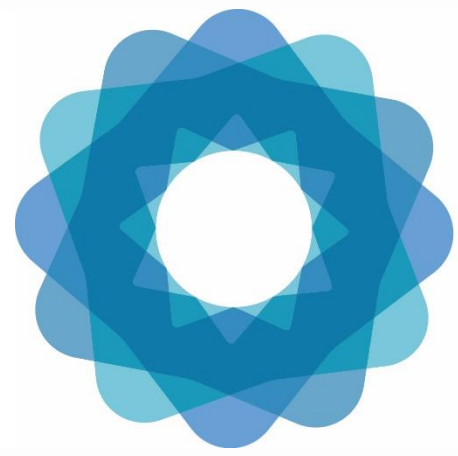


System of Environmental Economic Accounting



System of
Environmental
Economic
Accounting



EARTH OBSERVATIONS FOR
ECOSYSTEM ACCOUNTING

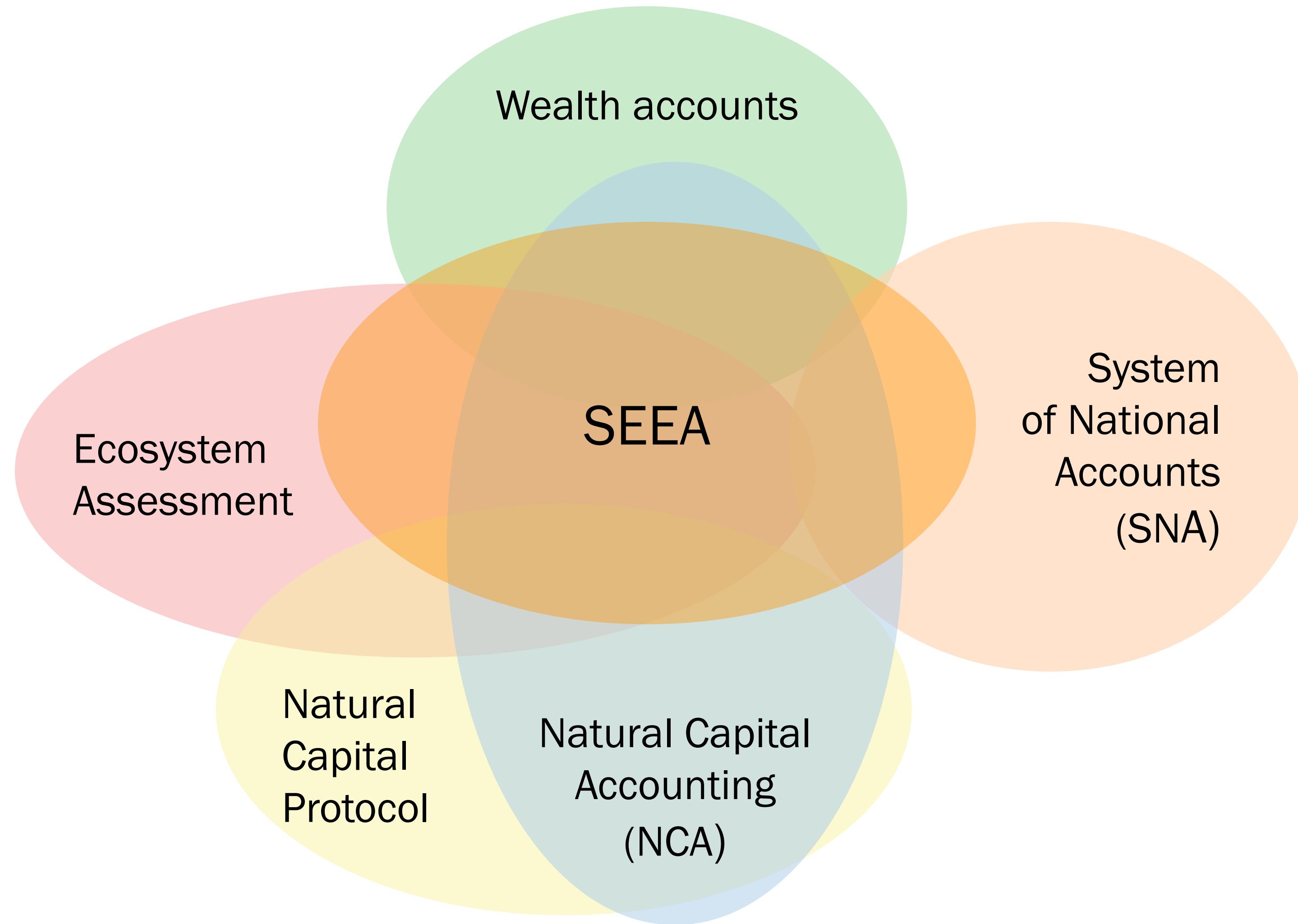
The System of Environmental Economic Accounting (SEEA): Status of Implementation and Revision Process

Environmental Economic Accounting Section
United Nations Statistics Division



United Nations

NCA, SEEA and other frameworks

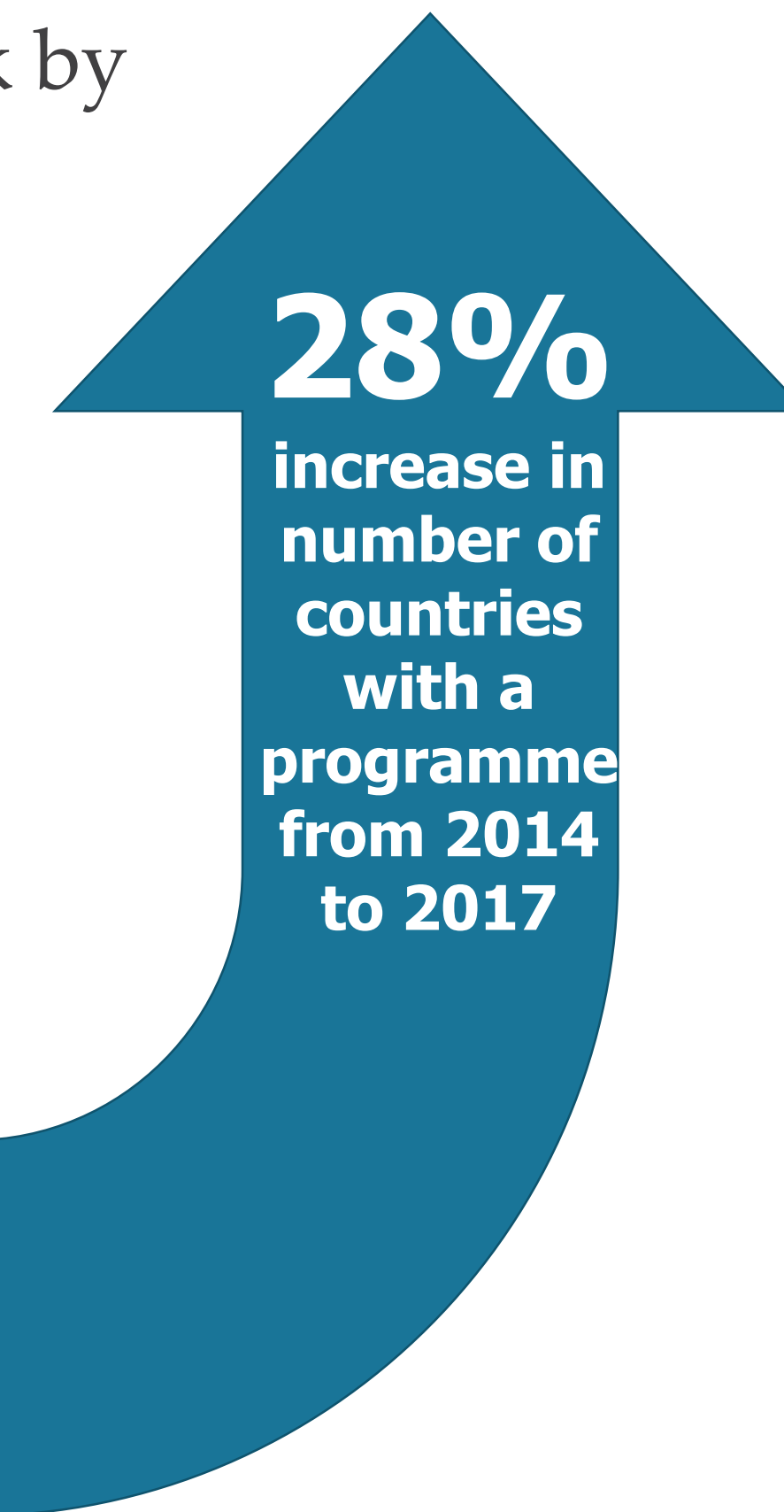


Outline

- SEEA around the world
- Overview of the SEEA
- The SEEA Experimental Ecosystem Accounting revision
- The Natural Capital Accounting and Valuation of Ecosystems project

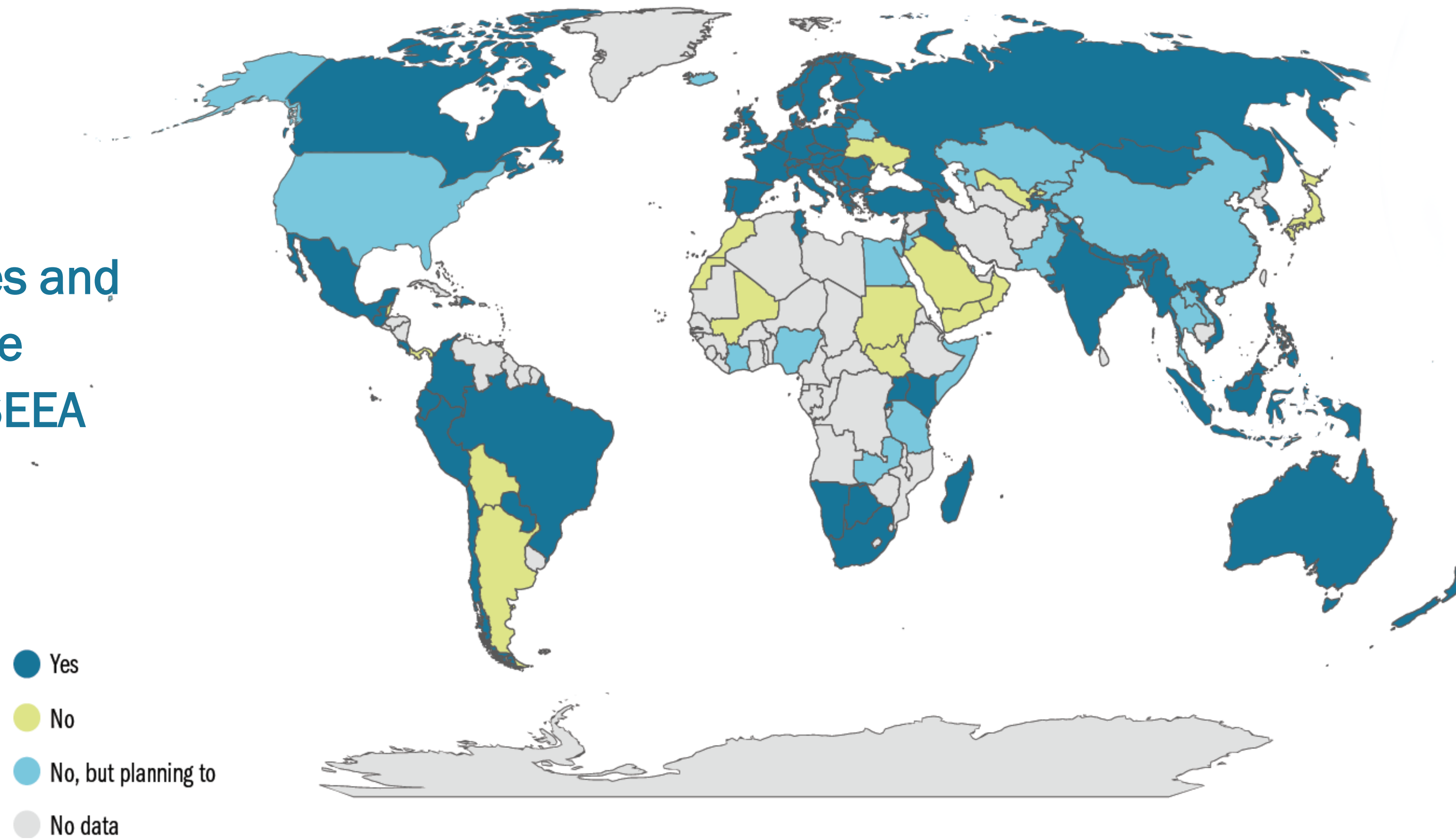
SEEA around the World

- Target:
 - > 100 countries implement the SEEA Central Framework by 2020
 - > 50 countries test the SEEA Experimental Ecosystem Accounts by 2020
- Global assessment is undertaken every 3 years
- Progress is tracked on a yearly basis through informal consultation with donors, international agencies, recipient countries, etc.
- **Currently over 80 countries have compiled SEEA accounts**

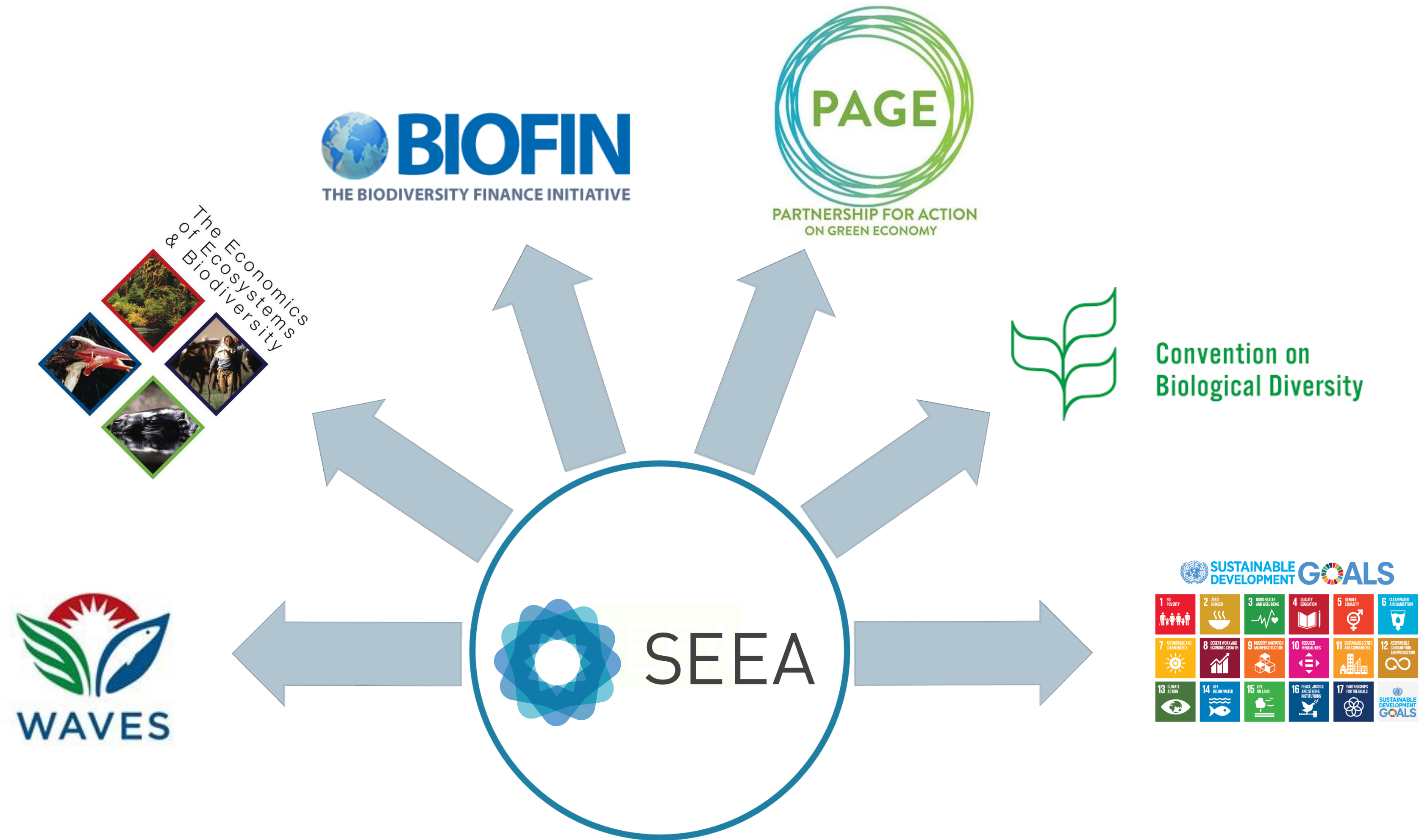


Status of the implementation of the SEEA

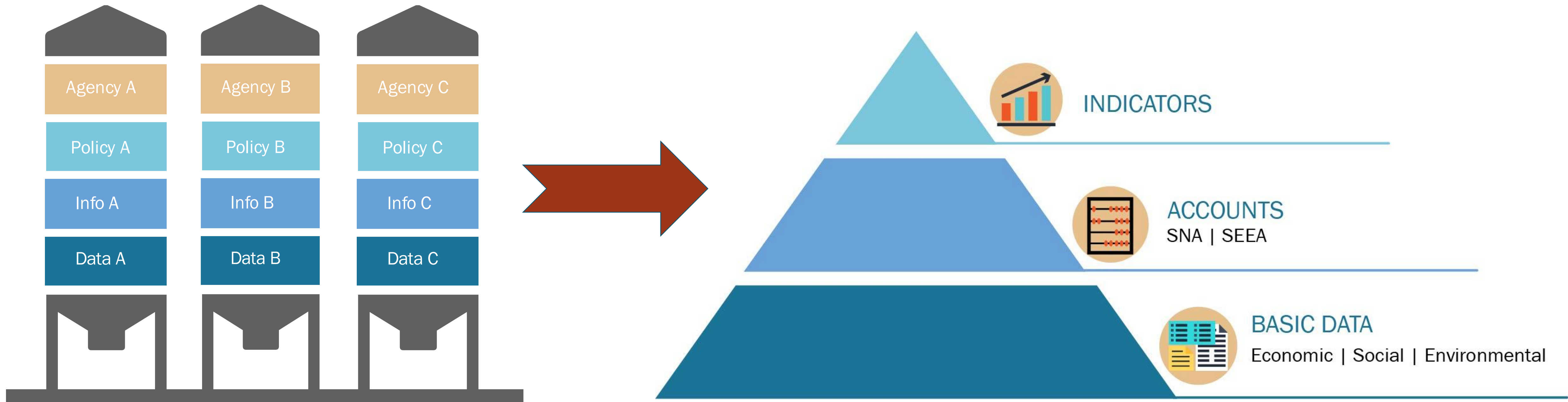
80 countries and counting are compiling SEEA accounts



SEEA as supporting framework



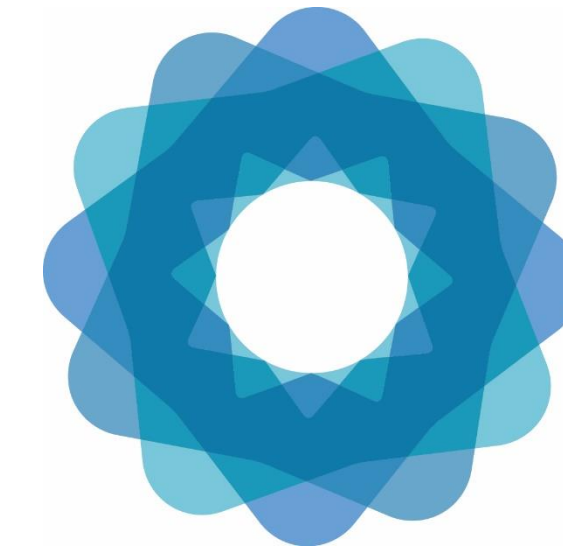
From data silos to integrated information



The System of Environmental-Economic Accounting (SEEA)

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

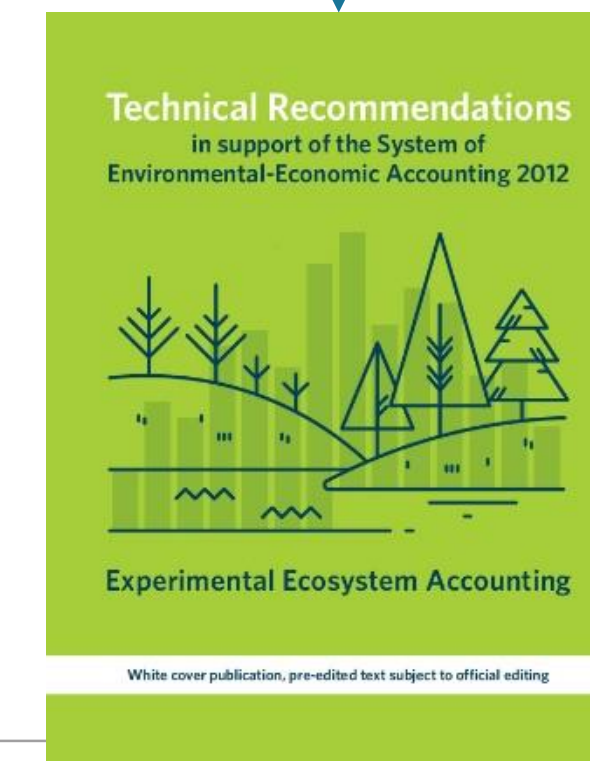
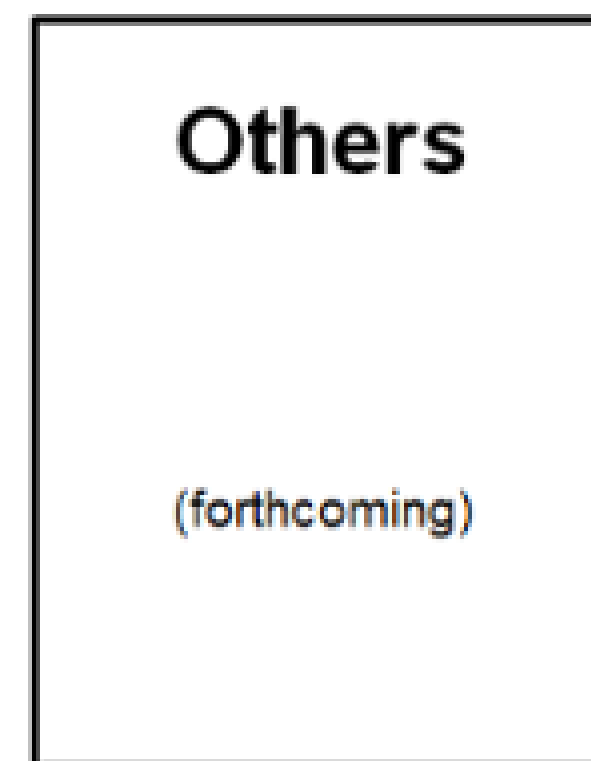
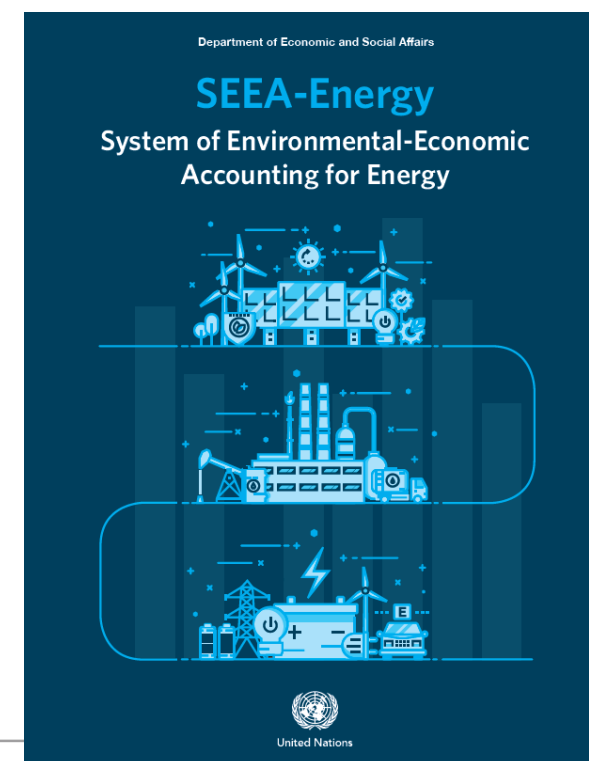
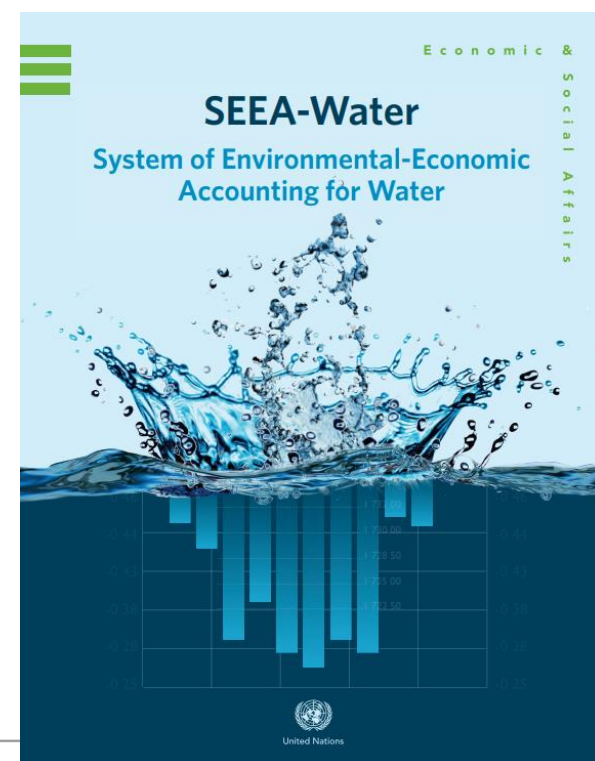
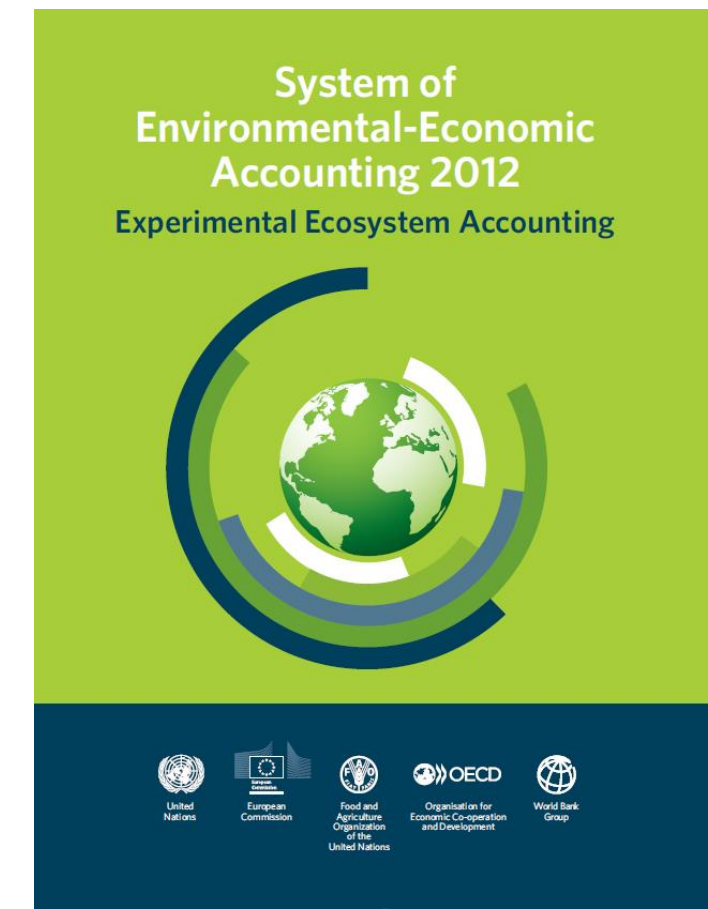
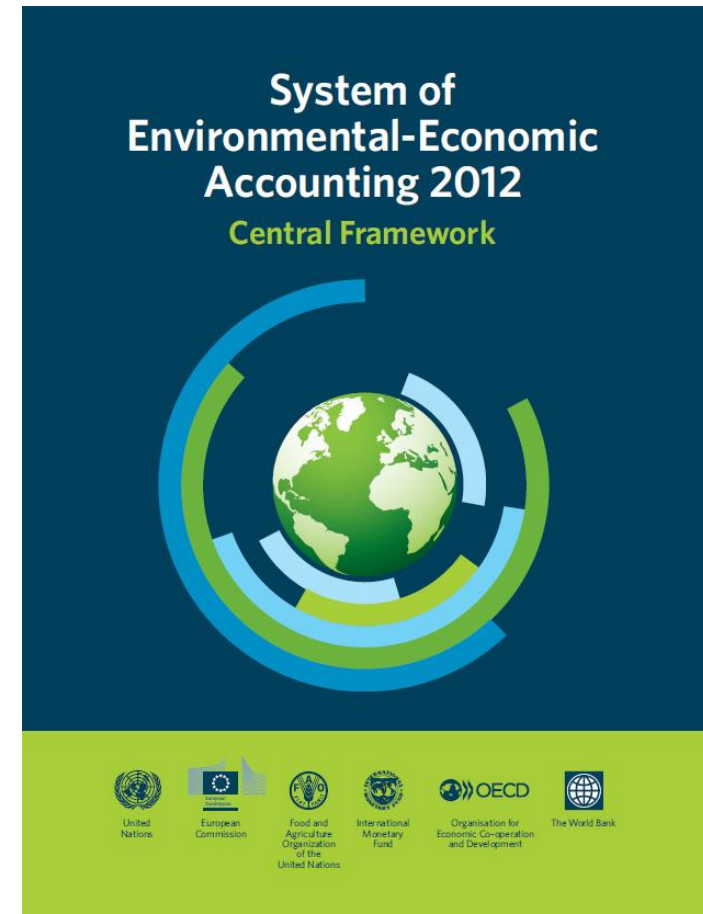
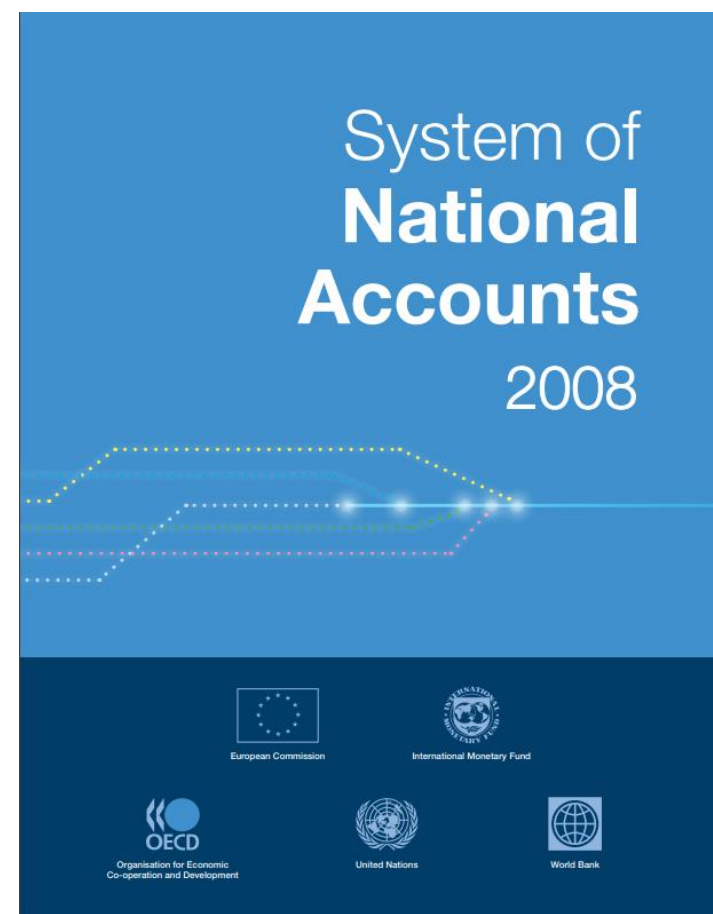
- The **SEEA Central Framework** was adopted as an international statistical standard by the UN Statistical Commission in 2012.
- The **SEEA Experimental Ecosystem Accounting** complements the Central Framework and represent international efforts toward coherent ecosystem accounting.
- **SEEA Applications 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.



System of
Environmental
Economic
Accounting



The SEEA: Systems of integrated information



SEEA – two sides of the same coin

Individual environmental **assets & resources:**

Timber
Water
Soil
Fish



Ecosystems: Biotic and abiotic elements functioning together:



Forests
Lakes
Cropland
Wetlands

SEEA Central Framework (SEEA-CF) starts with economy and links to physical information on natural assets, flows and residuals



SEEA Experimental Ecosystem Accounting (SEEA-EEA) starts with ecosystems and links their services to economic and other human activity



Together, they provide the foundation for measuring the relationship between the environment, and economic and other human activity

SEEA Ecosystem Accounting

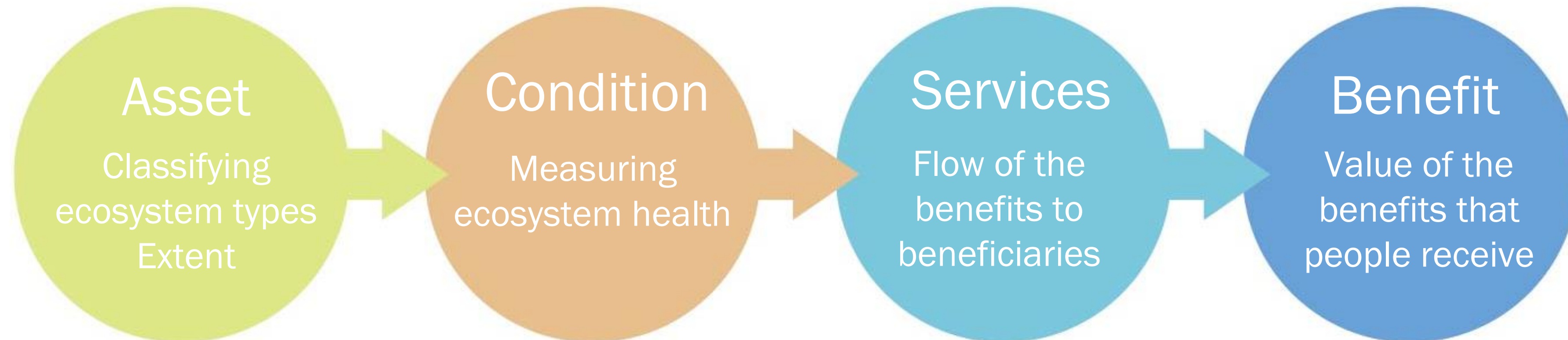
POLICY AND DECISIONMAKING



ENVIRONMENTAL-ECONOMIC ACCOUNTING

Measurement

Valuation



The SEEA and the SDGs

The SEEA supports 40 indicators for 9 SDGs

GOAL 2: Zero Hunger

GOAL 6: Clean Water and Sanitation

GOAL 7: Affordable and Clean Energy

GOAL 8: Decent Work and Economic Growth

GOAL 9: Industry, Innovation and Infrastructure

GOAL 11: Sustainable Cities and Communities

GOAL 12: Responsible Consumption and Production

GOAL 14: Life Below Water

GOAL 15: Life on Land



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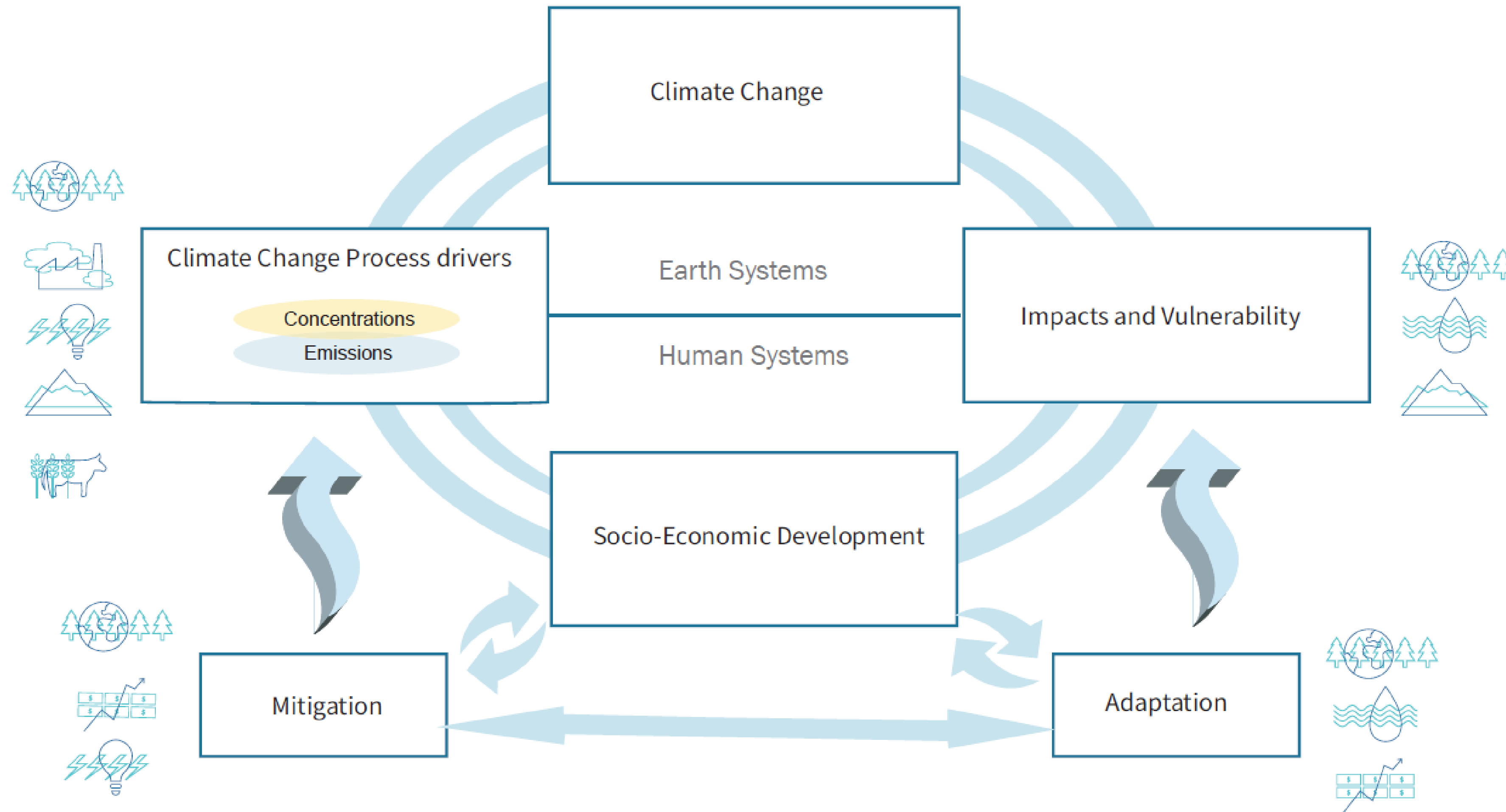
The SEEA enables a transformative biodiversity agenda

UNCEEA has submitted an official comment to the CBD COP on the SEEA and biodiversity.

- A consistent monitoring framework
- Helps make the case for protecting biodiversity by showing links to well-being
- Provides information on the drivers of biodiversity loss
- Can help track effectiveness of investments and policies aimed at biodiversity protection

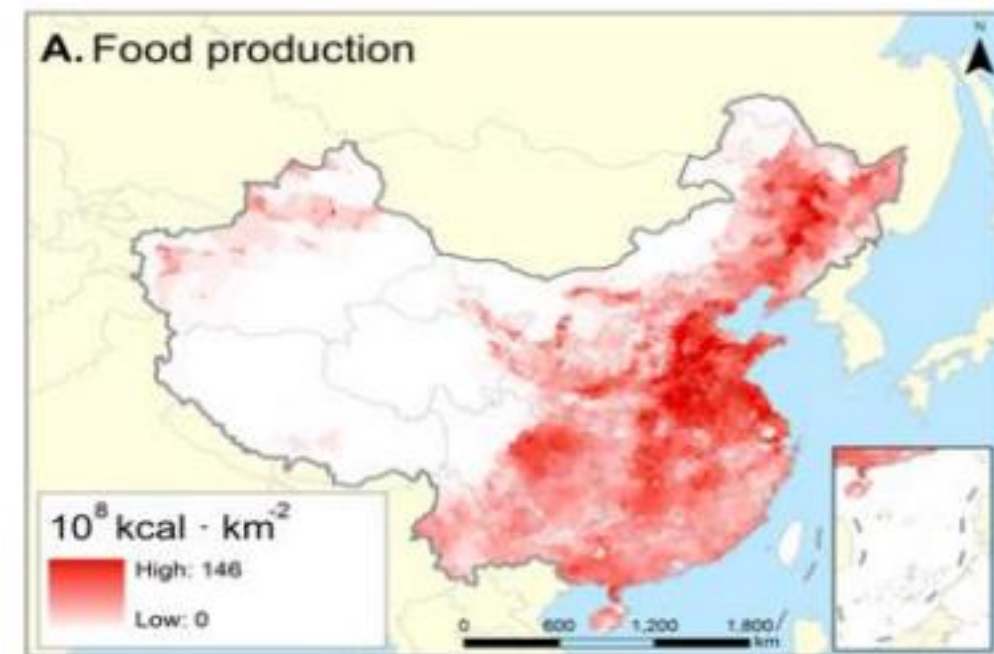


Climate policy change policy questions that the SEEA can answer

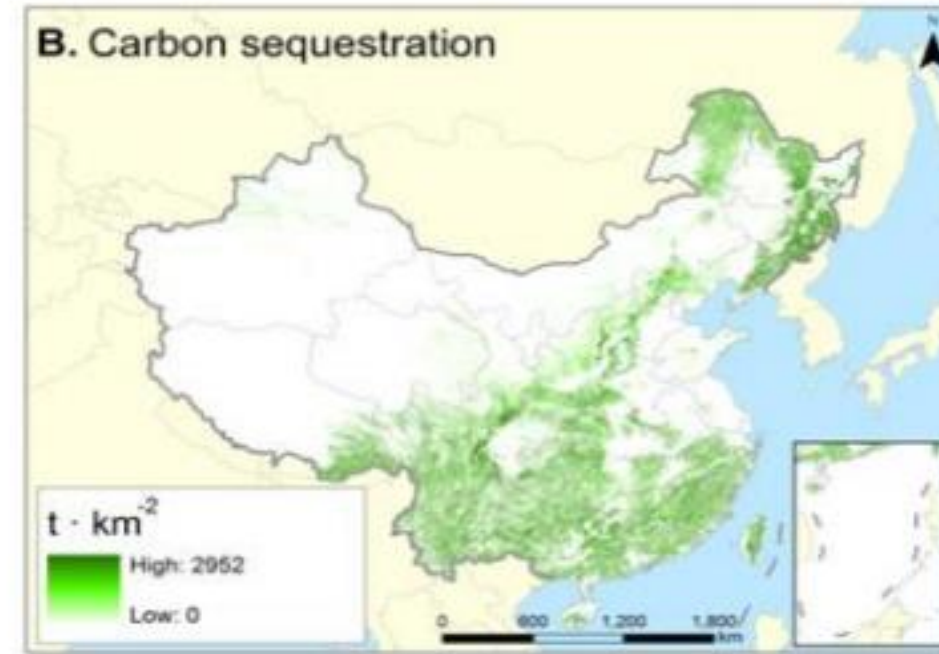


Mapping ecosystem services in China

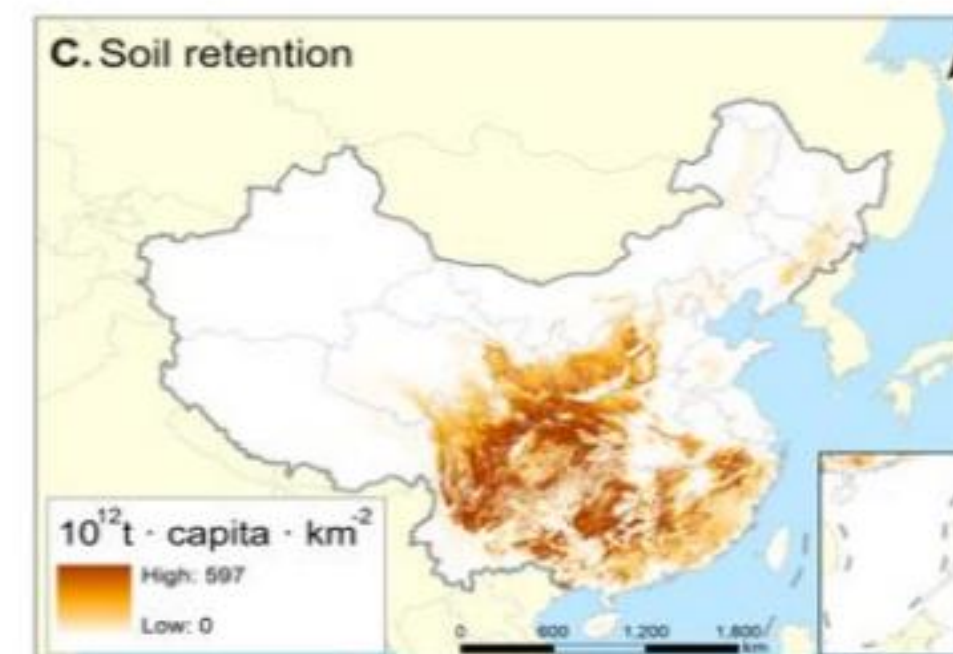
Spatial pattern of ecosystem services



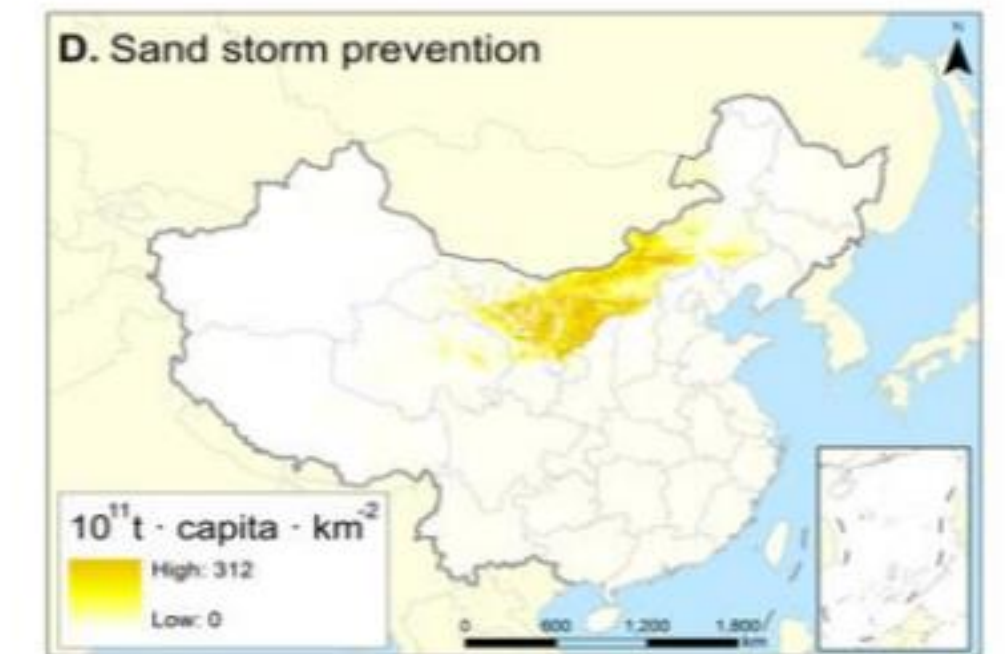
Food production



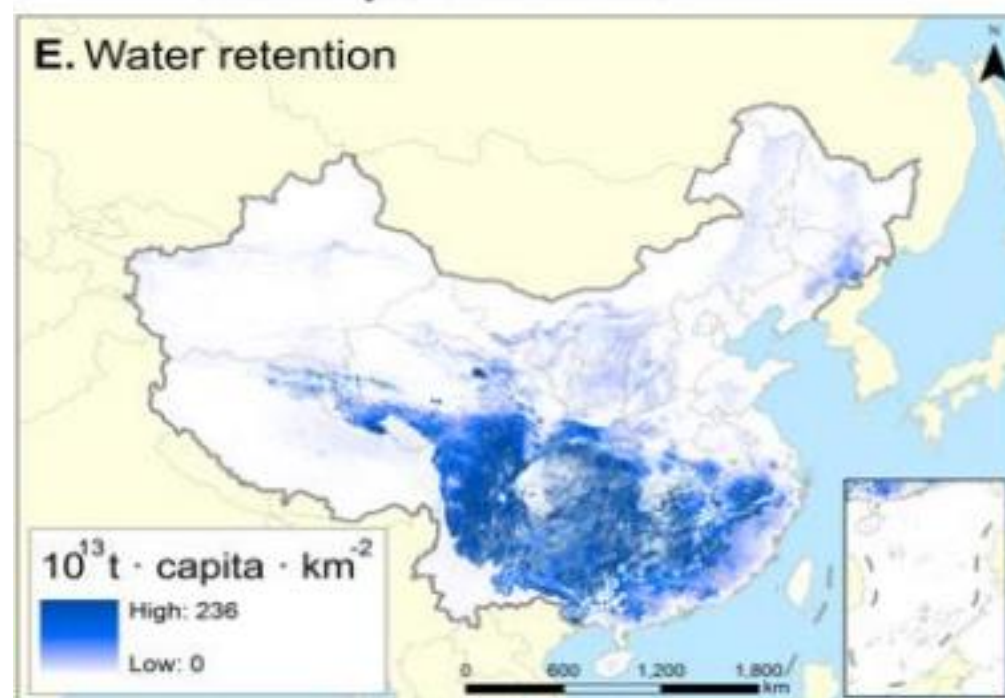
Carbon sequestration



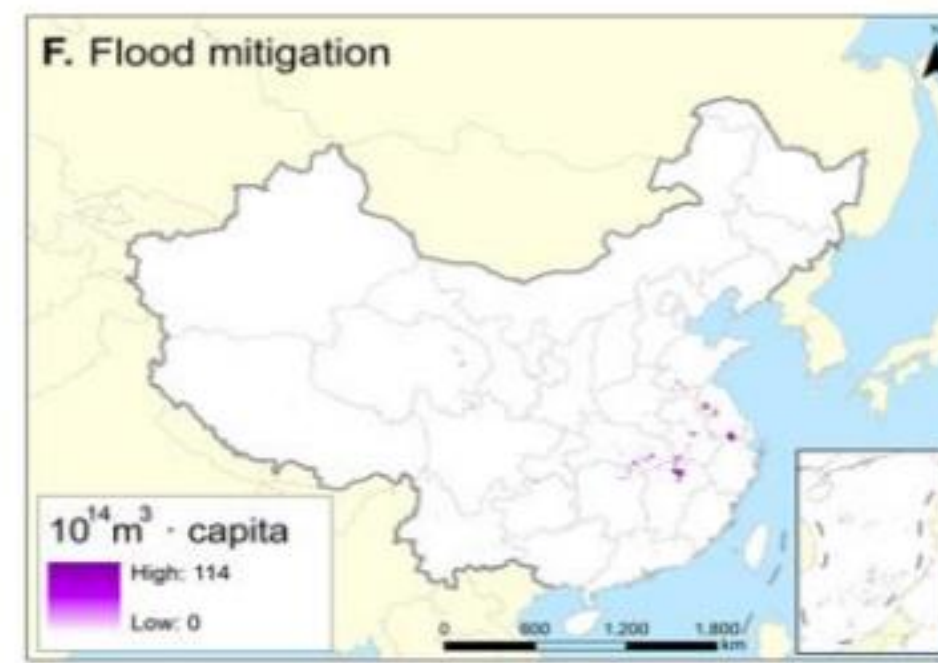
Soil retention



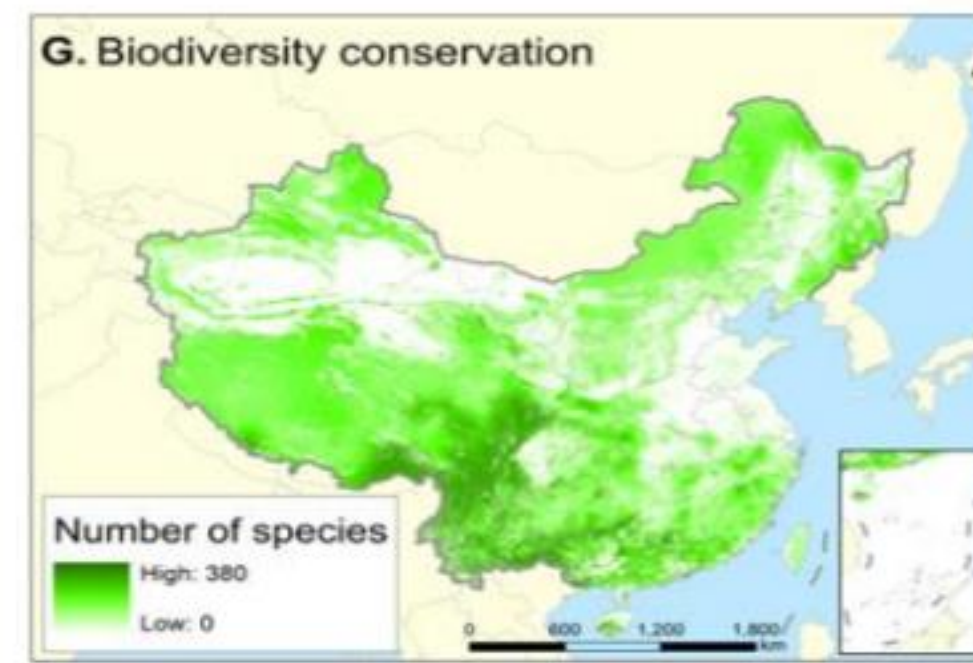
Sand storm prevention



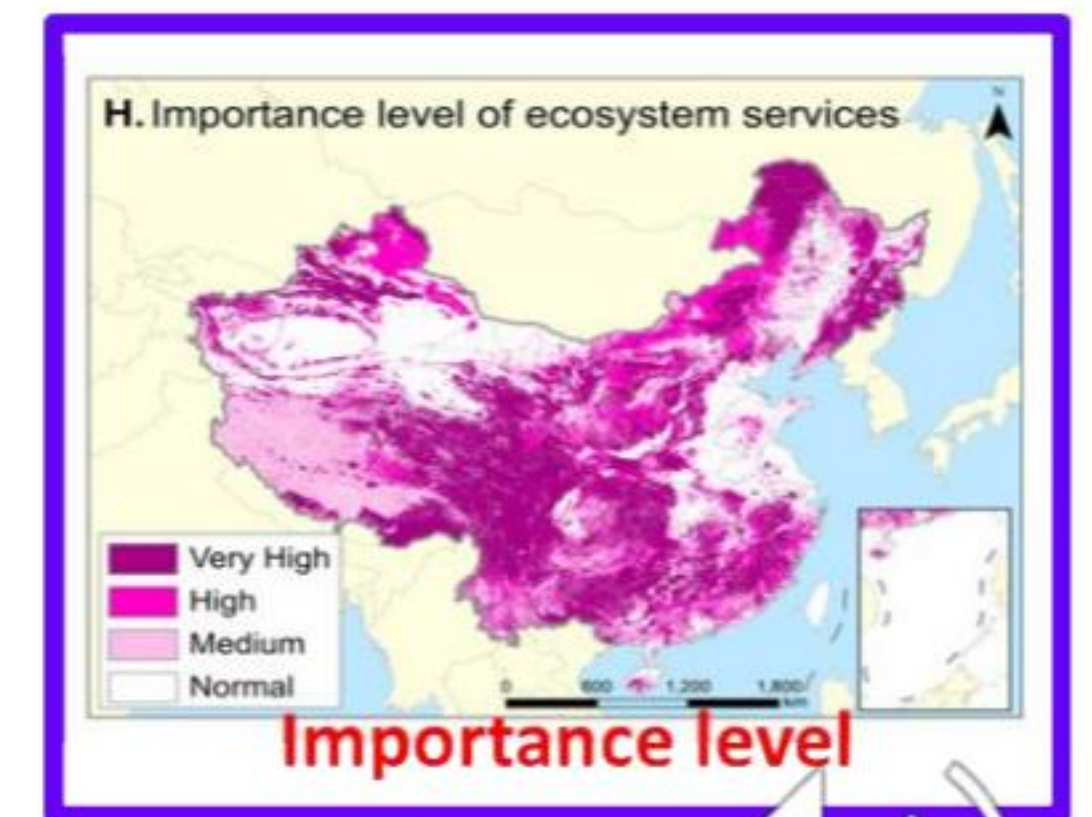
Water retention



Flood mitigation

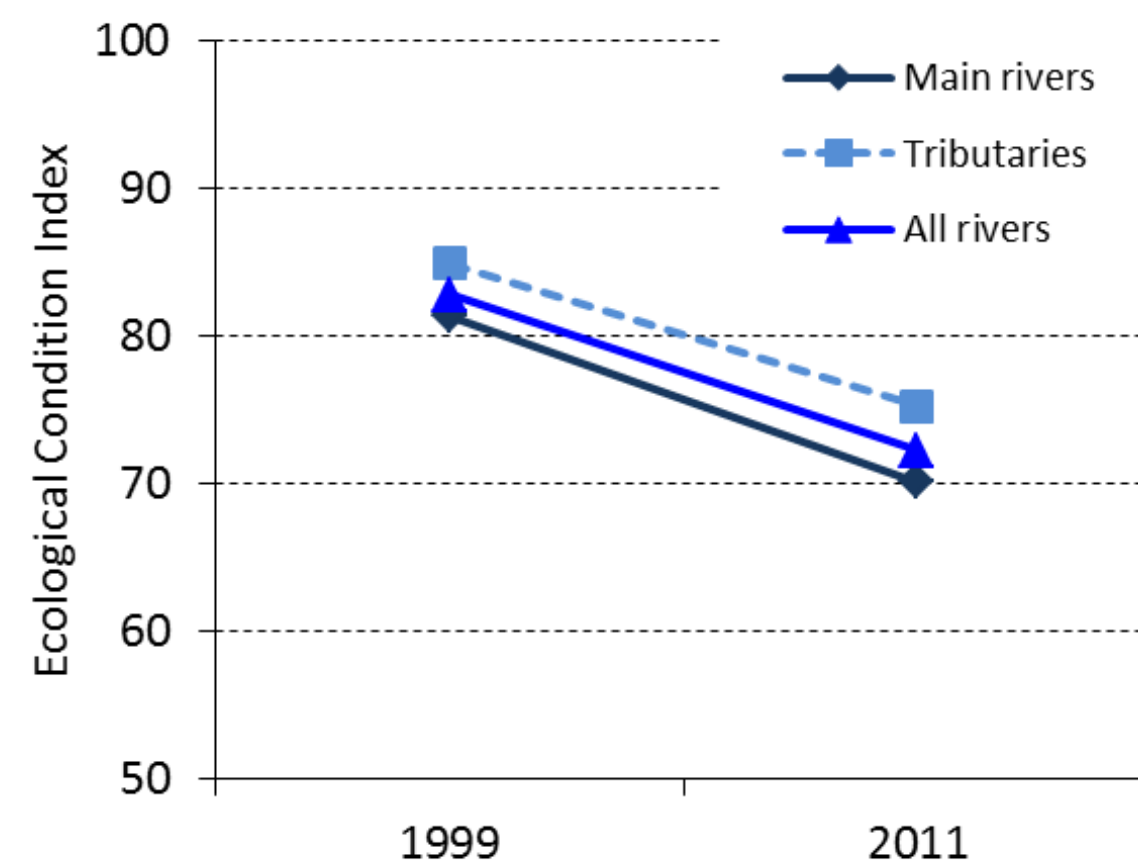
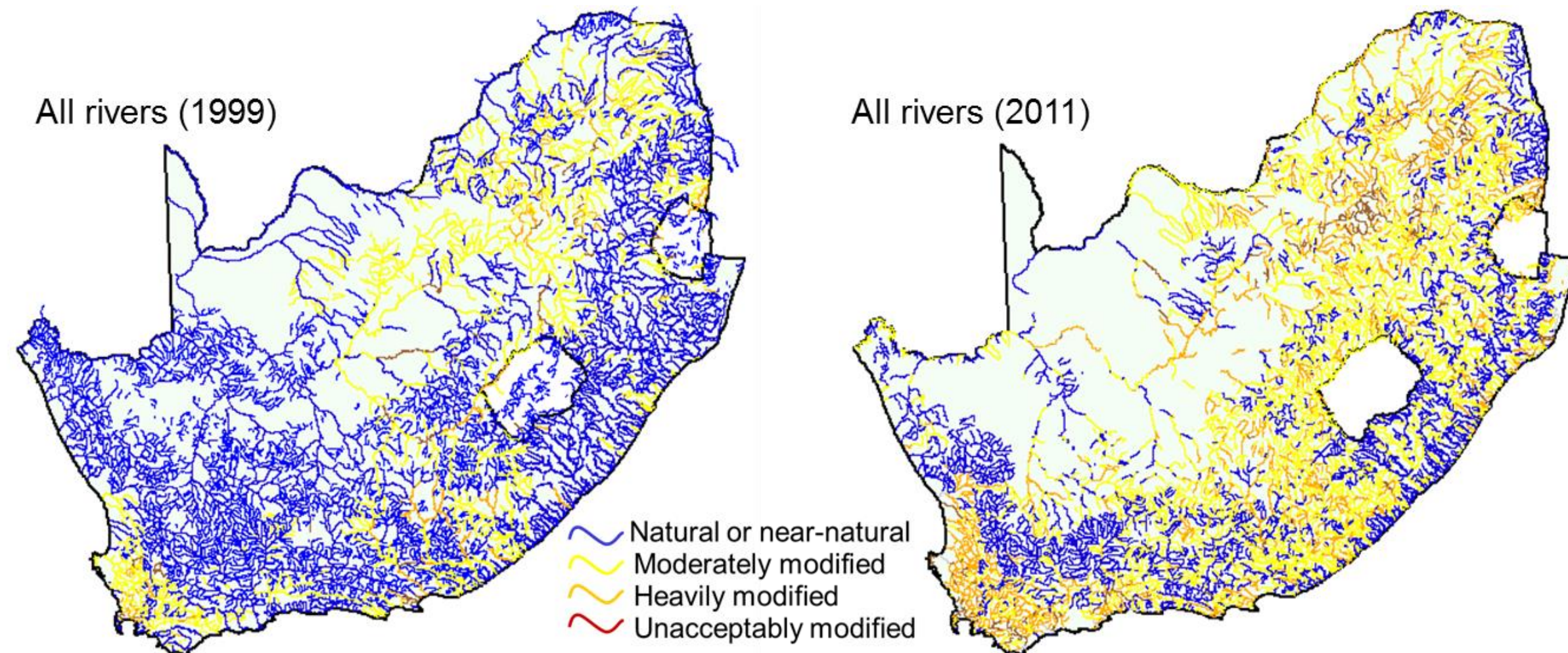


Biodiversity conservation



Source: Presentation by Zhiyun Ouyang, Chinese Academy of Sciences at Third Forum on Natural Capital Accounting for Policy Decisions, November 2018

SEEA in South Africa: National River Ecosystem Accounts

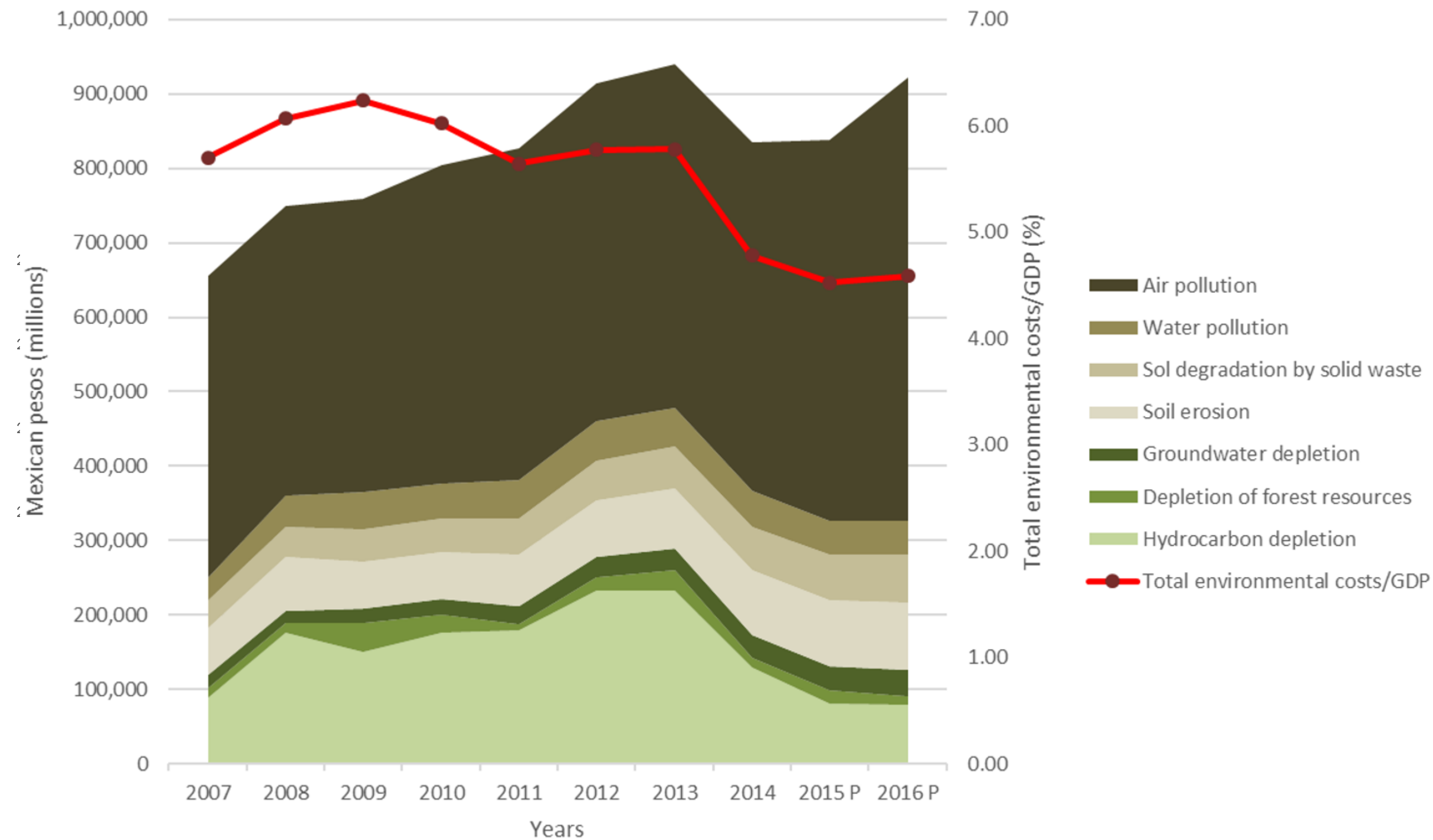


Overall
10% decline
in ecological condition
of rivers
1999 - 2011

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

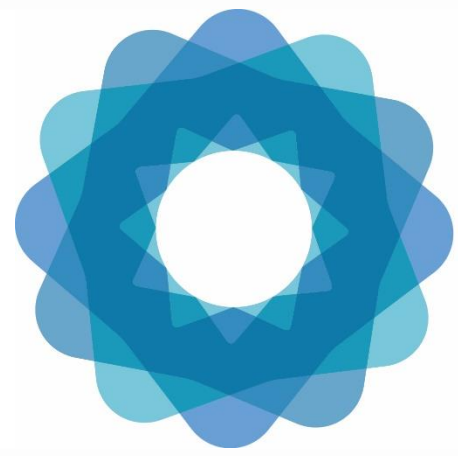
Source: Presentation by Mandy Driver, SANBI at Third Forum on Natural Capital Accounting for Policy Decisions, November 2018

SEEA in Mexico: Cost of depletion and degradation



Source:: Environmental Accounts, INEGI

Total environmental costs amounted up to 6% of Mexico's GDP in 2009; in 2016 they amounted to 4.5%



System of
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SEEA EEA Revision



United Nations

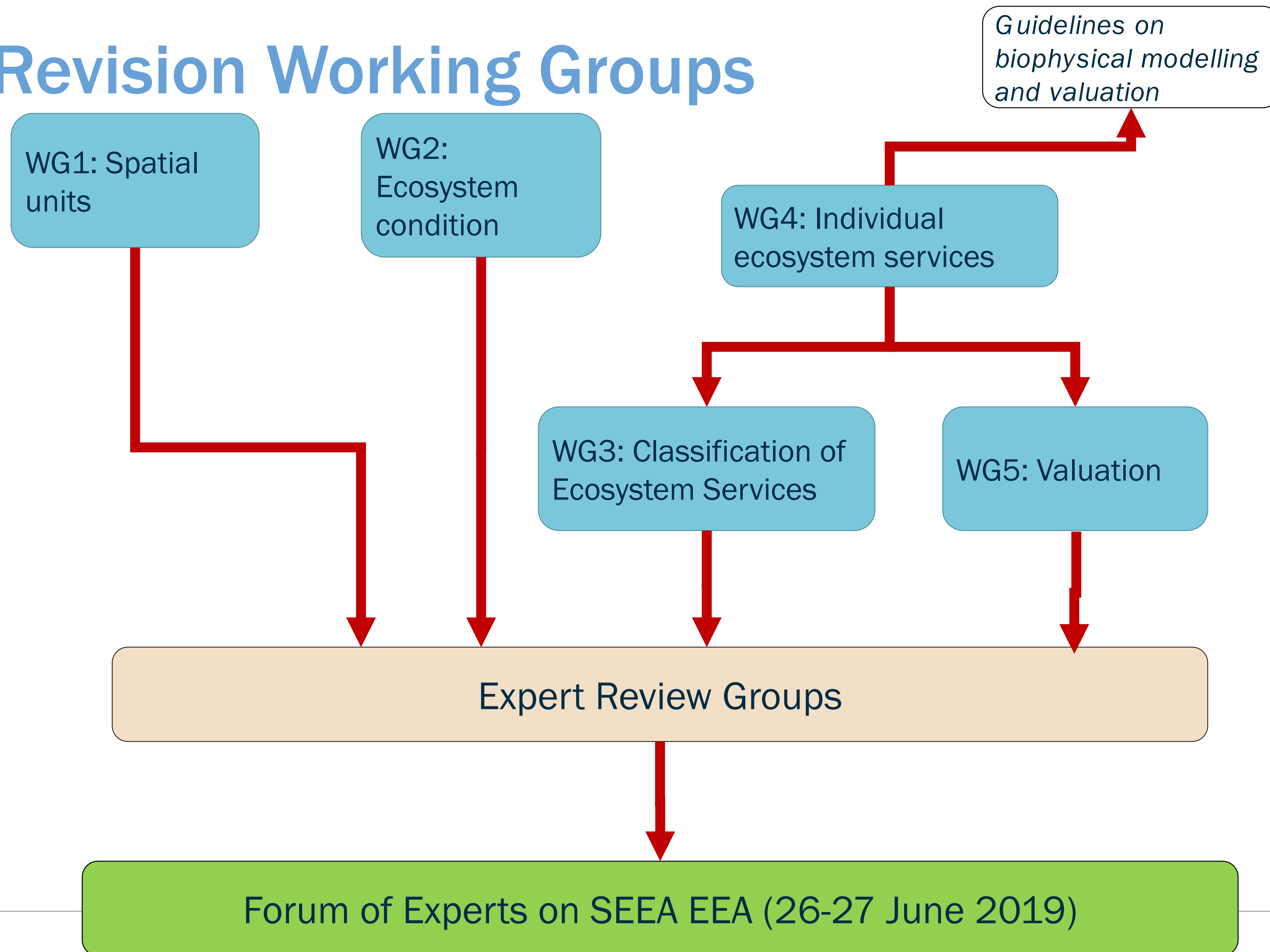
Revision of the SEEA EEA

- **Scope of the revision**
 - > Agreed concepts, definitions and methodologies
 - > Wide engagement of various communities
- **Research agenda for the revision**
 - > Spatial units
 - > Ecosystem condition
 - > Ecosystem services
 - > Valuation and integration into the accounts
 - > Cross cutting issues: ocean, urban, freshwater accounts, protected areas
- **Timeline of the revision**
 - > Started in 2018, to be finalized by the end of 2020 and submission to UNSC in March 2021

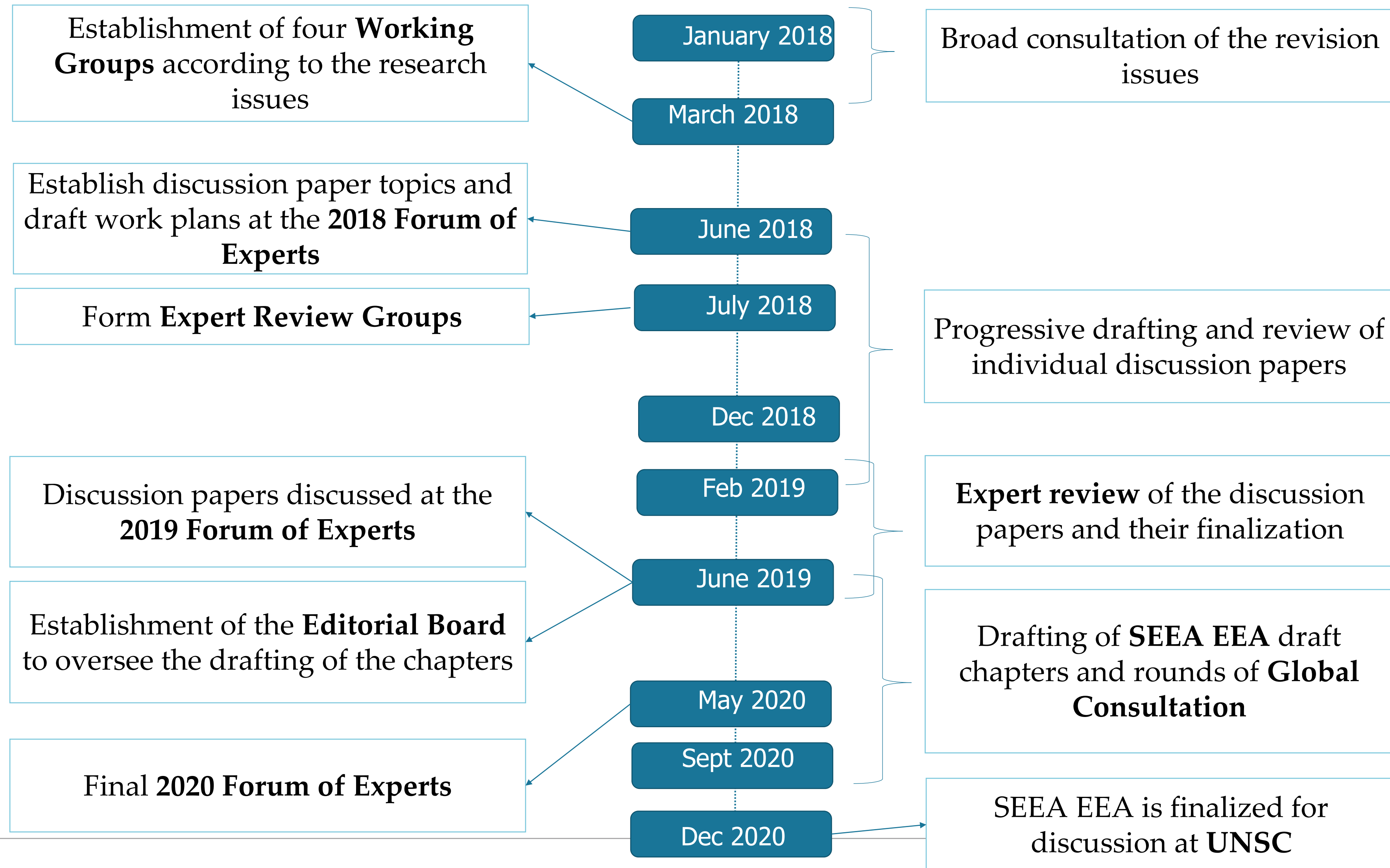
Scope of revision of the SEEA EEA

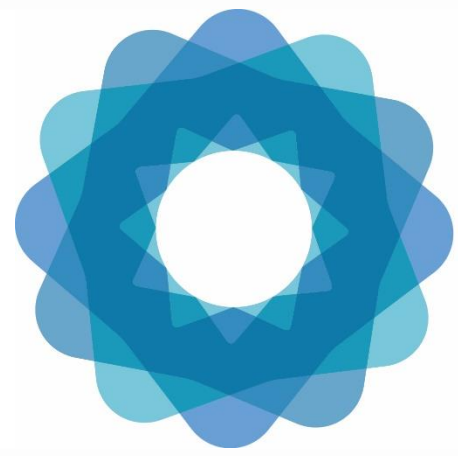
- Elevation to an agreed **methodological document** – international statistical standard
- **Engagement** with various stakeholders – wide engagement of various communities, including ecologists, environmental economists, etc.
- Obtaining **buy-in** – national statistics and other communities
- Launched in March 2018 with the aim to finish by the end of 2020 – for endorsement by UN Statistical Commission in March 2021
- Seek for broad involvement of partners and experts in the process – **in less than a year over 80 experts contributed to drafting of the discussion papers**
- Process aligned with the Post-2020 biodiversity framework and IPBES report, review of SDG and Climate change process, SNA revision process

Revision Working Groups



Revision process: keystones & timeline





System of
Environmental
Economic
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Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project



United Nations

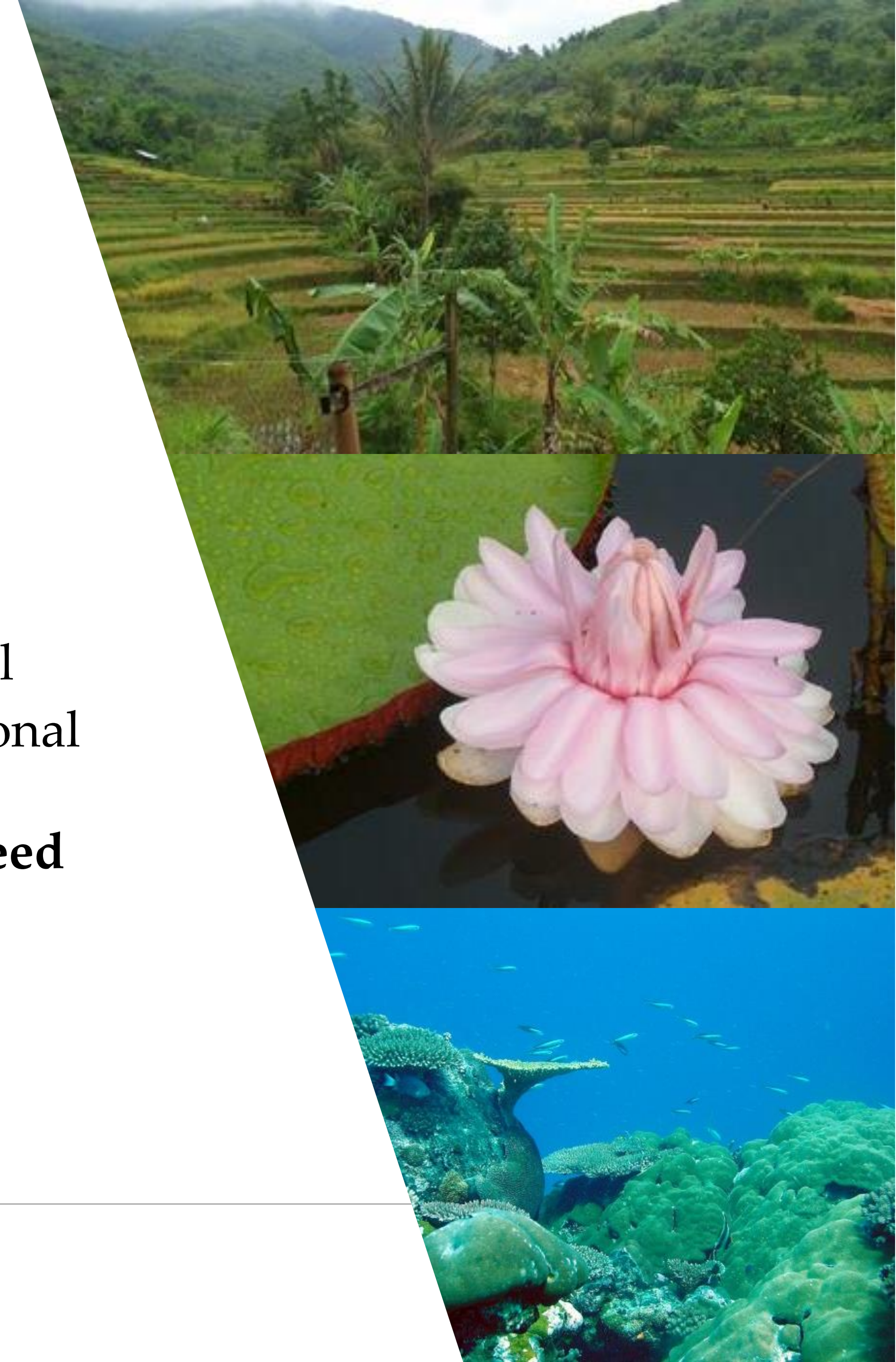
Natural Capital Accounting and Valuation of Ecosystem Services (NCA&VES) project

- Implementing partners
 - United Nations Statistics Division
 - United Nations Environment Programme
 - Secretariat of the Convention on Biological Diversity (CBD)
- Sponsor
 - European Union through a Partnership Instrument
- Five partner countries
 - Brazil, China, India, Mexico, South Africa
- Project duration
 - 4 years from 2017-2020



Overall objectives

- **Advance the knowledge agenda on Natural Capital Accounting**, in particular ecosystem accounting
- By initiating pilot testing of SEEA EEA, with a view to:
 - **Improve measurement** of natural biotic resources, ecosystems and their services at the (sub)national level
 - **Mainstream** biodiversity and ecosystems in (sub)national level policy-planning and implementation
 - Contribute to the development of **internationally agreed methodology** and its use in partner countries.



NCAVES products

- Implementation of selected ecosystem accounts in the 5 project countries and their mainstreaming into policy processes
- Support the revision of the SEEA EEA
- Guidelines on biophysical models
- Guidelines on valuation of ecosystem assets and services
- Guidelines on scenario modelling

THANK YOU

seea@un.org

