



System of  
Environmental  
Economic  
Accounting

# *Accounting for biodiversity: Options for incorporating biodiversity in the SEEA*

Contributing authors: Carl Obst (UNSD consultant), Tom Brooks (IUCN)

2019 Forum of Experts on SEEA Experimental Ecosystem Accounting  
Glen Cove, NY, 26-27 June 2019



United Nations



System of  
Environmental  
Economic  
Accounting

# Context for the paper



United Nations

# State of play

- Explicitly covered exclusively in the SEEA EEA
  - > Chapter 2: Definitions of ecosystems and biodiversity from CBD
  - > Chapter 4: Biodiversity accounts focused on species populations (leading input from PBL (mean species abundance) and Norwegian Nature Index)
- Since 2013 increasing understanding of the connection and potential
  - > Leading work of UNEP-WCMC within the context of SEEA EEA work
  - > More broadly, now wider acknowledgement of the importance of biodiversity including within the natural capital community

# Aligning understanding

- In 6 years since 2013, understandings of the connection between SEEA EEA and biodiversity have proceeded at different rates
  - > UNEP-WCMC work and UNSD project country work
  - > SEEA EEA Technical Recommendations and thematic accounts
  - > Ongoing advances in biodiversity measurement
- Paper developed in the context of reaching common understanding of the potential for the SEEA to support discussion of biodiversity policy and potential for biodiversity measurement to support SEEA
  - > Small initial meeting in Paris between UNSD and IUCN in Nov 2018
  - > Aim to use the SEEA EEA revision process as a catalyst



System of  
Environmental  
Economic  
Accounting

# Key findings



United Nations

# 1. “Types” of biodiversity

- Need to recognise that ecosystem, species and genetic diversity are not nested; e.g. species are not “within” ecosystems
- Recognise three levels of ecological organisation
- Implications
  - > A lot more care is needed with language and the challenge of reaching common understanding of text
  - > Consider how accounting can be applied at each level
    - Ecosystem level: Accounting going well
    - Species level: Accounting incomplete
    - Genetic level: Limited potential at present

## 2. Many SEEA accounts are relevant

- Relevant accounts include
  - > All ecosystem accounts (extent, condition, services)
  - > Thematic: species population accounts; protected area accounts
  - > SEEA Central Framework
    - Individual resource accounts (timber, fish, other biological res.)
    - Environmental flows: pressures on biodiversity
    - Environmental transactions: policy responses wrt biodiversity
- Implications
  - > No single biodiversity account => “Accounting for biodiversity”
  - > Consider role of accounting in supporting organisation of data
  - > Consider role of accounts to support decision making, indicators and biodiversity narrative

# 3. Ongoing conceptual discussion

- Terminology and definitions requires ongoing clarification
- Links between biodiversity and ecosystems
  - > Issues of scale: alpha, beta and gamma diversity
  - > Use of biodiversity metrics in measuring ecosystem condition, including reference levels
  - > Accounting for ecosystem conversions (changes from one ET to another)
- Potential for species accounting as a complement to ecosystem accounting
  - > Accounts for species extent (range?), condition (abundance?), services and values
- Linking biodiversity, ecosystem services and valuation, e.g. is biodiversity an asset?



# Potential accounts for biodiversity

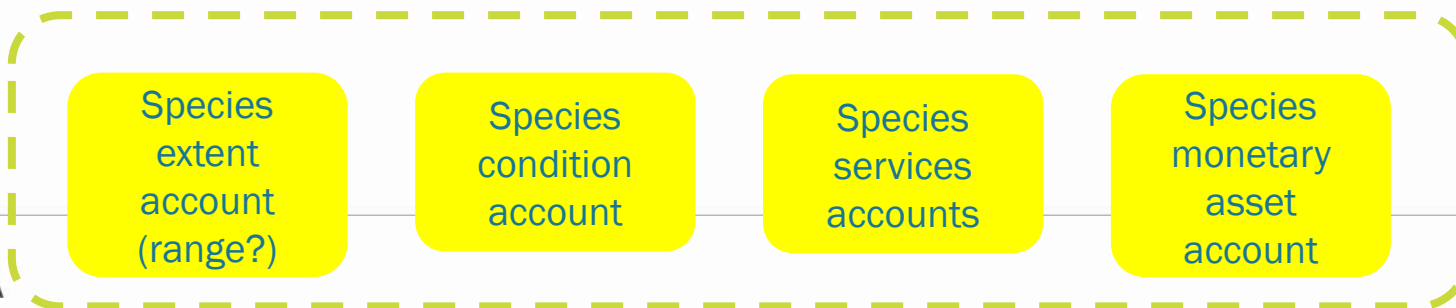
## Core set of ecosystem accounts



## Thematic / complementary accounts



## Potential species accounts



## 4. Keep talking

- Focus on common aims and the need for the science to be communicated coherently and consistently
- Understand the information requirements for biodiversity policy and decision making
- Look to ways in which statistical and accounting approaches can support further development of biodiversity measurement
- Look to ways in which ongoing advances in biodiversity measurement can be applied in a SEEA context at international, national and sub-national levels



System of  
Environmental  
Economic  
Accounting

**Thank you**



United Nations