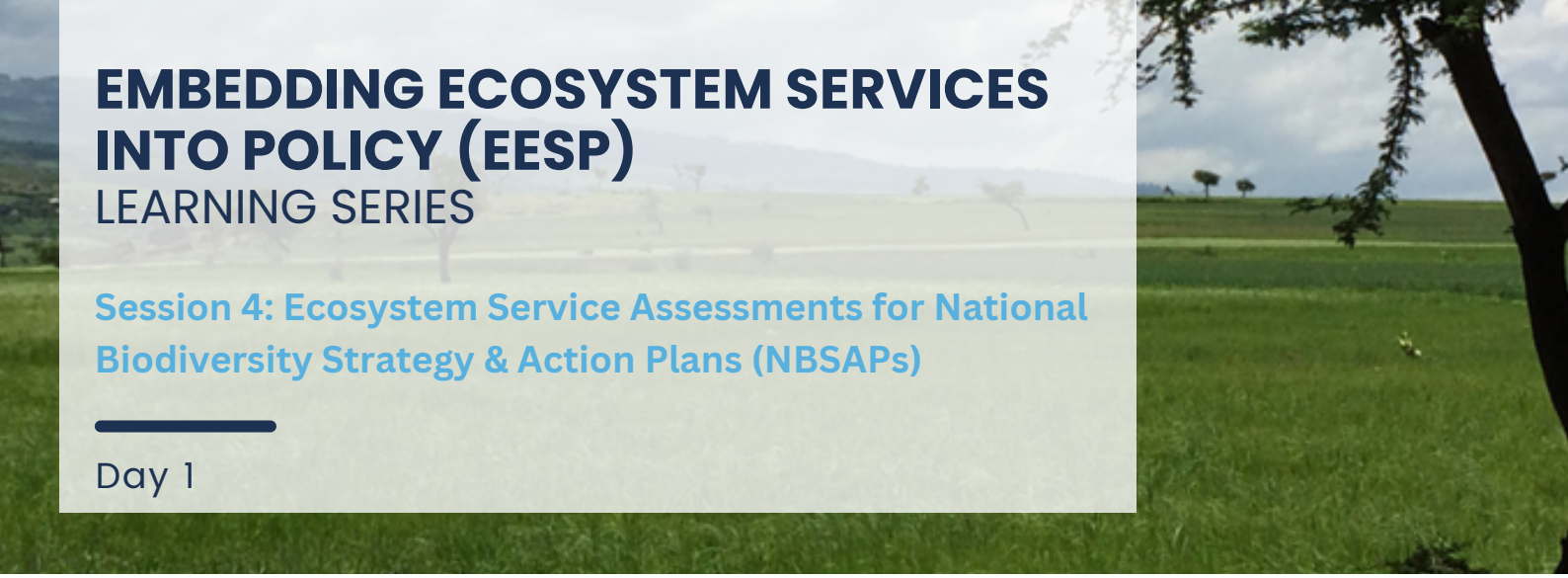

EMBEDDING ECOSYSTEM SERVICES INTO POLICY (EESP)
LEARNING SERIES

Session 4: Ecosystem Service Assessments for National Biodiversity Strategy & Action Plans (NBSAPs)

Day 1

about this session

NBSAPs are a requirement for the countries that are a signatory to the Convention on Biological Diversity, all of whom need to submit updated NBSAPs before COP 16, taking into consideration the 23 targets of the new Global Biodiversity Framework (GBF). This session will provide an overview of the 23 targets through categorising them into 3 key groups - targets to reduce threats to biodiversity, targets to meet people's needs, and targets for implementing and mainstreaming NBSAPs. Finally, the session will explore the reasons for incorporating biodiversity and ES into NBSAPs, and the methodologies and approaches to achieve this. A case study example from South Africa demonstrating the outcomes of one of these methods - integrated conservation planning - will also be presented.

Keywords: NBSAPs, Global Biodiversity Framework, biodiversity conservation, integrated conservation planning, monetary ecosystem accounts, nature-based solutions

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Jane is an environmental economist with 36 years of experience in conservation and development. She specializes in assessing ecosystem health, valuing ecosystem services, and integrating biodiversity into economic planning. She contributed to the development of the Millennium Ecosystem Assessment framework and the UN's Ecosystem Accounting methods. Her expertise includes water security, ecosystem rehabilitation, land degradation, and green economy development. Jane is the director of Anchor Environmental Consultants and holds a part-time position at the University of Cape Town.

learning objectives

- Understand the significance of NBSAPs and their connection to the new GBF targets.
- Identify the areas where information on ecosystem services (ES) can provide valuable insights within the GBF targets.
- Identify the reasons for, and the methods to integrate ES into NBSAPs, including accounting and valuation studies, scenario analysis, feasibility studies, modeling nature-based solutions, and integrated conservation planning.
- Understand the concept and significance of integrated conservation planning, its components, and its relevance in incorporating ecosystem services.

Embedding Ecosystem Services into Policy (EESP) Learning Series

Jane Turpie

Ecosystem Services and NBSAP

Dr Jane Turpie

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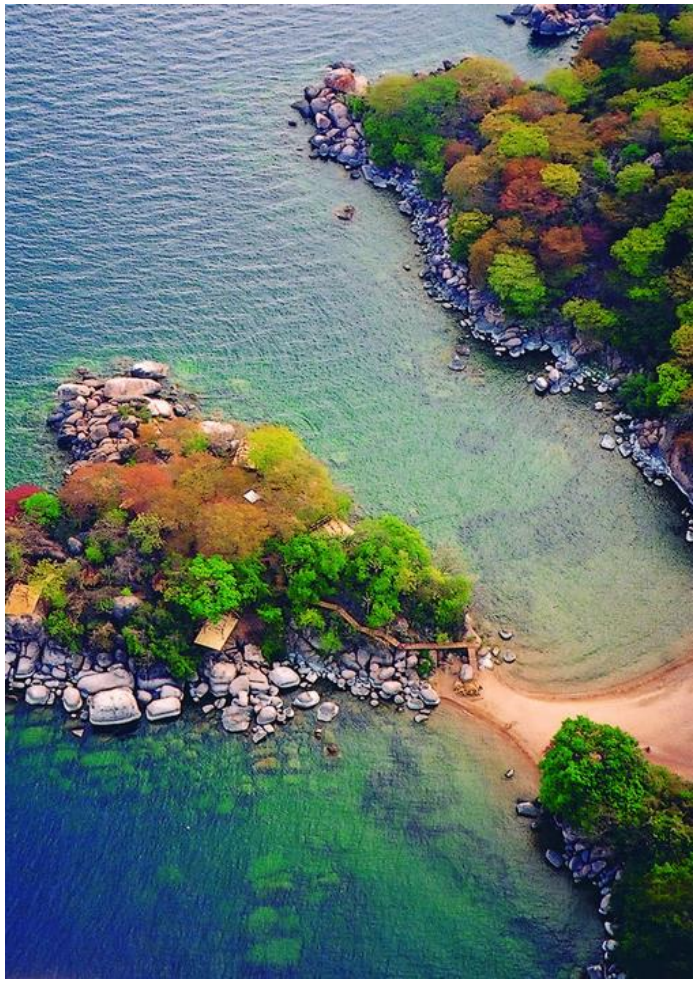
National Biodiversity Strategy and Action Plans

- A requirement of CBD signatories, must be updated from time to time
- Strategy and plan for **conservation and sustainable use of biological diversity**, which is integrated into relevant sectoral or cross-sectoral plans, policies
- Countries need to submit updated NBSAPs before COP 16 (**~mid 2024**)
- This will take into account the 23 targets of the new **Post 2020 Global Biodiversity Framework**



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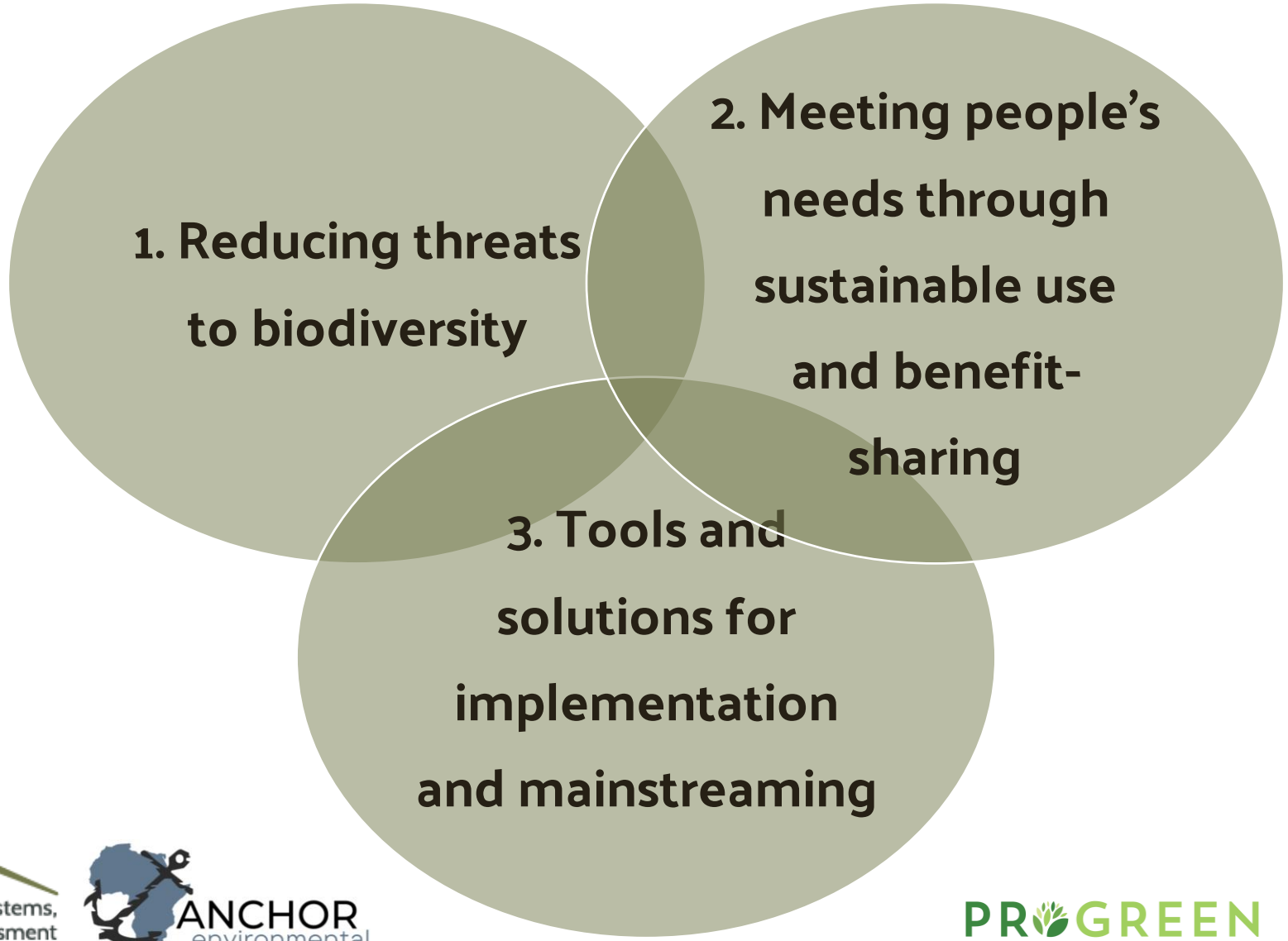
Global Biodiversity Framework: 3 groups of targets



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GBF Targets 2030: Reducing threats to biodiversity

1 Spatial planning for all areas

2 ≥30% degraded areas restored

≥30% of area is effectively conserved 3

4 Halt extinctions

5 *Prevent overexploiation and other impacts*

Eradicate invasive alien species 6

Eliminate plastic & other pollution 7

Minimise CC impacts on biodiversity 8

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GBF Targets 2030: Meeting peoples' needs

9 Sustainable use of wild species

10 *Sustainable agriculture, forestry & fisheries*

Restore, maintain & enhance ecosystem services 11

12 Increase urban green space

Equitable sharing of benefits from genetic resources 13

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GBF Targets 2030: Implementing and mainstreaming

14 Integration across all sectors

15 *Measures for private sector*

16 **Consumers informed** re ***sustainable choices***

17 Biosafety measures

18 Eliminate harmful subsidies

Increase int'l & domestic funding to implement NBSAPs 19

20 Capacity bulding

21 *Accessible data*

22 Representative decision – making

Gender equality 23

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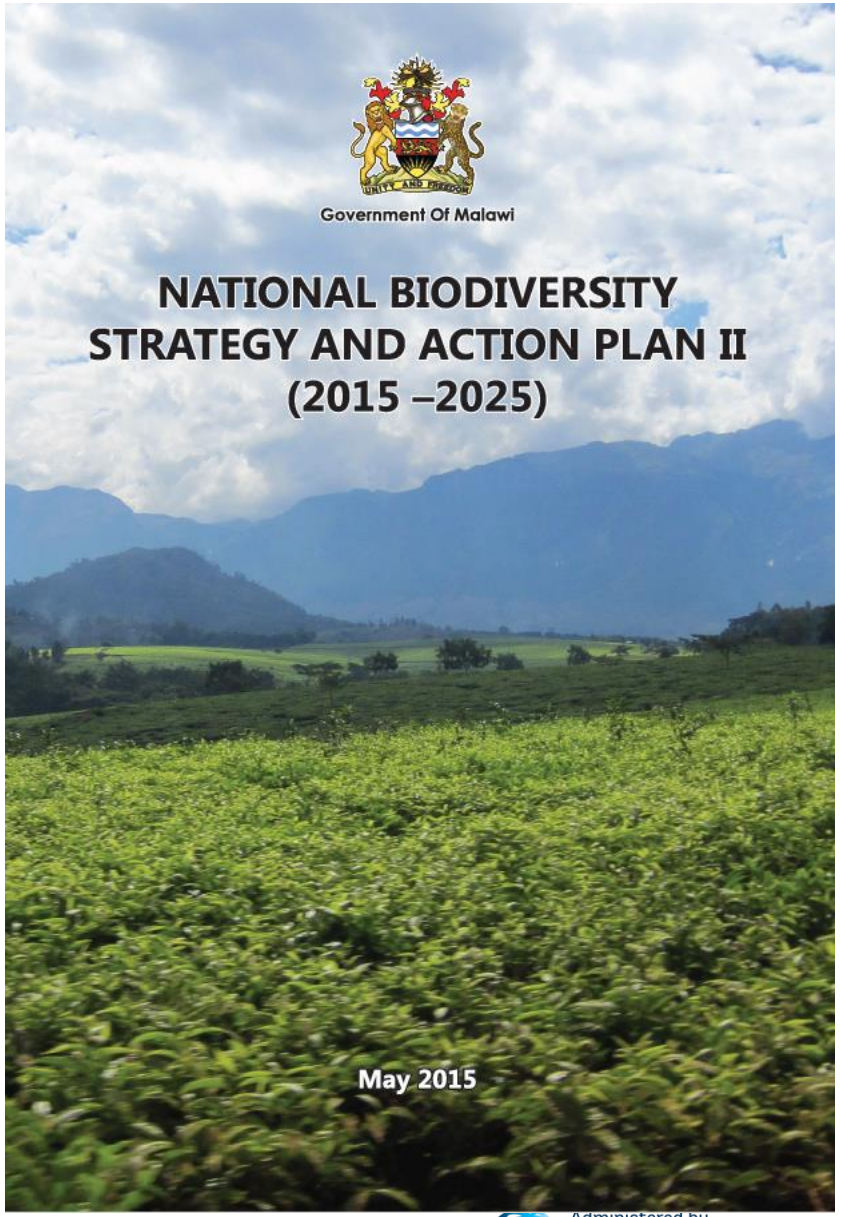
Why how and what?

- ***Why*** should we incorporate values of biodiversity and ecosystem services into our NBSAP? What are the benefits of doing so?
- ***How*** can these values be incorporated as part of in the NBSAP updating process?
- ***What*** approaches are available to support the incorporation of these values into NBSAPs?



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Why?

1. Integrated management of land, water and living resources can be achieved more **cost-effectively** using an ecosystems-based approach.
2. Accounting for nature in all decision-making significantly **enhances biodiversity conservation**
3. Accounting for ecosystem services in conservation planning is needed to meet conservation targets in a way that is **optimal** for society
4. Understanding values and who they accrue to is key to leveraging **financing**

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How?

- Compile **monetary ecosystem accounts** (use value)
- Extend to estimate **total economic value** (use + non-use)
- Undertake **scenario analysis and cost-benefit analysis** to identify **restoration priorities**,
- **Feasibility studies** to identify **PES opportunities**
- Modelling, CBA of **nature-based solutions** for other sectors
- Undertake **integrated conservation planning** to identify area-based conservation/**PA expansion priorities**

Integrated conservation planning

- **Set targets**
  - area, representation of species, connectivity, etc
- At minimum, incorporate **costs**
- Better, include potential **losses/ gains of all ES**
- Find the most **efficient solution**

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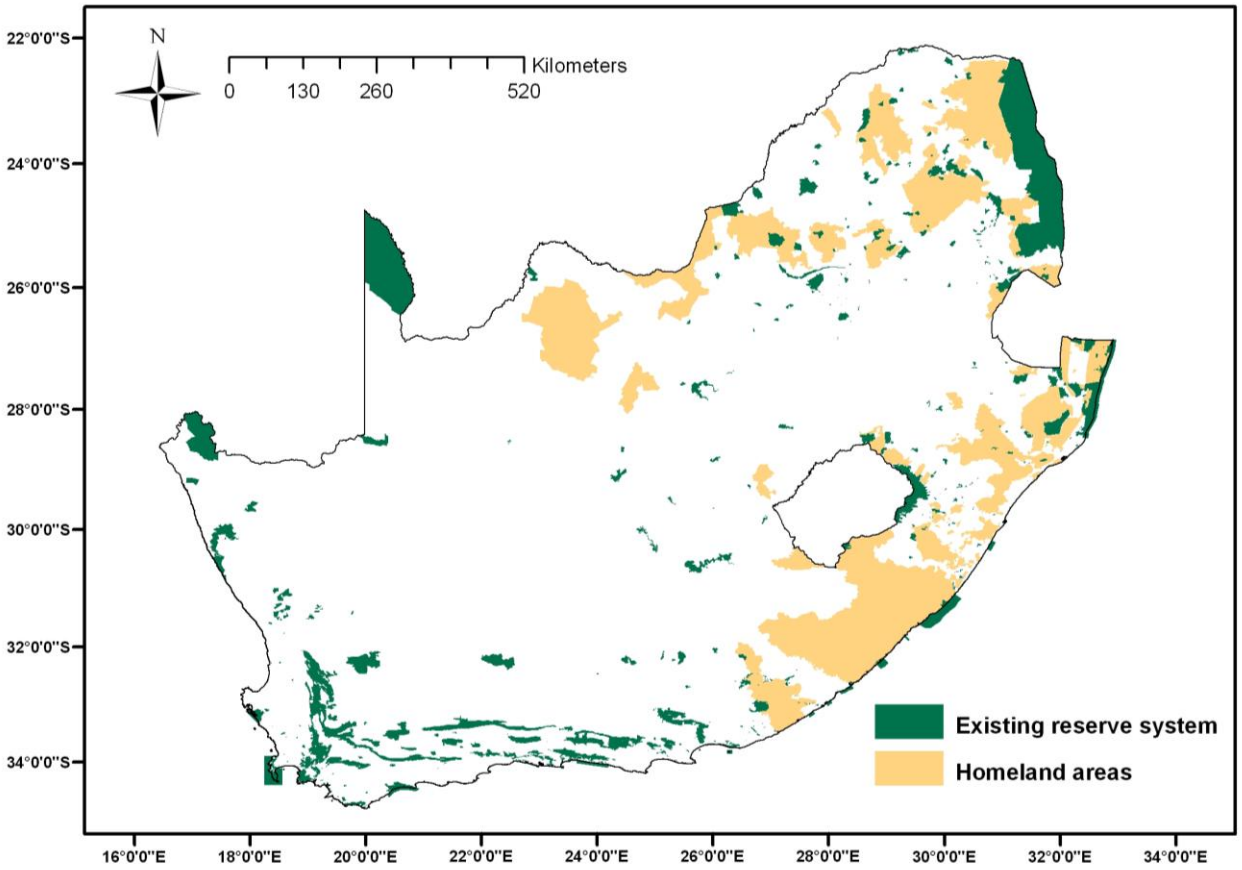
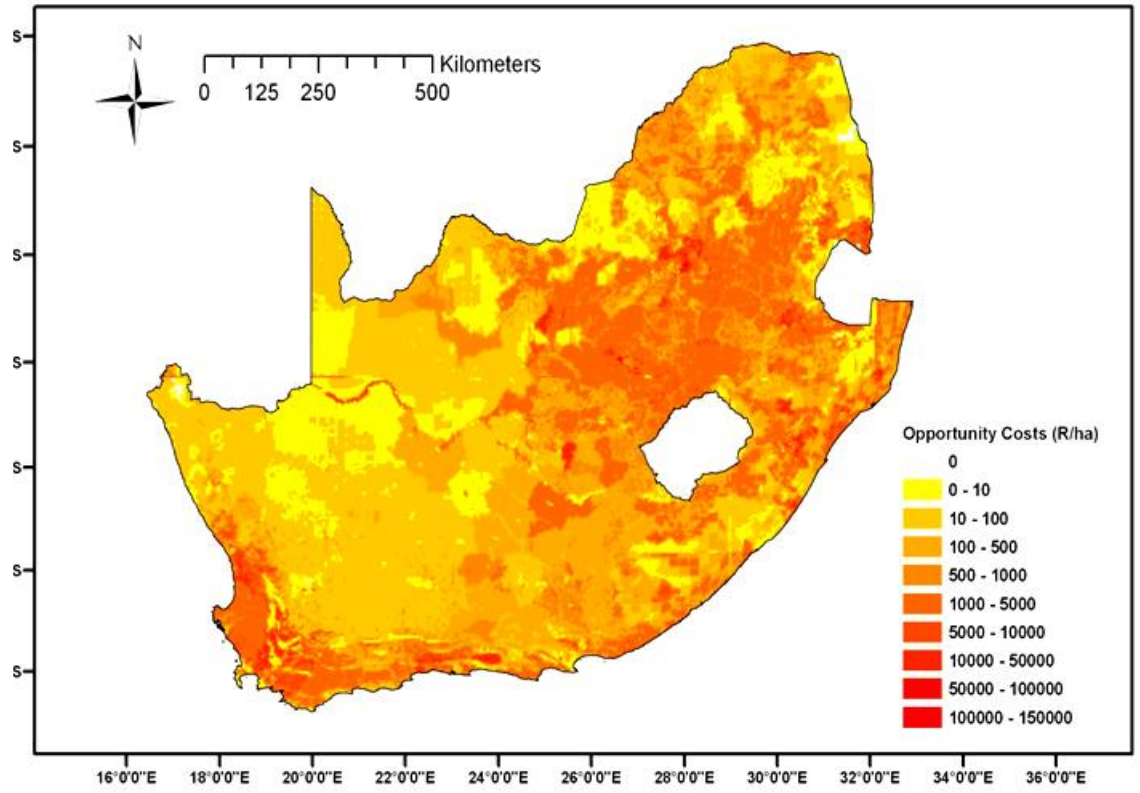
Integrated Cons Planning in SA: academic example

- Existing protected areas



- Opportunity cost of protection = provisioning service value



Source: Palframan & Turpie (2013)

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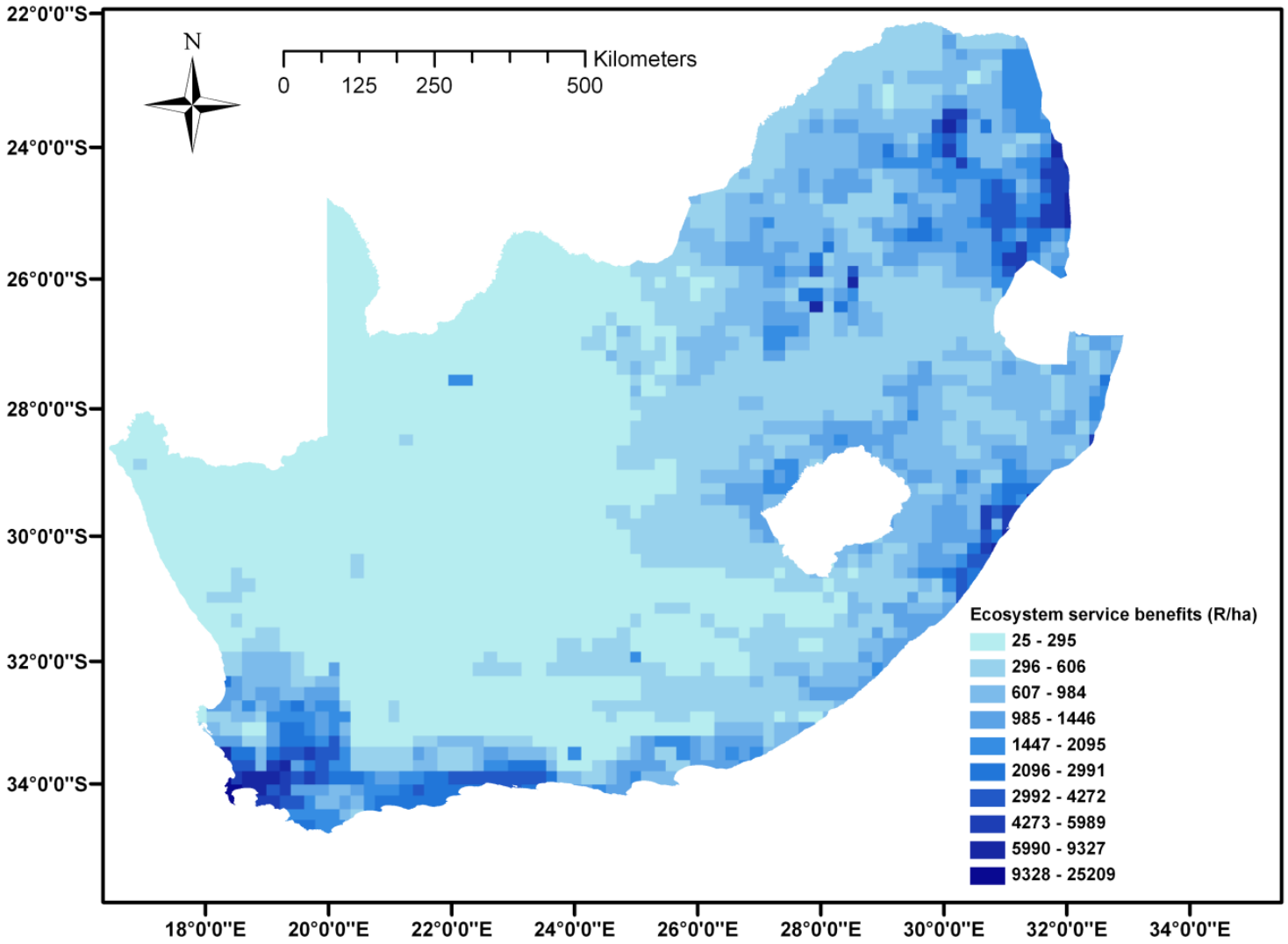
Incorporating ES value

- Value of regulating and provisioning services under status quo
- Estimated trajectories under BAU vs conservation for each pixel



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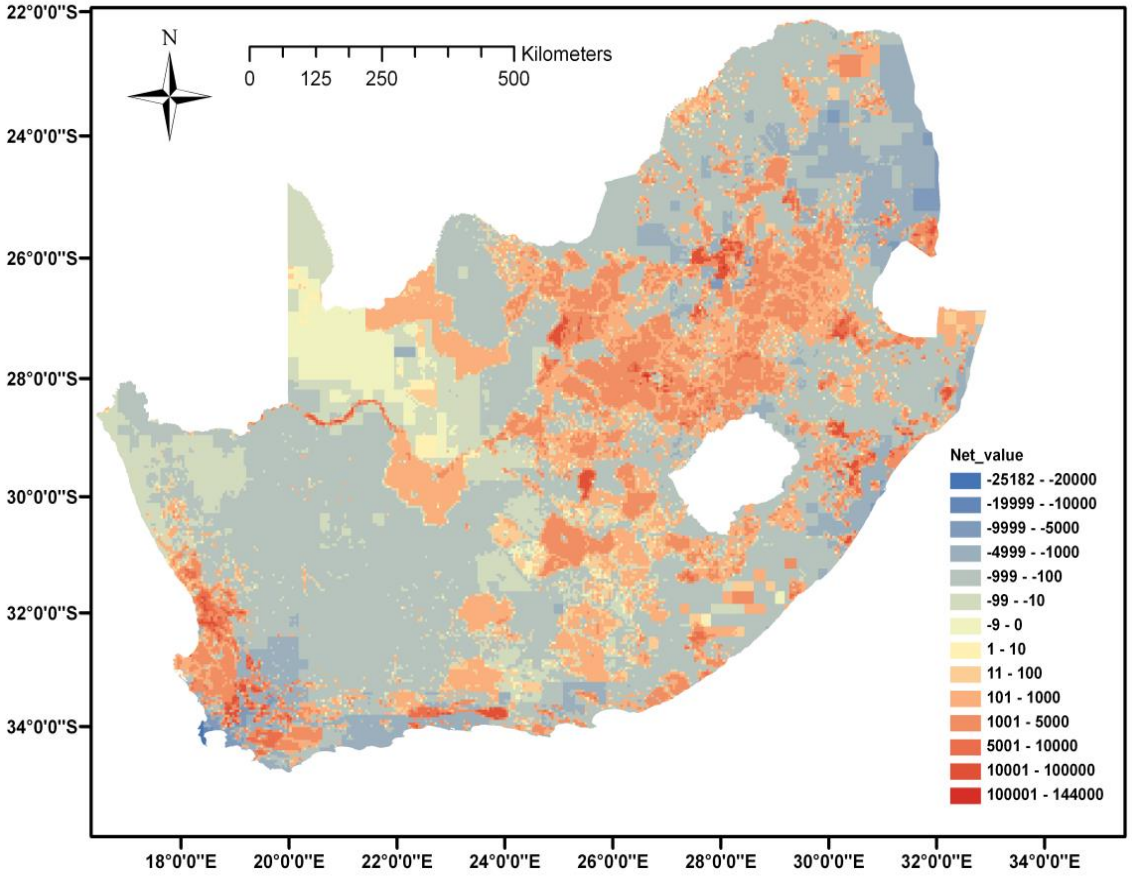
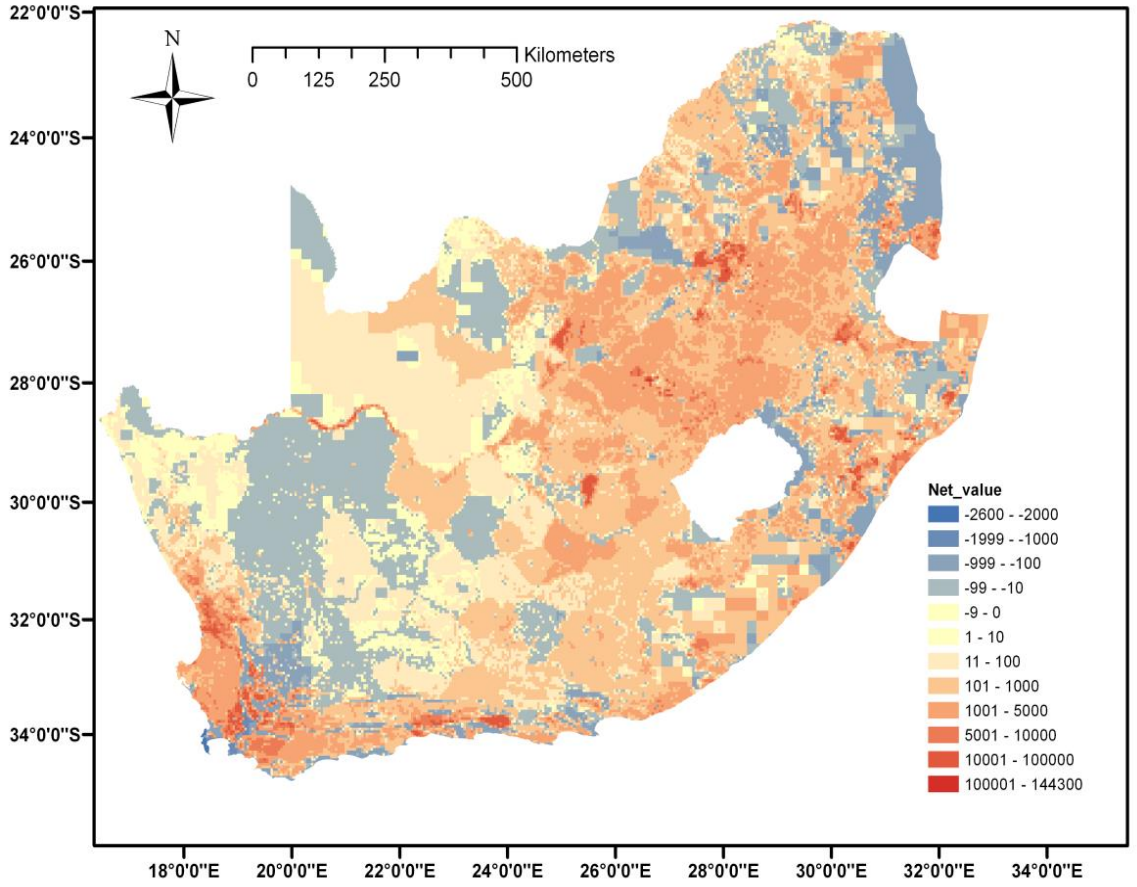
Net benefit of conservation: ES gains - productive losses

- At face value



- Taking management into account



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More area protected, more benefits, lower costs

Note that not all ES are taken into account, benefits undervalued

	Existing plan (NPAES)	New solution taking ES into account
Area (million ha)	11.71 (<10%)	29.48 (24%)
Total costs (R bn)	6.8	3.9
Benefits (R bn)	1.2	3.4
Net gain (R bn)	-5.6	-0.5

Be inspired!

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