Report of the Seventh Workshop of the second round of regional workshops held under the auspices of the United Nations in support of the second cycle of the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects

Guayaquil, Ecuador, 17 to 18 December 2018

I. Summary of discussions

The present document provides a summary of the discussions and information emanating from the seventh regional Workshop of the second round of workshops in support of the second cycle of the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects (Regular Process), covering the South Pacific. The Workshop was held in Guayaquil, Ecuador, 17 to 18 December 2018.

The presentations, discussions, as well as the Chair's and Joint Coordinator's summary of the Workshop are synthesized under the following overarching topics: (a) Presentation on the outline for the second world ocean assessment and the preliminary timetable and implementation plan for the preparation of the second world ocean assessment; (b) Presentation on the review of the outcome of the Workshop for the South Pacific, held in Auckland, New Zealand in October 2017; (c) Consideration of the intended structure of the various chapters (and sections of chapters) of the second world ocean assessment; (d) Consideration of selected chapters and sections of chapters in the light of the structure of the outline for the second world ocean assessment, including possible chapter frameworks; (e) Consideration of important issues in other chapters; and (f) Consideration of learning points/needs and resources that may be relevant to the inventory of capacity-building opportunities relevant for the Regular Process being compiled and maintained by the secretariat, and to the multi-stakeholder dialogue (case studies of good practices) and capacity-building partnership event, to be held in early 2019. The annexes to the present summary provide other details of the Workshop and its outcomes, including the agenda and list of participants.

II. Background

The programme of work for the period 2017-2020 for the second cycle of the Regular Process, developed by the Ad Hoc Working Group of the Whole on the Regular Process (Ad Hoc Working Group of the Whole)[1] and endorsed by the General Assembly,[2] includes in the activities for 2018 the holding of a second round of regional workshops to, *inter alia*, support the development of the second world ocean assessment by enabling the collection of regional-level data and the meeting of relevant members of writing team.[3] The "Guidelines for the second round of Workshops in 2018 to Assist the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects" developed by the Group of Experts of the Regular Process give guidance to the arrangements of the workshops. The Guidelines provide for, *inter alia*, the purpose, objectives, participants and outputs of the workshops, as well as for the

1 See the attachment to A/71/362.
2 See General Assembly resolution 71/257, paragraph 299.
3 See paragraph 8 (h) of the Programme of Work 2017-2020, attachment to A/71/362.

various operational and administrative considerations on their implementation. The Guidelines are provided in Annex 1 to the present report.

In accordance with the Guidelines, the objectives of the second round of workshops are to:

(a) Support the development of the second world ocean assessment by enabling the collection of regional-level information and data to enable relevant members of writing teams for specified chapters to meet, as well as to interact with experts from the region in the fields covered by those chapters;

(b) Enable the regional experts to better understand the approaches of the Regular Process and to develop their skills in integrated assessments, covering environmental, social and economic aspects;

(c) Enable the writing teams for the chapters selected for the Workshop with the help of the Joint Coordinators and the members of the Group of Experts of the Regular Process who are present, to discuss the structure of their chapter, its relationship with the other chapters of the outline for the second world ocean assessment ("the outline") and responsibilities for developing the chapter text;

(d) Provide opportunities for the members of the Group of Experts present to highlight important issues within the outline other than those of the selected chapters, in order to broaden understanding of the full range of the Regular Process;

(e) Consider what learning points / needs and resources may be relevant to the inventory of capacity-building needs and opportunities relevant for the Regular Process being compiled and maintained by the secretariat, and to the multi-stakeholder dialogue (case studies of good practices) and capacity-building partnership event, to be held in early 2019;

(f) Consider what capacity-building steps might be taken, both at global and regional levels, in relation to the issues covered by the selected chapters.

III. Conduct of the Workshop

The Workshop was held under the auspices of the United Nations, represented by the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs, which also serves as the secretariat for the Regular Process, and hosted by the Permanent Commission for the South Pacific (CPPS) with the support of the Government of Ecuador. It was held at CPPS' Headquarters in Guayaquil, Ecuador. The Workshop was conducted in accordance with the draft agenda (Annex 2).

The Workshop was chaired by His Excellency, Mr. Méntor Villagómez, Secretary-General of CPPS. It was attended by the Joint Coordinator of the Group of Experts of the Regular Process, Mr. Alan Simcock (United Kingdom of Great Britain and Northern Ireland). Participants also included representatives from the following countries: Argentina, Australia, Brazil, Canada, Chile, Colombia, Côte d'Ivoire, Ecuador, Kiribati, Mozambique, Philippines, Portugal, Sri Lanka, Tonga, United Kingdom, Ukraine, United States of America, Venezuela, and Viet Nam, and from intergovernmental organizations (IGOs), regional scientific bodies, universities and academic research institutes (see Annex 3, List of Participants).

Overall, the Workshop was attended by 66 participants, 25 of whom were females. A total of 20 participants were proposed members of writing teams for the second world ocean assessment; six members of the Group of Experts who were Lead members for relevant chapters of the second world ocean assessment also participated in the Workshop. The United Nations was represented by the Deputy-Secretary of the Ad Hoc Working Group of the Whole on the Regular Process and Programme Management Officer of the secretariat of the Regular Process.

The Workshop opened with welcoming remarks delivered by His Excellency, Mr. Méntor Villagómez, Secretary-General of CPPS. He recalled CPPS' role in coordinating maritime policies at the regional level in order to facilitate the adoption of coherent policies, as well as its participation in capacity-building processes at the national and regional levels in scientific, socioeconomic, political and environmental areas. He explained the importance of the Regular Process in contributing to the strengthening of the regular scientific assessment of the state of the marine environment, so as to expand the scientific basis for the development and management of national marine policies. It was noted that assessments inform decision-making and in this way contribute to the sustainable management of human activities affecting the oceans and seas, in accordance with the Convention. He also recalled that the first workshop in the first cycle of the Regular Process was coordinated by CPPS in coordination with the Government of Chile. Mr. Villagómez noted that Member States of CPPS, given the global relevance of the Regular Process, had incorporated a reference to the Regular Process in chapter VIII "Projections of the CPPS to the Pacific Basin", of the Galapagos Commitment for the 21st Century. Paragraph 21 of this document states that CPPS States recognize the need to produce integrated ocean assessments as established by the Regular Process of the United Nations, and that they are committed to collaborate in integrated scientific research programmes with respect to marine ecosystems within areas under national jurisdiction and to project those efforts beyond those areas to the entire Pacific basin. Mr. Villagómez further noted that human impacts on the ocean area are part of our heritage, have shaped the present and will shape not only the future of the seas and their diversity as an integral physical and biological system, but also the ocean's capacity to provide the services that we benefit from. It was also noted that the successful management of any activity requires adequate understanding of the activity and the context in which it takes place, hence the urgent need for the Regular Process to review the state of the marine environment in a systematic and continuous manner by providing regular assessments at global and supra-regional scales, as well as from an integrated vision of environmental, economic and social aspects. In concluding his opening remarks, Mr. Villagómez noted that these periodic reviews of the state of the ocean, the way in which the numerous dynamics of the seas interact and the way human beings use the ocean, should allow people and institutions to adopt their positions more effectively in the general context of the ocean.

The representative of the United Nations also delivered opening remarks. The draft agenda for the Workshop was subsequently adopted.

The opening segment was followed by the consideration of the items on the agenda, which included plenary sessions, a number of presentations, breakout group discussions and feedback from participants. The second day started with presentations on important issues in other chapters of the second world ocean assessment, followed by meetings in breakout groups dealing with the relevant chapters identified for discussion at the Workshop. In the afternoon, a rapporteur from each breakout group

reported to the plenary on the discussions in their group, following which the Workshop considered the remaining items on the agenda.

The Workshop concluded with a presentation by Mr. Alan Simcock, as requested by the Chair, summarizing the main elements that emerged during the discussions. It was noted that real progress had been made in developing the layout of the chapters discussed, including with regard to the allocation of drafting responsibilities for those chapters.

Mr. Simcock's summary was followed by closing remarks by the Chair of the Workshop and remarks by the representative of the United Nations who also thanked Mr. Marcelo Nilo, Director of Scientific Affairs, CPPS, for the reportorial work carried out.

IV. Summary of discussions

The discussions which took place under the various agenda items provided an important opportunity for members of the writing teams as well as experts from the region to discuss the outline for the second world ocean assessment, as well as the relevant chapters of the second world ocean assessment that were the focus of the Workshop. These discussions have been summarized below.

A. Presentation on the outline for the second world ocean assessment and the preliminary timetable and implementation plan for the preparation of the second world ocean assessment

Mr. Alan Simcock gave a presentation on the outline for the second world ocean assessment and the preliminary timetable and implementation plan. The presentation covered the history of the preparation of the outline, including its adoption by the tenth meeting of the Ad Hoc Working Group of the Whole. Mr. Simcock noted that the outline was based on the DPSIR (Drivers, Pressures, State, Impacts, Responses) framework.

He noted that the introduction to the second world ocean assessment would restate the main principles governing the Regular Process. The focus would be on scientific and policy developments since the collection of the data on which WOA I was based and, where possible, trends would be brought out.

Regarding the future summary of the second world ocean assessment, it was noted that, as in WOA I, it would be presented to the General Assembly for its approval. It was noted that the summary should not aim to be a chapter-by-chapter summary, but to present an integrated view of the conclusions across the board, as well as continue to present a comprehensive view of knowledge gaps and capacity-building gaps and needs. It was also noted that, as compared to the summary for WOA I, the summary for the second world ocean assessment would need to be substantially shorter – perhaps 25 pages, rather than 60 pages.

As regards the chapter structure, it was noted that it envisages the following: a one-paragraph summary of the findings of the second world ocean assessment; a summary of the baselines set by WOA I; a description of environmental changes as well as of

economic and social changes; the identified information gaps and capacity-building gaps.

Regarding the state of the marine environment, it was noted that the consideration of the following was expected: the identification of trends in the physical and chemical state of the ocean; trends in species biodiversity; trends in habitat biodiversity; trends in the interaction of human society and the ocean; coastal communities; human health and the ocean; maritime industries; and maritime cultural services including the extent to which marine cultural resources are conserved, support for cultural activities linked to the sea, and the scale of use of objects from the sea valued for cultural reasons.

As regards trends in pressures, it was noted that the following needed to be addressed: developments in pressures from climate change; developments in pressures from human activities (land-based; exploitation of living marine resources; exploitation of non-living resources; other human activities (shipping, tourism etc.), and their cumulative impacts.

Participants were informed that the chapter structure would also consider trends in benefits from management tools~~,~~ including the following: marine spatial planning; other management approaches e.g., ecosystem-based, culture-based, community-based, and area-based (including marine protected areas (MPAs), etc.); adaptation to climate change and resilience building and understanding of the overall benefits from these activities.

Mr. Simcock also outlined the key milestones in the preliminary timetable and implementation plan for the second world ocean assessment, such as the approval of the Lead and Co-Lead members for the chapters of the assessment (drawn from the Group of Experts) as well as the constitution and approval of the writing teams. He highlighted that the drafting of the assessment would be followed by a review process by the Group of Experts, followed by peer review, followed by two rounds of review by States in 2020. He informed participants that the expectation was that the Group of Experts would finalize the document and then submit the assessment to the Ad Hoc Working Group of the Whole in the second quarter of 2020, following which it would be submitted to the General Assembly in the fall of 2020.

In the ensuing discussions it was noted that the second world ocean assessment should devote more attention to satellites' measurements/information/observations since they are more recent than those available for WOA I. The difficulty in ensuring an adequate geographical coverage in each chapter due to the proposed page limit was also noted.

B. Presentation on the review of the outcome of the Workshop for the South Pacific, held in Auckland, New Zealand in October 2017

Mr. Alan Simcock (Co-Chair of the regional Workshop for the South Pacific held in Auckland, New Zealand in October 2017) gave a presentation on the outcome of that Workshop.

Mr. Simcock reported some of the perceived issues of the WOA I identified at that Workshop, namely: the lack of a unified content and style among some of the co-authors, the lack of coordination between chapters, as well as an unclear review process. It was noted that during the Workshop presentations were made on some of the ongoing assessments taking place in the Cook Islands, the Marshall Islands, New Zealand and Tonga, as well as related activities conducted by the Intergovernmental

Oceanographic Commission Ocean Biogeographical Information System (OBIS) and the Secretariat of the Pacific Regional Environment Programme (SPREP).

With regard to the proposed structure of the second world ocean assessment, it was noted that participants, while criticizing the initial proposed structure of the second world ocean assessment, were in favor of emphasizing more the DPSIR approach. It was agreed that the aspect of cultural values as well as natural capital (world's stock of natural resources) should be properly included in the second world ocean assessment. It was further indicated that the Workshop's participants agreed on a set of major points, such as: the need for the development of knowledge of bathymetry, the need for development of knowledge generally, the importance of mutual impacts and relationships between sectors, ecosystem services, human activities and biodiversity, as well as the importance of identifying knowledge gaps. With regard to the priorities in the South Pacific region, the following points were made, namely: challenges for small island developing States (or rather "Large Ocean States"), the need to reflect regional differences, the need to link to regional processes (e.g. Pacific Oceanscape), and the need to ensure input from experts from the South-Eastern Pacific.

C. Consideration of the intended structure of the various chapters (and sections of chapters) of the second world ocean assessment

The presentation on the review of the outcome of the Workshop for the South Pacific held in Auckland, New Zealand, in October 2017, was followed by a presentation by Mr. Alan Simcock of the intended structure of the various chapters (and sections of chapters) of the second world ocean assessment. The presentation highlighted the following proposed structure: (a) a one-paragraph abstract of the chapter or section; (b) a very short summary of the situation recorded in WOA I; (c) a description/overview of environmental changes between 2010 and 2020; (d) a description of the economic and social consequences and/or of the other economic or social changes (including, where appropriate, changes in global distribution of benefits and disbenefits and issues relating to concepts of natural capital); (e) a description of the main (remaining) information gaps in relation to the subject matter; and (f) a description/assessment of the main capacity-building gaps in the field. With regard to the abstract, it was noted that clear, simple language would be essential. Each chapter was expected to include a summary of relevant parts of WOA I and would address environmental changes between 2010 and 2020 (mindful that some observations in 2017 to 2020 will not be available). It was noted that, as much as possible, information should be put in a table format (some cells may have to be descriptive text, not numerical data) and should be region-specific. Regarding the short summary of the relevant situation in WOA I, it was observed that a key challenge would be the ability to provide enough information to enable new readers to understand what was in WOA I in a succinct and engaging manner. As regards the relevant economic and social consequences and/or other economic or social changes, it was noted that each chapter should answer questions, such as what changes have occurred with regard to the economic and social aspects and whether there have been independent economic or social changes that have had environmental impacts.

On the main remaining information gaps, it was noted that WOA I summarized information gaps that needed to be filled, both for assessments and management. The second world ocean assessment would therefore need to look at any changes or

improvements, as well as any new information sources. Finally, chapters in the second world ocean assessment would need to consider the main remaining capacity-building gaps - what has changed since WOA I, whether there are new solutions that need enhanced capacity to support them, and whether there are new problems where capacities do not yet exist. It was noted that the multi-stakeholder dialogue and capacity-building partnership event to be held in January 2019 could be an important information source in this regard.

In the ensuing discussions, in response to a question on the meaning of capacity-building, it was noted that capacity-building encompasses a variety of components, ranging from intellectual capacity to personnel and equipment, techniques to make specific assessments, training as well as institutional arrangements. It was further recalled that the writing teams should refrain from undertaking any policy analysis, but instead describe what seems to be a good practice in their areas of work. In this regard, it was noted that it would be for States to take up the information produced from these assessments and then take action at the national, regional and/or global level accordingly.

Moreover, the 2018 High-level Panel on Building a Sustainable Ocean Economy launched by the Norwegian Government was mentioned as proof of the fact that some of the challenges and issues described in the preface of the WOA I had been taken up at the national and international level by a considerable group of States.

D. Consideration of selected chapters and sections of chapters in the light of the structure of the outline for the second world ocean assessment, including possible chapter frameworks

The discussions under this item of the agenda were preceded by a brief introduction of the respective chapters by the Lead members or Convenors, followed by the participants being divided into parallel breakout groups to review the substance of chapters and related capacity-building needs, where possible. The breakout group sessions were followed by a plenary session during which each group's rapporteur reported on the discussions in the group. The following is a brief summary of the introduction, presentations and discussions.[4]

(i) Chapter 5: "Trends in the physical and chemical state of the ocean" and Chapter 9 "Pressures from changes in climate and atmosphere" (Carlos Garcia-Soto)

Mr. Carlos Garcia-Soto, Lead member for chapter 5 "Trends in the physical and chemical state of the ocean" and for chapter 9 "Pressures from changes in climate and atmosphere" proposed to present and discuss these two chapters at the same time given their interconnectedness.

It was noted that while chapter 5 would be focusing on physical aspects, chapter 9 would be addressing the impacts on biota and ecosystems and coastal population. The need to ensure consistency between chapter 5 of the second world ocean assessment

4 It is noted that the level of detail for the summaries varies depending on, inter alia, the chapter topic, chapter size (number of sub-chapters), the level of detail in the presentations and the number of experts available to provide input in the groups.

and the upcoming IPCC report on oceans and the cryosphere was stressed. In this regard, it was noted that it would be appropriate to ensure that some of the contributors to the IPPC report were part of the writing teams for chapter 5. The structure of the chapters, the regional contribution and analysis to be included and capacity-building were listed as the key factors for these chapters. In response to a question as to whether the chapters would be considering red tides and algal blooms, Mr. Garcia-Soto noted that it would be important for these chapters to also consider a wider spectrum of aspects. In this regard, he noted he would be informing the Group of Experts of the need to allocate additional pages for these two chapters. The importance of ensuring cross-references to other chapters dealing with similar aspects was also stressed.

Breakout group report and plenary discussions on Chapter 5: "Trends in the physical and chemical state of the ocean" and Chapter 9 "Pressures from changes in climate and atmosphere"

Mr. Carlos Garcia-Soto introduced the recommendations for chapters 5 and 9 as well as a set of conclusions on the issue of capacity-building which was agreed by the breakout group.

With regard to chapters 5 and 9, it was agreed:

- To include a table or summary of locations where sea level rise is already having a physical impact (chapter 5);
- To focus on observed trends and not on future or projected trends (chapter 5);
- To include a new point on El Niño and other atmospheric teleconnections, such as the Pacific Decadal Oscillation (PDO), North Atlantic Oscillation (NAO) etc. (chapter 5);
- To include the upwellings, more specifically the Humboldt upwelling as a regional case of relevance (chapter 5);
- To stress the importance of sea level rise impacts on coastal communities (chapter 9);
- To take into account both the benefits and the potential risks when considering super corals (corals resilient to climate change) (chapter 9);
- To stress in the importance of knowledge gaps (chapter 5 and chapter 9);
- To provide a clear goal for the chapters (chapter 5 and chapter 9);
- To have a clear differentiation between the chapters: chapter 5 will focus on the physical and chemical impacts and chapter 9 will focus on impacts on the biota, the ecosystems and the coastal communities;
- To urge the Group of Experts and the Coordinator to provide a larger word count (15-20 pages) for these chapters given the importance of the climate change issue.

With regard to capacity-building, the following considerations were made:

- A good example of capacity-building is the Fenix Islands Protected Area (FIPA). One of the lessons to be learnt from here is the importance of partnership with the scientific community;
- An important action to incorporate in chapter 9 of the second world ocean assessment will be a table of impacts of climate change on communities and the associated response, with a clear reference to capacity-building carried out;
- Good references for future action of capacity-building are the IOC Criteria and Guidelines on the Transfer of Marine Technology;
- Ocean literacy is an important component of capacity-building. It brings the climate change challenges near to the community in words that can be understood. A good example in that regard are the Pacific Island States, like Kiribati, where the population talks about acidification, the importance of mangroves, etc.;
- Ocean literacy, as part of the capacity-building, should target not only the communities but also the decision makers.
- The Latin-American Ocean Acidification Network (LAOCA Network) shows that networking among countries can be a relevant component of capacity-building allowing for standardized methodology of data management and data quality;
- Capacity-building cannot focus only on training researchers because there is also a need for equipment;
- An important aspect of capacity-building in relation to climate change is the sustainability of time series of observations. There is also a need to involve Governments;
- The Ocean Acidification Users Research Group (ORG) can be an example of benefits of including the industry among other actors when handling climate change;
- Capacity-building should incorporate the concept of traditional knowledge, including the participation of traditional knowledge holders in the elaboration of actions to be taken.

With regard to chapter 9, it was proposed that it should also cover the global impacts of El Niño. In this regard, it was noted that a schematic diagram which shows the impacts on a certain area would be developed with the help of a graphic artist. The importance of including economic consequences in the description of this section was also stressed.

Moreover, it was noted that the IV International Conference on El Niño Southern Oscillation: ENSO in a warmer climate (ENSO 2018) held in Guayaquil, Ecuador, from 16 to 18 October 2018, addressed the effects of El Niño on corals. In this regard, the need to use satellite images to monitor the development was mentioned. The importance for capacity-building to also include equipment, because of the need for technologies, was also stressed. In response to a question on the agreed length of this

chapter, it was clarified that it would be for the Group of Experts to decide on the allocation of pages for each chapter of the second world ocean assessment.

(iii) Chapter 12 "Changes in inputs and distribution of solid waste in the marine environment" (Iryna Makarenko on behalf of Maria Bebianno)

Ms. Iryna Makarenko, gave a brief presentation of chapter 12 on behalf of the Lead member, Ms. Maria Bebianno, who was able to participate remotely in the second half of the Workshop. The need for additional members for the writing team for this chapter was stressed. In this regard, the need for regional experts from the South Pacific was also mentioned. It was noted that this chapter is interrelated with chapters 23 (Developments in marine transportation) and 25 (Invasive species).

Ms. Makarenko noted that the outputs from the seventeenth meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP-17), held at United Nations Headquarters in New York from 13 to 17 June 2016, which addressed the topic of "Marine debris, plastics and microplastics" would be used in the elaboration of this chapter. It was noted that this chapter should also contain an explicit evaluation of how the developments described in the chapter are contributing to the achievement of relevant Sustainable Development Goals (SDGs). The importance for this chapter to properly address the issue of solid and plastics waste as well as microplastics and its impacts on human health was stressed.

Breakout group report and plenary discussions

Ms. Paula Sobral presented the report from the breakout session on chapter 12 (Changes in inputs and distribution of solid waste in the marine environment). It was noted that this chapter will provide an update on dumping based on the information provided by the International Maritime Organization (IMO), as well as from local authorities. It was noted that CPPS agreed to approach the competent authorities regarding compliance with MARPOL, Annex 5, and port waste reception facilities. She noted that the chapter will draw upon marine litter data from long term citizen science campaigns that have taken place in Chile and in Peru. It was also noted that the experiences and lessons learned from the 2007 HELCOM Regional Action Plan for Marine Litter should also be taken into consideration. With regard to the SDGs, it was noted that CPPS is already developing a regional action plan in the scope of SDG 14 to prevent and reduce marine litter.

Among the recommendations which emanated from the breakout group, it was agreed to approach the Regional Sea Convention and Action Plan secretariats (e.g. Abidjan, Nairobi), UNEP and relevant sectoral organizations (Convention on Biological Diversity, Food and Agriculture Organization of the United Nations (FAO), IMO, etc.) to gather more information. It was also agreed that CPPS would be organizing a workshop to gather data from the South Pacific allowing for the possibility for the writing team for this chapter to meet a second time.

In the ensuing discussions, the importance of including waste management in this chapter was stressed. In response to a question as to whether this chapter will also address pollution from the exploration and exploitation of oil and gas, it was noted that such issue would be dealt with in another chapter. With regard to the disposal of

wastes at sea covered by the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention), it was noted that, although there is an obligation for States to report, only half of the parties to this treaty fulfil this obligation.

(iv) Chapter 16 "Changes in aquaculture" (Rohana Subasinghe on behalf of Enrique Marschoff)

Mr. Rohana Subasinghe gave a brief presentation of chapter 16 on behalf of the Lead member, Mr. Enrique Marschoff, who was unable to be at the Workshop. A question was raised as to whether this chapter would be addressing marine/inland aquaculture or only ocean-based aquaculture. While noting that "The State of World Fisheries and Aquaculture 2018" (SOFIA 2018) would be used as one of the key documents in the preparation for this chapter, it was noted that the consumption of fish from aquaculture surpassed the consumption of fish from capture fisheries. The importance of ensuring the linkage between chapter 17 (Changes in seaweed harvesting and use) and chapter 16, as well as to address the social and economic consequences derived from aquaculture was stressed. In response to the question as to whether the chapter should focus on fresh water, marine areas or both, it was clarified that the chapter would need to focus mainly on mariculture (marine/salt water), while at the same time recognizing the need to take into account the linkages between mariculture and the ocean. It was noted that the introduction of invasive species from aquaculture activities should also be addressed in this chapter.

Breakout group report and plenary discussions

Mr. Pedro Jose Baron presented the report from the breakout session on chapter 16 (Changes in aquaculture). It was noted that this chapter would need to update the baseline information in chapter 12 of WOA I.

With regard to the aspect of environmental change, it was noted that the chapter would cover the following:

- Changes and status in regional/global production, volumes, values, productivity, species, systems, practices, etc.
- Environmental impacts of and impacts on aquaculture.
- Aquaculture environments: freshwater, brackish water, and marine areas, and their environmental interactions.
- Potential downstream impacts.
- Effects of intensification and expansion of aquaculture.
- Novel approaches and solutions for mitigating negative impacts, with examples based on case studies.
- Trends in aquafeed production and use:
    - Fed vs. unfed aquaculture
    - Research into fishmeal replacement (zero fishmeal salmon diets)
    - Novel technology, reduced use of marine resources for feeding fish

    - Southern Ocean Krill fishery, pros and cons for the marine environment.
- Comparative sustainability of aquaculture vs other animal food production.
- Introduced alien species vs. local species in aquaculture and environmental aspects:
    - Chilean salmon
    - White leg shrimp in Asia
    - Disease and pathogen transfer, advancements in Specific Pathogen Free (SPF) post-larvae production.
- Sustainability indicators, public perception and image.
- Novel technological developments and management improvements:
    - Mangrove friendly shrimp farming
    - Multi Trophic Aquaculture
    - Genetic research, disease resistance, etc. – Research into Tilapia lake virus (TiLV) resistant tilapia
    - Genetically Modified Organism (GMO) vs. Selective breeding, pros and cons
    - Organic aquaculture
    - Aquaculture certification
    - Self-governance, cluster management, biosecurity, reduced disease outbreaks, decreasing use of antimicrobials
    - Improvement in sea cage farming technology, pelletized feed, feeding automatization.

With regard to social consequences and socioeconomic changes, it was noted that the chapter would cover the following:

- Contribution of fish to human nutrition
    - Nutrition and health issues, including the effects on, women of reproductive age, with examples from Bangladesh, India, Nigeria, etc.
- Small-scale vs. commercial and industrial aquaculture
    - Environmental issues
    - Social benefits of small-scale aquaculture, income, food, etc.
    - New evidence of the role of small-scale aquaculture supporting livelihoods, income, nutrition and health with evidence from Bangladesh, Chile, India, etc.
- Aquaculture: Benefits vs. Challenges:
    - Providing fish to maintain/increase global consumption rate(s)

    - Access to affordable fish vs. increasing competition for habitable land
    - Conflicts with small-scale coastal fishers
    - Competition for land and water
    - New approaches to reducing conflicts through community management
    - Moving aquaculture offshore
    - Ecosystem approach to fisheries and aquaculture
    - The new Blue Growth initiative/approach to development.
- Improving the benefits of aquaculture:
    - Regional aquaculture development trends
    - Africa as the currently fastest growing region
    - Opportunities for new marine species for aquaculture
    - Fish and shellfish species as signature species for the world, in particular Africa
    - Bottlenecks, challenges and opportunities:
        - Seed, feed, extension, capital bottlenecks
        - Introducing Genetically Improved Farmed Tilapia (GIFT)
        - Making Genetically Improved Farmed Tilapia (GIFT), Tilapia lake virus (TiLV) resistant
        - Commercial aquaculture as a viable opportunity.

With regard to information gaps, it was noted that the chapter would address the following:

- Downstream pollution fluxes from inland aquaculture to estuarine and coastal systems (e.g., antibiotics and other chemicals runoff).
- Impact of microplastics in the aquaculture industry.
- Uneven scientific information across regions of the world
    - e.g. Red and brown tides (leading to negative perception of aquaculture).

With regard to capacity-building gaps, it was noted that the chapter would address the following:

- Need for improvement of overall capacity in aquaculture management
    - Policy and legislation (e.g., policy management for offshore mariculture; more programmes like the Norwegian “Fish for Development” initiative)
    - Institutional issues (e.g., monitoring of inland aquaculture pollution of marine environments)

- Research and Development (e.g., new species; biosecurity; genetics; sustainable feeds, etc.).

In conclusion, while recalling that WOA I included a separate chapter on fish stocks enhancement, Mr. Simcock noted that chapter 16 of the second world ocean assessment should also consider what has been happening in the last ten years on this issue.

(v) Chapter 17 "Seaweed" (Hilconida Calumpong)

Ms. Hilconida Calumpong, Lead member for this chapter, gave a brief presentation of chapter 17. It was noted that, where appropriate, each sub-chapter in this section would review separately the situation of seaweed in the various ocean regions, as well as include an explicit evaluation of how the developments described in the chapter are contributing to the achievement of relevant SDGs.

Breakout group report and plenary discussions

Mr. Jason Hall-Spencer presented the report from the breakout session on chapter 17 (Seaweed). It was noted that the chapter will deal only with changes in seaweed uses, production and harvests since 2012.

With regard to the contribution of seaweed to relevant SDGs, it was noted that the breakout group agreed on the following:

- Goal 5 (Gender equality and women empowerment) - Mainly women are involved in seaweed farming in Indonesia, Philippines, the United Republic of Tanzania: Decrease in poverty linked to decrease in child mortality, decrease in birth rate and increase in education;
- SDG 14.1 (Reducing pollution) - Seaweeds remove nutrients and have a low carbon footprint product;
- SDG 14.2 (Sustainable management and promoting resilience) - Seaweed farming as a supplementary source of income and food security;
- SDG 14.3 (Minimize impacts of ocean acidification and Combat climate change) - Seaweed sequesters CO_2 and is a low carbon/protein rich food, contributing to the implementation of the Paris Agreement.

With regard to documented changes in the state of seaweed wild harvest, while noting that data for the period 2013-2018 will be provided by FAO, it was indicated that the five top producing countries are: Chile (39%), China (23%), Norway (13%), Japan (9%), and France (3%).

With regard to changes in the uses of seaweed, it was note that in 2012: 80% was recorded to be allocated for human consumption, while 20% are attributed to industrial uses, medical, cosmetic, fertilizer, feed additive, water purifier, and probiotics in aquaculture. In this regard, the need to provide better resolution data on knowns uses and what has changed since 2012 was stressed. Replacing plastic in packaging, biofuels (bioreactors, firewood replacement) and ocean acidification/eutrophication mitigation tools were listed among the new applications used in the sector. Moreover, replacing plastic ties with organics for food safety and

increasing production through more resilient/efficient aquaculture facilities were listed among the major changes in production technology for this sector. In conclusion, it was noted that the seaweed industry is continuing to rapidly expand because of demand from a growing human population. Moreover, it was noted that, while production has a low carbon/nutrient footprint, this nutritious product can help mitigate ocean stressors, such as eutrophication and acidification. It was also noted that growth of this industry faces challenges as it competes for ocean space. In this regard, socioeconomic equity was listed among one of the major issues.

In the ensuing discussions, while noting the fact that seaweed is going to appear in several chapters of the second world ocean assessment, it was suggested that a substantive index be developed to facilitate cross-referencing across the second world ocean assessment.

(vi) Chapter 28 "Cumulative impacts" (Alan Simcock on behalf of Karen Evans)

Mr. Alan Simcock gave a brief presentation of chapter 28 on behalf of the Lead member, Ms. Karen Evans, who was unable to be at the Workshop. The importance of integrating the management of marine environments in such a way as to quantify and manage the cumulative nature of impacts from the multiple sectors utilising marine environments (economic, social, cultural) was stressed. While recalling that this topic has been partially addressed in chapters 36 and 54 of the WOA I, it was noted that the second world ocean assessment would try to summarize the recent developments in this field, while at the same time providing a comprehensive baseline on current understanding, particularly of approaches to quantifying impacts across sectors and jurisdictions and outputs from those assessments.

Breakout group report and plenary discussions

Ms. Denise Lemos presented the report from the breakout session on chapter 28 (Cumulative impacts). It was noted that the chapter would be developed along the following general headings: Capacity-building, Ocean Literacy, Time from words to real action, Networking among countries, Equipment, and Involvement of Governments.

While highlighting the multidisciplinary nature of this chapter, it was noted that the purpose of cumulative impacts assessment would be to adopt evidence-based decision-making, looking at effects in terms of exposure and impacts as a means to assess resilience of ecosystems and society. It was noted that there was not enough information to assess all cumulative effects and impacts. In this regard, information gaps on climate parameters to assess natural variability and identify cumulative effects on different regions were listed as a major issue.

With regard to the selection of ecosystems and of good quality indicators, the breakout group agreed on the following outline for the chapter:

- Selection of ecosystems based on the scope (spatial scale and study object):
    - Benefits of restricting ecosystems assessment: Cumulative assessment needs to be focused on specific ecosystems in order to restrict the data to a manageable amount.

- Identification of specific cumulative effects and significant stressors in individual cases.

- Selection of good quality indicators:
  - Possibility of collecting sufficient data to answer specific research questions.
  - Efforts on the definition of a good ecological status

    (with examples from the European Union Marine Strategy Framework Directive and the Ocean Health Index Initiative.

    Different good quality descriptors (Eutrophication, pollution, biodiversity, food webs, etc.).

It was also noted this chapter would provide a section summarizing examples where cumulative effects have been evaluated. In this regard the Australian Great Barrier Reef was listed as a possible case study to be analysed. It was indicated that the chapter would also provide a section on the study of multiple stressors and specific scenarios, such as sea temperature rise, ocean acidification, El Niño–Southern Oscillation (ENSO) with examples from Chile, Colombia, Ecuador and Peru, and fisheries. In conclusion, it was noted that there is an urgent need for capacity-building in all regions.

(vii) Chapter 30 "Developments in management approaches" (Mike Elliot on behalf of Anastasia Strati)

Mr. Mike Elliot gave a brief presentation of chapter 30 on behalf of the Lead member, Ms. Anastasia Strati, who was unable to be at the Workshop. The issue of overlap with multiple chapters of the second world ocean assessment was noted. A participant noted the progress made by ocean observing systems in providing valuable options on how to move forward in the future. In this regard, it was noted that the outcome of the Ocean OBS'19 Conference to be held from 16 to 20 September 2019 in Honolulu, United States of America, which would be discussing global management of the ocean, should be taken into consideration in the development of this chapter.

Breakout group report and plenary discussions

Mr. Marcus Polette presented the report from the breakout session on chapter 30 (Developments in management approaches). It was noted that the chapter will start by addressing the overlaps/interactions with other chapters of the second world ocean assessment, in particular chapters 8(d) (Maritime cultural services), 15 (Changes in capture fisheries and harvesting of wild marine invertebrates), 28 (Cumulative impacts) and 29 (Developments in Marine Spatial Planning). It was also noted that the chapter will provide a description of the globally accepted framework for management, of the precautionary approach, as well as other principles of coastal and ocean governance (e.g. developer debt principle, intergenerational equity, etc.).

With regard to the implementations of the ecosystem approach (EA), it was noted the breakout group agreed on the structure of the following sub-sections:

- EA best management practices.

- System based management (with examples from Brazil, Philippines, Viet Nam).
- Ecosystem-based adaptation (example: Colombia's legal provisions related to climate change).
- Ecosystem-based fisheries management.
- Marine Spatial Planning (MSP) (cross-reference with chapter 29).
- Integrated ecosystem assessment.
- Integrated coastal zone management (with examples from Brazil - Coastal Zone Management Law, Colombia, Ecuador).
- Integrated ocean and coastal management (example: Viet Nam).
- Marine Policy (example: Mozambique Policy and Strategy of the Sea, POLMAR).
- Management of marine protected areas, including some areas provided to the community for use (with examples from Brazil, Ecuador and Mozambique).
- Indigenous peoples compensated for climate change adaptation (example: Canada).
- "Ridges-to-reefs" ecosystem-based management (with examples from Philippines, Thailand, Viet Nam).

With regard to community-based management (bottom-up approach), it was noted the breakout group agreed on the structure of the following sub-sections:

- Key form of participatory resource management, in particular with respect to fisheries/fisheries management areas (with examples from Ecuador and Viet Nam).
- Marine conservation zones (with examples from the United Kingdom - stakeholder-led process and Viet Nam – community participation to guarantee success).
- Marine protected areas (example: strategy and action plan in Mozambique).
- Priority areas for conservation (example: Brazil – participation by community dependent on Federal Government).
- Role of indigenous peoples and local communities in governance, monitoring and enforcement: effectiveness and limits (with examples from Brazil and Colombia).
- The importance of managing use at local levels and the ability to deal with external pressures, such as climate change.

With regard to the need to incorporate different social cultural services/values into management, it was noted that the breakout group agreed on the following points/sections which would be then further developed in the chapter:

- Mapping of cultural ecosystem services is challenging due to their often intangible and varied character.

- Non-material “cultural” services associated with marine ecosystems (e.g. aesthetic qualities, cultural heritage and identity; spiritual, sacred and/or religious importance; inspiration for culture, art and design and sense of place) are the hardest to incorporate into planning and management). Cultural information may include a description of activities (fishing, hunting, traditional sea routes and ancient navigational skills), accounts about specific events recounted on legends, stories or narratives, rituals, belief and practices.
- Preservation of underwater archaeological and historical sites (shipwrecks, sunken cities, etc).
- Closely related to community-based management and the most extensively documented aspect of cultural interaction with the ocean are the traditional knowledge practices of communities, which are increasingly acknowledged as important for near-shore management.
- Combining ecosystem-based management and community-based management in designing hybrid systems.
- How to trade off the three pillars of sustainable development (social, environmental and economic aspects).
- Conservation conflicts.

With regard to the different types of area-based management tools (ABMTs) and their effectiveness, it was noted that the breakout group agreed on the following examples which will be then further described in the chapter:

- Special areas and emission control areas under MARPOL/IMO (Annex I: Oil, Annex II: Noxious Liquid Substances, Annex IV: Sewage, Annex V: Garbage and Annex VI: Prevention of air pollution by ships).
- Particularly Sensitive Sea Areas (PSSAs)/IMO, areas to be avoided, additional measures affecting shipping under SOLAS and other instruments.
- Areas of particular environmental interest (APEI)/International Seabed Authority, Preservation Reference Zones (PRZ) and Impact Reference Zones (IRZ).
- Whale sanctuaries (drawing information from the International Whaling Commission).
- Seasonal or year-round fisheries closures (drawing information from regional fisheries management organizations (RFMOs)).
- Vulnerable marine ecosystems (VMEs).
- World Heritage Sites (drawing information from the World Heritage Convention).
- Tripartite agreement between Indonesia, Malaysia and the Philippines – (Sulu, Sulawesi and Celebes).
- Wadden Sea Trilateral Working group management.

- Special Area for Fishing Agreement, such as those concluded between Argentina, Brazil, Uruguay, as well as those between China and Viet Nam, and between Colombia, Jamaica, and the United States of America.
- Protected corridor for shark and turtles: example from Colombia, Costa Rica, Ecuador, and Panama.
- Pipeline and cable closures.
- Offshore energy (Oil, Gas and Renewables).
- Sites from the Ramsar Convention on Wetlands (Ramsar Convention), Wetlands of International Importance (Ramsar Sites)
- Marine protected areas.
- Cross-sectoral issues and the potential for interactions between ABMTs.

With regard to key region-specific issues, it was noted that the breakout group agreed on the following points which will be then further developed in the chapter:

- Low-lying coastal areas, urban poor, vulnerable coastlines.
- Sinking coastlines increasing vulnerability.
- Eroding coastlines – subsidence of deltas and removal of areas due to sediment starvation (Mekong delta).
- Management of freshwaters – salinity intrusion, groundwater problems, effects on contaminant concentrations.
- Impact of upstream infrastructure on water and sediment supply and erosion (with examples from Ghana, and other countries) – knock-on effects on ecological processes.
- Spatial planning – applied in marine areas – regional or national competency (example: Brazil Federal Government).

With regard to capacity-building, it was noted that the breakout group agreed on the following points which would be then further developed in the chapter:

- Training and expertise in marine management and governance linked to science (policy drivers, science for policy and policy for science) (e.g. IOC–Ocean Teacher Global Academy (OTGA), Colombia's Regional Training Centres).
- Learning within and between States and regions.
- Greater competence in horizontal integration between stakeholders and sectors, and for vertical integration from regional to global.
- Greater engagement between scientists and the industry/private sector.
- Implementation, planning and policy processes – how to achieve and what measures to show that it has been achieved.
- Education across natural and social sciences – breaking down barriers.

- Greater understanding by scientists of the policy-making process, public behaviour, management process, economic aspects (Blue Economy).
- Greater resources for monitoring, use of data (involvement of private sector, impact assessment data etc) – need training on how to get funding, importance of collaboration and in-kind collaboration; sharing experiences (Knowledge Transfer Programmes).
- Greater expertise and input to modelling, decision support systems (recognising complexity of coastal and marine systems).
- Greater understanding of intergenerational sustainability.
- Education in increasing communication and enhancing communication between different programmes and strategies.
- Formal and in-formal education to accommodate marine complexity.
- Role of citizen science (example: United Kingdom shore biota monitoring, Shore beach litter monitoring).
- Open access information, publications benefitting scientifically less-funded States.

With regards to gaps and future research, it was noted that the breakout group agreed on the following points:

- Scientific understanding of the ocean is fundamental to carrying out effective management of human activities that affect the marine environment and therefore needs to be increased.
- Getting “win-win” in the use of best-available science to benefit the private and public sectors, society and management regimes.
- Improving the science-policy interface is necessary and particularly important when considering decision-making related to issues where the knowledge base is quickly expanding and emerging, such as climate change and ocean acidification.
- The need for greater communication (and communication training) between social and natural sciences, between scientists and policy-makers and between science and industry.
- More research is needed on management responses for adaptation/resilience, inter alia, to predict ecosystems response times and build this into management approaches.
- More research is needed on the innovative use of data and information in policy approaches.
- Greater use of models, mapping, decision-support systems, statistics, is needed to increase interpretation of management approaches (more “how” and “why” than “what”).
- The need for an increase in management approaches incorporating regional data, and regional trends.
- A greater understanding of the relationship between ecological cause and effects and socioeconomic priorities.

- A greater understanding of carrying capacity and assimilative capacity and their inclusion in management approaches.

In the ensuing discussions, a participant suggested the inclusion of a reference to the recent developments that occurred in Kiribati's Phoenix Islands protected area.

E. Consideration of important issues in other chapters

No presentations were made under this agenda item.

F. Consideration of learning points/needs and resources that may be relevant to the inventory of capacity-building opportunities relevant for the Regular Process being compiled and maintained by the secretariat, and to the multi-stakeholder dialogue (case studies of good practices) and capacity-building partnership event, to be held in early 2019

Mr. Marco Boccia provided information on capacity-building under the Regular Process, noting that it is one of the core objectives of the Regular Process. He noted that participants attending the first round of regional workshops held in 2017 identified capacity-building as an important element for the Process. It was noted that a fully-searchable capacity-building inventory has been compiled and continues to be updated on the website of the Division. It was also noted that a two-day multi-stakeholder dialogue (with case studies of good practices) and capacity-building partnership event ("the Event") would be held in New York in early 2019 to build awareness on the Regular Process and the science-policy interface at all levels, while allowing for in-depth multi-stakeholder dialogues on current opportunities, gaps and needs in capacity, as well as building capacity to participate in, and make use of, assessments.

The importance of increasing the number of National Focal Points was emphasized, it being noted that they were important for, among other things, assisting with the nomination of experts to the Pool of Experts, as well as awareness-raising and outreach concerning the Regular Process. Moreover, the importance of filling the geographic and capacity gaps with respect to the composition of the Pool of Experts was also highlighted. In this regard, it was noted that out of more than 570 members of the Pool of Experts there were fewer experts from developing countries, and less than half were women. It was also noted that some gaps in expertise were in part due to a lack of available courses of study/academic courses in certain topics, particularly those related to the socioeconomic aspects of ocean issues.

G. Overview of the outcome of the Workshop presented by the Chair and the Joint Coordinators

Mr. Alan Simcock noted that the Workshop had a very thorough look at the main issues of the chapters under consideration, making real progress in defining the layout of the various chapters.

With regards to the importance of ensuring the participation of experts from the South Pacific region, it was noted that the Workshop was an opportunity for many experts

from the region to become part of the writing team of the various chapters discussed at the Workshop.

Mr. Villagómez, while noting the complexities of the issues at stake as well as in the development of the second world ocean assessment, stressed the importance for States to use of such an assessment when making decisions on how to conserve and sustainably use the ocean resources.

ANNEX 1: Guidelines for the second round of Workshops in 2018 to Assist the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects

Purpose and objectives

1. The programme of work for the period 2017-2020 for the second cycle of the Regular Process, developed by the Ad Hoc Working Group of the Whole on the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects,[5] and endorsed by the General Assembly,[6] includes in the activities for 2018 the holding of a second round of regional workshops to, *inter alia,* inform the collection of regional-level information and data for the preparation of the second world ocean assessment, to build capacity and to facilitate outreach and awareness-raising.[7] These Guidelines apply to the second round of regional workshops and are intended to give guidance for the arrangements for such workshops.

2. The objectives of each of these workshops should therefore be to:

(a) Support the development of the second world ocean assessment by enabling the collection of regional-level information and data for the preparation of the second world ocean assessment and to enable relevant members of writing teams for specified chapters[8] to meet, and to interact with experts from the region in the fields covered by those chapters;

(b) Enable the regional experts to understand better the approaches of the Regular Process and to develop their skills in integrated assessment, covering environmental, social and economic aspects;

(c) Enable the writing teams for the chapters selected for the workshop, with the help of the Joint Coordinators and the members of the Group of Experts of the Regular Process ("the Group of Experts") who are present, to discuss the structure of their chapter, its relationship with the other chapters of the Outline for the second world ocean assessment ("the Outline") and responsibilities for developing the chapter text;

(d) Provide opportunities for the members of the Group of Experts present to highlight important issues within the Outline other than those of the selected chapters, in order to broaden understanding of the full range of the Regular Process;

(e) Consider what learning points / needs and resources may be relevant to the inventory of capacity-building inventory of needs and opportunities relevant for the Regular Process being compiled and maintained by the secretariat, and to the multi-stakeholder dialogue (case studies of good practices) and capacity-building partnership event, to be held in early 2019.

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5 See the attachment to A/71/362.

6 See General Assembly resolution 71/257, paragraph 299.

7 See, inter alia, paragraphs 9 (c) and 13 (b) of the Programme of Work 2017-2020, attachment to A/71/362.

8 Where a separate writing team is established for a section of a chapter, this section may be treated as a chapter for the purpose of these guidelines.

(f) Consider what capacity-building steps might be taken, both at global and regional levels, in relation to the issues covered by the selected chapters.

3. The Group of Experts will inform the Bureau of the Ad Hoc Working Group of the Whole ("the Bureau"), for its consideration, of the chapters which will be the focus of each regional workshop.

Number and locations

4. States, relevant organizations, bodies, funds or programmes within the United Nations system and intergovernmental regional organizations are invited to offer to host workshops in 2018 for the following ocean areas:

(a) The North Pacific;

(b) The South Pacific;

(c) The Indian Ocean (including the Arabian Sea and the Bay of Bengal), the Red Sea and Gulf of Aden and the ROPME/RECOFI area;[9]

(d) The North Atlantic, the Baltic Sea, the Mediterranean Sea and the Black Sea; and

(e) The South Atlantic (between the African and American coasts) and the wider Caribbean.

5. Separate workshops will not be held for the Arctic Ocean or the Southern Ocean. Instead, correspondence which was initiated during the first round of regional workshops in 2017, will continue between the relevant international bodies and forums for those areas (in particular, the Antarctic Treaty System and the Arctic Council) and the Group of Experts of the Regular Process to enable those bodies and forums to contribute their views on the issues relevant to the workshops. If requested, members of the Group of Experts and Pool of Experts will make themselves available for consultation.

6. To the extent that resources permit, one or two further meetings of writing teams may be held during the first half of 2019 where the Bureau considers it desirable to do so. The themes of such meetings will be determined by the Bureau on the basis of recommendations from the Group of Experts.

Timing

7. Seven possible time-slots have been identified for workshops to be held between June and December 2018:

(a) 25 – 29 June, 2018;

(b) 2 – 27 July, 2018;

(c) 30 July – 10 August, 2018;

(d) 24 – 28 September, 2018;

(e) 15 – 26 October, 2018;

9 Regional Organization for the Protection of the Marine Environment (ROPME) Members: Bahrain, Iran (Islamic Republic of), Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Regional Commission for Fisheries (RECOFI) Members: Bahrain, Iran (Islamic Republic of), Iraq, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates.

(f) 5 – 9 November, 2018;

(g) 26 – 30 November, 2018.

These Guidelines will be supplemented by details regarding the format of the workshops and the proposed composition and structure of the meetings of the writing teams.

8. Potential hosts are invited to indicate within which of these time periods they would wish to host a workshop.

Activities of workshops

9. The agenda of a workshop to support the Regular Process should reflect the objectives set out in paragraph 2 above. The activities of a workshop should take full account of the principles for the Regular Process recommended by the Ad Hoc Working Group of the Whole and endorsed by the United Nations General Assembly in 2009 and reaffirmed by the United Nations General Assembly in 2016,[10] and the various recommendations of the Ad Hoc Working Group of the Whole.

Hosts

10. Workshops are to be hosted by Member States, members of United Nations specialized agencies and relevant organizations, bodies, funds or programmes within the United Nations system. They are to be organized under the auspices of the United Nations,[11] in coordination with the secretariat of the Regular Process and with the assistance of members of the Group of Experts and Pool of Experts, as appropriate. For the organization of such workshops, as they affect these regions, hosts may request the cooperation of relevant regional intergovernmental organizations and/or that of relevant national scientific institutions.

Participation

11. Member States of the United Nations, members of United Nations specialized agencies and relevant organizations, bodies, funds or programmes within the United Nations system, shall be entitled to participate in any workshop that they consider relevant to them, up to the number of available places. Relevant regional intergovernmental organizations in the region are encouraged to participate, including regional seas organizations, regional fisheries management organizations and arrangements, relevant regional intergovernmental marine science organizations and intergovernmental organizations and arrangements undertaking work in relation to large marine ecosystems. For practical reasons, the logistics and the number of invitees will need to be managed by the host in consultation with the secretariat of the Regular Process, as well as in consultation with the Bureau, as appropriate. Member States should consider arranging for their National Focal Points for the Regular Process to assist with identification of participants for regional workshops and the organization of such workshops as required, and where possible, to participate in relevant workshops.

12. Non-governmental organizations in consultative status with the Economic and Social Council or with Convention secretariats, relevant non-governmental organizations which accredited to the United Nations Conference on Sustainable

10 See A/64/347, annex, and paragraph 285 of General Assembly resolution 71/257.

11 Such workshops will require the conclusion of a host country agreement.

Development (“Rio + 20”)or which participated in the United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development (“United Nations Oceans Conference”) in accordance with General Assembly resolution 70/303: Modalities for the United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, relevant scientific institutions and organizations representing major groups as defined in Agenda 21 may request invitations to participate in the workshops. Relevant regional marine science institutions and organizations and relevant regional arrangements undertaking work in relation to large marine ecosystems are particularly encouraged to participate. The organizations, arrangements and institutions referred to in this paragraph should be those active in ocean affairs and marine science whose participation can help advance the work and objectives of the Regular Process. Hosts may reserve a number of places in the workshop to be filled by such invitations.

13. Each workshop should include at least one member of the Group of Experts, one member of the Pool of Experts, as appropriate, and one member of the secretariat of the Regular Process, which will be coordinated with the secretariat of the Regular Process. The Joint Coordinators of the Group of Experts will be invited to participate in all the workshops. If possible, all members of the Group of Experts from States in the area covered by the workshop should participate. The Lead Members from the Group of Experts for the chapters selected for the workshop as well as relevant members of the writing teams should also be invited to participate. The participation of the members of the Group of Experts and of the Pool of Experts, as appropriate, from developing countries from the region and the Joint Coordinator from the developing country, as well as that of the relevant members of the writing teams, will be supported within the provision made in the regular budget of the United Nations for 2018/2019.

14. Hosts may, as appropriate, encourage the participation of relevant members of the Pool of Experts, including their attendance in the regional workshops and seeking their input on organization, networking, and substantive input to the preparation and review of the outcome of the workshops. Preference should be given to experts in the fields covered by chapters selected for the workshop.

Chair and secretariat

15. Hosts should designate a chair (or co-chairs) of the workshop, who will be expected to take responsibility for summarizing the outcomes of the workshop with the aid of the workshop support staff and members of the Group of Experts. Hosts may consider inviting a member of the Group of Experts and, as appropriate of the Pool of Experts, to be the chair, or a co-chair, of the workshop. Hosts may provide guidance, where needed, on what the priorities for the region are, as well as on potential participants and other modalities for the workshops.

16. Hosts should provide support staff to organize proceedings in consultation with the secretariat of the Regular Process and the members of the Group of Experts and, as appropriate, of the Pool of Experts, who are taking part, and to help the chair(s), the member(s) of the Group of Experts and the secretariat to provide a summary of the outcome.

Output of workshops

17. The output of the workshop should take the form of:

(a) Notes by the writing teams on the issues discussed in relation to each of the chapters selected for the workshop. To deliver these, each writing team should be asked to designate one of its members to take responsibility for the production of these notes;

(b) A summary of other discussions and presentations taking place in the workshop. The member(s) of the Group of Experts, of the Pool of Experts, as appropriate, and the secretariat of the Regular Process will help to produce this summary. Provision should be made for the participants to comment on a draft of the summary and for the final version to be revised by the chair(s) and representative(s) of the Group of Experts and of the Pool of Experts, as appropriate, in the light of such comments.

18. The secretariat of the Regular Process will play an important role in ensuring that the output of each workshop is captured and presented in a way which will support the work of the second cycle of the Regular Process.

19. Those functions would include capturing the relevant information presented (directly and indirectly) during the workshops, including regional/national informational needs with respect to the Regular Process and its outputs.

20. The secretariat would also assist in the preparation of the summary of discussions. It would also be responsible for the development and adaptation of the outreach materials relevant to the Regular Process and its outputs.

21. The division of work in preparing the written output of each workshop should be agreed between the host and the secretariat of the Regular Process, in consultation with the member(s) of the Group of Experts and of the Pool of Experts, as appropriate.

Follow-up to the workshops

22. The final version of the summary of discussions, which could include (subject to the discretion of the relevant writing team) the notes on specific chapters, should be made publicly available on the Regular Process website.

23. The secretariat of the Regular Process should ensure that liaison continues after the workshop with bodies that have contributed to it and with National Focal Points in the region. In particular, the secretariat should seek to facilitate follow-up on capacity-building possibilities identified by the workshop both with respect to the further clarification of needs as well as the identification of best practices.

ANNEX 2: Draft agenda

Workshop in Support of the Second Cycle of the Regular Process

Draft Agenda

Guayaquil, Ecuador, 17 – 18 December 2018

1. Welcome and opening remarks by representatives of the Government of Ecuador and of the United Nations Secretariat, Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs and the Co-Chairs of the Workshop.

2. Adoption of agenda for the Workshop.

3. Presentation by one of the Joint Coordinators of the Group of Experts of the Regular Process of the Outline for the second world ocean assessment and the Timetable and Implementation Plan, and discussion of general issues related to them.

4. Review of the outcome of the Workshop for the South Pacific, held in Auckland, New Zealand in October 2017:

(a) Introduction by one of the Co-Chairs of that Workshop;

(b) Consideration of regional information sources identified in that Workshop and progress in making them available for the second world ocean assessment;

(c) Consideration of further information sources that might be made available;

(d) Discussion of other aspects of the report of the outcome of the Workshop.

5. Presentation by one of the Joint Coordinators of the intended structure of the various chapters (and sections of chapters) of the second world ocean assessment, namely:

(a) A one-paragraph abstract of the chapter or section;

(b) A very short summary of the situation recorded in the First Global Integrated Marine Assessment (World Ocean Assessment I);

(c) A description of environmental changes between 2010 and 2020;

(d) A description of the economic and social consequences and/or of the other economic or social changes (including, where appropriate, changes in global distribution of benefits and disbenefits and issues relating to concepts of natural capital);

(e) A description of the main information gaps in relation to the subject matter;

(f) A description of the main capacity-building gaps in the field

6. Consideration in the light of this structure for selected chapters and sections of chapters of the outline for the second world ocean assessment, including possible chapter frameworks. These discussions may take place in parallel groups and should review the substance of the following chapters and related capacity-building needs:

I. Break-out groups on:

(a) Chapter 5: Trends in the physical and chemical state of the ocean (discussion led by Carlos Garcia-Soto)

(b) Chapter 9: Pressures from changes in climate and atmosphere (discussion led by Karen Evans)

(c) Chapter 12: Changes in inputs and distribution of solid waste in the marine environment (discussion led by Maria Bebianno)

(d) Chapter 16: Changes in aquaculture (discussion led by Enrique Marschoff)

(e) Chapter 17: Seaweed (discussion led by Hilconida Calumpong)

(f) Chapter 28: Cumulative impacts (discussion led by Karen Evans)

(g) Chapter 30: Developments in management approaches (Discussion led by Anastasia Strati)

II. Presentations to the plenary by a representative of each of the breakout groups

7. Presentation on important issues in other chapters that members of the Group of Experts present wish to emphasize and discussion of issues on other chapters that the members of the Workshop wish to raise.

8. Presentation by a member of the Group of Experts of the Regular Process on integrated assessments covering environmental, social and economic aspects.

9. Consideration of what learning points/needs and resources may be relevant to the inventory of capacity-building opportunities relevant for the Regular Process being compiled and maintained by the secretariat, and to the multi-stakeholder dialogue (case studies of good practices) and capacity-building partnership event, to be held on 23-24 January 2019.

10. Overview of the outcome of the Workshop presented by the Co-Chairs and the Joint Coordinators.

11. Closure of the Workshop.

ANNEX 3: List of Participants

#	TITLE	FIRST NAME	LAST NAME	COUNTRY / ORGANIZATION
1	Mr.	Emidio	Andre	MOZAMBIQUE / / Instituto Nacional de Investigação Pesqueira, Ministério do Mar Águas Interiores e Pescas
2	Mr.	Gustavo	Arevalo	ECUADOR / Permanent Commission for the South Pacific (CPPS)
3	Mr.	Ahmed Tejan	Bah	SIERRA LEONE / Sierra Leone Institute of Geoscientist
4	Ms.	Leticia	Baquerizo	ECUADOR / Ministero de Relaciones Exteriores
5	Mr.	Pedro Jose	Baron	ARGENTINA / Centro Para el Estudio de Sistemas Marinos (CONICET)
6	Ms.	Maria	Bebianno	PORTUGAL / Centre of Marine and Environmental Research, University of Algarve (via skype)
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