust government financial systems to prioritise low-carbon development	4	start	2030
42	Through red-tape reduction and incentive schemes, create an institutional environment that encourages private sector innovation and investment in climate-proof development projects	4	start	2030
43	Ensure that government services have a positive impact on human welfare	4	complete	2030
44	Formulate a plan to adapt our health systems to the realities of a harsher climate and increased vulnerabilities	4	complete	2030
45	Expand national and international networking, exchange programmes and learning from other regions	4	start	2030
46	Continuously improve the Monitoring & Evaluation system related to climate change	4	complete	2030
47	As appropriate to different sectors, especially transport and energy, develop education, training and skills development plans	4	complete	2030
48	Phase out the use of internal combustion engines in public transport and public fleet vehicles	2	complete	2040
49	Have significant local manufacturing in support of low-carbon activities (e.g. electric vehicle components, batteries, solar photovoltaic systems).	2	start	2040
50	Achieve universal access to basic services as a fundamental requirement for a resilient population	3	complete	2040
51	Reach a net zero emissions position in the Western Cape	2	complete	2050

Email: **deadp.climatechange@westerncape.gov.za**

Tel: +27 21 483 3966

Department of Environmental Affairs and Development Planning

Chief Directorate: Environmental Sustainability

Directorate: Climate Change

www.westerncape.gov.za

Department of Environmental Affairs and Development Planning: General Enquiries

Email: **enquiries.eadp@westerncape.gov.za**

Tel: +27 21 483 4091 **Fax:** +27 21 483 3016

Western Cape Government