Financial Investments in South Africa's Watershed Infrastructure for Climate Change Adaptation and Mitigation

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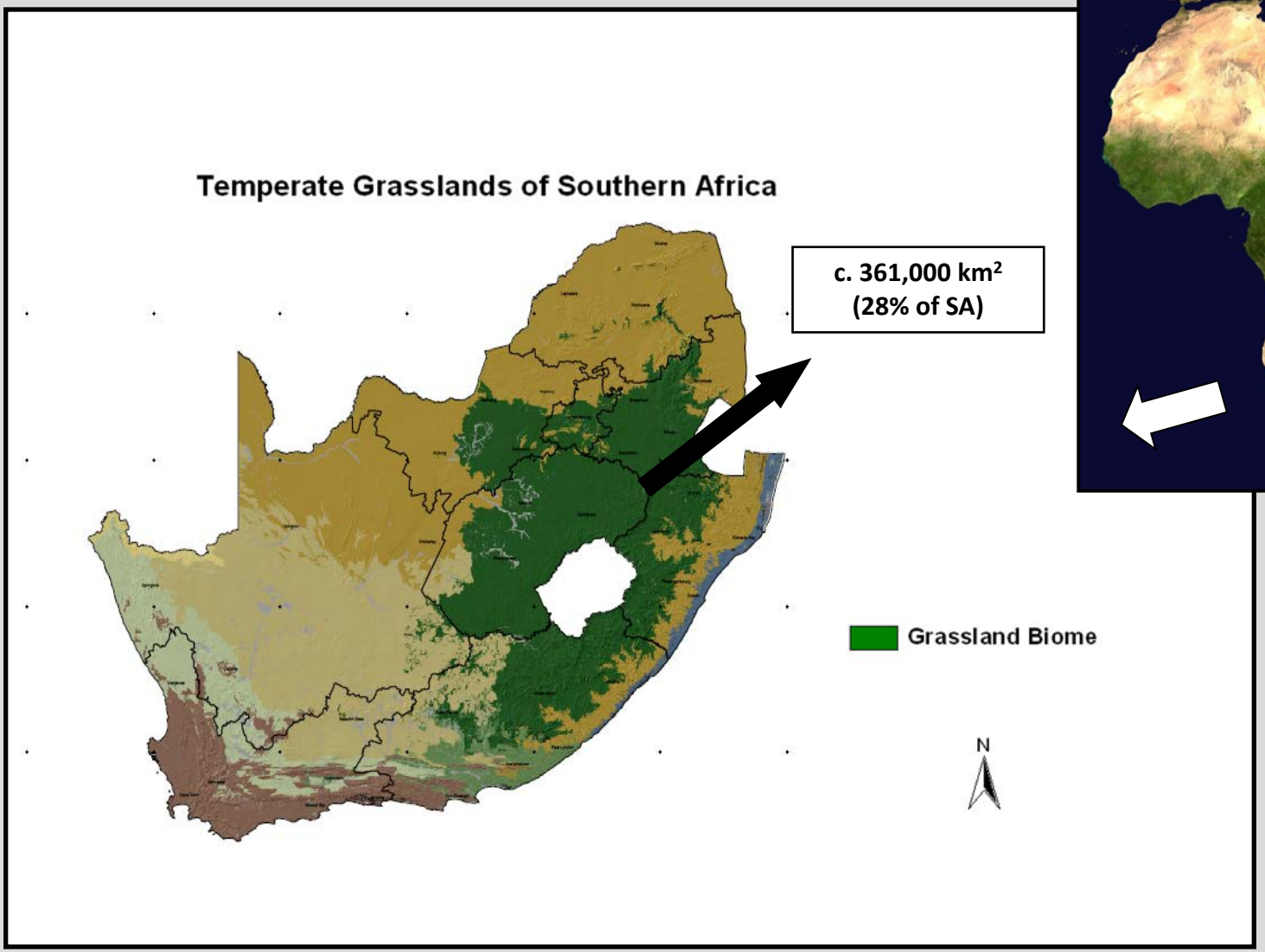
FOCUSSED THEMATIC PROGRAMME



Based on Mucina & Rutherford (2006) vegetation map.

BACKGROUND

Words are important – choose your terminology wisely

- **In SA we have witnessed a shift from PES to one investing in ecological (natural) infrastructure ('EI') / natural capital.**
- **EI – landscape approach involving more role players & stakeholders.**
- **Terminology designed to gain traction with built infrastructure actors.**

ESTABLISHED PREMISE 1: VALUE OF WATER

- SA is a water-scarce country (MAP 300 – 350 mm per annum).
- Only 3 mountain regions in SA where MAP > evaporation.
- Water is a strategic national asset moved to major economic hubs through water courses – demand is increasing.
- Water security is central to sustaining human life.


MDTP (2007)

ESTABLISHED PREMISE 2: THE REALITY OF CLIMATE CHANGE

- GB is located in summer rainfall area (high MAP).
- Climate change predictions – constant MAP but delivered in fewer events.
- More intense storms & flood damage (personal witness).
- Greater threat to catchment integrity.
- Exacerbated by growing population, increased demand for natural resources, land-use change, poor agricultural practices (multipliers to catchment degradation).

SOUTH AFRICA'S WATER ECONOMY

- SA has a well developed water economy BUT constrained by ageing built infrastructure and degrading EI.
- ± 12 billion m^3 raw water sold annually.
- 70% used by agriculture.
- Due to under-recovery & price capping, water costs are subsidized by tax payer (US $ 245 million / annum).

SOUTH AFRICA'S WATER ECONOMY

- Costs imposed by degraded catchments are not adequately addressed in water price.
- < 1% of raw water charge is allocated to rehabilitation and maintenance of natural ecosystems.
- More money needs to be invested in EI.
- Policy objective = "integrated system to protect, manage and finance EI for water protection and security".

SOUTH AFRICA'S WATER ECONOMY

Item	Current Costs/annum	Future Costs/annum	Shortfall/annum
Invasive alien control in priority areas	US $ 70 million	US $ 100 million	US $ 30 million
Erosion control	US $ 12 million	US $ 150 million	US $ 138 million
Wetland & riparian rehabilitation	US $ 9 million	US $ 120 million	US $ 111 million
TOTAL			**US $ 279 million**

INFLUENCING THE RIGHT ROLEPLAYERS

A key intervention !!

- To do so you need the correct institutional arrangements in place.
- The South African Constitution (first entry point – culture of inclusion, engagement & PP).
- National Dept. Environmental Affairs has a specialist biodiversity-mandated body (Biod. Act) called SANBI.
- Appointed a conservation strategist & tactician (M. Botha).
- Voice into Dept. of Water Affairs & Dept. of Agric.

INFLUENCING THE RAW WATER PRICING STRATEGY

A key intervention !!

- Raw water price currently under revision.
- In addition to the current charge/price:
- US 1¢ / m^3 for agricultural users (food security).
- US 10¢ / m^3 for domestic & industrial users.
- Rel. small portion of avg. water cost (US 19¢ / m^3 A & US 50¢ / m^3 D & I).
- 'Natural' or 'ecological infrastructure' component of raw water charge.
- Generate US $ 370 million per annum (> US $ 279 million per annum).

INFLUENCING THE RAW WATER PRICING STRATEGY

A key intervention !!

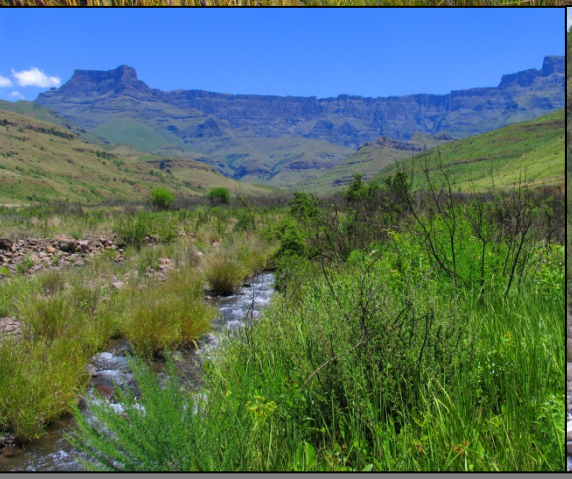
<u>Generate sufficient capital to up-scale</u>:

- Grant rebates for legal compliance with agric. & environ. regulations.
- Address erosion in key water catchments.
- Rehabilitate riparian zones & wetlands in stressed catchments.
- Control water-consuming invasive alien plants.

400 million tons of soil / annum!!

IUCN World Parks Congress Sydney 2014

Session Title: Climate change adaptation and mitigation actions to enhance food security and livelihoods (Stream 4: Supporting Human Life)



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THE LINK TO CLIMATE CHANGE MITIGATION

Significant financial investments derived from small increase in RWP:

- Build ECOSYSTEM RESILIENCE to mitigate climate change.
- Healthier & more resilient watersheds better safe guarded against soil erosion, soil C loss, dam siltation/sedimentation, nutrient loading, diminishing runoff & base flows, poor water quality & IAPs.
- Reduce risk (disaster management – US $ 100 million per annum).
- Enhance food security & ultimately human well being.

CONCLUSION: LESSONS LEARNT

The key take home messages

What works:

- **Biome-level intervention, through focused thematic programme.**
- **Well funded for long-term, sustainable systemic gains ('longer shelf life').**
- **Influence policy, use mainstreaming in key production sectors, create an enabling environment (within a broader landscape approach).**
- **Protected area level of intervention - short term 'patch'.**
- **UNDP: 'long hook approach vs short hook approach'.**

CONCLUSION: LESSONS LEARNT

The key take home messages

What works:

- **Persist in your endeavour despite opposition.**
- **Understand the sector you are trying to influence.**
- **ID opportunities & obstacles.**
- **Have a clear picture of the outcomes required.**
- **Don't stop at getting the policy right, real work is the implementation involving all actors (influencing the right role players).**
- **Real success is seeing the money spent on the correct initiatives.**

CONCLUSION: LESSONS LEARNT

The key take home messages

What works:

- Words are important – choose them wisely & send the right messages.
- Ecological infrastructure has traction with built infrastructure role players.

CONCLUSION:

Personal Mantra

Robust ecosystems = robust economies = robust livelihoods