



Environmental Programmes

Wetlands Programmes

Wetland restoration: maximizing the returns on investments in ecological infrastructure

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environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



EXPANDED PUBLIC WORKS PROGRAMME



Before



Introduction

Value of wetlands

After



Improve regulating, provisioning and cultural benefits:

- Hydrological benefits
 - *Water quality*
 - *Baseflow maintenance*
 - *Sediment regulation*
 - *Flood management*
 - *Groundwater dis/recharge*
- Biodiversity – *species and habitat*
- Biogeochemical cycles
- Human livelihood

Gulley erosion



Invasive alien plants

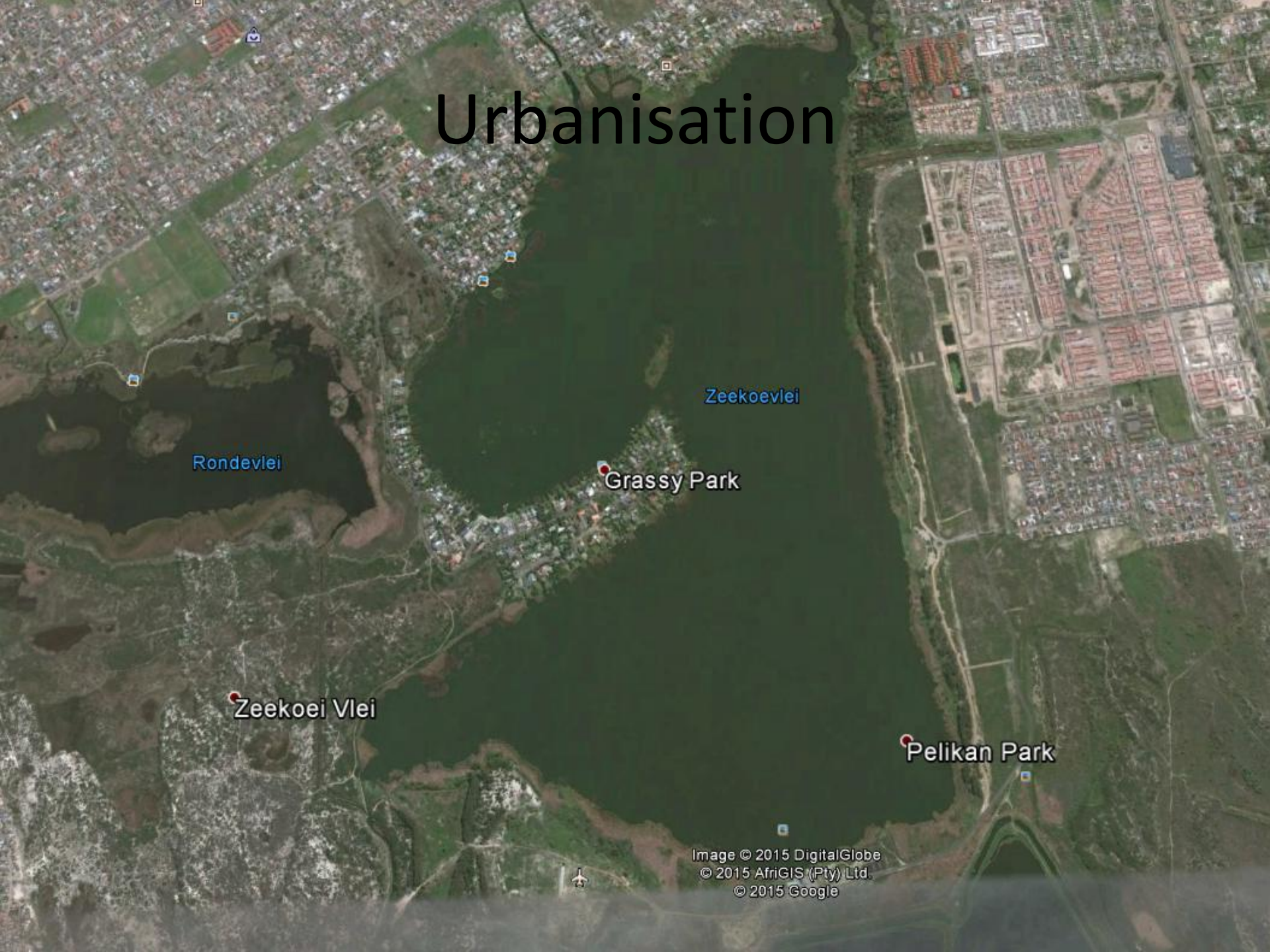


Pollution



Masiphumele wetland in CT; Images by Heidi Nieuwoudt

Urbanisation



Rondevlei

Zeekoevlei

Grassy Park

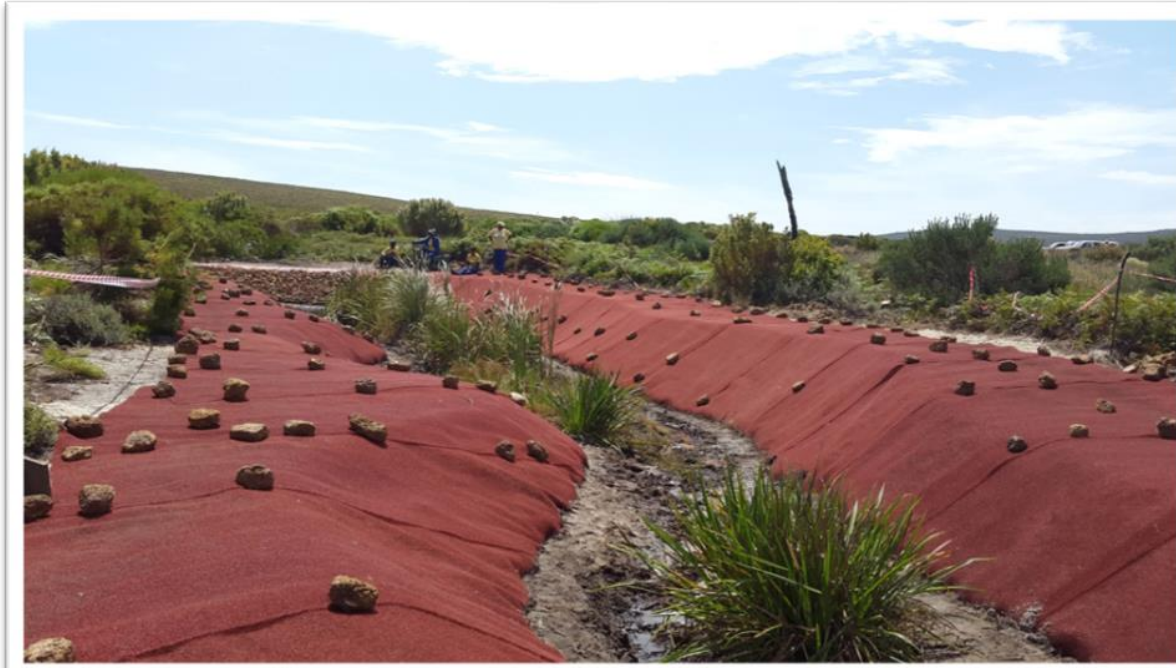
Zeekoei Vlei

Pelikan Park

Image © 2015 DigitalGlobe
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Presentation outline

- Link to NBRES SO2
 - Relevant thematic areas
- Link to NDP, MEA and SDGs
- Intro to NRM & Wetlands
- Research description
- Some findings
- Key messages



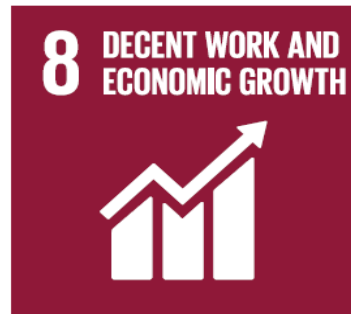
Link to NBRES SO2

- *SO2: Investments in ecological infrastructure enhance resilience and ensure benefits to society*
- Wetlands are *SES* that constitute *EI*
- Most *threatened (CC)* ecosystem type yet deliver disproportionately important *functions and services*
- *Investing* in their ***protection, sustainable use*** and ***rehabilitation*** secures human livelihood

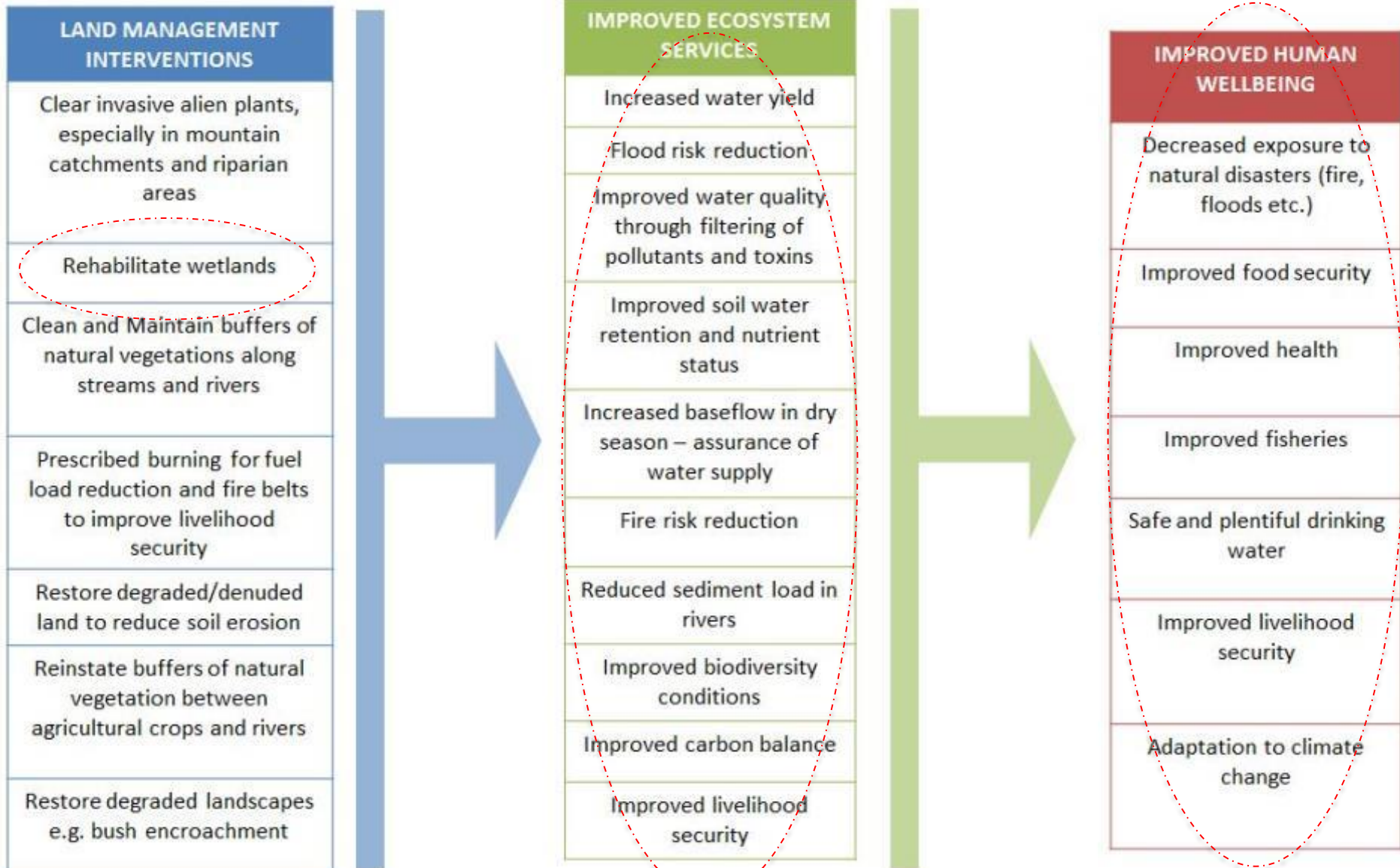
Other relevant thematic areas

- Biodiversity Economy
- Rehabilitation and restoration (*Improving efficiencies in government spending and delivery*)
- Natural capital
- Global change
- Research that specifically *addresses* Sa's policy priorities via the *NDP, NBSAP and NBRES*

Fulfilling South Africa's commitments set by the Sustainable Development Goals



Fulfilling South Africa's commitments set by the Millennium Ecosystem Assessment



National Development Plan imperatives

Poverty alleviation (**11 million jobs by 2030**):

- NRM programmes impart skills - labour-absorbing industries
- Creates jobs for interim poverty relief

Environmental sustainability and resilience -

- We invest in **conservation and rehabilitation** of wetland **ecosystems** to enhance their resilience – **community resilience**

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A prosperous and equitable society living in harmony with our natural resources

Vision

**ENVIRONMENTAL
ECONOMIC
CONTRIBUTION
OPTIMISED**

**ECOLOGICAL
INTEGRITY
SAFEGUARDED &
ENHANCED**

**SOCIALLY
TRANSFORMED &
TRANSITIONED
COMMUNITIES**

Working for
Water

Working for
Wetlands

Working for
Ecosystems

Value-
added
industries

Working
for Forests

Working
on Fire

Key DEA outcomes

Working for Wetlands

High-level goals	Activities
Rehabilitate wetlands to restore hydrological functions that underpin water flow and quality regulation	<ul style="list-style-type: none">• Major Infrastructure interventions (e.g. concrete and major gabion structures)• Minor infrastructure interventions (e.g. chutes, IAP control and re-vegetation)• Sustainable use and protection of intact and restored wetlands



Since 2004, Just under R1 billion invested in about 1300 wetlands; about 27 000 jobs created; just under R3million p/days (250 000 training)

Project description

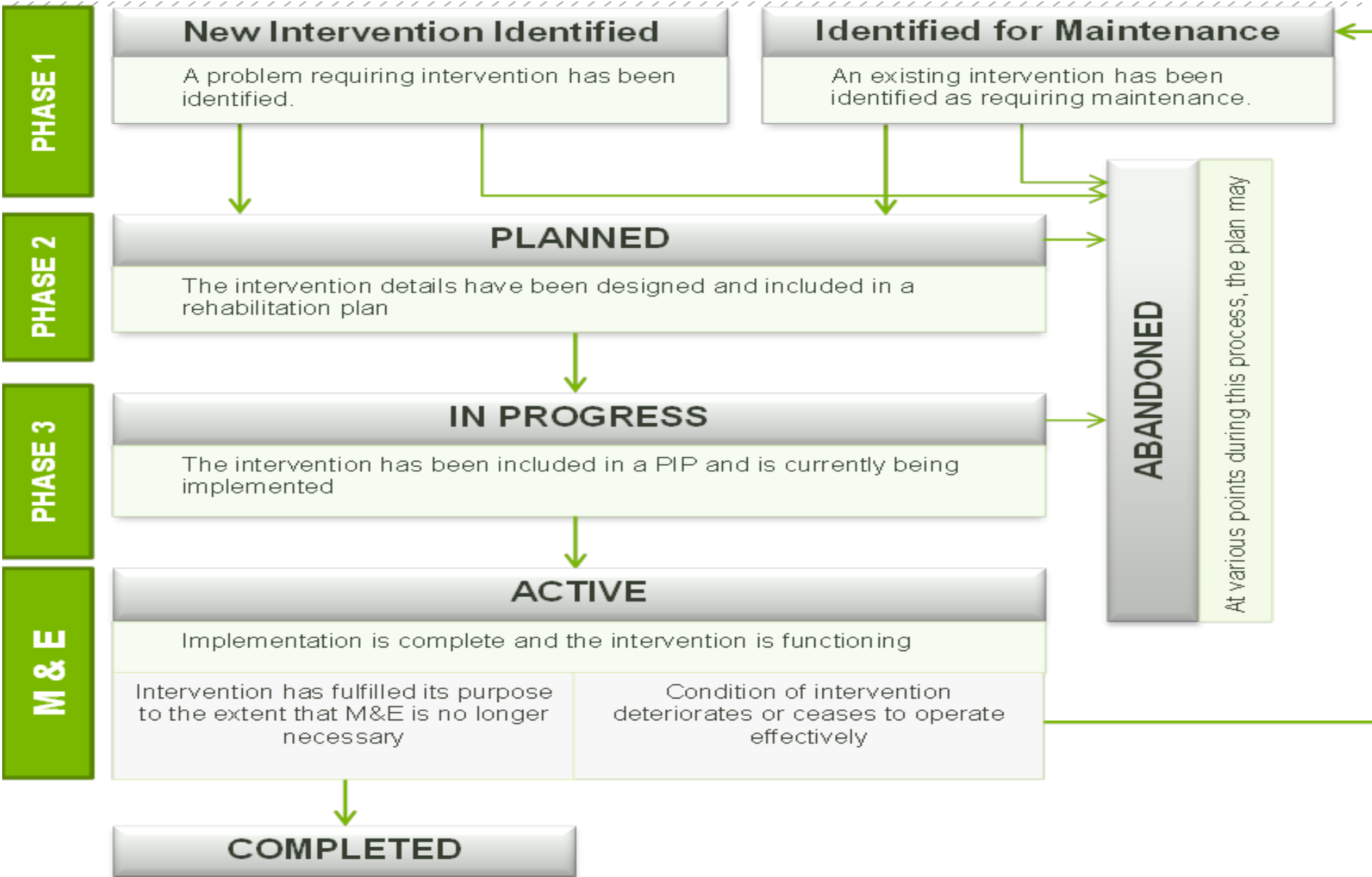
- Rationale
 - EI is a *sustainable* and most *cost effective* life support system
- Problem statement
 - 120 wetlands pa with *Limited budget* vs >240 000 wetlands; 20 – 58% lost; 48% C. END. Budget will *always* be limiting
- Research focus:
 - How Working for Wetlands has endeavoured to *maximise RoI* in the face of *limiting resources*
- Research question:
 - How can we *stretch the rand value*?

Increase our footprint?

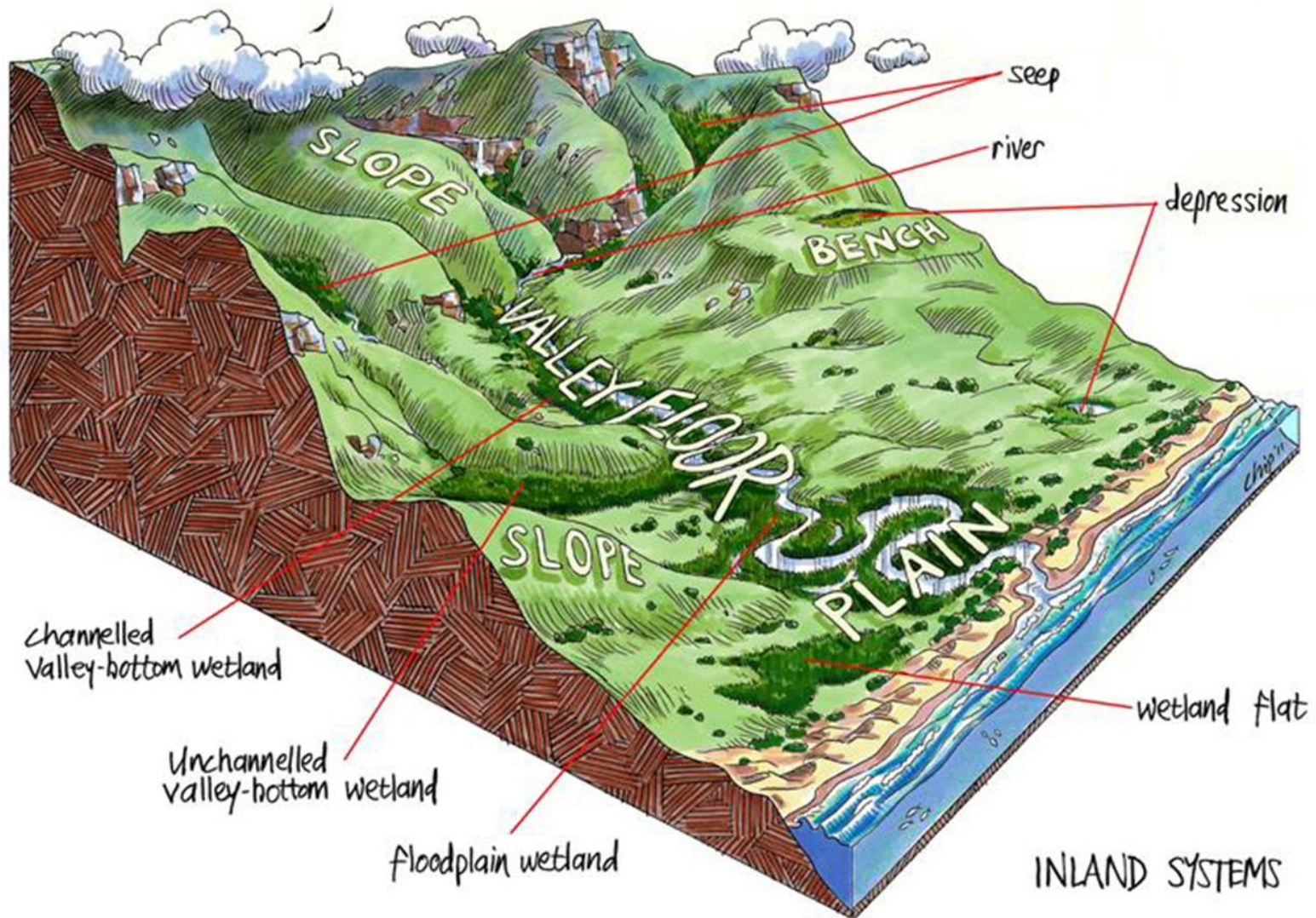
- **Extension** – supporting other depts., municipalities, NGOs, private companies?
- **Compliance** (wetland legislation?)– long term vision – supporting the green scorpions?
- Institutional & policy **collaboration/partnerships** (*SDG 17*)
- **Advocacy**



Comprehensive planning process



Catchment approach



Optimise EI benefits and maximise impact

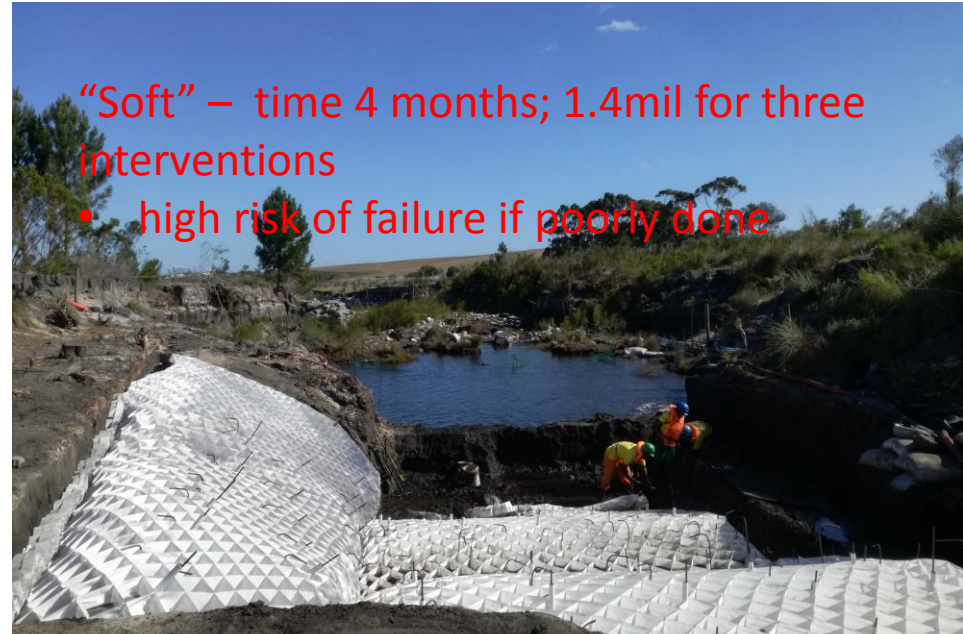
“Softer” interventions strategy

Early intervention



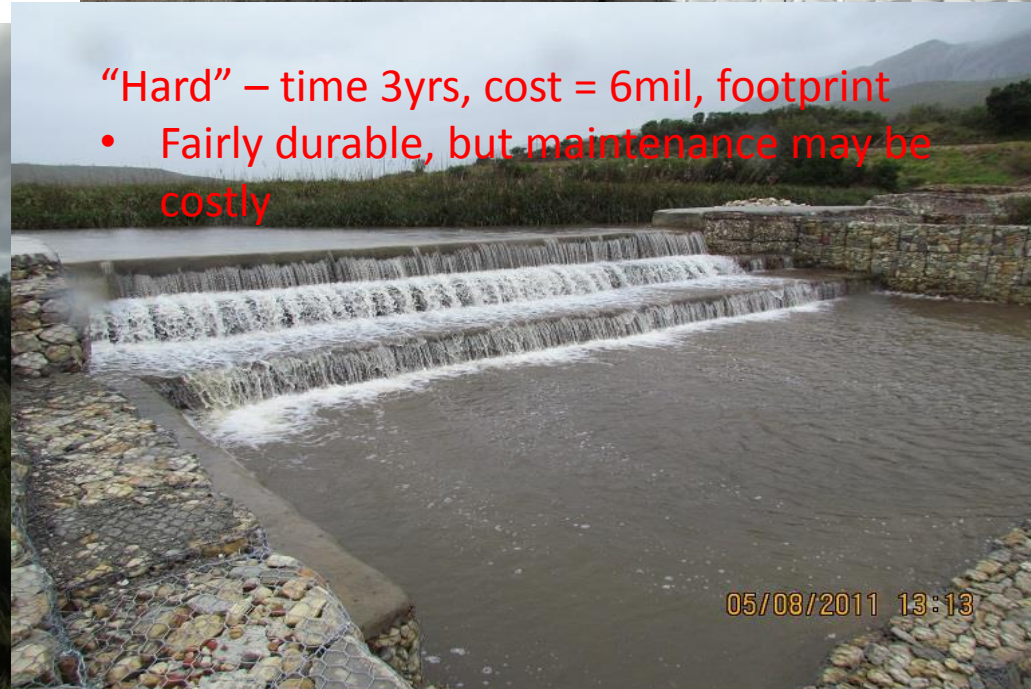
Innovation

Problem



“Soft” – time 4 months; 1.4mil for three interventions

- high risk of failure if poorly done



“Hard” – time 3yrs, cost = 6mil, footprint

- Fairly durable, but maintenance may be costly

State of M & E



Description

Evaluation

Repeated measurement = monitoring

Evaluation criteria:
• Effectiveness
• Efficiency
• Sustainability

Inputs

Activities and Outputs

Outcomes/ Effects

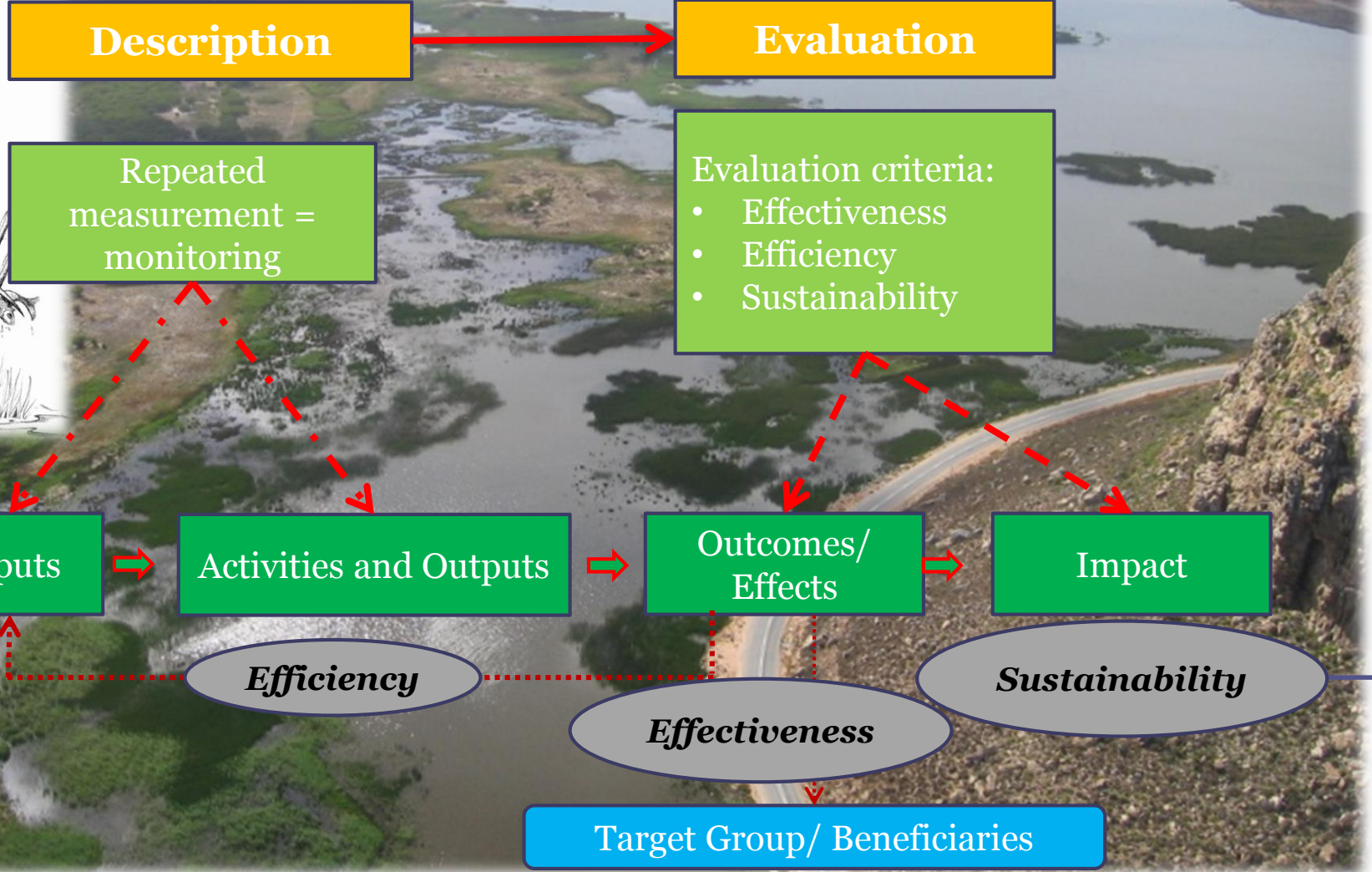
Impact

Efficiency

Effectiveness

Sustainability

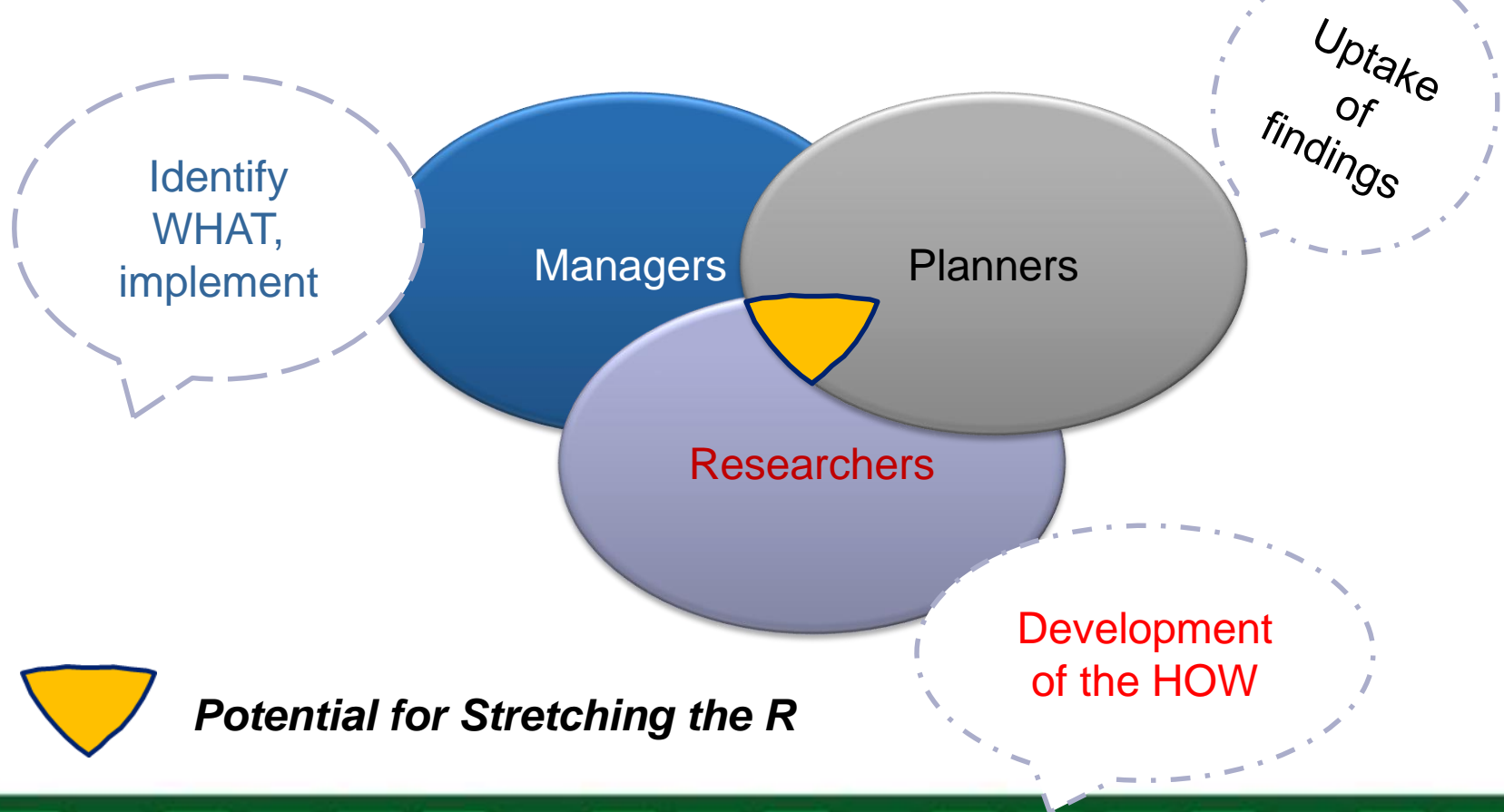
Target Group/ Beneficiaries



Key messages

- *Resources* will *always* be *limiting* – innovate to stretch the Rand value
- *Work done* and *not reported, monitored* or *evaluated* is as good as *not done*

What we do not know/we know



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Further questions

- At what stage of wetland degradation do we make the most positive impact? ***Thresholds?***
- Do we have ***sufficient policy and legal provisions*** to protect wetlands? (3R done; action)
- How do we ensure ***sustainability?***

Thank You

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