SANBI
Biodiversity for Life
South African National Biodiversity Institute

Mainstreaming Biodiversity: Policy to Practice

Chemical And Allied Industries' Association Biodiversity Webinar

4 September 2025

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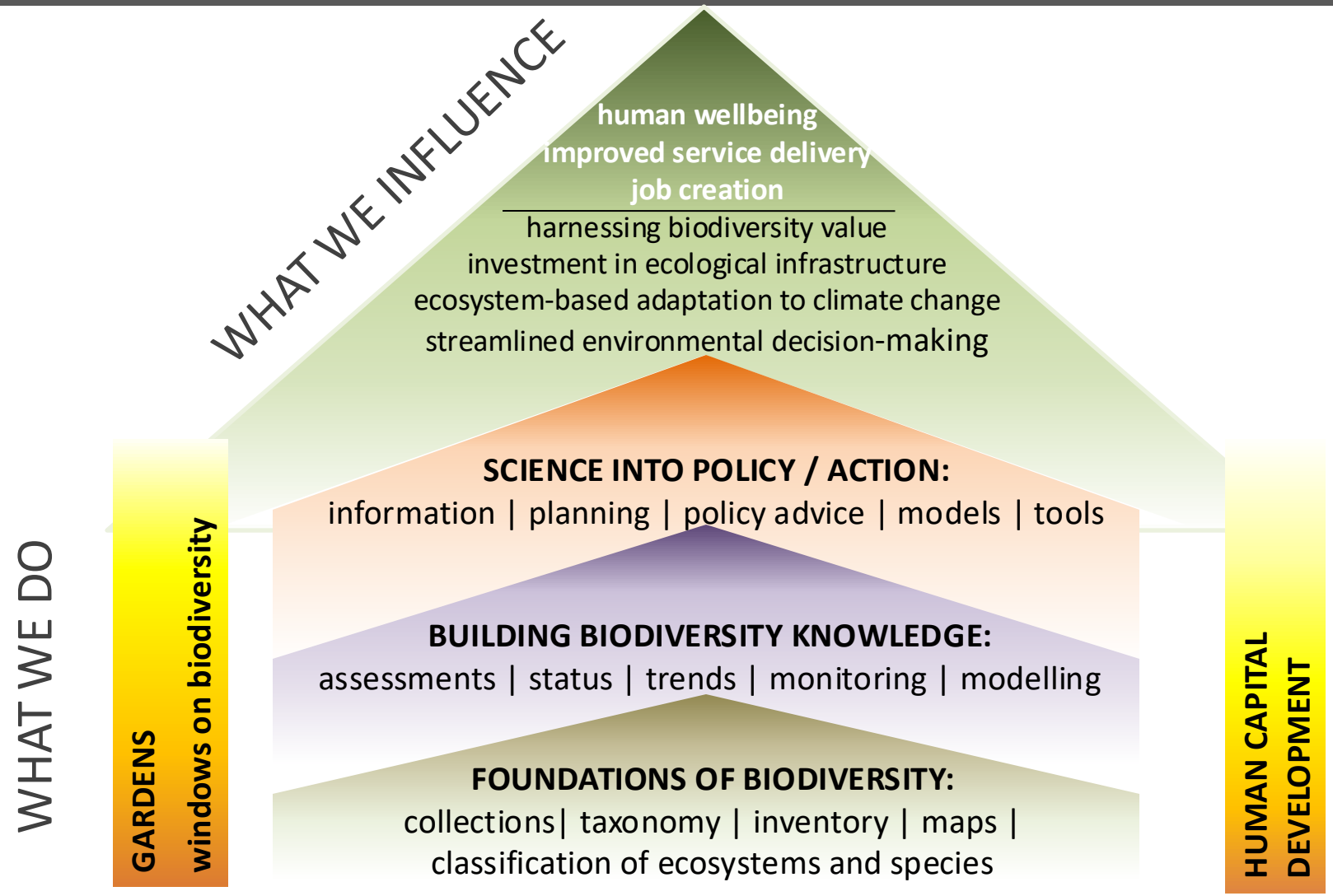
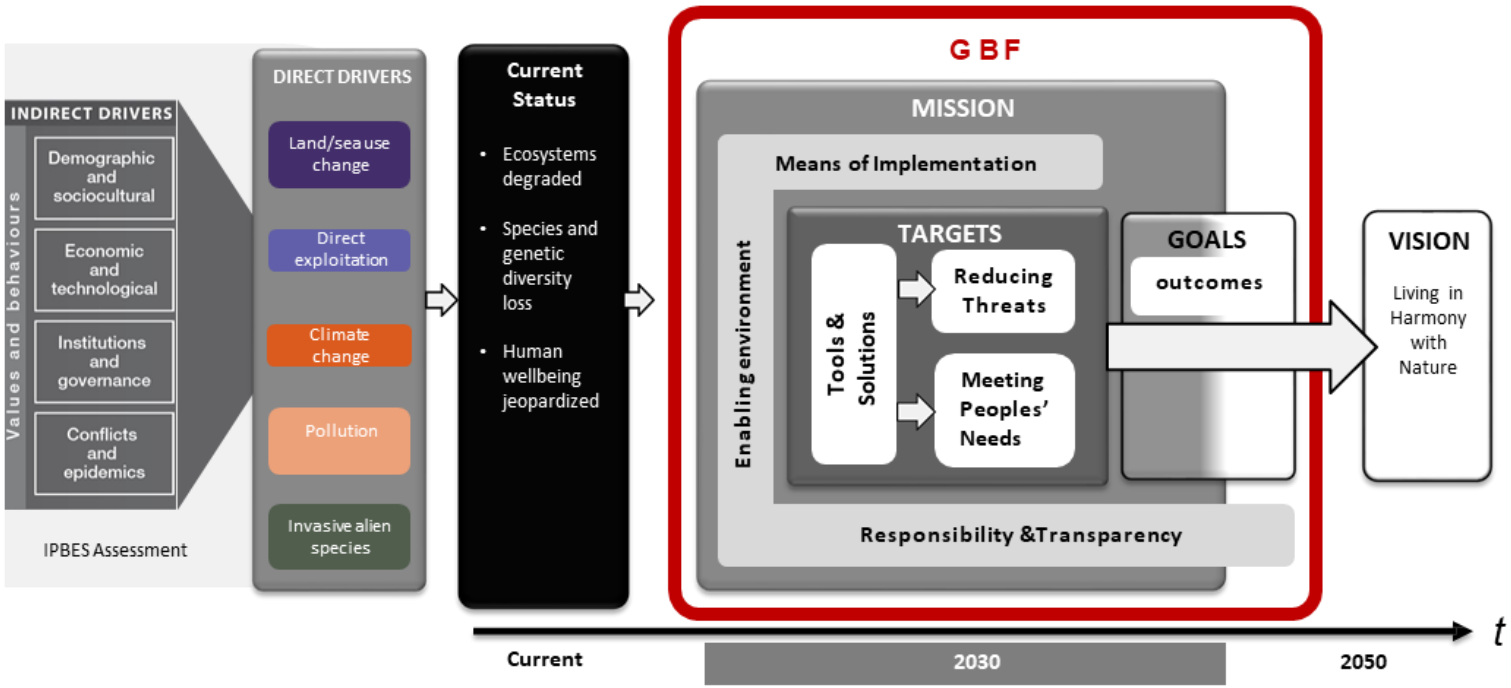
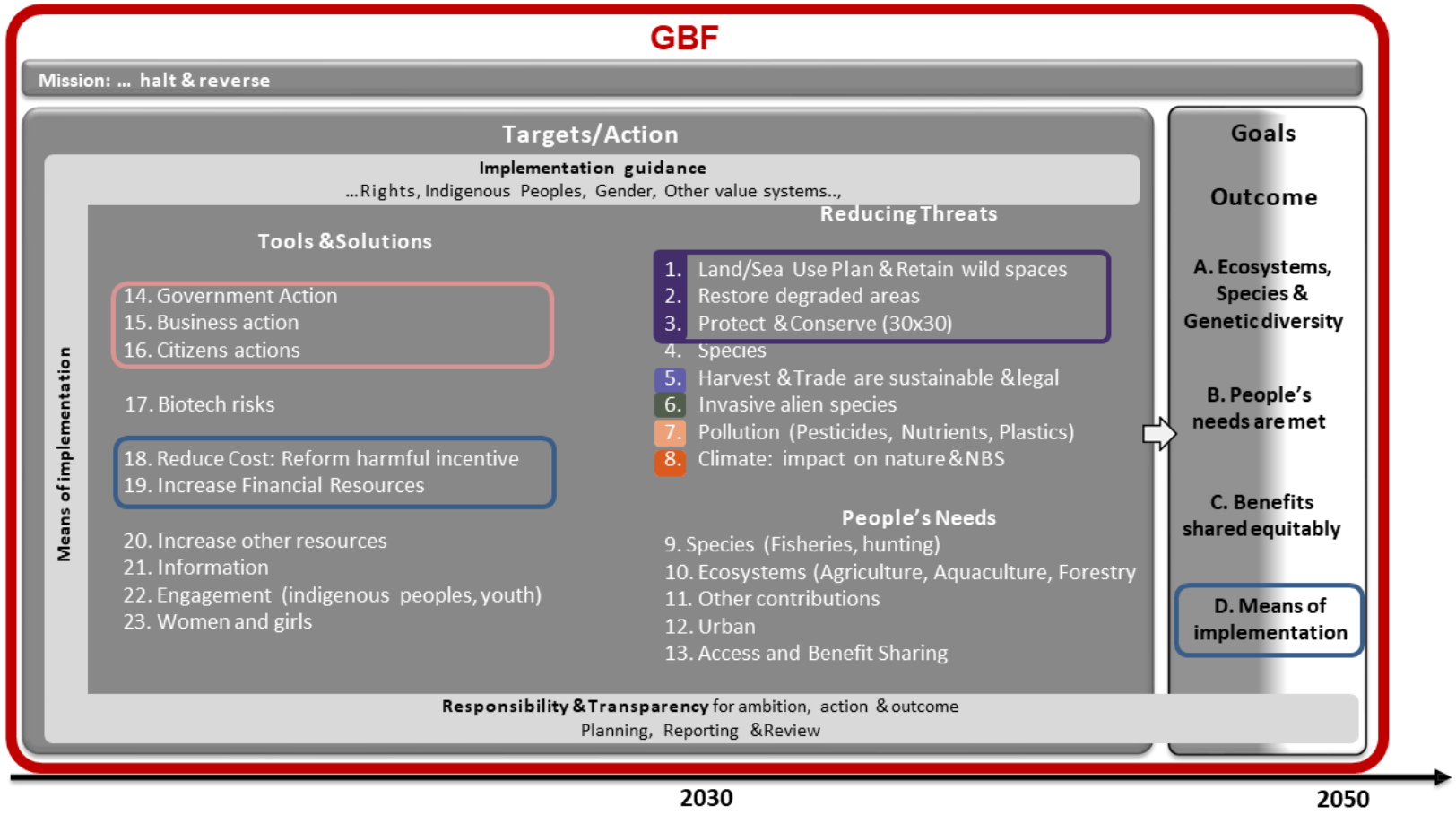
SANBI's value chain



Context: the Logic Model



Overview of the Kunming-Montreal Global Biodiversity Framework:



Outcomes of COP 15 and 16 decision

Revised and updated NBSAPs due by COP16

National biodiversity strategies and action plans submitted in line with the Kunming-Montreal Global Biodiversity Framework are available on the **online reporting tool.**

In **decision 15/6**, the fifteenth meeting of the Conference of the Parties:

6. *Requests* Parties to revise and update their national biodiversity strategies and action plans in accordance with Article 6 of the Convention, following the guidance provided in annex I, aligned with the Kunming-Montreal Global Biodiversity Framework and its goals and targets, including those related to means of implementation, and to submit them through the clearing house mechanism by the sixteenth meeting of the Conference of the Parties;

7. *Requests* Parties not in a position to submit their revised national biodiversity strategies and action plans by the sixteenth meeting of the Conference of the Parties, to communicate national targets reflecting, as applicable, all the goals and targets of the Kunming-Montreal Global Biodiversity Framework, including those related to all means of implementation in accordance with the reporting template provided in annex I as a standalone submission by the sixteenth meeting of the Conference of the Parties in advance of the full submission of the national biodiversity strategy and action plan;

8. *Urges* all Parties to use the headline indicators, supplemented by component and complementary indicators and other national indicators in relevant national planning processes, including national biodiversity strategies and action plans, according to their national circumstances;

9. *Encourages* Parties to adopt the revised or updated NBSAPs as policy and/or legal instruments and to mainstream them (or elements thereof) with broader strategies and plans, such as national sustainable development plans, national development plans, poverty reduction strategies and other relevant national sectoral and cross-sectoral plans, in line with national circumstances and priorities.

Decision 16/1 urges Parties that have not yet done so to revise or update their national biodiversity strategies and action plans, as requested in decision 15/6, as soon as possible.

OVERVIEW OF THE SA's 2nd Gen NBSAP (2015-2025)

Vision: Conserve, manage and sustainably use biodiversity to ensure equitable benefits to the people of South Africa, now and in the future.						
Strategic objectives	Management of **biodiversity assets** and their contribution to the economy, rural development, job creation and social wellbeing is enhanced.	Investments in **ecological infrastructure** enhance resilience and ensure benefits to society	Biodiversity considerations are **mainstreamed** into policies, strategies and practices of a range of sectors.	People are mobilised to **adopt practices** that sustain the long-term benefits of biodiversity.	Conservation and management of biodiversity is improved through the development of an **equitable and suitably skilled workforce**.	Effective knowledge foundations, including indigenous knowledge and citizen science, support the management, conservation and sustainable use of biodiversity.
Outcomes (number of activities per outcome)	1.1 The network of protected areas and conservation areas includes a representative sample of ecosystems and species, and is coherent and effectively managed 1.2 Species of special concern are sustainably managed 1.3 The biodiversity economy is expanded, strengthened and transformed to be more inclusive of the rural poor 1.4 Biodiversity conservation supports the land reform agenda and socio-economic opportunities for communal land holders	2.1 Restore, maintain and secure important ecological infrastructure in a way that contributes to rural development, long-term job creation and livelihoods 2.2 Ecosystem-based adaptation (EbA) is shown to achieve multiple benefits in the context of sustainable development	3.1 Effective science-based biodiversity tools inform planning and decision-making 3.2 Embed biodiversity considerations into national, provincial and municipal development planning and monitoring 3.3 Strengthen and streamline development authorisations and decision-making 3.4 Compliance with authorisations and permits is monitored and enforced 3.5 Appropriate allocation of resources in key sectors and spheres of government facilitates effective management of biodiversity, especially in biodiversity priority areas 3.6 Biodiversity considerations are integrated into the development and implementation of policy, legislative and other tools	4.1 People's awareness of the value of biodiversity is enhanced through more effective coordination and messaging 4.2 People are mobilised to conserve and sustainably use biodiversity	5.1 Macro-level conditions enabled for skills planning, development and evaluation of the sector as a whole 5.2 An improved skills development system incorporates the needs of the biodiversity sector 5.3 Partnerships are developed and institutions are capacitated to deliver on their mandates towards improved service delivery	6.1 Relevant foundational data sets on species and ecosystems are in place and well coordinated 6.2. The status of species and ecosystems is regularly monitored and assessed. 6.3 Geographic priority areas for the management, conservation and restoration of biodiversity assets and ecological infrastructure are identified based on best available science 6.4 Management-relevant and policy-relevant research and analysis is undertaken through collaboration between scientists and practitioners 6.5 Knowledge base is accessible and presented in a way that informs decision-making
	(21 activities)	(8 activities)	(37 activities)	(7 activities)	(12 activities)	(29 activities)

Rapid Retrospective Review findings of the 2nd Generation NBSAP

Degree of progress	Limited	Partial	Robust
Achieved		3.6 Policy and legislation 6.1 Foundational datasets	3.4 Compliance and enforcement 6.2 Status of species and ecosystems 6.3 Geographic priority areas
Progress at an insufficient rate	1.3 Biodiversity economy 1.4 Land reform agenda 2.2 Ecosystem-based Adaptation 3.2 Development planning 5.1 Conditions for skills development	1.1 Protected area expansion 1.2 Species of special concern 2.1 Ecological infrastructure investment 3.1 Science-based decision tools 3.3 Environmental authorisations 3.5 Resource allocation 4.1 People's awareness 5.2 Skills development 6.5 Knowledge base accessible	
Unknown	4.2 People mobilised 5.3 Institutional capacity 6.4 Biodiversity research		

Monitoring sufficiency

Progress Overview

- 5 outcomes achieved
- 14 progressed at insufficient rate
- 3 outcomes had unknown progress

Monitoring Capacity

- Only 3 outcomes had robust monitoring
- 4 partially monitored; 5 ad-hoc or weak

Key Achievements

- Expanded marine protected areas
- Strong biodiversity assessments (e.g. NBA)
- Progress in stewardship & compliance

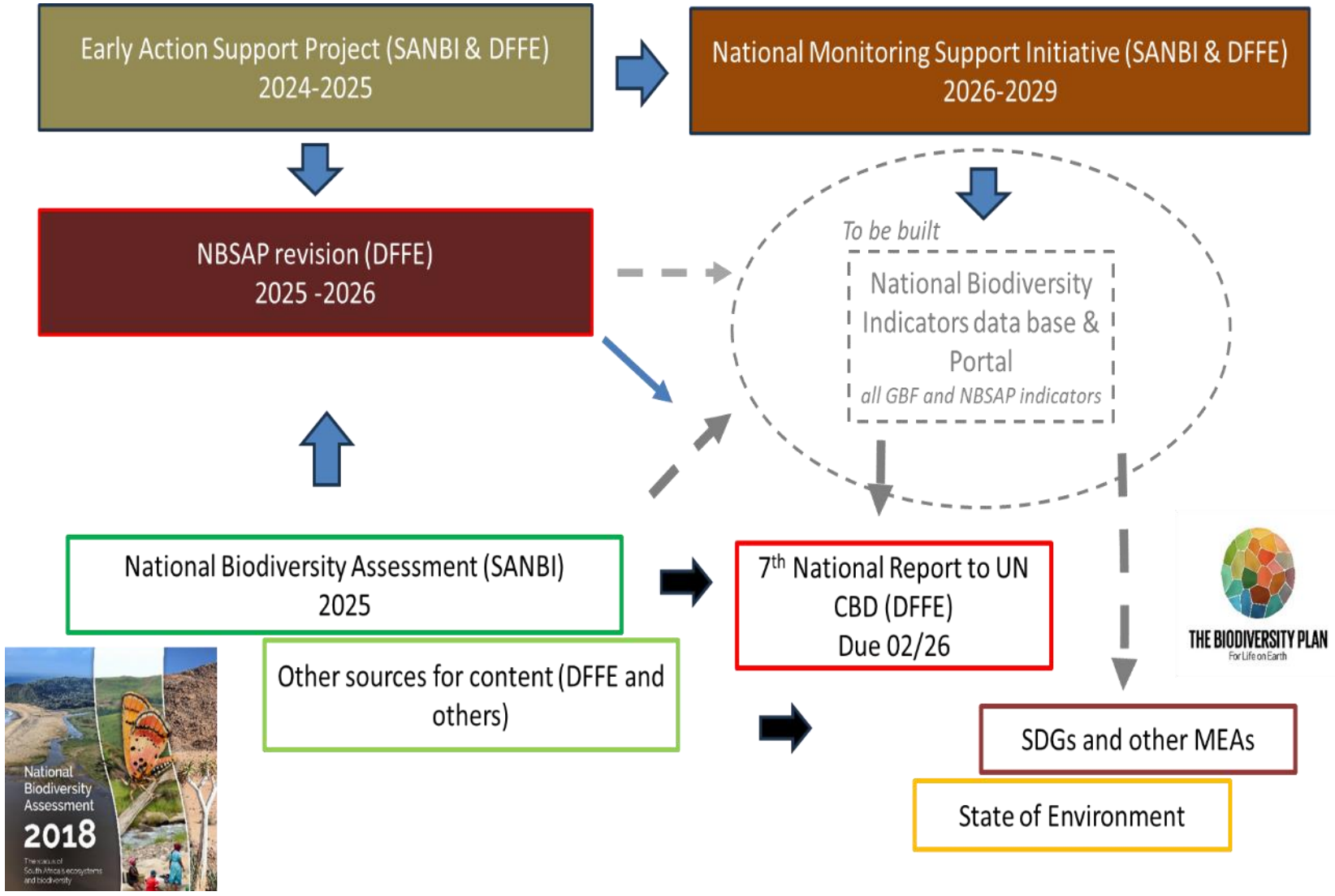
Challenges

- Weak or missing data tracking
- Biodiversity economy targets underperforming
- Fragmented ecosystem-based adaptation
- Capacity and institutional gaps

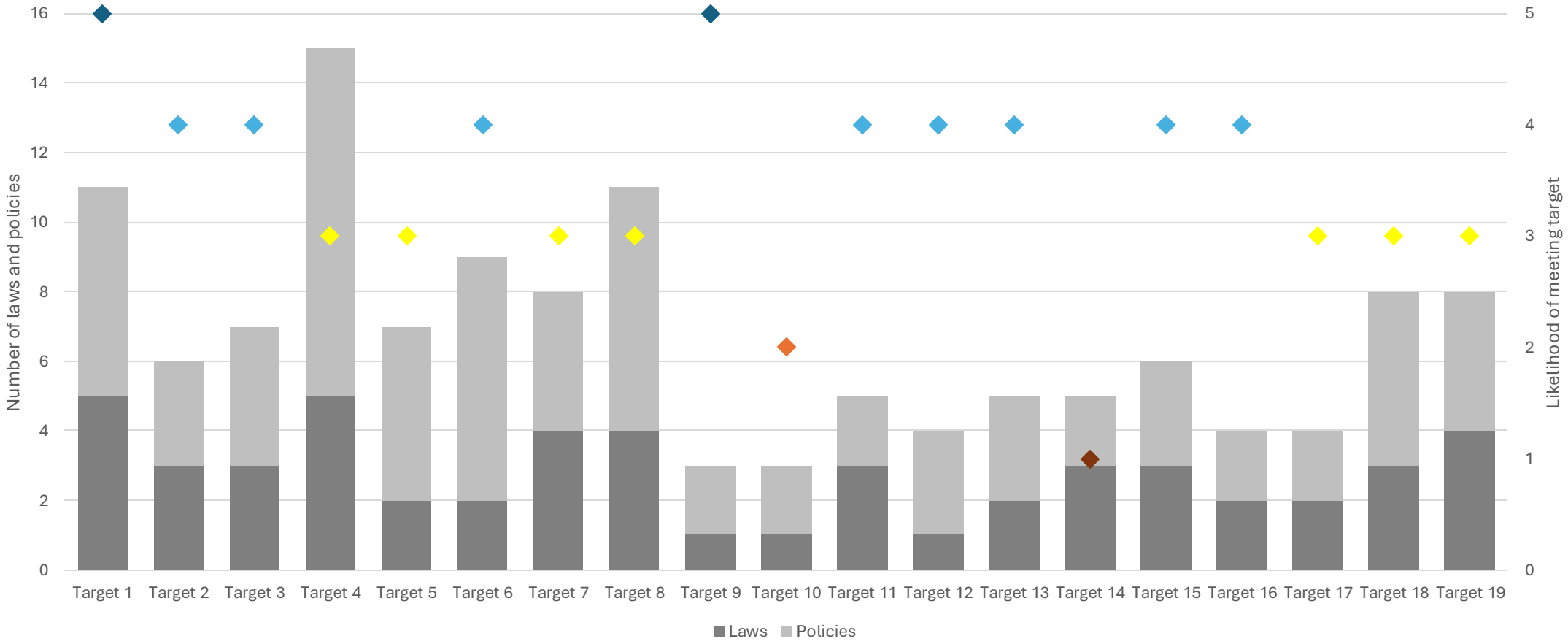
Recommendations

- Strengthen monitoring frameworks
- Align targets with accountability systems
- Prioritize measurable outcomes
- Establish coordination mechanisms

Comp 2: Monitoring Framework



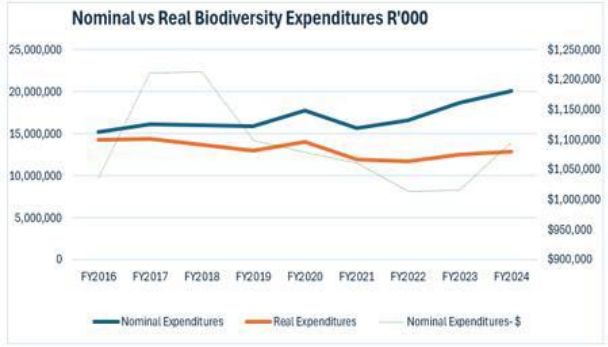
Comp 3: Policy and Institutional Alignment with the proposed National Targets

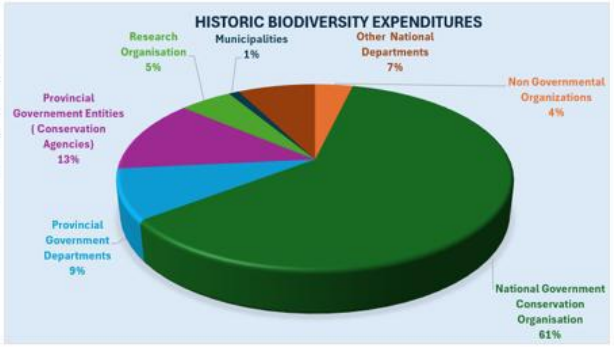


Comp 4. South Africa Biodiversity Expenditure Review 2016–2024

❖ **Key Outcomes:**

- Total biodiversity expenditure increased nominally from about R15.2M to R20.1M (2016–2024).
- DFFE contributed about 61% of total funding with SANParks and SANBI showing strong financial resilience.
- Biodiversity spending remains below 1% of total National budget and 0.32% of GDP.
- Private sector engagement is growing, with 35% (FY21) of JSE-listed companies and SOEs recognizing biodiversity as material.





❖ **Weaknesses:**

- Real expenditure declined due to inflation, reducing conservation capacity.
- Fragmented budgeting and lack of standardized biodiversity tagging hinder tracking.
- Limited Private Sector Financial Transparency & Philanthropy.

❖ **Recommendations / Way Forward:**

- Standardize biodiversity tagging across sectors to improve expenditure tracking.
- Develop integrated budgeting frameworks to reduce fragmentation and align biodiversity funding.
- Engage private sector through incentives for transparency and philanthropic contributions.
- Strengthen inflation-adjusted budgeting to maintain conservation capacity.
- Leverage partnerships with NGOs, academia, and international donors for diversified funding.

Target 15: Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts

Take legal, administrative or policy measures to encourage and enable business, and in particular to ensure that large and transnational companies and financial institutions:

- *Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity, including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains and portfolios;*
- *Provide information needed to consumers to promote sustainable consumption patterns;*
- *Report on compliance with access and benefit-sharing regulations and measures, as applicable; in order to progressively reduce negative impacts on biodiversity, increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production.*

Headline indicators:

15.1 Number of companies reporting on disclosures of risks, dependencies and impacts on biodiversity

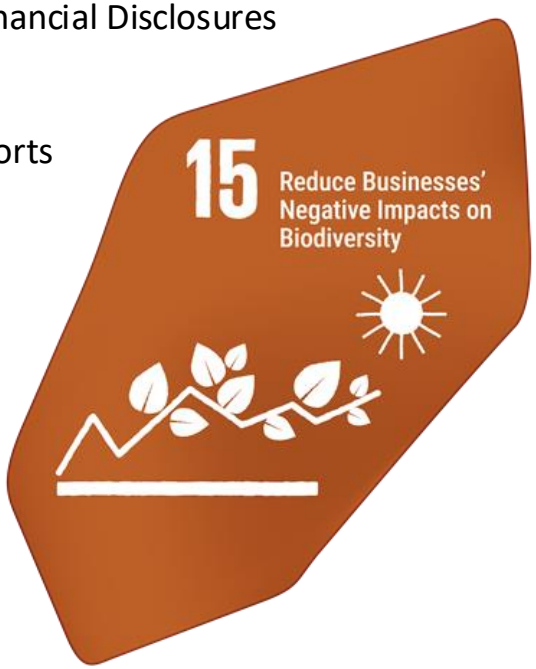
Component indicators:

Indicator based on Task Force for Nature-related Financial Disclosures

Complementary indicators:

Species threat abatement and restoration metric

Number of companies publishing sustainability reports



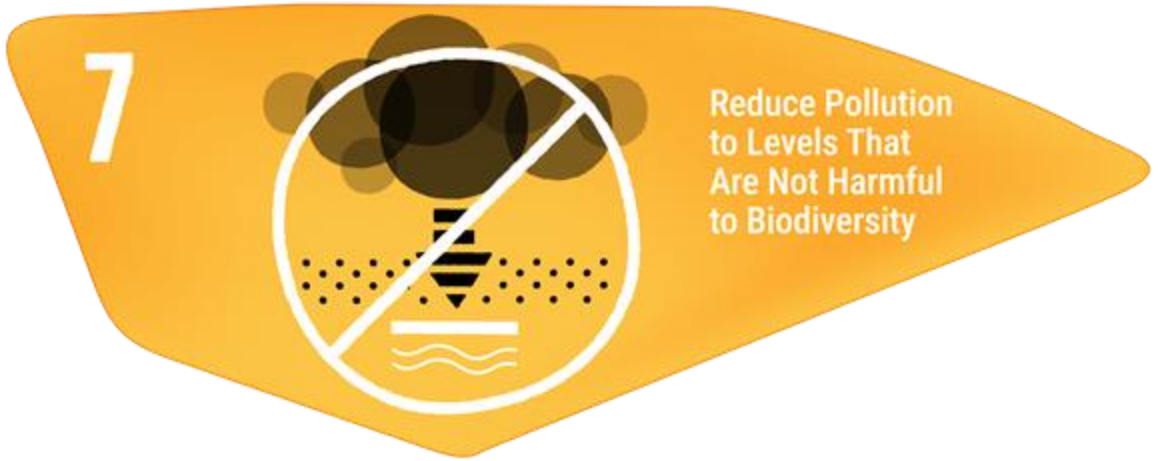
Draft NT

By 2030, partner with large and transnational companies and financial institutions to regularly monitor, assess, and disclose their risks, dependencies and impacts on biodiversity in accordance with existing legal, administrative and/or policy frameworks.

Large companies include: Groups or companies with turnover exceeding R1 billion; Groups or companies listed on a stock exchange; Multinational enterprises (including e-commerce or foreign electronic service providers); Financial-services groups or companies with turnover exceeding R500 million; Mining groups/companies with turnover exceeding R500 million - (SARS).

Target 7: Reduce Pollution to Levels That Are Not Harmful to Biodiversity

Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution.



Draft National Target: By 2030:

- National Circular Economy Action Plan developed.
- National Waste Management Strategy reviewed.

Target 7: Reduce Pollution to Levels That Are Not Harmful to Biodiversity

Headline indicators:

7.1 Index of coastal eutrophication potential

7.2 Pesticide environment concentration

Component indicators

Fertilizer use

Proportion of domestic and industrial wastewater flow safely treated

Floating plastic debris density (by micro and macro plastics)

Red List Index (impact of pollution)

Complementary indicators

Trends in loss of reactive nitrogen to the environment

Trends in nitrogen deposition

Municipal solid waste collected and managed

Hazardous waste generation

Trends in the amount of litter in the water column, including microplastics and on the seafloor

Index of coastal eutrophication

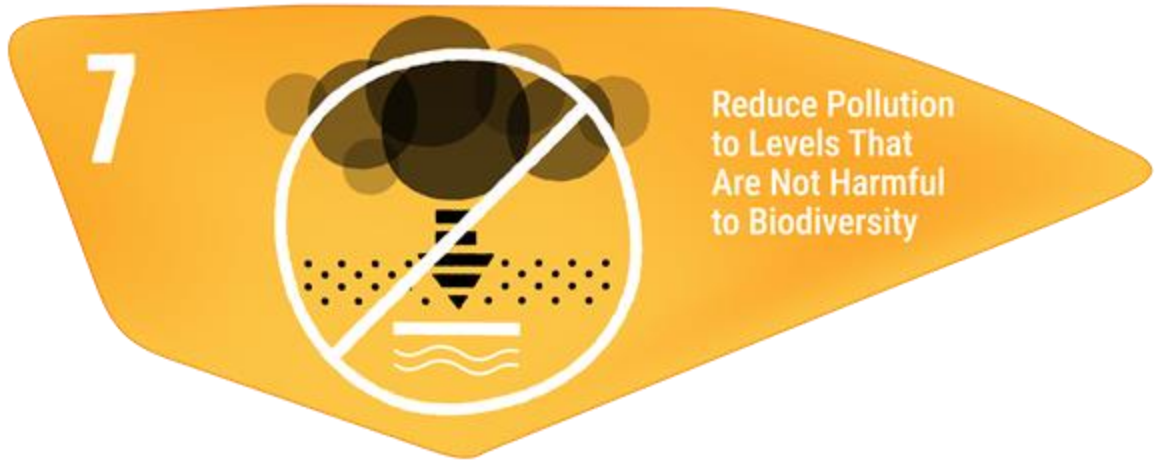
Plastic debris density

Red List of Ecosystems

Underwater noise pollution

Name, amount/volume/concentration of highly hazardous pesticides by type (per land/marine area)

Pesticide use per area of cropland



Parties may choose to report on either PEC or ATAT depending on the availability of methodology and in accordance with their national circumstances and technical capacities.

SANBI's value chain

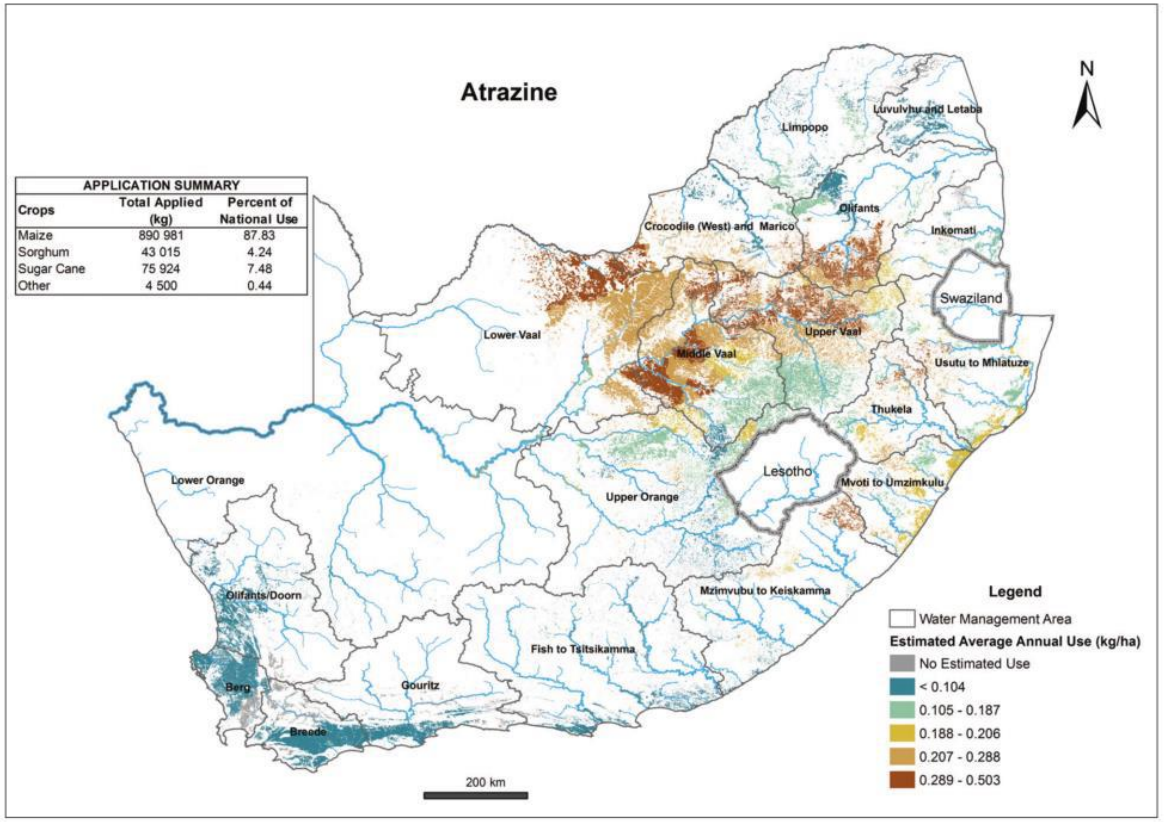


Figure 3: An example of a map showing the average annual use of atrazine per hectare of agricultural land in South Africa for the year 2009, estimated from pesticide sales, agricultural crop census and land-cover data.

Data from GfK Kynetec AgroTak database
(same data as used by US Geological Survey)

Way forward by FAO-UN

Finalization of HI 7.2 metadata (formula and methodology) by targeted experts

Testing of HI 7.2 methodology in voluntary pilot countries

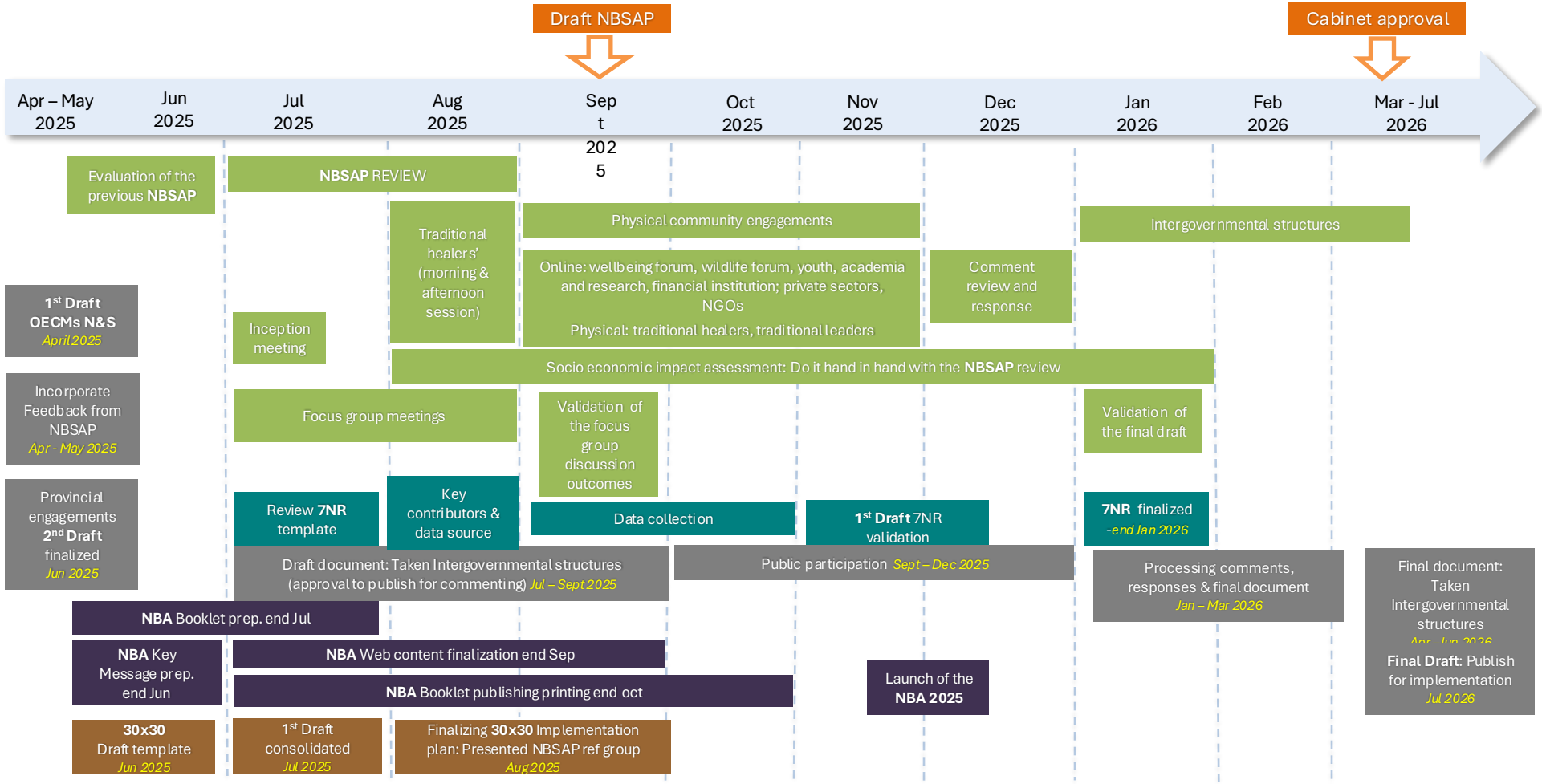
Development of practical guidance document/e-learning for national reporting

Capacity building trainings for CBD Contracting Parties on how to report against HI 7.2

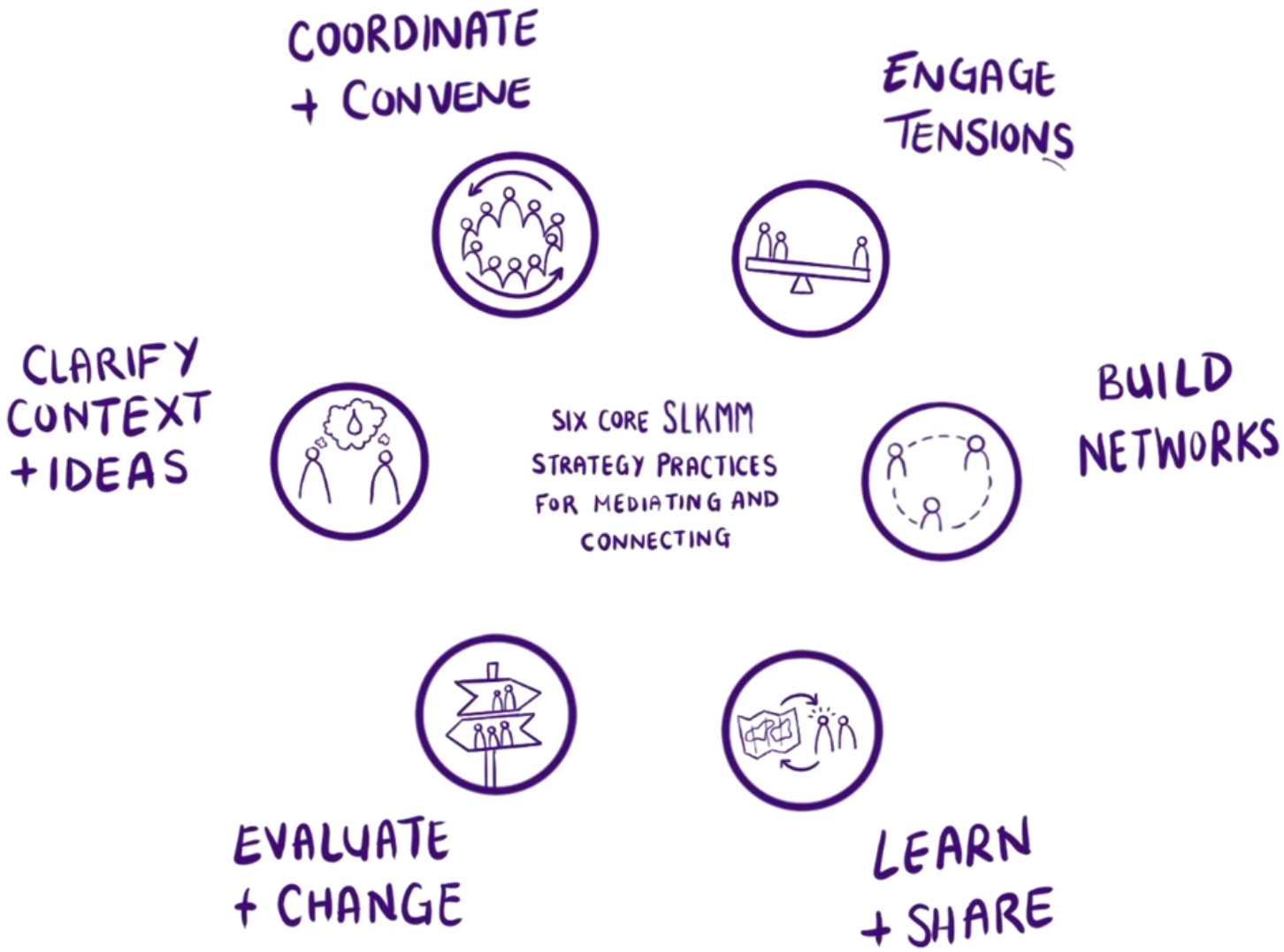
forestry, fisheries & the environment
Department: Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Process Map: National Biodiversity Strategies and Action Plans (NBSAPs)

Convention on Biological Diversity

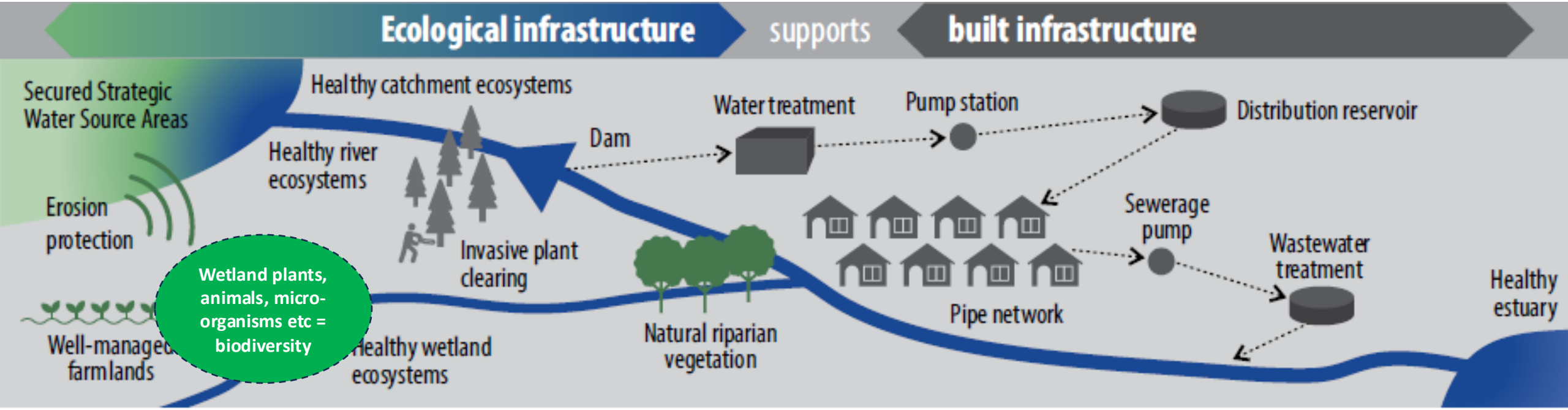


How we work in SANBI



Unpacking the language: Ecological Infrastructure and biodiversity

- Ecological infrastructure
  - Naturally functioning ecosystems eg: wetlands, rivers, grasslands
  - Provide natural services eg: clean water, flood control and healthy soils
  - Support built infrastructure (water doesn't come from a tap)
  - Critical for providing services and underpinning socio-economic development
- Biodiversity
  - Variety of life within EI that enables the systems to function
  - The foundation that makes EI work



Approach to mainstreaming into key economic sectors

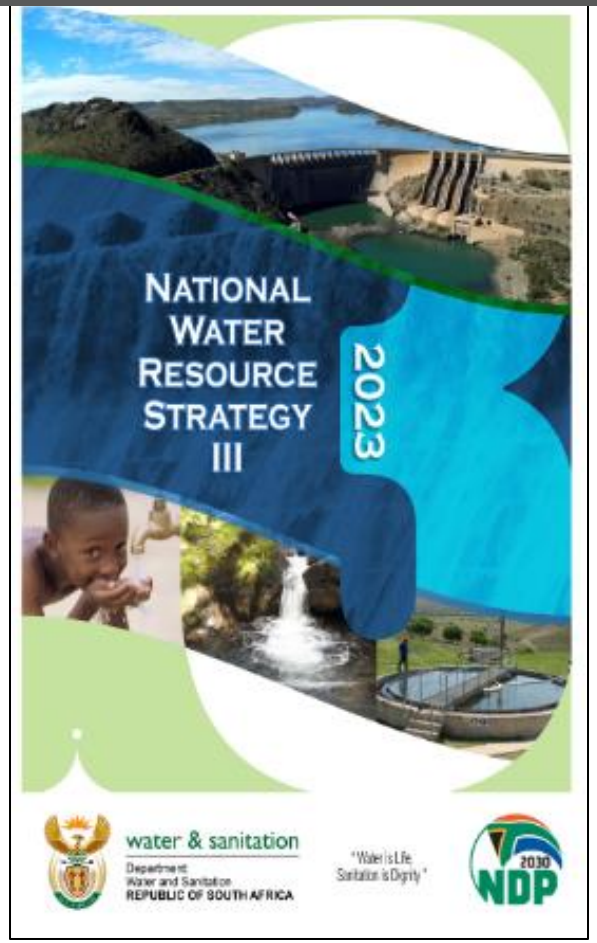
- Influence policy, strategy and plans
  - Understand context, work with what is moving

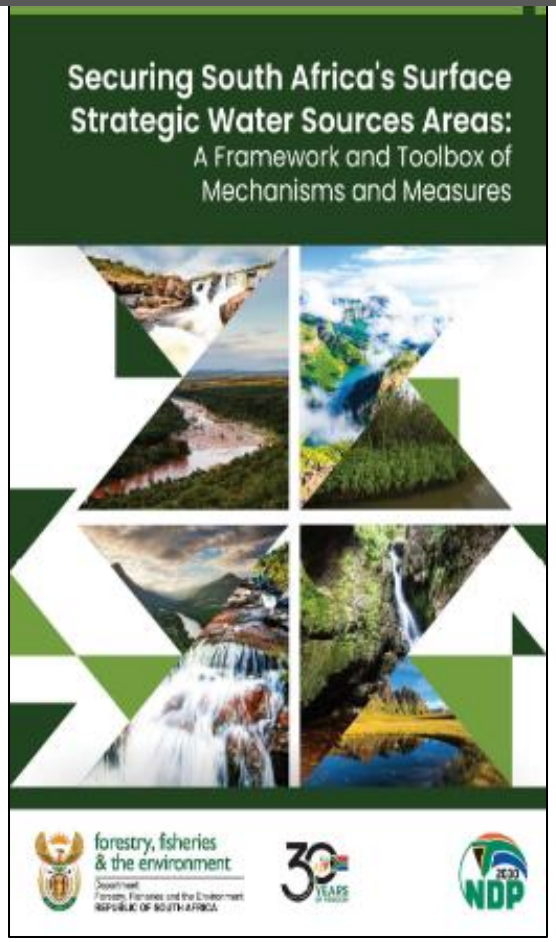
- Understand risk, dependencies and opportunities
  - Finding a common shared language, opportunities are everywhere; pay attention

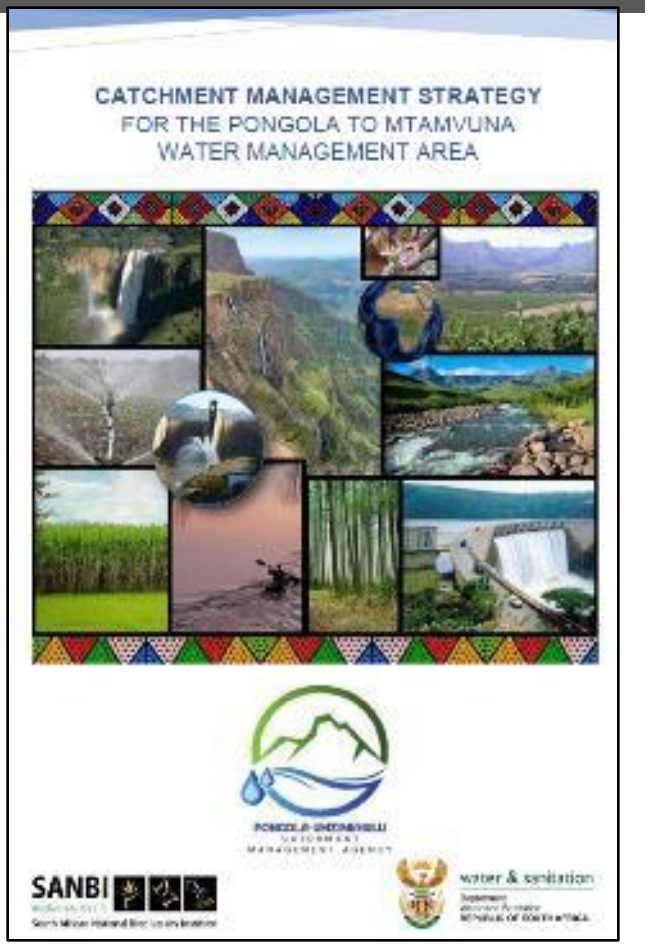
- Application
  - Co- development, partnership, collaboration and learning together

Key emerging/new policies and strategies

- National Water Resource Strategy 3
- National Water Pricing Strategy
- Strategic Water Source Areas
- Catchment Management Strategies







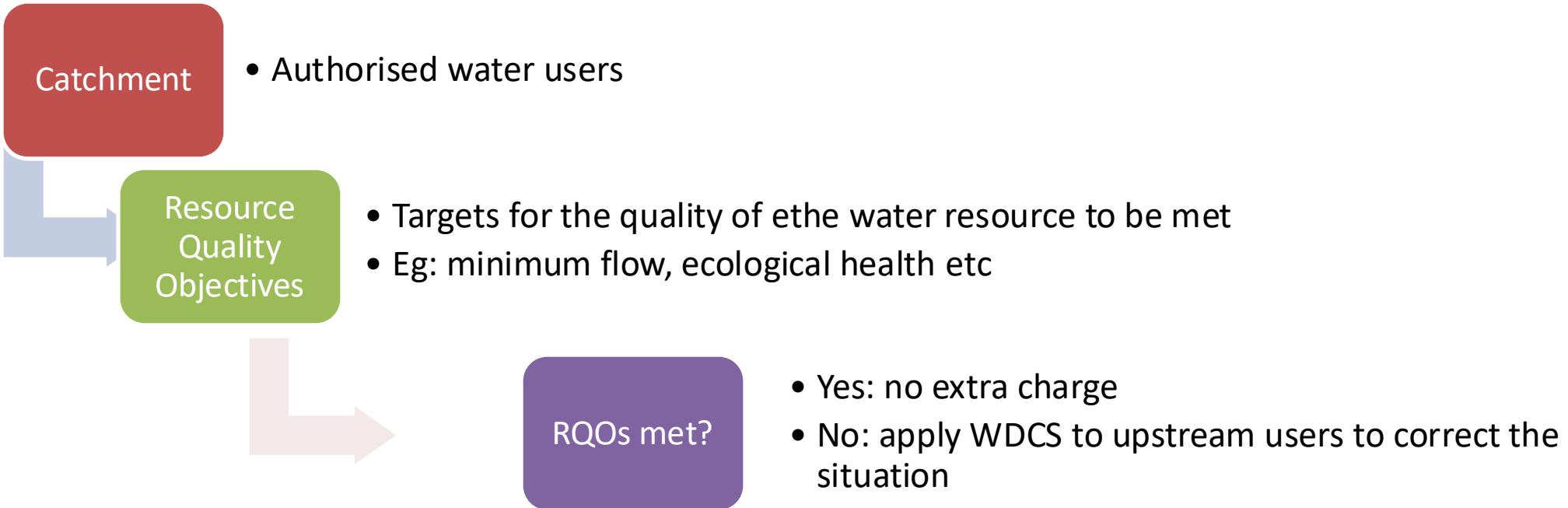
Recognise the role of protecting ecosystems and restoring EI for water security

National Water Pricing Strategy

- In line with National Water Resource Strategy 3 (2023)
- Aims to promote efficient and sustainable water use: balances scarcity of the resource, supporting equity and economic growth
- DWS currently developing implementation plan
- Economic instruments to take note of: Waste Discharge Charge System and Waste Mitigation Charges

Waste Discharge Charge System (Polluter pays principle)

- The Waste Discharge Charge System seeks to incentivise polluters either to reduce their chemical loads or alternatively, to charge them a set of charges through which to fund pollution mitigation projects.



What does this mean for you?

Proactively ensure compliance

Reduce volumes of wastewater, use cleaner technologies etc

Strengthen pollution prevention

Reduce chemical loads, investigate circular economy options,

treat waste to higher standards

Continuously monitor loads and effluents & use data to inform decision-making

share data where reasonable and possible

Engage authorities proactively

DWS, CMA and DFFE etc

Collaborate

If something seems wrong with water quality and quantity (abstraction) proactively engage other users in catchment and co-develop solutions

Participate in catchment management forums

Support initiatives to restore and manage EI (wetlands, riparian zones, grasslands etc) to provide services that improve water quality and quantity

Some examples

Continuous monitoring and community involvement

- Involve communities in collecting biodiversity data and water quality data using citizen science tools

Nature Champs/Enviro Champs/ Citizen Data Scientist

- Young people, mostly women, working for the common good
- Assist with monitoring water quality and related ecological degradation concerns using citizen science and civic action approach
- Activities are based on what each community needs (context specific)
- Work in communities where they come from or are familiar with and are able to communicate in local languages

Monitoring and community engagement

- long-term coordination of EI initiatives, strengthening institutional & community capacity for rehabilitation, maintenance and protection of EI
- Resource-sharing to maximise biodiversity and social benefits
- Youth capacitated, empowered, employed and engaging in environmental initiatives within their communities

SANBI Enviro Champs in the Greater uMngeni catchment

98

- KwaNovuka (Mpendle)
- Mpophomeni (uMngeni)
- Howick (uMngeni)
- Edendale (Msunduzi))
- Baynespruit (Msunduzi)
- Inanda (eThekwini)
- Palmiet (eThekwini)

PES Phase 1	300 jobs	3 Months
PYEI Phase 2	600 jobs	6-8 Months
SEF Phase 1	1000 jobs	9 - 10 Months

UEIP

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science & innovation
Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

PRESIDENTIAL EMPLOYMENT STIMULUS

IDC
Industrial Development Corporation

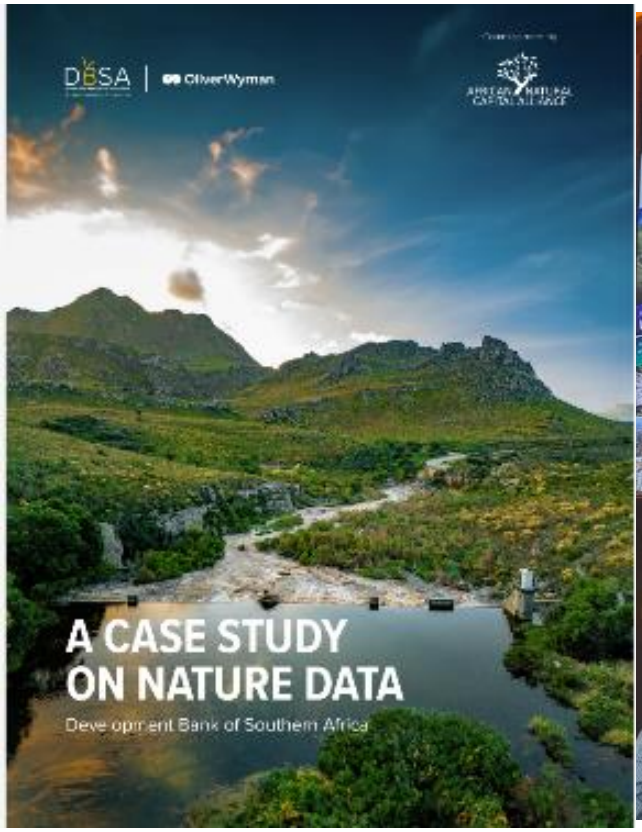
DUCT
DUZI UMNGENI CONSERVATION TRUST

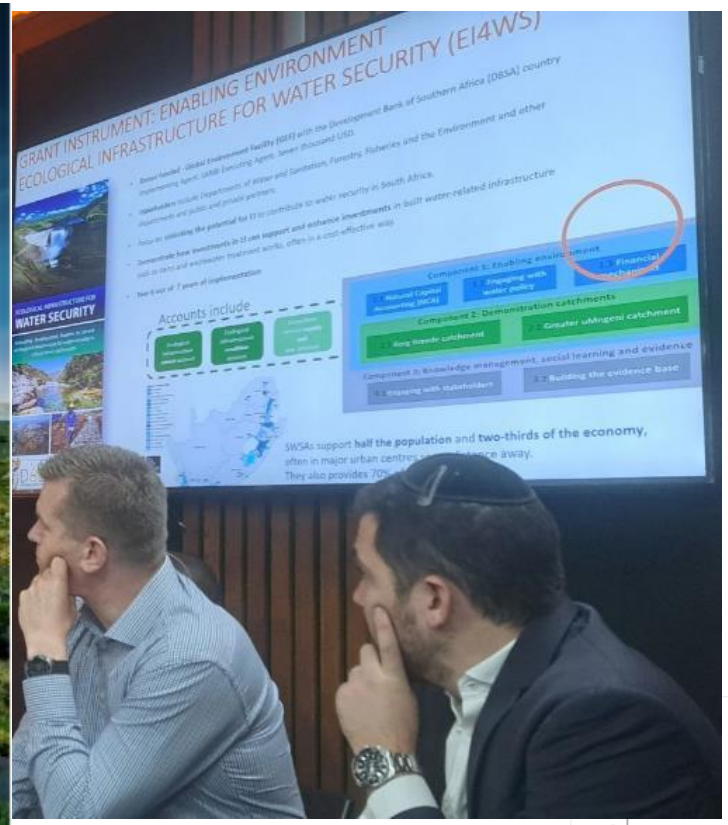
SANBI
Biodiversity for Life
South African National Biodiversity Institute

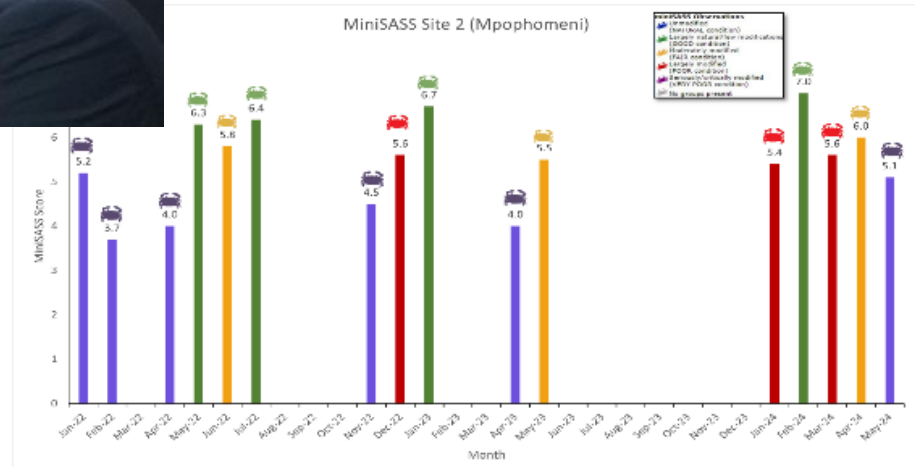
UMNGENI-UTHUKELA WATER · AMANZI

GroundTruth
Environment and Engineering

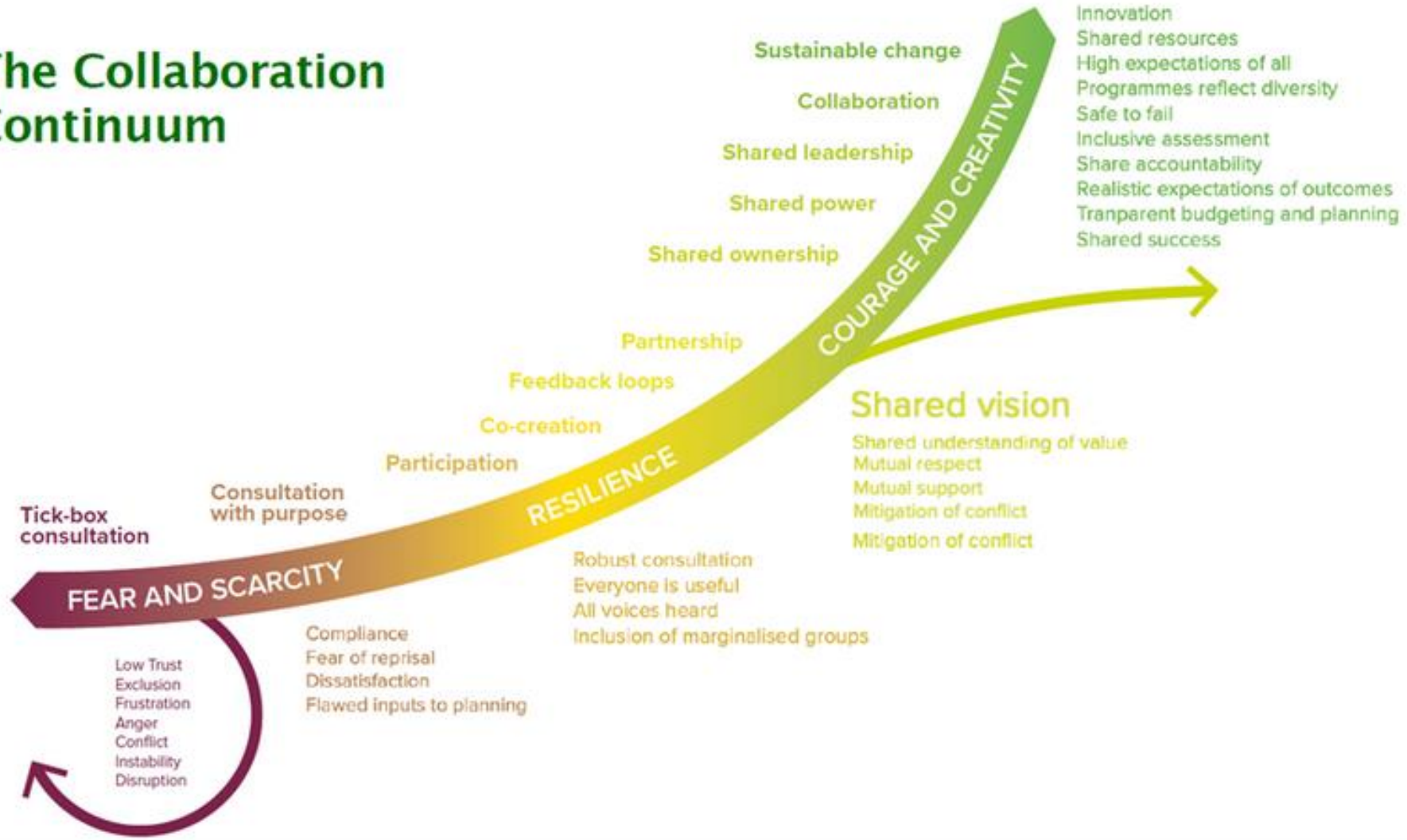
Continuously monitor loads and effluents & use data to inform decision-making







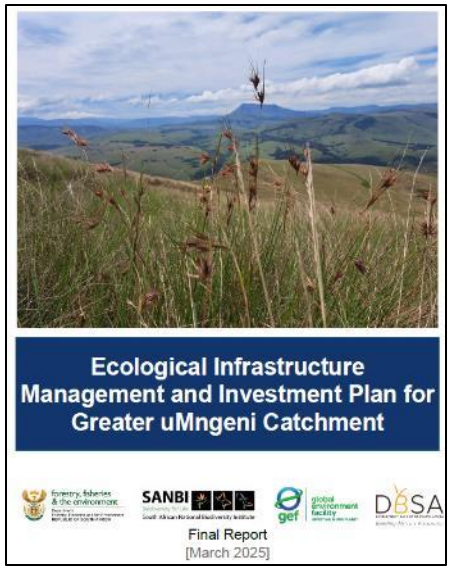
Collaborate

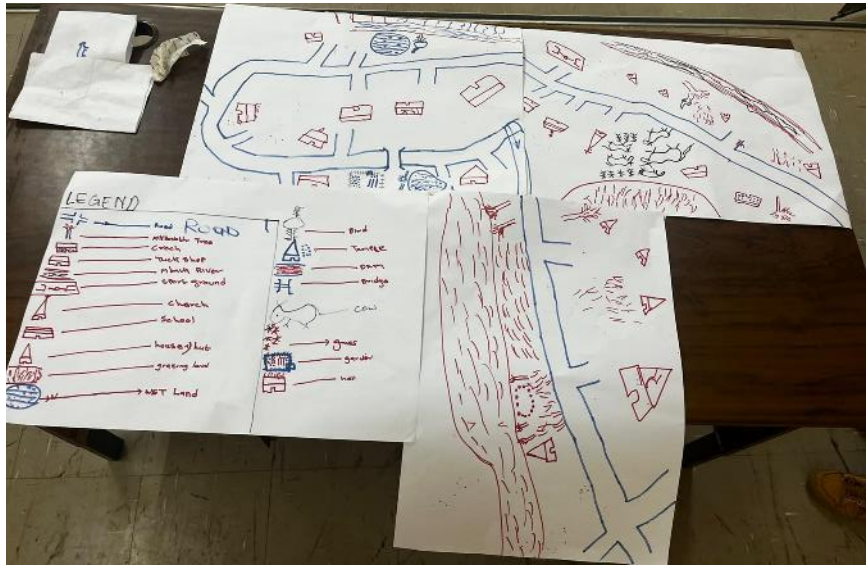


Collaborate

- Co-resourcing: contributions can come in different forms (not always financial
- Identify all businesses in the catchment areas and engage them.
- Develop local area sustainable environmental management plans – link these with key areas of concern eg: Climate Change, water security, catchment management, safety and security, livelihoods
- development and job creation
- Ensure that all processes are underpinned by your environmental and social safeguards
- Communities need to be involved as key (*with*, not an add-on)

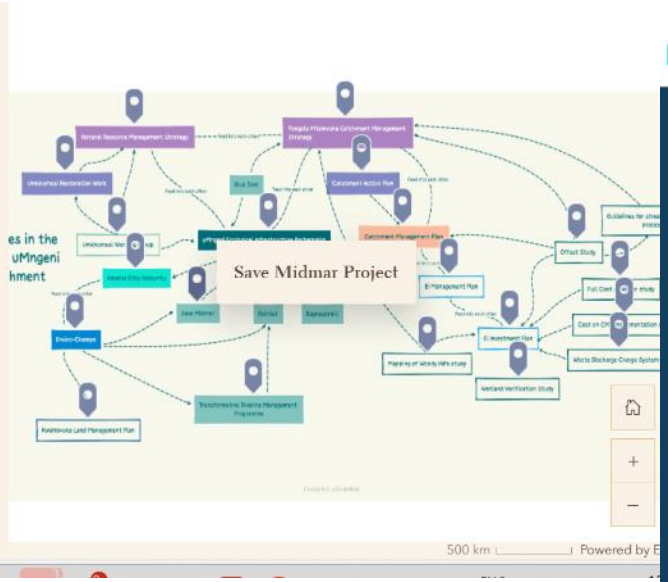
Participate in relevant forums and co-create solutions

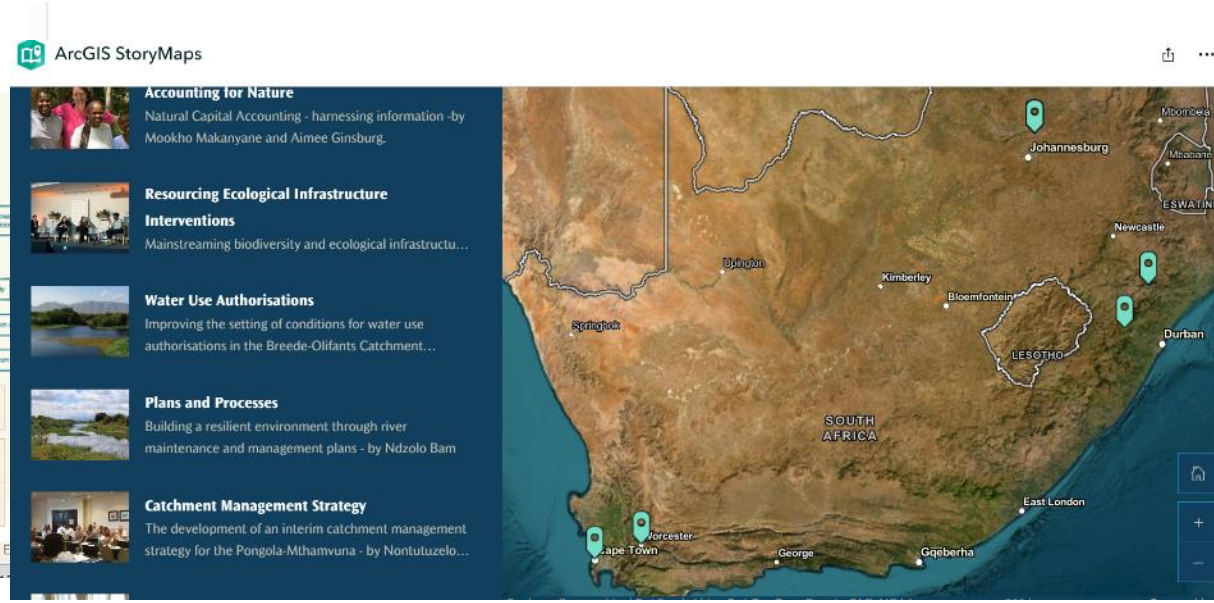




Share stories of success and learnings

- Use creative tools like Storymaps and videos to visualise impacts and geographical location of impacts
- Identify activities that are contributing to good management in your area and share this with stakeholders.
- Use platforms like this for knowledge sharing and learning





“Mainstreaming biodiversity ensures that addressing development needs and protecting the environment is not an either-or situation, but rather that development is supported by the sustainable use of natural resources.” CAIA

THANK YOU