

# Natural Capital Accounts and mainstreaming biodiversity: Some reflections from South Africa

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NCA Policy Forum

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# Overview

- Ecosystem accounting as a mainstreaming tool in South Africa
- The two “sticky points” from yesterday morning
- Link between ecosystem accounts and biodiversity

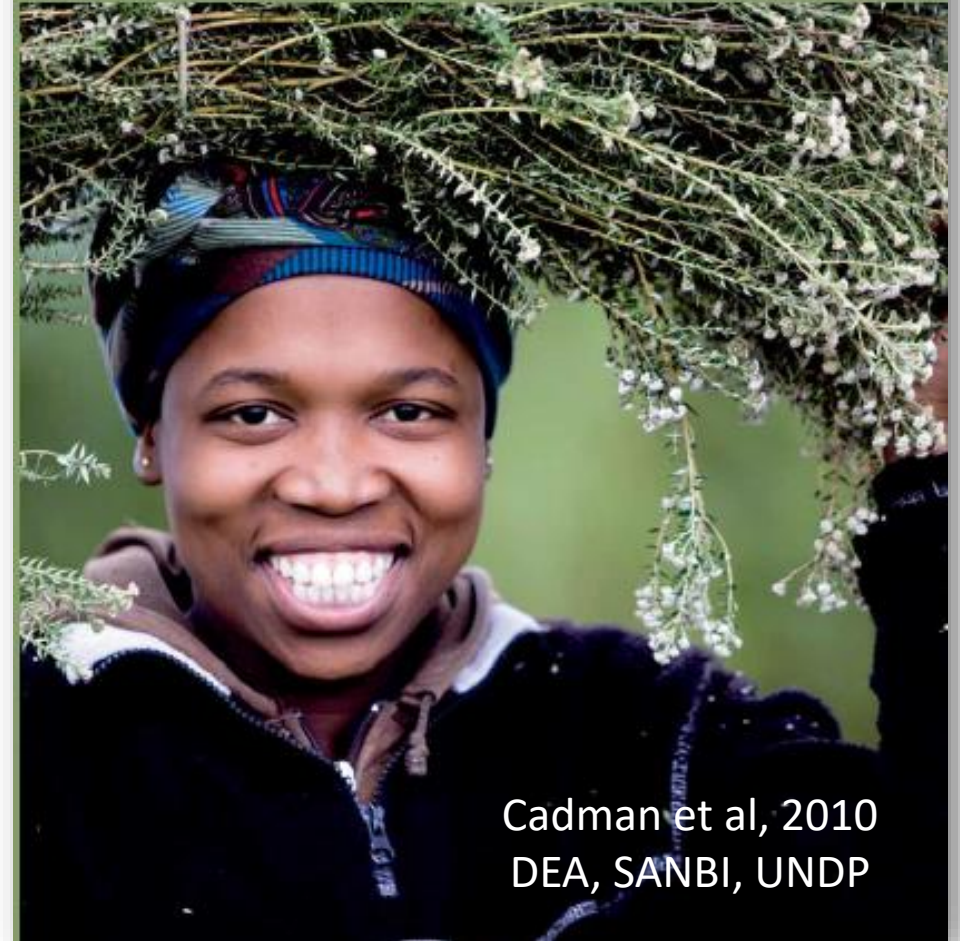
# Policy priorities in South Africa

- Economic growth
- Unemployment
- Poverty & inequality
- Rural development



## Biodiversity for Development

South Africa's landscape approach to conserving biodiversity and promoting ecosystem resilience



Cadman et al, 2010  
DEA, SANBI, UNDP





# Second NBSAP

## 6 Strategic Objectives

Conserve, manage and sustainably use biodiversity to ensure equitable benefits to the people of South Africa, now and in the future.

1. Management of biodiver-

**SO 1 Manage  
biodiversity assets  
and enhance their  
contribution to the  
economy**

e.g. through wildlife ranching,  
nature-based tourism,  
bioprospecting

**SO 2 Invest in  
ecological  
infrastructure to  
enhance resilience**

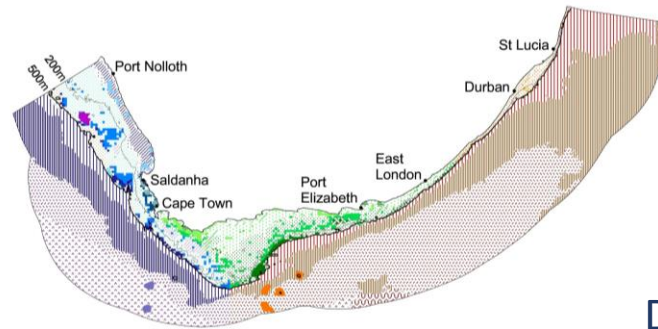
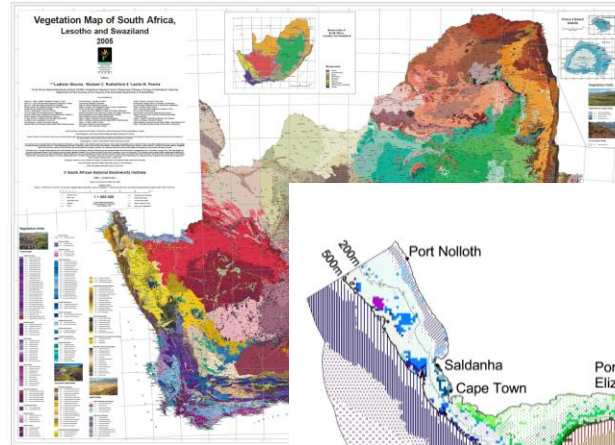
6. Effective knowledge foundations, including indigenous knowledge and citizen science, support the management, conservation and sustainable use of biodiversity.

# Natural Capital Accounting & Valuation of Ecosystem Services (NCA&VES) Project (2018-2020)

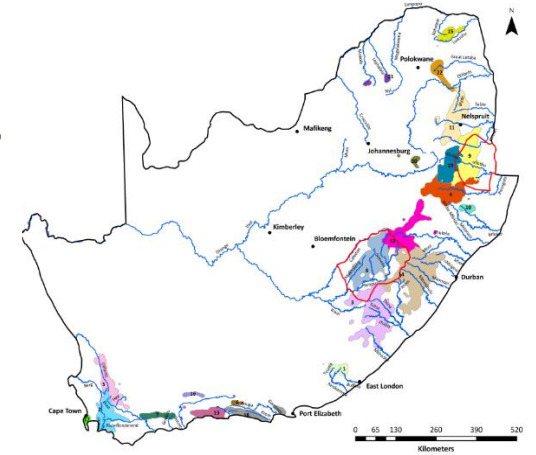
# Ecological Infrastructure for Water Security Project (GEF6) (2018 – 2022)

National

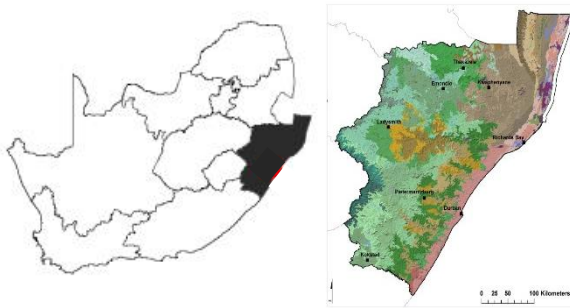
National ecosystem asset accounts – terrestrial & marine



Accounts for Strategic Water Source Areas – the 10% of land that delivers 50% of water



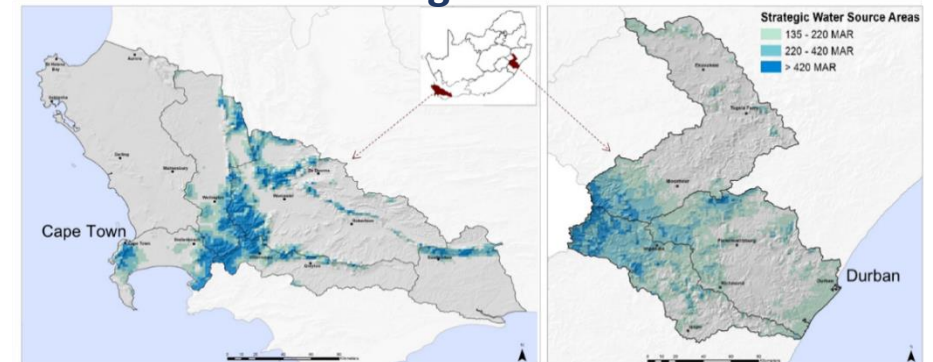
Sub-national



KZN: Full suite of ecosystem asset and ecosystem service accounts

Demo catchments:

- Catchment-level **water resource** accounts
- Accounts for **ecological infrastructure assets**



# Growing momentum for ecosystem accounting in SA

- Statistics South Africa and SANBI working closely together, also with other key stakeholders
  - NCA unlocks collaboration between non-traditional partners
  - NSO has strong convening power
- Ecosystem accounts are translating our biodiversity science into an accounting framework
  - NCA enhances attention and interest
- Powerful platform for mainstreaming with other sectors
  - NCA opens up new conversations
    - For example with National Treasury

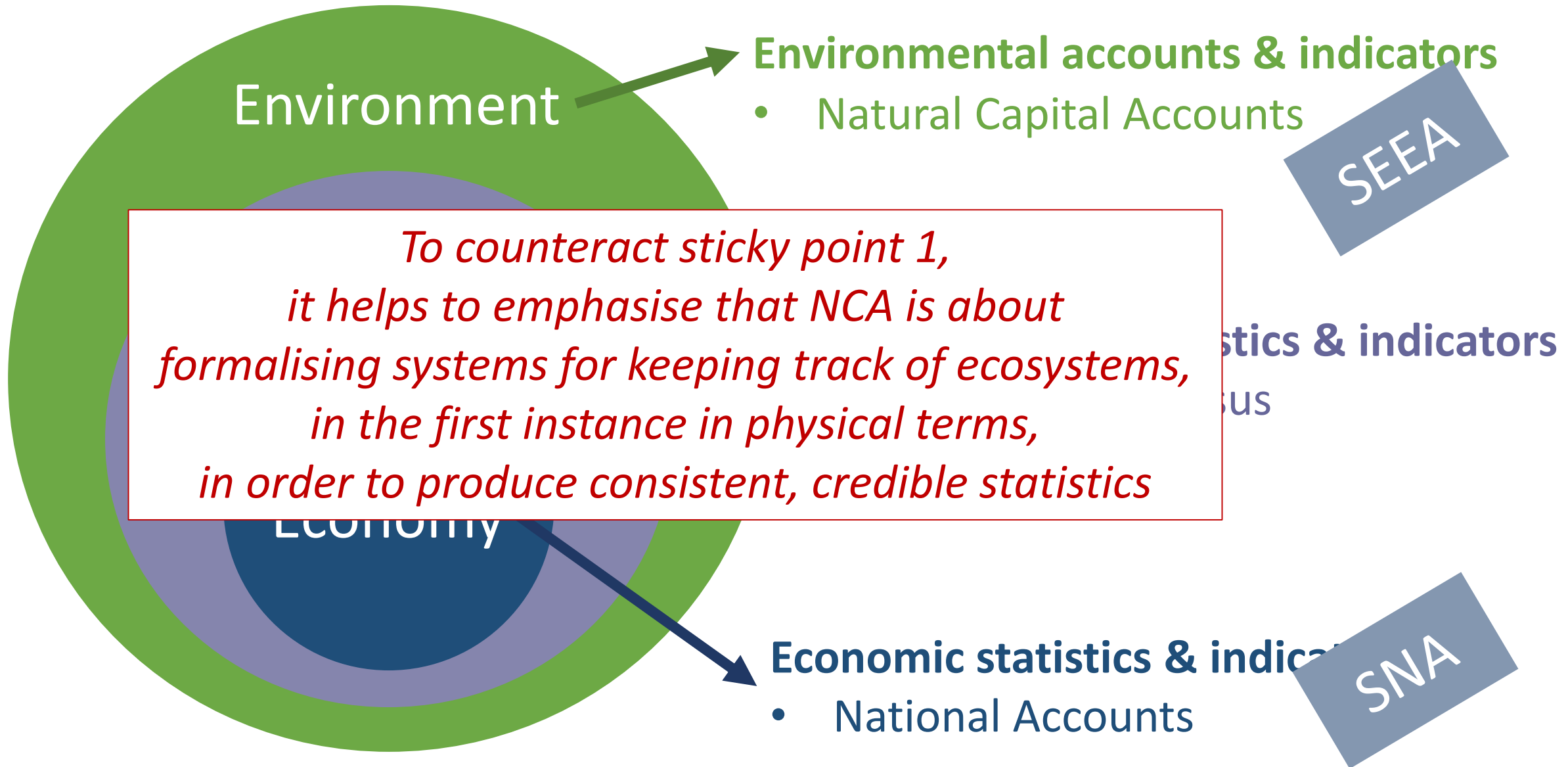
# The two “sticky points”

- “NCA is about monetising nature”
- Is there a biodiversity equivalent of headline CO<sub>2</sub> indicators and thresholds for climate change?

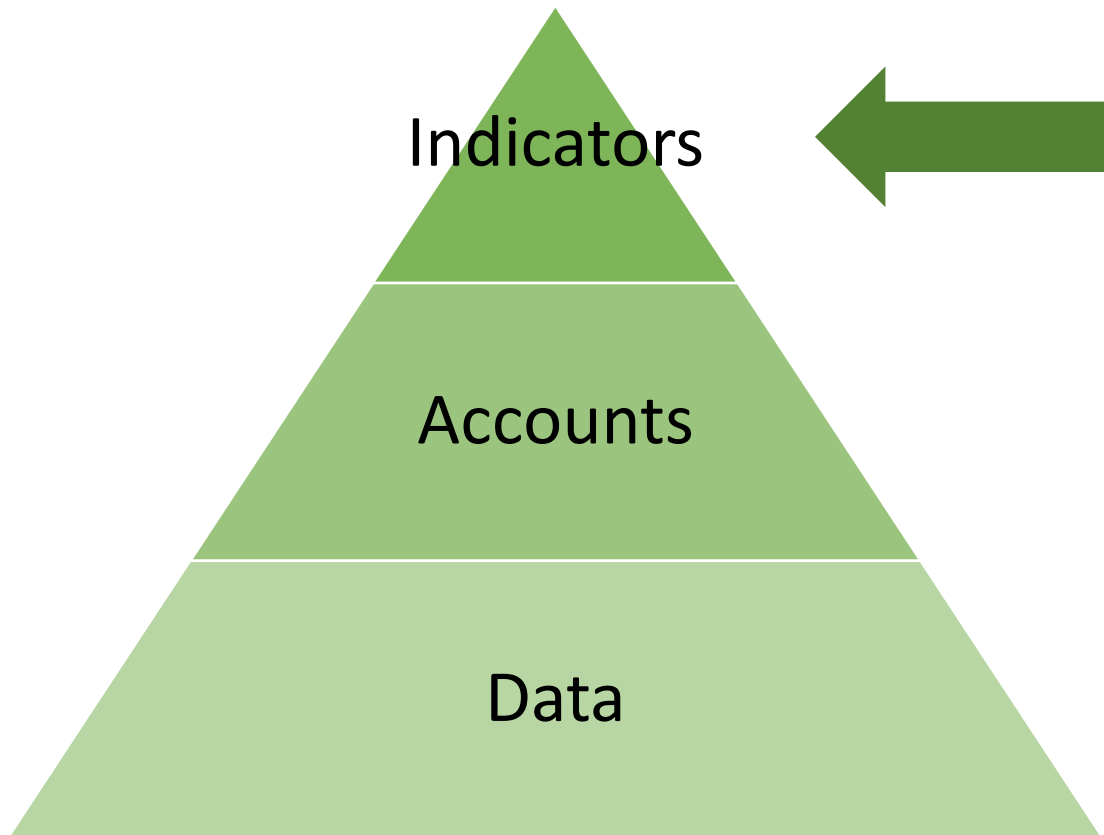
Sticky point 1: “NCA is about monetising nature”



# Sustainable Development



Sticky point 2: Is there a biodiversity equivalent of headline CO<sub>2</sub> indicators and thresholds?



# National River Ecosystem Accounts: Extent and condition of river ecosystem assets (done in ANCA project in 2014)

Based on data from two  
detailed national  
assessments by  
Department of Water  
& Sanitation

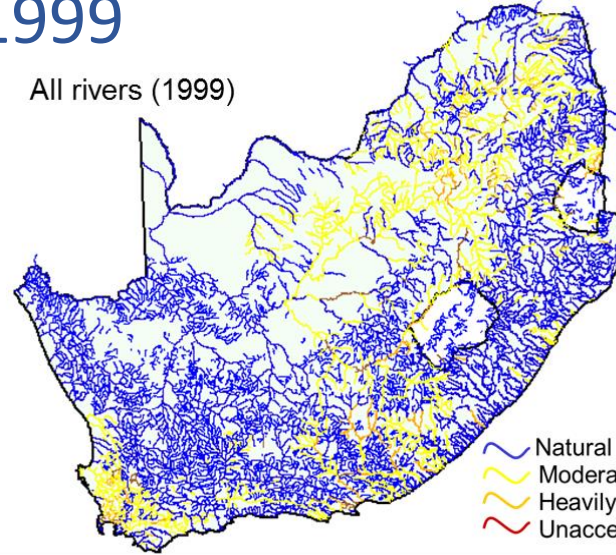


water & sanitation

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

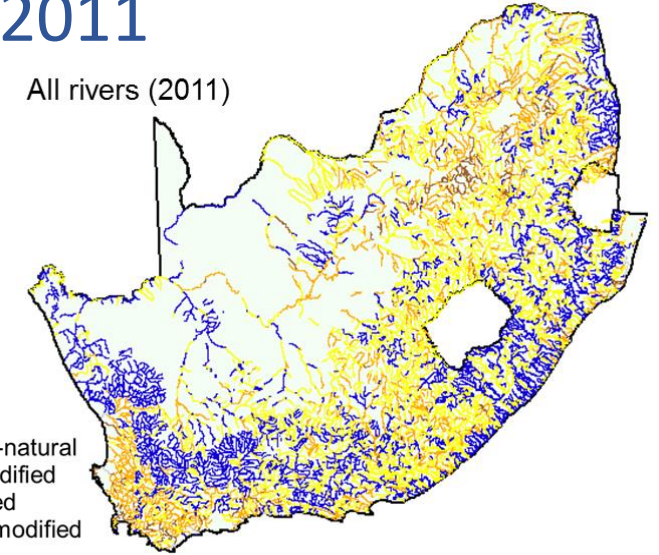
1999

All rivers (1999)



2011

All rivers (2011)



— Natural or near-natural  
— Moderately modified  
— Heavily modified  
— Unacceptably modified

Ecological condition  
indicators

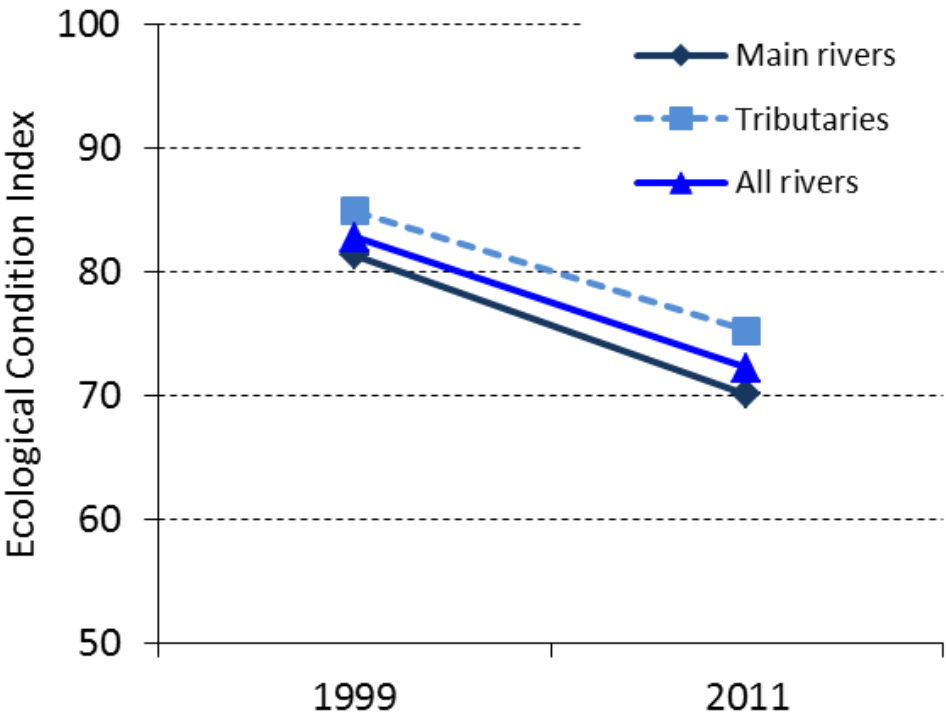
- Flow
- Water quality
- Instream habitat
- Riparian habitat

Aggregated  
ecological  
condition  
category

Ecological  
Condition  
Index

# Highest level summary of the Ecological Condition Account:

	Main rivers	Tributaries	All rivers
1999	81.3	84.9	82.8
2011	70.1	75.2	72.2
Change between 1999 and 2011	-11.2	-9.7	-10.6



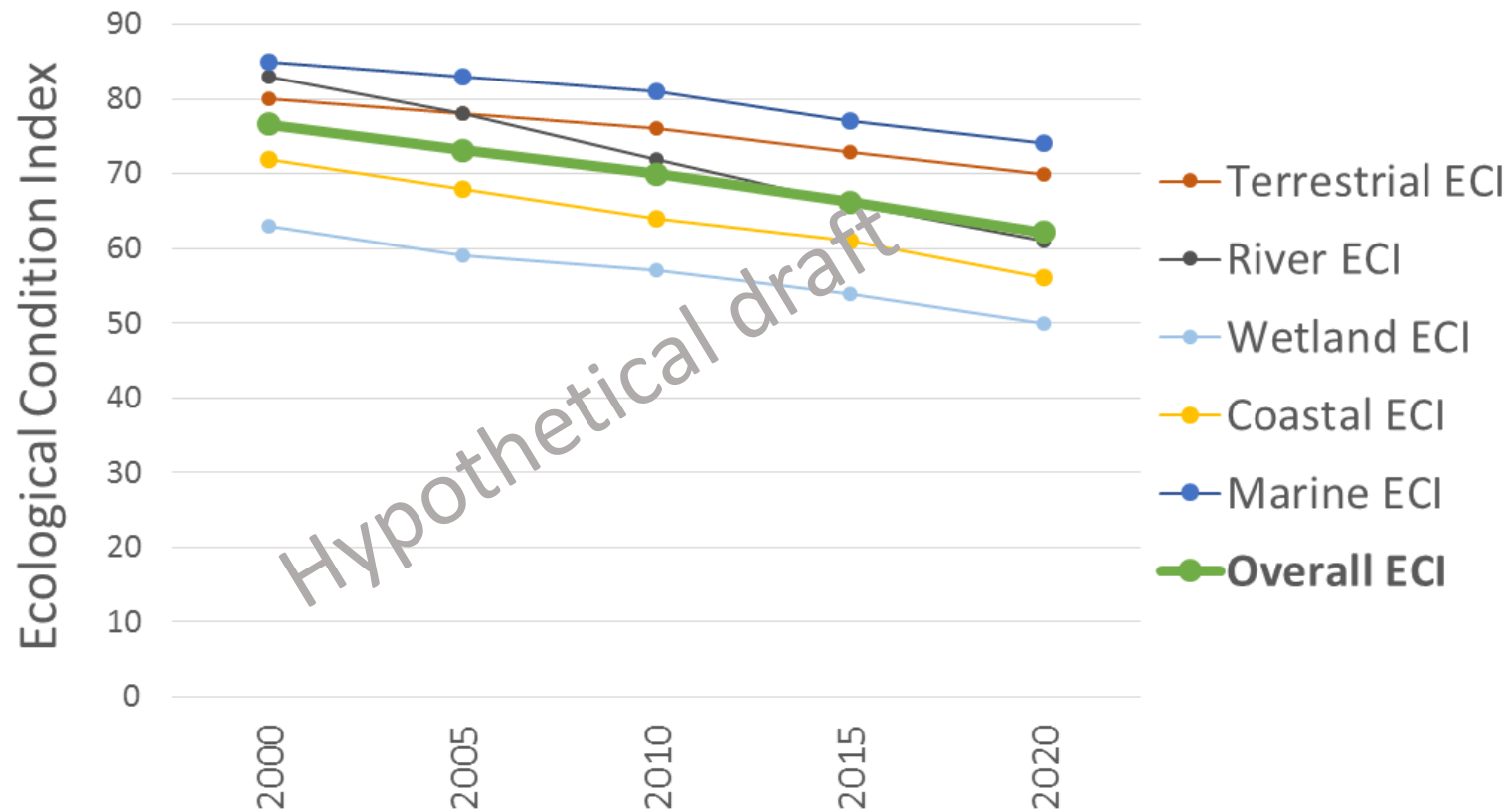
Overall  
**10% decline** in  
ecological condition  
of rivers  
1999 - 2011

Information for  
national policies,  
such as  
**National Water  
& Sanitation  
Master Plan**



# Now working towards an **Ecological Condition Index** for all realms, from terrestrial through to offshore marine

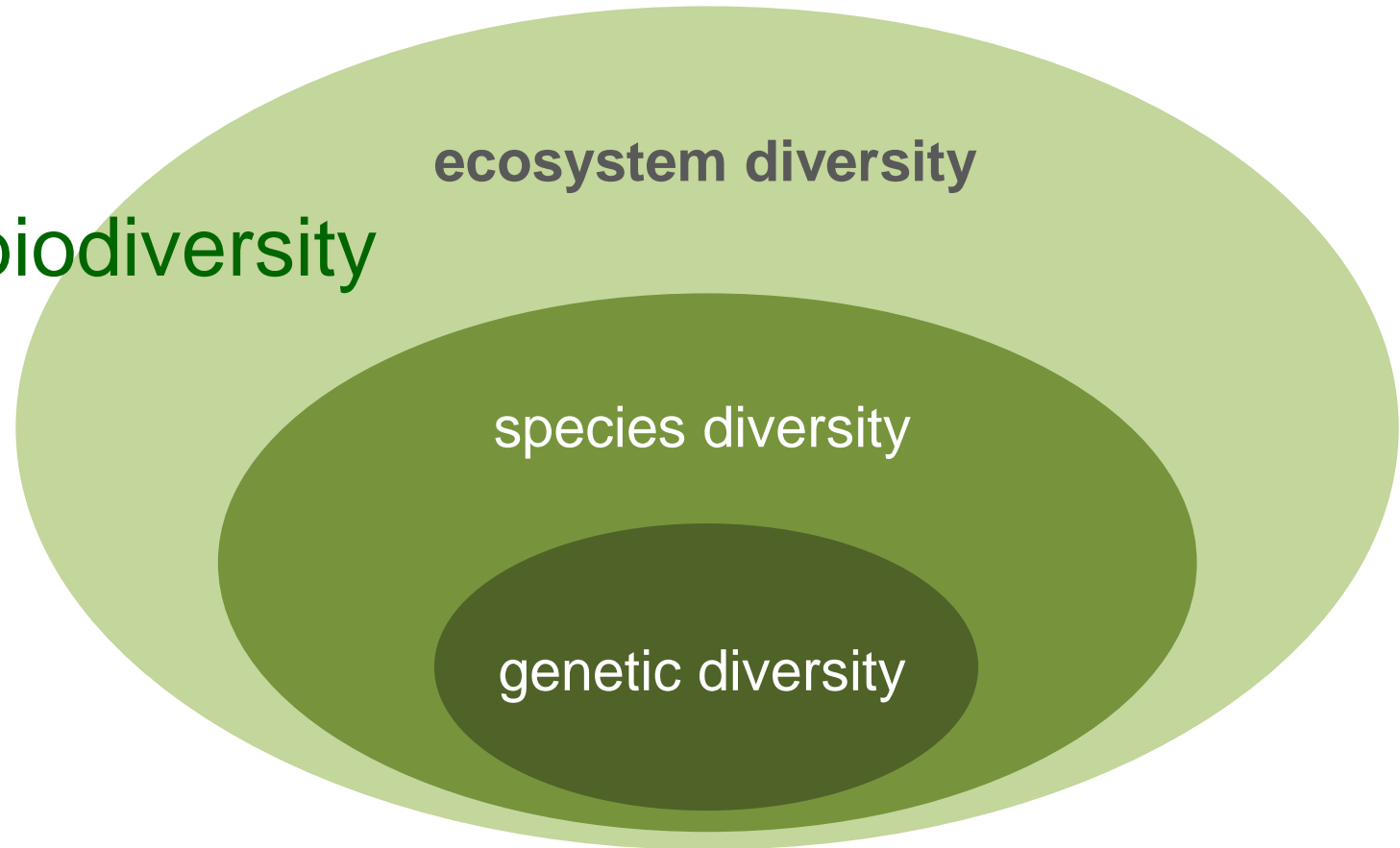
Hypothetical Ecological Condition Index for South Africa  
(to be further populated in 2019)



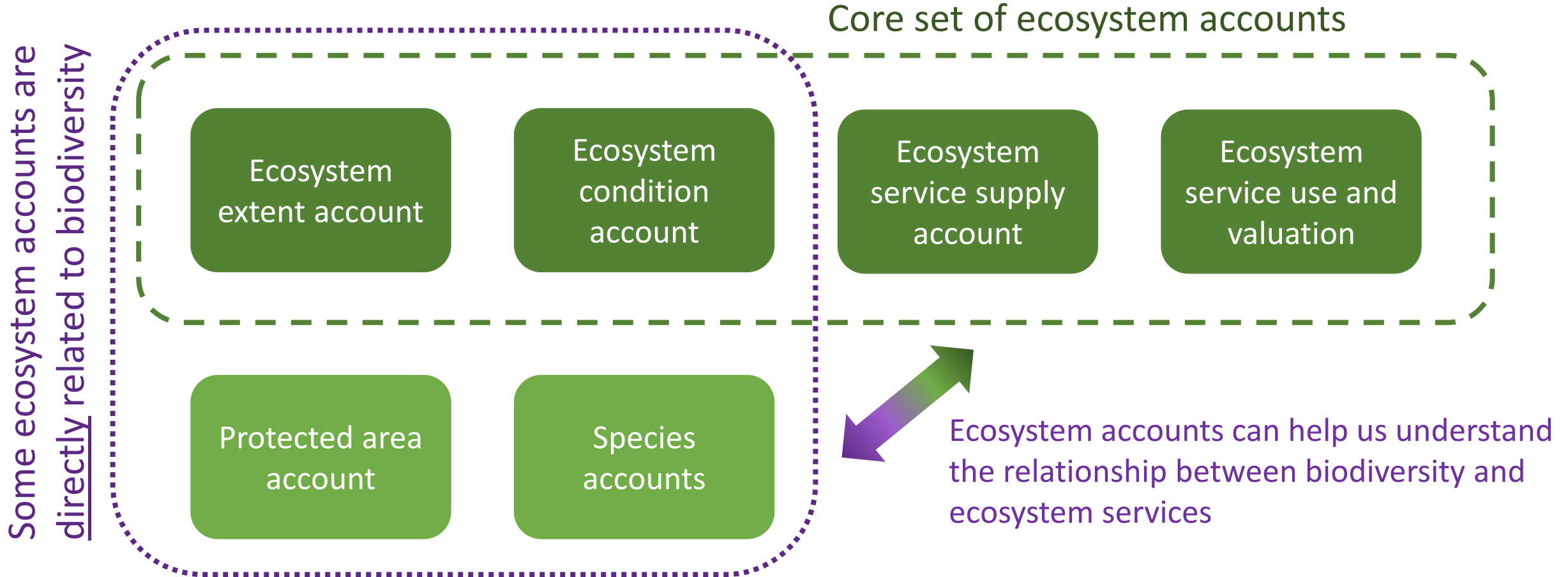
ECI could be compared  
against  
**critical thresholds** for  
**ecological functioning** and  
**persistence of species**,  
and could be used to  
set targets

# What are “biodiversity accounts”?

## Components of biodiversity



# How do ecosystem accounts relate to biodiversity?\*



\* “Accounting for biodiversity” rather than “biodiversity accounts”?