



Ecosystem-based Climate Adaptation and Development Mechanisms for Implementation: Mpumalanga Case Study

STAKEHOLDER ENGAGEMENT REPORT

APRIL 2025

A PRESIDENTIAL CLIMATE COMMISSION REPORT

About the Presidential Climate Commission

The Presidential Climate Commission (PCC) is an independent multi-stakeholder body established by the President of South Africa, with its functions set out in the Climate Change Act, 2024 (Act 22 of 2024). It advises on the country's climate change response and Just Transition to a low-carbon, climate-resilient economy and society, ensuring that the transition is socially just, inclusive, and addresses the needs of vulnerable groups.

The PCC facilitates research and stakeholder engagement among social partners, incorporating diverse perspectives to promote consensus-building on key climate issues. By integrating stakeholder input, the PCC strengthens climate resilience strategies and informs government decision making to support the development of a sustainable, inclusive economy and society.

About this report

This report provides an overview of a stakeholder process and key perspectives which informed the overall assessment of Ecosystem-based Climate Adaptation (EbA), using Mpumalanga as a case study to inform climate adaptation planning.

Acknowledgements

The report was prepared by the Council for Scientific and Industrial Research (CSIR) with inputs and guidance from the Presidential Climate Commission (PCC).

Executive Summary

Climate change poses significant risks to South Africa's ecosystems, economy, and communities, with Mpumalanga being particularly vulnerable due to its diverse range of land uses. The province faces increasing climate-related threats such as droughts, floods, and extreme weather events, which necessitate robust context-specific adaptation measures. Ecosystem-based Adaptation (EbA) has the potential to leverage biodiversity and ecosystem services to help communities adapt to climate change, while promoting sustainable development (SANBI, 2025). Recognising this, the Presidential Climate Commission (PCC) initiated a project entitled “*An Assessment of Ecosystem-based Climate Adaptation and Development of Mechanisms for Implementation, Focusing on Mpumalanga as a Case Study*”.

This project aims to assess existing EbA initiatives, identify opportunities and constraints, and provide recommendations to enhance EbA's contribution to climate resilience in Mpumalanga. This report is the fourth of six project deliverables that include: an Inception Report, a Situational Analysis and Scoping Report, a multi-stakeholder workshop, Stakeholder Report; and a Draft and Final Analysis and Recommendations Report.

Stakeholder engagement is a core component of the Project and the purpose of this report is to document the stakeholder engagement process and capture key insights gathered during the online Multi-stakeholder Workshop held on the 18 March 2025. This workshop, which was facilitated by the Council for Scientific and Industrial Research (CSIR), aimed to validate key findings from the draft Situational Analysis and Scoping Report and engage stakeholders in discussions on strengthening EbA implementation in Mpumalanga. The workshop brought together 35 stakeholders from 21 organisations and institutions. The stakeholder engagement highlighted a range of critical insights, challenges, and opportunities for strengthening EbA in Mpumalanga.

Among the key messages and recommendations was the need for EbA to be integrated into municipal planning (e.g. the Integrated Development Planning (IDP)) and performance frameworks. This would ensure that EbA is prioritized and adequately resourced within local governance structures. There was also a strong call for greater coordination across sectors and spheres of government addressing EbA. Importantly, improved coordination was also recommended between EbA projects themselves in the province, particularly through strengthening the role of the Mpumalanga Climate Change Forum. Participants emphasised the importance of equity, inclusion and stakeholder engagement in EbA. EbA must be intentionally designed to advance social equity. This includes incorporating gender-responsive approaches, recognising traditional authorities and involving youth and marginalised communities in planning and implementation. Participants outlined the importance of engaging provincial and municipal climate champions creating opportunities for continuous input, deeper dialogue, and sustained

support for EbA. There was particular emphasis on integrating traditional ecological knowledge into EbA projects, to enhance community ownership, sustainability, and respect for local cultural practices.

In strengthening the economic case for EbA - and to demonstrate its long-term value - participants highlighted the need to quantify the costs and benefits of EbA, including the potential consequences of inaction. Importantly the benefits include the potential for EbA to create green jobs. Linking applications for EbA funding to their job creation potential, was recommended to strengthen such applications. Moreover, funding models themselves need to be diversified, particularly since government funding is constrained and reliance on international climate finance is not sustainable in the long term. It was also raised that municipalities and communities need capacity support and practical communication and awareness tools to navigate complex policy landscapes and implement EbA effectively. It was suggested that a toolkit or infographic be developed to clearly define EbA, its benefits, and guidelines for when a project can be classified as an EbA initiative.

Finally, the importance of embedding monitoring and evaluation systems into EbA projects from the outset was also raised. The use of evaluation frameworks that include social, economic and ecological indicators will support learning, accountability, and the assessment of project impact and effectiveness.

This report is a further step in an iterative and participatory process to co-develop robust recommendations for EbA implementation in Mpumalanga. As such, the findings and insights from this stakeholder consultation will be integrated into the Analysis and Recommendations Report for this project, which will consolidate all findings and provide a roadmap for advancing EbA in Mpumalanga in alignment with national adaptation goals and Just Transition principles

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Acronyms

CSIR	Council for Scientific and Industrial Research
COGTA	Department of Cooperative Governance and Traditional Affairs
DARDLEA	Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs
DFFE	Department Forestry, Fisheries and the Environment (formerly DEA, DFFE)
EbA	Ecosystem-based Adaptation
Eco-SCGs	Eco-Savings and Credit Groups
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
H4H	Herding for Health
K2C	Kruger to Canyons Biosphere Region
M&E	Monitoring and Evaluation
MTPA	Mpumalanga Tourism and Parks Agency
NGO	Non-Governmental Organisation
NPO	Non-Profit Organisation
PCC	Presidential Climate Commission
PESTEL	Political, Economic, Societal, Environmental and Legal
PoPIA	Protection of Personal Information Act
SANBI	South African National Biodiversity Institute
TVET	Technical and Vocational Education and Training

1 Introduction

Climate change poses significant risks to South Africa's ecosystems, economy, and communities, with Mpumalanga being particularly vulnerable due to its diverse land uses, including agriculture, mining, biodiversity conservation, and tourism (DARDLEA, 2022; MTPA, 2023). The province faces increasing climate-related threats such as droughts, floods, and extreme weather events, which necessitate robust context-specific adaptation measures strategies.

Ecosystem-based Adaptation (EbA) is a nature-based solution that leverages biodiversity and ecosystem services to help communities adapt to climate change while promoting sustainable development (SANBI, 2025). Recognizing the potential of EbA, the Presidential Climate Commission (PCC) initiated a project titled "*An Assessment of Ecosystem-based Climate Adaptation and Development of Mechanisms for Implementation, focusing on Mpumalanga as a Case Study*" (hereon referred to as the Project).

This project aims to assess existing EbA initiatives, identify opportunities and constraints, and provide recommendations to enhance EbA's contribution to climate resilience in Mpumalanga. Stakeholder engagement is a core component of this process, ensuring that the voices of government, civil society, and the private sector inform and validate the findings.

This report is the fourth of six project deliverables and reflects the outcomes of the stakeholder engagement process, which will play a critical role in shaping the final recommendations. The deliverables are as follows:

1. Inception Report
2. Situational Analysis and Scoping Report
3. Multistakeholder Workshop
- 4. Stakeholder Report**
5. Draft Analysis and Recommendations Report
6. Final Report

1.1 Purpose and report scope

The purpose of this report is to document the stakeholder engagement process and capture key insights gathered during the online Multi-stakeholder Workshop hosted on 18 March 2025, as part of the PCC's broader assessment of EbA in Mpumalanga. Stakeholder engagement is essential to ensure that mechanisms for implementing EbA in South Africa are inclusive, locally relevant, and supported by the institutions and communities they intend to serve. This report contributes to that goal by integrating stakeholder perspectives into the project's evidence base. In particular, this report:

- Compliments the findings of the Situational Analysis and Scoping Report (Deliverable 2),
- Validates and refines initial recommendations through stakeholder reflection and discussion, and,
- Informs the final deliverables by contributing a second-tier, participatory lens to the assessment of EbA in Mpumalanga.

The report includes:

- An overview of the stakeholder engagement approach, including the stakeholder identification process.
- A summary of the multi-stakeholder workshop.
- A detailed account of stakeholder perspectives, which provided a second-tier assessment of findings from the Situational Analysis and Scoping Report.
- A synthesis of key messages emerging from the engagement process; and
- Recommendations to support the scaling up and institutionalisation of EbA in Mpumalanga.

1.2 Objectives of the workshop

The objectives of the stakeholder engagement workshop were to:

- Validate the findings of the Situational Analysis and Scoping Report by reporting on key findings and gathering feedback through stakeholder input.
- Ensure inclusivity and transparency, allowing stakeholders to contribute meaningfully to the project's recommendations.
- Identify any gaps in the findings from the Situational Analysis and Scoping Report.
- Collaboratively consider actions for the development of EbA in Mpumalanga; and
- Reflect on key insights, recommendations and lessons learnt from the study and stakeholder experience.

1.3 Compliance with PoPIA

As personal information was collected during the stakeholder engagement process, strict adherence to South Africa's Protection of Personal Information Act (PoPIA) was maintained. The following measures were implemented:

- **Informed Participation** – Stakeholders were informed about the collection and use of their information before participating.
- **Data Security** – Personal information (such as names and organisational affiliations) was stored securely and accessed only by authorised project team members.
- **Confidentiality** – Individual inputs were anonymized in the report where necessary, ensuring that no participant's statements were directly attributed without consent.
- **Right to Withdraw** – Stakeholders were informed that they could withdraw from the process at any stage.

By following these PoPIA compliance measures, the stakeholder engagement process ensured a responsible approach to gathering stakeholder information. We have consulted and diligently followed the appropriate guidelines in accordance with our organization's policies on PoPIA compliance.

1.4 Assumptions and limitations

When conducting stakeholder engagement processes, it is essential to clearly state assumptions and limitations up front to provide transparency, manage expectations, and certify the validity of findings (Durham et al., 2014). Assumptions are the presumed conditions that are accepted as true for the purpose of a study or project, even though they are not fully verifiable.

Key assumptions that informed this stakeholder engagement process were:

- **Stakeholder Inputs Represent Broader Perspectives** – It was assumed (on the basis of the broad representation of sector bodies and members of the whole society and whole government among the attendees) that the workshop participants provided insights that reflect the broader EbA community's views and experiences in Mpumalanga; and
- **Stakeholder Responses were Provided in Good Faith** – It was assumed that participants shared honest and accurate information based on their knowledge and experience without external influence or bias, and that they had sincere intentions towards the task, to deal honestly, fairly, and transparently without any intention to deceive, manipulate, or defraud others. It implies acting with integrity and fairness in discussion or disagreement.

Limitations are the constraints or challenges that may have influenced the project or engagement process. These include constraints imposed by the scope of the project, data collection challenges and any external factors, such as the time constraints of participants and their general capacity to engage. By acknowledging limitations, the report ensures that readers interpret findings within the appropriate context and avoid overgeneralizing the results.

- **Scope of Engagement** -The engagement was limited to a single workshop in which important inputs were made, but it is unlikely to have captured the full range of perspectives from all relevant stakeholders in Mpumalanga. While efforts were made to identify and invite all key stakeholders involved in EbA activities in Mpumalanga, some stakeholders may have been unable to attend due to scheduling conflicts or other commitments.
- **Time Constraints** – The workshop was conducted within a limited time period (a half-day session), restricting the depth of discussions on certain themes.

- **Limited Documentation of Local Indigenous Knowledge** – While workshop participants contributed valuable experiential knowledge, the online setting was not conducive to the attendance of community stakeholders and the sharing of local and traditional ecological knowledge.
- **Reduced Active Participation and Engagement** – There was notably reduced verbal participation in the workshop from some stakeholders, particularly during open discussion sessions. This appeared to be linked to the online format, which may have limited participants' comfort in contributing verbally and reduced opportunities for spontaneous dialogue. To address this, facilitators encouraged the use of the chat function, seeded targeted questions to stimulate input, and allowed additional time for reflection and responses. Despite these efforts, the lack of physical presence and non-verbal cues may have constrained deeper engagement and limited dynamic interaction. The virtual setting also reduced opportunities for participants to get to know one another, build rapport, or engage informally with the facilitators and peers which builds trust and enables more open discussion and collaborative environments.
- **Engagement Validation Challenges** – The absence of multiple engagement sessions, due to time constraints, limits the opportunity to deepen the conversation through iterative discussion, leading to limited clarification of stakeholder inputs.

2 Stakeholder Identification and Categorisation

For the purpose of this engagement, a stakeholder was defined as an organisation or institution that influences EbA in Mpumalanga and whose core activities involve one or more of the following:

- Active implementation of EbA.
- Development of EbA knowledge (research, data collection, capacity building).
- EbA policy, legislation, and governance; and/or
- Financing and funding of EbA initiatives.

While individuals participated in the workshop as representatives of their respective organisations, the engagement was specifically designed to target organised groups, institutions, and associations actively involved in EbA-related activities, rather than individuals acting in their personal capacity.

To ensure a comprehensive and representative identification of stakeholders, a structured approach was applied, incorporating multiple methods to capture key stakeholders across various sectors and spheres of government.

Stakeholders were identified through:

- **Review of Literature** – Examining existing reports, policy documents, and research studies to identify key institutions and actors involved in EbA and produce a stakeholder lists.
- **Internet Searches** – Conducting targeted online searches to supplement stakeholder lists with relevant organisations and initiatives active in the Mpumalanga Province. Key search terms included: “ecosystem-based adaptation”, “climate change adaptation”, “ecosystem services”, “biodiversity conservation”, “natural infrastructure”, “wetland conservation”, “ecological infrastructure investment”, “catchment management”, “land restoration”, etc.
- **Snowballing Approach** – Engaging with initial stakeholders to identify additional key actors through referrals.
- **CSIR Team Expertise** – Leveraging the knowledge and experience of CSIR team, and their networks in climate adaptation and stakeholder engagement.

To support a more structured and inclusive engagement process, stakeholders were grouped into categories based on the sectors that they represented. Stakeholders were grouped into the following categories:

- **National Government and State-owned Institutions** – Departments and agencies responsible for national climate policies, environmental management, and infrastructure.
- **Provincial Government** – Mpumalanga-based government bodies involved in climate change adaptation and environmental governance.
- **District Authorities** – Key decision-makers at the district level responsible for regional climate planning and coordination.

- **Local Authorities** – Local municipalities and structures directly involved in land-use planning, water resource management, and community adaptation efforts.
- **Non-Profit and Non-Government Organisations** – Civil society organisations active in environmental conservation, restoration, climate advocacy, and community-based adaptation projects.
- **Catchment Management Agencies and Water User Associations** – Organisations responsible for managing water resources.
- **Academic and Research Organisations / Information Networks** – Universities, research institutes, and knowledge-sharing platforms contributing scientific insights and technical expertise to EbA in Mpumalanga.
- **Business Associations** – Industry bodies with an interest in socio-economic resilience and sustainable development.
- **Funders** – Development partners, international organisations, and funding agencies supporting climate adaptation initiatives.

The initial list of identified stakeholders was then discussed with the PCC, resulting in a final list. In total 83 organisations, institutions and entities were identified as stakeholders involved in EbA in Mpumalanga. Table 1 shows the list of identified stakeholder organisations and institutions relevant to EbA in Mpumalanga Province that were invited to the workshop. By fostering a diverse and inclusive stakeholder pool, this process aimed to capture a wide range of perspectives and expertise, thereby enhancing the validation of the EbA Situational Analysis and Scoping Report findings and supporting recommendations for improvement.

Table 1: List of organisations and institutions identified as stakeholders that influence EbA in Mpumalanga Province, South Africa

Government Stakeholders	Non-Government Stakeholders
National Government	Academic and Research Organisations
<ul style="list-style-type: none"> • Department of Cooperative Governance and Traditional Affairs • Department of Forestry, Fisheries and the Environment • South African Local Government Association • South African National Parks • Municipal Infrastructure Support Agent 	<ul style="list-style-type: none"> • Coal Tech Research Association • Ehlanzeni TVET • Gert Sibande TVET • Nkangala TVET • South African Environmental Observation Network • South African Wildlife College • University of Mpumalanga • University of the Witwatersrand - Wits Rural Facility • Water Research Commission

Provincial Government	Industry and Business Associations
<ul style="list-style-type: none"> • Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs • Mpumalanga Office of the Premier • Mpumalanga Tourism and Parks Agency • Department of Water and Sanitation 	<ul style="list-style-type: none"> • Forestry SA • Middelburg Chamber of Commerce and Industry • Minerals Council of South Africa • Mkhondo Chamber of Commerce • Nkangala Chamber of Commerce and Industry • Sabie Chamber of Commerce and Tourism • Business Unity South Africa • National Business Institute • Kruger Lowveld Chamber of Business and Tourism
District Authorities	Funders
<ul style="list-style-type: none"> • Ehlanzeni District Municipality • Gert Sibande District Municipality • Nkangala District Municipality 	<ul style="list-style-type: none"> • World Bank • Deutsche Gesellschaft für Internationale Zusammenarbeit • Global Environment Facility • World Resource Institute
Local Municipalities	Non-profit and Non-government Organisations
<ul style="list-style-type: none"> • Steve Tshwete Local Municipality • Emalahleni Local Municipality • Victor Khanye Local Municipality • Thembisile Hani Local Municipality • Emakhazeni Local Municipality • Dr JS Moroka Local Municipality • Msukaligwa Local Municipality • Lekwa Local Municipality • Dr Pixley Ka Isaka Seme Local Municipality • Mkhondo Local Municipality • Govan Mbeki Local Municipality • Dipaleseng Local Municipality • Chief Albert Luthuli Local Municipality • Bushbuckridge Local Municipality • Nkomazi Local Municipality • Thaba Chweu Local Municipality • City of Mbombela Local Municipality 	<ul style="list-style-type: none"> • Association for Water and Rural Development • Botanical Society, Lowveld Branch • Conservation South Africa • Congress of Traditional Leaders of South Africa • Endangered Wildlife Trust • GroundWork • Indalo Inclusive • Kruger-to-Canyons Biosphere Region • ICLEI Africa, Local Governments for Sustainability • Mpumalanga Green Cluster Agency • Save the Sand • Seriti • Transfrontier Africa • Wildlife and Environment Society of South Africa • World Wide Fund for Nature South Africa
State-owned Organisations and Statutory Institutions	

<ul style="list-style-type: none"> • Blyde Water Users Association • Council for Scientific and Industrial Research • Inkomati-Usuthu Catchment Management Agency • Letaba Water Users Association • Oliphants Catchment Management Agency • Presidential Climate Commission • South African Forestry Company SOC Limited • South African National Biodiversity Institute 	<ul style="list-style-type: none"> • GreenCape • Mountain Environmental Watch • The Nature Conservancy • Womxndla Community Development NPC • Khuthala women's Movement • Wesselton Youth Development Program • Middelburg Social and Environmental justice Alliance • Singobile Environmental Organization • Vukani Environmental Justice Movement
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The final stakeholder list was further refined by identifying the most relevant contact person for each organisation, institution, or entity. This step ensured, as far as possible, direct communication with the appropriate representatives when sending out invitations for the stakeholder engagement workshop.

3 Stakeholder Engagement Activities: Workshop Overview

The PCC identified stakeholder engagement and validation as a core component of the Project to ensure that future EbA strategies are inclusive, informed and aligned with stakeholder perceptions and understandings. This section outlines the key activities undertaken as part of the stakeholder engagement process, with a focus on how stakeholders were identified, how the engagement was conducted, and the insights gathered.

The PCC-EbA Workshop was held on 18 March 2025 as a four-hour online dialogue via Microsoft Teams. Facilitated by the Council for Scientific and Industrial Research (CSIR), the workshop aimed to validate key findings from the Situational Analysis and Scoping Report and engage stakeholders in discussions on strengthening EbA implementation in Mpumalanga. The workshop brought together 35 stakeholders from 21 organisations and institutions. Table 2 shows the list of stakeholders that attended the workshop.

Table 2: List indicating the 21 stakeholder organisations and institutions that attended the PCC-EbA workshop on 18 March 2025

Government Stakeholders	Non-Government Stakeholders
National Government	Academic and Research Organisations
<ul style="list-style-type: none"> • Department of Forestry, Fisheries and the Environment • South African Local Government Association 	<ul style="list-style-type: none"> • University of Mpumalanga • University of the Witwatersrand - Wits Rural Facility
Provincial Government	Industry and Business Associations
<ul style="list-style-type: none"> • Mpumalanga Tourism and Parks Agency • Department of Cooperative Governance and Traditional Affairs, Mpumalanga Provincial Office 	<ul style="list-style-type: none"> • Forestry SA
District Authorities	Non-profit and Non-government Organisations and Funders
<ul style="list-style-type: none"> • Gert Sibande District Municipality • Nkangala District Municipality 	<ul style="list-style-type: none"> • Khuthala Environmental Care Group • Kruger to Canyons Biosphere Region • Earthlife Africa • Save the Sand • World Wide Fund for Nature – South Africa • AgriSA
Local Municipalities	
<ul style="list-style-type: none"> • Emalahleni Local Municipality • City of Mbombela Local Municipality 	
State-owned Organisations and Statutory Institutions	
<ul style="list-style-type: none"> • Council for Scientific and Industrial Research • Inkomati-Usuthu Catchment Management • Presidential Climate Commission • South Africa Biodiversity Institute 	

The workshop followed a structured agenda shown in Appendix 1 that included presentations and facilitated discussions, with ample opportunity for stakeholder engagement. The process was designed to familiarise stakeholders with the context of the legal and policy context of EbA at the National and Provincial levels and then share key findings from the Situational Analysis and facilitate discussions to reflect on key insights, identify gaps, and make recommendations based on stakeholder experiences.

3.1 Opening remarks and setting the scene

The workshop opened with reflections from PCC Senior Advisor: Adaptation – Dhesigen Naidoo and PCC Commissioner – Louise Naudé on South Africa's long-standing engagement with climate adaptation efforts. While adaptation has deep roots in the country's environmental policy landscape, both speakers highlighted that the urgency and complexity of the climate crisis have intensified significantly in recent years.

"It's not climate change as we were talking about ten years ago. We're talking about an accelerated climate change."
Dhesigen Naidoo

South Africa ranks among the top 20 countries in the world in climate adaptation research, yet there is still a gap when translating research into large-scale practical implementation. This point was underscored by Dhesigen Naidoo, who emphasised that ecological infrastructure must be at the core of the country's adaptation strategy moving forward. The importance of aligning adaptation and mitigation was a central theme of the opening remarks. Louise Naudé introduced the concept of "**mitadaptation**", advocating for approaches where adaptation efforts support — or at least do not undermine — mitigation goals. She highlighted the potential trade-offs that can arise when adaptation is poorly planned, citing examples such as afforestation reducing water availability or bioenergy crops competing with food security. Louise Naudé called for integrated land-use planning and a systems-based approach that ensures adaptation and mitigation strategies are complementary, and that trade-offs are anticipated, understood, and managed.

It was also emphasised that EbA strategies need to align with South Africa's economic transition. With the country moving away from fossil fuels, there is an opportunity to embed climate adaptation into the Just Energy Transition. It was noted that "*the only development on the table for energy is renewable energy*" (Dhesigen Naidoo) and that adaptation needs to be considered alongside energy infrastructure development to ensure resilience and reduce vulnerability.

Global biodiversity loss was highlighted as a critical concern, as species populations have declined by an average of 73% between 1970 and 2020 (WWF, 2022). This underscores the

urgent need to prioritize biodiversity conservation and ecosystem restoration as core components of climate adaptation strategies. In this context, EbA has emerged as a vital approach, simultaneously enhancing climate resilience and safeguarding natural ecosystems.

Lastly, it was emphasised that “the PCC is currently... *developing recommendations for South Africa's next Nationally Determined Contributions and so recommendation from this work [on EbA] could contribute to fleshing out the adaptation component*” (Louise Naudé) under the United Nations Framework Convention on Climate Change.

3.2 Workshop Session One: Findings and Evaluation of EbA in the Mpumalanga Province

Workshop Session One provided an overview of the approach and findings from the Situational Analysis and Scoping Report, which mapped existing EbA initiatives in Mpumalanga. The presentation by CSIR, highlighted the diversity, distribution, and nature of EbA activities across the province. In total 104 projects were identified between the period 2001 – 2023, with a spike in projects noted in 2001, and 2019-2020 (Figure 1). Of these, 95 projects were listed on the Mpumalanga Climate Change Response Database.

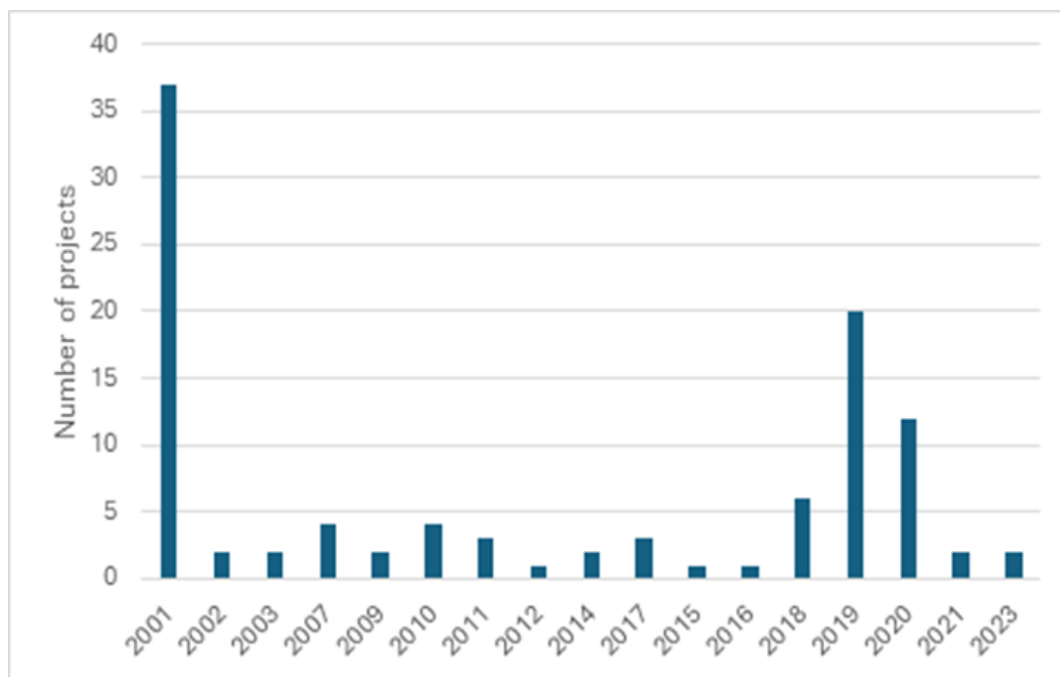


Figure 1: Number of EbA initiatives recorded in Mpumalanga (n = 104), between 2001 and 2023 (PCC, 2025)

Of the projects identified, 95% were funded by DFFE through the Expanded Public Works Programme, with the main emphasis on preventing the spread of invasive alien plants and fire management clearing (Figure 2).

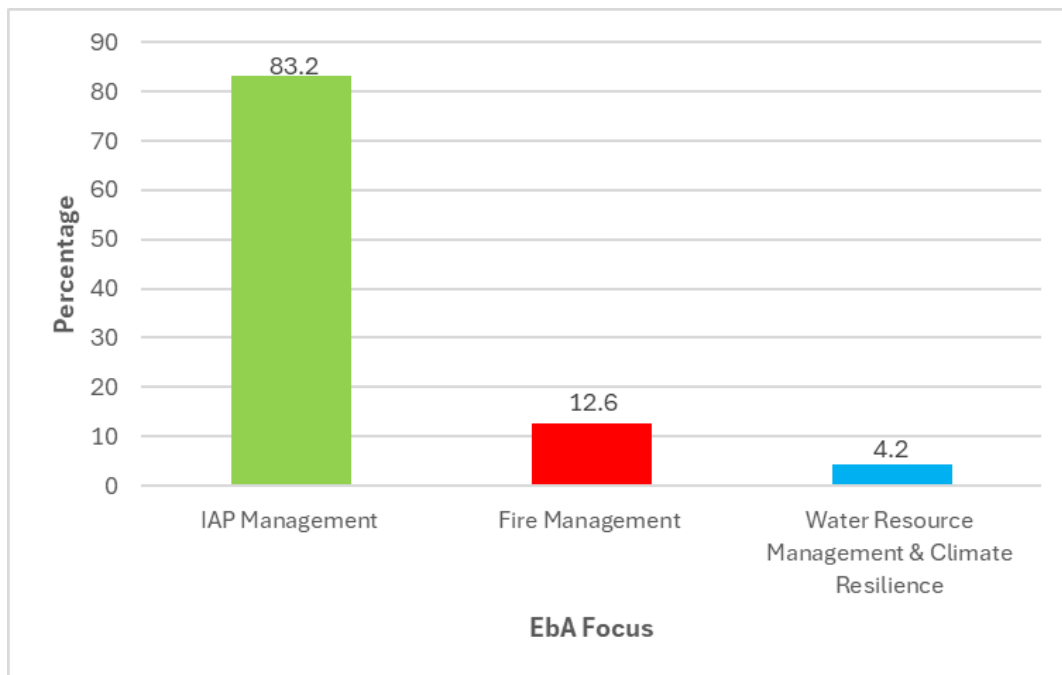


Figure 2: Focal activities of EbA initiatives identified in Mpumalanga (adapted from PCC, 2025)

Figure 3 shows the geographic spread of projects across District Municipalities in Mpumalanga.

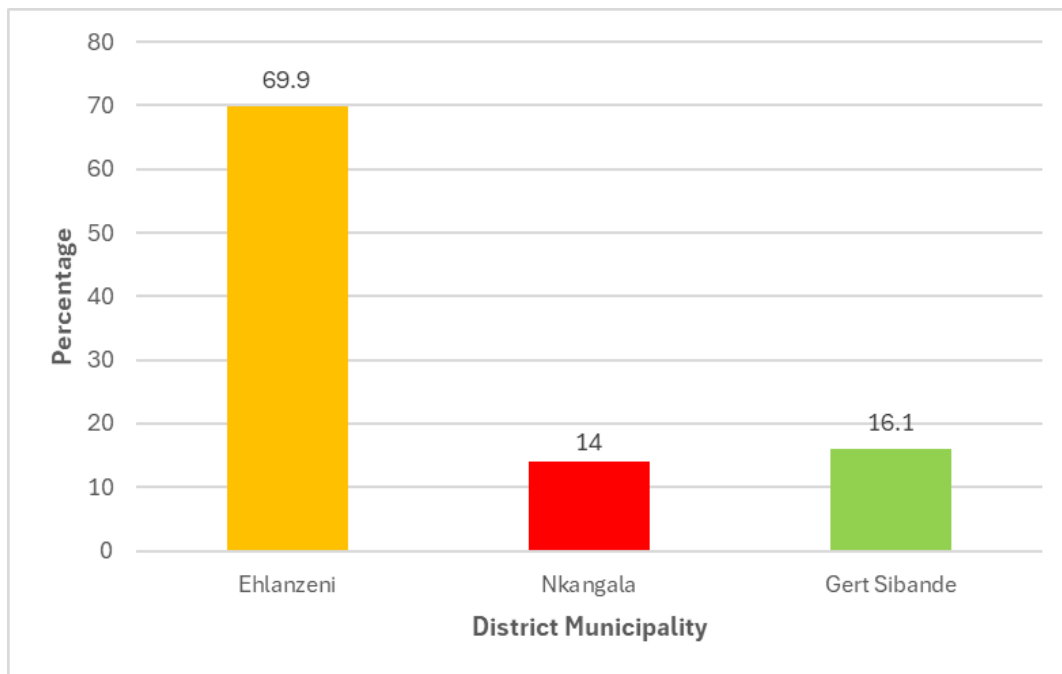


Figure 3: Percentage of EbA initiatives by District Municipality in Mpumalanga Province (adapted from PCC, 2025)

Key institutions and programmes implementing EbA projects in Mpumalanga include (but are not limited to):

- The Association for Water and Rural Development (AWARD)
- Kruger to Canyons Biosphere NPC
- Birdlife South Africa
- Meat Naturally and Herding for Health programmes
- GeaSphere
- Mpumalanga Biodiversity Stewardship Programme

In addition, CSIR presented an evaluation matrix (Figure 5) designed to assess the effectiveness of EbA projects. This matrix applied five key evaluation themes based on the EbA principles and criteria set by the Department of Environmental Affairs (now DFFE) in collaboration with the South African Biodiversity Institute (SANBI) (Tshindane, 2017). These principles include:

- **Building Resilience** – The extent to which projects enhance ecosystem services and climate adaptation.
- **Inclusivity** – The level of participation, transparency, and integration of traditional knowledge.
- **Policy Embeddedness** – Alignment with national and regional climate policies.
- **Effective Management** – Multi-sectoral collaboration and project governance.
- **Monitoring and Evaluation** – Mechanisms for tracking project impact and outcomes.

Table 3: EbA project evaluation matrix (from Luvuno et al. 2023 In: PCC, 2025)

EbA Themes	EbA Implementation Guiding Principles		EbA Quality			
		Very Weak	Weak	Moderate	Strong	Very Strong
Building resilience	The project supports resilient ecosystems and enhances ecosystem services	1	2	3	4	5
	The project helps communities adapt to climate change	1	2	3	4	5
	The project has co-benefits and synergistic outcomes	1	2	3	4	5
Inclusivity	The project is participatory, inclusive and transparent	1	2	3	4	5
	The project makes use of local and traditional knowledge	1	2	3	4	5
Policy embeddedness	The project is contextualised within broader national and regional policy	1	2	3	4	5

EbA Themes	EbA Implementation Guiding Principles		EbA Quality			
		Very Weak	Weak	Moderate	Strong	Very Strong
Effective management	The project promotes transdisciplinary and multi-sector approaches	1	2	3	4	5
Monitoring and Evaluation	Project measures outcome and impact	1	2	3	4	5

The matrix was used to evaluate a subset of EbA initiatives in the Situational Analysis and Scoping Report (PCC, 2025). These included:

- **Working for Wetlands:** One of South Africa's longest-running EbA programmes, demonstrating the sustainability of wetland restoration for ecosystem services and climate resilience.
- **The Kruger to Canyons (K2C) Biosphere Region:** One of South Africa's largest biosphere reserves, integrating protected areas, communal lands, and private reserves to form a holistic, climate-resilient landscape.
- **The Mbombela Transformative Riverine and Stormwater Management Programme:** demonstrates how nature-based solutions can be applied in urban settings to improve stormwater management and flood control.
- **The Grassland Biome Connectivity Project:** is an example of an initiative that aims to protect one of South Africa's most threatened ecosystems.

Following the presentation, workshop participants reflected on the findings in the presentation and discussed the criteria for the refinement of the evaluation matrix.

3.3 Workshop Session Two: Opportunities and Constraints to EbA in the Mpumalanga Province

Workshop Session Two focused on the opportunities and constraints influencing EbA in South Africa and Mpumalanga. The presentation was structured around the Political, Economic, Social, Technological, Environmental, and Legal (PESTEL) analysis conducted in the Situational Analysis and Scoping Report. This framework provided a structured and holistic approach to assessing the key factors enabling or hindering EbA implementation in the region.

Key factors shaping the success of EbA initiatives include:

- **Political Factors** – Political commitment towards environmental management and stewardship, conducive institutional environment.
- **Economic Factors** – Available funding mechanisms, financial barriers, and potential for EbA to contribute to economic resilience.

- **Social Factors** – Community engagement, traditional knowledge integration, and socio-economic vulnerabilities affecting adaptation.
- **Technological Factors** – Innovations, research, and capacity-building needs for enhancing EbA implementation.
- **Environmental Factors** – Ecosystem vulnerabilities, biodiversity conservation opportunities, and climate risks influencing adaptation efforts.
- **Legal Factors** – Existing legislation supporting or constraining EbA, including environmental regulations and land-use policies.

The six elements of the PESTEL framework are deeply interconnected, with each factor influencing and being influenced by the others. Examples were given on how weaknesses in one area can create cascading challenges for EbA implementation. Based on both the CSIR presentation and the discussions, examples include the following:

1. Socio-political and Economic Linkages: Policy Weaknesses and Funding Constraints

- Weak policy support and governance structures can negatively affect economic opportunities, leading to underfunding of EbA initiatives.
- In practice, competing socio-economic priorities often divert funding away from natural resource management and climate adaptation, further limiting the resources available for EbA.
- Without adequate funding, EbA projects struggle to scale up, limiting their long-term sustainability and impact.
- Limited awareness about climate change and a poor understanding of available adaptation strategies, coupled with the socio-economic pressures faced by the public, could create barriers to widespread adoption of EbA

2. Economic and Technological Linkages: Constraints on Monitoring and Adaptive Management

- Economic challenges, such as budget reductions for EbA, hinder the advancement and application of technology for monitoring project outcomes.
- Technological tools like GIS and remote sensing, which are critical for tracking ecosystem changes and assessing EbA effectiveness, require consistent financial investment.
- A lack of funding also affects the ability to implement adaptive management practices, which are necessary to ensure that EbA initiatives remain effective over time.

3. Social and Legal Linkages: Tenure Security and Stewardship

- Social factors, particularly land tenure and historical land-use equity issues, are highly dependent on political will and strong legal frameworks for resolution.

- Without clear legal protections for land tenure, communities may lack the incentive or authority to engage in long-term EbA efforts.
- Conversely, when land tenure issues are addressed, local stakeholders develop a greater sense of stewardship over their land, fostering more sustainable engagement in EbA projects.

Understanding these interdependencies is crucial for developing holistic and effective EbA strategies that address multiple barriers simultaneously. Following the presentation, participants reflected on the opportunities and constraints to EbA implementation that emerge from the PESTEL analysis, and shared additional insights drawn from their own experiences with EbA in Mpumalanga. These collective inputs are summarised in Table 4.

Table 4: Opportunities and Constraints Identified and Discussed for EbA Implementation in Mpumalanga

PESTEL Factors	Opportunities	Constraints
Political	<ul style="list-style-type: none"> • Conducive policy and institutional environment, with frameworks such as the NCCAS and Climate Change Act supporting EbA. • Political commitment to environmental management and stewardship is demonstrated through national programmes like Working for Water and Working for Wetlands. • Existing coordination mechanisms and climate champions at national and provincial levels. • Opportunity to align EbA with disaster risk reduction policies and build cross-sectoral institutional support for climate resilience. 	<ul style="list-style-type: none"> • Fragmented governance and siloed mandates hinder effective cross-sector collaboration on EbA. • Narrowly defined departmental mandates limit the integration of EbA within complex socio-ecological systems.
Economic	<ul style="list-style-type: none"> • Green economy potential, including job creation through nature-based solutions aligned with the Just Energy Transition. • Opportunities to attract climate finance by demonstrating co- 	<ul style="list-style-type: none"> • Competing priorities in public spending limit resources for government-funded EbA initiatives. • High reliance on short-term, project-based, international funding creates uncertainty about EbA sustainability.

PESTEL Factors	Opportunities	Constraints
	benefits (e.g. employment, biodiversity, disaster risk reduction).	<ul style="list-style-type: none"> Many viable ecosystem investment opportunities remain unfunded, preventing the realisation of climate, biodiversity, and economic co-benefits
Social	<ul style="list-style-type: none"> High unemployment in Mpumalanga presents an opportunity to harness available labour for public employment and restoration programmes. Integrating local and indigenous knowledge can improve EbA design, relevance, and acceptance. Increasing community participation strengthens ownership and embeds traditional knowledge in local adaptation processes. EbA can promote equity and inclusive livelihood development through nature-based employment for marginalised groups. 	<ul style="list-style-type: none"> Capacity gaps in participatory processes limit meaningful engagement, reducing community ownership and missing opportunities for integrating local knowledge. Poverty, particularly in rural areas, deprioritises long-term resilience in favour of immediate survival needs.
Technological	<ul style="list-style-type: none"> Advances in GIS, remote sensing, and ecological modelling can improve adaptive management Emerging digital platforms for citizen science and participatory monitoring could enhance local involvement in EbA tracking. 	<ul style="list-style-type: none"> Limited use of technology and weak monitoring systems hinder the ability to evaluate EbA effectiveness, inform adaptive management, and build an evidence base. Lack of access to practical guidance (e.g. municipal-level EbA guidelines) reduces implementation capacity. Inadequate data-sharing practices result in institutional memory loss and missed opportunities for learning.

PESTEL Factors	Opportunities	Constraints
Environmental	<ul style="list-style-type: none"> Mpumalanga's ecological diversity and conservation assets provide a strong foundation for nature-based adaptation strategies Restored ecosystems can deliver multiple services, including water security, carbon sequestration, and disaster risk reduction. 	<ul style="list-style-type: none"> Climate vulnerabilities, such as increasing droughts and floods, undermine ecosystem resilience and may reverse gains from EbA interventions. Land degradation from unsustainable practices (e.g. mining, intensive agriculture) threatens ecosystem integrity, particularly freshwater and wetland systems.
Legal	<ul style="list-style-type: none"> Strong environmental legislation and national frameworks offer legal backing for EbA implementation. Improved enforcement of environmental policies could drive job creation in green sectors and strengthen accountability. 	<ul style="list-style-type: none"> Weak enforcement of legal frameworks reduces the effectiveness of EbA policy instruments. Unclear or insecure land tenure discourages long-term investment and local stewardship of ecosystem restoration efforts.

3.4 Workshop Session Three: Actions for Developing EbA in Mpumalanga

Workshop Session Three focused on identifying practical actions to advance EbA in Mpumalanga. Building on the analysis and discussions from Workshop Session Two, this session aimed to reflect on potential actions that should be taken to address opportunities and constraints identified in the Situational Analysis and Scoping Report.

The session was structured around five thematic areas that are critical for strengthening EbA implementation:

- Strengthening Policy, Institutional and Legal Support for EbA.
- Unlocking Funding and Economic Incentives.
- Capacity Gaps and Development.
- Collaboration and Partnerships; and
- Knowledge Barriers and Development.

The intended outcome of Workshop Session Three was to develop a set of stakeholder-driven recommendations and practical actions to address key gaps and support the scaling and institutionalisation of EbA in Mpumalanga.

4 Perspectives from the Workshop

The PCC EbA Workshop served as a multi-stakeholder platform to discuss key findings from the Situational Analysis and Scoping Report, identify opportunities and constraints, and explore actions for strengthening EbA implementation in Mpumalanga. Discussions were structured around three key sessions, as mentioned above, each providing insights, challenges, and recommendations from the participants.

The following section provides key stakeholder perspectives gathered through the discussions, which serve as critical inputs towards shaping the recommendations report and subsequent directions for EbA funding and project design. Based on the transcript from the workshop, the stakeholder questions, concerns, insights and relevant quotations have been collated under the themes discussed in Workshop Session Three.

4.1 Strengthening policy, institutional and legal support for EbA

Strong coordination efforts are needed between policy, institutional and legal frameworks to improve integration and mainstreaming of EbA across sectors, ensuring coordinated and collaborative governance that aligns with broader development and climate goals. Discussions during the workshop highlighted several key perspectives on policy alignment, institutional engagement, and the role of legal frameworks in supporting EbA.

4.1.1 Clarification of the Scope of 'Ecosystems' in EbA investment

There was a discussion on how the concept of 'ecosystem' is applied within EbA, particularly in relation to governance structures such as district and local municipalities. The Situational Analysis report did not extensively consider agricultural initiatives within its ecosystem focus, raising the need to expand the scope of EbA assessments to include agricultural landscapes and agroecosystems. This highlights the importance of ensuring that institutional planning for EbA encompasses a wide range of ecosystem types, from natural protected areas to productive agricultural systems.

The recent promulgation of the Preservation and Development of Agricultural Land Act was identified as a key legal development that could shape how agroecosystems contribute to climate resilience. While the Act is not yet operational, it contains specific provisions related to agroecosystem preservation, which are highly relevant to the EbA discourse. Stakeholders emphasized the need to integrate agricultural land-use planning into the broader EbA climate adaptation narrative, ensuring that policies support both environmental sustainability and agricultural productivity.

One speaker underscored the interconnected goals of agriculture and adaptation, stating:

“Agriculture is a very interesting example because what you are seeking is an outcome that is environmentally positive...one that increases the environmental coefficient... to increase our ability to adapt while simultaneously advancing an agricultural agenda for development.”

Therefore, agriculture development and EbA should not be viewed in isolation, but rather as mutually reinforcing strategies that build resilience while ensuring food security and rural economic development. This aligns with broader Just Transition principles, ensuring that economic activities remain viable while enhancing environmental resilience.

4.1.2 Addressing land tenure to strengthen participation and stewardship

Secure land tenure was identified as a legal and governance issue influencing the success of EbA. Stakeholders noted that unclear or insecure land rights limit community investment in long-term adaptation efforts and reduce the potential for local stewardship of natural resources.

“If land tenure issues are addressed, people will feel a sense of stewardship towards the land, which will result in meaningful progress in implementing sustainable EbA.”

Addressing land tenure concerns was seen as essential not only for equity and justice, but also to unlock community participation, build long-term commitment, and ensure the sustainability of EbA investments.

“In South Africa, we have historical injustices in terms of access to land—there are land tenure issues. These are things that need to be taken into consideration when planning and implementing EbA initiatives”

4.1.3 Integration of Trade Unions in Climate Adaptation

A critical gap identified in the discussion was the lack of clarity on the role of trade unions in climate adaptation and mitigation efforts. The question of their involvement in shaping and implementing adaptation strategies remains largely unexplored, signalling the need for further dialogue, especially considering the intersection of climate action and social justice. Labour movements should play role in advocating for Just Transition policies. Topics for consideration include policy advocacy; shaping Just Transition frameworks; community-based adaptation; green job creation and skills development; social protection for workers impacted by the transition to a low-carbon economy; environmental justice and labour rights; and public awareness.

The integration of trade unions in climate adaptation is essential to ensure that workers are included in the planning, decision making, and implementation of climate policies. A Just Transition approach that links workers' rights with environmental sustainability is key to building a more resilient and fair economy. This can help build a stronger, more inclusive

foundation for climate adaptation strategies and ensure that the transition to a sustainable economy benefits all workers, especially those in vulnerable sectors.

4.2 Enhancing financial sustainability, market linkages, and green job creation for EbA

Stakeholders highlighted the importance of long-term financial sustainability, the role of incentive structures, and the opportunity to link EbA with livelihoods and employment, particularly in under-served rural areas. These insights reinforced the need to position EbA not only as an environmental imperative but also as an engine for inclusive economic development.

4.2.1 Challenges and opportunities in funding

A key concern raised was the limited and inconsistent funding for EbA, especially at the local level. Stakeholders noted that while international climate finance remains important, it is not sufficient or sustainable for long-term planning.

One participant noted:

“We live in a country where there are competing priorities for a dwindling fiscal space. This then results in limited allocation of financial resources by government for EbA action and environmental action in general.”

Stakeholders called for:

- Blended finance models.
- Integration of EbA into local development and budget planning; and
- Increased domestic financing through improved implementation of climate and green economy policies.

4.2.2 EbA as a Catalyst for Green Job Creation

Stakeholders strongly endorsed the potential of EbA to generate green jobs, particularly through nature restoration, catchment management, and sustainable land use practices.

“EbA can stimulate green jobs in restoration and conservation sectors, aligning with South Africa's Just Transition objectives.”

Programmes like Working for Water and Working for Wetlands were highlighted as models of success, blending ecosystem restoration with creating jobs and building skills. Key priorities identified included:

- Expanding nature-based job opportunities linked to EbA.
- Supporting skills development and training in environmental work; and
- Embedding EbA job creation within Just Transition planning frameworks.

4.2.3 Market-Based Incentives and Informal Sector Integration

Participants in the workshop discussed the need to activate both formal and informal market linkages to increase the economic viability of EbA. Informal actors, including small-scale farmers, harvesters, and community cooperatives, are already undertaking EbA-relevant activities but often lack access to incentives, support, and visibility.

Stakeholders recommended:

- Developing Payment for Ecosystem Services (PES) schemes.
- Supporting community enterprises and eco-certification models; and
- Designing inclusive financing tools that engage the informal economy (See Box 1 for examples).

Box 1: Community-driven approaches to sustainable EbA

In collaboration with key partners, the Kruger to Canyons Biosphere Region (K2C) offers compelling examples of how locally led initiatives can effectively integrate EbA with livelihood development, financial inclusion, and climate resilience (K2C BR, 2023). The Herding for Health (H4H) programme is a community-based initiative that promotes climate-smart rangeland management, sustainable livestock herding, and ecosystem restoration in communal areas. A key innovation of H4H is the employment of local youth as eco-rangers, who support livestock health and environmental monitoring. This model not only enhances biodiversity outcomes and adaptive land management, but also contributes to green job creation, builds local stewardship, and supports social equity. Complementing this is the Meat Naturally Programme, which creates market access for sustainably grazed livestock. The programme rewards good rangeland management, links communal farmers to formal meat markets, and strengthens value chains that incentivise ecological restoration. By combining economic incentives with climate-smart land management, Meat Naturally demonstrates how informal producers can be supported through EbA-aligned market systems, forging a powerful link between ecosystem health and local economic development.

To further support these efforts, K2C has facilitated the establishment of Eco-Savings and Credit Groups (Eco-SCGs) in 14 communities. These groups provide a platform for community members—particularly women and youth—to pool savings, access microloans, and build financial resilience. Eco-SCGs play a vital role in enabling investment in sustainable land-use practices, reducing vulnerability to climate-related shocks, and improving access to informal finance in under-resourced areas. Together, these initiatives showcase the potential of integrated EbA models that connect:

- Environmental restoration.
- Green job creation.
- Community empowerment; and
- Financial inclusion.

These approaches offer a replicable model for people-centred, ecosystem-based adaptation that aligns environmental outcomes with social and economic resilience, and provides compelling evidence for locally led, inclusive climate action.

4.3 Capacity gaps and development

Capacity development emerged as a cross-cutting priority in the implementation of EbA in Mpumalanga. Participants highlighted a range of capacity-related challenges, from technical knowledge gaps and institutional fragmentation to the need for inclusive skills development programmes, particularly at the local level. These gaps impact the ability of various actors, from municipalities to community members, to engage meaningfully and sustainably in EbA initiatives.

4.3.1 Technical and institutional capacity challenges

Participants in the workshop acknowledged that many municipalities lack the capacity and resources to effectively integrate EbA into development planning.

“The reality is that some municipalities do not have the capacity to integrate climate change into their development plans.”

In some cases, a single official is responsible for managing multiple environmental programmes, including climate adaptation, which limits depth and continuity:

“Lack of capacity/resources in the municipalities to deal with EbA—one person appointed to focus on all environmental programmes.”

There is also limited awareness of existing support tools such as the Municipal Climate Change Response Database, underscoring the need for training and knowledge dissemination. Participants proposed the inclusion of EbA indicators in municipal performance evaluations as a mechanism to encourage mainstreaming:

“Ideally, EbA should be implemented at the local scale—useful if performance with EbA implementation could be a part of performance evaluation in municipalities.”

A key point of emphasis was the need for tools to help navigate the complex policy landscape, which is often fragmented and difficult to interpret across sectors and government levels. There was a clear request for the development of practical tools and guidance that can assist practitioners and officials in:

- Understanding how existing policies relate to EbA.
- Identifying institutional entry points for implementation; and
- Aligning EbA efforts with existing mandates at municipal and sectoral levels.

“Can we provide some tools to help navigate the policy landscape in EbA? It's not easy to know where to start or how things fit together.”

4.3.2 Community Capacity and Knowledge Integration

Capacity building must also extend to communities, traditional authorities, and informal actors, who are often under-represented in formal adaptation processes. Participants

noted that traditional authorities are frequently excluded from forums, despite their important role in local governance and the inclusion of indigenous knowledge systems.

“Traditional authorities are sometimes not included in the various forums. This is important when trying to include indigenous knowledge.”

In addition to structural gaps, stakeholders pointed to behavioural and cultural factors as both enablers and constraints to capacity and participation. These include levels of trust, perceptions of ownership, and agency, which shape how actors engage with EbA. There is currently little attention paid to these behavioural drivers, despite their influence on successful adaptation implementation.

4.3.3 Skills Development, Youth Engagement and Gender Inclusion

Participants stressed the urgent need to develop tailored programmes that equip youth and marginalised groups with relevant skills and opportunities in the EbA space. This requires collaboration between businesses, educational institutions, government bodies, and community organisations, as well as stronger integration of EbA themes into vocational training and public employment programmes.

“There is a growing need for tailored programmes that equip youth with skills and opportunities in EbA.”

Gender inclusion was also raised as a capacity and institutional issue. Stakeholders noted that gender considerations are often missing in EbA strategies, and that this must be addressed through intentional, cross-sectoral collaboration and gender-responsive design at all stages of planning and implementation.

“Including gender in EbA strategies and projects at all levels of implementation would require collaborative efforts from all sectors.”

4.4 Collaboration and partnerships

Effective implementation of EbA depends heavily on collaborative partnerships across sectors, institutions, and stakeholder groups. Throughout the workshop, participants emphasised that many of the barriers to scaling and sustaining EbA in Mpumalanga relate not only to technical or financial gaps, but to fragmented coordination, institutional silos, and missed opportunities for cross-sectoral alignment.

4.4.1 Fragmentation and missed connections

Stakeholders noted that while there are numerous ongoing projects and initiatives related to climate adaptation, they are often isolated or poorly coordinated. This reduces efficiency, increases duplication, and limits the potential for learning and scaling. Stakeholders noted the importance of establishing or strengthening platforms that

facilitate coordination and shared learning, particularly among government departments, civil society, research institutions, and the private sector.

4.4.2 Strengthening Existing Structures and Forums for Collaboration

Several participants pointed to existing forums that could serve as entry points for strengthening collaboration. For example:

“In Mpumalanga, there is a provincial Climate Change Forum of stakeholders that meets regularly. That would be the place to coordinate EbA and to bring in grassroots stakeholders.”

Existing communities of practice and coordinating structures are valuable platforms for raising awareness, sharing knowledge, and aligning strategies across sectors.

4.4.3 The Value of Inclusive Partnerships

Stakeholders emphasised the need for genuine, inclusive partnerships that go beyond formal institutional relationships to include:

- **Traditional authorities**, who are often excluded from climate forums despite their important role in land and resource governance.
- **Community-based Organisations**, especially those working at the interface of development, environment, and livelihoods.
- **Informal actors and local knowledge holders**, whose contributions to adaptation are often overlooked in formal processes.
- **Private sector actors**, particularly in agriculture, water, tourism, and finance development, can play a key role in mainstreaming EbA.
-

“Traditional authorities are sometimes not included in the various forums. This is important when trying to include indigenous knowledge.”

“Institutional strengthening is needed—different organisations coming together, including government and the private sector.”

4.4.4 Partnerships as a Pathway to Integration and Scaling Up

Strengthening partnerships was seen not only as a coordination challenge, but also as a critical enabler for scaling up and integrating EbA into broader development efforts. Collaborative approaches across sectors and governance levels are essential for moving beyond isolated projects toward systemic impact. Stronger partnerships could:

- Align EbA with infrastructure, water, agriculture, and urban planning agendas.
- Improve access and sharing of resources, knowledge, and technology.
- Facilitate multi-level cooperative governance, from local implementation to provincial and national policy alignment.

4.5. Knowledge barriers and knowledge development

Critical reflections on the role of knowledge in enabling or constraining EbA in Mpumalanga surfaced. Stakeholders agreed that while there is a wealth of scientific, policy, and local indigenous knowledge, several barriers limit access, integration, and effective use of this knowledge in EbA planning and implementation.

4.5.1 Fragmented and inaccessible knowledge

Participants noted that relevant information exists across different institutions and sectors but is often scattered, difficult to access, or not translated into usable formats for decision-makers and implementers. This information ranges from climate risks and ecosystem data to project learning.

“There’s a rich knowledge base, academic, local and traditional, but it needs to be collated and made accessible.”

This knowledge fragmentation hinders learning across projects, makes it difficult for communities and municipalities to make informed decisions, and contributes to duplication of effort in adaptation planning.

4.5.2 Under-valued local and traditional knowledge

A recurring theme was the under-utilisation of traditional and indigenous knowledge in EbA planning and implementation. Stakeholders emphasised that local communities hold valuable insights into ecosystem management and climate adaptation, but these are not systematically included in formal processes. A comment was made that:

“Implementation of EbA needs to infuse local and traditional knowledge. The communities that are highly dependent on natural resources have been living with nature and working with nature for centuries—there is a wealth of information that they have”

4.6 Monitoring and evaluation in EbA

Stakeholders reflected on the importance of systemic assessment of EbA initiatives and the challenges associated with it. Stakeholders welcomed the development of an EbA evaluation matrix, noting its potential to support evidence-based decision making, promote learning, and improve accountability across adaptation efforts in Mpumalanga.

4.6.1 The Evaluation Matrix: A tool for assessing EbA

CSIR presented an evaluation matrix, developed from the EbA principles and criteria published by DEF (Tshindane, 2017). This matrix was used to assess a subset of identified EbA projects in Mpumalanga against the five core themes referred to in the evaluation matrix.

Stakeholders noted the matrix as a useful baseline tool to benchmark and compare EbA projects. It was seen as valuable for implementers, funders, and policymakers to identify strengths, gaps, and areas for improvement.

"This type of framework can help people think more deliberately about the design and sustainability of their projects. It creates a clearer view of what success looks like across different contexts."

4.6.2 Recommendations for refining the matrix

Participants offered several suggestions to strengthen the evaluation matrix and make it more applicable across diverse contexts. This included:

- **Climate risk alignment:** Projects should be assessed based on how well they are informed by credible climate projections and vulnerability assessments.
- **Assess adaptive capacity and flexibility:** The extent to which projects are designed to adjust in response to changing conditions was seen as essential to long-term impact.
- **Economic indicators:** Stakeholders recommended factoring in indicators for sustainable financing and co-benefits such as job creation, cost effectiveness, and livelihood impacts. In addition, it was noted that supportive assessments could include cost-benefit analyses.
- **Community monitoring:** There was support for including mechanisms that track community participation in monitoring, reinforcing ownership and sustainability.

4.6.3 Barriers to Effective M&E

Several implementation challenges related to EbA monitoring were highlighted:

- Limited financial and technical capacity, especially in municipalities, restricts the ability to collect, manage, and use monitoring data.
- Monitoring is often not built into the project design or funding model, reducing the ability to track long-term impact.
- There is a general lack of standardised indicators and reporting frameworks specific to EbA in the South African context; and
- The reliance on publicly available data makes it difficult to capture the full complexity and nuance of projects on the ground.

5 Key messages

The stakeholder engagement process highlighted a range of critical insights, challenges, and opportunities for strengthening EbA in Mpumalanga. These key messages encapsulate the most important themes that emerged and are intended to guide future planning, policy, and investment in EbA:

- **EbA Must Be Integrated into Development Planning**

EbA should not be viewed solely as an environmental intervention but as a strategic investment in climate-resilient development. Mainstreaming EbA into municipal service delivery, land-use planning, and economic development strategies is essential.

- **Coordination and Alignment Are Essential**

There is a need to improve coordination across sectors and spheres of government, as well as among civil society, academia, and the private sector. Existing platforms, such as the Mpumalanga Provincial Climate Change Forum, should be strengthened to serve as coordination and knowledge-sharing hubs.

- **Clear Policy Mandates and Institutional Support are Needed**

Conflicting agendas (e.g. mining in protected areas) and fragmented responsibilities limit the effectiveness of EbA implementation. Stronger institutional alignment and policy coherence are needed to enable systemic and sustained action.

- **Funding Models Must Be Diversified and Sustainable**

Government funding is constrained, and reliance on international climate finance is not sustainable in the long term. There is a need to explore blended finance, domestic resource mobilisation, and Payment for Ecosystem Services to support EbA implementation at scale.

- **EbA Has High Potential for Green Job Creation**

Nature-based job opportunities, particularly in restoration, rangeland management, and conservation, can support rural livelihoods and align with Just Transition goals. Programmes such as Working for Water, Working for Wetlands, and Herding for Health offer scalable models.

- **Equity and Inclusion Must Be Central**

EbA must be intentionally designed to advance social equity. This includes incorporating gender-responsive approaches, recognising traditional authorities, and involving youth and marginalised communities in planning and implementation.

- **Local and Indigenous Knowledge are Valuable Assets**

Local communities hold critical knowledge on ecosystem management and climate adaptation. Efforts must be made to include and validate this knowledge in EbA decision making and project design.

- **Tools and Capacity Support Are Urgently Needed**

Municipalities and communities need practical tools, training, and guidance to navigate complex policy landscapes and implement EbA effectively. Capacity-building efforts should be tailored, ongoing, and inclusive.

- **Evidence-Based Planning Requires Strong M&E**

Monitoring and evaluation systems must be embedded in EbA projects from the outset. The use of evaluation frameworks that include social, economic, and ecological indicators will support learning, accountability, and the assessment of project impact and effectiveness.

6 Recommendations

The following recommendations were identified during the workshop discussions and are proposed as practical actions to strengthen EbA implementation in Mpumalanga.

- **Explore Funding Opportunities through Job Creation Linkages**

Participants recommend investigating opportunities to secure funding for EbA by linking funding applications to job creation potential. This approach is a way to strengthen the case for funding by highlighting the socio-economic benefits of EbA.

- **Enhance Coordination of EbA Projects**

There is a strong call for greater coordination of EbA projects in the province, particularly through alignment with the Mpumalanga Climate Change Forum. Participants believe that improved coordination will help streamline efforts and increase the effectiveness of EbA initiatives.

- **Integrate Traditional Ecological Knowledge**

Participants emphasized the importance of integrating traditional ecological knowledge into EbA projects. This integration is a means to enhance community ownership, sustainability, and respect for local cultural practices.

- **Create Communication and Awareness Tools**

It was suggested that a toolkit or infographic be developed to clearly define EbA, its benefits, and guidelines for when a project can be classified as an EbA initiative. Such a tool would help improve understanding and support for EbA across various stakeholders.

- **Targeted and Iterative Stakeholder Engagement**

Stakeholders emphasised the importance of engaging provincial and municipal climate champions through targeted, one-on-one consultations. These engagements should be ongoing and progressive, creating opportunities for continuous input, deeper dialogue, and sustained support for EbA across all levels of governance.

- **Institutionalize EbA within Municipal Planning and Performance Frameworks**

There was discussion on the need to integrate EbA into the key performance areas of municipal departments. This would ensure that EbA is prioritized and adequately resourced within local governance structures.

- **Quantify the Economic Impact of EbA**

Participants highlighted the need to quantify the costs and benefits of EbA, including the potential consequences of inaction. This would provide a stronger economic case for adopting EbA strategies and demonstrate its long-term value.

- **Develop a Stakeholder Map for EbA**

The creation of a comprehensive stakeholder map for EbA in Mpumalanga was recommended. This map would help identify key players and enhance coordination and collaboration across sectors involved in EbA initiatives.

7 Conclusion and way forward

The goal of this stakeholder engagement process was to validate and deepen the findings from the Situational Analysis and Scoping Report, and to generate stakeholder-driven insights to inform the development of actionable mechanisms for EbA implementation in Mpumalanga. Through a Multi-stakeholder Workshop, this process gathered critical perspectives on the enabling environment for EbA, institutional arrangements, challenges, opportunities, and practical actions required to scale up EbA efforts in the province.

The stakeholder engagement confirmed several of the Situational Analysis and Scoping Report findings, while also adding granularity, context, and new priorities for consideration. Participants highlighted the importance of aligning EbA with local development priorities, addressing land tenure and governance issues, leveraging EbA for green job creation, and integrating gender and traditional knowledge systems more deliberately into adaptation planning. The stakeholder engagement process also identified the need for stronger institutional coordination, simplified tools for municipal officials, improved funding mechanisms, and inclusive partnerships across sectors and governance levels. Importantly, this process served to identify additional gaps and emerging issues not fully explored in the Situational Analysis and Scoping Report (Deliverable 2), such as the need to explore the role of trade unions, and the integration of agroecosystems within EbA planning.

This report is therefore best regarded as a further step in an iterative and participatory process to co-develop robust recommendations for EbA implementation in Mpumalanga. As such, the findings and insights from this stakeholder consultation will be:

- Integrated into the Draft Analysis and Recommendations Report (Deliverable 5), where they will help shape context-responsive proposals for scaling up EbA.
- Used to refine and prioritise implementation mechanisms, including institutional roles, financing arrangements, capacity-building approaches, and monitoring tools; and
- Serve as a foundation for the Final Report, which will consolidate all findings and provide a roadmap for advancing EbA in Mpumalanga in alignment with national adaptation goals and Just Transition principles.

Ultimately, the insights gathered through this engagement will contribute to shaping the forthcoming recommendations and implementation mechanisms for EbA in Mpumalanga. The next steps will focus on ensuring that stakeholder perspectives are meaningfully reflected in the remaining project outputs, supporting the development of context-appropriate, inclusive approaches to climate adaptation planning in Mpumalanga.

8 References

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Appendix

Appendix 1: Workshop agenda for the online PCC-EbA engagement hosted on 18 March 2025.



Presidential Climate Commission: EbA Workshop Mpumalanga

Event:	Workshop		
Format	Online Dialogue		
Date	18 March 2025	Time: 10:00 – 14:00	
Microsoft Teams Meeting link	https://teams.microsoft.com/meet/332636105759?p=LrhAw4OgaWRPJ7dl2r		
Hosted by:	Presidential Climate Commission (PCC)		
Facilitator:	Council for Scientific and Industrial Research (CSIR)		
Item	Activity	Presenter/ Facilitator	Time
1	Welcome and Setting the Scene Remarks	PCC - Secretariat	10:00 - 10:10
2	Opening Remarks	PCC – Commissioner	10:10 – 10:20
3	Objectives of the workshop	CSIR	10:20 – 10:25
4	Introduction of the EbA Policy and Institutional Context	CSIR	10:25 – 10:40
5	Workshop Session 1 - EbA Projects in Mpumalanga	CSIR	10:40 – 11:30
6	Workshop Session 2 - Opportunities and Constraints to EbA	CSIR	11:30 – 12:15
Break			12:15 - 12:45
7	Workshop Session 3 - Actions for developing EbA in Mpumalanga	CSIR	12:45 – 13:40
8	Summary of Session and Way Forward	CSIR	13:40 – 13:50
8	Closing Remarks	PCC – Commissioner	13:50 - 14:00