



What's in a word? Reflections on the struggle for sustainable stewardship of water resources in South Africa since democracy in 1994

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Emerald Network Ltd and Oxford University

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South Africa – a water scarce country

- South Africa is the 30th driest country in the world – due to low and variable annual rainfall plus high natural evaporation levels.
- Average annual rainfall in South Africa is only 495 mm; some regions receive less than 100 mm of rain in a year on average.
- 98% of the water in the country is considered “fully allocated”.
- 60% of ecosystem types are threatened and 25% of those are critically endangered.
- Low and unpredictable supply, coupled with high (and growing) demand and poor use of existing water resources, make South Africa a water- constrained country.



How to implement South Africa's progressive National Water Resources Strategy?

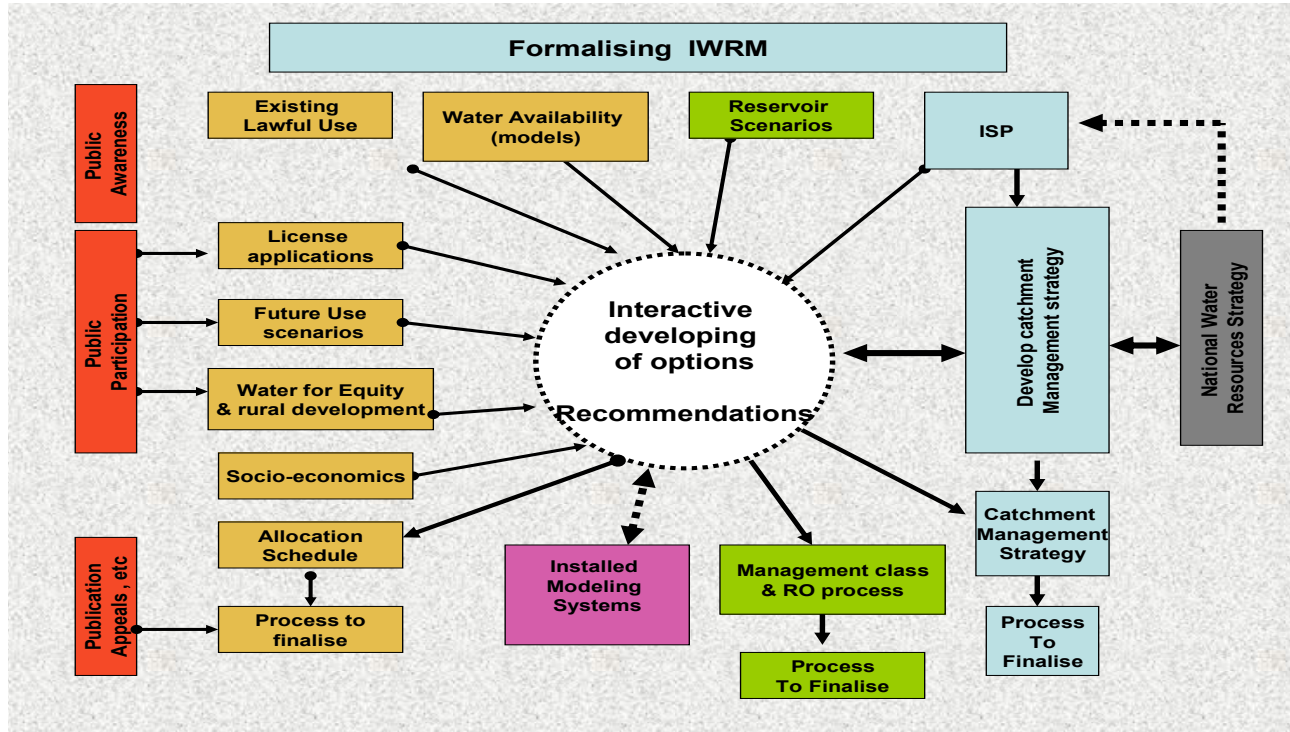


Diagram showing the DWA's Integrated Water Resource Management Approach (DWA, 2004)

11 years of systemic action research in South Africa



Developing options (5 months)

- Generate three different options for future institutional arrangements for the Mvoti
- Work up details of options (in terms of five assets) and initial appraisals
- Undertake detailed appraisals and select preferred option

3. Developing options

11 years of systemic action research in South Africa

Action Learning and Reflective Practice	Individual
Co-operative Inquiry	Group
Participatory Action Research	Community
Systemic Action Research	System

A systemic understanding of change

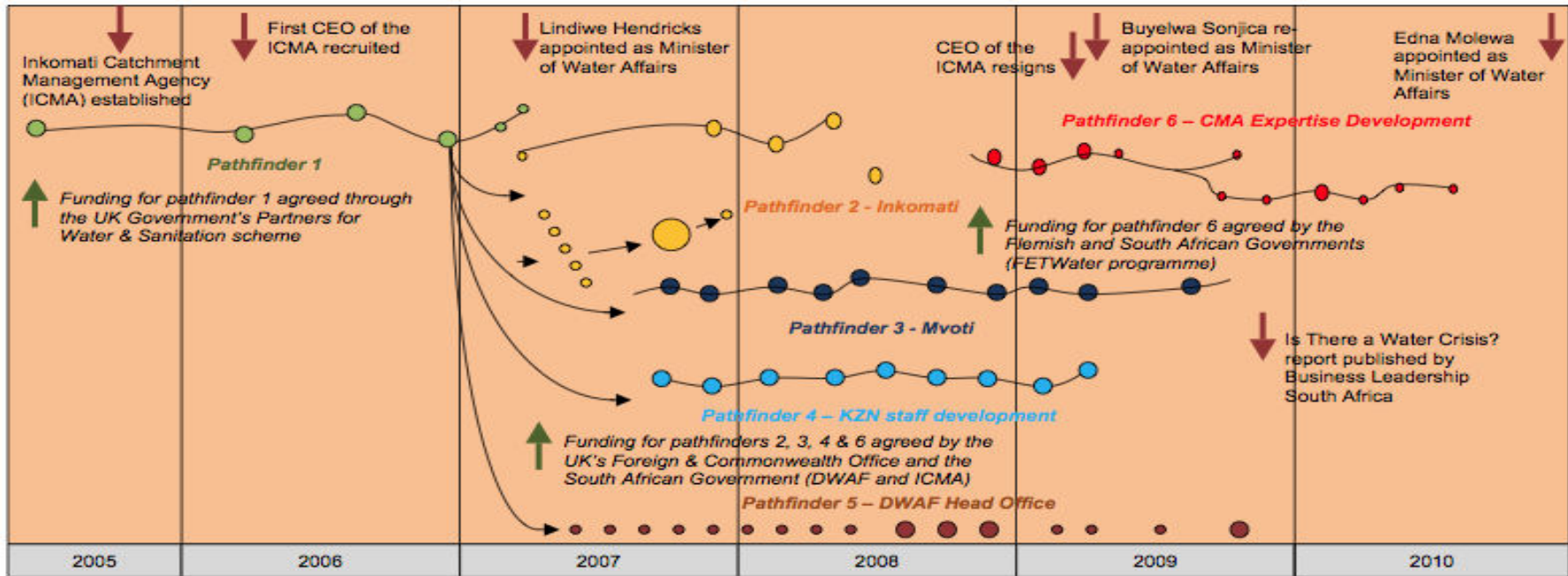
Change is typically not linear: Intervention A frequently does not lead to Outcome B

Outcomes of interventions cannot be easily predicted and may have significant unintended consequences

Openings for solutions are often created by changing things away from the direct location of a problem



11 years of systemic action research in South Africa



Some successes?

An agreed institutional approach to the governance of the Mvoti catchment

A shared vision for the future of the Inkomati – foundations for the Inkomati Management Strategy

Seeds planted for doing implementation differently

Many DWA staff and others experienced new ways of working

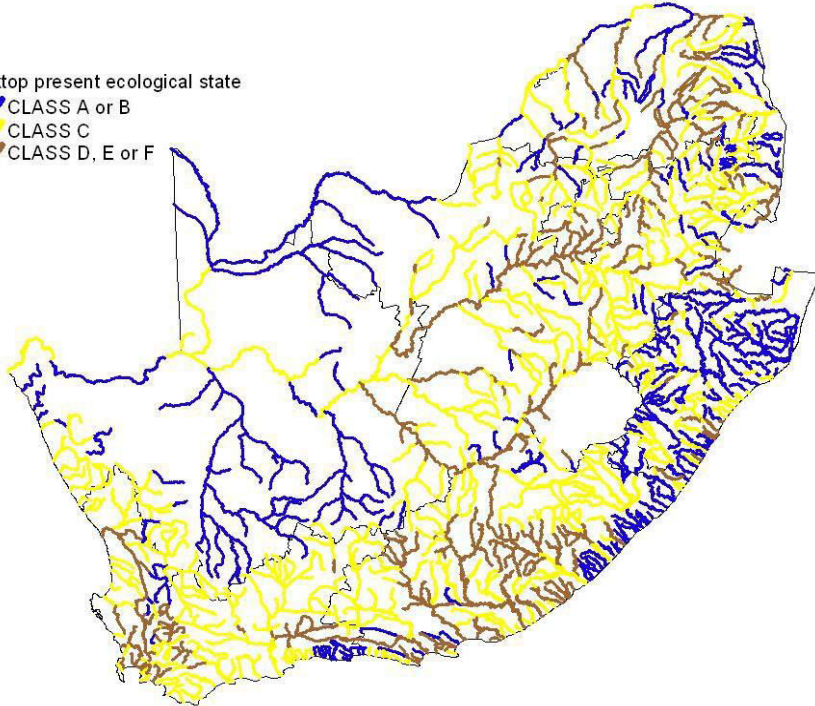
Strong buy-in for a different way of working in the Berg catchment – Walking Together



But ‘policy mainstreaming’ didn’t happen - and many aspects of the challenge remain – and some have got worse...

Desktop present ecological state

- CLASS A or B
- CLASS C
- CLASS D, E or F

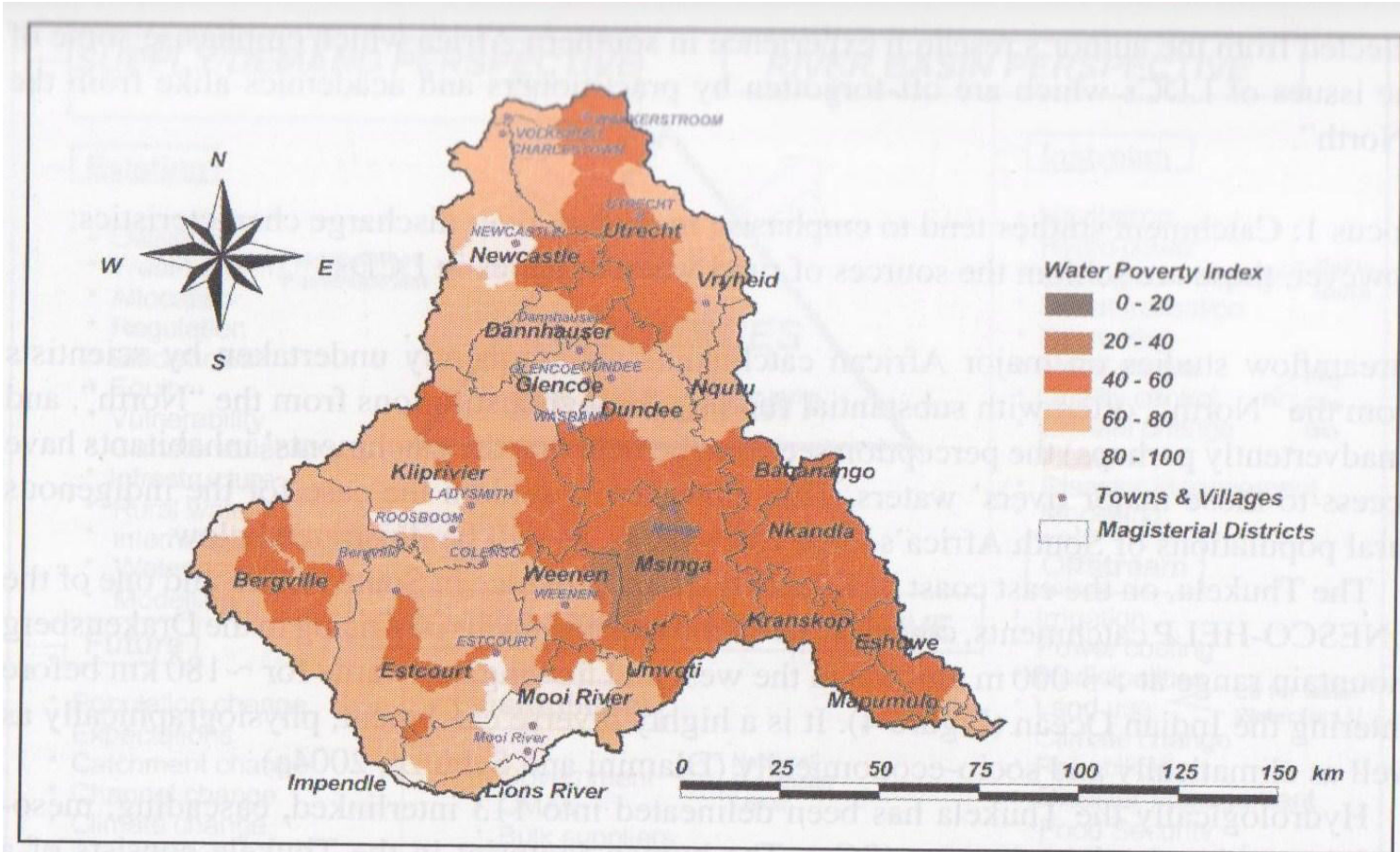


many of South Africa’s freshwater ecosystems remain “in a shocking state” (NFEPA, 2011),

with 82%, 65% and 57% of estuarine, wetland and river ecosystem types respectively threatened (i.e., critically endangered, endangered or vulnerable),

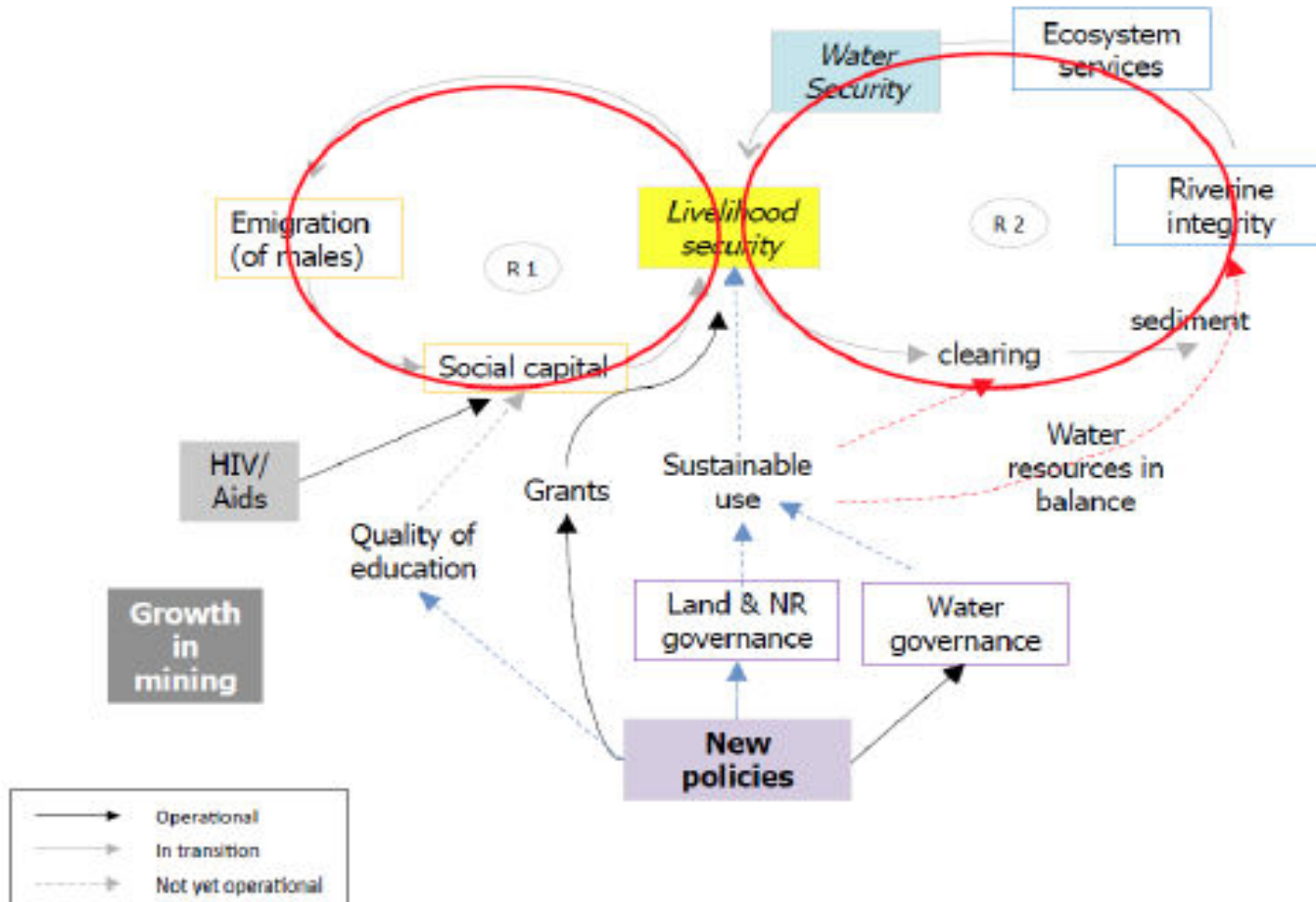
and with only 18% of water supply areas formally protected.

But many aspects of the challenge remain

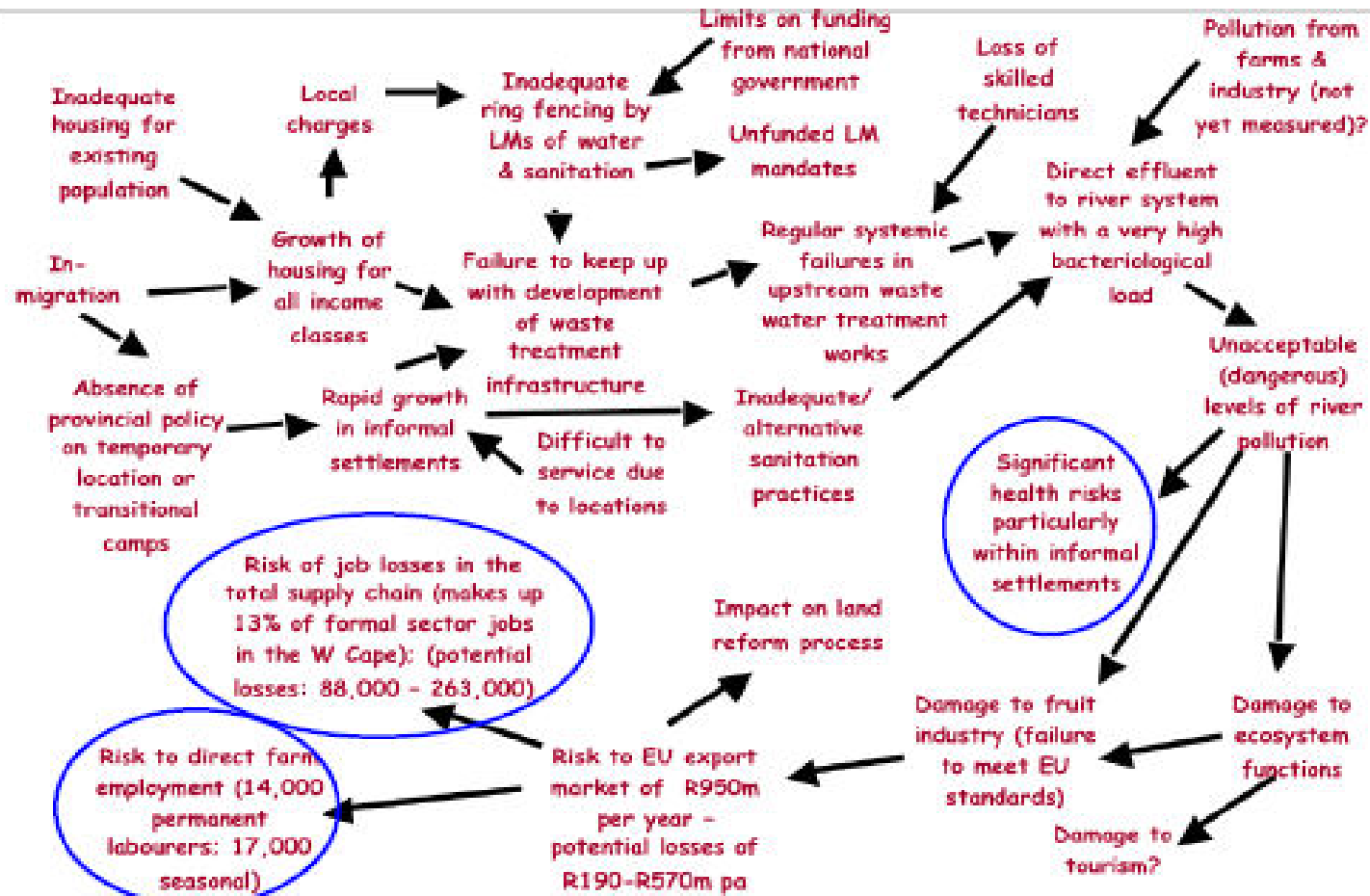


ional Water
Network

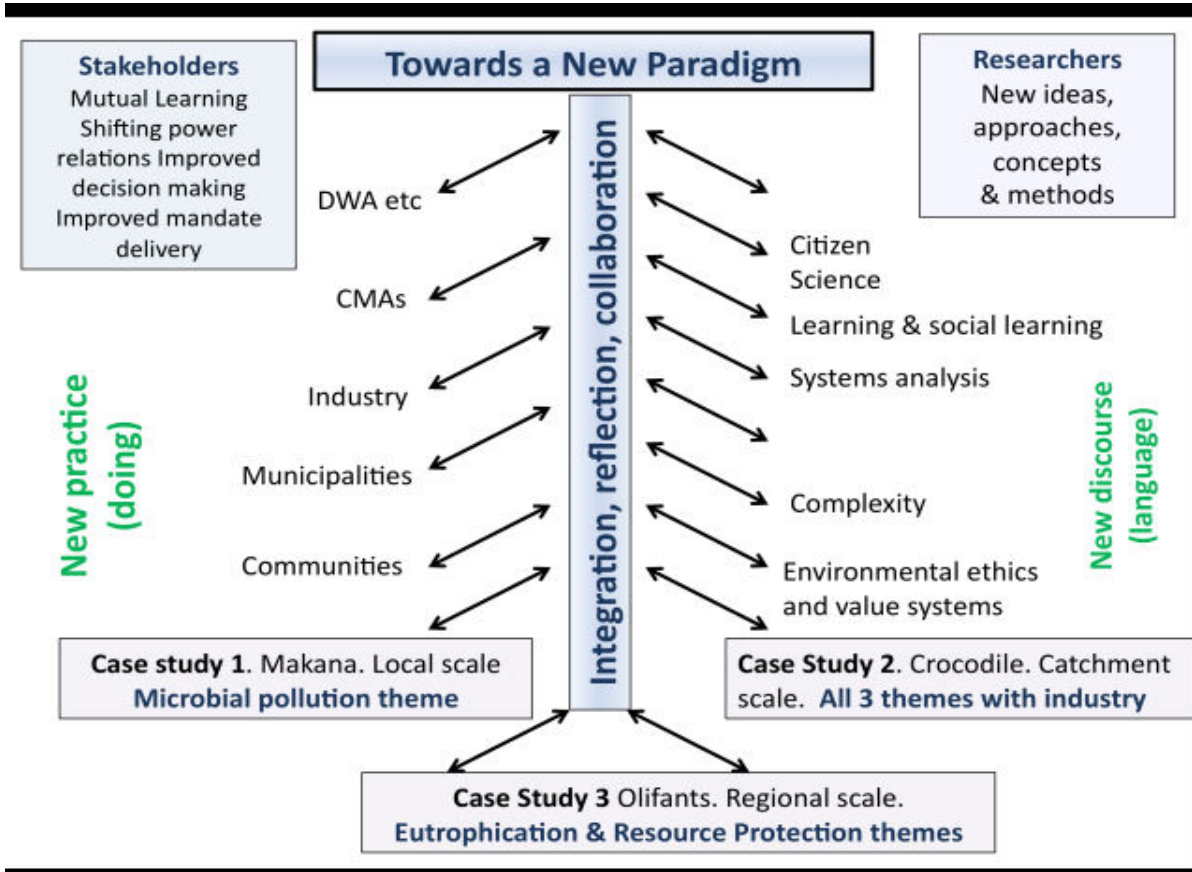
The challenges are systemic....



The challenges are systemic....



An emerging set of 'innovation hubs' and networks across South Africa taking a 'new paradigm' approach



**RESILIM
(Limpopo)**

**Shared Rivers
Initiative**

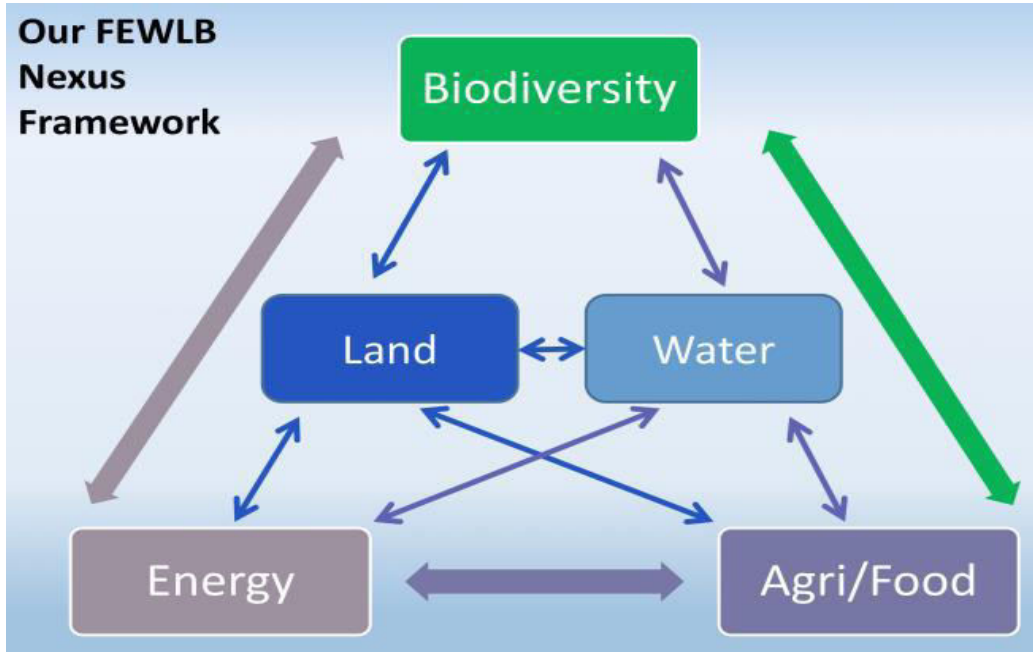
**Ethekweni &
Mngeni**

**ELRC
Rhodes**

**Berg River
Improvement
Programme**



What's in a word?



(How) Can policy and practice reframings towards water security and nexus security add value to this emerging and potentially transformational process?



www.watersecuritynetwork.org
www.twitter.com/water_network

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For more information, see: www.lrfoundation.org.uk

