UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

Ocean Accounts
Plans and Priorities

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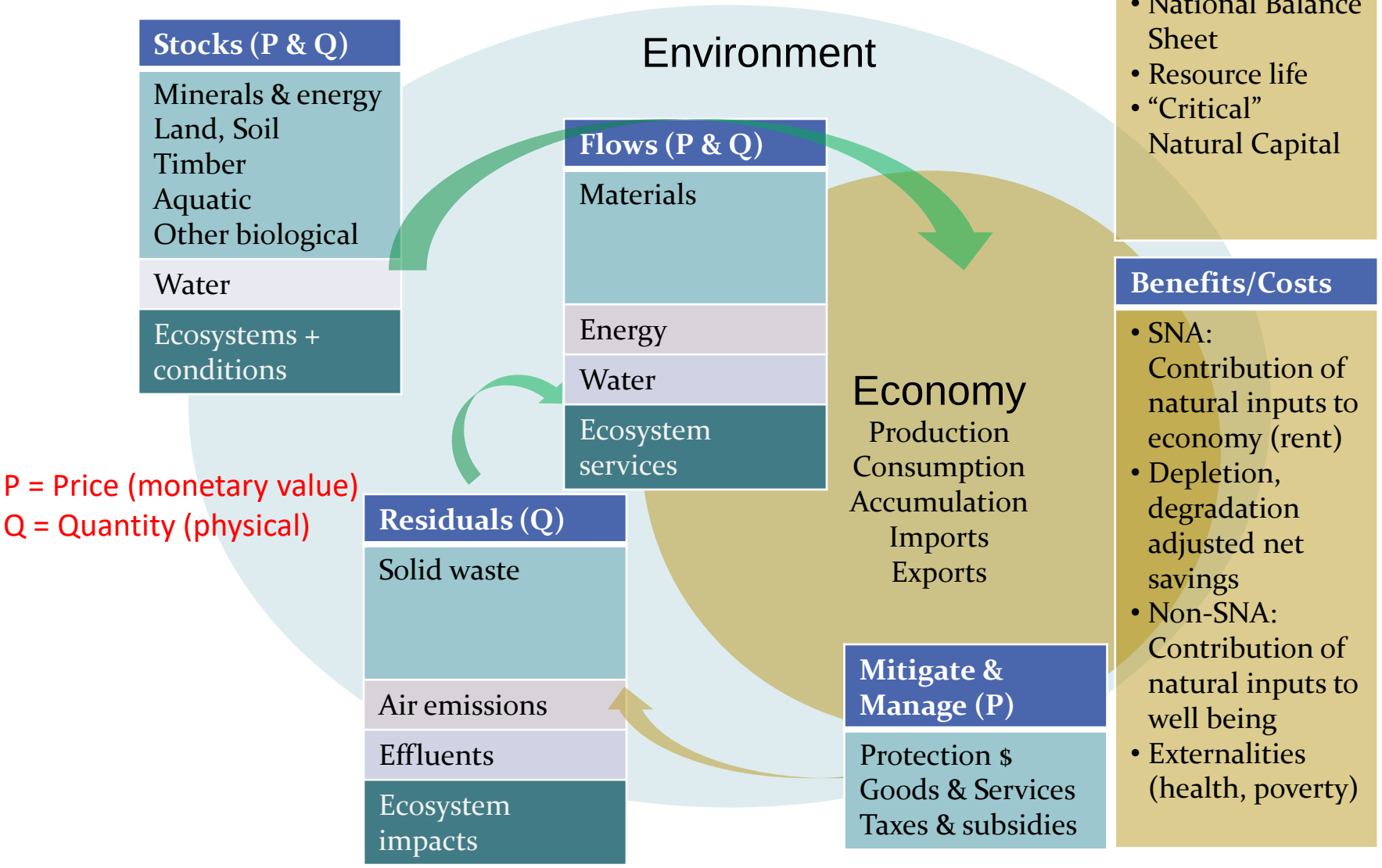
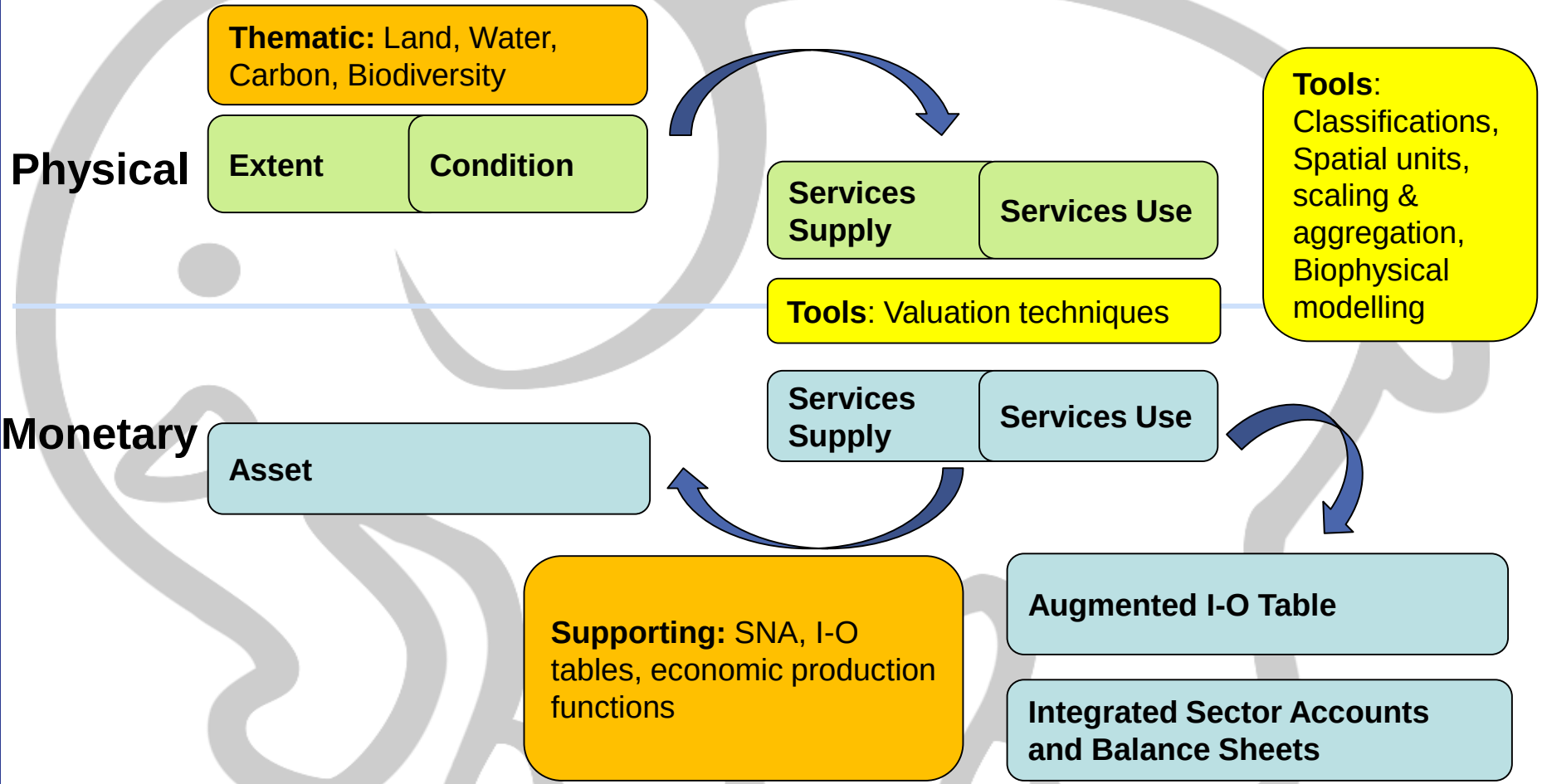
System of Environmental Economic Accounting

2. SEEA: A reminder



P = Price (monetary value)
Q = Quantity (physical)

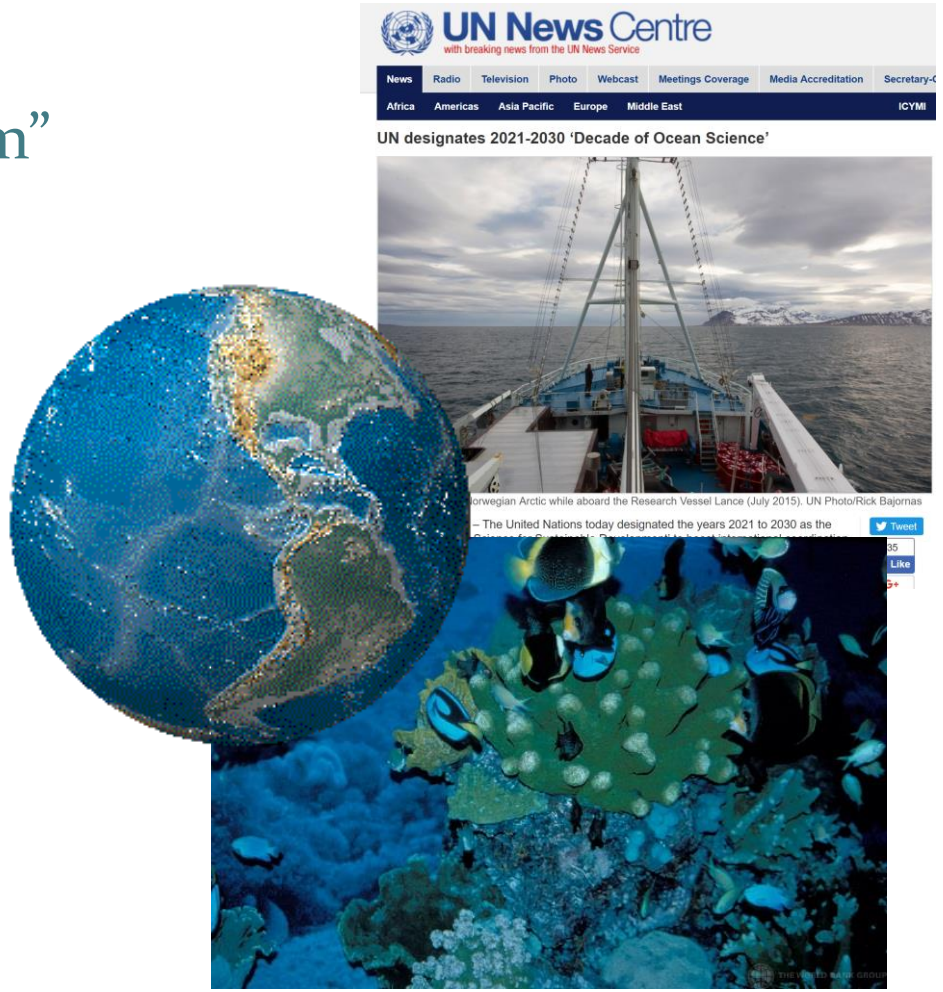
SEEA-Ecosystems (spatially detailed)



3. The Ocean

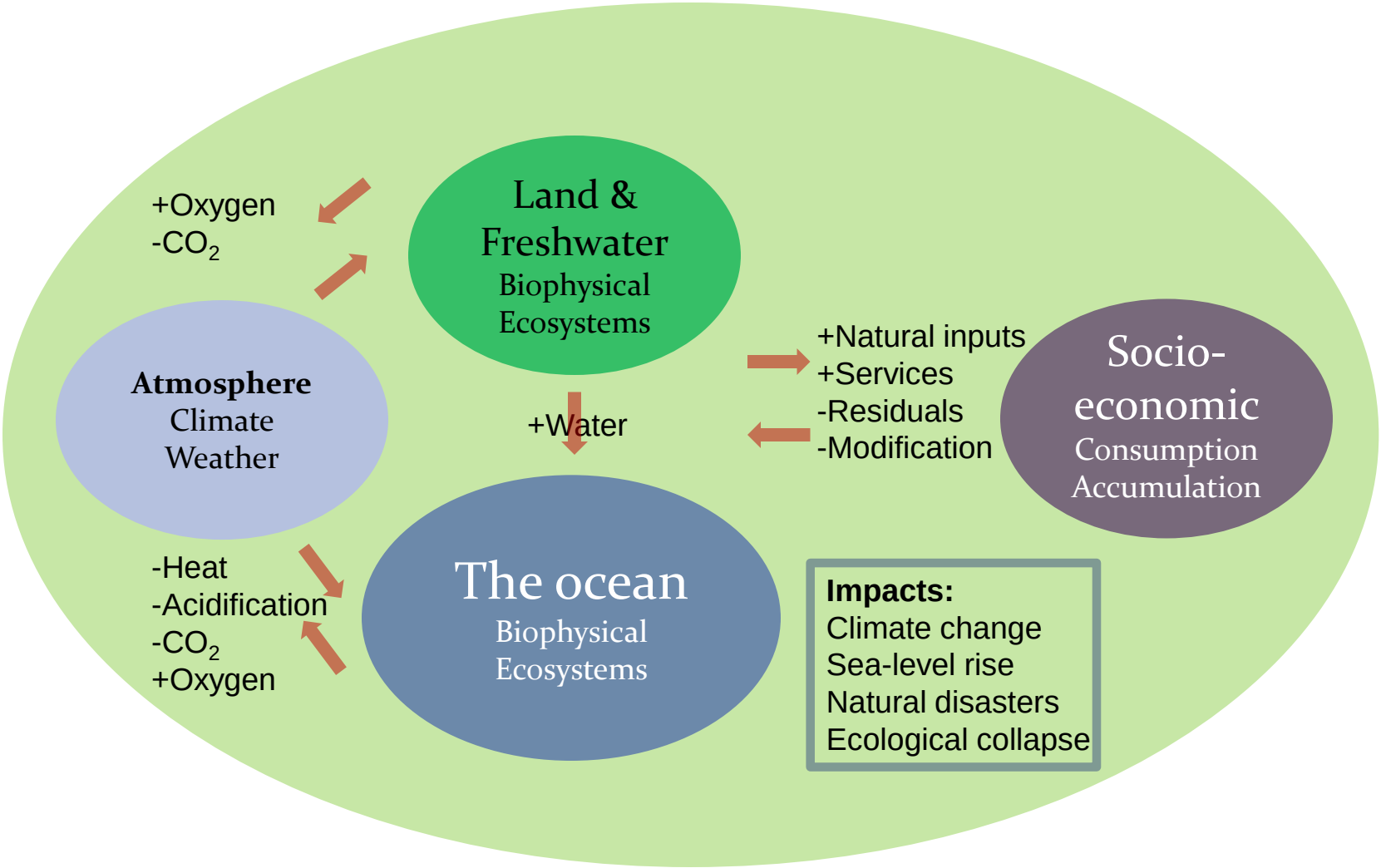
Different kind of "ecosystem"

- It's very large
- Water keeps moving
- Multi-layer
- All looks the same from a satellite
- Trans-boundary / shared / most outside of national jurisdictions
- Less studied / known / measured
- SEEA not tested

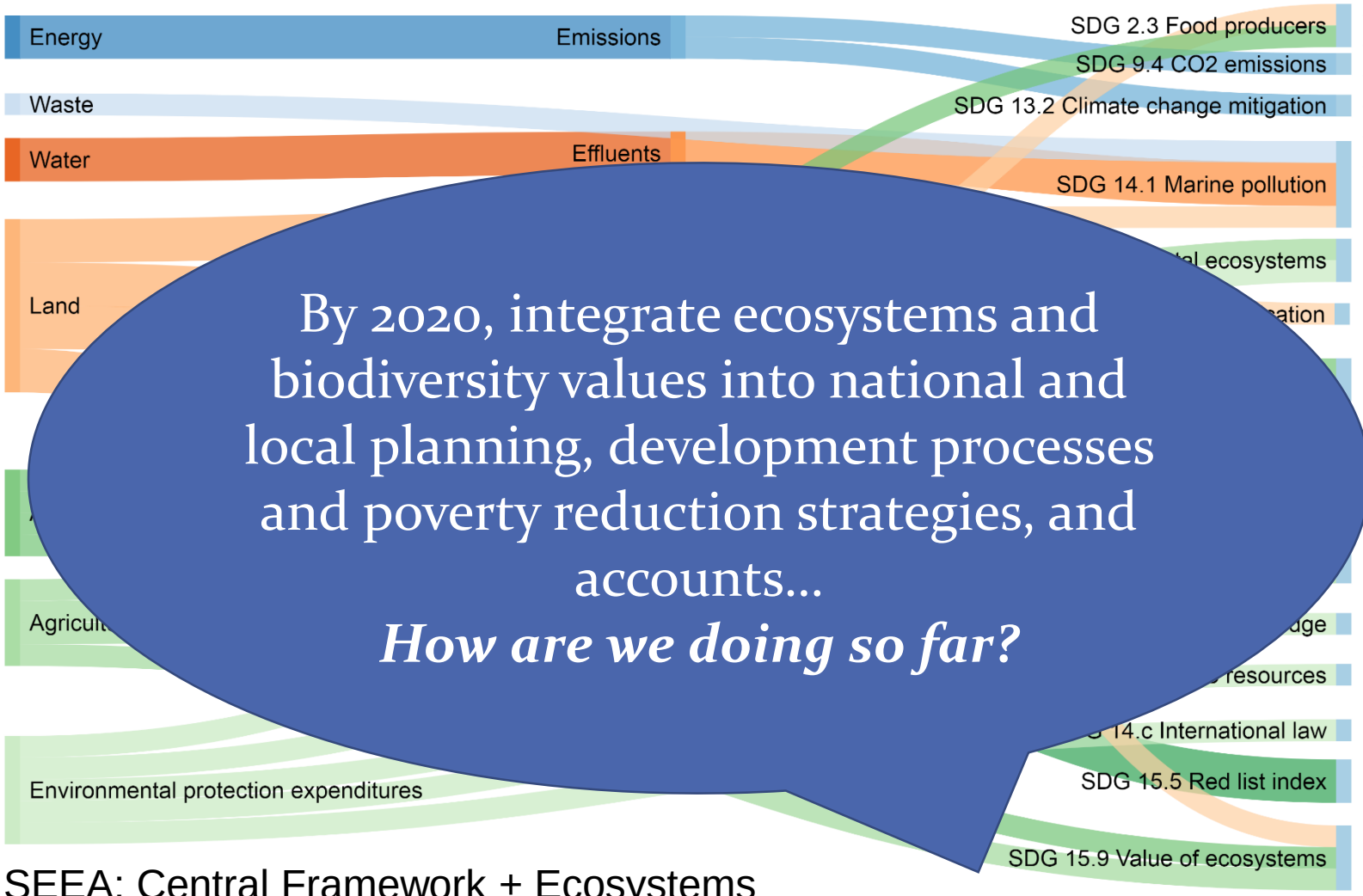


- ESCAP YouTube Video; UN Environment: Ocean Pollution

Ocean Science 101



Many SEEA accounts → many related SDGs



By 2020, integrate ecosystems and biodiversity values into national and local planning, development processes and poverty reduction strategies, and accounts…

How are we doing so far?

SEEA: Central Framework + Ecosystems

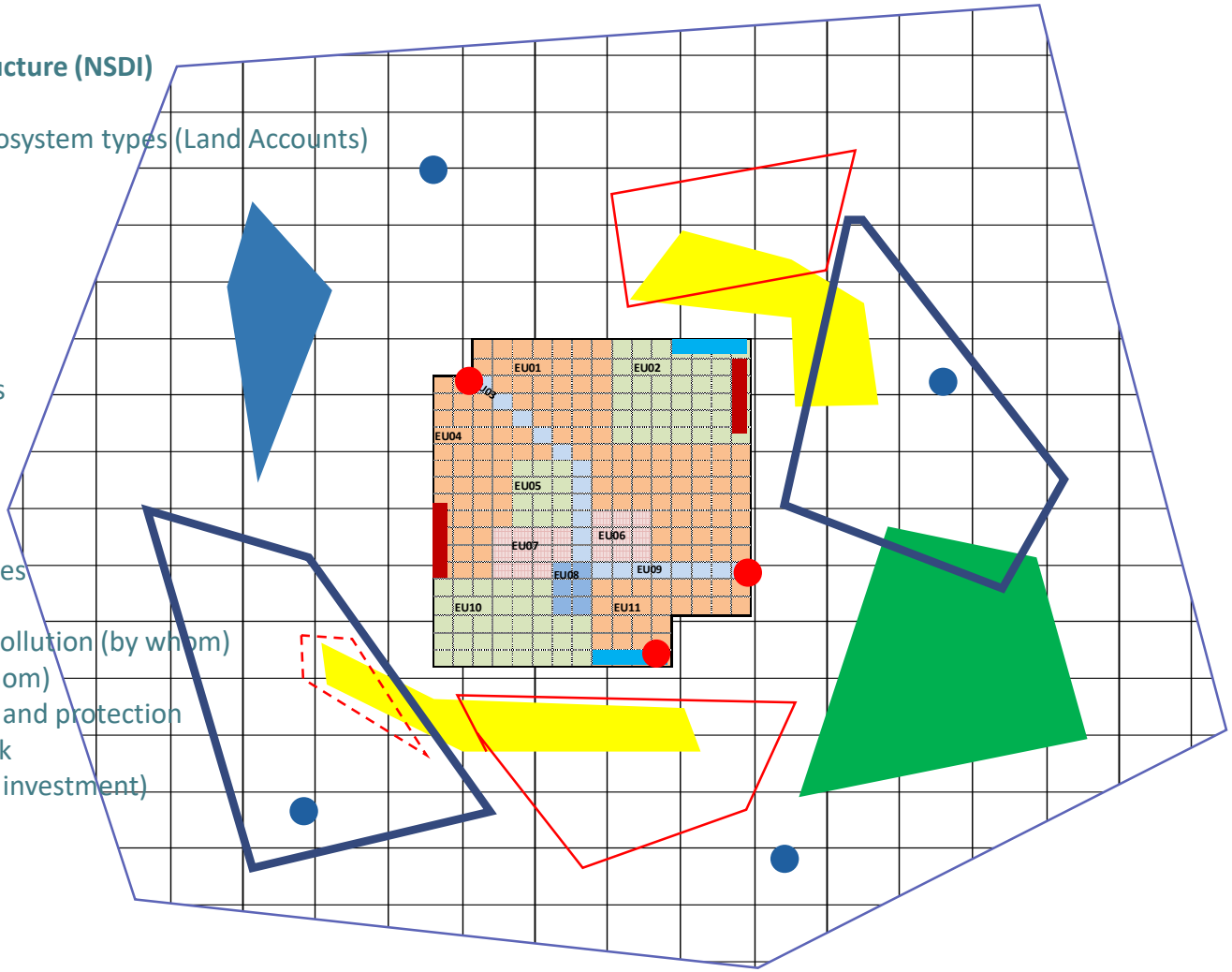
We have the technology!

National Spatial Data Infrastructure (NSDI)
SEEA Ecosystem extent
- Terrestrial and Freshwater ecosystem types (Land Accounts)
- Coastal communities
- Coastal infrastructure
- Pollution sources

Ocean spatial units
- Ocean ecosystem types
- Marine protected areas
- Fishery, tourism, mining areas
- Water quality / temperature

National statistics
- Emissions, effluents, wastes
- Assets: fish stock
- Supply/use: catch, beneficiaries

Analyses
- Main sources of land-based pollution (by whom)
- Value of natural inputs (to whom)
- Cost/benefit of rehabilitation and protection
- Policy options → values at risk
- Capture of "rent" (returns on investment)



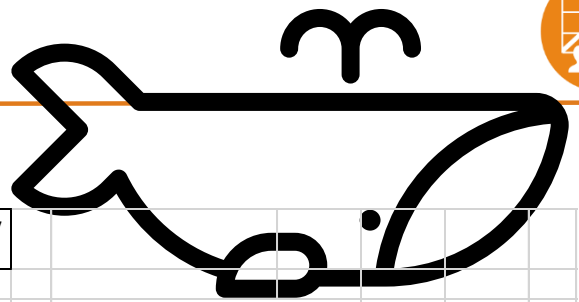


Figure 1 A stylized set of ocean accounts

SEEA-CF Mineral and Energy Assets; Aquatic resources

Ocean Assets:

Drivers

Specific units	Industry		% to ocean
SEEA Air emissions			
SEEA Effluents[1]			
SEEA Solid wastes[1]			

[1.] would benefit from spatial disaggregation

Ocean governance

Specific units	Industry		
Policies, plans and regulations			
Institutions			
Management practices			
Technologies			
SEEA Protection Expenditures			
- research			
- enforcement			
SEEA Goods and Services			
- technologies			

Ocean Extent

hectares	Ecosystem Type[2]			Minerals (T)	Energy (MToE)	Fish stocks (T)
Beginning of period						
+ additions						
- reductions						
End of period						

Ocean Conditions

Specific units	Ecosystem Type[2]			Minerals (T)	Energy (MToE)	Fish stocks (T)
Acidification (pH)						
Eutrophication (BOD)						
Plastics (T)						
Carbon[3]						
Biodiversity[3]						
Temperature (°C)						
Accessibility/quality						

[2.] Including critical natural capital areas, settlements, coastal infrastructure, protected areas, fishing zones, designated tourist areas, coral reefs, mangroves, coastal beaches…

[3] As in the SEEA-EEA, Carbon and Biodiversity could be full accounts.

Note: This is a stylistic representation of the SEEA-EEA with additional components required for including sources of land-based pollution, abiotic services (such as minerals, energy and medium for transport), expenditures and governance. This is not as comprehensive as described in the text. Much of the data on flows of land-based pollution, ecosystem types, and condition would be derived from detailed maps and aggregated as shown in the tables for reporting.

SNA for some services[6]

[6.] Would benefit from disaggregation by large/small enterprise and linkage to employment by beneficiary type.

Ocean Services Supply (physical)

Service (specific units)	Ecosystem Type		
Provisioning			
Regulating and maintenance			
Cultural			
Abiotic: Minerals, energy, medium for transport			

Ocean Services Use (physical)

Service (specific units)	Beneficiary type[4]		
Provisioning			
Regulating and maintenance			
Cultural			
Abiotic: Minerals, energy, medium for transport			

[4.] Disaggregated by coastal/urban/rural, high/low income, male/female

Ocean Services Supply (Monetary[5])

Service (monetary unit)	Ecosystem Type		
Provisioning			
Regulating and maintenance			
Cultural			
Abiotic: Minerals, energy, medium for transport			

[5.] Only some services can be valued in monetary terms.

Ocean Services Use (Monetary[4])

Service (monetary unit)	Beneficiary type		
Provisioning			
Regulating and maintenance			
Cultural			
Abiotic: Minerals, energy, medium for transport			


OCEAN ACCOUNTS PARTNERSHIP
Physical
Pollution
Ecosystem
Livelihoods
OCEAN ACCOUNTS PLATFORM
Ocean cities
Closing the loop
14 LIFE BELOW WATER
Accelerating SDG 14
ACTION FOR OUR OCEAN

Implementing ocean accounts

- Partnerships
  - International, regional and national
  - UNSC: ESCAP & UNEP lead SEEA ecosystems revision on ocean
- Capacity needs assessment
  - Review national ocean priorities, policies, institutions, data
- Case studies & pilots
  - Assessment, establish working group, compile priority accounts
- Regional expert workshop (1-3 August, 2018)
  - Establish community of practice; produce guidance
- Future
  - Coordinated implementation
    - e.g., neighbouring countries to address transboundary issues
  - Regional & national "centres": data, research, support hubs

Regional expert workshop
Bangkok, 1-3 Aug. 2018

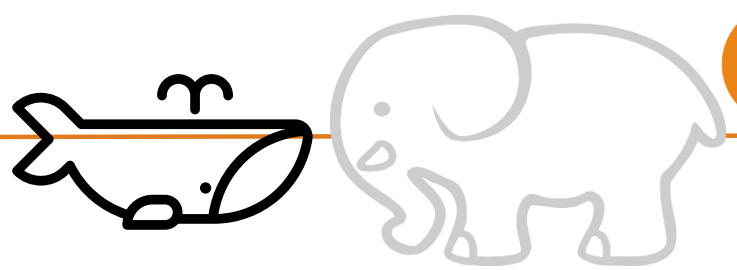
- Objective
  - New community for ocean statistics
  - Standards for SEEA and case studies
- 60+ national, regional and international experts
- Coordinate contributions **now**
  - Groups of experts co-author: options & recommendations
  - Plenary discussions of preferred options
- Keynote lectures, posters, side events

Regional expert workshop

The issues

1. Spatial units and ecosystem classification: delineate units
2. Ecosystem services: test & expand on existing classifications
3. Disaster risk & climate change: establish shared standards
4. Social: identify communities, artisanal fishers, target groups
5. Economic: links to SNA & valuation of non-SNA
6. Global data: What's available and how to use it
7. Measuring SDG14: indicator & metadata
8. Governance: mechanisms and good practices
9. Modelling: experience and opportunities
10. Priorities for case studies and research

Conditions embedded in "test" account & global data



Good news!

- Ocean Accounts don't need to be complete to be useful
- Growing international interest and support
  - UN Oceans Conference, UNSC, COP23, GEO/Blue Planet
  - Partnerships, platforms and pathways
  - Demand for better evidence for good governance
- ESCAP support for partnerships for governance & statistics
  - Horizontal (topic, country) & vertical (international, regional)
- We can learn from each other
  - European Environment Agency workshop; NCC/CI supplement
  - National data portals: Indonesia, Thailand, Pacific…
  - Australia, China, NOAA, NZ, OECD, PEMSEA: marine economy
  - Canada: Ocean ecosystem services & coastal communities

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Acknowledgements

- Prepared by:
  - Michael Bordt
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- Ecosystems adapted from:
  - Advancing Natural Capital Accounting, a collaboration between The United Nations Statistics Division (UNSD), United Nations Environment Programme (UNEP) and the Secretariat of the Convention on Biological Diversity (CBD) and is supported by the Government of Norway.
  - https://unstats.un.org/unsd/envaccounting/eea_project/default.asp
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