



**Strategies to foster the Implementation of Policy :  
Building Regional Water Source Partnerships and Capacity  
to support catchment management**

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# Catchment Management Agencies

Created under National Water Act to devolve governance  
 Catchment management is an official function  
 BUT if nothing is budgeted there are no consequences

Plan 19 established by 2000



Now 6 but many still not fully functional



1. Limpopo-Olifants
2. Inkomati-Pongola
3. Mhlathuze-Mzimkhulu
4. Vaal-Orange
5. Mzimvubu-Tsitsikamma
6. Breede-Gouritz-Olifants

Figure 4: Proposed Water Management Areas within South Africa

# South African Challenges

## Access 64% of HH



3 million - no water  
14.1 million no safe sanitation

## Infrastructure - Waste Water



56% WWTW  
44% WT - poor/critical  
11% dysfunctional  
Exacerbated by loadshedding

## Municipal water



41% - no revenue  
35% lost (leaks)  
1660 million m<sup>3</sup>/yr lost  
NRW= R9.9 billion/yr

## Water allocation



Black farmers use  
5% Agric water

## Nature - Wetlands



>50% lost  
Remains 33% poor condition

## Rainfall & allocation



98% allocated  
17% deficit supply & demand by 2030

SA water insecure: issues - unjust inheritance; poor maintenance infrastructure, climatic variability, inequity access W&S, poor water quality, inadequate governance / capacity & deteriorating Natural Infra (SWSAs)

- **R33 BILLION/YEAR** required 10 years **BUILT INFRASTRUCTURE**
- To be raised by
  - Reducing non-revenue water – 35% lost to leaks
  - Improving revenue collection
  - Expanding funding base including
    - reducing current tariff caps for agriculture and forestry
- **EXCLUDES NEED TO REHABILITATE ECOLOGICAL INFRASTRUCTURE**

# Ecological Infrastructure

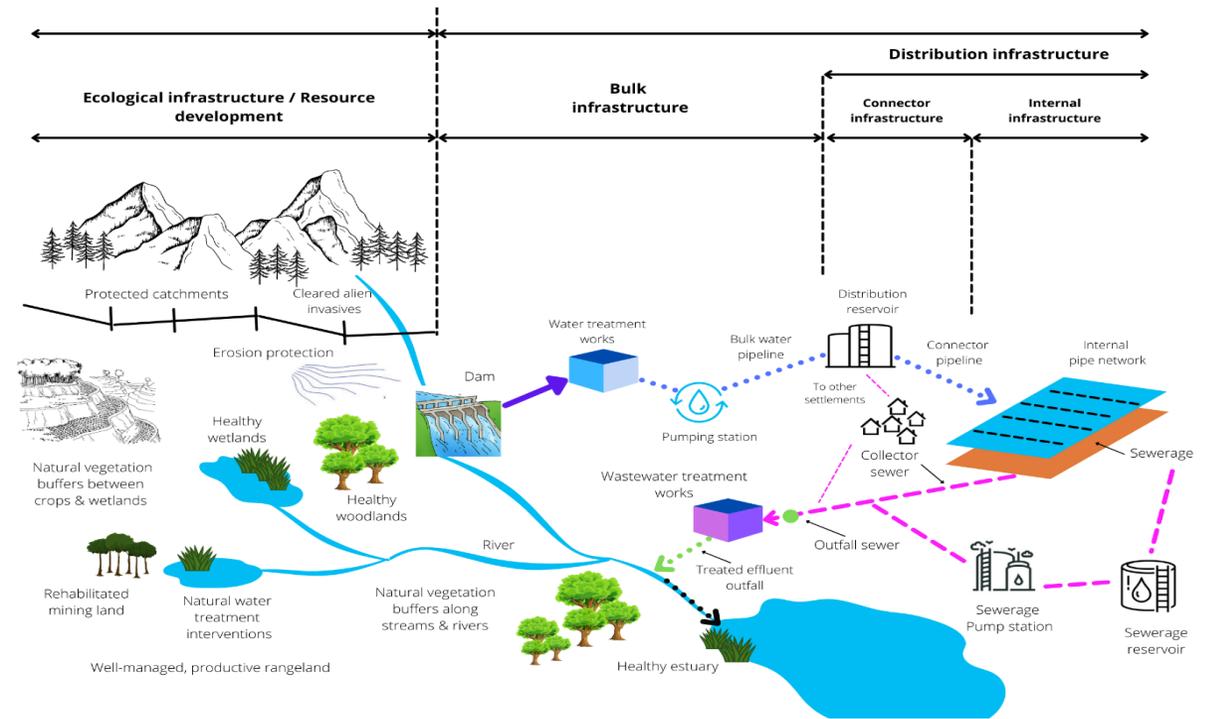


- Naturally functioning **ECOSYSTEMS**

e.g. healthy Mt catchments, rivers, wetlands etc. - deliver valuable **SERVICES** to people (water, soil, DRR)

- **NATURE'S EQUIVALENT TO BUILT INFRASTRUCTURE** provides services - socio-economic development

- can **SUPPLEMENT** and sometimes substitute built infrastructure solutions – **INTER-DEPENDENT**



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**CLIMATE CHANGE IMPACTS** (water scarcity; increase frequency & intensity of extreme events – floods & droughts; increase rainfall variability; fire frequency & intensity; intensify erosion & sedimentation; damage water quality & ecosystems; impacts on water will have cascading effects on Human health, the Economy & Society)

Poorly managed catchments exacerbate CC impacts:

- **WATER QUANTITY:** Invasive alien plants reduce water by up to 30%.
- **ASSURANCE OF SUPPLY:** Reduces low flow in dry season/drought by up to 60%
- **WATER QUALITY:** Catchment degradation /erosion results in rapid siltation - some dams have lost over 50% of their capacity
- **INADEQUATE INVESTMENTS IN EI** (info, institutions/governance & infrastructure – linking built & EI)

# Restoring catchments increases climate change resilience = NbS (Nature based Solutions)



## Invasive alien plants

- use up to 30% of total runoff
- but they can use over 60% of critical low flows
- intensified the last drought in Cape Town by 10%
- 12% worse if catchments had been fully invaded.
- Clearing is an effective Nature-based Solution



Cost efficient:  
generates water  
at **R2-3/ m<sup>3</sup>**

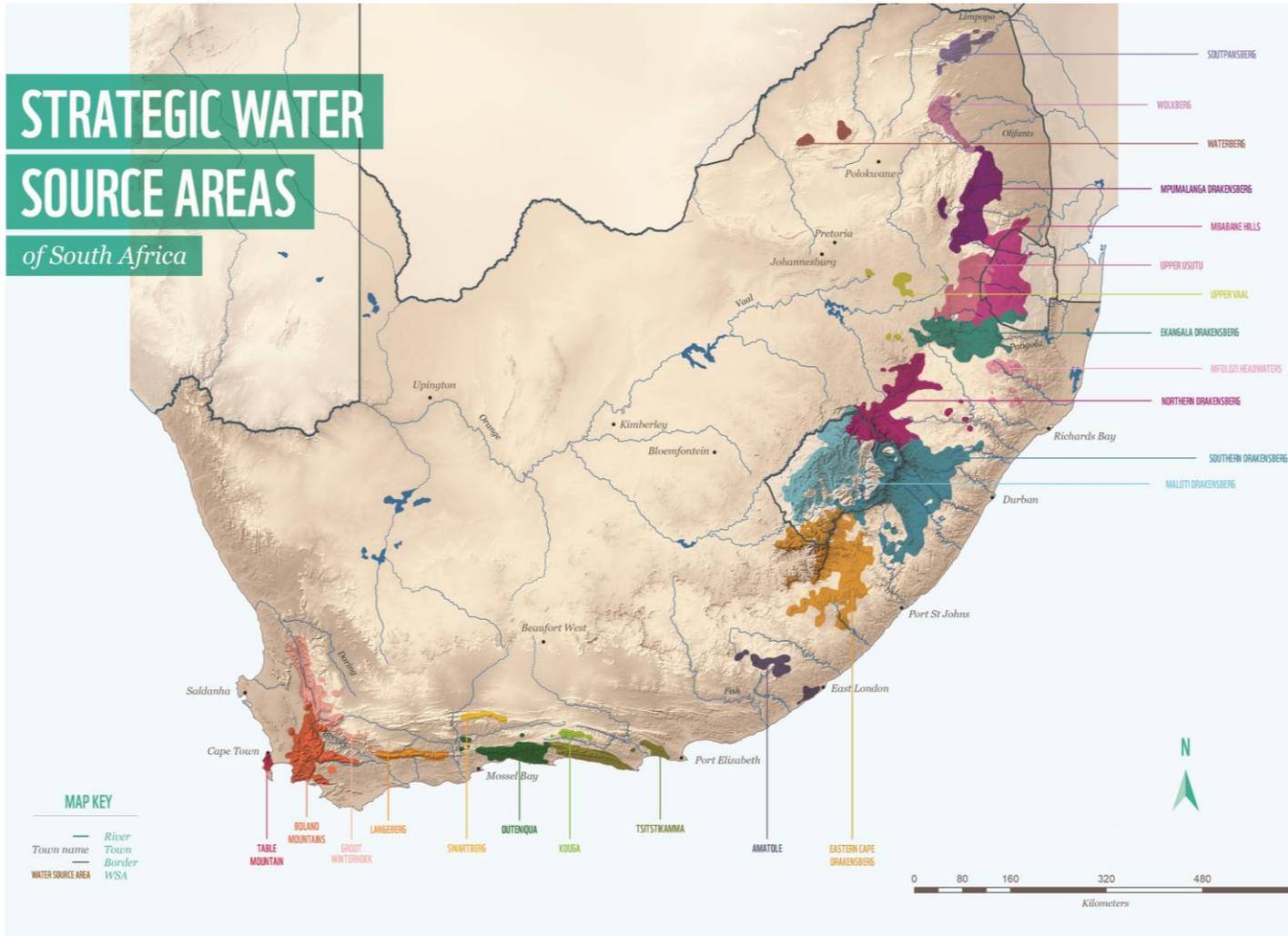
vs Desalination or  
Re-use > R10/m<sup>3</sup>  
or Groundwater >  
R5 /m<sup>3</sup>

Creates  
skilled jobs

Restores  
biodiversity

# Strategic Water Source Areas

- 10% of the land area of South Africa, Lesotho and Eswatini provides **50%** of our surface water
- They support:
  - **50% OF OUR POPULATION**
  - **64% OF OUR ECONOMY**
  - **70% OF OUR IRRIGATED AGRICULTURE**
- These areas are vital to food, water, economic and energy security.
- This is where we have to prioritise our collective efforts.



# Uptake into policy frameworks

- **2004** high water yield catchments included in National Spatial Biodiversity Assessment
- **2013** National Water Resource Strategy recognized need to protect them
- **2018** legal review of tools to secure them
- **2018** National Water & Sanitation Master Plan & National Water Act Amendment Bill
- **2019** Medium Term Strategic Framework & National Spatial Development Plan
- **2023** National Water Act Review definition
- Used as freshwater targets for GBF 30x30
- Department of Environmental Affairs creates a unit to support implementation

## National Water Resource Strategy

*Water for an Equitable and Sustainable Future*

### 5.1.2 Invest in strategic water source areas

National Strategic Water Source Areas are endorsed and acknowledged as strategic national assets at the highest level in all sectors. They all enjoy legal protection that allows land to be managed in a way that does not significantly undermine their role as key water sources. The costs of catchment management of these areas are factored into the water price, and revenues are reinvested in the management of these areas for their water resources.

## NATIONAL WATER AND SANITATION MASTER PLAN

### 1.3 Key Actions

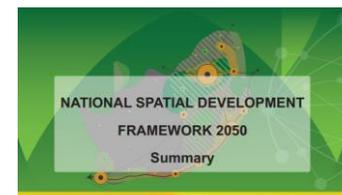
Action	Responsibility	Completion date
Declare strategic water source areas and critical groundwater recharge areas as protected areas	DWS, DEA	2021
Secure financial flows for restoration and ongoing maintenance of ecological infrastructure through operationalising the water pricing strategy	DWS, DEA, SANBI	2022

### Legislative Review (National Water Act [NWA])

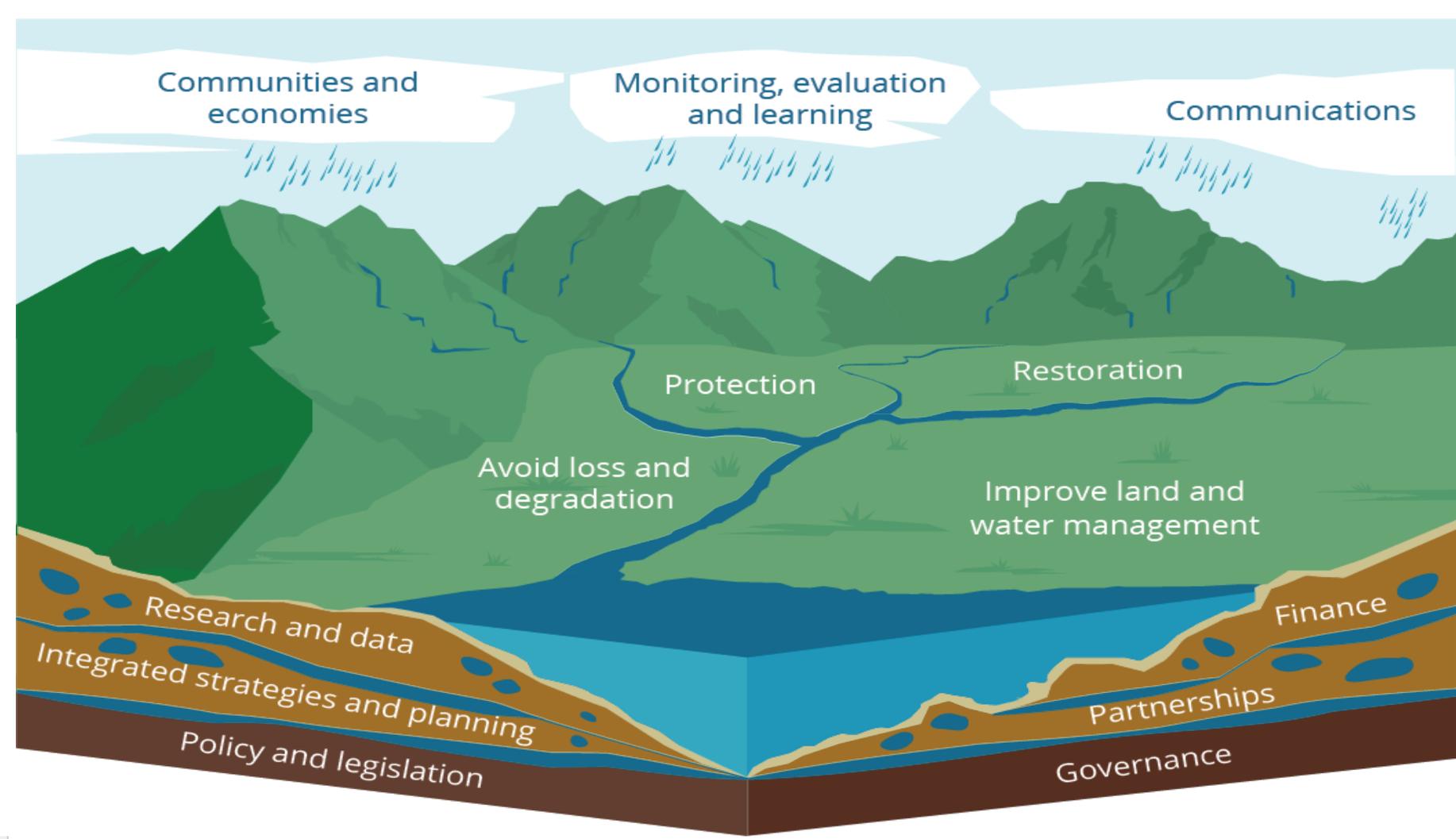
Proposal to amend Chapter 3 of NWA (Protection of Water Resources)

1. Introduce the definition of Strategic Water Source Areas

*“water source areas”* means all land and aquifers which form the original collection point of and provide above average amounts of water to the rest of South Africa’s water resources, and/or which meet significant social, economic and environmental water requirements”



# “Mountain framework” Developed WITH Government



## Reflective mechanisms

Look inwardly within SWSA and in doing so support sustainability, equity and efficiency in working over the long term to secure SWSA

## Implementation mechanisms

Operational in nature and result in a direct positive and quantitative effect on water resources. This is the core focus and is supported by Enabling and Reflexive Mechanisms

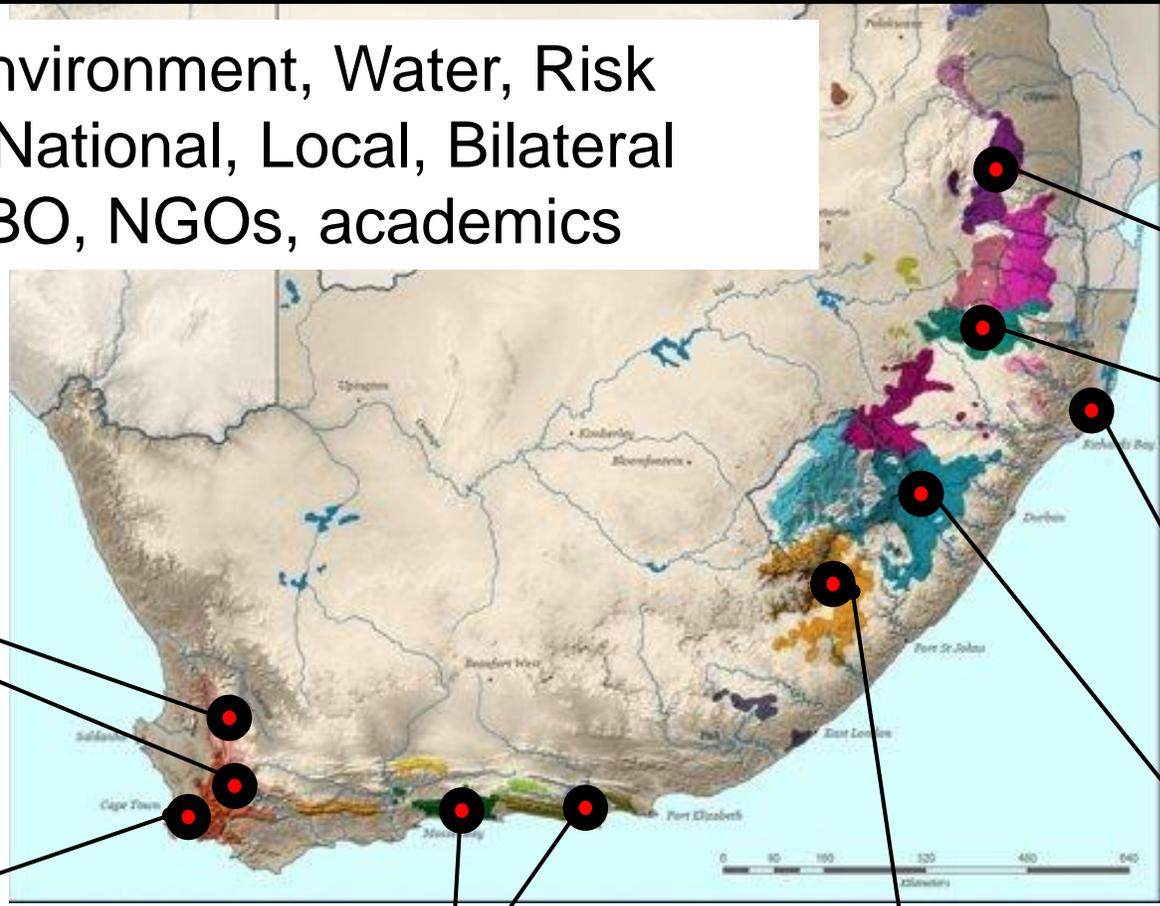
## Enabling mechanisms

Make the implementation mechanisms possible. They include policy and legal mechanisms that give power, capacity, or sanction, collective governance and planning frameworks, financing and supportive research.

# Partnerships align NbS implementation in water source areas



- **Multisectoral:** Environment, Water, Risk
- **Multiple scales:** National, Local, Bilateral
- Public, private, CBO, NGOs, academics



**Boland & Groot Winterhoek Collective**



**Table Mountain**  
Table Mountain  
Water Source  
Partnership

**Outeniqua & Tsitsikamma**  
Strategic Water Source  
Area working group

**Eastern Cape Drakensberg**  
Umzimvubu Catchment  
Partnership



**Mpumalanga Drakensberg**  
Kruger 2  
Canyons



**Northern Drakensberg**  
Upper uThukela Platform  
(being established)

**uMhlatuze**  
UWASP



**Southern Drakensberg**  
uMngeni  
Ecological  
Infrastructure Partnership



# Partnerships and Capacity to support policy for Catchment Management



- Amplify policy coherence
- Mitigate incoherence

- Opportunities for mentorship
- Feedback into policy development

# What role does WWF play in these partnerships?



**CONVENING:** Mobilizing, networking and building trust – specialist training



**COLLABORATIVE PLANNING:** tool development and data gathering supports knowledge transformation, share internal plans to promote alignment



**CAPACITATE PARTNERS:** especially mandated authorities. eg secondments



**BLEND FINANCE:** sustainable financing mechanisms (private and public sector support reporting & international access)



**LINK:** to development of cross sectoral policy and institutional frameworks



**TIME AND RESOURCES:** Building trust and traction, capacity & ownership to ensure sustainability

**PRIVATE SECTOR ENGAGEMENT:** incorporate partnerships into projects -  
Finance - Sanlam, Nedbank

- Food and beverage - ABInBev, PEPSICO, and Danone
- Forestry - Mondi, SAPPI

## **GOVERNMENT INSTITUTIONALISATION**

- Place capacitated champions in mandated bodies & sustain relationships
- Establish supportive policy and planning and financing frameworks
- Scale up proven approaches

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## **GOVERNMENT INSTITUTIONALISATION**

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Identification of priorities



Uptake into policy



Development of regional partnerships



Placement of catchment coordinators



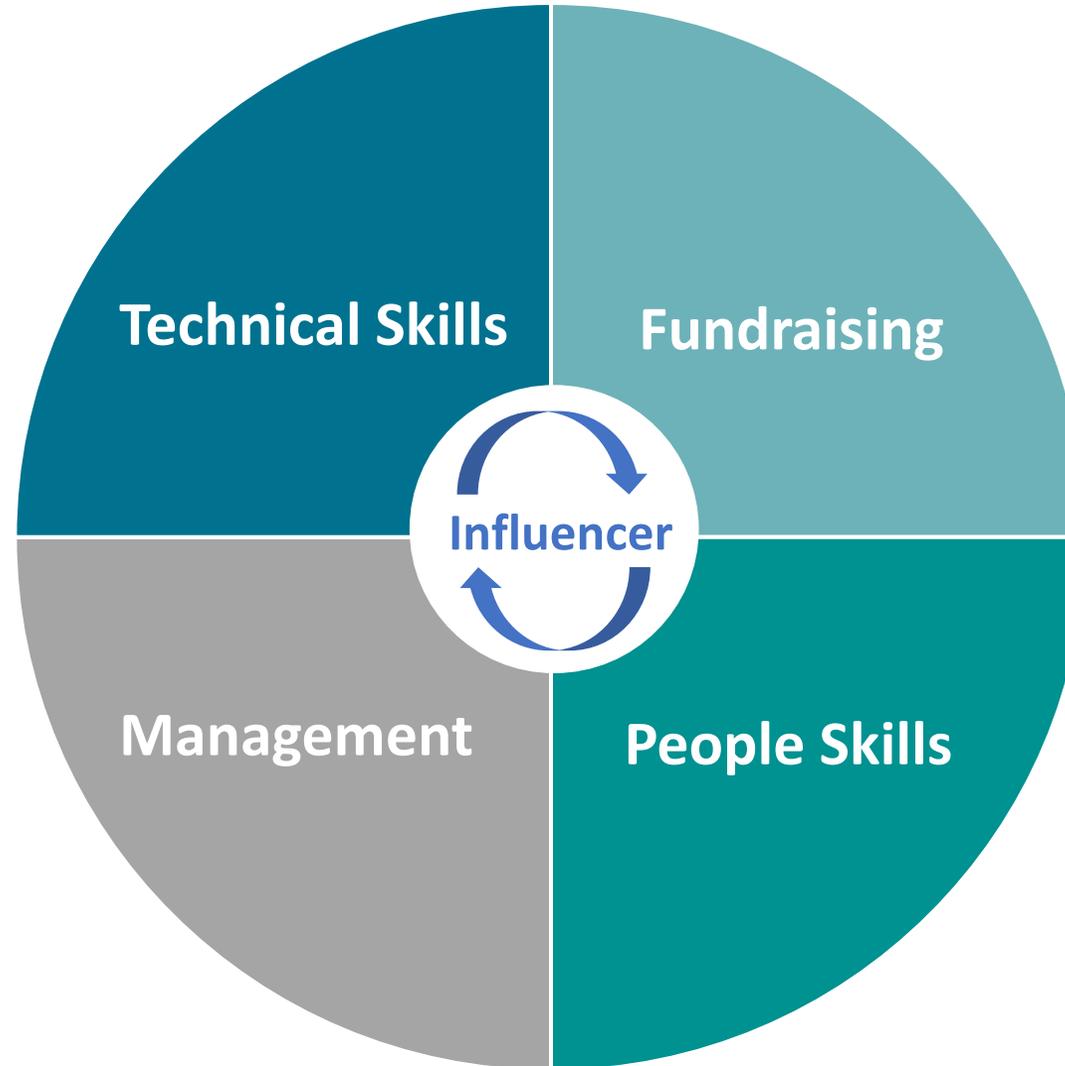
Projects and green SMMEs

# Skills needed in local co-ordinators



- Climate change
- Alien clearing
- Restoration
- Geohydrology
- Landscape understanding
- Monitoring
- Hydrology
- Conservation
- Agroecology

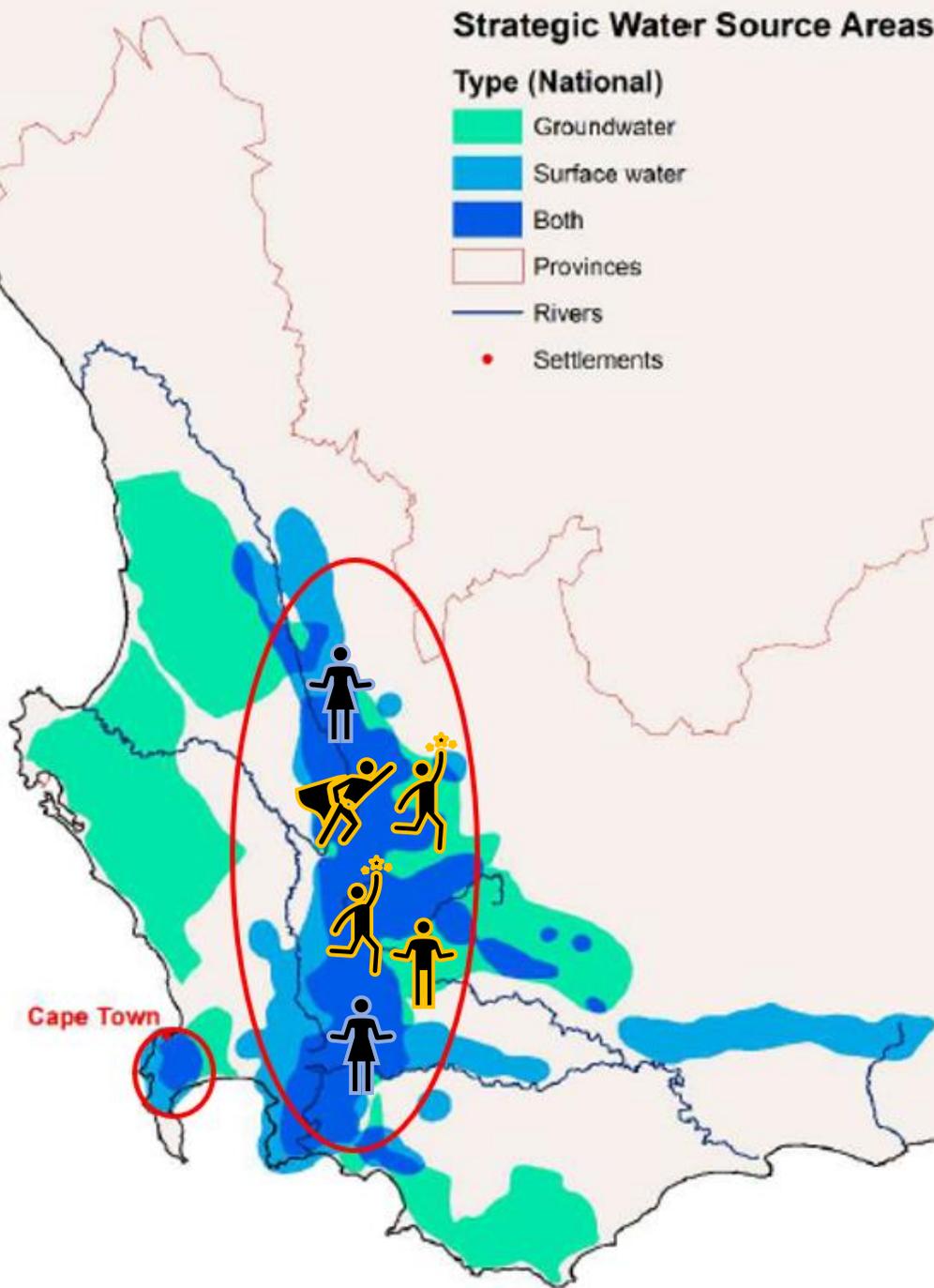
- Administration
- Run activities
- Budgets
- Staff
- Stakeholders
- Dual line manager
- Report writing



- Concept development
- Proposal writing & submission
- Reporting
- Publicity

- Diplomacy
- Conflict management
- Empathetic listening
- Communication
- Convening
- Motivator

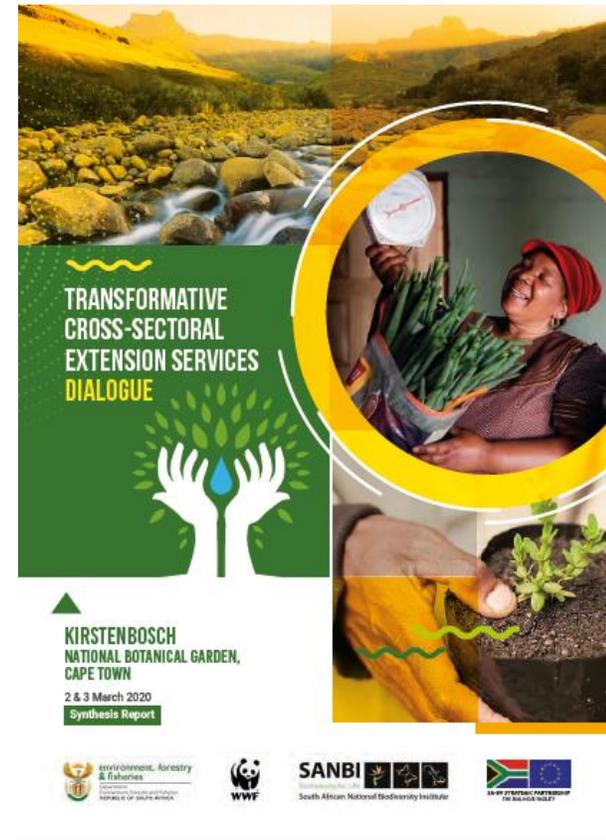
# Local Catchment Coordinators



- Embedded in mandated local platforms
- Mobilise local action
- Local community of practice
- Work across sectors

The **LANDSCAPE** is **INTEGRATED** our **RESPONSE** is often **FRAGMENTED**

*Extension: A process of working with resource users in order to improve their land, biodiversity and water management, livelihoods, well-being and environmental sustainability*



*National  
Community of  
Practice*

- **Chair:** South African National Biodiversity Institute (SANBI)
- **Conveners:** WWF, SANParks and Dept Forestry, Fisheries and Environment,
- **Members:** Agriculture, Land Reform and Rural Development and other NGOs  
*Extension in agriculture, conservation, forestry, natural resource management & water (freshwater and marine)*

Internal  
WWF  
platform



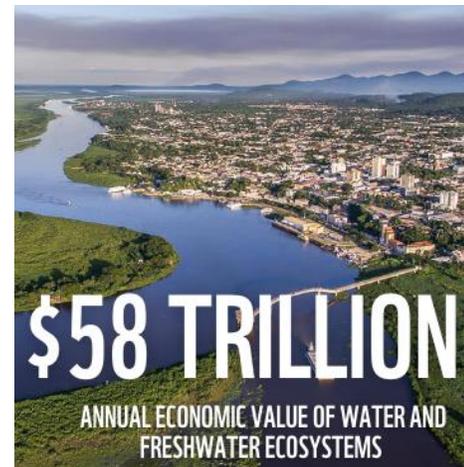
- **TRAINING**, development of materials and courses, targeted mentorship and peer to peer learning, leverage resources
- Strengthening sustainability of collaborative **PLATFORMS**
- **DEPLOYMENT** of extension practitioners in priority areas.



# Increase water prices to reflect true value



- Government revising the pricing strategy to remove price caps for agriculture and forestry (lose 1.3 billion per year)
- Provide support for transition and the vulnerable to be phased in over 5-10 years
- Amount required for ecological infrastructure maintenance < 2.5%
- International - High cost of cheap Water
- Local survey indicates willingness to pay for better water security





- Catchments management agencies not budgeting adequately for management of ecological infrastructure
- Conservation subsidizes cost of managing natural areas which produce water but are underfunded
- Massive spread of invasive alien trees
  - Reduces water yield
  - Doubles fire intensity and risk of erosion
  - Increases local vulnerability to climate change
  - Drives biodiversity loss





# Access water infrastructure finance for catchment management



Dependency on Ecological Infrastructure Understood



Pilots demonstrate benefits of using infrastructure finance to maintain catchments



Maintenance of Ecological Infrastructure becomes standard practice



CMA's allocate adequate capacity and budget to catchment management



# Align resources around agreed priorities

