System of Environmental Economic Accounting

THE SEEA IN AFRICA AND THE SEEA EEA REVISION PROCESS

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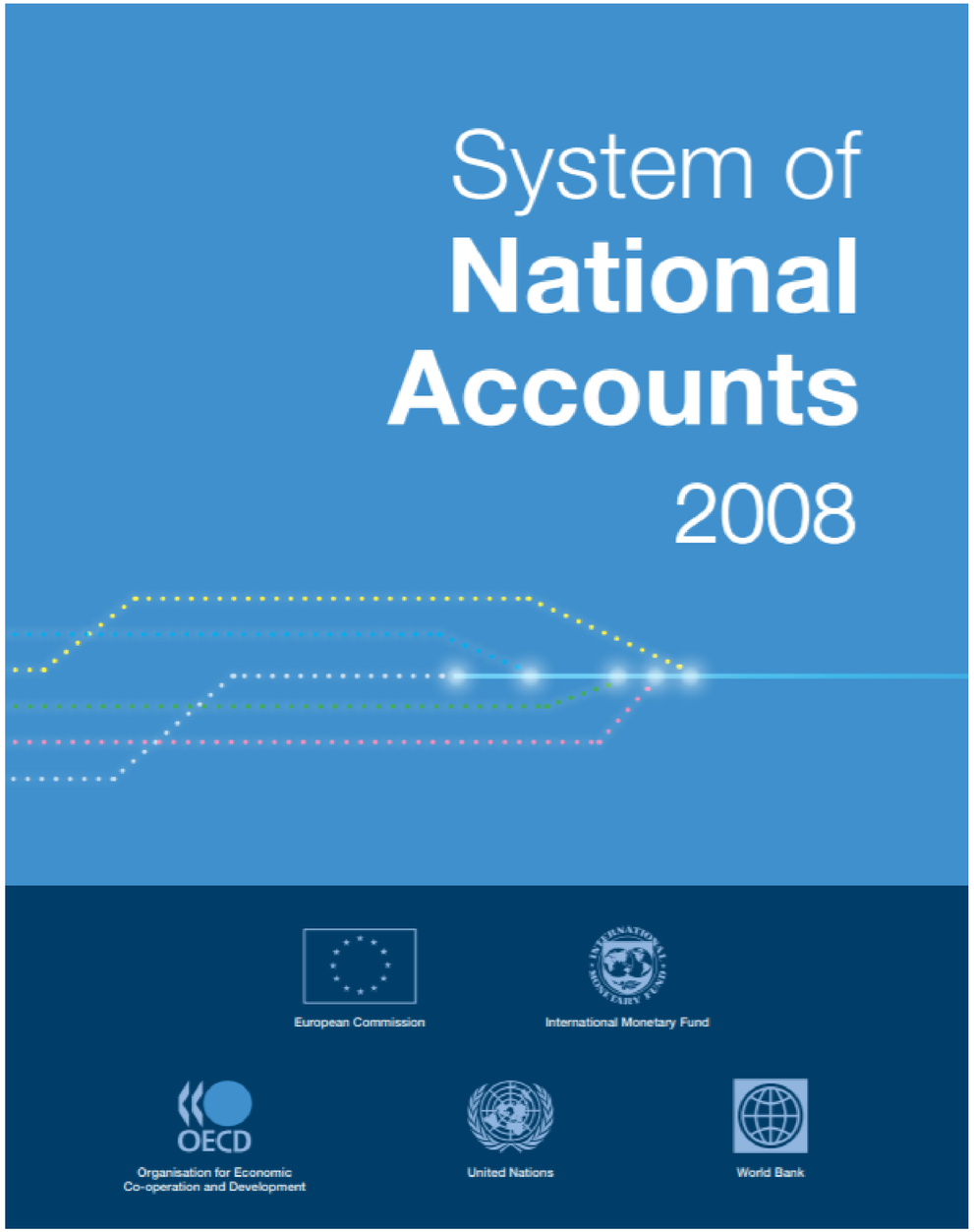
United Nations

National Accounts

- The United Nations System of National Accounts (SNA) formalized in 1950s
  - Most recent version SNA 2008
  - Updates in 1953, 1968, 1993, 2008
- SNA accounts contain vital information economic activity and are one of the key building blocks of the macroeconomic statistics that form the basis for economic analysis and policy formulation.
- **But …**



Limitations of traditional accounts

The SNA and headline indicators like GDP, the unemployment rate and inflation do not capture the economic contributions of nature.

As a result, decision-makers don't have access to key information necessary to effectively pursue and track sustainable development.

For example, traditional accounts don't help us understand how the depletion of natural resources affects measures of the real wealth of a nation.

Now the SNA is under revision. The revision of the SEEA is taking a broad approach to take into account globalization, digitalization and well being and sustainability.

Why use an accounting framework for the environment?

- Organizes environmental and economic information together in a consistent way
- Allows for environmental data to be connected with existing System of National Accounts measures
- Provides:
  - International comparability
  - Broad credibility
  - Replicability
- *Transforms **data** into **information***

System of Environmental Economic Accounting

The SEEA

United Nations

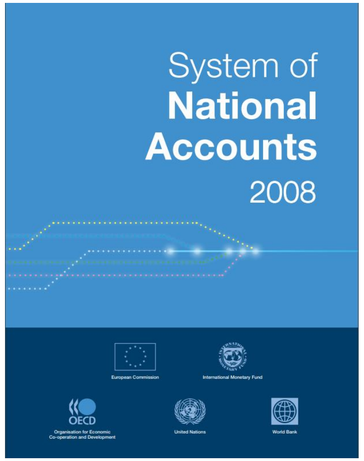
The System of Environmental-Economic Accounting (SEEA)

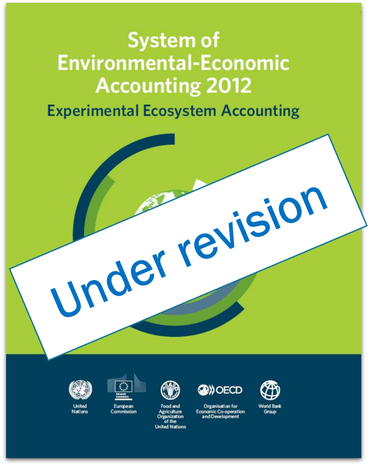
System of Environmental Economic Accounting

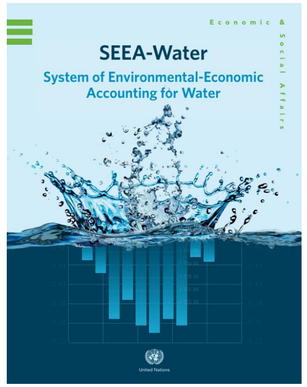
The SEEA is the statistical framework to measure the environment and its interactions with economy.

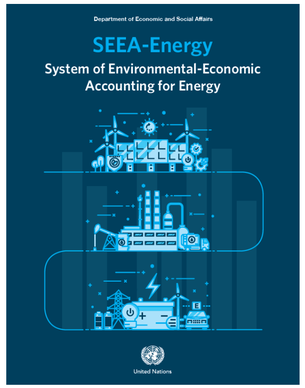
- The **SEEA Central Framework** was adopted as an international statistical standard by the UN Statistical Commission in 2012.
- The **SEEA Experimental Ecosystem Accounting** complements the Central Framework and represent international efforts toward coherent ecosystem accounting.
- **SEEA Applications and Extensions** helps compilers and users of SEEA accounts understand how the accounts can be used in decision making, policy review and formulation, analysis and research.

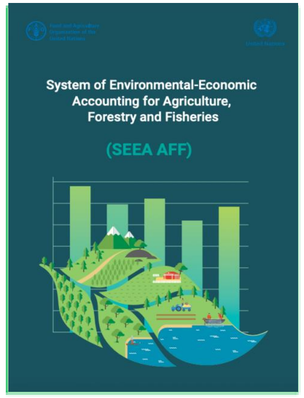
SNA and SEEA – statistical standards











Measuring Sustainable Tourism

Ocean Accounts

Biodiversity Accounts

SEEA

Two sides of the System of Environmental-Economic Accounting (SEEA)

Measures environmental assets and individual resources and how the economy used them.

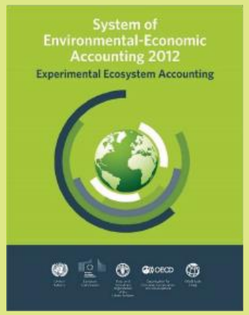
Timber

Water

Fish

Soil

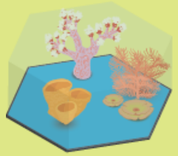
Minerals



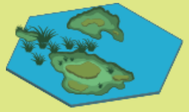
Measures ecosystems and the services they provide to economic and human activity.

Forests

Rivers



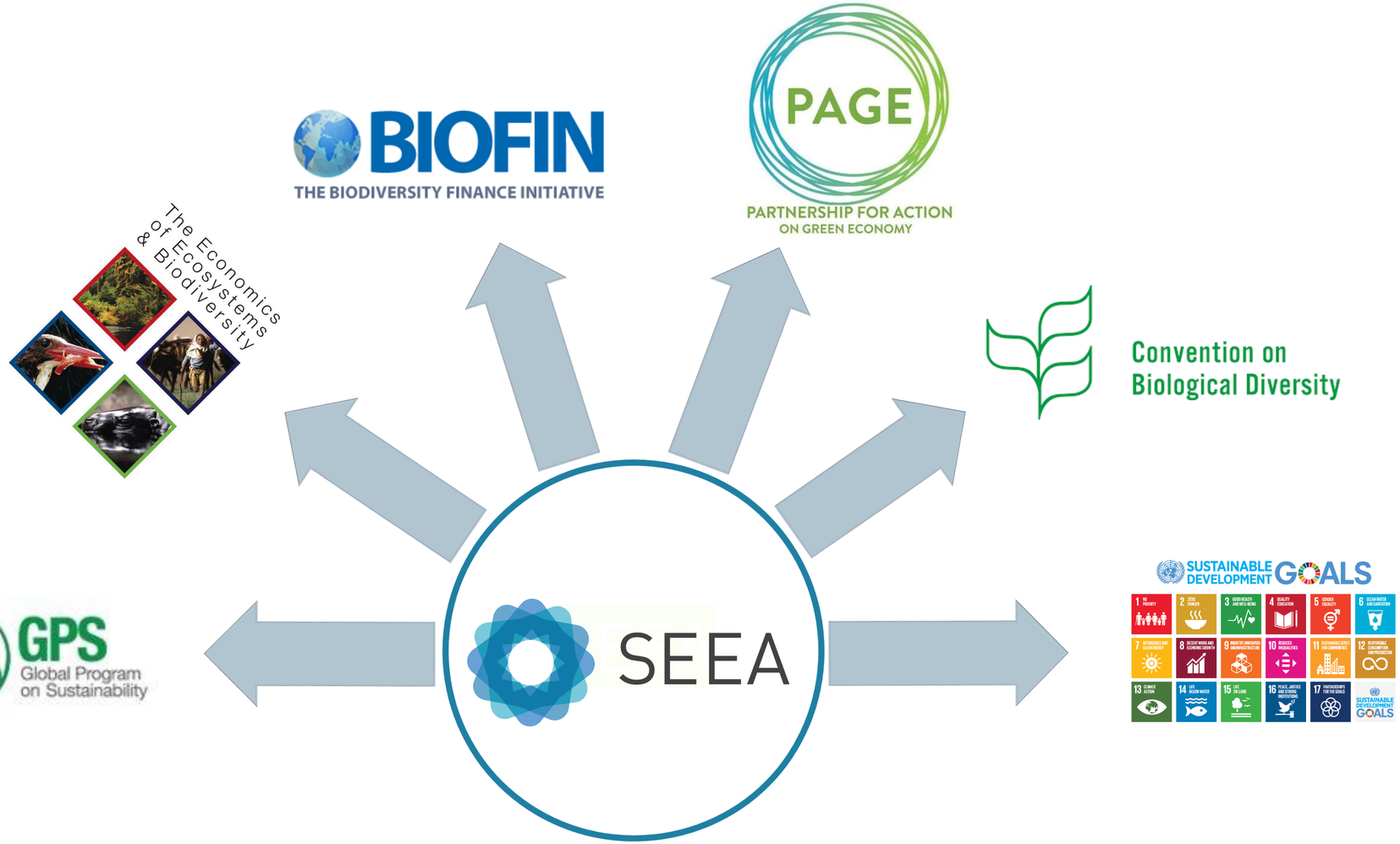
Coral reef



Wetlands

Asset & Resources + Ecosystems = SEEA

SEEA as supporting framework



AMCEN
African Ministerial Conference on the Environment
Taking action for Environment Sustainability and Prosperity in Africa

gaborone declaration for sustainability in africa

SEEA and the SDGs

- The SDGs and their targets are founded upon addressing the three dimensions of sustainability: The environment (biosphere); society; and, the economy

- The ability of the SEEA EEA to organise and integrate data on the environment and the economy in a consistent manner makes it a key framework to assist countries in delivering on the SDGs

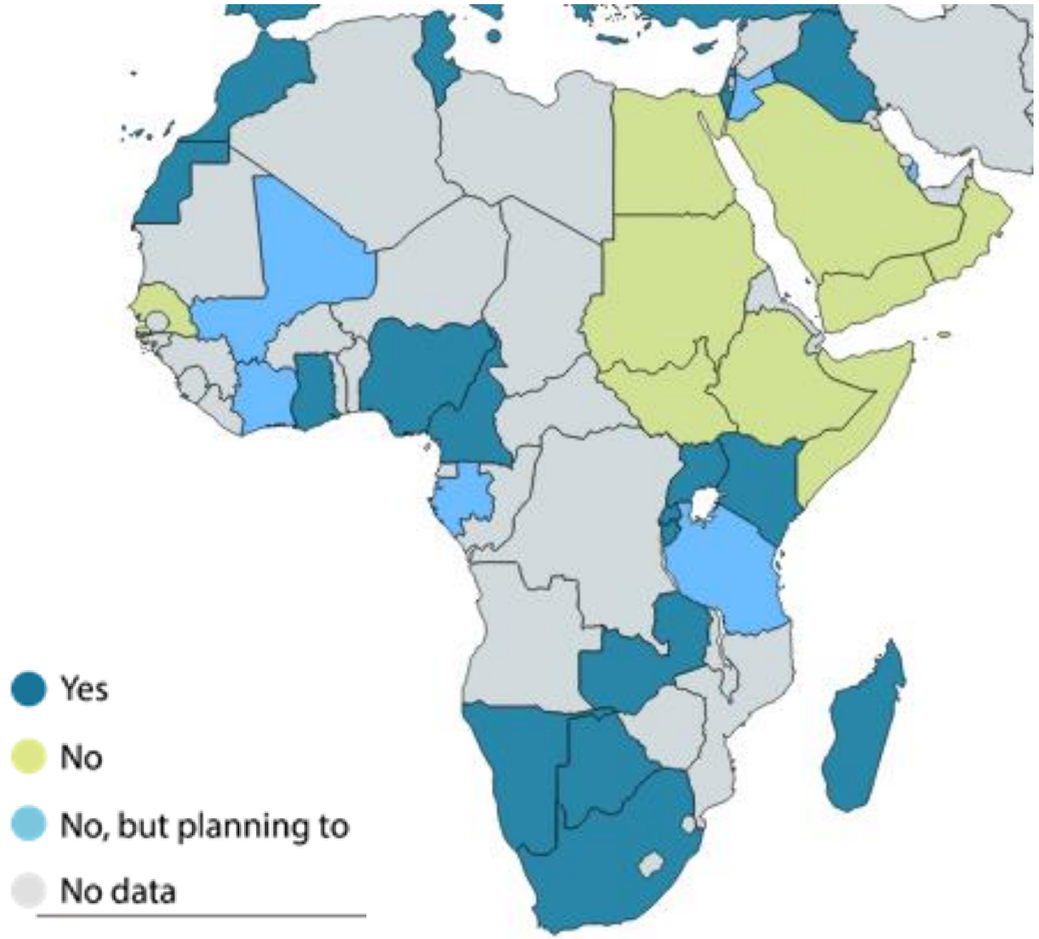
SEEA and the CBD Post 2020 process

- The CBD will adopt, in addition to the agenda, the monitoring framework.
- SEEA is currently in Target 13 (old Aichi Target 2) but..
- The SEEA provides a strong organizing framework to for the derivation of coherent and consistent indicators that will be relevant to multiple suggested elements of the draft targets (trends in forest extent, cropland extent, etc.)
- A preliminary analysis undertaken by the United Nations Statistics Division indicates that SEEA can be used as an integrated framework to potentially monitor 27 out of 45 suggested indicators of the 2050 Goals, and 60 out of 147 of the 2030 targets indicators proposed in draft monitoring biodiversity framework

Implementation of the SEEA

- Implementation strategy (2013) objectives:
  - Adopt the SEEA as the measurement framework for sustainable development
  - Mainstream SEEA implementation in countries
    - **Target 100 countries by 2020** for implementation of SEEA Central Framework
    - **Target 50 countries by 2020** for implementation of SEEA Experimental Ecosystem Accounting
  - Establish technical capacity for regular reporting
    - Training materials
    - Guidance documents
    - Knowledge platform
    - Capacity development projects

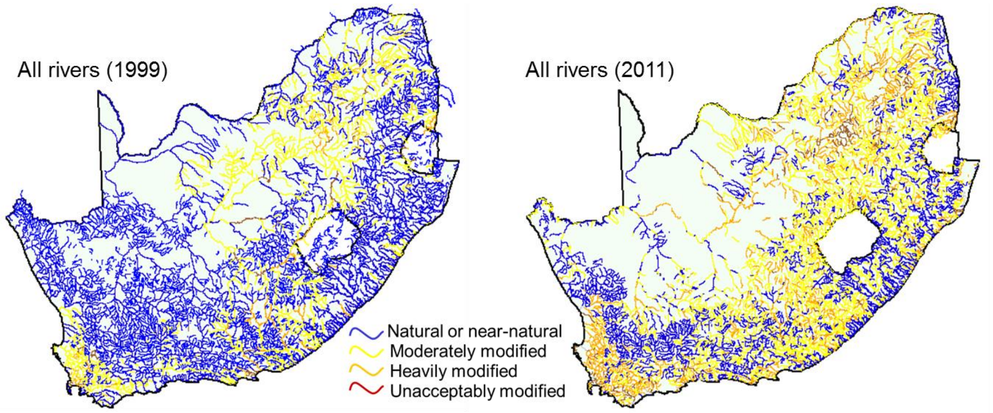
SEEA in Africa

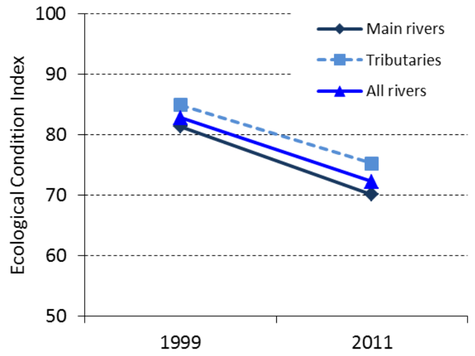


Account	Country Count
Energy	8
Water	8
Land	5
Ecosystem	4
Biodiversity	3
Forest	3
Mineral	2
Timber	1
Ocean	1
MFA	1
Air emissions	1
Species	1
Aquatic	1

Application: Developing ecological indicators

SEEA in South Africa: National River Ecosystem Accounts





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

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

Source: Presentation by Mandy Driver, SANBI at Third Forum on Natural Capital Accounting for Policy Decisions, November 2018

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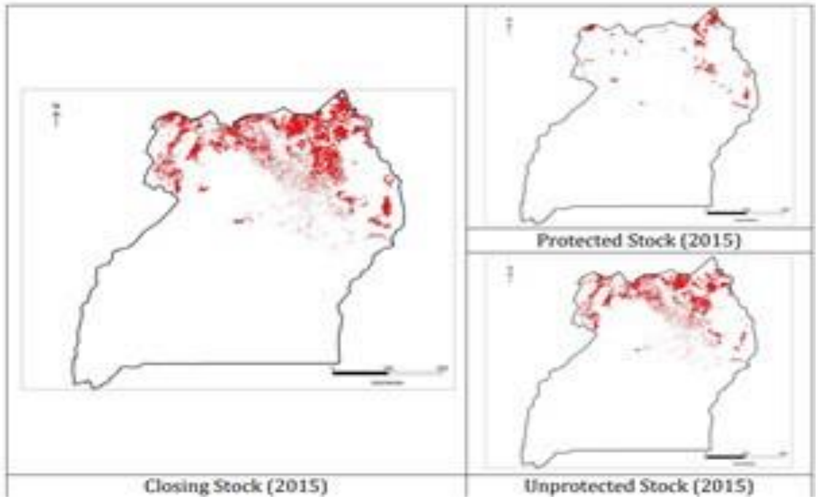
Application: understanding source of income for local communities

SEEA in Uganda: Species account

	Extent (ha)
Opening Stock (1990)	2,706,485
Net change	*-605,561*
Closing Stock (2015)	2,100,924
Protected Stock (2015)	442,466
Unprotected Stock (2015)	1,658,458



Substantial decline in coverage from 1990-2015, prompting aggressive conservation measures

By overlaying biodiversity data with information on land use, the accounts reveal significant potential for sustainable Shea butter tree nut harvesting outside of protected areas.

System of Environmental Economic Accounting

SEEA EEA revision process

United Nations

Context of the revision process

- SDGs
  - Two SDG indicators are SEEA based (15.3.1 and 12.b.1)
  - Support by the Statistical Commission for the SEEA in the context of the SDG indicators
- IUCN World Congress (postponed to January 2021)
  - Motion 070 Accounting for Biodiversity: Encompassing ecosystem, species and genetic diversity
- Post-2020 Global Biodiversity Framework
  - To be adopted in Kunming, China postponed to 2021 (dates TBD)
  - Includes the monitoring framework with indicators
  - Mainstreaming of biodiversity (old Target 2) is being rediscussed
- United Nations General Assembly Decade for Ecosystem Restauration
  - *The resolution calls for supporting and scaling up efforts to prevent, halt and reverse the degradation of ecosystems worldwide and raise awareness of the importance of successful ecosystem restoration*

Revision of the SEEA Experimental Ecosystem Accounting

- Launched in March 2018 with the aim to finish by the end of 2020
  - For endorsement by UN Statistical Commission in March 2021
- Engagement with various stakeholders – wide engagement of various communities, including ecologists, environmental economists, earth observation, etc.
- Seek for broad involvement of partners and experts in the process –**over 100 experts contributed to drafting of the discussion papers**
- Ambition is to elevate it to an agreed methodological document – international statistical standard
- Process aligned with the post-2020 global biodiversity framework, review of SDG and climate change process

SEEA EEA Revision Governance Structure

UN Committee of Experts on Environmental-Economic Accounting (UNCEEA)
Chair: Bert Kroese, Statistics Netherlands

SEEA EEA Technical Committee / Editorial Board
Chair: Anton Steurer, Eurostat

WG1: Spatial units
Chair: Sjoerd Schenau, Statistics Netherlands

Finalized discussion papers:
- DP1.1: An ecosystem type classification for the SEEA EEA
- DP1.2: Treatment of ecosystems assets in urban areas
- DP1.3: Treatment of the atmosphere and oceans in the SEEA EEA
- Background paper 1: to discussion paper 1.1 on option 3
- Background paper 2: A review of existing classifications

WG2: Ecosystem condition
Chair: Joachim Maes, EU JRC

Finalized discussion papers:
- DP2.1: Purpose and role of ecosystem condition accounts
- DP2.2: Review of ecosystem condition accounting case studies: Lessons learned and options for developing condition accounts
- DP2.3: Proposed typology of condition variables for ecosystem accounting and criteria for selection of condition variables
- Online supplement to Discussion paper 2.2

WG3: Ecosystem services
Chair: Lars Hein, Wageningen University

Discussion papers under development:
- DP3.1: Proposed concepts, definitions and terminology for ecosystem services for the revised SEEA EEA
- DP3.2: Initial list of ecosystem services for SEEA EEA and selected treatments

WG4: Individual ecosystem services
Chair: Rocky Harris, DEFRA, UK

Finalized discussion papers:
- Towards a definition and classification of terrestrial provisioning services related to crop cultivation and forestry
- Biomass from Fisheries: Provisioning Services and Benefits
- Soil retention (regulating) ecosystem services
- Research paper on air filtration ecosystem services
- Accounting for the water purification ecosystem service
- Defining and valuing carbon related services
- Water flow regulation for mitigating river and coastal flooding
- Water Supply Services: Biophysical Modeling and Economic Valuation in Ecosystem Accounting
- Recreation services from ecosystems
- Research paper on habitat and biodiversity related ecosystem services

WG5: Valuation
Chair: Juha Siikamaki, IUCN

Discussion papers under development:
- DP5.1: Defining exchange and welfare values, articulating institutional arrangements and establishing the valuation context for ecosystem accounting
- DP5.2: A framework for the valuation of ecosystem asset
- DP5.3: Accounting treatments when integrating ecosystem accounts in the SNA
- DP5.4: Recording degradation in ecosystem accounts
- DP5.5: Ecosystem disservices and externalities

Subgroup on accounting for biodiversity
Chair: Rosimeiry Portela & Trond Larsen, Conservation International

Drafts to be developed:
- Review of chapters
- Development of issue notes

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SEEA EEA Revision process: overall timeline

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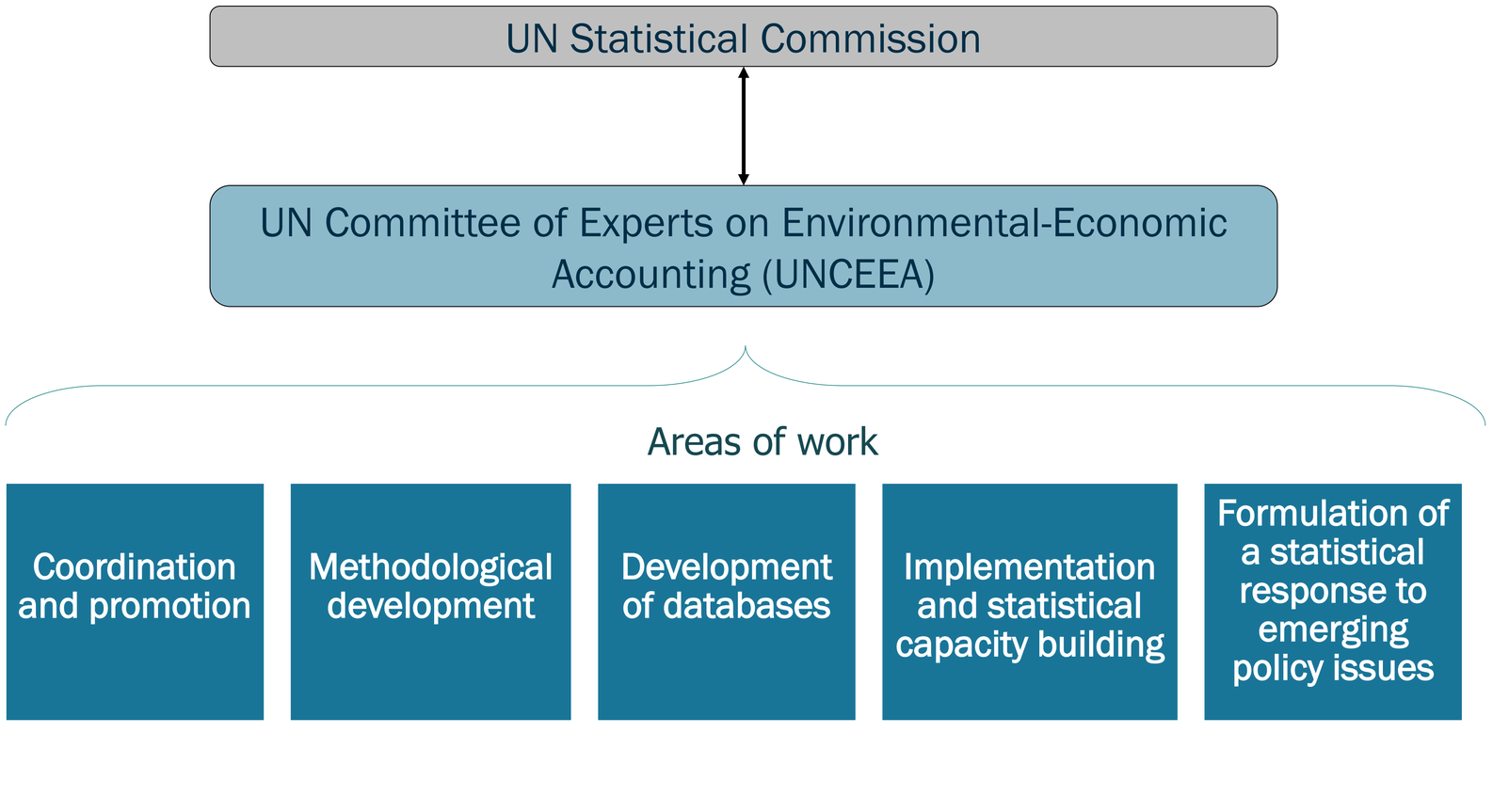
Governance and regional engagement

United Nations

Global governance and the regional perspectives



SEEA

Opportunities for engagement of the Africa community of practice members

- Members are encouraged to send comments for the **first global consultation on individual chapters** (https://seea.un.org/content/global-consultation-individual-chapters)
  - Chapters 3-5 on spatial units, ecosystem extent and condition – deadline passed on 30 April
  - Chapters 8-11 on valuation and accounting treatments – consultation starting
  - Chapters 6 & 7 on ecosystem services – consultation will begin in June
- **Virtual Forum of Experts** on SEEA Experimental Ecosystem Accounting 2020 (https://seea.un.org/events/virtual-expert-forum-seea-experimental-ecosystem-accounting-2020)
  - Session 1. Ecosystem extent and condition – 23-24 June
  - Session 2. Valuation and accounting treatments – 14-15 July
  - Session 3. Ecosystem services – 24-25 August (TBC)
  - Session 4. Links to other initiatives and indicators – October (TBC)
- Members will be encouraged to review and send comments on the final draft of the handbook in **global consultation on the whole text** – scheduled for October/November 2020

Discussion questions

- What is the role of the Community of Practice from the statistical perspective?
  - What is the role of the different regional actors (UNECA, AfDB, AFRISTAT, etc.) in the development of NCA in Africa?
- How can the global level engagement be replicated and streamlined in Africa?
  - What are the lessons learned from other similar areas, for example National Accounts?
- What are the main entry points for NCA implementation in Africa?
  - What working groups would need to be set up to facilitate the regional interactions?

THANK YOU

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