Asia and the Pacific Regional Expert Workshop on Ocean Accounts

As part of the Ocean Accounts Partnership for Asia and the Pacific

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1. Background

The ocean is a vital source of livelihood, employment, nutrition and economic growth in Asia-Pacific. Healthy marine and coastal ecosystems contribute to inclusive development and poverty reduction, regulate the climate and are essential for a more sustainable future. In 2014, the region was home to 84% of the global population engaged in fisheries and aquaculture. The sustainable management of ocean resources requires strengthened regional collaboration across nations and public-private sectors.

At the global level, the 2030 Agenda and SDG 14 offer a framework for how countries can conserve, restore and sustainably use the ocean, seas and marine resources for development. The United Nations Ocean Conference (June 2017) committed to halting and reversing the decline in the health and productivity of the ocean and its ecosystems and to protect and restore its resilience and ecological integrity.

Although substantial information exists on the ocean and its resources, (a) the countries with the greatest need have the least capacity to access and apply this information in their policy decisions and (b) the information is fragmented among numerous institutions nationally, regionally and internationally. There is no standard approach for integrating diverse data on the ocean and no forum for the regional exchange of information and best practices on integrated ocean statistics and policies. This prevents evidence-based programming and optimal use of resources.

The international statistical standard System of Environmental-Economic Accounting (SEEA) (UN et al., 2014a, 2014b) has proven instrumental in harmonizing and prioritizing collection of environmental statistics in other domains (land, water, energy, waste, ecosystems). ESCAP and its partners are building on our experience on implementing SEEA the region to expand and adapt the SEEA to produce Ocean Accounts.

This workshop directly addressed the theme of the UN Development Account 11th Tranche in "Supporting Member States in strengthening evidence-based policy coherence, integration and participatory implementation of the 2030 Agenda at all levels" by:

- strengthening the evidence-base and coherence of ocean-related policies to address SDG 14 and related goals; and

- ensuring a participatory approach by (a) engaging a range of partners and stakeholders determining national priorities, and (b) focusing on the benefits and risks to target populations such as coastal communities, small enterprises, and women and subsistence fishers.

This workshop builds on ESCAP's groundwork in scoping a statistical framework for ocean accounts and experience in providing technical assistance to strengthen environment statistics in 17 member States. ESCAP's approach has been based on engaging a range of stakeholders:

- national statistical offices to ensure the application of international standards and the quality of the results,

- data providers (environment, natural resource, forestry, water, waste, energy departments) to ensure timeliness and coherence of the data, and

- central departments (planning, finance, development) to ensure that the statistics are understood, relevant and used.

The workshop contributes directly to the implementation of resolution 72/6 of ESCAP on "Committing to the effective implementation of the 2030 Agenda for Sustainable Development in Asia and the Pacific" that requests ESCAP (inter alia) to: "*Strengthen support to member States in their efforts to*

implement the 2030 Agenda in an integrated approach, inter alia, with analytical products, technical services and capacity-building initiatives through knowledge-sharing products and platforms, and to enhance data and statistical capacities".

In addition, ESCAP Resolution 72/9 calls for greater cooperation, collaboration and coordination between sub-regions and regional organizations and requests ESCAP to undertake an assessment of capacity development needs of the countries in the region for implementing SDG 14.

Further, ESCAP Resolution 73/5 encourages member States to continue to enhance their capacity to sustainably manage the ocean and requests ESCAP to support current and new regional partnerships for enhancing data and statistical capacities for SDG 14 in the region.

The Regional Road Map for Implementing the 2030 Agenda for Sustainable Development in Asia and the Pacific (E/ESCAP/FSD(4)/2/Rev.1, Para 30(b)) also encourages countries to share experiences and cooperate on the management of natural resources, including the ocean and seas, with a view to increasing food security, conserving the environment, protecting biodiversity and enhancing the welfare of the community.

The United Nations Statistical Commission[1] has accepted ESCAP and UN Environment's offer to lead the development and testing of Ocean Accounts as an input to the SEEA revision for 2020. Progress will be reported through the UN Committee of Experts on Environmental-Economic Accounting (UNCEEA) in 2019.

In response to the many national requests for support on ocean governance and statistics, ESCAP has initiated the **Ocean Accounts Partnership**[2]. This partnership seeks to engage member States, expert institutions and ocean stakeholders to strengthening statistical capacity to harmonize data, and piloting initiatives to collect evidence for action toward a healthy ocean.

2.   Purpose and structure of the workshop

2.1   Purpose

The purpose of the workshop was to facilitate a community of practice around standards for ocean statistics. We find that statistics are more relevant when statisticians, scientists and policy makers collaborate. For them to collaborate, they need to be speaking a common language. We expected participants to strengthen existing collaborations and develop new ones by:

- Contributing to the development of **international standards** for the measurement of the economic, social and environmental aspects of the ocean. The approach was to apply statistical, scientific and policy expertise to produce practical guidance for countries on measuring a feasible set of core ocean accounts. Measuring the ocean economy is one component of these accounts. However, to ensure that the guidance is comprehensive and applicable, many other topics (spatial frameworks, ecosystems and ecosystem services, coastal and dependent communities, ocean health, ocean health, climate change, disaster risk, and governance) were also addressed.

- Participating in **cross-disciplinary lectures** on the three main perspectives on the ocean (statistical, scientific and policy). To this end, each day began with a keynote lecture on one of these topics. Poster sessions and side-events facilitated discussion on specific research areas.

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[1] 6-9 March 2018; https://unstats.un.org/unsd/statcom/49th-session/documents/.

[2] See https://www.unescap.org/sites/default/files/Ocean%20Flyer.pdf.

- Providing input to **future pilot studies** for testing the statistical guidance and research projects to fill gaps in knowledge and data.

The results of the workshop will contribute to the revision of the SEEA Experimental Ecosystem Accounting for 2020 and support regional pilot studies and. The short-term output will be a zero-draft technical guidance on ocean accounting for late September 2018. This will consolidate the issue briefs according to recommendations of the workshop. This will be available to ESCAP and its partners to inform pilot studies. The pilot studies (**Annex 3**) are designed to inform selected national ocean-related priorities by compiling existing data according to the recommendations of the workshop.

ESCAP and its partners will leverage the results of this workshop and its preparation to establish an ongoing community of practice on ocean statistics.

2.2 Structure of the workshop

The workshop was preceded by two months of preparation, by participants and other contributors, to nine online issue briefs. These briefs were structured to

- identify the issue to be resolved in more detail,

- consider guidance already in the SNA, SEEA and other relevant frameworks,

- describe alternative approaches with examples and references,

- suggest criteria for selecting one approach over another, and

- recommend which approach should be selected for the guidance document.

Previous discussions with experts (see workshop Concept Note[3]) identified nine issues that had either been identified on the SEEA research agenda or were topics requiring mutual understanding or resolution among experts to agree on standard approaches:

- **Issue 1**: Spatial units and ecosystem type classification: To recommend a standard approach to delineating ocean and coastal spatial units and to classifying ecosystem types coherent with international methods and the SEEA.

- **Issue 2**: Ecosystem services: To review ecosystem services classifications with respect to the ocean and recommend adaptations or expansions if required.

- **Issue 3**: Disaster risk and climate change: To review existing frameworks of (a) disaster risk and (b) climate change statistics. To suggest where linkages to the ocean exist and where such linkages need to be developed.

- **Issue 4**: Links to social concerns: To integrate social concerns into ocean accounts by distinguishing beneficiaries and populations at risk.

- **Issue 5**: Links to economic concerns: To integrate economic concerns into ocean accounts by (a) ensuring that standard economic accounts (SNA-based) fully include the direct economic benefits of the ocean, and (b) augmenting standard economic accounts with approaches to valuation of additional (non-SNA) benefits of marine resources.

- **Issue 6**: Global data availability: To review sources of global data that could be applied to national, regional or global ocean accounts.

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[3] See: https://www.unescap.org/events/asia-and-pacific-regional-expert-workshop-ocean-accounts

- **Issue 7:** Progress on measuring SDG14: To review efforts to develop metadata (measurement standards) for SDG14-related indicators. Can these be linked to specific components of the ocean accounts?

- **Issue 8**: Ocean governance: To review international, and selected regional and national governance mechanisms (policy and regulatory frameworks, including transboundary issues) with respect to their approaches, enforcement challenges and information needs. This issue could also include initiatives new technologies, sustainable management approaches.

- **Issue 9**: Modelling the ocean: To review existing modelling approaches to the ocean and recommend areas for testing.

Each day of the three-day workshop (see agenda in **Annex 1**) opened with a keynote lecture covering the basic concepts of ocean statistics, ocean science and ocean governance. Three to four issues were presented each day. These were discussed in plenary in breakout groups. The parallel breakouts considered the issues of the day, selected recommendations for further deliberation and reported additional recommendations back to the plenary.

Three to four side events each day provided a space for researchers to present their related work in more detail (see agenda in **Annex 1** for details).

Assessment presentations covered (a) Indonesia Scoping Report, (b) Diagnostic for Vanuatu and (c) ESCAP's Capacity Needs Assessment for SDG14 and Regional Diagnostic.

Participants were encouraged to discuss among country and institutional groups to develop "personal next steps" for presentation during the final session.

All workshop materials are posted online on the ESCAP workshop page[4]. Several tweets were broadcast during the workshop by ESCAP and many participants using the hashtags #oceanaccounts[5], #SEEA and #SDG14. A LinkedIn group (Partnerships for Ocean Accounting[6]) was created to facilitate broadcasting updates to the group and other interested experts.

3.   Workshop results

3.1   Participation

The 85 participants (see **Annex 2)** included experts in ocean statistics, science, and policy from national governments and research institutions as well as regional and international organizations**.** Another 37 experts who were interested, but unable to attend, contributed to the development of issue papers and will continue contributing to the resulting guidance documents.

Organizations represented include: Association of Pacific Rim Universities (APRU), Asian Institute of Technology (AIT), ASEAN, the Atlantic Research Centre, FAO, GEO/Blue Planet initiative, International Institute for Environment and Development (IIED), the Pacific Community (SPC), SOLSTICE-WIO (Western Indian Ocean), UN Environment and UNITAR.

Countries participating include: Australia, Bangladesh, Canada, China, Fiji, France, Germany (contributor), Indonesia, Japan (contributor), Malaysia, Maldives, Papua New Guinea, the Philippines,

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[4] https://www.unescap.org/events/asia-and-pacific-regional-expert-workshop-ocean-accounts.

[5] https://twitter.com/search?q=%23oceanaccounts&src=typd&lang=en.

[6] https://www.linkedin.com/groups/12131439.

Republic of Korea, Samoa, Seychelles (contributor), Singapore (contributor), South Africa (contributor), Sri Lanka, Thailand, Timor Leste, UK, Vanuatu and Viet Nam.

3.2 Keynote lectures

The lectures were designed to provide introductions to Ocean Statistics, Ocean Science and Ocean Governance. Each provided background on basic concepts, current practices and challenges. Videos are available online:

- Ocean Statistics (Michael Bordt, ESCAP): https://youtu.be/5NeC7iPJFvA

- Ocean Science (Anthony Dvarskas, Stony Brook University): https://youtu.be/_7j4kooJSCc

- Ocean Governance (Ben Milligan, University College London): https://youtu.be/IAZc3WR22-Q

3.3 Country and regional status

3.3.1 ESCAP Assessment of Capacity Development Needs for SDG14

In response to ESCAP Resolution 72/9 and in preparation for the workshop, ESCAP assessed capacity development needs for the implementation of SDG14[7]. This was conducted as an online survey and interviews of national and international experts in ocean science, statistics and governance.

Approximately 30 national and 30 international[8] experts responded.

Although 92% of respondents indicated that SDG14 is a national priority, only 72% indicated that specific institutional mechanisms were in place to address it. Only 13% indicated the country had significant capacity to address the challenges of SDG14.

Furthermore, although 70% indicated that stakeholders were involved in the decision making process through community consultations, 60% believed that public awareness of ocean policy was inadequate.

For national respondents, the main obstacles to effective coordination (in rank order) were:

1. Overlapping, unclear, non-existing allocation of responsibilities
2. Lack of technical capacities
3. Limited financial resources

For international respondents, the main obstacles to effective coordination (in rank order) were:

1. Overlapping, unclear, non-existing allocation of responsibilities
2. Difficult implementation of central government decisions at local and regional[9] level
3. Lack of staff and time.

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[7] Full report available at: http://www.unescap.org/resources/assessment-capacity-development-needs-countries-asia-and-pacific-implementation.

[8] International respondents generally worked with international organizations in the regions or in countries outside the region. This group included experts working in international organizations, United Nations programmes and agencies, think tanks and academia working in Asia and the Pacific and at the regional level.

[9] "regional" in this context refers to sub-national.

The main governance challenges for ocean policy, for national respondents were:

1. Local and regional governments' capacity to design/implement ocean policies
2. Horizontal coordination across ministries
3. Enforcement of environmental/sectoral norms

For international respondents, governance challenges were:

1. Vertical coordination between levels of government
2. Enforcement of environmental/sectoral norms
3. Local and regional governments' capacity to design/implement ocean policies

The most important capacity-building needs, for national respondents, were:

1. Skilled human resources
2. Legal framework, regulation and enforcement
3. Access to data and data management

For international respondents, the most important capacity-building needs were:

1. International guidance and connecting to regional[10]/international support
2. Skilled human resources
3. Access to funding

The assessment suggests that ESCAP and its partners could facilitate implementation of SDG14 by:

- enhancing technical capacity (through focussed training),

- strengthening governance (mandates and policies) and partnerships (coordination),

- supporting the capacity to produce and use statistics (by providing guidance materials and expert technical advice), and

- supporting awareness-building and stakeholder engagement.

3.3.2   ESCAP preliminary diagnostic on ocean statistics

ESCAP applied the Diagnostic Tool for Environment Statistics[11] to focus specifically on ocean statistics. This was conducted as desk research and was not validated with the countries assessed: China, Bangladesh, Fiji, Indonesia, Malaysia, the Philippines, Samoa and Thailand. These were selected as candidate pilot countries.

The approach to the Diagnostic Tool is to obtain agreement from stakeholders on the national vision, concerns/problems, stated policy priorities, stakeholders who should be engaged, existing coordination mechanisms, data sources, statistical context (i.e., other statistical development activities), and related international activities.

In a national stakeholder workshop setting, this information would be used to prioritize statistics to be strengthened, and set the basis for a discussion on constraints and opportunities for producing these statistics. This would then form the basis of a work plan to produce the statistics by taking advantage of the opportunities and overcoming the constraints. This preliminary diagnostic did not set priorities, nor did it assume constraints and opportunities.

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[10] In this instance, "regional" refers to supra-national, such as the Pacific region or the Asia-Pacific region.

[11] See: http://communities.unescap.org/environment-statistics/tools/diagnostic-tool

Vision: The preliminary diagnostic found that, while environment and sustainability were commonly mentioned in national vision statements (constitutions, national plans, and sustainable development plans), the ocean is not specifically mentioned.

Concerns: Most countries did not specify environmental problems to be addressed. However, often these concerns are stated in terms of objectives. For example, to adapt to climate change, to address loss of habitat and biodiversity and decrease pollution are common concerns shared by all countries assessed. Illegal, unreported and unregulated (IUU) fishing is a common concern in southeast Asia. Resilience to disasters is common among Pacific countries assessed.

Priorities: Establishing or expanding Marine Protected Areas (MPAs) and assessing fish stocks are common priorities.

Stakeholders: Most countries assessed included responsibilities for the ocean under environment, fisheries, forestry or agriculture authorities. Many countries had science institutes with research responsibilities.

Role of the National Statistical Office (NSO): Most include the NSO as an important data provider. In many countries, the NSO is a key coordinator of relevant data for SDGs in collaboration with the environment authorities.

Mechanisms: Most countries assessed have high-level national coordination mechanisms for SDGs, climate change, biodiversity and protected areas. Several countries have specific coordination mechanisms for ocean governance (China, Fiji, Samoa, Thailand, Vanuatu).

Data sources: In all countries assessed, there was no evident focal point (e.g., ocean accounts) for ocean-related data. Data appear to be collected by many authorities and there was little evidence of coherence and coordination using agreed standards.

Statistical context: Most countries have plans to develop other areas of environment statistics, for example green GDP, Gross Ecosystem Product, or SEEA accounts such as energy, land, water and wastes. Some countries have specific initiatives to assess the value of the ocean economy, but these would benefit from the broader approach suggested by the Ocean Accounts Partnership.

Other international activities: Many international and regional organizations are supporting various aspects of strengthening national capacities for ocean governance and statistics. However, these initiatives tend to be sectoral (e.g., fisheries, biodiversity, pollution, monitoring, etc.) or sub-national (e.g., a specific coast).

These preliminary diagnostics are available[12] to countries to validate and refine with national stakeholder groups in preparation for national pilot studies.

3.3.3   Indonesia scoping report

The Indonesia scoping report highlighted progress in compiling several thematic ocean maps according to the country's One Map standard (corals, mangroves), and initiatives liked to agreed Fisheries Management Areas. Progress has been made in establishing community management of local fisheries and Marine Protected Areas (MPAs).

However, challenges remain in harmonizing national terrestrial with marine spatial planning regimes. Recommendations to improve this included:

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[12] Drafts were circulated to participants and contributors as an annex to Issue Brief #8 on Governance.

- Clarifying institutional arrangements for effective management of MPAs, for example, by coordinating national, provincial and local approaches,

- Providing incentives to small-scale fishers to prevent overfishing,

- Combating IUU fishing to ensure longevity of fisheries production, and

- Reducing land-based sources of pollution, especially nutrients.

Planning for the ocean accounts pilot has commenced with engagement of stakeholders and discussion of possible areas to develop.

3.3.4 Vanuatu self-diagnostic

The Vanuatu self-diagnostic highlighted the importance of the ocean and SDG14 in achieving national priorities as stated in the Vanuatu National Sustainable Development Plan (People's Plan 2030) and the Vanuatu National Ocean Policy. It suggested an important role for the ocean accounts pilot in informing the National Ocean Council to address governance challenges of:

- Establishing maritime boundaries,

- Addressing plastic pollution, and

- Developing a marine spatial plan

Progress has already been made on describing unique marine areas and marine bioregions.

An ocean accounts pilot is an opportunity to develop better evidence to address SDG14 though a detailed scoping of national frameworks, mechanisms, information and data availability and capacities

To do so, it would need to overcome the constraints of insufficient political will and leadership, fragmented data, information sharing, and inadequate resources and capacities.

3.4 Issue briefs

The following are summaries of the issue briefs, their recommendations and insights from discussions. For more detailed descriptions, see the Workshop Concept Note. The issue briefs will be revised online in preparation for the "zero draft" technical recommendations to be distributed in September.

3.4.1 Issue 1: Spatial units and ecosystem type classification

The objective of this brief was to recommend a standard approach to (a) delineating ocean and coastal spatial units and (B) classifying ecosystem types coherent with international methods and the SEEA. The two are closely related. "Spatial units" describes the hierarchy of statistical units to which attributes are assigned. The "ecosystem type" is the main attribute of that statistical unit. In business statistics, a "company" is comprised of "establishments". Each can be assigned an industry classification, such as "manufacturing".

3.4.1.1 Spatial units

Spatial units in the SEEA Ecosystems are based on Basic Spatial Units (BSU), which could be remote sensing pixels as a Minimum Measurement Unit (MMU). This has been applied in national ecosystem accounts and countries have chosen different approaches, such as 250m from satellite data or cadastral land registration units). For the ocean, to address transboundary issues (see issue brief on **Governance**), it is important to have an agreed approach to BSUs as the foundation of a global spatial data infrastructure. A global grid reference system remains to be explored.

The SEEA Ecosystems further aggregates BSUs to Ecosystem Assets (EAs), which represent contiguous BSUs with similar characteristics. There is no agreed hierarchy for the ocean. One important candidate is USGS/ESRI approach to delineating Ecosystem Marine Units (EMUs). This approach takes 57-year averages of ocean chemical characteristics (temperature, oxygen, salinity, nitrates, phosphorus and silicates) at different depths (3-dimensional) to delineate 37 major EMUs for the world.

However, the EMUs are based on chemical characteristics, not biological ones. Although many classifications of coastal and marine ecosystems exist, none have yet gained universal use.

EMUs, however are at 27 km resolution and are not appropriate for delineating coasts, which require a higher resolution and different attributes to classify. Work is underway to develop Coastal Marine Units to integrate with the EMUs.

Some countries have already developed national Marine Spatial Data Infrastructures that are based on agreed boundaries and classifications.

Further, there is no globally-agreed delineation of shorelines. Work by USGS/ESRI has developed one that is available for testing.

3.4.1.2   Ecosystem type classification

As with marine spatial units, there is no universally-accepted classification of marine ecosystems. Several candidates exist. Some of these are *ex ante* (theoretical, based on expert agreement), but global data are not available on these classifications.

National habitat-based classifications have been developed and tested in Australia, the US and Canada. These countries are collecting data based on those classifications.

Global data (See issue brief on **Global Data Availability**) are available for certain habitats (e.g., coral, seagrass, mangrove), but (a) the quality of these data require further investigation and (b) there appears to be little global data on other ecosystem types.

3.4.1.3   Recommendations

Discussion suggested that, for policy purposes, the issue brief focussed on technical issues, rather than providing a clear approach to reporting on ecosystems and species of concern. This is good advice to the developers of statistical standards that the outputs need to be scientifically and statistically rigorous, but still be able to communicate to a non-expert audience. This can be done though high-level indicators and analytical maps.

Spatial units: The long-term objective of the global geospatial and statistical communities could focus on developing a Global Spatial Data Infrastructure (including terrestrial, freshwater, coastal and marine). This could include an agreed (a) delineation of shoreline, (b) definition and delineation of "coastal", and (c) delineation of coastal and marine landforms. Care needs to be taken when delineating national boundaries. Whether terrestrial or national waters, many are disputed, and a product supported by the UN cannot show favouritism for one claim over another.

For national pilots, USGS/ESRI EMUs and global shorelines are ready to be tested, however further research is required to assess existing approaches to a global grid referencing system and the application of 3-dimensional units. Testing of the EMUs and shorelines would include correlating with other national and global data. For example, do EMUs coincide with any known ecosystem types.

Existing reporting units (Marine Ecosystems of the World, MEOW; Large Marine Ecosystems, LME) should be considered in the hierarchy of coastal and marine spatial units.

Ecosystem type classification: Further research is required to establish an agreed coastal and marine ecosystem type classification. This would need to include abiotic, many of which are included in the above discussion of spatial units, and biotic components, such as corals, seagrasses and sponges.

The US Federal Geographic Data Committee (FGDC) Coastal and Marine Ecological Classification Standard (CMECS) accomplishes this *ex ante,* but (a) the abiotic components are inconsistent with EMUs and (b) data have not been collected globally according to these definitions. This is perhaps a role for the pilots.

Several datasets exist on the ranges of specific coastal and marine species. Further research could compile these datasets and standardize them according to the spatial framework established.

3.4.2   Issue 2: Ecosystem services

The objective of this brief was to review ecosystem services classifications with respect to the ocean and recommend adaptations or expansions, if required.

The review of existing ecosystem services classifications suggested that none were ideal as statistical classification systems. Issues include: lack of precise definitions, lack of guidance on measurement and exclusion of ecosystem processes that are necessary conditions for the provision of services.

The SEEA Technical Group on Ecosystems is developing an ecosystem services classification that addresses these issues.

The Common International Classification of Ecosystem Services (CICES) is a useful checklist of ecosystem services that have been measured in the past. The newest version of CICES links services to ecosystem types, including marine and coastal.

Neither the brief nor subsequent discussions revealed any ocean-related services that were not already covered in existing classifications.

3.4.2.1   Recommendations

For the purposes of the Ocean Accounts, "services" need to be scoped to cover abiotic services such as substrate for marine transport, coastal dunes for coastal protection, and mineral resources and other materials. Pilots should consider a broad range of "ocean services" that could be classified using components of the SEEA Central Framework and SEEA Ecosystems.

Further research would be required to link ocean services with the geological and ecological processes that contribute to them.

Discussions also suggested further research on:

- Better linking locations of geological and ecological processes with where the services are used. This challenge is common to all terrestrial and marine migratory species that breed in one ecosystem, feed along many and are harvested in another. This could be addressed by codifying existing literature on migratory species.

- Better linkages to beneficiaries (this is discussed in the Issue brief on Links to Social Concerns)

- Better understanding of ecosystem services "bundles", that is, services that often occur together. This is more an application of a classification in an analytical context.

3.4.3 Issue 3: Disaster risk and climate change

The objective of this brief was to review existing frameworks of (a) disaster risk and (b) climate change statistics. To suggest where linkages to the ocean exist and where such linkages need to be developed.

The review of existing frameworks for disaster-risk, climate change and ocean accounts suggested many synergies in developing common approaches. Ecosystems both mitigate and are impacted by ocean-genic disasters (tsunami, cyclones). All would benefit from shared spatial infrastructure, classification of ecosystems and their services, data on ecosystem condition, approach to accounting for ecosystem capacity, degradation and enhancement, and approach to valuing ecosystems and their services.

3.4.3.1 Recommendations

Recommendations of the brief included, at a global level:

- In alignment with the Sendai targets, determine a core set of statistics common to ocean, disaster risk and climate change, with respect to coastal communities, infrastructure, ecosystems, and ocean conditions (temperature change, storms, phytoplankton etc.) and fill existing data gaps.

- Promote ocean account to establish the coherence between the SDG 14 and the Sendai targets.

National pilots could:

- Support policy actions through ocean account for nature based solutions, coastal ecosystem based disaster risk reduction and climate change adaptation approaches.

- Exploit innovative means of data capture: Adapting and applying global oceanographic and weather satellite datasets/products to climate monitoring and operational ocean forecasting.

- Link ocean account with national statistics for disaster risk reduction and climate change adaptation by providing data for the key entry points for impact-based forecasts of ocean-genic disasters:
  - Assessment of triggers (causes)
  - Probabilistic forecasting
  - Development of risk scenarios (exposure and vulnerability of people, ecosystems and infrastructure), and
  - Producing impact outlook reports

Discussions suggested that the ocean accounts could also serve to provide post-disaster baseline data. For example, as assessment of people, ecosystems and infrastructure impacted[13].

3.4.4 Issue 4: Links to social concerns

The objective of this brief was to integrate social concerns into ocean accounts by distinguishing beneficiaries and populations at risk.

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[13] In fact, assessing the monetary impact of the 2010-11 Queensland floods was one of the first applications of Australia's land accounts.

The brief highlighted the need to account for the contribution of small-scale fisheries to national economies and to focus incentives, investments and property rights on long-term viability of fish supply.

This change in viewpoint requires evidence that can be developed by extending the SEEA to:

- distinguish between industrial and small-scale fishers,
- disaggregate fish suppliers and users (beneficiaries) by income, gender, region,
- disaggregate inland and marine fisheries, and
- distinguish sports and recreational.

The brief suggested ocean accounts would be more likely to have an impact if they provided "net political gain" for the users. That is, reliable evidence and links to current economic (economic growth, employment) and social (food, poverty, equality) concerns.

3.4.4.1 Recommendations

Recommendations included:

- Consider how ocean accounts can help people in the spirit of "leave no one behind"
- Classify beneficiaries based on socioeconomic status and spatial units
- Consider how accounts can identify social intervention points that can be used to inform investments (public expenditure) decisions
- In valuation discussions, consider whose value counts
- Identify how can accounts work in areas where there are limited technical and institutional capacities
- Consider how ocean accounts can deliver net political gain

Discussion further suggested

- Including measures of displacement of people (this could be an application of the accounts if combined with migration information)
- Considering whether people want to be saved (the implementation of the accounts would include a range of stakeholders who would be free to set priorities and social objectives)
- Broadening the discussion beyond small-scale fisheries, e.g., to include tourism, coastal agriculture, construction, waste disposal, etc.
- Invest in stratify existing socio-economic and environmental protection expenditure surveys to distinguish coastal from inland respondents.

3.4.5 Issue 5: Links to economic concerns

The objective of this brief was to integrate economic concerns into ocean accounts by (a) ensuring that standard economic accounts (SNA-based) fully include the direct economic benefits of the ocean, and (b) augmenting standard economic accounts with approaches to valuation of additional (non-SNA) benefits of marine resources.

The brief reviewed existing frameworks and definitions of the ocean economy. Scopes, methods and definitions were found to inconsistent and would benefit from a global approach.

Key challenges to bringing coherence to a global approach included providing:

- a consistent definition of the ocean economy,
- consistent definitions of physical units and methods for valuation,
- coherent methods for valuing non-market ocean services, and
- capacity building for governance (using evidence) and data integration (providing evidence)

1.1.1.1 Recommendations

Recommendations included:

- Include clear and inclusive definition of the ocean/blue economy, that is grounded in global practice. This could be embedded within principles that would allow for diverse national approaches.
- Provide guidance concerning the integration of biological, physical and social perspectives in ocean SEEA accounts.
- Include proposals for national indicator series including "killer" indicators (this could be included in the discussion of **Progress on measuring SDG14**)
- Discuss valuation approaches for non-market benefits of the environment.
- Provide specific examples from current ocean accounts (e.g. China, USA).
- Provide guidance on national data collection and planning.
- Provide guidance on international actions (coordination, sharing of accounts, standardisation roadmap, etc.). (this could be included in the discussion of Governance)

Discussions further suggested:

- Linking to World Tourism Organization work on sustainable tourism
- Providing measures of ecological sensitivity (several countries are considering regulating tourism activities in areas of high ecological sensitivity)
- Considering approaches that distinguish services provided by areas beyond national jurisdiction. In all cases, beneficiaries are residents of a nation and the values are embedded in their national accounts.
- Providing a step-by-step guide to analysing ocean-related economic concerns
- Providing examples of linking to well-being, perhaps in an applications guide

3.4.6 Issue 6: Global data availability

The objective of this brief was to review sources of global data that could be applied to national, regional or global ocean accounts.

The brief noted that much global data was freely available. The emerging paradigm of bringing data to users (that is, providing easy access in one portal) has multiplied the number of catalogues and portals. Many of these are based on the same raw data, but are interpreted differently for different users.

Earth Observation (EO) Data Cubes is an emerging approach to provide users with analysis-ready data. This has been prototyped for land-based data, but not for the three-dimensional approach required for the ocean.

Challenges to operationalizing a core set of ocean data include:

- Assessing data quality and lack of meta-data

- Spatial and temporal gaps (data may not be available for all regions or periods in the past)

- High user requirements (IT, data licensing, confidentiality)

- Collaboration between global data holders and national users (data sharing, integration of national data, confidentiality)

Recommendations included:

- Build, nurture and sustain the continuous engagement between national / regional / international ocean accounting stakeholders, and users and data providers on data and information needs.

- Review relevant existing datasets and process guidance for incorporation of data into national ocean accounts. (see issue brief on **Disaster Risk and Climate Change**).

- Identify existing data gaps with respect to a core ocean accounts dataset (that is, freely-available, standardized, quality-assessed data with substantial meta-data, with sufficient detail for national use)

- Identify national and regional data access/availability capacity building needs and promote knowledge uptake through existing programmes.

- Analyse existing data portals and platforms (existing and being developed) and evaluate ESCAP role as integrative data platform at regional level.

- Engage with other UN bodies (UN Environment, IOC, IMO, FAO) and international/national authorities to maximise data availability (see discussion on **An Ocean Accounts Portal**, below).

3.4.7   Issue 7: Progress on measuring SDG14

The objective of this brief was to review efforts to develop metadata (measurement standards) for SDG14-related indicators. Can these be linked to specific components of the ocean accounts?

The brief provided examples of coordinated information flows for addressing SDGs at the international level, with examples of implementation from Papua New Guinea. It suggested that the ocean accounts could provide an integrated framework for addressing SDG14 and other ocean-related targets, especially 15.9 on integrating ecosystem and biodiversity values in to decision making, and 17.19 on developing measures of progress to complement GDP and statistical capacity building.

3.4.7.1   Recommendations

Recommendations were to:

- Include a set of specific examples linking ocean accounts with SDG indicators (and other nationally-relevant indicators).

- Discuss data requirements (and data sourcing opportunities) for ocean accounts in the context of SDG 14.

- Include guidance regarding institutional processes for SDG14 reporting (and specific reporting requirements).

Further discussion noted that:

- Many SDG14 indicators do not have specific quantified targets

- Implementation of the ocean accounts should help coordinate national SDG reporting mechanisms to ensure they are cost-effective (this is one objective of the national pilots)
- Currently, few SDG indicators are purely derivable from the SEEA[14]

3.4.8 Issue 8: Ocean governance

The objective of this brief was to review international, and selected regional and national governance mechanisms (policy and regulatory frameworks, including transboundary issues) with respect to their approaches, enforcement challenges and information needs. This issue could also include initiatives new technologies, sustainable management approaches.

The brief considered two aspects of governance: (1) the need to understand and inform broader governance processes, and (2) implementation of the ocean accounts to best inform these processes.

On the first aspect, governance needs to be considered when building ocean accounts – this will help improve implementation of ocean-related legislation and other environmental measures. Improving environmental outcomes is not only dependent on legal frameworks and the capacities of authorities and sector ministries, but also largely on external factors that provide an 'enabling environment'. Accountability mechanisms, such as ensuring the rights to access information, public participation and access to an impartial justice system, are essential to create an enabling environment.

On the second aspect, compiling ocean accounts will require collaboration among data providers, data users, policy makers and other stakeholders – making a strong case to strengthen the link amongst these. Linking to ongoing support to national bureaus of statistics or sector level data collection can give better and more sustainable results than starting on a separate track. In the longer term, one of the benefits will be having more robust monitoring systems.

One challenge is to incorporate ocean accounts into decision making processes for public policy – responding to actual needs and existing capacities.

Priorities at the regional level included:
- an integrated and coherent ecosystem-based approach that takes into consideration the interconnected nature of marine ecosystems and the cumulative impacts of human activities affecting them
- collaboration among neighboring countries to compile comparable accounts would support the analysis of these issues.
- governance mechanisms at all levels (global, national and sub-national) to address complex challenges such as overfishing, pollution, ecosystem loss, etc.
- A partnership to compile ocean accounts at the regional/global level to contribute to a comprehensive global assessment.

At the national level, countries may benefit from developing an overall ocean plan, establishing a high-level interdepartmental ocean governance mechanism, and a national approach to collecting and sharing ocean-related data (including Traditional Ecological Knowledge).

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[14] Most SEEA and FDES training modules contain guidance on using the accounts and indicators for SDG reporting. These frameworks were developed before the SDGs. Although some linkages with indicators are not exact, the SEEA and FDES provide input to many environment-related targets.

3.4.8.1 Recommendations

Recommendations to address these priorities included:

- Conducting governance mapping and readiness assessment
- Using a stepwise approach - national entry points answering to country context (nuanced normative model)
- Designating one institution responsibility for compiling ocean accounts
- Establishing (or using an existing) committee for coordination and collaboration
- Facilitating institutionalization of process and budgetary support for ocean accounts, including specifying:
  - Voice – who does what and how, what is the process by which participation will happen
  - Participation – layered involvement.
  - Rules and norms - Standards and benchmarks

Discussion cautioned that the accounting approach is not necessarily receptive to the inclusion of traditional ecological knowledge. This may be due to the widely different communities of practice. Implementing ocean accounts via the pilots is intended to include civil society stakeholders, who could ensure appropriate treatment of traditional ecological knowledge in terms of establishing priorities, critical areas and cultural values.

Further discussion also highlighted the need to clarify the scope of "governance", approach to "governance mapping" and consideration of formal and informal governance processes.

3.4.9 Issue 9: Modelling the ocean

The objective of this brief was to review existing modelling approaches to the ocean and recommend areas for testing.

The brief highlighted the many approaches to ocean modelling at different scales and for different purposes. Many models are spatially explicit, and many can be used to evaluate management strategies. Modelling can be linked into an overall operational information system, where models and accounts mutually reinforce each other by:

- Using models to estimate missing data in accounts
- Using accounts to provide data inputs to models
- Supporting scenario approaches to estimate future conditions and impacts of alternative management interventions/options
- Examining feedback and hysteresis, and determining ecosystem vulnerabilities and thresholds.

Challenges to accomplishing this, though, included:

- Defining user needs and products
- Providing access to and cleaning of data for calibrating and parametrizing models
- Improving model linking and interoperability
- Building technical capacity to develop and operate models

- Institutional operationalisation of modelling approaches, and

- Providing support for ongoing validation and assimilation

3.4.9.1 Recommendations

Given the potential for applying models to ocean accounting, it was recommended to

- Examine and adapt report card formats (output requirements) to Ocean Accounts by first:
  - Providing a set of specific 'use-cases' for modelling
  - Defining values and essential ocean variables
  - Selecting high priority (thematic) areas
  - Reviewing existing models, outputs and availability

- Consider data compilation /monitoring within a modelling framework

- Establish a regional parameter library, that is coherent, well-documented and standardized datasets that are not specific to any model, (see the Global Data Availability issue above and Ocean Accounts Portal discussion below)

- Embed models within an overall information platform

- Access open source regional models, engage modelling community and provide regional/local capacity building

Further discussion highlighted the need for better understanding the implications of uncertainty in models, especially when linking them.

3.5 An Ocean accounts portal

ESCAP suggested that there may be interest in facilitating collaboration on a broad ocean data platform. Such platform could provide links to all freely-available ocean data. It could also include facilities for governments, other organizations and researchers to upload their data. The user interface would be designed to answer user questions.

Discussion suggested consideration of proprietary academic data, alignment with (sometimes non-evidence-based) decisions, and incentive compatibility (i.e., is it to the contributor's advantage to reveal their data?)

3.6 Conclusions

ESCAP will support the issue working groups in completing the issue briefs for late August. The briefs will then be used to form the basis of a "zero draft" of the technical guidance document for late September. Several participants and contributors agreed to continue their contributions.

Several participants from outside the region agreed to apply the technical guidance documents in their own pilots. ESCAP agreed to advise on such pilots as required.

ESCAP is also piloting an approach to "Accelerating SDG14", which will be integrated with the regional pilots. This is an expansion of the "policy priorities" step of the Diagnostic Tool than could help identify bottlenecks and suggest solutions for strengthening ocean governance.

Current and potential pilot countries agreed to engage their governments and stakeholders to identify specific priorities that the pilots could address.

Several participants agreed to support the "socialization" of the accounts by advocating the work in their communities.

The workshop was deemed a success in that it achieved its objective of establishing a community of practice around ocean accounts and provided many focussed recommendations as input to the forthcoming technical guidance documents.

4.   References

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5.   Annex 1: Workshop Agenda

Asia and the Pacific Regional Expert Workshop on Ocean Accounts
UN Conference Centre, Bangkok, Thailand
August 1 -3, 2018

Begin	End	Agenda item	Location	Description	Roles
Day 1					
08:30	09:00	Registration			
09:00	09:15	Opening and Introduction	Meeting Room A	Short introduction by regional organizations (2-3 minutes each)	Welcome: Gemma Van Halderen, Director, ESCAP Statistics Division - Hongjoo Hahm, Deputy Executive Secretary, ESCAP - Christopher Tremewan, Secretary General, APRU - Maria Corazon Ebarvia, PEMSEA Workshop chair: Bimlesh Krishna, Chief Economic Statistics, Fiji (TBC)
09:15	09:30	Overview of the workshop	Meeting Room A	Overview of the structure of the workshop and expected outcomes	Ben Milligan, University College London
09:30	10:30	Keynote lecture: Ocean Statistics	Meeting Room A	Overview of integrated statistics and ocean accounts	Presenter: Michael Bordt, ESCAP Discussant: Sangita Dubey, FAO
10:30	10:55	Group photo, administration, coffee break			Emma Kasemsuwan, ESCAP
10:55	11:40	Issue 1. Spatial units and ecosystem type classification	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Giuseppe Filoso, Statistics Canada Discussant: Xinming Liu, Guangxi Academy of Oceanography
11:40	12:25	Parallel side discussions	Meeting Room C	Participants are welcome to join focussed sessions on specific topics	C: ESCAP/AIT Global Ocean Account: Frank Yrle, AIT; Samy Djavidnia, GEO/Blue Planet Initiative; Yilun Luo, ESCAP
			Meeting Room D		D: Focus on SEEA: Teerapong Praphotjanaporn, ESCAP; Francois Soulard, Statistics Canada
			Meeting Room G		G: Accelerating SDG14 implementation: Caridad Canales, ESCAP
12:25	13:00	Lunch		Lunch boxes will be provided	
13:00	13:30	Case study: Indonesia	Meeting Room A	Summary of Indonesia scoping report	Presenter: Alan Koropitan, IPB, Indonesia
13:30	14:15	Issue 2. Ecosystem services classifications	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Anthony Dvarskas, Stony Brook University Discussant: Gerald Singh, University of British Columbia

Begin	End	Agenda item	Location	Description	Roles
14:15	15:00	Issue 3. Disaster risk and climate change	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Sanjay Srivastava, ESCAP Discussant: Janaka J.Wijetunge, University of Peradeniya
15:00	15:15	Coffee Break			
15:15	16:30	Parallel breakout groups	Meeting Room C	Groups will provide recommendations on options presented in all three issue papers. Participants will be randomly assigned to groups.	Statistics lead: Aminath Mushfiqa Ibrahim, the Maldives
			Meeting Room D		Science lead: Thi Thuy Ngoc, Viet Nam
			Meeting Room G		Governance lead: Wycliffe Bakeo, Vanuatu
16:30	17:00	Report of breakout groups	Meeting Room A	Topic leads will present summary of breakout group discussions.	Chair: Bimles Krishna, Chief Economic Statistics, Fiji Statistics lead: Aminath Mushfiqa Ibrahim, the Maldives Science lead: Thi Thuy Ngoc, Viet Nam Governance lead: Wycliffe Bakeo, Vanuatu
Day 2					
08:30	09:30	Keynote lecture: Ocean Science	Meeting Room A	Overview of basic science concepts	Presenter: Anthony Dvarskas, Stony Brook University Discussant: Christopher Tremewan, APRU
09:30	10:15	Issue 4. Links to social concerns	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Essam Mohammed, IIED Discussant: Achmad Fahrudin, Bogor Agricultural University
10:15	10:30	Coffee break			
10:30	11:15	Issue 5: Links to Economic Concerns	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Zeba Ali, Fisheries and Oceans Canada Discussant: Yuwanan Santitaweeroek, BIOTEC/NSTA
11:15	12:00	Parallel side discussions	Meeting Room C	Participants are welcome to join focussed sessions on specific topics	C: Modelling fish density and storm frequency: Sanjay Srivastava, ESCAP
			Meeting Room D		D: Applying SEEA-EEA in local coastal and marine assessment: Anthony Dvarskas, Stony Brook University
			Meeting Room G		G: Blue Economy Initiatives: Maria Corazon Ebarvia, PEMSEA
			Meeting Room A		A: Climate change and ocean statistics in Bangladesh Rafiqul Islam, Bangladesh Bureau of Statistics
12:00	12:45	Lunch			
12:45	13:15	Case study: Vanuatu			Presenter: Wycliff Bakeo, Vanuatu (TBC)
13:15	14:00	Issue 6: Global Data Availability	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Samy Djavidnia, GEO/Blue Planet Initiative Discussant: Philip James, SPC

Begin	End	Agenda item	Location	Description	Roles
14:00	14:15	Opportunities for a regional ocean accounts platform	Meeting Room A		Hongjoo Hahm, Deputy Executive Secretary, ESCAP
14:15	15:00	Issue 7: Progress on Measuring SDG14	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Carolyn Kumul, Papua New Guinea Discussant: Md. Rafiqul Islam, Bangladesh
15:00	15:15	Coffee Break			
15:15	16:30	Parallel breakout groups	Meeting Room C	Groups will provide recommendations on options presented in all three issue papers. Participants will be randomly assigned to groups.	Statistics lead: Ismail Abdul Rahman, Malaysia
			Meeting Room D		Science lead: Christina Schönleber, APRU
			Meeting Room G		Governance lead: Jeremy Hills, Climalysis
16:30	17:00	Report of breakout groups	Meeting Room A	Topic leads will present summary of breakout group discussions.	Chair: Bimlesh Krishna, Chief Economic Statistics, Fiji Statistics lead: Ismail Abdul Rahman, Malaysia Science lead: Christina Schönleber, APRU Governance lead: Jeremy Hills, Climalysis
Day 3					
08:30	09:30	Keynote lecture: Ocean Governance	Meeting Room A	Overview of principles and good practices	Presenter: Ben Milligan, University College London Discussant: Maria Corizon Ebarvia
09:30	10:15	Issue 8: Ocean Governance	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Jeremy Hills, Climalysis Discussant: Mary George, University of Malaya
10:15	10:30	Coffee break			
10:30	11:15	Issue 9: Modelling the ocean	Meeting Room A	Presentation (20min) and discussion of issue brief	Presenter: Andy Steven, CSIRO Discussant: Md Waji Ullah, Bangladesh
11:15	12:00	Parallel side discussions	Meeting Room C	Participants are welcome to join focussed sessions on specific topics	C: Ecological Marine Units: Roger Sayre, USGS
			Meeting Room D		D: Poverty-Environment Accounting Framework: Mark Eigenraam, IDEEA
			Meeting Room G		G: Conservation International and Natural Capital Coalition ocean supplement: Rosimeiry Portella, Conservation International
12:00	13:15	Lunch			
13:15	13:45	Regional assessment and diagnostics	Meeting Room A	Overview of regional capacity needs assessment and diagnostics	Presenters: Caridad Canales, Jingjue Pei, ESCAP
13:45	14:45	Parallel breakout groups	Meeting Room C	Groups will provide recommendations on	Statistics lead: Xuan Luong Pham, Viet Nam

Begin	End	Agenda item	Location	Description	Roles
			Meeting Room D	options presented in both issue papers. Participants will be randomly assigned to groups.	Science lead: Anastasia Kuswardani, Indonesia
			Meeting Room G		Governance lead: Rosimeiry Portella, Conservation International
14:45	15:00	Coffee break			
15:00	15:30	Report of breakout groups	Meeting Room A	Topic leads will present summary of breakout group discussions.	Chair: Bimlesh Krishna, Chief Economic Statistics, Fiji Statistics lead: Xuan Luong Pham, Viet Nam Science lead: Anastasia Kuswardani, Indonesia Governance lead: Rosimeiry Portella, Conservation International
15:30	16:15	Issue 10: Outstanding issues and the way forward	Meeting Room A	Summary of recommendations and input to pilot studies	Presenter: Michael Bordt, ESCAP Discussant: Sanjesh Naidu, ESCAP Pacific Office
16:15	16:45	Wrap-up and closing			Chair: Bimlesh Krishna, Chief Economic Statistics, Fiji

6. Annex 2: Workshop participants

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7.   Annex 3: Proposed outline of national Ocean Accounts pilot studies

7.1   Purpose

The purpose of a pilot study is to inform selected national ocean-related priorities by compiling existing data using a coherent statistical framework based on the System of Environmental Accounting (SEEA). Experience with SEEA implementation has shown that multi-stakeholder working groups, contributing to a common platform to address national priorities, will simplify and accelerate the production of priority evidence. By engaging users at the outset, this evidence is much more likely to be used.

Since the SEEA has rarely been applied in an Ocean context, the ESCAP Ocean Accounts Partnership has developed the Technical Guidance on Ocean Accounts that will be applied and tested.

The Technical Guidance adapts the SEEA and adds components to more fully address SDG14 and related goals. For example, the SEEA Central Framework provides methods for compiling solid waste data at the national level, but not at the local level. Knowing where solid wastes are generated, collected and disposed would improve the measurement of land-based sources of marine pollution.

Neither the SEEA Central Framework, nor SEEA Ecosystems provide detailed guidance on implementation. The Technical Guidance provides recommendations on governance (international, regional and national), data sources (global and national) and modelling.

The pilots are designed to provide a broad scoping of national priorities and the constraints to achieving them. In previous SEEA pilots, the focus has been to develop new data to address stated national priorities, such as water or energy. Constraints to be overcome focussed on developing new data and the technical capacity to produce and use it. The Technical Guidance also suggests considering whether stated national priorities are coherent and sufficient. Constraints are therefore analyzed as well in terms of governance (policies and institutional mechanisms). This will facilitate a virtuous cycle of strengthening evidence and governance.

There are many ways in which the Ocean Accounts Partnership can support national pilots:

- **Direct ESCAP supported pilots:** Five ESCAP member States that request ESCAP support will be provided with in-country capacity building and technical assistance.

- **Indirect ESCAP supported pilots:** Countries outside the region, non-governmental organizations and academic researchers may wish to apply the Technical Recommendations, and inform their ongoing development, by conducting related pilots. In these instances, ESCAP will advise and engage partners as required.

The short-term objective of direct ESCAP-supported pilots will be using the approach outlined below to develop:

- a new data product to inform a selected national ocean-related priority, and a work plan to compile more comprehensive ocean accounts; as well as

- agreement among stakeholders on priority governance constraints, and recommendations on overcoming them.

Indirect ESCAP-supported pilots may elect to test or implement parts of the Technical Recommendations using approaches appropriate to their capacities and needs.

7.2 Approach

The intent is that the pilots are country-led. ESCAP and interested partners will support a national stakeholder working group. If a national stakeholder working group does not yet exist, ESCAP will advise on establishing one.

ESCAP and its international and regional partners can support national pilots in many ways. One partner could take the lead or collaborate in conducting scoping studies, capacity building, work planning and technical guidance.

For example, planned or proposed projects that focus on ocean governance and management interventions (projects supported by the Global Environment Facility, development banks, or intergovernmental climate finance, national policy reforms, etc.) would benefit from collaborating on pilots as a coherent approach to scoping, governance and data priority setting, capacity building, data integration.

7.2.1 Participation

Most SEEA pilots have been led by National Statistical Offices (NSO). This is because they have experience in compiling related monetary accounts and are often best placed to work with their data providers to compile complementary physical data. However, few NSOs have the capacity to compile spatial data, which is an important component of the Ocean Accounts.

For this reason, it is suggested that the pilots be hosted in the national department mainly responsible for the ocean. In most countries, this will be a distributed responsibility and departments such as environment, fisheries, spatial planning and others would be engaged in the core working group. It is recommended that the NSO also be part of the core working group.

7.2.2 Process

The main components of the process for direct ESCAP-supported pilots are set out below:

- Scoping Study
  - Conduct a review of the country's capacity to implement SDG 14 (including economic, environmental, ecological and social dimensions) in terms of how oceans are integrated into national and indicative plans and policies, including policy and implementation gaps and good practices (for example, national and provincial level policy and legal frameworks across sectors and institutions, incentive measures including fiscal measures, etc.)
  - Conduct a review of national, regional and international institutions (including academic) working on oceans in the country, including their mandates, data holdings (for example, listings of main indicators, databases, or maps on ocean use, ecosystem types, or characteristics) and publications, and partnerships among them.

- Inaugural workshop (2-3 days, ideally after the scoping study has been drafted)
  - Review results of scoping study
  - Present relevant activities of working group participants
  - Agree on governance constraints to be addressed
  - Agree on data product based on ocean accounts framework to develop that addresses a high priority user need

- o Conduct training and data assessment on priority ocean accounts

- o Plan stages of work for pilot including roles and timelines

- Follow-up workshop (2-3 days, ideally within 6 months of the Inaugural Workshop)

  - o In the interim, the working group will have collaborated to produce a new ocean accounts-based data product. ESCAP and partners will have reviewed and provided technical assistance.

  - o Present technical details of initial pilot account(s)

  - o ESCAP and partners provide technical assistance on finalizing account(s)

  - o Working group develop messaging and advocacy materials

  - o Working group develop work plan for expanding ocean accounts

- Second Asia and the Pacific Expert Workshop on Ocean Accounts (Q3 2019)

  - o This workshop will bring together, in one location, core working group members of all pilot countries as well as key regional and international partners.

  - o Present overview of pilot study (objective; findings: general governance structure, gaps, information needs, good practices; challenges to conducting case study; recommendations for next steps).

  - o Technical discussions on improvements and expansion of pilots