

SANBI

Biodiversity for Life

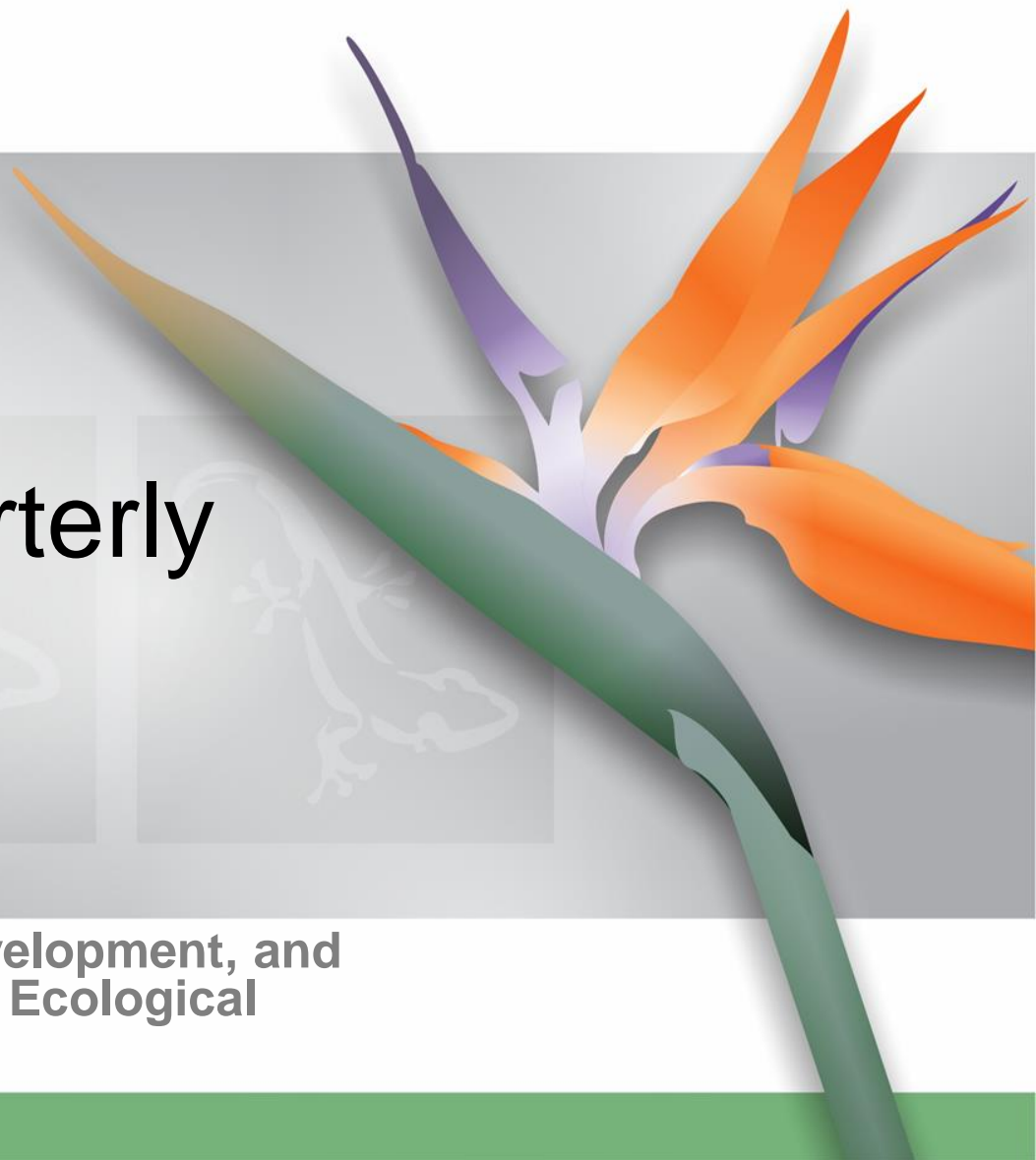
South African National Biodiversity Institute



UCP (P) 24th Quarterly meeting

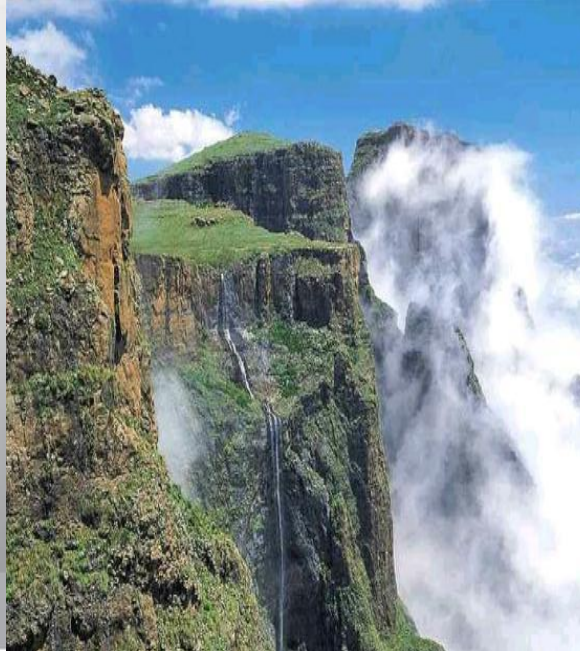
**Catchment –based Research, Development, and
Innovation Platforms (RDI) for Ecological
Infrastructure**

Dan'sile Cindi – 16 May 2019



Ecological infrastructure is...


- Naturally functioning ecosystems that deliver valuable services to people (SANBI, 2014)
 - nature's equivalent of built infrastructure
- e.g. mountain catchments, rivers, wetlands, coastal dunes, spawning grounds, nodes and corridors of natural habitat**
- Many mountain ranges collect rain water and distribute it to millions of people through rivers.
 - Plants and animals help keep soil healthy to grow food.
 - Grasslands feed livestock and forests clean the air.
 - Wetlands purify water and reduce the impact of droughts and floods.
 - Nature is central to tourism and wellbeing, offering a number of opportunities for physical, spiritual and educational outdoor activities.




Examples of interventions for investing in EI

Interventions	Benefits
Clear invasive alien plants especially in mountain catchments and riparian areas	Increased water yield
Rehabilitate wetlands	Improved water quality through filtering of pollutants and toxins
Maintain buffers of natural vegetation along streams and rivers	Reduced flood damage
Reinstate buffers of natural vegetation between agricultural crops and rivers or wetlands	Reduced flood damage and improved water quality
Conserve and maintain natural areas of vegetation on farms	Improved pollination of cultivated crops and pest control
Erosion control and appropriate management of land use	Reduced sediment load in dams


2 ZERO HUNGER




3 GOOD HEALTH AND WELL-BEING



6 CLEAN WATER AND SANITATION



1 NO POVERTY



EI provides a range of benefits, supporting and diversifying livelihoods and reducing poverty.

5 GENDER EQUALITY



8 DECENT WORK AND ECONOMIC GROWTH




10 REDUCED INEQUALITIES




Investing in the rehabilitation and management of EI can generate substantial numbers of long-term jobs, especially in rural areas.

14 LIFE BELOW WATER




15 LIFE ON LAND




Biodiversity underpins the delivery of ecosystem services.


9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



13 CLIMATE ACTION



11 SUSTAINABLE CITIES AND COMMUNITIES



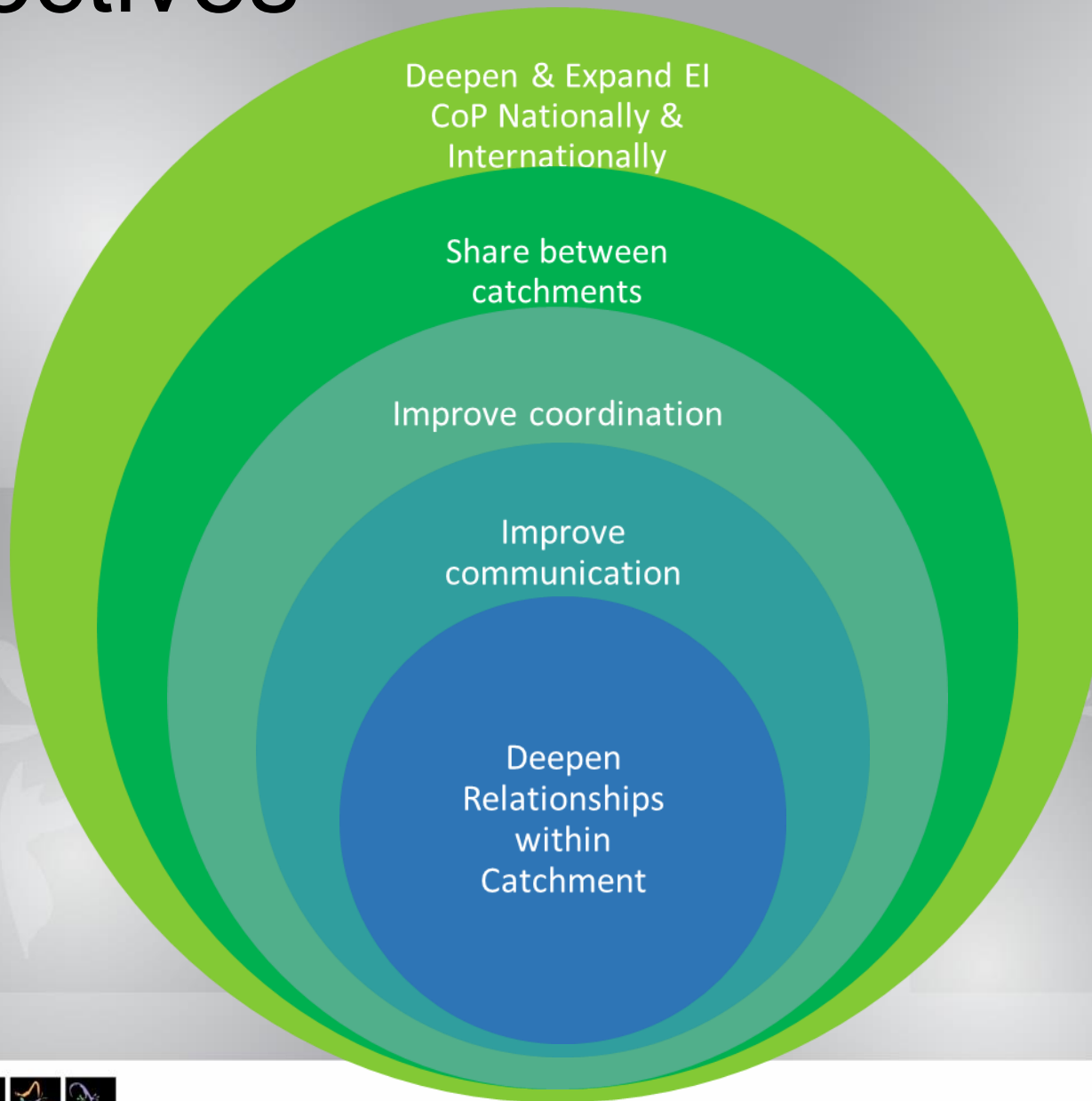
EI has the potential to supplement, sustain or substitute for built infrastructure, and supports disaster risk reduction

DST/RDI project – Berg-Breede and uMzimvubu catchments

Rationale:

- Well established epistemic community in South Africa that has expertise relating to ecosystems and biodiversity, ecosystem services, and natural resources management more generally.
- Requires improved coordination (avoid unnecessary overlap, better synergies, uptake and positioning)

Objectives



Intact Ecological Infrastructure – the key to clean water and food security



Why these catchments?

- Both catchments were identified as a global biodiversity hotspot needing intervention and are within SWSA needing protection.
- Important E...underlying stock of asset.
- Organised partnerships, collaborations...have been working in the catchment for more than 10 years.
- Organised landowners, farmers... communities within the catchments.

Landscape approach

- SANBI is able to work with other partners in building ecosystem resilience and easing biodiversity pressures at catchment level.
- Support convening of communities of practice in or linked to the catchment e.g. learning exchanges.
- Support governance structures that are involved with management of ecosystems and biodiversity.
- Making the case for EI: extract successful lessons learnt from the catchment for documentation and replication elsewhere e.g. NBA 2018 case study

Enhancing research, innovation and impact through engaged Communities of Practice in key catchments associated with Strategic Water Source Areas

- Partnership between SANBI/ DST and WRC in the period 2019 – 2022.
- To create more resilient, more resourced, and more relational communities at both catchment and national scales, that are able to draw from the best that the research has to offer in the process of governing the equitable, productive and sustainable use of water resources and ecosystem goods and services.
- To build on, scale up and refine catchment scale work piloted by SANBI and relevant partners in various catchments through supporting established CoP in key catchments associated with the SWSAs.

Clusters

- 1. Enable collaboration and learning in Strategic Water Source Areas across South Africa, informed by research, innovation and best practice.**
 - Existing platforms will be scaled up as we build towards ensuring that the two platforms that have been seeded and supported through the existing DST partnership are self-sustaining. In addition, at least two new platforms will be created.
- 2. Consolidate a network of social process practice and Socio-Ecological Systems (SES) thinking practitioners across South Africa.**
- 3. Strengthen and expand upon our practice of policy engagement and implementation capabilities and approaches.**

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RDI coordination

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