Issue 5: Accounting for economic concerns

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Defining the ocean economy

• The System of National Accounts (SNA) 2008 conceptually includes all marine and ocean-related economic production including subsistence, informal and illegal activities.

• The International Standard Industrial Classification of All Economic Activities (ISIC Rev 4) includes categories for marine fishing (0311), marine aquaculture (0321), sea and coastal water transport (501) and other ocean related industries.

• The System of Environmental-Economic Accounting (Central Framework + Experimental Ecosystem Accounts) extends scope of the SNA 2008 to include environmental assets (stocks) and associated goods / services (flows). Many of these not currently valued in markets.
What industries are included in the ocean economy?
Survey of % mentions by selected national strategies

Commercial Fishing (96%) – Marine Construction (16%) – Offshore Oil and Gas (92%) – Extraction of Aggregates (12%) – Coastal Tourism (92%) – Cruise Tourism (12%) – Marine Transportation (92%) – Marine Wholesale and Retail Industry (12%) – Shipbuilding Industry (84%) – Seafood Supply (8%) – Marine Engineering (84%) – Petroleum Oriented Supply Industry (8%) – Marine science research (80%) – Marine Equipment Retailing (8%) – Ocean Mining Industry (76%) – Ports (8%) – Marine Management/ Pub Admin/Defense (76%) – Search and Navigation Equipment (8%) – Aquaculture (72%) – Marine Chemical Industry (8%) – Marine Electric Power Industry (72%) – Marine social and international organizations (8%) – Marine environmental protection (60%) – Marine/Environmental Consulting (8%) – Marine Biomedicine Industry (56%) – Ocean-related materials (8%) – Marine Environment Monitoring and Prediction (52%) – Seabed Mining (4%) – Marine Education (52%) – Refineries (4%) – Marine Insurance (40%) – LPG Processing (4%) – Marine Technology Services (40%) – Boat Building (4%) – Marine Information Services (36%) – Recreational Fishing (4%) – Seafood processing (32%) – Transport Services (4%).
Definitions of the ocean / blue economy: United Kingdom

**Established sectors**
- Capture fisheries
- Seafood processing
- Shipping and ports
- Shipbuilding and repair
- Offshore oil and gas
- Tourism
- Business services
- Education and training
- Manufacturing and construction
- Research and development

**Emerging sectors**
- Aquaculture
- Offshore renewable energy
- Maritime safety and surveillance
- Marine biotechnology
- High-tech marine products and services
- Deep and ultra-deep water and gas
- Marine and seabed mining

**Enablers of the ocean economy**
- Infrastructure
- Skills
- Natural capital (non-living and living resources and ecosystems)
Definitions of the ocean / blue economy: China

Framework of ocean economy accounting system
Definitions of the ocean / blue economy: United Kingdom

Established sectors
Capture fisheries
Seafood processing
Shipping and ports
Shipbuilding and repair
Offshore oil and gas
Tourism
Business services
Education and training
Manufacturing and construction
Research and development

Emerging sectors
Aquaculture
Offshore renewable energy
Maritime safety and surveillance
Marine biotechnology
High-tech marine products and services
Deep and ultra-deep water and gas
Marine and seabed mining

Enablers of the ocean economy
Infrastructure
Skills
Natural capital (non-living and living resources and ecosystems)
Definitions of the ocean / blue economy: OECD

Ocean economy

- Ocean-based industries
  - Market flows and services
  - Physical capital stock ocean-based industries
- Marine ecosystems
  - Non-market flows and services
  - Natural capital assets

Intermediate inputs

Impacts
Measures of economic activity

• Gross Value Added – detailed but limited in scope
• Valuation at Final Demand (output and ultimate purchase)
• Most ocean accounts are not yet identifying changes in physical capital or related financial capital.
• SEEA–CF and SEEA–EEA provide a foundation for building holistic ocean asset accounts
Key challenges to be addressed

• Valuing non-market ocean resources: complex, expensive and inconsistent methods.
• Consistent definition of the ocean / blue economy
• Need for coherent physical units and assessment
• Governance capacity and data availability / access to develop comprehensive accounts
Recommendations for ocean accounting technical guidance

- Clear / inclusive definition of the ocean / blue economy, grounded in global practice OR meta-data standards relating to scope of definition
- Guidance concerning integration of biological, physical and social perspectives in ocean SEEA accounts
- Proposals for national indicator series / “killer” indicators
- Discussion of valuation approaches for non-market benefits
- Specific examples from current ocean accounts (e.g. China, USA, etc, etc)
- Guidance on national data collection and planning
- Guidance on international actions (coordination, sharing of accounts, standardisation roadmap, etc)
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  • https://www.unescap.org/events/asia-and-pacific-regional-expert-workshop-ocean-accounts
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