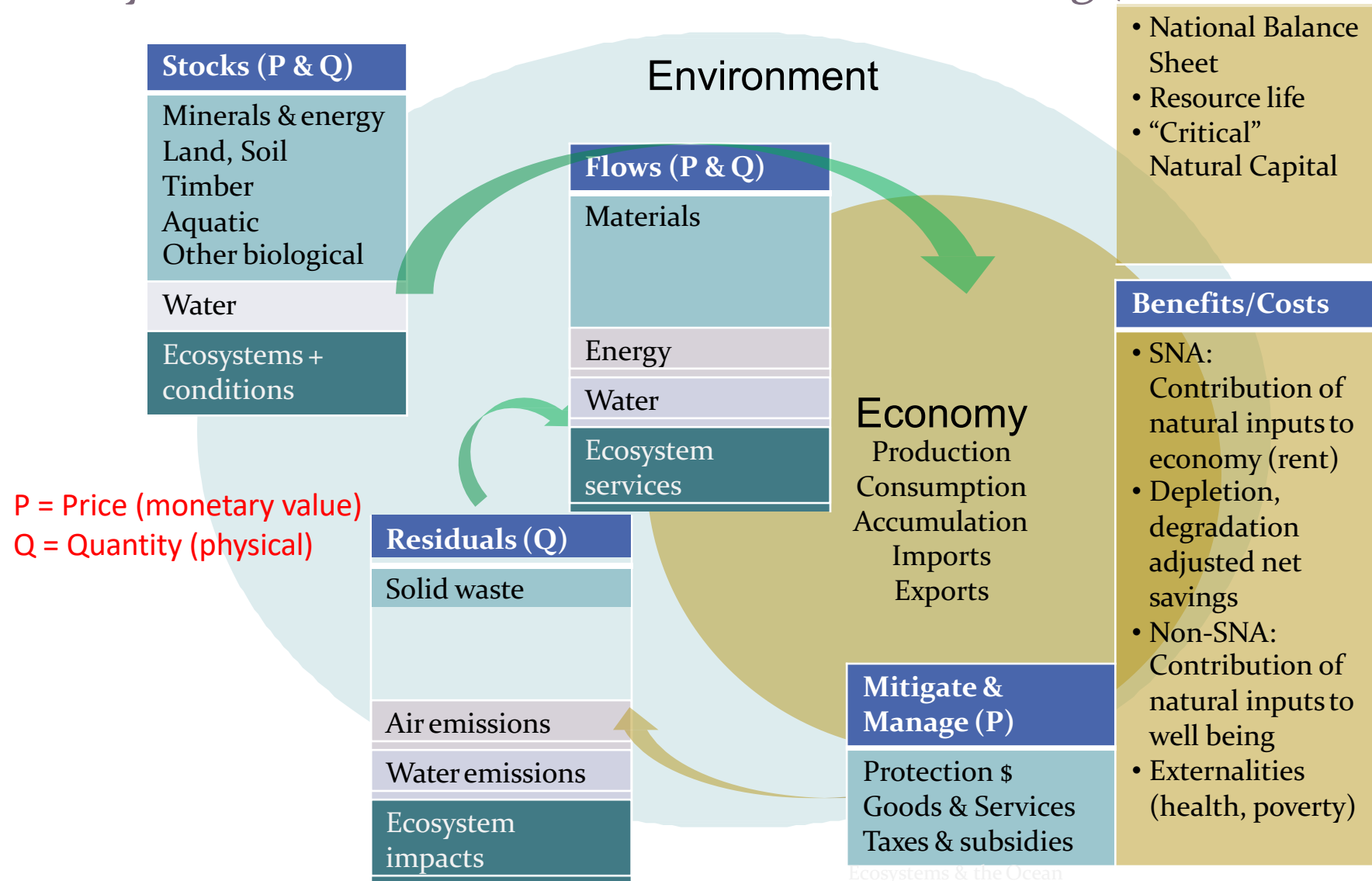


UNESCAP Ocean Accounts

System of environmental-economic accounting (SEEA)



Ecosystems & the Ocean



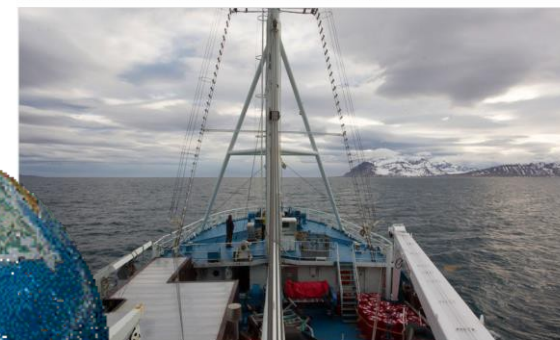
The Ocean

A 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
- Not tested with SEEA



UN designates 2021-2030 ‘Decade of Ocean Science’



... Norwegian Arctic while aboard the Research Vessel Lance (July 2015). UN Photo/Rick Bajornas

... The United Nations today designated the years 2021 to 2030 as the



- [ESCAP YouTube Video; UN Environment: Ocean Pollution](#)

Ocean accounts

– Map view



National Spatial Data Infrastructure (NSDI)

SEEA Ecosystem extent

- Terrestrial and Freshwater ecosystem types (Land Accounts)
- Coastal communities
- Coastal infrastructure
- Pollution sources

Ocean spatial units

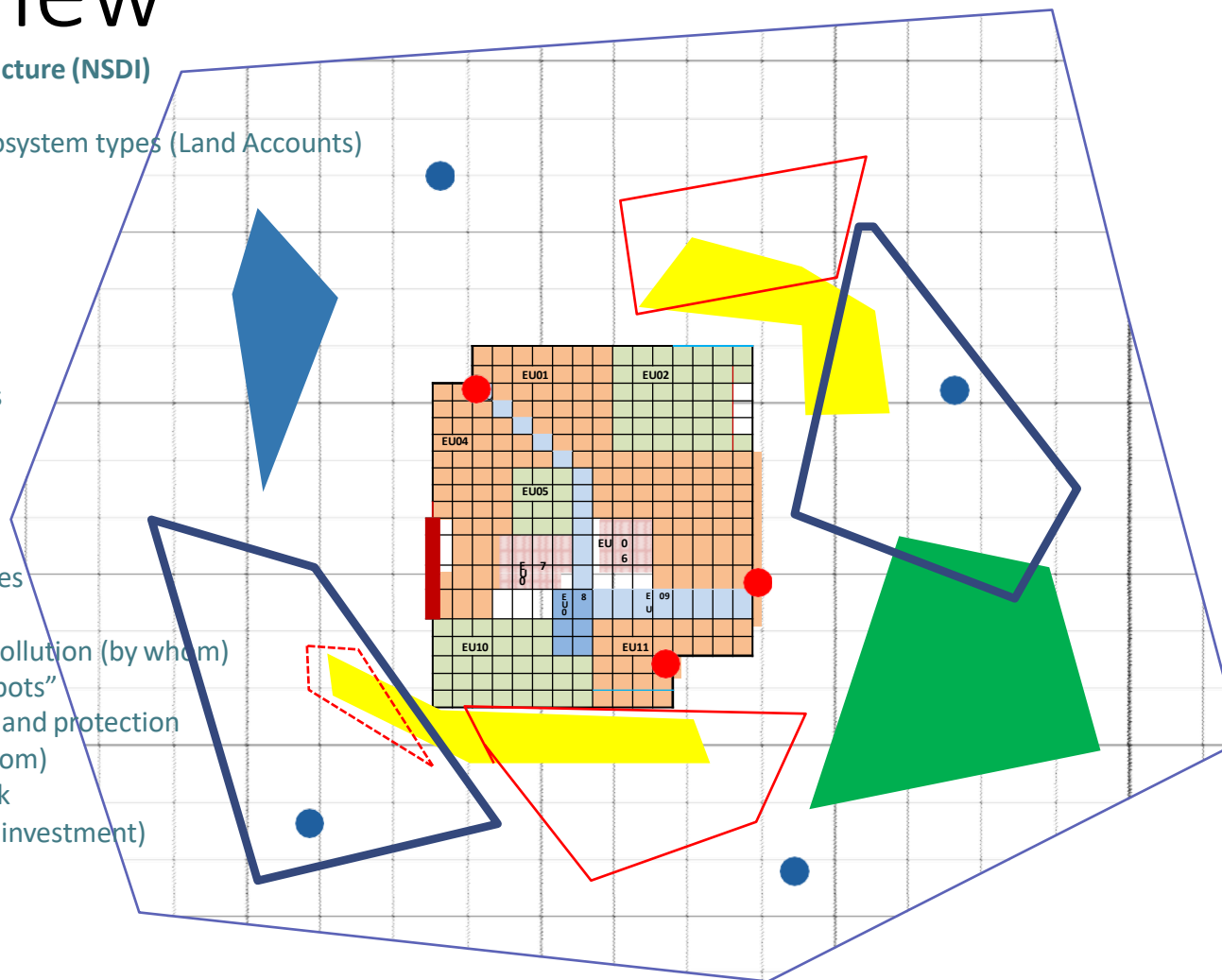
- Ocean ecosystem types
- Marine protected areas
- Fishery, tourism, mining areas
- Water quality / temperature

National statistics

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

Analyses

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



Ocean accounts –

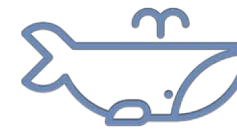


Table view

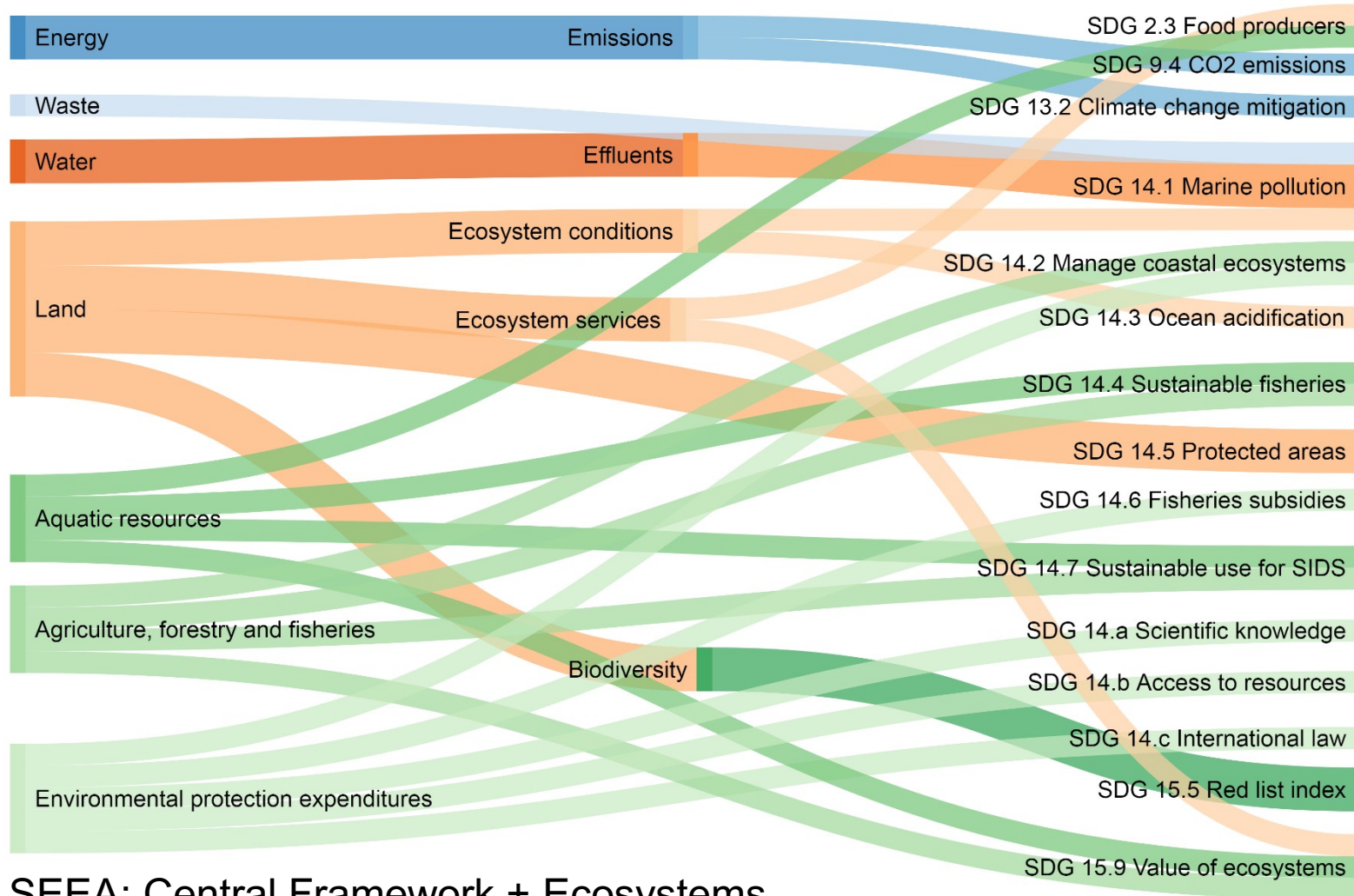
Drivers			Ocean Assets: Ocean extent			SEEA-CF Mineral and Energy Assets; Aquatic resources		
Specific units	Industry	% to ocean	hectares	Ecosystem Type ²	Minerals (T)	Energy (MTOE)	Fish stocks (T)	
SEEA Air emissions			Beginning of period					Ocean Services Supply (physical)
SEEA Effluents ¹			+ additions					Service (specific units) Ecosystem Type
SEEA Solid wastes ¹			- reductions					Provisioning
¹ would benefit from spatial disaggregation			End of period					Regulating and maintenance
								Cultural
								Abiotic: Minerals, energy, medium for transport
Ocean governance			Ocean Conditions			Ocean Services Use (physical)		
Specific units	Industry		Specific units	Ecosystem Type ²	Minerals (T)	Energy (MTOE)	Fish stocks (T)	Service (specific units) Beneficiary type ⁴
Policies, plans and regulations			Acidification (pH)					Provisioning
Institutions			Eutrophication (BOD)					Regulating and maintenance
Management practices			Plastics (T)					Cultural
Technologies			Carbon³					Abiotic: Minerals, energy, medium for transport
SEEA Protection Expenditures			Biodiversity³					⁴ Disaggregated by coastal/urban/rural, high/low income, male/female
- research			Temperature (°C)					
- enforcement			Accessibility/quality					
SEEA Goods and Services			² Including critical natural capital areas, settlements, coastal infrastructure, protected areas, fishing zones, designated tourist areas, coral reefs, mangroves, coastal beaches...					Ocean Services Supply (Monetary⁵)
- technologies			³ As in the SEEA-EEA, Carbon and Biodiversity could be full accounts.					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 (Monetary⁴)
								Service (monetary unit) Beneficiary type
								Provisioning
								Regulating and maintenance
								Cultural
								Abiotic: Minerals, energy, medium for transport

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.

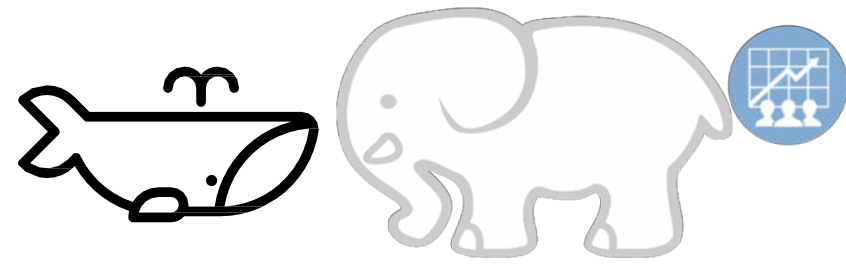
SNA for some services⁶
⁶ Would benefit from disaggregation by large/small enterprise and linkage to employment by beneficiary type.



Many SEEA accounts → many related SDGs



SEEA: Central Framework + Ecosystems



Take home points

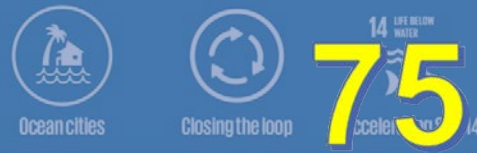
- Official statistics is based on **fundamental principles** and agreed standards
- The System of National Accounts is used by **everyone** to measure national wealth and production
 - The SEEA is linked to the SNA and endorsed by **all** official statisticians
- Ocean Accounts are an extension and adaptation of the SEEA to the ocean and SDG14
 - The main components are extent, condition, services supply and use, drivers, and governance.
- **We can save the ocean!**
 - If statisticians collaborate with scientists and policy experts

Technical Guidance on Ocean Accounts 2019

OCEAN ACCOUNTS PARTNERSHIP



OCEAN ACCOUNTS **2019** ACTION FOR OUR OCEAN



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System of Ocean Accounts 2025

2025:
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