

Ocean Accounts for Ocean Governance System Mapping Beyond GDP

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Ocean Governance, Ocean Change and Ocean Values

The norms, processes, agreements, rules, institutions, etc. developed to organise and manage the way in which humans use and impact the ocean and its resources. Ocean Governance to manage **the human-ocean nexus** of anthropogenic resource uses and pressures.

The way we monitor, measure and research oceans is changing due to tech advancement. Tech advancement is also changing ocean resource use and opening access for ocean economy expansion. Oceans themselves are changing as increasing anthropogenic production and consumption activities drive increasing ocean impacts.

Need to account for change in Ocean Governance processes.

Ocean Value is critical in ocean governance processes involving trade-off decisions.

The idea of a total or absolute value of the ocean is neither meaningful nor useful in practice. Changes in relative values or are imperative for informed decision-making.

Ocean Accounts measure ocean values across disciplines and ocean change.



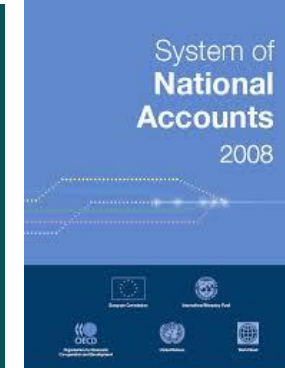
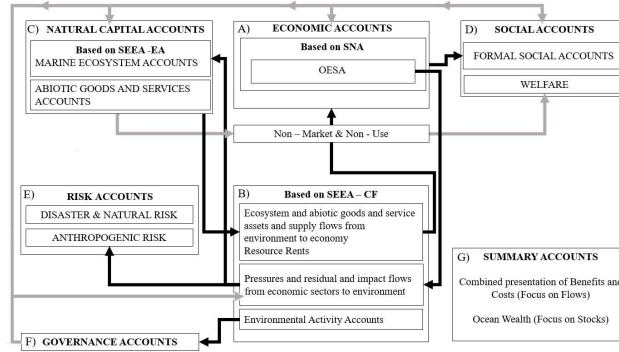
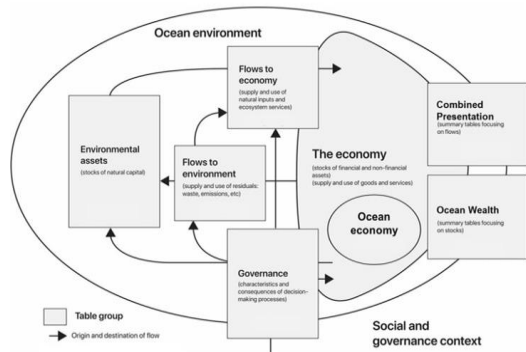
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GOAP



Oceans accounting is an approach of integrating records of economic activities, social conditions, and environmental characteristics relating to ocean, ocean resource-uses and the marine and maritime domains on a regular basis using both international statistical standards and novel approaches.



A framework of oceans accounts is a complex framework of individual systems including economic, social and environmental components that *allow stocks within systems and flows between systems* (as segues) to be identified.

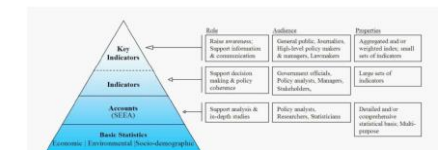
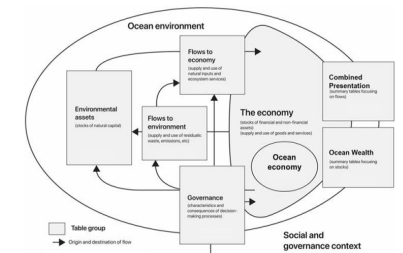
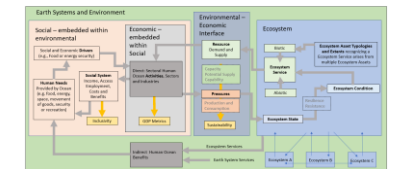
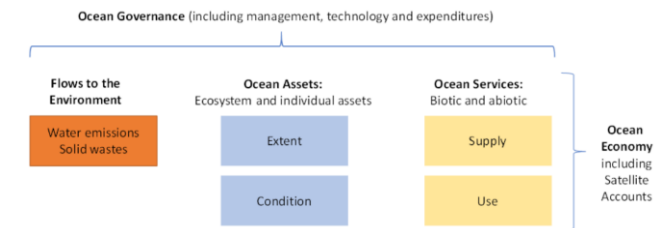
Ocean Accounts facilitate and allow for comparability of information across discipline, spatial and temporal domains – with particular value as *indicators*.

Ocean accounts organise ocean social, environmental, economic data into a common **framework** aligned to national accounts, thereby providing countries with

- a) the means to **go beyond Gross Domestic Product**, in measuring progress towards ocean economy growth inclusivity and sustainability, and
- b) a common information infrastructure for **ocean development policy, marine spatial planning, environmental management, and international reporting.**

In doing so, Ocean Accounts deliver on:

1. Information that decision-makers can understand
2. Data for inventories
3. Inclusiveness
4. Evidence for planning decisions (development of indicators)
5. Cost-benefit tradeoffs
6. A paradigm shift – avoiding the oceans becoming a tragedy of the common
7. Strengthened National Statistical Systems.

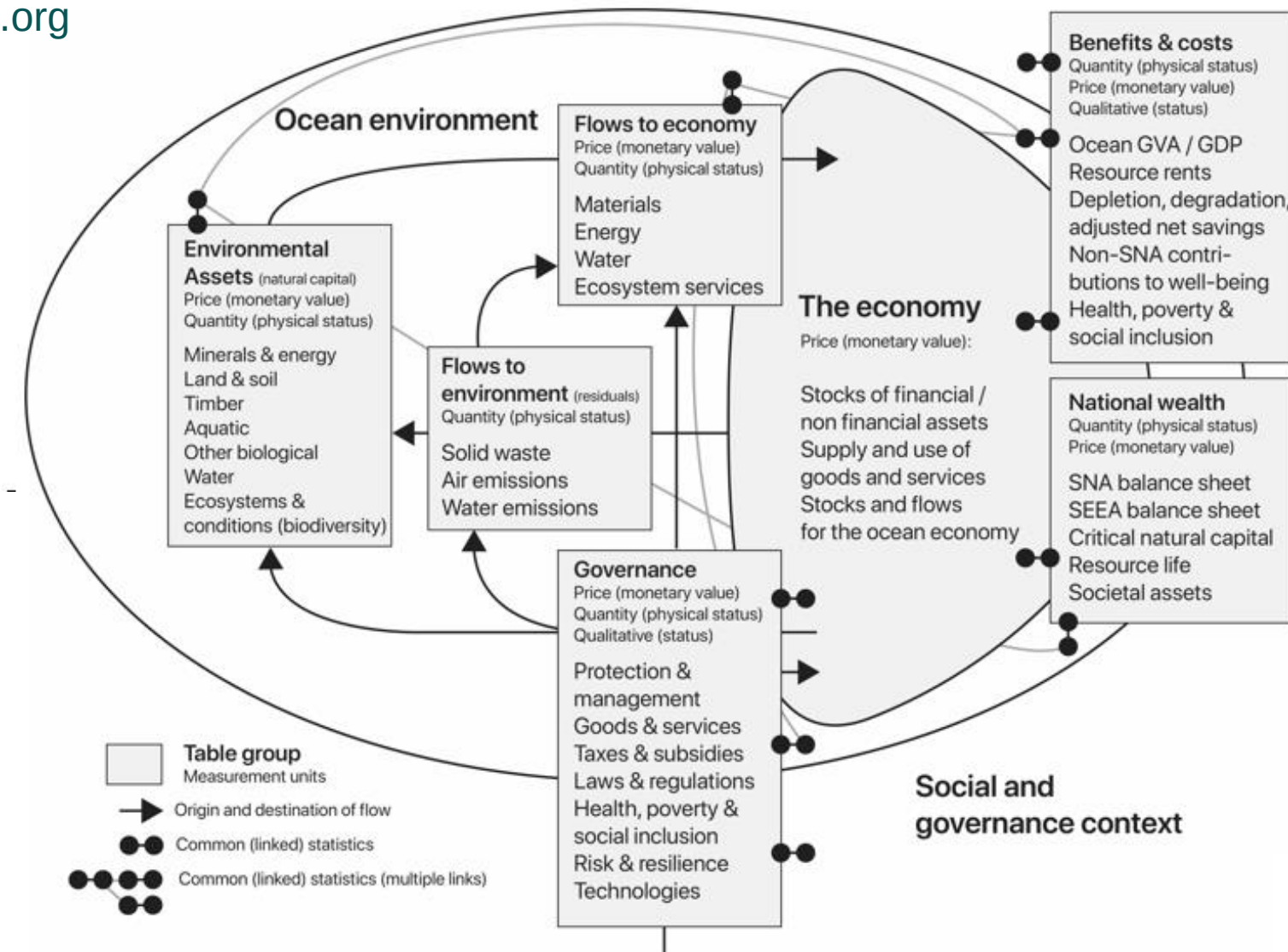


GOAP Technical Guidance (www.oceanaccounts.org);

Technical Guidance on Ocean Accounting for Sustainable Development

www.oceanaccounts.org

Complex Model



The Human - Ocean nexus is complex

- The **high dynamic nature** of the ocean in terms of spatial and temporal ecological flows, and high boundary porosities.
- The **three-dimensional nature** of the ocean space so that flows are both vertical and horizontal in direction.
- A lack of clear definition of **ocean – terrestrial or other boundaries** so that transboundary flows are not always clearly defined.
- The **commons** nature underpinning many oceans industry sectors compared to terrestrial cadastral delineation and resource ownership. Resource use and pressures.
- That **ocean data** are often recorded in various disconnected, unstandardized manners and scales by different institutions. Lower resolution requires interpolation through modelling and a need for model confidence inclusion.

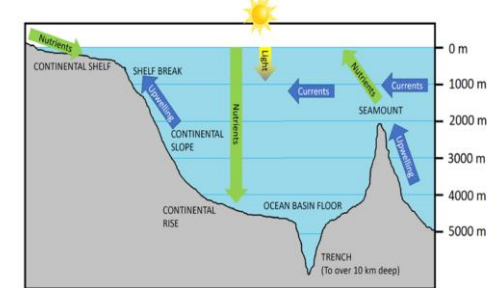
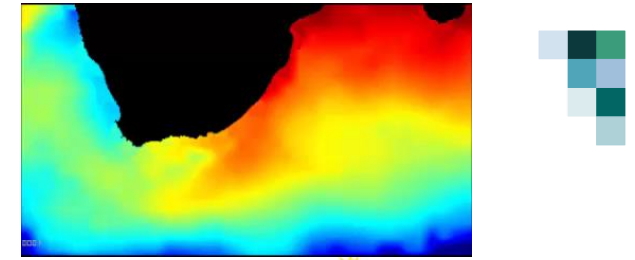


Figure 7. Basic jurisdictional framework for ocean governance

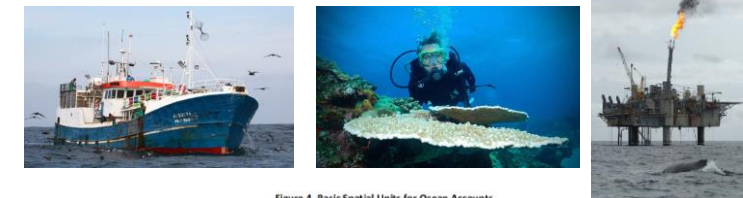
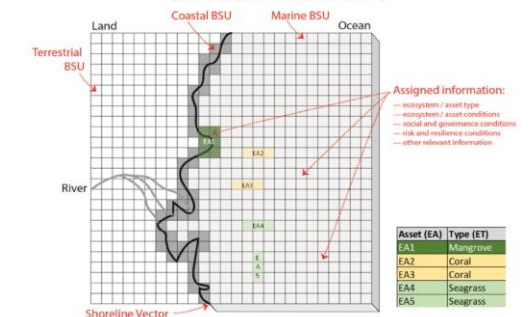


Figure 4. Basic Spatial Units for Ocean Accounts



Complexity and System Mapping

- **A system** is a set of elements and relations working together in an interconnecting network or a complex whole that results in emergence of self organisation.
- **Systems thinking** can help to tackle large complex strategic problems. **Systems mapping** assists in the understanding of system elements and how they relate to each other.

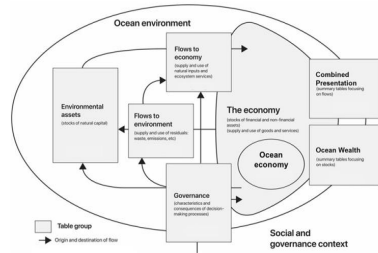
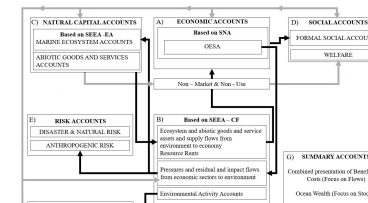
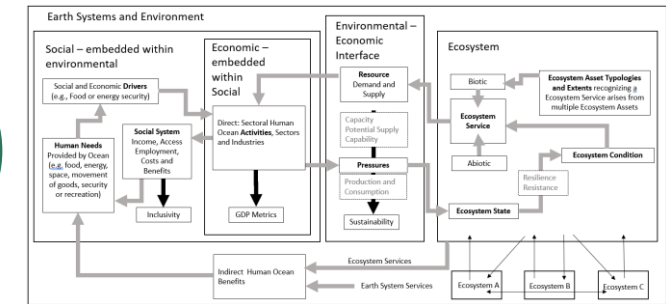
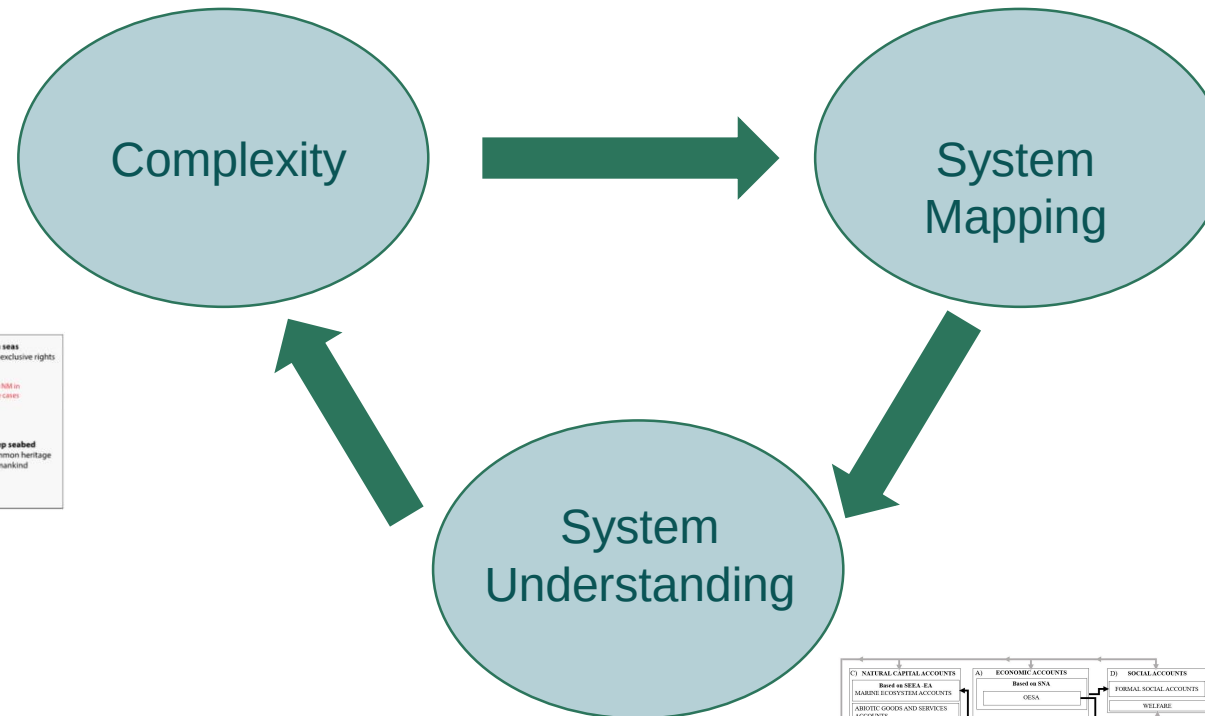
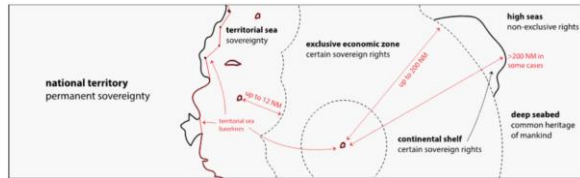
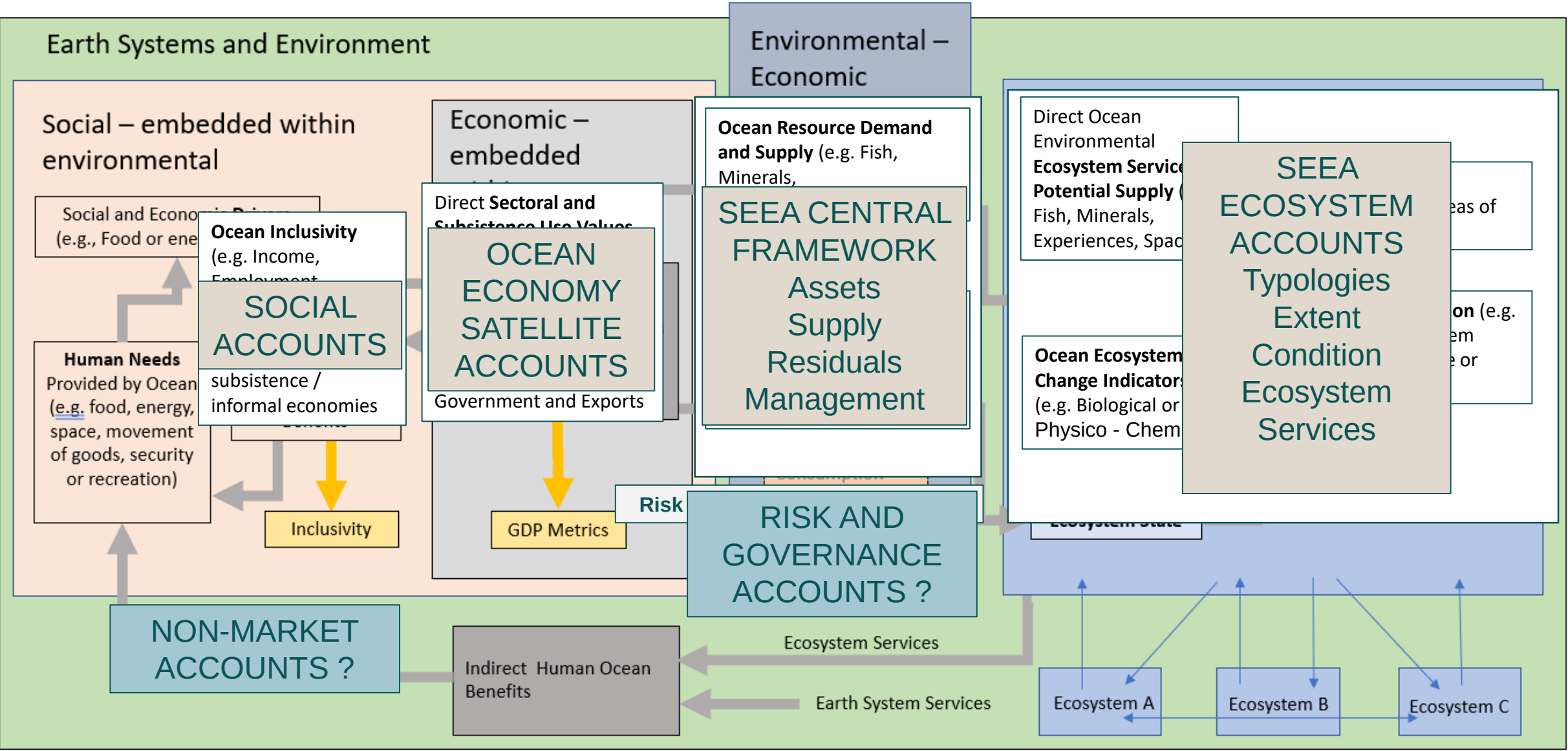


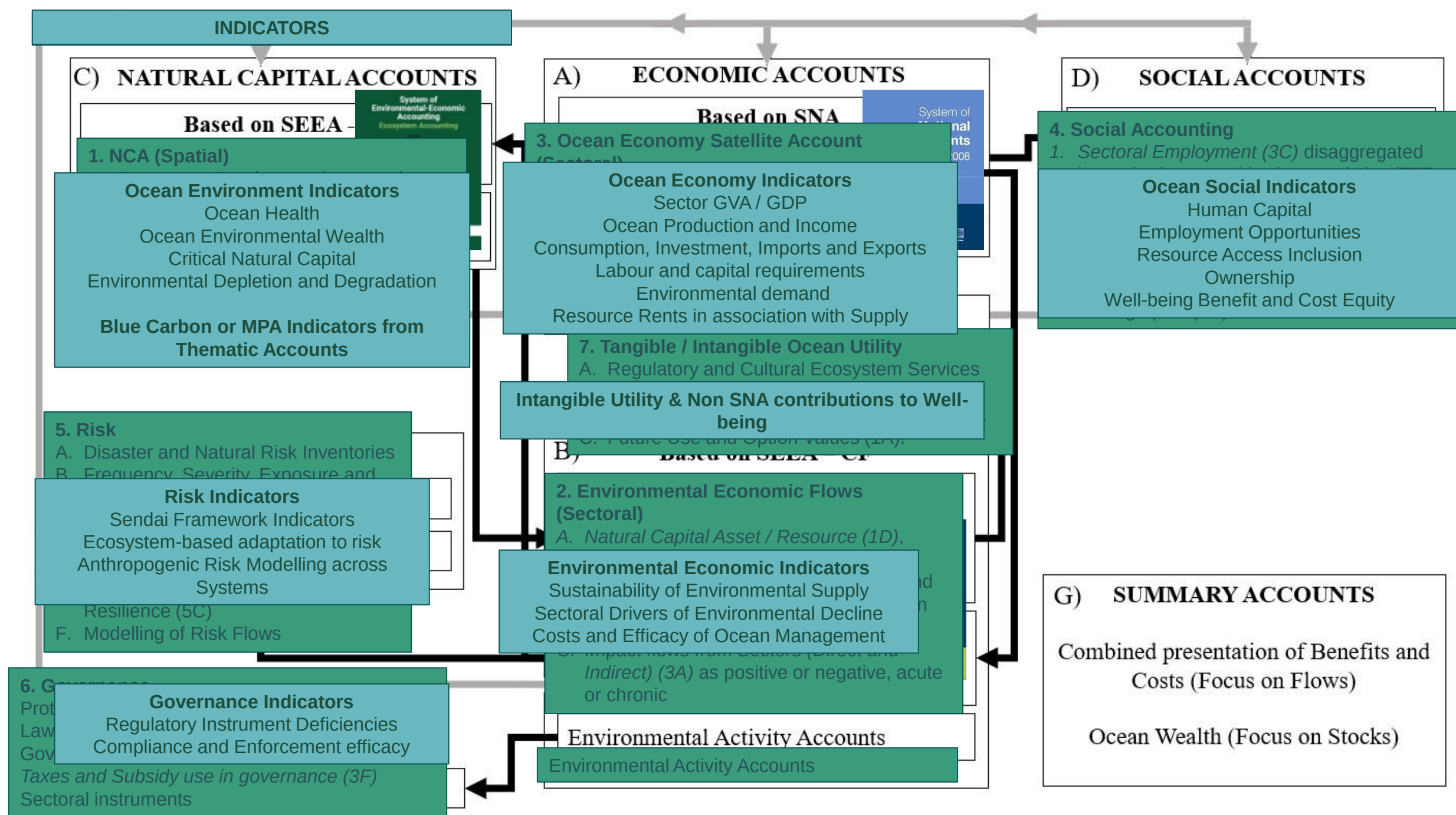
Figure 7. Basic jurisdictional framework for ocean governance



Ocean Accounts to manage Human – Ocean Interactions of Resource Uses and Pressures

(Needs, Drivers, Activities, Resource Uses / Pressures, Ecosystem State Changes, Ecosystem Condition / Extent Changes, Impacts (on Welfare, Economy and Social System), Responses (as Measures))

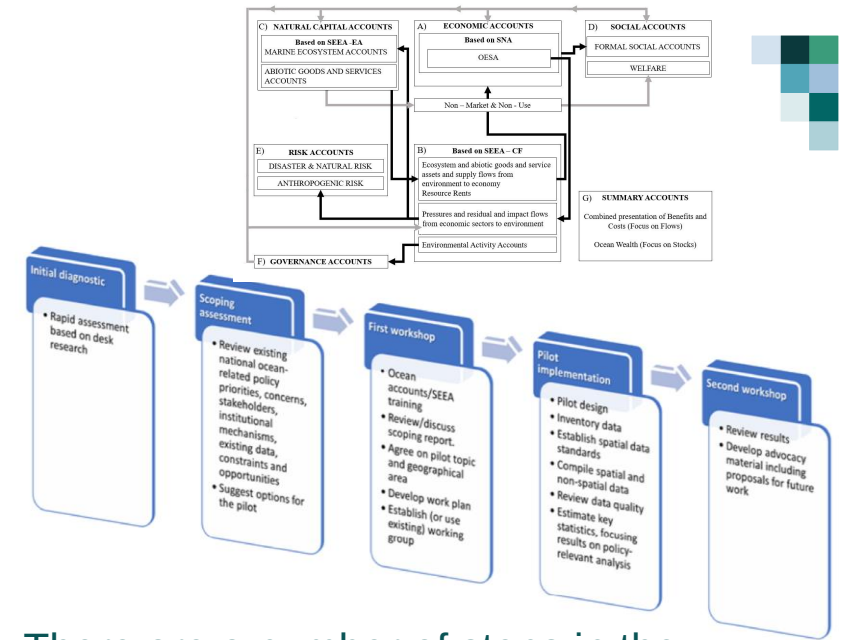




The Needs for Ocean Accounts in Blue Economy and Ocean Sustainable Development Processes

Along with other Ocean Governance and Management tools such as Marine Spatial Planning (MSP) or Integrated Coastal and Ocean Management, we believe that integrated Ocean Accounting has a critical complementary role to play in Blue Economy Advancement and Ocean Sustainable Development.

1. Informed decision making within policy development that extends from an ecosystem level to a National Accounts level.
2. Integration of large sets of novel ocean data and identification of data gaps and needs.
3. Broader scope of valuation than national accounts in terms of blue economy approaches of sustainability and inclusivity.
4. Justification of the value of Research, Management and Policy in the ocean space.
5. Positioning of strategic development in ocean economic advancement.



There are a number of steps in the compilation of ocean accounts.

Not necessary to compile across the entire framework.

Regardless of the system being compiled, adherence to a common integrated standardized framework is critical to allow consistency.

System mapping allows a diagnostic understanding of approaches to follow to address specific needs.



Thank you for your attention

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