

System of
Environmental
Economic
Accounting

OVERVIEW OF THE SEEA EEA REVISION PROCESS

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United Nations

The Need for SEEA

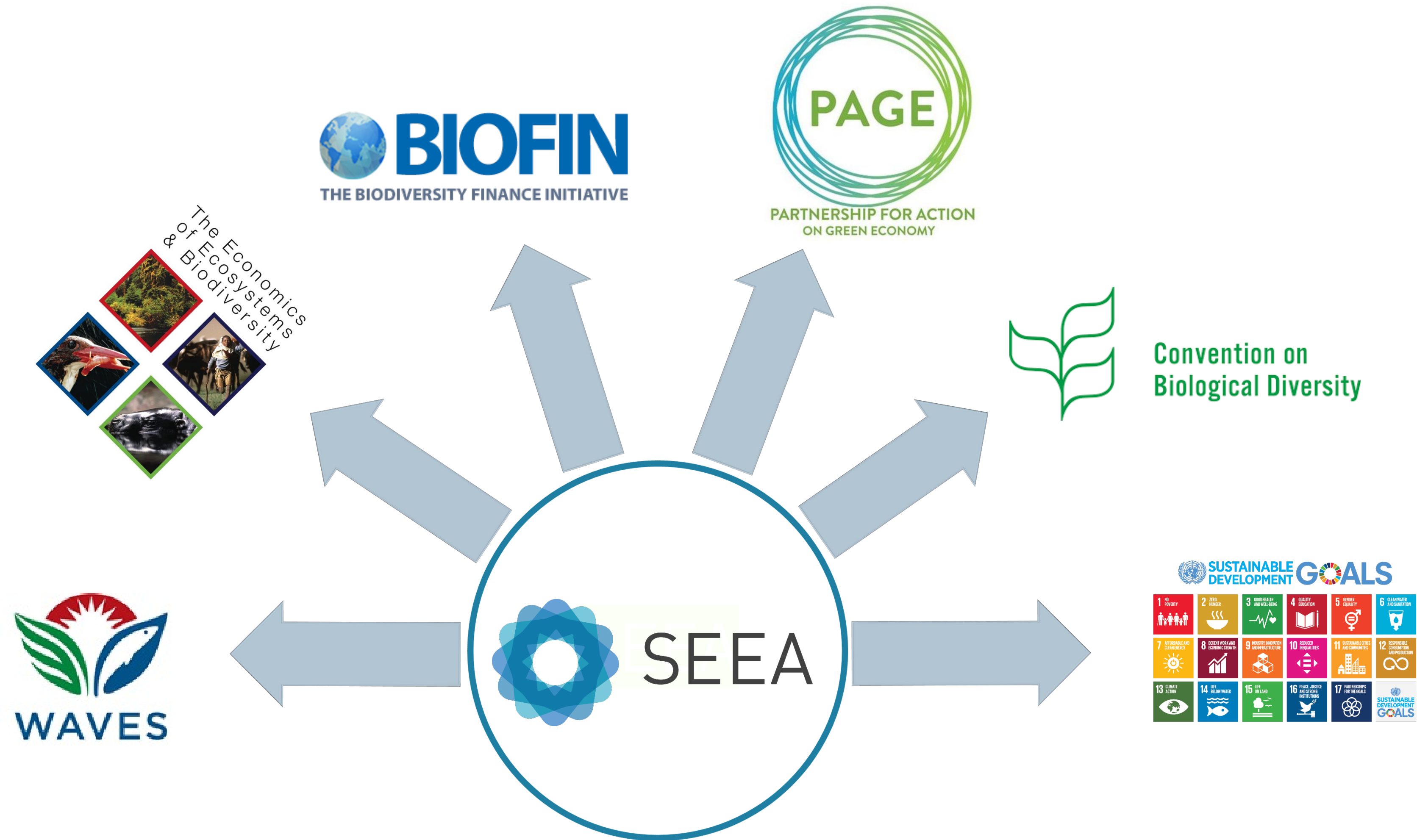
Nature and the services it provides support almost every aspect of human well-being

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

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



SEEA as supporting framework

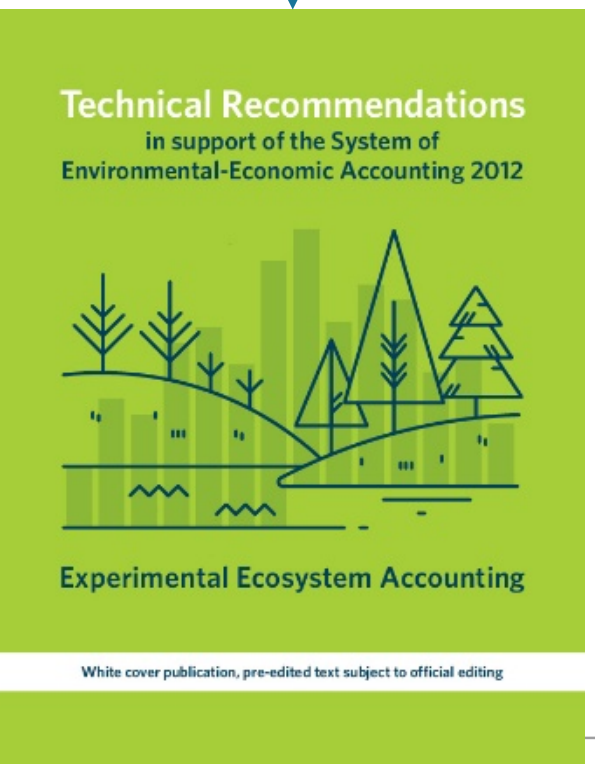
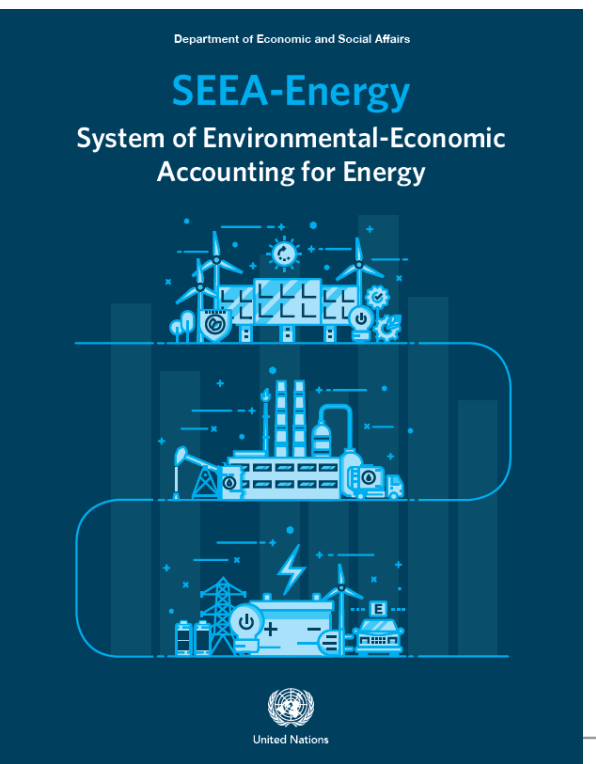
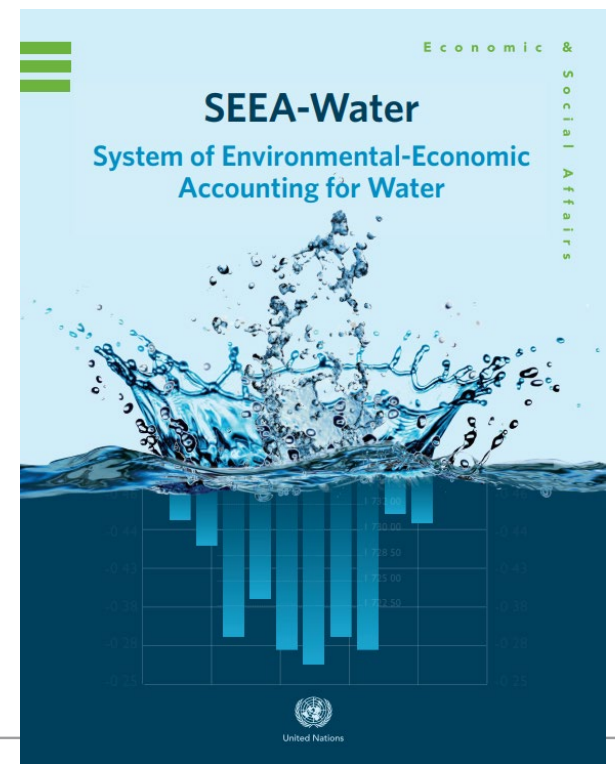
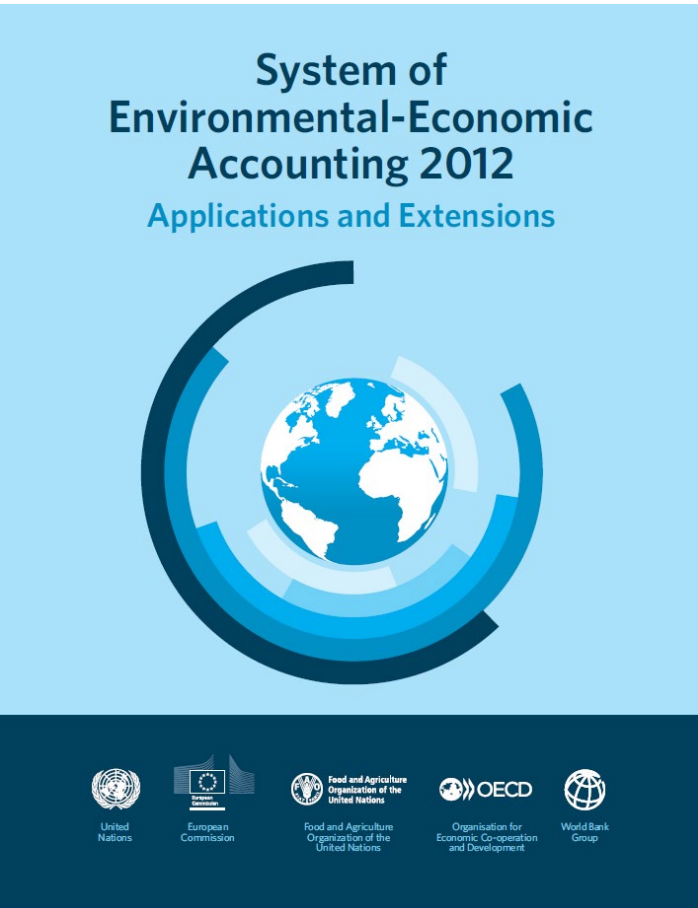
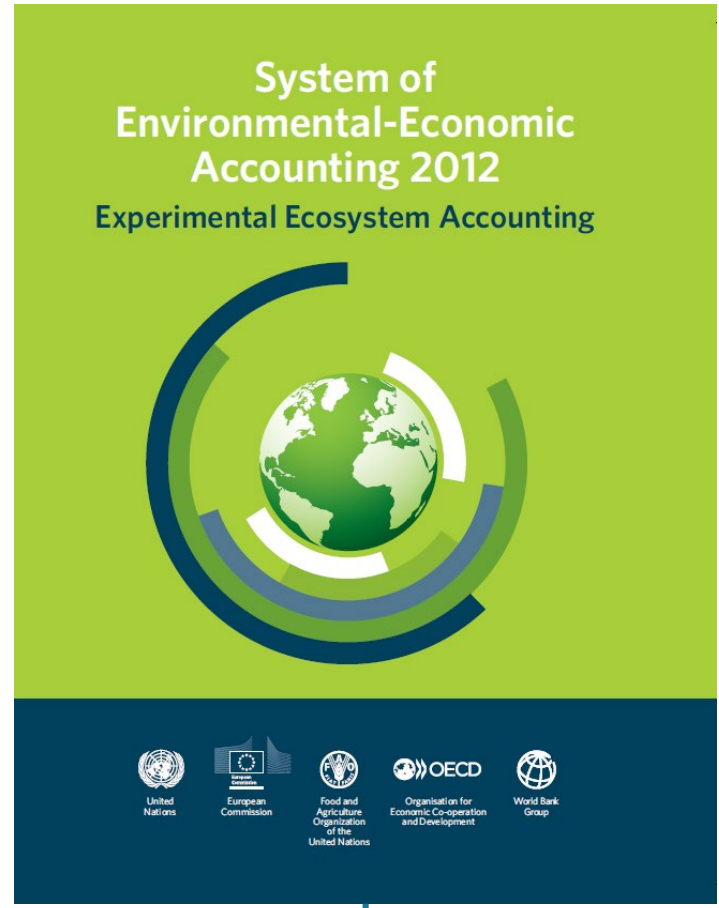
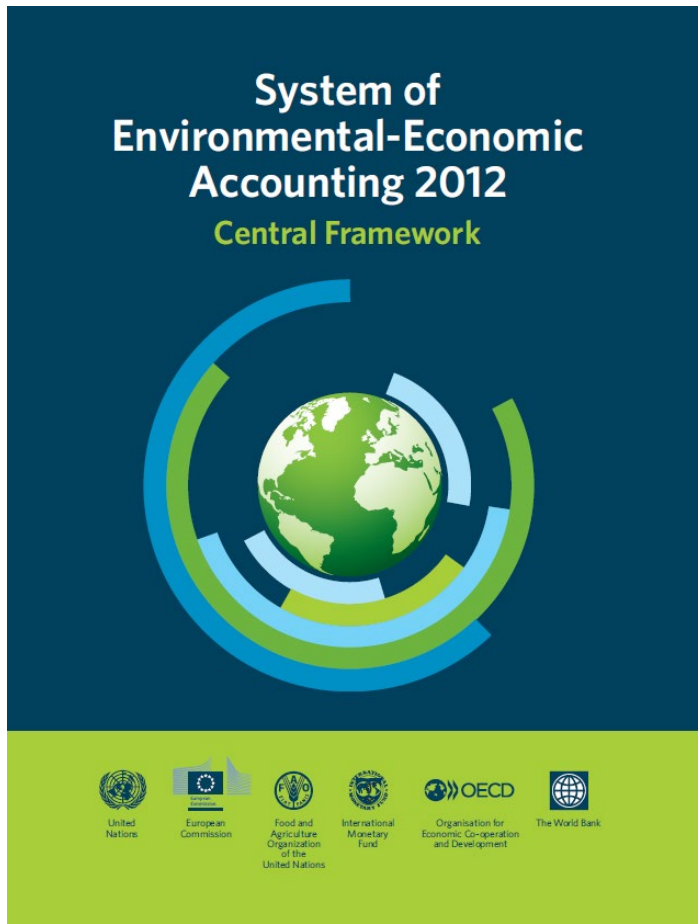
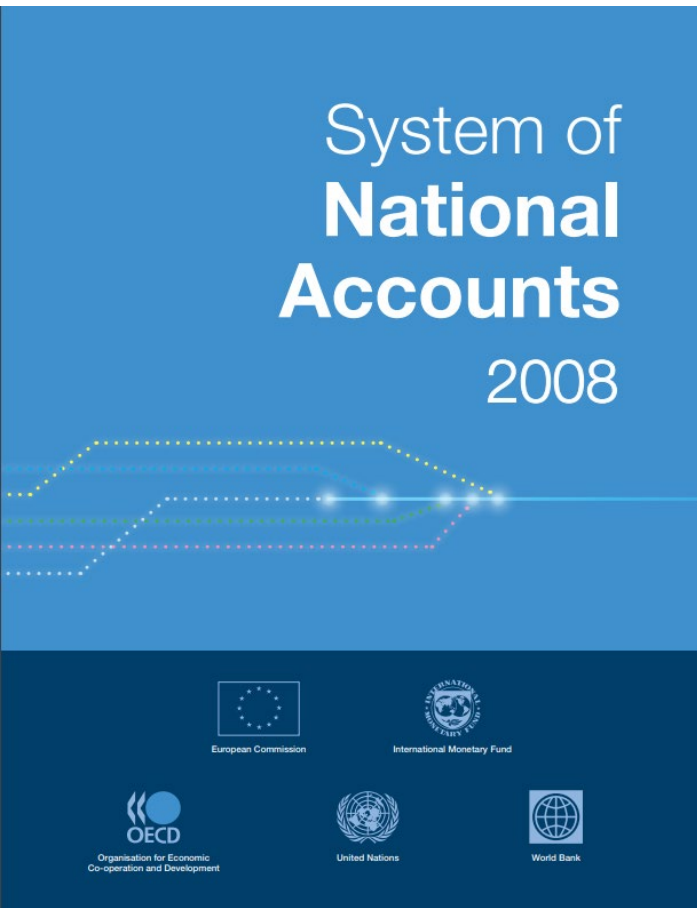


SEEA uses the accounting approach to integrates many data sets

- SEEA accounts can rely up to numerous data sources, covering such areas as
 - energy
 - environment
 - agriculture
 - the economy
 - ecosystems
- These data sources are combined to produce an integrated set of accounts and develop policy relevant indicators



The SNA and SEEA: Systems of integrated information

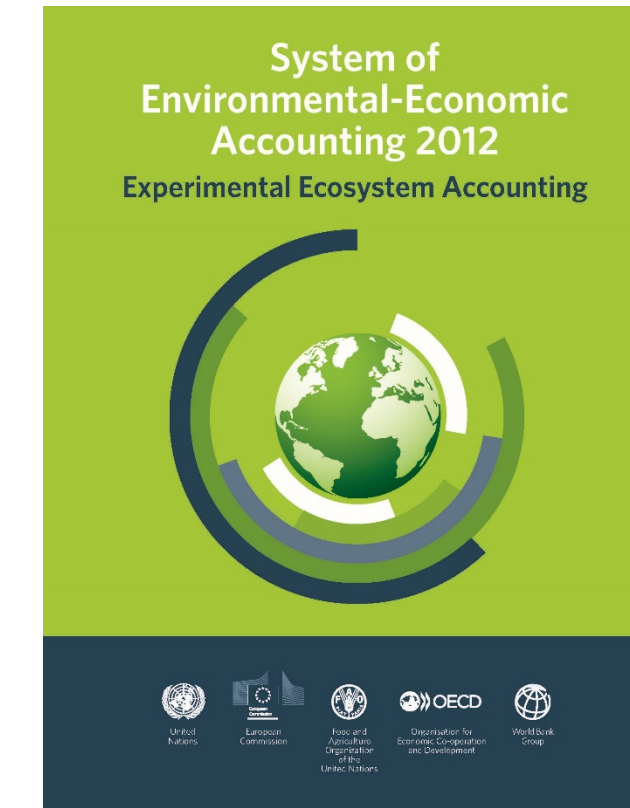


One Environment: Two perspectives



CENTRAL FRAMEWORK

Starts with the economy and measures individual environmental *assets* and resources



ECOSYSTEM ACCOUNTING

Starts with ecosystems and links their *services* to economic and human activity.
Takes a *spatial* approach.

One Environment: Two perspectives



CENTRAL FRAMEWORK *Assets*



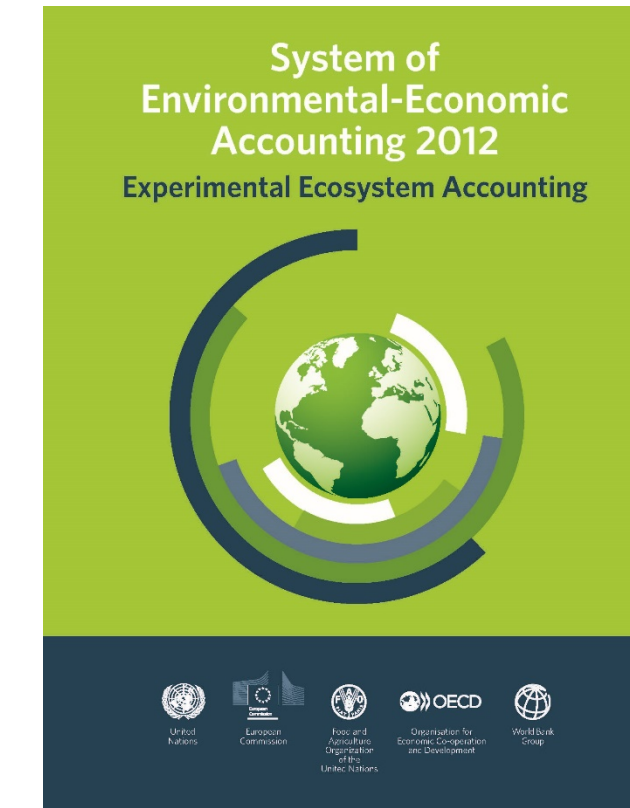
Timber



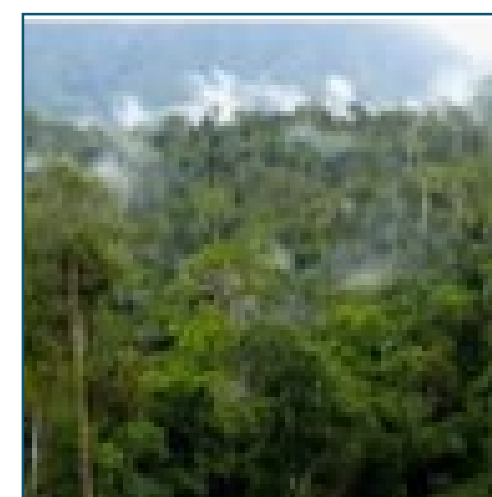
Water



Fish

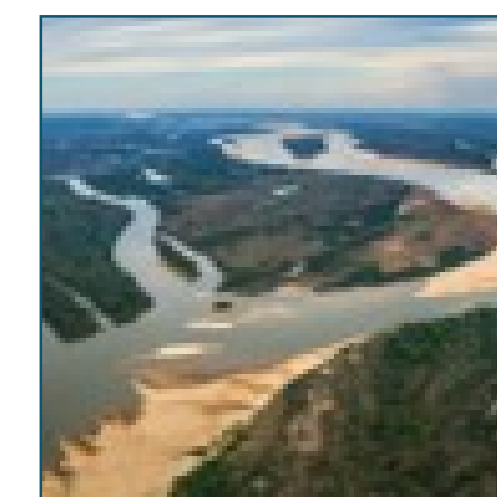


ECOSYSTEM ACCOUNTING *Services*



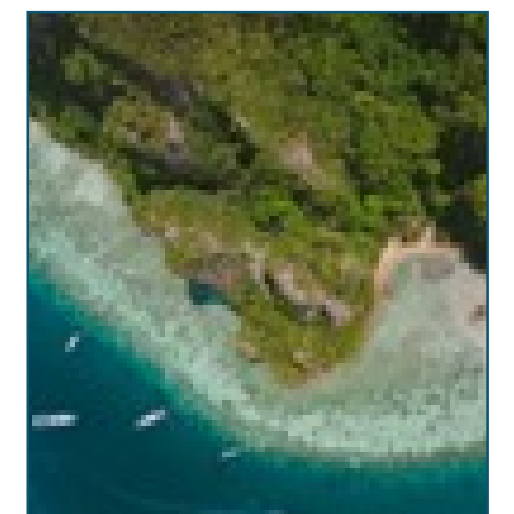
Forests

e.g. flood control



Rivers

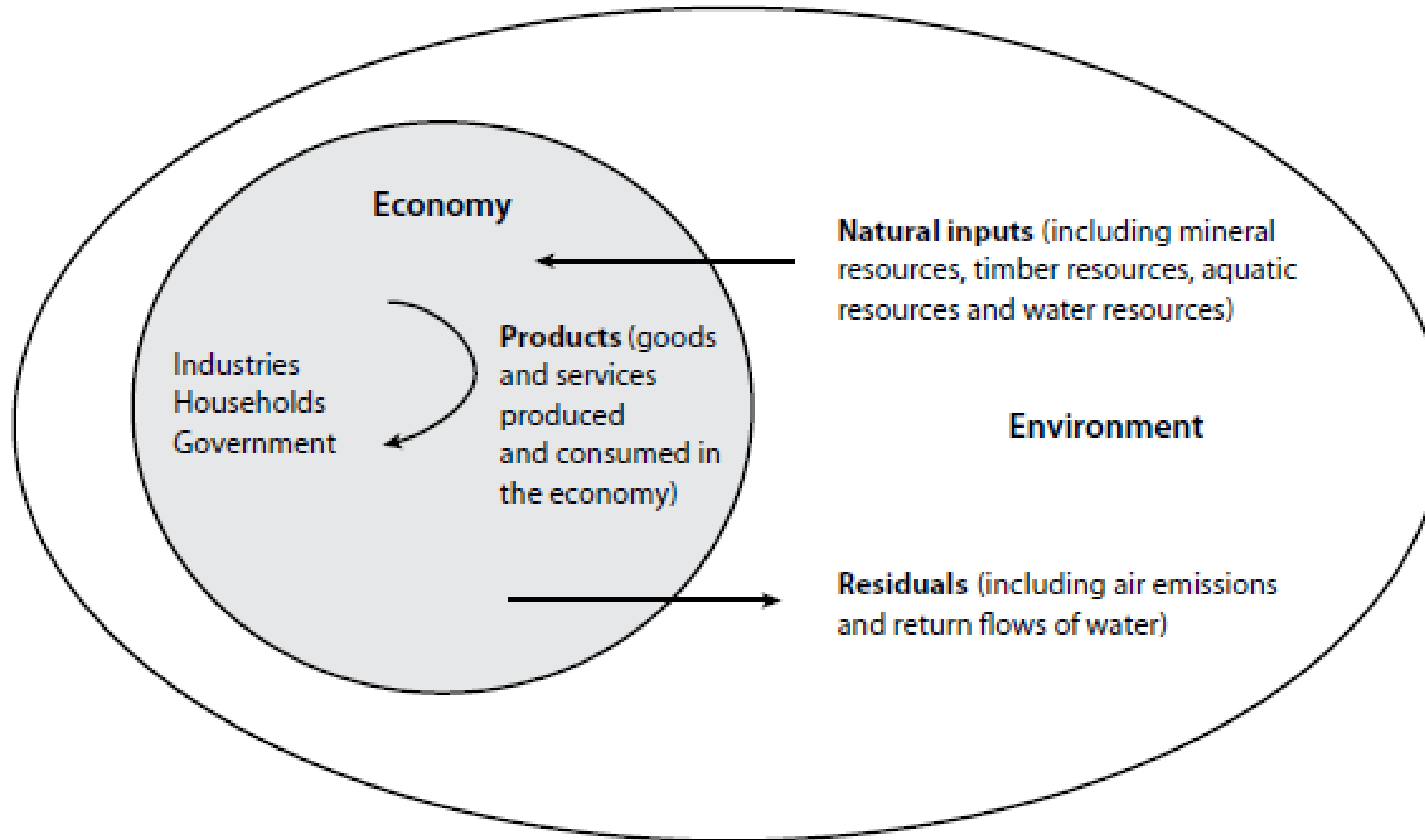
e.g. water purification



Coasts

e.g. recreation

Conceptual model of the Central Framework

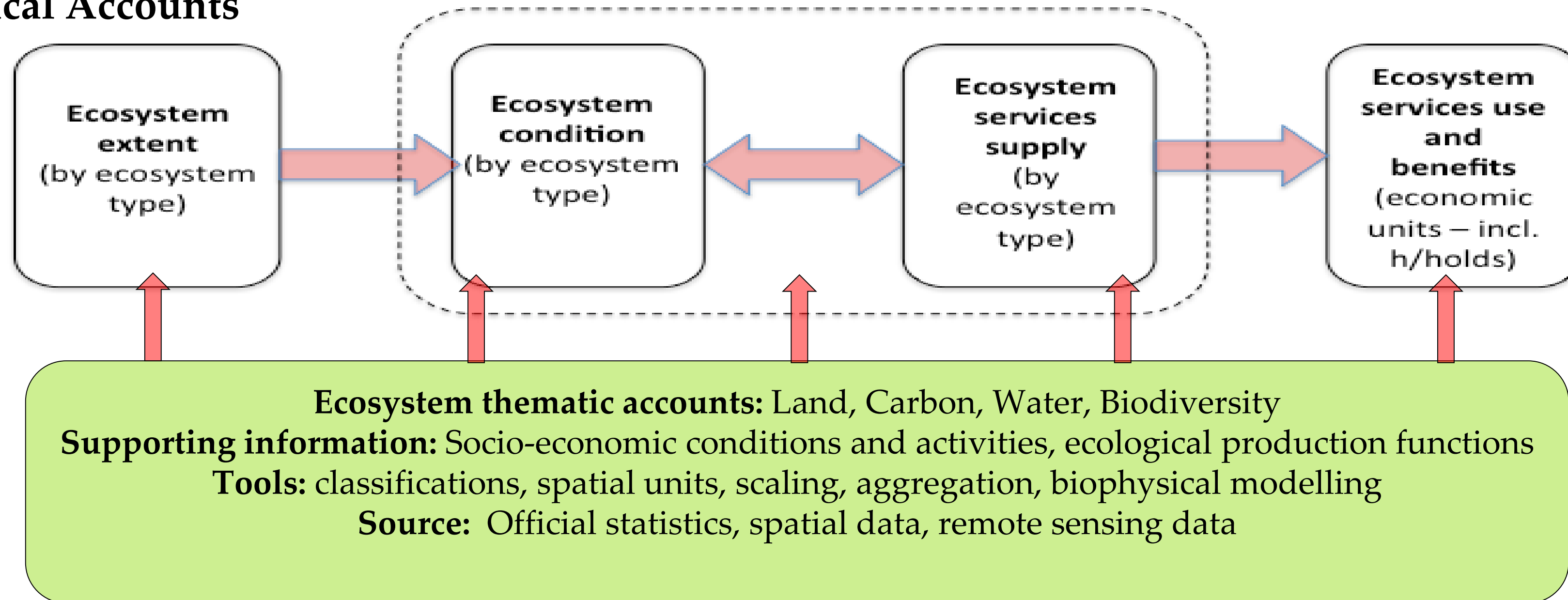


Main features of SEEA CF vis-à-vis the SNA

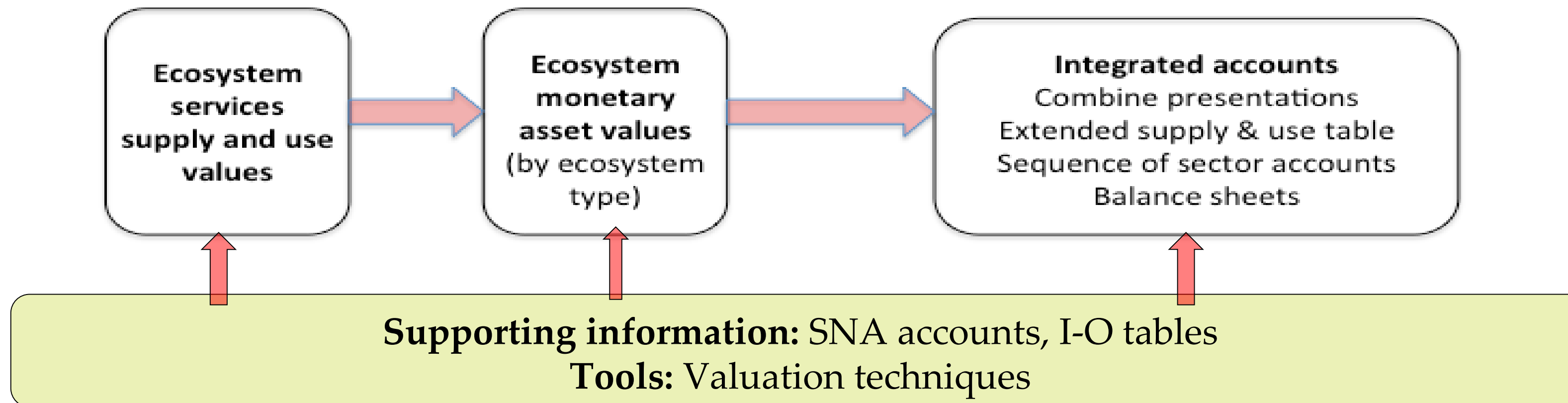
- Separate identification of environmental transactions (expenditures, taxes, subsidies, etc.) – classification
 - SUT and asset accounts in both physical and monetary terms
 - Expanded definition of asset and classification of assets
 - > Extension of asset boundary in physical terms but not in monetary terms
 - Same production boundary
 - Measurement of depletion and depletion adjusted aggregates
- ⇒ Impact in the SNA 2008 (from SEEA 2003)
- > Classification of assets (natural resources) more aligned with the SEEA
 - > Clarification of what constitute natural vs. produced asset (e.g. timber, fish)

Broad steps in ecosystem accounting

a. Physical Accounts



b. Monetary Accounts



Main features of SEEA EEA vis-à-vis the SNA

- Spatially explicit
- Quality/condition
- Ecosystem services
- Measurement of degradation and degradation-adjusted measures
- Extension of the asset boundaries (physical and monetary)
- Extension of the production boundary
- Reflection on valuation (exchange vs. welfare measures)
- Valuation of ecosystem assets

Research agendas

SNA

- Valuation of natural resources (NPV)
- Valuation of resources for which there is no real market (e.g. water,)
- Delineation of natural biological resources
- Depletion of renewable and non-renewable resources
- Losses
- Ecosystem services
- Valuation of ecosystem assets
- Ecosystem degradation

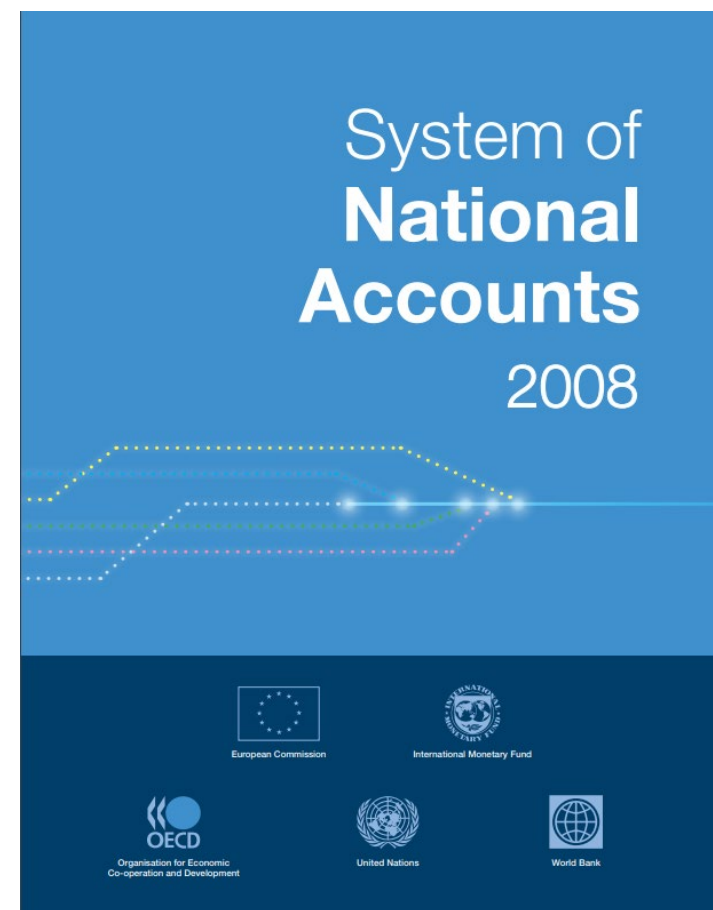
SEEA CF

- Classifications
 - Residuals
 - Land use/land covers
 - Expenditures
- Integrated framework for environmental activity accounts
- **Losses**
- Natural hazards and the effects of climate change
- Fossil fuel subsidies
- **Valuation of water**
- **Valuation of renewable resources and depletion**
- LULUCF and the SEEA

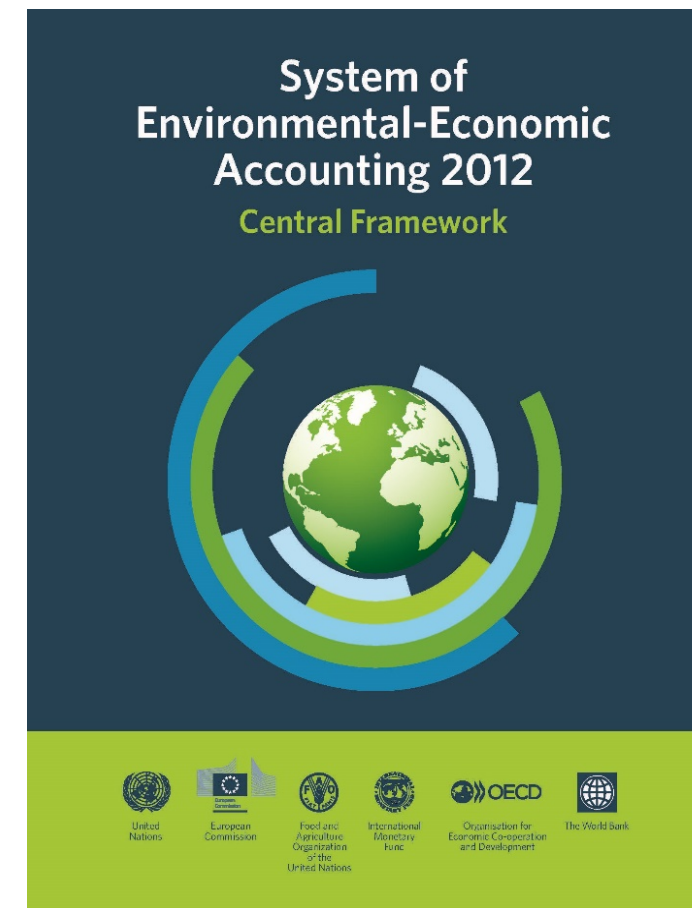
SEEA EEA

- Classification of ecosystem types
- Typology of indicators to measure condition by ecosystem types
- Classification/list of ecosystem services
- Ecosystem services vs. benefits
- **Valuation and integration into the accounting framework**
 - Principles of valuation
 - Valuation of ecosystem assets
 - Valuation of degradation and integration into the account
 - Valuation of externalities

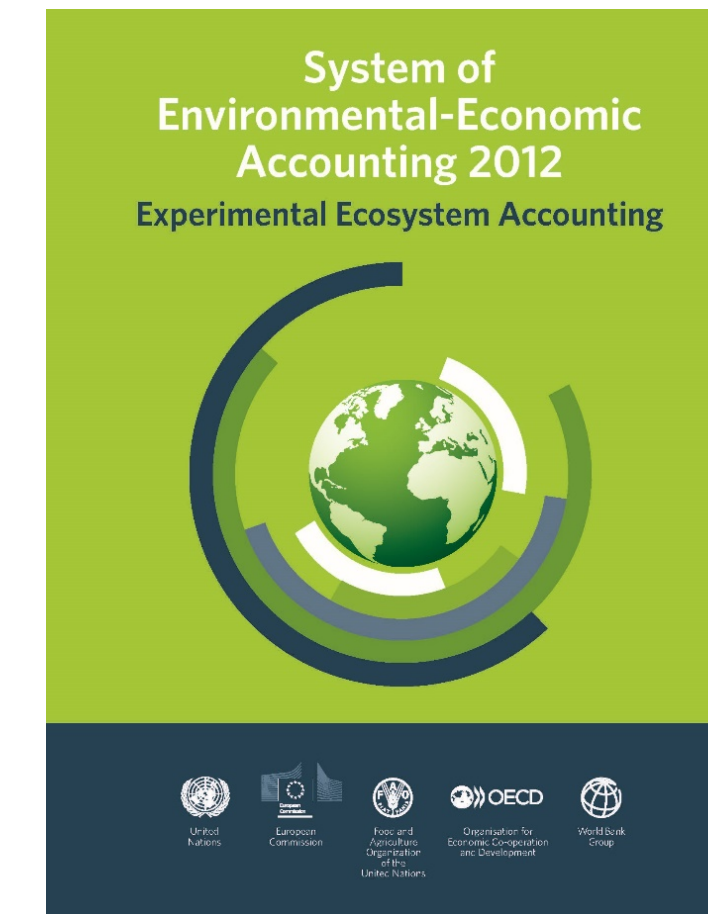
Revision of standards



1953
1968
1993
2008
2025?

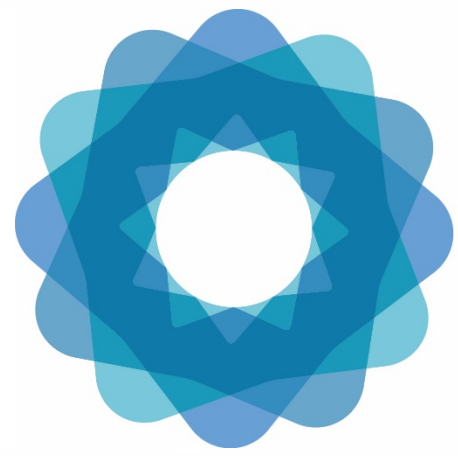


1993
2003
2012



2013
2021

2025?



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SEEA EEA revision process

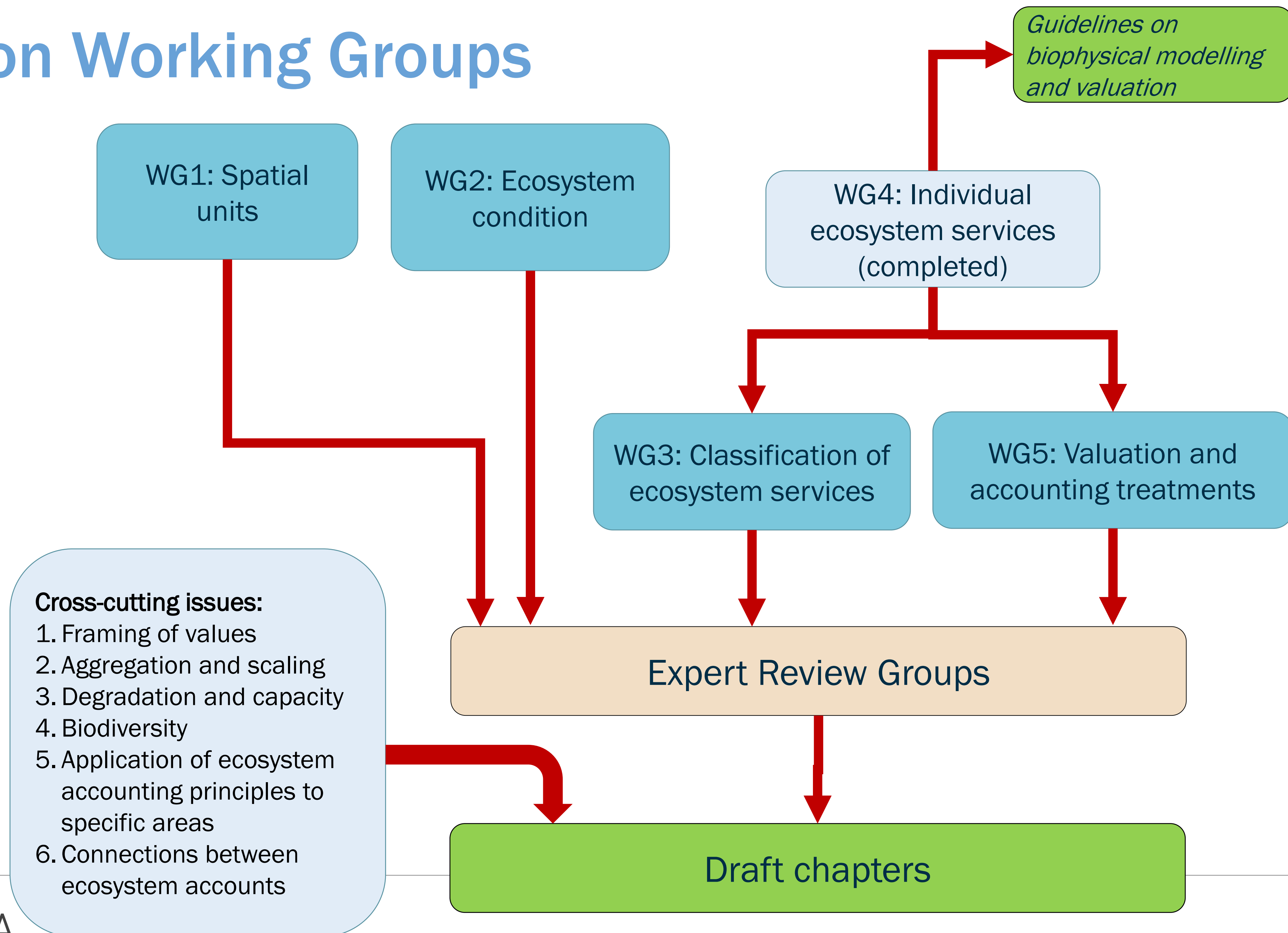


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Revision of the SEEA Experimental Ecosystem Accounting

- 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 – **in the first year over 80 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

Revision Working Groups



Achievements so far

- Spatial units: 3 discussion papers drafted and reviewed by an expert group
- Ecosystem condition: 3 discussion papers drafted and reviewed by an expert group
- Ecosystem services: 10 discussion papers on key individual ecosystem services covering definitions, biophysical measurement and valuation
- Events:
 - > 18-20 June 2018 (Glen Cove): Forum of Experts on SEEA Experimental Ecosystem Accounting
 - > 28-29 November 2018 (Paris): Expert meeting on Spatial Areas and Ecosystem Condition
 - > 30 November 2018 (Paris): Strategic meeting on accounting for biodiversity and ecosystems with IUCN and selected biodiversity experts
 - > 22-24 January 2019 (New York): Expert Meeting on Advancing the Measurement of Ecosystem Services for Ecosystem Accounting
 - > 26-27 June 2019 (Glen Cove): Forum of Experts on SEEA Experimental Ecosystem Accounting
 - > 28-29 June 2019 (Glen Cove): Technical Expert Meeting on advancing the SEEA EEA Revision

Current work: July – December 2019

- Finalization of discussion papers on ecosystem services (WG3) and valuation (WG5) and carry out expert review of the discussion papers
- Drafting of chapters: editor is drafting chapters in close consultation with the Technical Committee (serving as the Editorial Board)
- Continue research on remaining specific issues and cross-cutting issues – in small groups
- Testing of current proposals in particular on:
 - > Ecosystem type classifications
 - > Ecosystem condition indicators by ecosystem type
 - > Ecosystem services modelling and valuation

Details on the research area on valuation and accounting

- Already drafted – 2 discussion papers:
 - > Discussion paper 5.1: Defining exchange and welfare values, articulating institutional arrangements and establishing the valuation context for ecosystem accounting
 - > Discussion paper 5.2: A framework for the valuation of ecosystem assets
- Currently finalizing – 3 discussion papers:
 - > Discussion paper 5.3: On accounting treatments and links to SNA (paper also submitted to the AEG meeting)
 - > Discussion paper 5.4: On degradation
 - > Discussion paper 5.5: On externalities

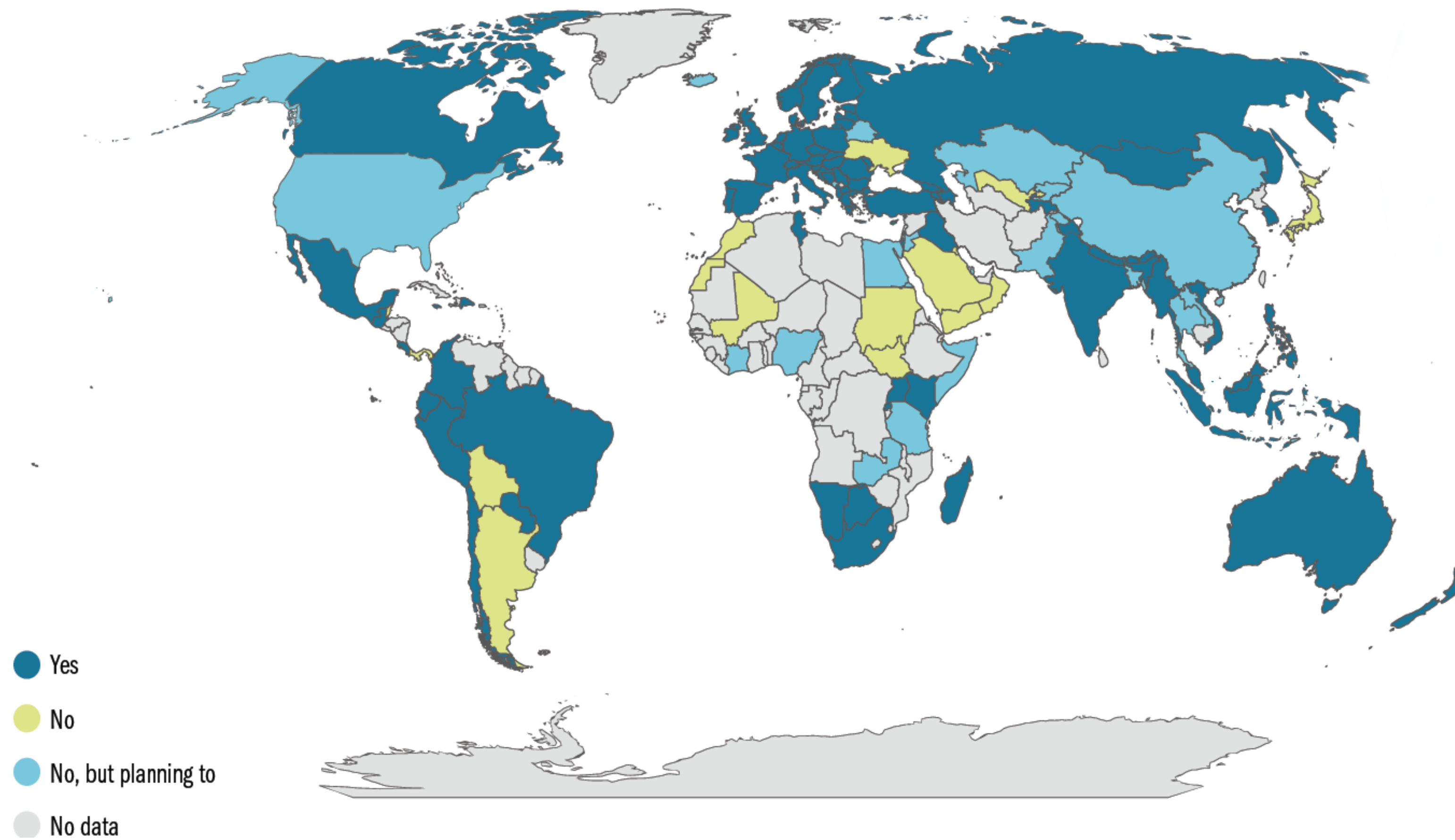
Planning of work: 2020

- Jan-Mar: Revision of the chapters
- Apr-Jun: Global consultation on (grouped) individual chapters
- June: Report to UNCEEA and discussion at the 2020 Forum of Experts
- Jul-Sep: Revision of the chapters
- Oct-Nov: Global consultation on complete document
- Dec: Submission of draft to UNCEEA and UNSC

Revision process: keystones & timeline



92 countries are compiling SEEA accounts



Some thoughts on the way forward

- Engagement of the UNCEEA in the SNA update – through the SEEA group?
- In-depth look at the research agendas with more detailed description and prioritization of issues
- Engagement of the AEG in the SEEA EEA revision process
 - > At which stage?
 - Review papers
 - Review draft chapters
 - Need papers for the AEG review?

THANK YOU

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