



Climate Resilient Development Strategy Framework and Action Plan for Nelson Mandela Bay

STAKEHOLDER ENGAGEMENT REPORT

APRIL 2025

A PRESIDENTIAL CLIMATE COMMISSION REPORT

It's always greener on the other side of the hill
A song sung by those who struggle with real still
Those who can never be full present where they've been physically placed
And are often found wandering off to an imaginary land
Far away from the reality that dances before them
Presenting them with an opportunity
To experience true joy
In real time

The greener grass on the other side of the hill
Speaks of our dissatisfaction with a space that carries
The weight of our bodies
As if this land does not enough
It feeds us not, it quenches not our thirst
As if Father Time is failing to wake us up on time
To soft kisses and bright light in the day
As if he forgets to burn the moon candle
That guides us home in the dead of the night
I guess it's true, that our biggest blessings fade
In comparison to the other side

Yet, every morning we rise,
In search of our first breath
As if we deserve it
We bask in the sun, as if we own it
And we call for the rain, as if we run this
We are always expecting Mother Nature to be waiting
And ready to serve our every need
Because her home is filled with scrumptious foods of all kinds,
Like we deserve it
Fresh waters overflowing, we've come to think we own it
All this backdrop accompanied by a choir of birds who sing
To our broken egos, it's no wonder we think we run this
Strange, that with the gold at our feet
And the hills as our seats, we can't stop singing
It's greener on the other side
It is our sidedness that has stolen our minds
From observing the gift of the here, with humility
We have become a people who take
But never give back
Break and never mend
Remove never to replace
And we act shocked that Mother Nature
Is now in distress
Helplessly watching the gluttonous patterns of her progeny
As we devour all of her supplication, with no regard for the other
And no consideration for tomorrow

She sadly seating an audience of her young
Trampling on the royal grass she has laid for us all
As though we are elephants at war

So absent are we from the reality of our present situation
We do not see Nature throwing a tantrum
Not so long ago, the sea could not hold it anymore
That she stood taller than she usually is
And let out her loudest cry we have ever heard from her
Leaving many homeless, washed out and pitiful.

The river insulted, refuses to come forward
And be one with us, who spits filth at her
The sun overheats in anger at us
Who have left her so exposed
And now summer comes covered in autumn's coats
In disguise
Robbing us of enjoying this jovial mood
That comes with the season we've become so entitled to
And none of us are aware and attentive enough
To notice that whenever the rain falls,
So many are left in tears, emulating the pain of the gods
Who have worked so hard to give us a life so good
And still have to bed, with the sound of us
Obviously singing about the greener pastures of the other side

One day we will wake up to an ashy Earth
With naked trees that hunger for a lone bird
To sit and sing a song, even if out of tune
The butterflies will lack the energy to decorate the streets of our cities
With their colours so spectacular
The soil will resemble a hostile womb
That can no longer bear fruits for us to feed our souls
And then, we will finally embark on the longest pilgrimage to the other side of the hill
Only to find that the other-side people
Have been chanting the same song
We've been singing
And then realise that to the people who live beyond the hill
Ours, has always been the other side
Oh, what a mischief blessing

Poetic Soul – January 2024

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#NMB2055



About the Presidential Climate Commission

The Presidential Climate Commission (PCC) is a multi-stakeholder body established by the President of the Republic of South Africa to advise and support the country's climate change response just transition to a low-carbon climate-resilient economy and society. The PCC facilitates research and engagements between social partners supporting government decision-making in areas aimed at building a society and economy which is sustainable, ensuring decent work for all, social inclusion, and the eradication of poverty.

About this report

This report highlights the critical role of stakeholder and community engagement in developing Nelson Mandela Bay's Climate Resilient Development Strategy Framework (CRDSF). Engagement was not done separately to developing the Strategy, but was integrated throughout the process, informing and shaping each part. Through inclusive events, workshops, community meetings, and collaborations across sectors, stakeholders and communities co-created a strategy rooted in equity, innovation, and actionable hope.

The CRDSF team embraced a participatory approach, recognising that meaningful change requires collaboration across sectors. By breaking down silos and fostering partnerships, we have created a framework that not only addresses climate risks but also strengthens civic pride and social equity. This report chronicles the journey of engagement, from the initial visioning process, through to workshops and to the community meetings that grounded the strategy in local realities. It captures the essence of those engagements, highlighting how stakeholder input was woven into every phase of the process, ensuring the final strategy reflects the metro's shared vision for a resilient future.

A key tenet of the work has been to consider and build in provision for a Just Transition which includes procedural, distributive and restorative justice. Procedural justice forming the basis for this stakeholder process is interpreted as empowering and creating the opportunities for stakeholders and communities to participate in policy making processes through active collaboration and inclusive and participatory decision making. Throughout the stakeholder engagement for the development of the CRDSF this has been a priority.

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List of Acronyms

ACSA	Airports Company South Africa
ACM	Acting City Manager
CIPSET	Centre for Integrated Post-School Education and Training
CMR	Institute for Coastal and Marine Research
CRDSFP	Climate Resilient Development Strategy Framework Pathways
CRDSF	Climate Resilient Development Strategy Framework
CSAG	Climate System Analysis Group
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DFFE	Department of Forestry, Fisheries and the Environment
DRDAR	Department Of Rural Development and Agrarian Reform
ECCEF	Eastern Cape Combined Environmental Forum
EDTA	Economic Development and Tourism Agency
MMC	Member of the Mayoral Committee
NGO	Non-governmental organisation
NMB	Nelson Mandela Bay
NMBBC	Nelson Mandela Bay Business Chamber
NMBM	Nelson Mandela Bay Metro
NMU	Nelson Mandela University
PCC	Presidential Climate Commission

PRASA	Passenger Rail Agency of South Africa
SA	South Africa
SAEON	South African Environmental Observation Network
SAWS	South African Weather Services
SAIMI	South African International Maritime Institute
SANCO	South African National Civic Organisation
SANGOCO	South African Non-Governmental Organisation Coalition
SANPARKS	South African National Parks
SANRAL	The South African National Roads Agency
SCU	Sustainable Community Units
SMME	Small, Medium and Micro-Enterprises
TNPA	Transnet Ports Authority
UCT	University of Cape Town
VW	Volkswagen
WESSA	The Wildlife and Environment Society of South Africa

1. Introduction

The development of the Climate Resilient Development Strategy (CRDSF) Framework for Nelson Mandela Bay was guided by an open, inclusive process in which stakeholder input played a central role. By integrating their insights and experiences, the strategy not only gained strength and relevance but also advanced a key pillar of the CRDSF: fostering civic pride.

Continually throughout the project engagement with stakeholders and communities has been integral and has served to shape the strategy. The wide range of views, ideas, and suggestions were carefully considered and thoughtfully debated. By the time the strategy was finalised, every individual who contributed may indeed be able to recognise their contributions.

Important too was the building of partnerships avoiding siloed approaches moving toward collaboration across sectors. This meant finding the synergies and opportunities between views and areas of expertise. For example:

- Municipality, bringing together different municipal directorates and government parastatals in workshops, served to highlight the potential of working together and fostering collaboration around climate change.
- Non-governmental organisations (NGOs) by describing their work and including it on a map of the city, were able to build networks of collaboration within civil society.

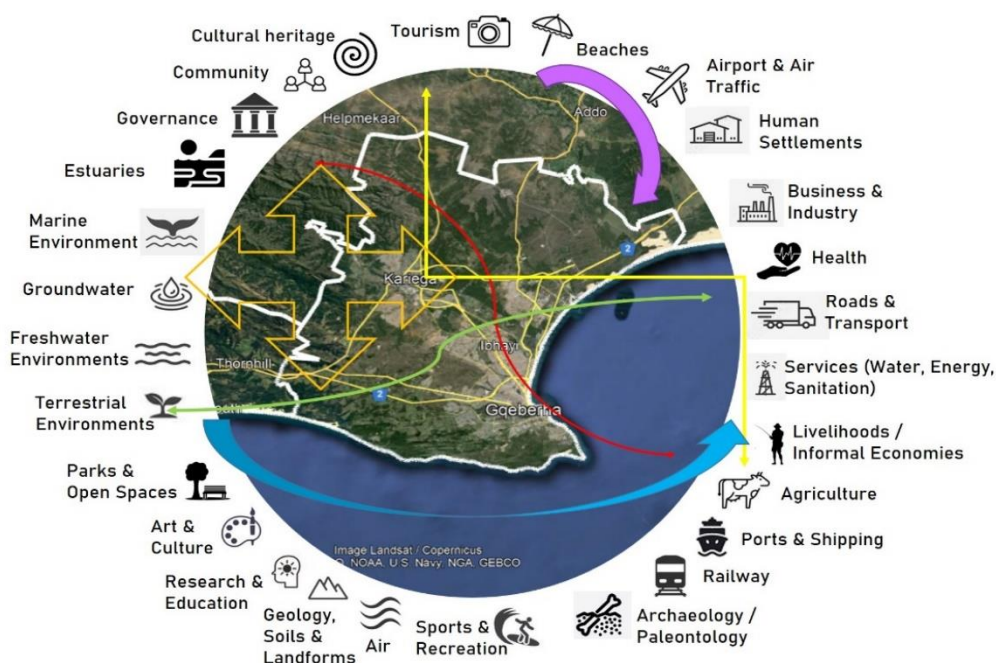


Figure 1: Diversity of stakeholders, systems and stakeholders

Figure 1 served as a reminder throughout the project of the diverse range of stakeholders, ecosystems, and services involved. It highlighted the breadth of sectors, organisations, civil society groups, and the wide geographic spread of both formal and informal settlements that required meaningful engagement.

2. Approach: Climate Resilient Development Strategy Framework

Guided by the Presidential Climate Commission's 2022 guidelines, the strategy integrates climate resilience with social justice. The Climate Resilient Development Strategy Framework Pathways (CRDSFP) approach emphasises anticipatory planning across sectors to balance mitigation, adaptation, and development needs while pursuing the ambition of net-zero emissions by 2050.

CRD seeks to align and “**integrate actions, mitigating and adapting** to climate change in the pursuit of **sustainable development** that promotes **human and planetary health** and **well-being, equity and justice.**”
PCC Guidelines

The CRDSFP approach provides a means for “anticipatory planning across sectors and scales to sequence, build synergies and minimise trade-offs between climate change mitigation, adaptation and development actions...”

The goal of CRDSF is for the prioritisation and implementation of strategies and actions over the short, medium and long term; sequencing them along pathways, determining thresholds and decision-making interventions so that the trajectory of progress is always towards climate resilience and social justice.

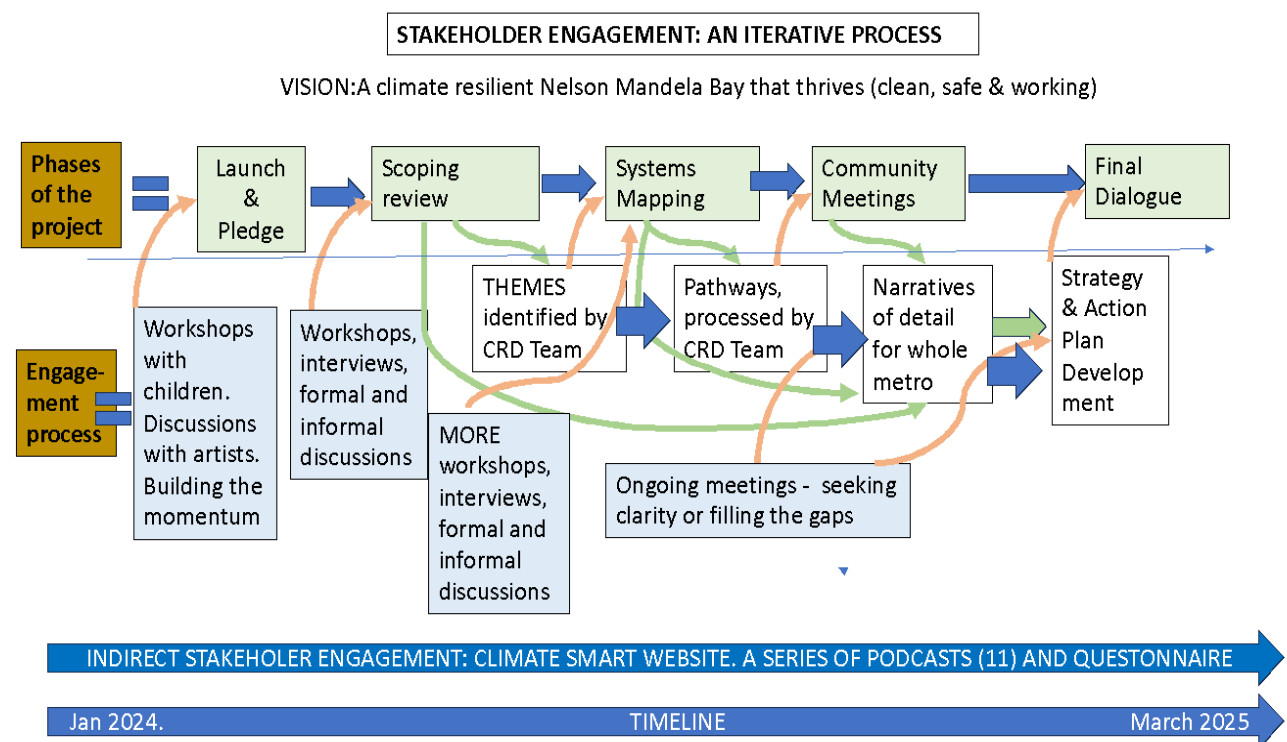


Figure 2: Process that was followed which sought to display an iterative nature

2.1 Core Principles

Eight principles anchored the engagement process:

1. **Participatory and inclusive - building trust** - Ensuring all voices informed the socially transformative strategy whether off- or online.
2. **Leave no one behind** - Prioritising vulnerable groups in climate-vulnerable areas
3. **Collaboration as key** - Building partnerships across all sectors
4. **Culture of learning** - Embracing experimentation and continuous improvement, learning from one another and integrating local knowledge with science
5. **Creativity and innovation** - Leveraging art and unconventional approaches such as zero rated digital communications
6. **Stakeholders as partners** - Valuing participants as advisors and co-creators; and working together with the Eastern Cape Combined Environmental Forum to shape the development of the strategy.
7. **Mentorship exchange** – being mentored and mentoring. Sharing knowledge between and with experts and mentoring and learning with community organisations
8. **Promoting hope/Opportunity** - Highlighting solutions and successes amid climate challenges

2.2 Process

The stakeholder engagement process was central to our work, given the diversity and range of stakeholders involved within the Metro. It required cultivating relationships with care—listening with empathy, responding to needs, and building trust. Partnership emerged through this thoughtful, iterative engagement, laying strong foundations to support and sustain the collaborative structure we sought to build.

The team navigated Nelson Mandela Bay's complex political landscape by maintaining regular contact with key figures. The Member of the Mayoral Committee: Public Health, championed the project at the Mayoral Committee level, while then Acting Municipal Manager advanced processes and resolutions to adopt the strategy with the Executive Committee. Every Executive Mayor (three in total) in office during the time of the project was briefed and lent their support to the process. The pending establishment of a multi-sectoral Climate Forum / Committee / Commission (herein referred to as the "Climate Forum") represents the next critical step for implementation.

The technical champion of the process was the Executive Director: Public Health. In April 2025 a new Acting City Manager (ACM) was appointed, and it will be incumbent upon the ACM to establish the Climate Forum and support infrastructure. This is a multi-sectoral forum (which was canvassed and agreed to at the Climate Resilience Dialogue session in March 2025) that will drive the resilience process and see to the implementation of the strategy and action plan. It is a key next step to ensuring the framework has relevance, and one that will benefit from the diversity of the stakeholders. Additionally, the Climate Change Act requires municipalities to establish such fora and Nelson Mandela Bay has the advantage of potentially being the first

city in South Africa to have a CRDSF in place to provide the basis for the work of the NMB Climate Forum.

2.3 Creating the necessary conditions to enable the project

In the lead up to the project several streams of engagement on climate action aligned to enable the project to start and fulfil its purpose. One of which was a citizen “transition” movement from the early nineties that drove environmental perspectives and activism; one was the recent engagement of a broad civil society environmental forum based in NMB with the PCC on taking climate action; and finally, an initiative originating in the business sector calling for action to address climate risks and impacts which also engaged with the PCC.

These streams of action culminated in an exploratory workshop held at the ETC centre in June 2023 in which the PCC tested the viability of drafting such a framework with a broad range of stakeholder groups including the NMBM. Broad endorsement at the meeting then gave rise to the PCC developing a project brief and proposal and the team being engaged to drive the framework development.

2.4 Building a Shared Vision

The process began with a simple yet powerful question: *What does a climate-resilient Nelson Mandela Bay look like in ten years?*

Stakeholders shared their hopes for a safer, cleaner, and more equitable Metro. These conversations, held in workshops, surveys, interviews and informal discussions, revealed common priorities: efficient services, environmental stewardship, and inclusive growth.



Picture 1: Buhlebendalo Group and the young artists hosted by Mxolisi Sapeta

Artists and the youth added a unique dimension to this vision. This included the rendition by local groups of school children onto canvasses and into plays. Their creativity served to remind that climate action is not just about policies but also about inspiring collective hope.

A first draft of the vision was presented at the launch of the CRDS Framework project. In every engagement thereafter, participants were asked to describe their vision of the Metro. This process delivered many hopeful and dynamic ideas. **The issues of safety; an efficient working city; and one that is clean were common themes consistently raised by stakeholders.** These have now been consolidated into a succinct vision statement.

Holding a visioning process was important for the project, because a good vision serves as a stabilising and motivating element in the action and adaptation cycles. It provided a lens through which the process was able to view and evaluate a common strategy; measure its progress; and offer a common frame of reference for the diverse interests represented within Nelson Mandela Bay.

The Vision as ultimately agreed by its many contributors, was required to be succinct but also capture the sentiment of stakeholders:

A CLIMATE RESILIENT NELSON MANDELA BAY THAT THRIVES (CLEAN, SAFE, WORKING)

2.3.1 The Launch, 24 January 2024

This event was the launch of the project process and the journey towards the development of the CRSDF. It was planned to be dynamic, energising and motivating and much time was spent developing a stakeholder distribution list which would ensure that the project echoed into a diverse cross section of the residents of Nelson Mandela Bay. The list comprised about 300 invitees and it was intentionally geared toward reaching a diverse range of participants: people who would carry the message of building climate resilience into their organisations and institutions. This list snowballed from there, gathering more and more contacts and their details as the project progressed.

Some of the stakeholder groups that were represented in the project:

- Academics
- Businesses, manufacturers
- Managers and officials within Nelson Mandela Bay Metro (NMBM)
- Parastatals such as Transnet, COEGA Development Corporation
- Civil Society
- Faith-based institutions
- Legal practitioners
- Manufacturers, Small, Micro and Medium Enterprises (SMMEs) and industry
- Finance institutions
- Trade Unions
- Transport and Taxi industry

- Stewards of the marine environment such as Bayworld, Portnet, Institute for Coastal and Marine research (CMR)
- The media
- Environment
- NMB Business Chamber
- South African International Maritime Institute (SAIMI)
- Non-governmental Organisations (NGOs)
- Community-based organisations
- Artists, painters, poets and writers

The launch event in January 2024, held at the Mendi Arts Centre in New Brighton had over 300 attendees. Key stakeholders signed a Process Pledge to collaborate on the Strategy's implementation. The Pledge was signed by representatives from Nelson Mandela Bay Municipality, Nelson Mandela University, the NMB Business Chamber, the Climate Justice Coalition, South African Non-Governmental Organisation Coalition (SANGOCO), Eastern Cape Combined Environmental Forum (ECCEF) and others. It pledged their commitment to a collaborative process toward addressing the climate change in NMB.

Box 1: NMB Process Pledge

Process Pledge - Building a Climate Resilient Nelson Mandela Bay

Our climate is changing. We must act collectively and urgently in response.

We, the undersigned, hereby recognise that our metro is already faced with significant socio-economic challenges, including widespread poverty, unemployment and limited access to resources.

We recognise the increased risks and impacts that climate change will bring, including drought, extreme heat, flooding, tidal surges, food shortages and infrastructure damage, amongst others.

We also recognise that through collaborative metro-wide efforts we have the opportunity to adapt, mitigate, and build resilience to the change. And that there is opportunity in the adversity to both revitalise our economy and renew our communities if we work together and sustainably.

Our bay has exceptional social and manufacturing skills and is endowed with significant human and natural resources. These can serve as a platform for such multi-sector efforts and from which we can build a prosperous and just future for all.

Together, we can and must forge these new pathways. To this end we commit ourselves and our organisations/institutions to a collaborative process under the lead of the PCC project team in developing a Climate Resilient Development Strategy Framework that will place Nelson Mandela Bay on the pathway to realising its bountiful potential.

Key messages that arose from the launch included:

- The need for urgent and collective action plan
- Accelerating risk of climate hazards, that climate change wasn't just about weather impacts, but importantly about social and economic impacts
- The vast natural and human resources the Metro was blessed with; that the Metro had grown separate from the ocean
- A longstanding history of collaborative struggle and cooperation within the metro to address apartheid and other challenges.

Importantly the launch event helped to consolidate the development of the vision and reinforced the concerns and hopes for the future of Nelson Mandela Bay of stakeholders.

2.3.2 The social media campaign

A social media activation stand was placed at one of the most popular shopping and entertainment malls, the Boardwalks. The purpose of the activation was to collect public sentiment and understanding about Climate Change broadly.

The activation allowed the project to collect this random data on video to begin shaping the baseline in general understanding of the concept. Although not a scientific study, the participants were demographically representative, the centre itself is a melting pot of various social groupings and so it presented itself as an ideal location. The video montage from the activation was played for the audience during the launch as a reflection point. Since then, the project has garnered over 450 active followers on Facebook, and over 400 Podcast downloads.

2.3.3 The inclusion of artists and children

Artists and youth added a unique dimension to the launch. This included, school children plays and canvasses; a live poetry reading by a well-renowned and visually impaired poet; a musical performance; and more,

The inclusion of art and artists served to mix up the content of the launch, and several persons gave feedback to the effect that the performances moved them in ways the scientific and formal input did not.

2.4 Grounding the strategy in local realities: The Scoping Review

The Scoping Review pulled together an overview and assessment of the Metro. Reading, listening and learning, the team pulled together a valuable starting point for the project. The report was comprehensive, considering climate risks, hazard implications and mitigation implications. It trawled the literature but importantly, it engaged stakeholders.



Picture 2: Engagements with stakeholders during the scoping review

This was a two-way process of our team sharing information about climate change and our project; and stakeholders sharing their experience, knowledge, challenges and assets with us. Interviews, workshops, discussions were always very fruitful. Participants told us their stories and poured over maps. The following engagements were held for the development of the Scoping Review:

- The natural and physical sciences and social science community were important for their understanding and interpretation of climate related hazards, impacts and risk information. They helped to gain insight into addressing socio-economic issues of relevance to our Metro. Academics and researchers supported the project from the Adaptation Network, CSAG, NMU (Development Studies, environmental studies), Institute for Coastal and Marine Research, AEON, CIPSET (supporting community based continuing education), Rhodes
- University, SAEON and Bayworld. We found innovation and ideas for community inclusion and ownership of renewable energy projects; work on the ocean, understanding better the implications of the shifts in ocean temperatures, for example, and the consequences for some species of fish.
- Officials from most directorates in the municipality were engaged. A workshop was held with them. It was invaluable and uncovered a layer of dedicated and committed officials who pride themselves on their work. Their inclusion was instrumental in building better understanding amongst themselves of the work that each department was doing. Some of the departments that participated are:
 - Electricity and Energy
 - Economic Development and Tourism Agency
 - Waste Management
 - Water and Sanitation
 - Libraries
 - Air Quality
 - Beaches and Coastal Management
 - Public Health, including Environmental Management

- Disaster Management
 - Roads and Stormwater
- A further meeting was held with the Disaster Management sub directorate to better understand the very real challenges that they face in proactively and reactively addressing disasters.
 - Key provincial government departments such as the Department of Health and DEDEAT were included in online meetings and workshops.
 - National departments such as DRDAR and DFFE were interviewed.
 - We convened a workshop with the NMB Business Chamber to present the project and to build a better understanding of the economic realities for NMB. The Chamber represents large and small businesses and manufacturers in NMB. The Chamber has an MOU with the municipality to support service delivery. So, the approach they have adopted is pro-active in dealing with some of the problems, especially those related to the lack of maintenance in NMB. They have programmes called Adopt a Substation (to secure electricity) and Adopt a Plot where business attends to safety and maintenance issues on behalf of the municipality. They have developed specific Industrial Hubs for collaboration for numerous geographic areas. They have numerous committees dedicated to a variety of initiatives. One that is particularly relevant is the Low Carbon Sub Committee of their Local Economy Reinvention Think Tank that has been established to support companies and manufacturers to become more climate resilient and compliant with global standards (carbon tariffs), especially where trade across continents is conducted.
 - A workshop was held with many organisations from civil society, spanning the environment, social justice, food gardeners, waste recyclers, climate justice, fishers, youth and women's organisations amongst many. Together we mapped the work of the NGOs on a map of NMB, detailing their work and representative contact details. This initiated many relationships between themselves. They agreed to establish a WhatsApp group with the purpose of promoting climate resilience. The group is constantly expanding and at present has 60 members from about 40 organisations.
 - Additional workshops were held with ECCEF (Eastern Cape Combined Environmental Forum), SANGOCO (SA NGO Coalition), where the project was presented and fruitful discussions were held on the work they were doing, and their contribution to the Metro.
 - The Economic Development and Tourism Agency (EDTA) within the municipality hosts the Strategic Interface Forum. This forum includes all the state-owned enterprises such as TNPA, ACSA, PRASA, Tourism groups, SANRAL, Coega Development Corporation, Madiba Bay Development Association (MBDA) amongst others. We held a most valuable and informative workshop with them.
 - A meeting was held with SANParks which runs the local Addo National Elephant Park. It also has stewardship of the islands at St Croix
 - The work of co-operatives was also sought. Thus, meetings were held with small scale fishers and urban farmers. We have developed a map of the urban farming initiatives which includes community gardens, as well as the food gardens at

schools and clinics. CIPSET has been integral to their support. Green Technologies, a cooperative of young engineers has been growing and selling seedlings for distribution to the urban farmers.

- A meeting was held with a group of volunteer alien vegetation clearers. From their work, a map was drawn up of all the areas where clearing is being conducted.

These in-depth engagements with stakeholder groupings provided critical detail and learnings for the team. It also seemed to spur organisations into action that has led to a commitment to include climate change considerations in their work wherever that may be. In all the workshops there was a generous spirit of sharing information.

2.5 The Systems Maps

After the conclusion of the informative Scoping Review Report, the team held a workshop to further analyse the report and to distil key themes for further development. Eight themes were produced which together hold the spectrum for climate relevance in the metro.

The eight themes are:

- Healthy safe communities
- Healthy natural environment
- A thriving sustainable economy
- Resilient equitable services
- Resilient built environment
- Efficient and accessible mobility
- Collaborative good governance
- Unified civic pride and identity

The themes were used as a foundation to develop Systems Maps. The Systems Maps address connectivity between the themes, linking with the Vision. Key challenges and relational factors are identified across themes, looking for connections and drivers, and areas where stakeholders connect to enable change and harness opportunities for CRDSF. Our ongoing collaboration with the Adaptation Network, academics from University of Cape Town and Climate System Analysis Group (CSAG) and consultants at Ground Truth, helped to navigate toward the “variables of concern”. These are issues relevant to climate change. These were conveyed on a MIRO Board. Armed with these maps, the team returned to key stakeholders to build on the maps, looking for a more in-depth understanding of the systems. These engagements proved invaluable.

Systems mapping workshops were held with the following sectors:

1. Academics at NMU and researchers from other organisations
2. Officials from a range of directorates at NMBM
3. The Strategic Interface Forum, coordinated by NMB Economic Development and Tourism Agency (EDTA)
4. Civil Society

5. The Business Chamber

The workshops were thorough, taking participants through the process leading toward the Systems Mapping exercise and requesting them to build on the maps. Sessions were lively and interactive. The Miro Board served as a useful tool to support and develop the maps in more depth, so as to understand vulnerabilities, projections, thresholds and indicators. Participants were divided into groups and were also requested to discuss and debate potential interventions and how these could be prioritised. In addition, they considered potential partnerships for collaboration.

The feedback and input from the stakeholders at the Systems Mapping workshops shaped the 8 resilience outcomes and pathways towards reaching these. They fed into the action plans that the CRD team started to develop. It also fed into the narrative Maps that the team developed for consideration in the Sustainable Community Units (SCUs), which served as to define specific functionally distinctive geographic areas.

The following comments, made by a local government official when meeting with Disaster Management gives voice to the complexity of the challenges:

Metro – when there's a disaster, we work together, even if we are divided. We have experience across the Metro. Motherwell - one of the things that is tops is that people have settled in areas that are not suitable for human settlements. This is a problem - people can't put in infrastructure here. When it rains, it gets flooded. Type of area where you cannot suck the water out, even if you want to. Takes days. Can take up to 3 days per area. Second issue is the Departments are not talking to one another when they do their work. Informal settlements - establish on vacant land. Build shacks with hope that they will get formal housing. Electricity Department will go and put electricity in without talking to relevant Dept. If you put in services, they say they are there to stay and waiting for other services. When there is flooding, people have to be relocated. But this is problematic. In working together, we have to consider this. An ideal situation would be, if there is land earmarked for human settlement, it has to be serviced first before people are settled. Area in Ward 30 - EIA has been done. Residents told area is not suitable for human settlements. But people say they have lived there for many years. Politicians have to deal with people. Challenges with protests. Climate change - layman do not prioritise this. They just want houses. Another example is a tip site - area been a tip site for years. People were advised against building here because of chemicals. People ignored this. One afternoon in summer, more than 50 shacks burn because fire started out of nowhere - same chemical reaction people were warned about.

Table 1: A selection of the slides demonstrating the process for engagements with the Systems Mapping

Navigating from the Scoping Report to the CRD Strategy& Pathways	Exercise 2: Systems Maps & Projections
<p>Scoping Report</p> <ul style="list-style-type: none"> • Captured the baseline • Bound the system and recognise the smaller and larger nested systems • Identify the main outcomes • Where can you find it, please comment/explain <p>Lead us to</p> <ul style="list-style-type: none"> • Variables of concern & systems maps • Considering networks, indicators, tracking tools • Draft to test with sector groups 	<p>Navigate to Miro Board</p> <ul style="list-style-type: none"> • Overview of the system, variables of concern, relational factors • Climate relevance • Zoom to primary variables per sector (interactive Miro Board Session) <ul style="list-style-type: none"> ◦ Expand on variables & relational factors • Identify links across the system map (with all variables in the system) <ul style="list-style-type: none"> ◦ Consider basis of functional ecosystem for ecosystem-based services and climate resilience. ◦ What networks/ collaboration emerges? <p>Projections</p> <ul style="list-style-type: none"> • How are projections likely to affect the variables, relational factors, links and entire system? • Consider current flood & storm surges, wildfires, recent droughts as examples • Discuss further: <ul style="list-style-type: none"> ◦ Further links across the system, ecosystem services. ◦ Collaboration, dependencies, networks <p>Vulnerabilities</p> <ul style="list-style-type: none"> • Where are the vulnerabilities in the system? • Where do we need to build resilience? • As an example: consider current disaster. What caused this to happen? What were the contributing factors? How can we plan better? <p>Thresholds, signal, indicators</p> <ul style="list-style-type: none"> • Can we identify specific, thresholds (ecosystem collapse) • What will signal that the system is degrading/becoming less resilient? – when we need to make decisions and act! • What are good indicators to track progress (monitor & evaluation)
Exercise 3: Interventions	
<ul style="list-style-type: none"> • Identify interventions on the System Map • Prioritise: <ul style="list-style-type: none"> ◦ Rate options for carbon intensity (reduce/increase greenhouse gases) ◦ Rate of options for sensitivity to climate variables (builds resilience) ◦ Rate impact on equity (increase or decrease equity or unclear) • What do we need to do to be able to plan for/ work towards implanting the interventions? <ul style="list-style-type: none"> ◦ Consider networks, research gaps & needs, resources, capacities, enabling policy. 	



Picture 3: Working with ECCEF on the systems maps

2.6 Stakeholder engagement: A dynamic process

The process of engagement was dynamic and continued throughout the duration of the project. It was not only linked to specific deliverables or to the process. So, a snowballing technique was used to engage additional stakeholders and build knowledge for the strategy. The following additional field visits and meetings were held:



Picture 4: Dwellings viewed on a site visit

- **Field visits:** Many field trips were held with residents who requested the team to visit their residential areas to better understand their living conditions and the impact of climate change. We visited Helenvale, eVoko, and KwaNobuhle (Area 11 and Dubai).
- **Meeting with NGOs working with Schools:** Arising from the workshop with civil society, a follow-up workshop was held with NGOs doing environmental education in schools. About twenty people from different NGOs attended the

workshop. A map of the metro, showing the schools was developed. This served to illustrate not only where their work was being conducted, but importantly to highlight some of the gaps. WESSA spearheaded this initiative, taking this work forward and aiming to plug the gaps.

- **South African Weather Service (SAWS)** – an informative workshop was held with the Gqeberha based SAWS. Scientists from South African Environmental Observation Network (SAEON) and CMR also attended the workshop. SAWS documents related to climate predictions were shared and the engagement served to enhance the relationship between SAWS and the scientists.
- **The Sustainability Unit of Coega Development Corporation** which is already doing proactive work to support the environment at the Coega Industrial Development Zone (IDZ).
- A meeting was held with management of Volkswagen (VW). The manufacturer is well aware of the carbon trade tax implications of non-compliance especially into Europe and has been tailoring its operations accordingly. They were keen for this project to be the conduit to meeting with the PCC.
- Numerous individual interviews were held with persons who have expert insight into the Metro and its workings, for instance:
 - Local expert in ocean currents and sand movement of Algoa Bay - a retired professor who still works in Department of Geosciences (NMU) on physical oceanography
 - Local expert in development and cultural history, responsible for spatial development at the Coega Special Economic Zone (SEZ) for 20 years and understands city processes from both a historical and environmental perspective.
 - The Chief Executive Officer (CEO) of a leading robotics and industrial/production systems (a pioneering international company which crafts robotic solutions).
 - The development specialist for the SEZ
 - A common theme emerging from expert input is that Nelson Mandela Bay is a well-resourced and studied environment, with several large-scale mapping and development plans. Also, that the Metro must be a managed environment rather than left to natural and social forces – humans have fundamentally altered the natural systems, and the impacts will need to be managed. Several experts emphasised that the Metro did not lack for planning per se, but it lacked in the implementation of those plans.

2.7 Community Meetings

Community meetings that were open to the public were a distinctive phase in the project. Eleven community meetings were facilitated in September and October 2024. The CRDSF team collaborated with and contracted ECCEF and Wildlife and

Environmental Society of South Africa (WESSA) to support and host these meetings, with the CRDSF team's continued support.



Picture 5: Community meetings

Two local NPO's/Forums were partnered with to convene the community meetings in various geographic areas depending on their spheres of influence. It was their responsibility to organise the event, advertise and market it, ensure an audience and then to lead the meeting. These took the form of a presentation, then group discussions, followed by a plenary in which interventions were discussed.

Almost all the meetings were well attended, participation was robust and engaged and attendees were diverse. They freely shared their experience of the impacts of climate change and particularly of the extreme weather events. It was from these meetings that the team learnt most about the lives of community members and their climate change challenges and experiences.

Many issues were raised, some of which became familiar: the problem of blocked drains exacerbating the flooding, the vexing challenge of informal dump sites, wheelchair-bound person's mobility difficulties during flooding, and the extent of alien vegetation. However, each area has unique challenges. This affirmed and reminded the team of the need for the development of a strategy and action plan that attends to the detail of the different geographic areas together with concomitant and specific socio-economic issues.

The other problem with Chris Hani is that there are no tar roads. We have so little information. With the floods, the water came through our back door and into the house. If they had built the house with a small verandah, then there would be no problem, it wouldn't come in. So now we have to make our own plans.

The flooding at Kariega in June 2024 had happened shortly before the convening of the community meetings. This climate event served as a marker for the communities. Nearly all of them had been affected by the floods. The people at Lapland (Rosedale) had been moved to local community halls. They were told that temporary

housing would be made available for 160 households. The community meeting registered their frustration at this suggestion because there are over 600 households at Lapland and they wondered what selection criteria would be used to prioritise those 160 households. They were sceptical of the temporary nature of the housing and coined the phrase “temporary forever”, based on experience of similar previous temporary housing programmes.

“The other issue that we have to face now is that in order to reach our clinic (Laetitia Bam) we have to take the back streets to get there because the bridge is still not fixed. I have to walk alone along that bushy area to reach the clinic with a baby on my back.”

Kuyga clinic committee members spoke of their informal housing being flooded. This lasted many days because of the shallow groundwater table and soil characteristics of the area, saturating easily causing extended days of water, moisture and dampness in their homes.

There were heartbreaking stories too. A mother at KwaNobuhle told the meeting about the loss of her child. Her grief was tangible as she openly wept.

“I lost my child to the recent floods. She and her friend were close to the bridge by the river. Her friend’s body has still not been recovered from that river. If you go there, you will just see the rubbish piling up. It’s painful to think that her body is still there amongst that muck.”

There were positive stories too. A group of women at Helenvale had set themselves up to recycle. They told of the work they did daily in cleaning up the streets and encouraging community members to recycle. In the same community, members were actively seeking to build more food gardens so to provide nutrition for many of the households that are living in poverty.

The stories were many and varied. The meetings seemed to galvanise more action. Some ward councillors attended the meetings. Ideas for actions were generated such as to clean up their wards and to provide food gardens. Most of these were implementable actions which would require some support in terms of coordination and action. There are resources in the city that could be harnessed to support such efforts. The team has attempted to get some of these put into action.

There were many quotes from these sessions that provide valuable insights. The following are an indicative sample:

*"How do you keep hygienic if you don't have access to water? Imagine, that you are breastfeeding, and you can't drink enough water, nor keep yourself clean."
Mother from Motherwell*

"When there is a shortage of water, and tanker-trucks with water arrive to deliver for us, there is no consideration for people in wheelchairs. It is not possible to carry a large bucket of water and navigate our potholed streets. So, we have to ask others to help us, which is not easy because they need their own water." A woman confined to a wheelchair in her mid-forties

*"You know I think we get used to see the sewage in the streets. It's how we live so we don't even complain about it anymore. When I think about it, it makes me sad because no one should live like that, with children jumping over the flows as they head to school and everyone else too."
A clinic committee member, Soweto-on-Sea.*

*"We can no longer grow our spinach like we used to. The flooding took all our topsoil and left us with clay. The spinach does not grow in the clay".
An old woman who for years had prided herself on her vegetable garden,
KwaNobuhle*

Meetings were held at the following venues within the Metro and were hosted by the relevant partner organisation.

Table 2:: List of meetings held

Area	Date (2024)	Host
Motherwell	19 September	ECCEF
Soweto-on-Sea	17 September	ECCEF
Gelvandale	26 September	ECCEF
KwaNobuhle	18 September	ECCEF
Seaview	19 September	WESSA
Walmer	18 September	WESSA
New Brighton	25 September	WESSA
Rosedale, Lapland	25 September	ECCEF
Cotswold, Bible Society	3 October	WESSA
Booyens Park	2 October	ECCEF
South End, Humewood / Summerstrand	2 October	WESSA



Picture 6: Meeting at a church in KwaNobuhle

2.7.1 Debriefing after the community meetings:

The CRD team held a debriefing session with ECCEF and WESSA, aimed at evaluating the approach. In the review, both ECCEF and WESSA considered that the partnership had been fruitful. Especially with ECCEF, their membership considered that the organisation had grown in confidence and was ready for more climate change community presentations. They considered that the support of the CRD team had been of significant value in mentoring them.

2.8 Ongoing development of the strategy

2.8.1 Narrative reports

As mentioned earlier, the development of the strategy continued unabated with the CRDSF team, building in its different elements. The narrative reports provided in-depth accounts for the mapped SCUs. The information from community meetings fed into this next phase. Narrative mapping served an invaluable function to properly consider each functionally determined geographic area within the Metro. So, the team carefully collated all the information which is contained in the separate Narratives Report.

2.8.2 CRDSF and Action plan

Thereafter, the team began the task of distilling all of the information that had been gathered into a strategy and action plans. The analysis that followed was intense with many discussions and meetings and many different iterations, trialling ways to draw together all of the information into a Climate Resilient Development Strategy and its action plans. After much deliberation, a Draft Strategy was produced and sent for comment to the PCC as well as key stakeholders, for their comment before being presented at the Final Dialogue.

2.9 The Final Dialogue

The Final Dialogue session was the culmination of the strategy. It provided for broad stakeholder engagement in the presentation and in the invitation list for the event.

Like the Launch, it gathered over 300 persons and a wide cross-section of stakeholders to support the event. The event created a “marketplace” of display stalls at the rehabilitated Tramways Building for the variety of projects and institutions to demonstrate the team had met and engaged with during the project and an opportunity to communicate their work. Over 30 different projects/initiatives/businesses displayed their work at the stalls. The marketplace provided for interaction with key stakeholders attending the event as well as networking.

This was also an opportunity to demonstrate the creative spirit within the Metro with the poetry of the young people of Helenvale and Salt Lake, and their mentor. The political leadership, spearheaded by MMC for Public Health, re-stated their commitment to the CRDSF strategy for the Metro.

The CRDSF team presented the draft Strategy Framework to stakeholders. A panel discussion of various stakeholders contributed their views of the strategy and their commitment to action. Included was an academic from NMU (CMR); an official from the Public Health in NMBM; an industrialist from NMB Business Chamber; a representative from SAWS; and two representatives from ECCEF. The audience was able to ask questions and provide comments.

Key inputs from the dialogue session:

- The weather, economy and society is changing and increasingly so
- The Metro has enormous potential and natural/human resources that can be harnessed to build resilience and drive sustainable economies and livelihoods
- The Metro is “broken”, political and administrative instability and churn challenge the ability of stakeholders to complete long-term initiatives
- While climate change impacts were wide-ranging and would impact all of the metro, there were substantial opportunities that arose from the change, such as realising the biomass value chain, developing the North End beachfront, rehabilitating the Swartkops Estuary and creating new tourism products, and stewarding the extensive green-lung space within the Metro.
- The framework plan and the proposal for a local Climate Commission/Forum was widely endorsed



Figure 3: Graphic rendition of the Climate Resilient Development Strategy Framework

The Framework Strategy presented at the dialogue focuses on five strategic interventions:

1. Build the future we want
2. Defend against the extremes
3. Secure the basics
4. Steward our assets
5. Working together

The following extract from the MMC: Public Health's speech speaks to the potential of the framework and framed the dialogue session well:

There is no doubt our climate is changing, our farmers and fisherfolk tell us this, our scientists tell us this, our elders tell us how they have seen the change.

We know our economy will change, and that our communities will change. If we ignore the signs, if we hide our heads in the sand, the change will challenge everything we have worked for.

But if we work together, to understand what's happening, to defend what we have, to use what we have been blessed with, to build a sustainable economy and livelihoods for all, then we will turn adversity into opportunity.

Together we can do this. And our council and administration are committed to playing their part in building a metro that thrives, and a metro that leaves no-one behind.

2.10 Indirect stakeholder engagement

2.10.1 Website

The website, climatesmartnmb.co.za, offered another opportunity for engagement. It served as a repository for the various reports that have been developed and also provided an interface for engagement with its audience. Traffic to the Website has seen huge peaks around major events and this demonstrates a strong link to on-ground activations to online activity. The Website address is: www.climatesmartnmb.co.za

2.10.2 Facebook

The climates-mart Facebook page offered an opportunity to engage a wider audience. It attracted some proponents of the strategy and also some climate denialists. The Facebook page which now boasts more than 450 followers in just a year can be found here: [\(8\) Facebook](#)

2.10.3 Series of Podcasts

A series of 12 podcasts were produced. These were hosted by two of the CRDSF team members. They were engaging and lively sessions that deliberately tackled issues related to climate change. Interviews included some of the stakeholders such as:

- a. Janet Cherry (Academic in Development Studies, promoting climate justice). Janet has been instrumental in the development of community owned renewable energy as an income generation project for local communities.
- b. Denise van Huysteen from the Business Chamber, who has been at the helm whilst piloting the innovation around business support for the city.
- c. Siya Ntsumpa, founder of an organisation called Giving them Wings, which works in schools promoting environmental education, food gardens and a culture of recycling.
- d. Poetic Soul, Lelethu Mahambehlale, the woman who wowed the audience at the launch with her very evocative poem on climate change.
- e. Zwartkops Conservancy, the NGO that is stewarding the Zwartkops estuary. They are a formidable organisation that has been relentless in their pursuit of a healthy estuarine ecosystem in the most trying of circumstances.
- f. A discussion at New Brighton about the community process with Mike Pantsi and Mxolisi Dolla Sapeta
- g. Other pod casts related to members of our team:
 - i. Dawn McCarthy
 - ii. Belinda Clark
 - iii. Gary Koekemoer and Luvuyo Bangazi
 - iv. The CRDSF team with a reflection of the project and its processes. the project

These podcasts are available on the website- “climatesmartnmb.co.za” and also available through all major streaming services such as Spotify, Overcast, and many others.

2.10.4 The Questionnaire

An online questionnaire was drafted which could easily be sent out to our distribution list and to other residents within the city. It asked questions about our city and the effects of climate change, but also about their hopes and vision for our Metro. Participants at the launch event were also asked to include their vision on a vision board. Results were included in the Scoping Review Report.

2.10.5 A Reference Group

The academic community that we had met in the course of the CRDSF work, has provided invaluable guidance and support for the work we have undertaken. The Scoping team was supported throughout the process by members of the Adaptation Network, UCT and Ground Truth. Anna Taylor and Jo Douwes were consistent in listening to our challenges and helped us to navigate through them. This process of sharing challenges, and trying to find our way collectively, has been one of the highlights of the development of the Strategy. In effect, it was putting the CRDSF process into action, with its collaborative approach.

3. Lessons, observations and recommendations

The following lessons from the process itself are clear:

- **Inclusivity drives innovation.** By involving artists, youth, and marginalised communities, we uncovered creative solutions that technical approaches might overlook.
- **Trust is built through transparency.** Open dialogues with municipal officials and community leaders fostered mutual understanding and accountability.
- **Local knowledge is irreplaceable.** Residents' firsthand experiences, like the woman in Motherwell who described struggling to breastfeed during water shortages, grounded the strategy in reality.

The process also faced challenges, such as political instability and competing priorities. Yet, these hurdles reinforced the importance of the **Climate Forum**, a proposed multi-sectoral body to steer implementation.

To ensure the strategy's success, the project team recommends:

1. **Establishing the NMB Climate Forum and supporting secretariat** to maintain momentum and accountability and fulfil requirements of the Climate Change Act.
2. **Acting on community priorities**, such as creating recreational spaces at eVoko wetlands and expanding urban gardens in Booyens Park, a food garden at Colchester Primary School; promoting gardens at street corners to prevent the proliferation of informal dumpsites.
3. **Scaling successful pilots**, like Helenvale's recycling program, across the metro.

Overall the project's lessons about a NMB framework can be summarised as follows:

1. We don't lack for plans – we require implementation
2. We have significant local initiatives – but they occur in pockets and need networking to be optimal
3. Climate happens at both a macro & micro scale – must build in localized assessment to allow for local variation
4. Building resilience requires an all of society approach – not just local government
5. The Environment (both climate and markets) is changing faster than anticipated – need to be agile in response

4. Conclusion

This report is a testament to the power of collective action. The CRDSF is not just a document but a covenant, a pledge forged by the people of Nelson Mandela Bay to build a future that is resilient, just and hopeful. The journey ahead will require sustained effort, but the foundation laid by these engagements ensures that the strategy is rooted in the voices of those it serves.

As we move forward, let us carry the words of Brian Walter's where the reasons for dealing with climate resilience is well expressed:

*At this south end of Africa, I look out
from the hard and high sand banks
and watch, below, the black rocks
beaten by the spume-lit breaking seas.*

*Once, young and springtide foolish
in the flowering coastal fynbos
of my life, not learning from the bush
nor the ancient sand it was rooted in,*

*I saw only certainty in the scene,
the ageless local tussle of sea and land,
forgetting how deeply time alters all,
how longer seasons shift the very shores.*

*I even found a rhyme that could go,
"It's difficult to conceptualize
Antarctica below, holding the world
in stasis with its weight of miles of snow".*

*But today I'm older, and consider how
the earth itself has scars of those natural
and longer seasons, when ice creeps
from the south like the coldest canker.*

*Now humans build their babel malls,
and ply the lucifer of capital, and we
– since that iron and steam revolution –
pump careless carbon into our air.*

*And as I walk these coastal paths,
this sacramental way, our human path,
I see how, day by day, the flotsam of our
our doings, the jetsam of our being,*

washes ashore, lapping up the beach.

*We can watch the pollution,
the smog in our air from careless
factories, the old mining of coals,*

roughing up the threadbare coat
of our atmosphere, bloating
our breathing, clogging the arteries
of our heartways.

Till the arctics, at the urging of our greed,
melt away; and the breaking seas rise,
and there're rain-floods, and the fires
sear the fynbos from under our feet.

But fynbos, if you know fynbos,
will burn to sand and blackened twig,
while its seeds and living roots below
wait willingly for the wet reviving rains.

We can only hope our earth, our sand
and red clay ground, our Phoenix sphere,
our fynbos fire-thriving fertile globe,
can do better than we, and freeze

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The Sacramento Way – Brian Walter

5. References

IPCC Sixth Assessment Report. Chapter 18. Climate Resilient Development Pathways
[https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-18/#:~:text=Climate%20resilient%20development%20\(CRD\)%20is,for%20all%20%7BSection%2018.1%7D](https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-18/#:~:text=Climate%20resilient%20development%20(CRD)%20is,for%20all%20%7BSection%2018.1%7D).

Presidential Climate Commission: Guidance for Putting Climate-Resilient Development Pathways into Practice. Reports 1, 2, 3 and 4