EO 4 Ecosystem Accounting 2022

National implementation of SEEA Ecosystem Accounts: Reflections from South Africa

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South African National Biodiversity Institute
with acknowledgement to many colleagues

28 November 2022

Core partners for ecosystem accounting in South Africa

stats sa
Department:
Statistics South Africa
REPUBLIC OF SOUTH AFRICA

← National Statistical Office

- Leads Natural Capital Accounting
- **Publishes** ecosystem accounts

SANBI
Biodiversity for Life
South African National Biodiversity Institute

← Government agency under Ministry of Environment

- Mandate includes monitoring & reporting on the state of ecosystems
- **Data owner** for several key data layers for ecosystem accounts
- **Compiles** ecosystem accounts

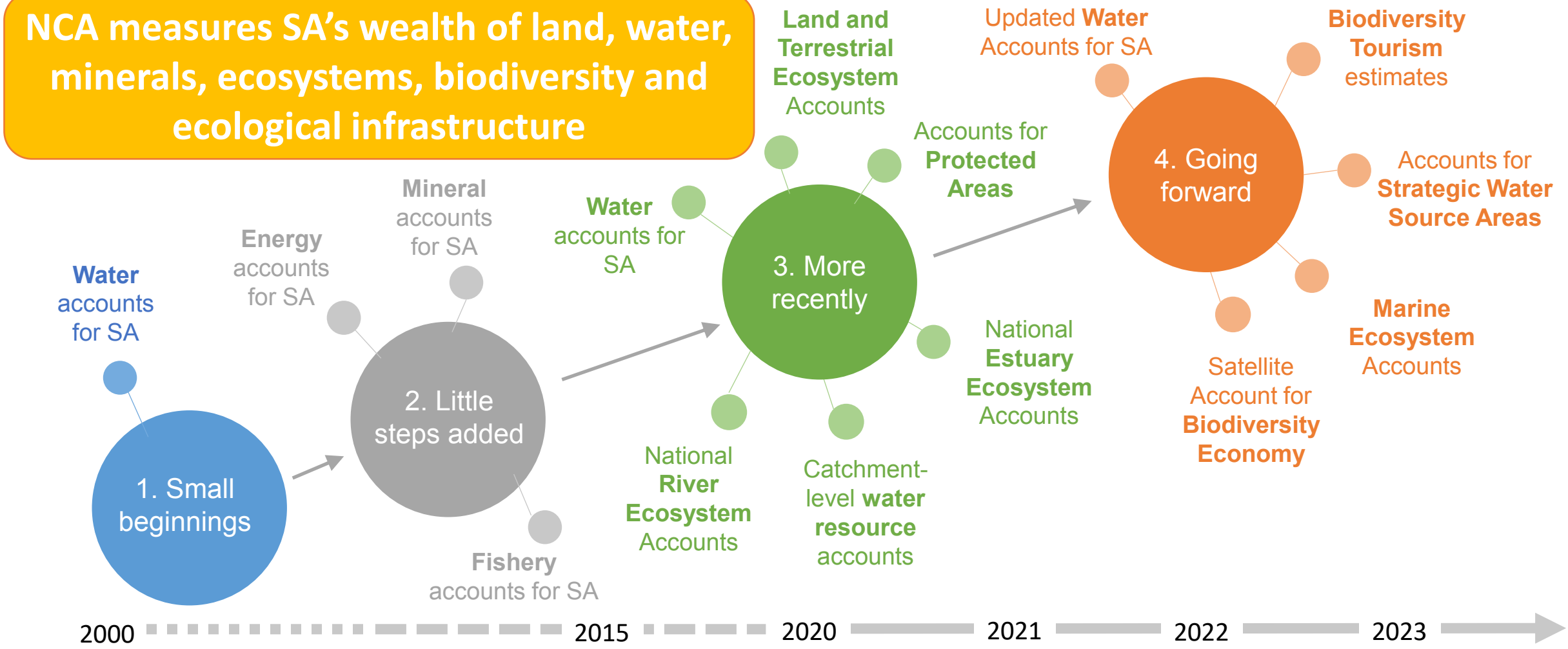
forestry, fisheries & the environment
Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

← Ministry of Environment

- Key user of ecosystem accounts
- **Data owner** for some key data layers for ecosystem accounts

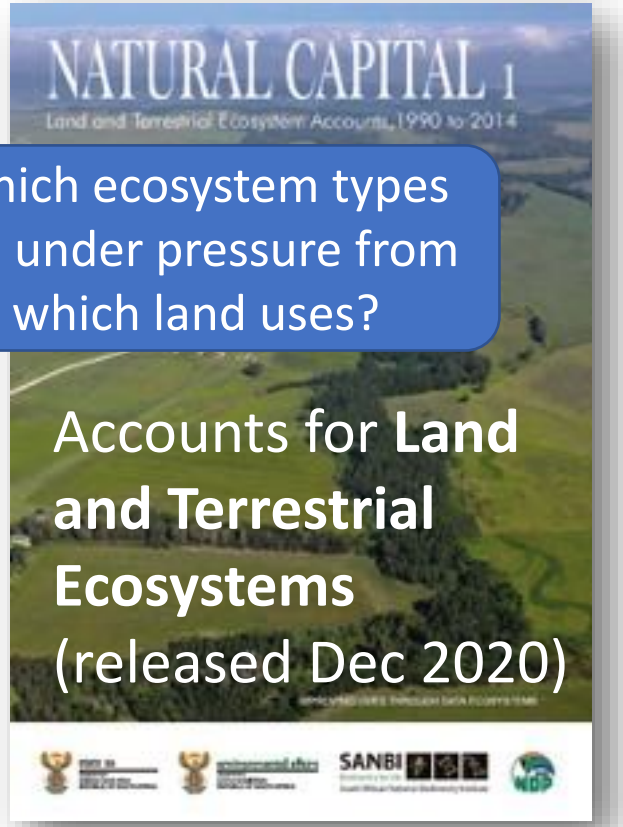
Snapshot of Natural Capital Accounting in South Africa

NCA measures SA's wealth of land, water, minerals, ecosystems, biodiversity and ecological infrastructure



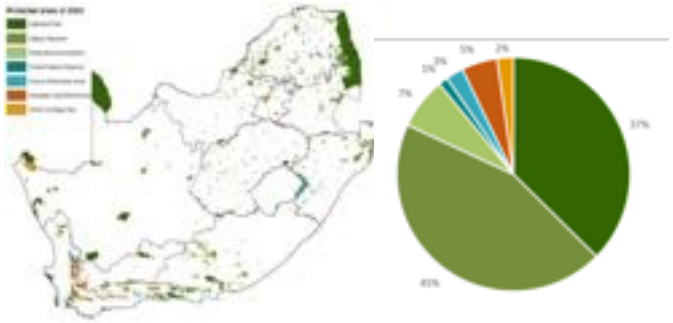
From early beginnings with national water accounts in 2000, momentum has grown.
Since 2014, donor funded projects have helped to increase capacity, especially for ecosystem accounting.

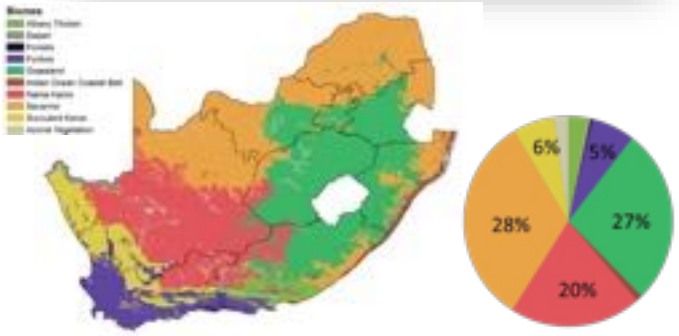
Natural Capital series launched by Stats SA in 2020

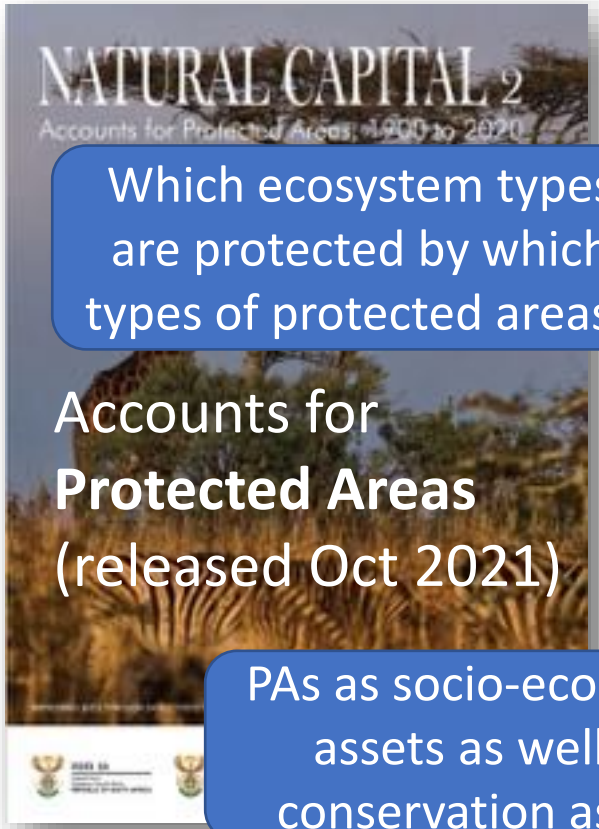


Which ecosystem types are under pressure from which land uses?

Accounts for **Land and Terrestrial Ecosystems** (released Dec 2020)



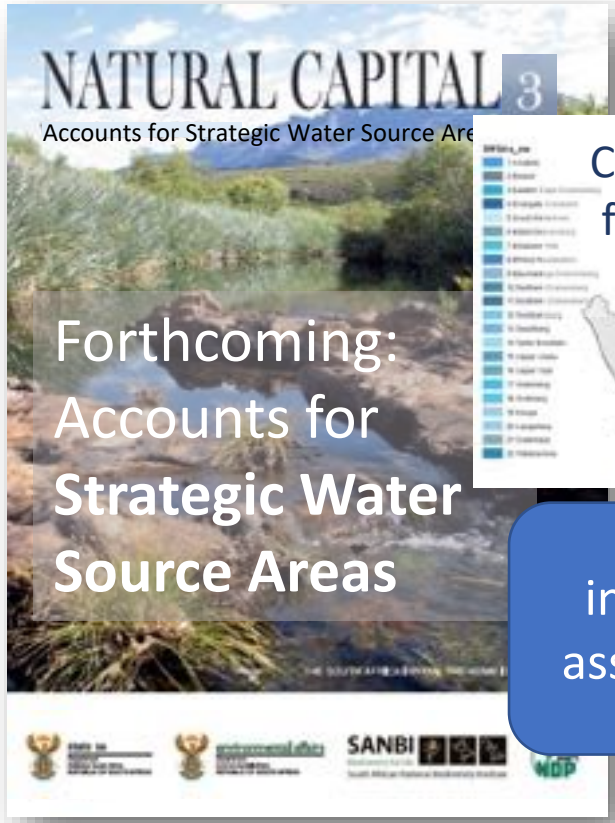




Which ecosystem types are protected by which types of protected areas?

Accounts for **Protected Areas** (released Oct 2021)

PAs as socio-economic assets as well as conservation assets



Forthcoming: Accounts for **Strategic Water Source Areas**

Catchments that feed SA's major dams

Ecological infrastructure assets for water security

SANBI contributes best available science, spatial data layers, and expertise

National NCA Strategy

A ten-year strategy for advancing NCA in SA

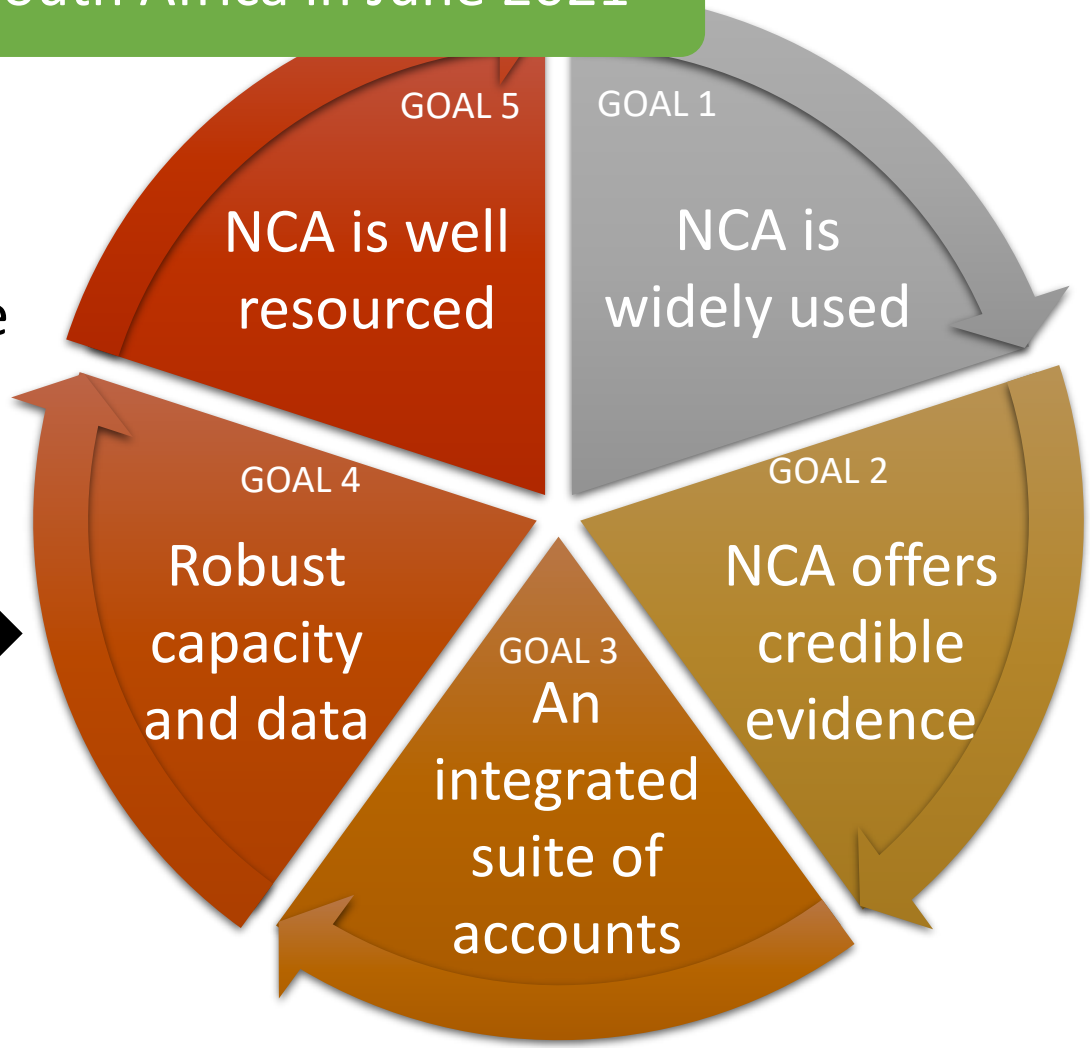
Published by Statistics South Africa in June 2021

Vision

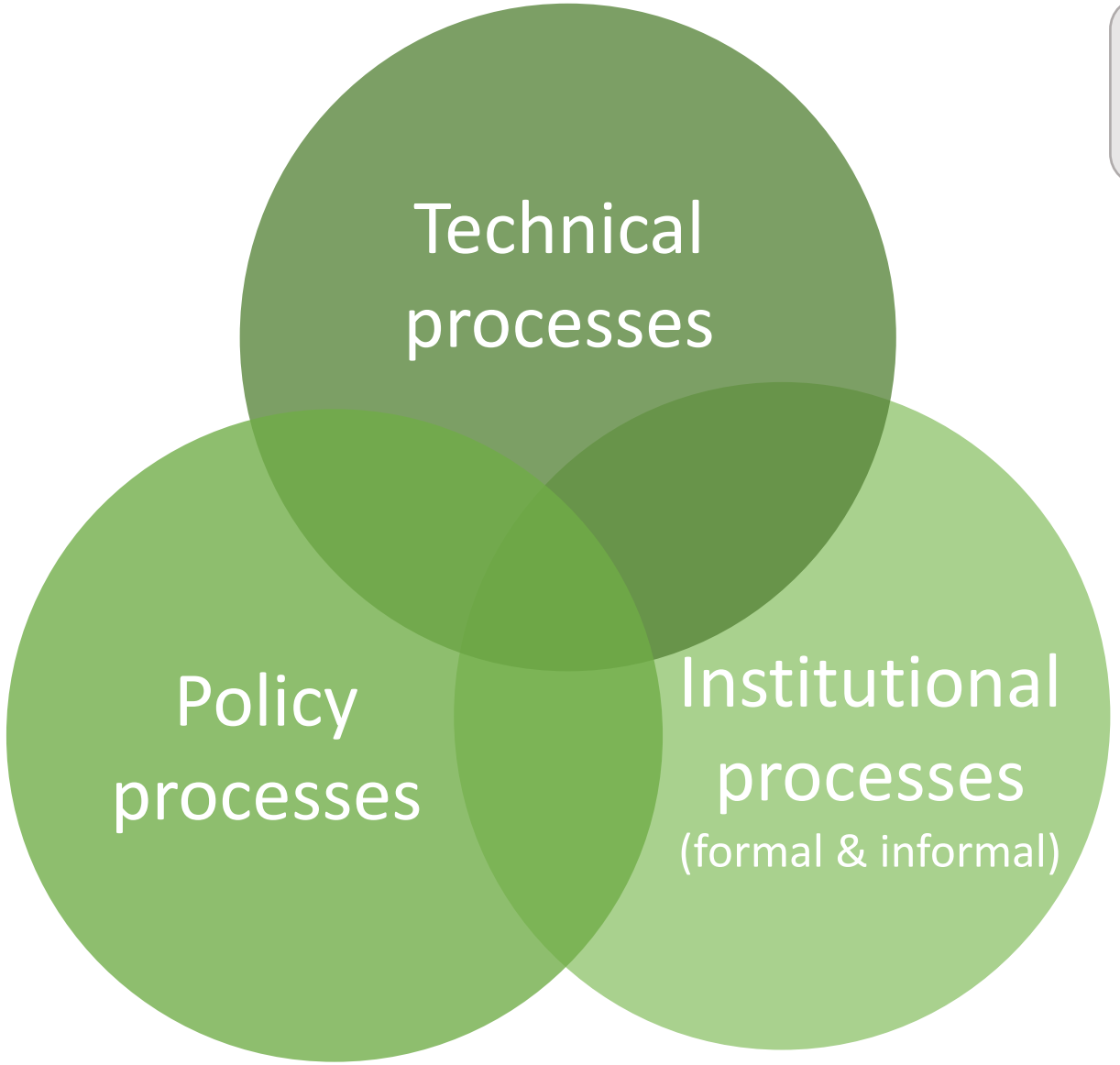
Natural capital accounting is **widely used** to provide **credible evidence** for **integrated planning and decision-making**, in support of the **development needs** of the country

5 inter-related **goals** →

Intensive co-development process with range of stakeholders over 3 years



Natural Capital Accounting involves…



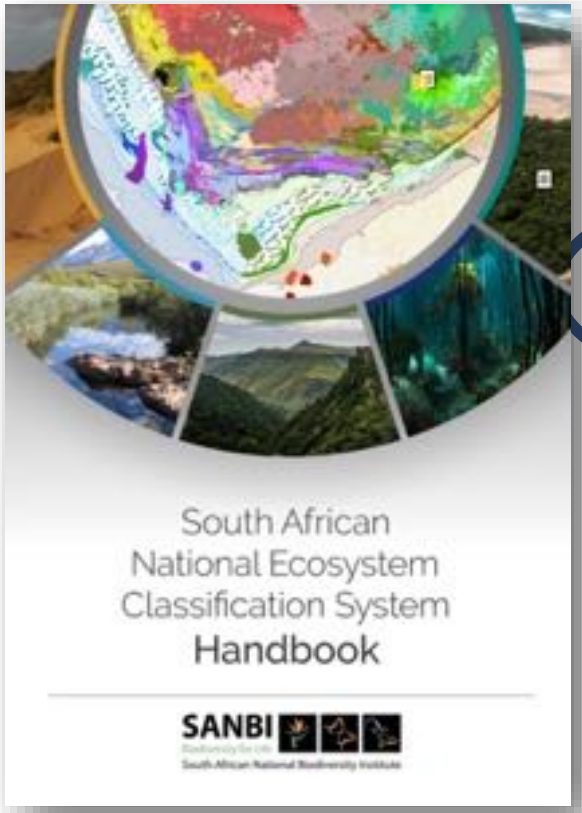
All three of these are equally important

Long-term production of accounts requires institution building

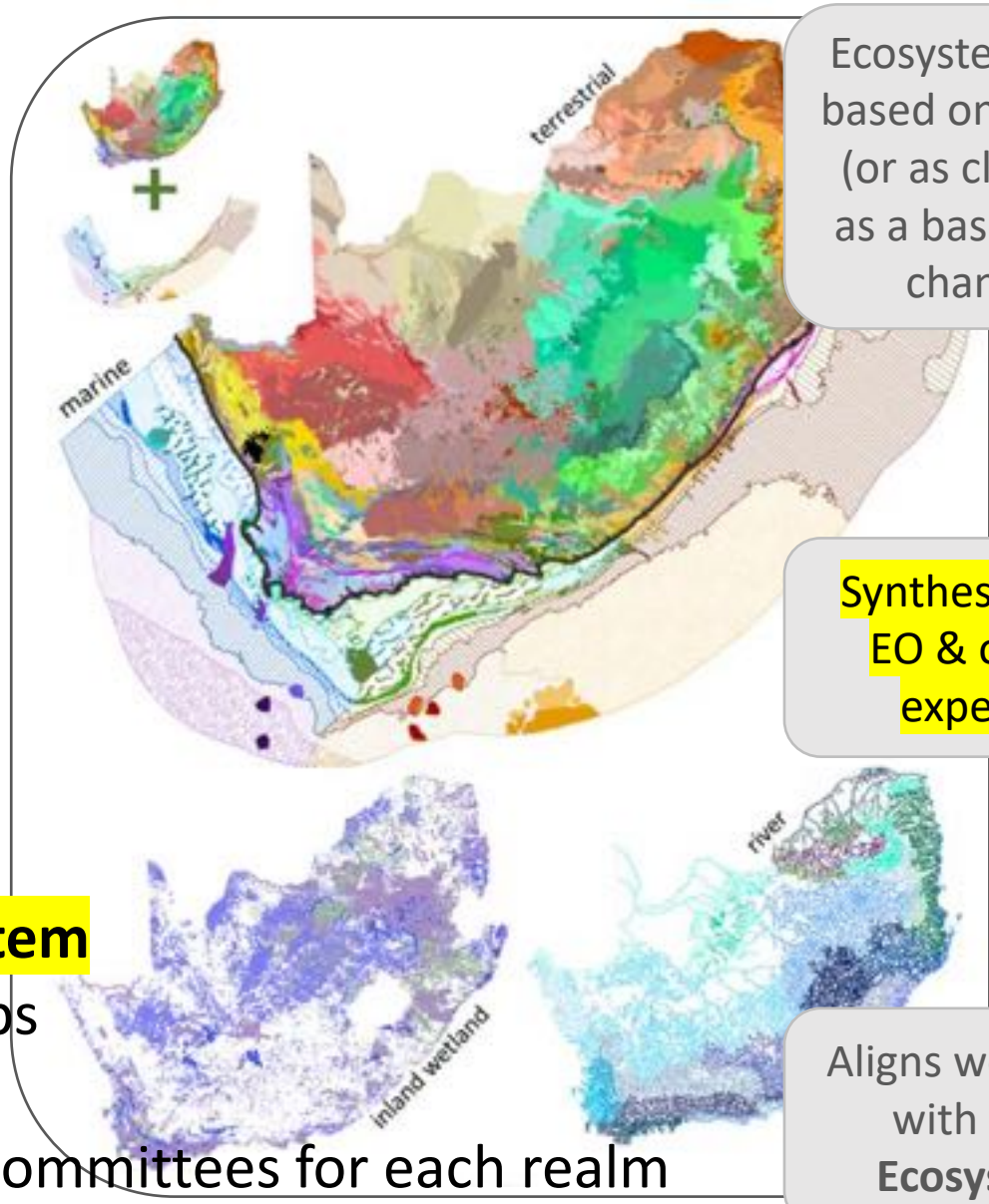
No recipe, but some key ingredients:

- Champions
- Investment in building working relationships
- Inclusive stakeholder involvement
- Time for slow discussion
- Shared learning
- Building consensus

Good science on ecosystems underpins good ecosystem accounts



Classification & mapping of **ecosystem types** – the foundation for all ecosystem accounts



Ecosystem types mapped based on **historical extent** (or as close as possible), as a baseline for tracking change over time

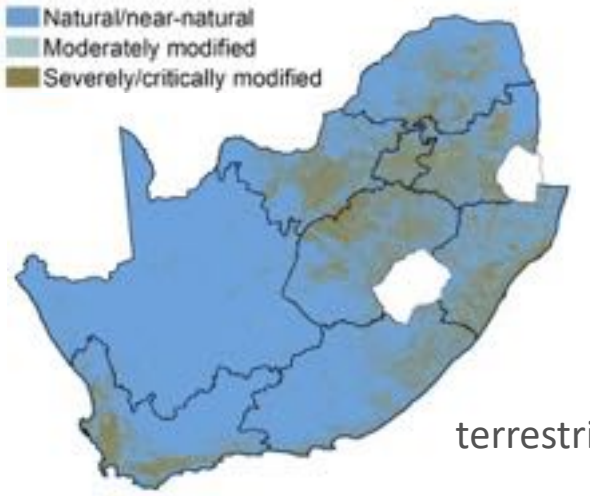
Synthesises field survey, EO & other data, and expert knowledge

Aligns well (not perfectly) with IUCN's **Global Ecosystem Typology**

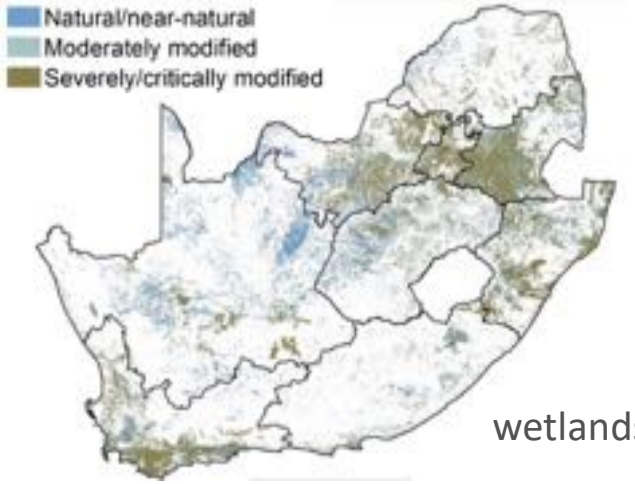
SA National Ecosystem Classification System

- Nested hierarchical classification & maps
- Used for multiple applications
- Governed by Ecosystem Classification Committees for each realm

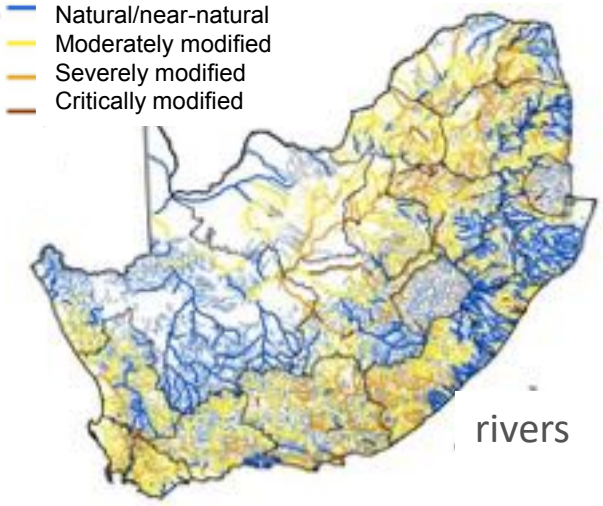
Spatial assessment of **ecological condition**



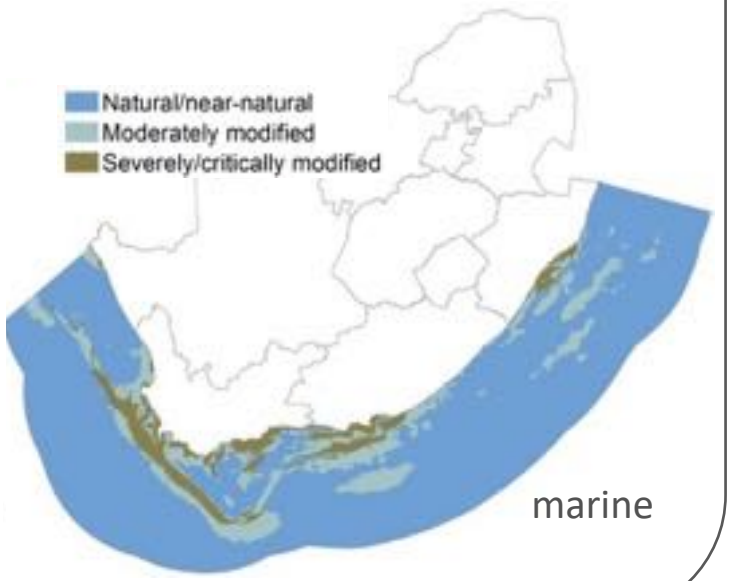
terrestrial



wetlands



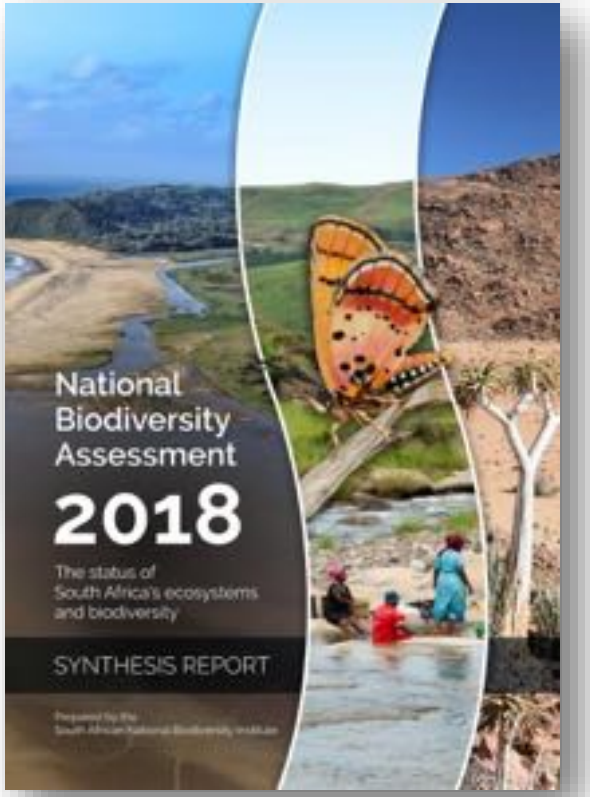
rivers



marine

incorporates

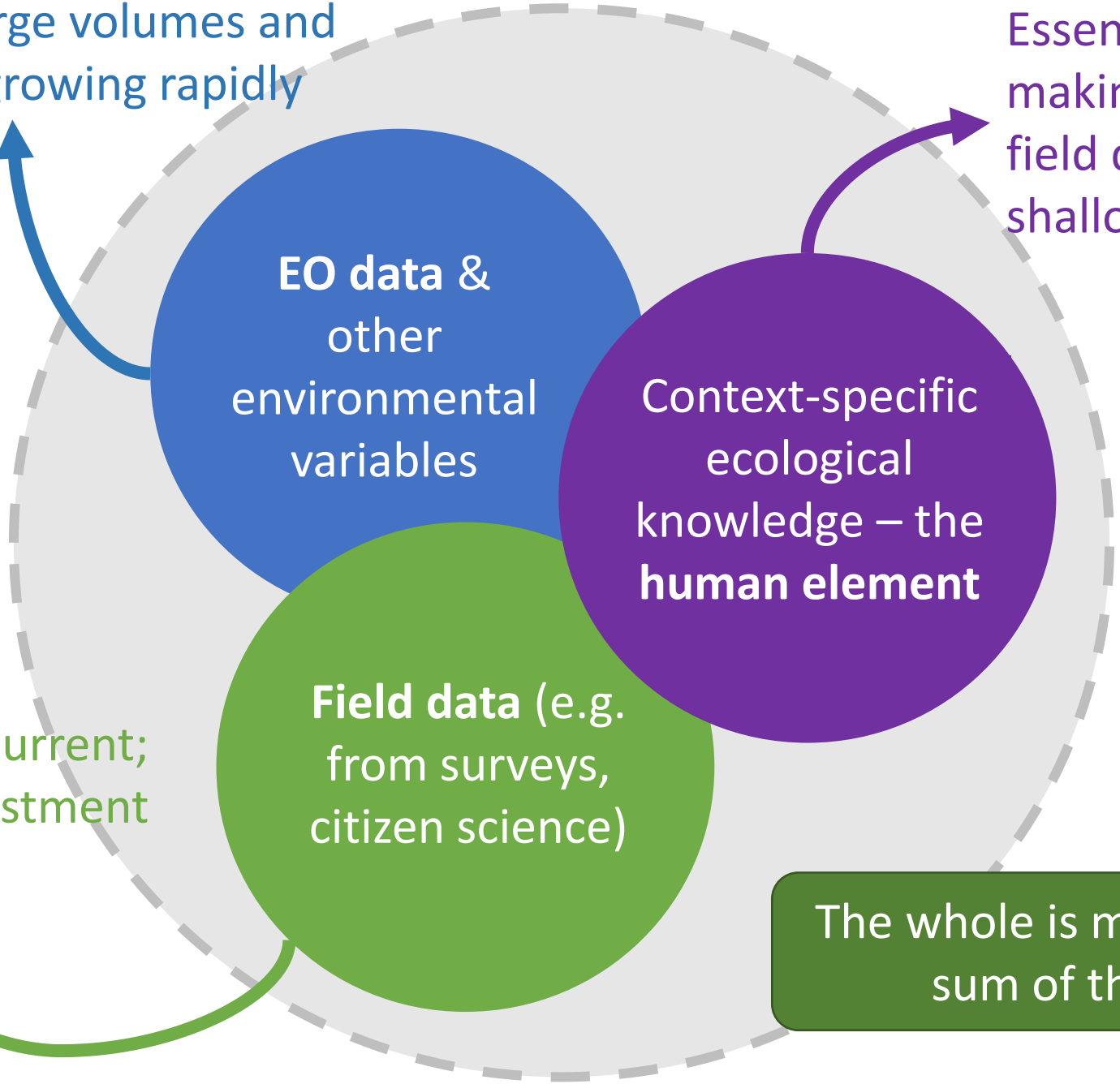
RED LIST OF ECOSYSTEMS



From **National Biodiversity Assessment**

- Includes spatial assessment of ecosystem condition
  → **Synthesises many spatial datasets**
- Aiming for more frequent updates

Three lessons on spatial data for ecosystem accounting

- Investing in foundational spatial data on ecosystems pays dividends
  - Progress is iterative
- Nothing beats a good national spatial data layer, agreed by ecosystem scientists
  - Helps to have a national organisation with a mandate to convene scientists and curate data layers
- Good enough science is usually good enough
  - We are pragmatists not purists, working within resource and data constraints

Essential ingredients for developing **good enough spatial data layers** for ecosystem accounting