Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects

Guidance for writing teams of the third World Ocean Assessment (WOA III)

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Glossary

Ad Hoc Working Group of the Whole (AHWGH): shortened reference to The Ad Hoc Working Group of the Whole of the General Assembly. Made up of representatives of member states under the leadership of two Co-Chairs, one from a developing country and one from a developed country, this group oversees and guides the UN Regular Process.

Bureau of the Ad Hoc Working Group of the Whole: consisting of the co-chairs of the AHWGW and 15 members (three Member States from each of the five UN regional groups), this group ensures the implementation of the decisions of the Ad Hoc Working Group of the Whole during intersessional periods.

Co-lead: a member (or members) of the Group of Experts designated to support the lead on a section, chapter or sub-chapter of the third World Ocean Assessment in coordinating the delivery of any section, chapter or sub-chapter as per the timetable set during each cycle. The co-lead will work collaboratively with the lead member to ensure that the preparation of the section, chapter or sub-chapter follows the guidance detailed in this document and otherwise achieves the necessary high standards for delivery into the third World Ocean Assessment. The co-lead represents the supporting contact point for writing teams during all phases of the drafting, review and finalisation processes associated with the third World Ocean Assessment.

Coordinating author: the member of a writing team for a section, chapter or sub-chapter of the third World Ocean Assessment that has overall responsibility for the coordination of the drafting of that section, chapter or sub-chapter. The coordinating author will have general responsibility for ensuring that the preparation of section, chapter or sub-chapter follows the guidance detailed in this document and will be the primary contact for that writing team during all phases of the drafting, review and finalisation processes associated with the third World Ocean Assessment.

First draft: The first consolidated and copy-edited draft of the third World Ocean Assessment.

Group of Experts: A Group of Experts has been established with the general task of carrying out activities related to the preparation and drafting of the outputs identified under the programme of work for each cycle of the Regular Process. It consists of up to 25 experts, representing five regional groups. They structure outputs and ensure that they are delivered on time following the available guidance and the highest standards

Group of Experts informal coordination group: consisting of the Joint Coordinators and Deputy Coordinators of the Group of Experts and the secretariat. This group monitors the progress of activities related to the outputs of each cycle of the Regular Process and coordinates the development of appropriate actions that facilitate the progress of activities.

Intergovernmental organisation: an entity created by treaty, involving two or more nations, to work in good faith, on issues of common interest. Examples include the International Council for the Exploration of the Sea (ICES), the International Union for Conservation of Nature (IUCN), the Organisation for Economic and Co-operation Development (OECD), and the World Trade Organisation (WTO).

Lead: A member of the Group of Experts designated to a section, chapter or sub-chapter of the third World Ocean Assessment and responsible for ensuring that communications with writing teams are consistent and clear and support the delivery of any section, chapter or sub-chapter as per the timetable set during each cycle. This includes standardisation of communications, clarification of

processes and the development of clear (standardised) instructions that set out steps in the process of delivering the third World Ocean Assessment. The lead member is responsible for ensuring that the preparation of section, chapter or sub-chapter follows the guidance detailed in this document and otherwise achieves the necessary high standards for delivery into the third World Ocean Assessment. The lead represents the main contact point for writing teams during all phases of the drafting, review and finalisation processes associated with the third World Ocean Assessment.

Member states: countries that are members of the United Nations General Assembly.

Regular Process: shortened reference to the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects. This is the global mechanism developed by the United Nations that regularly reviews the environmental, economic and social aspects of the state of the world's oceans. Each cycle of the Regular Process has, as part of its programme of work, produced a world ocean assessment.

Secretariat: shortened reference to the secretariat of the Regular Process, comprising staff from the Division for Ocean Affairs and the Law of the Sea (DOALOS) of the Office of Legal Affairs of the United Nations. The secretariat provides support to the institutions of the Regular Process and implements mandates it receives from the General Assembly.

Third cycle: shortened reference to the third cycle of the Regular Process. The third cycle of the Regular Process was launched by the General Assembly in December 2019, to cover five years from 2021 to 2025. It has been preceded by the second cycle (2016-2021) and the first cycle (2010-2014).

Writing team: A group of experts nominated and approved into the Pool of Experts responsible for writing the draft of a section, chapter or sub-chapter of the third World Ocean Assessment.

UN bodies: the various Funds, Programmes, specialised agencies and subsidiary organs recognised under the United Nations System.

Zero draft: the first draft of each individual section, chapter or sub-chapter of the third World Ocean Assessment submitted to the Group of Experts by each writing team according to the timetable for the drafting and review process.

1. Overview of the purpose of the document and its intended use

1.1 Purpose

The provision of clear guidance on the elements to be considered by each section, chapter and sub-chapter has been identified as highly important and is a key lesson learned from the second cycle.

The aim of this document is to:

- Set out clear directions for the development of the sections, chapters and sub-chapters of the third World Ocean Assessment;
- Provide clear guidance on the timelines associated with the delivery of all sections, chapters and sub-chapters, review processes and finalisation of the full third World Ocean Assessment;
- Ensure that sections, chapters and sub-chapters deliver the specificities set out in the annotated outline for the third World Ocean Assessment as approved by the Ad Hoc Working Group of the Whole (AHWGW);
- Ensure that the whole assessment can be translated into the official languages of the UN (within the budget of the Regular Process allocated to this task); and
- Ensure that the whole assessment can be transitioned into the digital platform that will be the primary mechanism for delivery of the third World Ocean Assessment.

1.2 Intended use

This document is intended to be used by the Group of Experts, the Coordinating Authors and all writing teams of the third World Ocean Assessment. It should serve as a central point of reference when drafting individual sections, chapters and sub-chapters of the assessment. Leads and Co-lead members assigned to each section, chapter and sub-chapter will expect that the guidance contained in this document is implemented. The guidance is intended to be high-level and aims to provide a consistent structure to sections of the assessment and ensure that all sections, chapters and sub-chapters address the overall objectives of the assessment and the content identified in the annotated outline of the third World Ocean assessment[1], as approved by the AHWGW.

Although an editor will review the finalised complete draft of the whole assessment, writing teams are expected to provide their drafts according to the specifications set out in this document to ensure that the timetable for delivering the assessment is as efficient as is possible.

This guidance contributes to a key set of documents that all writing teams will be provided with and should refer to during the development of each section, chapter or sub-chapter of the third World Ocean Assessment. These documents are:

1. The annotated outline of the third World Ocean Assessment: This document sets out all of the components of the third World Ocean Assessment and what is expected to be covered by each section, chapter and sub-chapter. It is available at: https://www.un.org/regularprocess/woa3;
2. Guidelines for the Writing and Review Process of the Assessment(s) of the Third Cycle: This document sets out the roles of all contributors to the third cycle of the Regular Process, the tasks to be undertaken, who will do those tasks and the expectations of those contributors; and
3. Guidance for writing teams (this document).

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[1] The annotated outline of the third World Ocean Assessment can be found at: https://www.un.org/regularprocess/woa3

1.3 Principles of working

This document has been developed following the principles set out by the Group of Experts and formalised in their working methods (approved by the AHWGW). These principles extend to all writing teams for each section, chapter and sub-chapter of the third World Ocean Assessment:

a. Good cooperation is the foundation for the work of writing teams. All members of writing teams are expected to behave with integrity and respect towards each other and towards all others involved in the Regular Process;

b. The Group of Experts embraces cultural differences and is aware of cultural sensitivities that might be the cause of misunderstandings or perceived misbehaviour, disrespect or harassment. The Group of Experts promotes cultural awareness to avoid unconscious bias;

c. The Group of Experts is expected to provide the necessary support and guidance to writing teams tasked with delivering any part, section, chapter, or sub-chapter of the assessment;

d. Each writing team will be assigned a Lead member supported by at least one Co-lead member from the Group of Experts;

e. Regular communication and engagement of the Lead and Co-lead member is encouraged to support inclusive interactions with writing teams;

f. The Lead and Co-lead member shall work collaboratively together to ensure that communications with writing teams are consistent and clear and support the delivery of any part, section, chapter, or sub-chapter of the assessment as per the timetable set for the development of the assessment. This includes standardisation of communications, clarification of processes and the development of clear (standardised) instructions that set out steps in the process of delivering the assessment; and

g. The Lead and Co-lead member shall work collaboratively together to ensure that writing teams are provided with adequate support to facilitate good working relations, including adequate planning of activities to support the delivery of any part, section, chapter, or sub-chapter of the assessment. This includes ensuring that the development of writing teams, expectations of the writing teams and the working methods of the Regular Process in delivering the assessment of each cycle are clearly set out.

In developing this guidance, the following principles are extended to the Coordinating Authors of each section, chapter and sub-chapter of the assessment:

h. Coordinating Authors will be responsible for ensuring equitable distribution of tasks among the membership of each writing team, and in doing so take into account disciplinary and geographic expertise and gender balance in developing writing teams and the assignment of those tasks;

i. Coordinating Authors will ensure that all viewpoints of the members of writing teams are heard and are equitably considered in discussions and decision making in the development of each section, chapter and sub-chapter of the assessment; and

j. Members of each writing team are equally responsible for the quality and timely achievement of the sections, chapters and sub-chapters of the assessment.

All members of writing teams, including Coordinating Authors, are responsible for ensuring that the contact details they have provided to the Lead and Co-lead members and the secretariat and submitted to the Bureau of the AHWGW for approval are correct and current. All members of writing teams, including Coordinating Authors, must inform the secretariat of any changes in their contact details to ensure that they receive all correspondence associated with their involvement in the third cycle of the Regular Process and the third World Ocean Assessment.

1.3.1 Management of inactive/non-contributing writing team members

The third World Ocean Assessment will be attributed to the selected experts who have contributed to the assessment in accordance with their role and contributions as set out in the Guidelines for the Writing and Review Process of the Assessment(s) of the Third Cycle and provided to all members of

writing teams. Management of inactive writing team members (see also Figure 1), including Coordinating Authors, introduced during the third cycle of the Regular Process and set out in this document aligns with approaches undertaken by the Intergovernmental Panel on Climate Change (IPCC), Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and Global Environment Outlook (GEO) assessment procedures.

1.3.1.1 Reporting process

In the case where a Coordinating Author becomes aware of inactivity by a writing team member that has resulted in a failure to contribute to the drafting of a section, chapter or sub-chapter of the third World Ocean Assessment, they should report this lack of activity and associated non-contribution to the Lead and Co-lead members of the respective section, chapter or sub-chapter. In the case of inactivity by a Coordinating Author, including failure to provide regular updates on the progress of the relevant section, chapter or sub-chapter to the Lead and Co-lead members, the Lead and Co-lead members should report this lack of activity to the Group of Experts informal coordinating group. This should be done as early as is possible during the drafting process so that the situation can be responded to quickly and appropriately.

1.3.1.2 Response and review process

The Lead and Co-lead members or the informal coordinating group will alert the secretariat to the situation. Formal correspondence will be sent to the writing team member or Coordinating Author by the secretariat requesting that the writing team member or Coordinating Author provides reasons for their inactivity and to outline their potential for contributing to the section, chapter of sub-chapter of the third World Ocean Assessment during the remainder of the drafting period. A lack of response[2] from the writing team member or Coordinating Author within five working days of the correspondence will result in the formal correspondence being sent to the writing team member or Coordinating Author a second time. If, after a further five working days from transmission of the correspondence, there is still no response from the writing team member or Coordinating Author, an assumption will be made that the writing team member or Coordinating Author no longer wishes to contribute to the section, chapter or sub-chapter of the third World Ocean Assessment. The writing team member or Coordinating Author will be withdrawn from the writing team of the section, chapter or sub-chapter and this withdrawal noted in an update on the relevant writing team submitted to the Bureau. Formal correspondence informing the writing team member or Coordinating Author of the withdrawal will be sent by the secretariat.

If, in their response to the formal correspondence, the writing team member or Coordinating Author identifies a higher level of contribution during the remainder of the drafting period, a review process will be implemented. The relevant group that the original report was submitted to (the Lead and Co-lead members in the case of writing team members, or the Group of Experts informal coordination group in the case of Coordinating Authors) will follow-up with the relevant member of the writing team or Coordinating Author one month after receipt of the response to formal correspondence to assess whether the higher level of contribution has been enacted. In the case where there has been continued inactivity and associated failure to contribute, an assumption will be made that the writing team member or Coordinating Author no longer wishes to contribute to the section, chapter or sub-chapter of the third World Ocean Assessment. The writing team member or Coordinating Author will be withdrawn from the writing team of the section, chapter or sub-chapter and this

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[2] In the situation where an email autoreply indicates that the writing team member or coordinating author is out of the office this will be accounted for.

withdrawal noted in an update to the relevant writing team submitted to the Bureau. Formal correspondence informing the writing team member or Coordinating Authors of the withdrawal will be sent by the secretariat.

A copy of all correspondence relating to the above process will be maintained by the secretariat of the Regular Process.
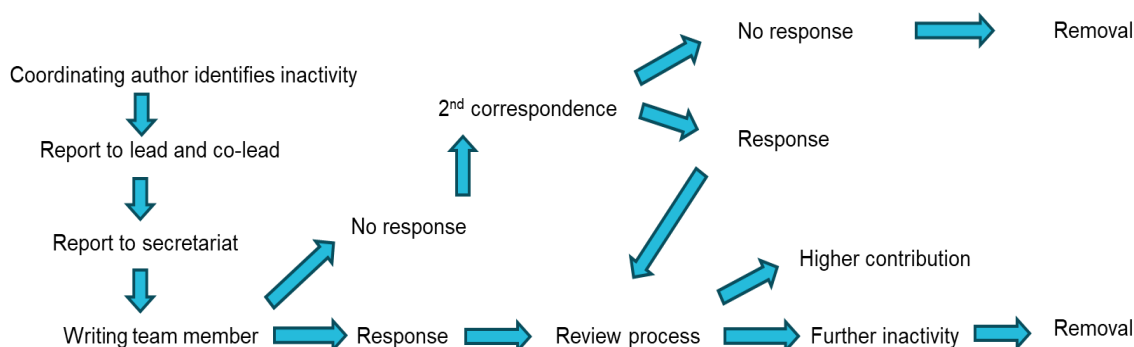

Figure 1. Schematic of the steps involved in the management of an inactive writing team member.

2. Guidance for all sections, chapters and sub-chapters

2.1 Working platform

The primary working platform for the development, drafting, review and revision of sections, chapters and sub-chapters of the third World Ocean Assessment is Microsoft SharePoint. All members of writing teams will be expected to utilise this platform and will be provided access to the "WOA_III_files" folder on the Regular Process SharePoint by the secretariat. Lead and Co-lead members will be referencing content for the sections, chapters and sub-chapters they have oversight of from this platform. It will therefore be the responsibility of writing teams to ensure that the platform contains the most up-to-date versions of each section, chapter or sub-chapter draft and that all revisions of sections, chapters or sub-chapters and responses to review are provided via SharePoint during the review process. All files generated by writing teams will need to follow a standardised file naming convention for each official version of each section, chapter and sub-chapter (e.g., the zero draft and following revised drafts) and any associated response to reviewers required to be submitted by writing teams. This will be provided by the secretariat for the Regular Process and follow UN/DOALOS naming conventions.

2.2 Development of the assessment

2.2.1 Provision of a plan for each section, chapter or sub-chapter

As a first step in the preparation of a zero draft of each section, chapter and sub-chapter of the third World Ocean Assessment, all writing teams are expected to provide their respective Lead and Co-lead members with a one-two page plan for their section, chapter or sub-chapter. This section, chapter or sub-chapter plan should identify 3-7 key elements that the section, chapter or sub-chapter will focus on as main messages and the main components of the section, chapter or sub-chapter. In the case of chapters and sub-chapters of sections 4 and 5A of the assessment, identify the specific components set out in this document (see section 3 of this document). It should also ensure that all elements detailed in the annotated outline of the third World Ocean Assessment[3] in

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[3] The annotated outline of the third World Ocean Assessment can be found at: https://www.un.org/regularprocess/woa3

relation to the relevant section, chapter or sub-chapter are included and identify the spatial and temporal scales that content will be considered. This section, chapter or sub-chapter plan should identify the length (number of words) of each component to ensure that the overall guidance on the length of the section, chapter or sub-chapter (provided in this document in section 2.9) can be met by the writing team. This section, chapter or sub-chapter plan should also identify any perceived substantial areas of synergy and/or overlap with other sections, chapters or sub-chapters of the assessment and how those synergies and/or overlaps might be addressed (e.g., through cross-referencing of content).

This plan will be delivered by all writing teams by 21 March 2024.

Delivery of this plan will provide the Group of Experts the opportunity to ensure that writing teams are following the guidance provided and are considering the content of the section, chapter or sub-chapter as set out in the annotated outline of the third World Ocean Assessment appropriately. Each plan will be reviewed by up to five members of the Group of Experts collectively following submission. Writing teams will need to demonstrate to their respective Lead and Co-lead members that they have incorporated any feedback provided by the Group of Experts into their plan before commencing drafting.

2.2.2 Tracking progress and managing issues
Writing teams will be expected to meet at least monthly with the relevant Lead and Co-lead members for their section, chapter and sub-chapter to ensure that drafting follows the section, chapter or sub-chapter plan approved by the Group of Experts, and the guidance provided in this document. These monthly meetings will also ensure that any issues that might arise during the drafting process can be raised and responded to quickly and appropriately prior to the submission of the zero draft of the section, chapter and sub-chapter. The secretariat for the Regular Process will maintain a register of any issues identified and solutions or resolutions developed in response, as a shared resource for Lead and Co-lead members to facilitate the sharing of experiences and exchange of information during the drafting process.

2.2.3 Drafting and review process
All sections, chapters and sub-chapters will go through several review processes following the submission of zero drafts. This process will follow a strict timeline (see section 2.2.5 and Figure 2) to facilitate the multiple reviews required in generating the full third World Ocean Assessment.

On submission of the zero drafts of each section, chapter and sub-chapter, a first review will be undertaken by the whole of the Group of Experts. Following incorporation of feedback from the Group of Experts into each section, chapter and sub-chapter by writing teams, revised drafts will be prepared by the secretariat of the Regular Process and sent out for expert peer review. Concurrent with peer review, a compilation of all sections, chapters and sub-chapters will be prepared by the secretariat of the Regular Process and sent out to Relevant Global Processes and Organisations, including UN bodies and intergovernmental organisations for review. At the same time, the secretariat of the Regular Process will also review all sections, chapters and sub-chapters. Writing teams will be provided with the peer review of their section, chapter or sub-chapter and any comments relevant to their section, chapter or sub-chapter submitted by the secretariat of the Regular Process, and Relevant Global Processes and Organisations. Writing teams will be required to respond to these concurrent review processes with a formal response to reviewers utilising a template provided by the secretariat of the Regular Process and submit a revised draft of their section, chapter or sub-chapter to the Group of Experts. This response to reviewers will need to identify how each comment and question submitted by peer reviewers, the secretariat, and

Relevant Global Processes and Organisations have been considered by the writing team and incorporated into the section, chapter or sub-chapter draft.

The Group of Experts will then meet to discuss the revisions and responses provided by the writing teams. Following incorporation of any further feedback from the Group of Experts into each section, chapter and sub-chapter, the Group of Experts will prepare a first-order full draft of the third World Ocean Assessment that includes all revised sections, chapter and sub-chapter prepared by writing teams and those components of the assessment that will be written by the Group of Experts (i.e., the overall summary, the approach section, and the introductory components of sections 4 and 5 of the assessment).

This first draft of the third World Ocean Assessment will be copy-edited in preparation for a first review by member states of the UN. Following review by UN member states, writing teams will be provided with any comments relevant to their section, chapter or sub-chapter. Writing teams will be required to respond to the review with a formal response utilising a template provided by the secretariat of the Regular Process and submit a revised draft of their section, chapter or sub-chapter. This response to reviewers will need to identify how each comment and question submitted by UN member states have been considered by the writing team and incorporated into the section, chapter or sub-chapter draft.

The Group of Experts will then collectively review all revised drafts and responses to the first member state review to produce a second full draft of the third World Ocean Assessment and a consistent response to member states. In addition, this second draft of the third World Ocean Assessment will be presented to the Bureau of the AHWGW. The assessment will be copy-edited in preparation for a second review of the assessment by member states of the UN, during which member states will be provided with the opportunity to also consider the response to the first UN member state review. All further revisions of the draft Third World Ocean Assessment and responses to comments provided by member states will be led by the Group of Experts in consultation with Coordinating Authors where appropriate and relevant.

The secretariat of the Regular Process will manage all components of this review process.

2.2.4 Finalisation of the third World Ocean Assessment
Following the second review by member states and the associated final revision of sections, chapters and sub-chapters, final editing of the assessment will occur in preparation for submission of the assessment to the AHWGW for its approval. The text of the overall summary of the third World Ocean Assessment will then be translated into the six official languages of the United Nations and the overall summary and advanced version of the third World Ocean Assessment submitted to the AHWGW for authorisation of the assessment's submission to the UN General Assembly. Following consideration and approval by the UN General Assembly, the third World Ocean Assessment will then be translated into the six official languages of the United Nations, together with the transfer of assessment content to a digital platform and printing of the overall summary of the assessment. The secretariat of the Regular Process will then determine a launch date for the third World Ocean Assessment.

Drafting stages **Review stages** **Developmental stages**

2024

2025

2026

Nomination of coordinating authors

Coordinating authors meeting

Section/chapter/sub-chapter plan

Zero draft sections/chapters/sub-chapters

Second order zero drafts

Production of first full draft of assessment

Production of second full draft of assessment

Finalisation of full assessment

Transfer to digital platform

Translation of full assessment

Submission to UN-GA (AHWGW)

Writing team development

Internal review (GoE: 2 weeks)

Internal review (GoE: 2 weeks)

External review (peer, secretariat, Relevant Global Processes and Organisations): 8 weeks)

External review (Member States: 6 weeks)

External review (Member States: 6 weeks)

Development of GoE led components (Executive summary, Approach, Introductory chapters

Incorporation of GOE led sections/ chapters

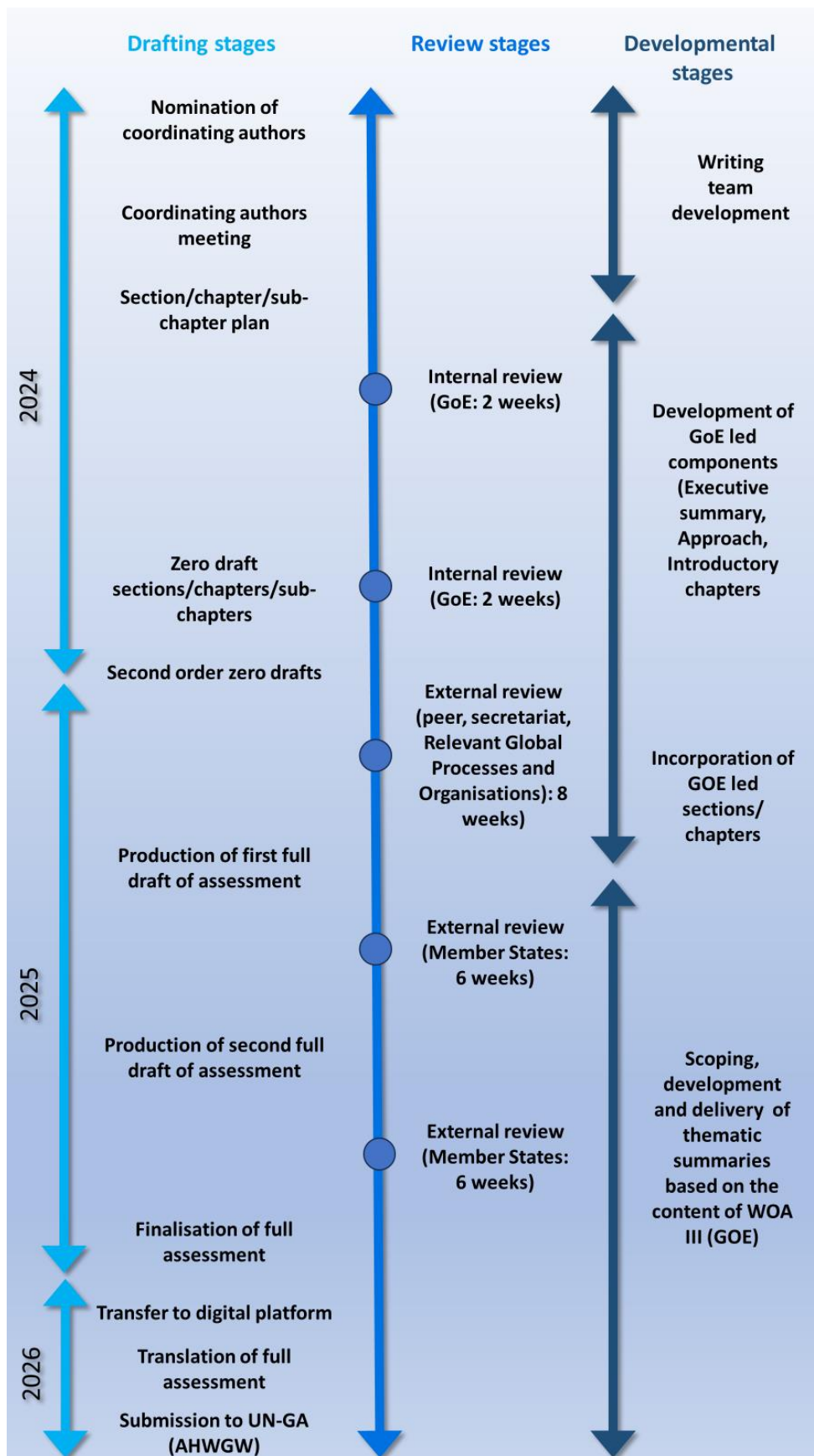Scoping, development and delivery of thematic summaries based on the content of WOA III (GOE)

Figure 2. Schematic of the timeline for the drafting and delivery of the third World Ocean Assessment.

2.2.5 Timeline

2.2.5.1 Section, chapter and sub-chapter plans

A plan for each section, chapter and sub-chapter of the assessment will need to be produced by each writing team and delivered to the relevant lead and co-lead within four weeks of the establishment of the writing team (see section 2.2.1 of this document). This plan will be reviewed by the Group of Experts and feedback provided to writing teams two weeks after receipt of the plan. This plan is to be delivered to each section, chapter or sub-chapter Lead and Co-lead members by 21 March 2024 for review by the Group of Experts.

2.2.5.2 Zero drafts of each section, chapter and sub-chapter

Zero drafts of each section, chapter and sub-chapter of the assessment are to be delivered by 01 November 2024. Following submission, the Group of Experts will meet to review all zero drafts during November 2024, with reviews to be provided to writing teams within two weeks of the completion of this meeting of the Group of Experts. Writing teams will be provided four weeks to complete any revisions of their section, chapter or sub-chapter in response to the Group of Experts review. It is expected that this process will be completed, at the latest, by the end of 2024.

2.2.5.3 Concurrent expert peer review and review by the secretariat, UN Bodies and intergovernmental organisations

Parallel reviews by peer-reviewers, the secretariat and Relevant Global Processes and Organisations will be conducted over a period of eight weeks. It is expected that this process will occur, at the latest, in early 2025.

2.2.5.4 Production of the first draft of the full third World Ocean Assessment and UN Member States review

On receipt of the reviews from expert peers, the secretariat of the Regular Process and Relevant Global Processes and Organisations, writing teams will have a period of eight weeks to produce a response to reviewers and a revised draft of each section, chapter or sub-chapter. As outlined above, the Group of Experts will then meet to review all sections, chapters or sub-chapters and any further revisions requested by the Group of Experts will be provided to writing teams within two weeks of the completion of this meeting. Writing teams will be provided four weeks to complete any further revisions, after which the Group of Experts assisted by the secretariat of the Regular Process will finalise the first order full draft of the third World Ocean Assessment. UN Member States will have a period of six weeks to undertake a first review of the first draft of the third World Ocean Assessment. On receipt of all reviews, writing teams will have a period of four weeks to produce a final draft of each section, chapter or sub-chapter and a formal response to the review by the UN Member States. It is expected that this process will be completed, at the latest, in the third quarter of 2025.

2.2.5.5 Second UN Member States review of the third World Ocean Assessment

The Group of Experts will consider both the revised draft of all sections, chapters and sub-chapters and the response to review by UN Member States provided by writing teams over a period of two weeks and prepare a second draft of the full third World Ocean Assessment and an agreed response to the first review by UN Member States. UN Member States will have a period of six weeks to undertake a second review of the draft third World Ocean Assessment. It is expected that this process will be completed in time for the 22nd meeting of the AHWGW, currently scheduled to occur in October 2025.

2.2.5.6 Finalisation of the assessment

It is expected that the full third World Ocean Assessment will be considered and approved by the UN General Assembly in December 2025 and then delivered by January 2026.

2.3 Quality

2.3.1 Use of literature

Writing teams are expected to work on the basis of the peer-reviewed and internationally available literature and recognised and accessible reports including regional, sub-regional and thematic assessments, governmental reports, reports produced by industry and research institutions, international and other organizations and conference proceedings. In addition, where relevant to a section, chapter or sub-chapter, writing teams should consider contributions from the workshops held as part of the third cycle (see section 3 of this document). Emphasis must be placed on the assurance of the quality of all cited literature. Additional published material may be used (e.g., internal agency reports), provided that the inclusion of this material is fully justified, and the content meets the criteria for quality outlined in this section. Content derived from newspapers and magazines, blogs, social networking sites and personal communications will not be accepted (see also sections 2.3.2 and 2.3.4 of this document).

2.3.2 Ethics

It is expected that writing teams will follow established protocols for ethics in scientific reporting. In particular, writing teams are responsible for:

a. Correctly citing the published work of others;
b. Accurately representing the conclusions of cited work; and
c. Disclosing any conflict of interest.

By its very nature, the Regular Process requires writing teams to review and synthesize numerous large bodies of work, and to distil out the salient points of numerous studies into consolidated statements. Throughout this process, it is important that the synthesis produced does not lose or misrepresent the essential conclusions, meaning and intent of the original works. The nature of the Regular Process demands that writing teams pay special attention to issues of independence and bias to maintain the integrity of, and public confidence in the assessment.

2.3.2.1 Use of Artificial Intelligence

The UN has identified a set of ten principles for the use of Artificial Intelligence (AI) in the UN system (see https://unsceb.org/principles-ethical-use-artificial-intelligence-united-nations-system) and sets out the risks of using AI in a paper produced by the UN Office for Information and Communication (see https://unite.un.org/sites/unite.un.org/files/unite_paper_-_ethical_ai_at_the_un.pdf).

The third World Ocean Assessment will follow similar guidelines on the use of AI and AI-assisted technologies (such as large language models) in the writing process as that established by many scientific journals and universities. Where writing teams might use generative AI in the process of drafting a section, chapter or sub-chapter, this technology can only be used to improve the readability and language of the text. Replacement of key writing tasks such as producing scientific insights, drawing scientific conclusions or providing recommendations by AI will not be accepted. This is because AI-generated content is not considered capable of initiating an original piece of research without direction from human authors. It is also unreliable in producing that content is original and not copied from existing sources, raising issues of plagiarism and bias. Further, AI tools are not capable of effectively creating a literature review, often generating incorrect or made-up references and digital object identifiers.

If writing teams are to utilise this technology in improving the readability and language of text, it should only be done with human oversight and control, and all work should be reviewed and edited carefully. All writing team members will be responsible and accountable for the contents and integrity of their work. Any use of AI and AI-assisted technologies is to be disclosed in an acknowledgements section placed before the reference list in a section, chapter or sub-chapter. Any component of the section, chapter or sub-chapter that uses AI-generated text shall have a citation to the AI system used to generate the text. The final decision on whether the use of AI and AI-assisted technology is appropriate will be determined by the Group of Experts.

2.3.3 World and regions

The aim of the World Ocean Assessment is not to duplicate or re-interpret regional or thematic assessments, but to put trends and data gaps into context – showing both commonalities at the global scale and regional differences. Existing regional, sub-regional and thematic assessments should be identified and used where available and relevant. It will therefore be important for writing teams to strike the right balance between aggregating material to the global level and providing detail at regional and national levels. All sections, chapters and sub-chapters of the third World Ocean Assessment must aim to provide a balanced view of the world's ocean, and not unduly focus on those regions for which there may be abundant or readily available information only. Sections, chapters and sub-chapters should identify the spatial and temporal scales at which content will be considered in the plan for each section, chapter and sub-chapter (see section 2.21 of this document).

2.3.4 Handling the full range of views

The third World Ocean Assessment is intended to provide an unbiased and objective judgment of the topics identified in the annotated outline of the third World Ocean Assessment[4] approved by the AHWGW. Writing teams should be fair and objective in their consideration of the information available for inclusion in sections, chapters and sub-chapters of the third World Ocean Assessment. It is important to avoid "confirmation bias", that is, the tendency of writing teams to place too much weight on their own views relative to other views. Writing teams should explicitly document a wide range of scientific viewpoints and ensure that due consideration was given to properly documented alternative views. Disparate views for which there is significant scientific, technical or socioeconomic support, together with the relevant arguments should be clearly identified.

There can be multiple interpretations of the available body of information, each with support from scientifically sound information. Policymakers are often best served by being informed of the nature of these multiple views, the range of interpretations that cannot be rejected, and the implications, including risks, of each interpretation. Writing teams should ensure that these nuances are brought out in the content of each section, chapter and sub-chapter of the third World Ocean Assessment.

2.3.5 Uncertainty

All content contributing to the sections, chapters and sub-chapters of the third World Ocean Assessment must be as accurate as possible since an error in any part of the assessment can undermine the credibility of the overall assessment. To this end, writing teams must exercise caution and discipline in describing the uncertainty associated with any statements made. Writing teams should avoid reporting conclusions for which there is little evidence and should always seek clarity when making definitive statements. Sources of uncertainty should be clearly identified, listed and

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[4] The annotated outline of the third World Ocean Assessment can be found at:
https://www.un.org/regularprocess/woa3.

quantified where possible. This is particularly important when representing information for which uncertainty has been quantified.

All conclusions made by writing teams should be able to withstand scrutiny and be supported sufficiently by the available information cited in each section, chapter or sub-chapter of the third World Ocean Assessment. The implications for decision-making of the findings, including knowledge gaps, contrasting evidence and minority opinions, should be explicitly discussed.

To this end, all writing teams should be consistent in their treatment and presentation of uncertainties. The third World Ocean Assessment will introduce a common approach and calibrated language that can be used broadly for developing expert judgments and for evaluating and communicating the degree of certainty in findings. This aligns the third World Ocean Assessment with the approaches undertaken by the Intergovernmental Panel on Climate Change (IPCC), Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and Global Environment Outlook (GEO) assessments.

Communicating the degree of certainty in key findings should consider:
1. Confidence in the validity of a finding, based on the type, amount, quality, and consistency of evidence as well as the level of agreement.
2. Quantified measures of confidence, expressed as probabilistic likelihoods.

The level of confidence assigned to a finding should be expressed using four main qualifiers that synthesise the writing teams' judgments about the validity of findings as determined through evaluation of evidence and agreement. These consist of the following:
a. *Inconclusive*: representative of a suggestion or speculation with no or limited evidence. It is expected that this term will be used infrequently, but it provides writing teams with the opportunity to emphasize issues that are not established in science, but that are important to policymakers or might have been highlighted by a different audience.
b. *Unresolved*: representative of multiple independent studies that exist, but where conclusions do not agree.
c. *Established but incomplete*: representative of general agreement, although in a situation where a limited number of studies currently exist, and where no comprehensive synthesis has been conducted, or the studies that do exist imprecisely address the question.
d. **Well established**: where a comprehensive meta-analysis or other syntheses/multiple independent studies that agree exist. This represents multiple, consistent independent lines of high-quality evidence. Key findings may be further emphasised where there is high confidence using "very well established" where there is a comprehensive evidence base and very high agreement, and "virtually certain" where the evidence consists of very robust data covering multiple temporal and spatial scales and almost no disagreement.

Quantified measures of confidence used by the IPCC, IPBES and GEO all conform to seven key categories, represented by probabilistic estimates of a single event or of an outcome within a given range (Table 1). These probabilistic estimates are based on statistical analyses of observations or model results, or both, combined with expert judgment.

Table 1. Likelihood terms and probability for describing uncertainty

Likelihood term	Probability
Virtually certain	>99 percent
Very Likely	>90 percent
Likely	>66 percent

About likely as not	33-66 percent
Unlikely	<33 percent
Very unlikely	<10 percent
Exceptionally unlikely	<1 percent

2.3.6 Addressing possible errors

All writing teams will be responsible for ensuring that errors are eliminated well before the publication of the third World Ocean Assessment. If errors are identified, writing teams should ensure that they are addressed quickly by bringing the error to the attention of the Lead and Co-lead members of the section, chapter or sub-chapter within which the error has been made. The Lead and Co-lead will then bring the error to the attention of the Group of Experts informal coordination group, and collectively this group will identify the appropriate remedial action required to address the error. This evaluation of remedial action will include an assessment of the implications of the error and whether UN Member State approval will be required, particularly in the case of the error not being identified until after publication of the third World Ocean Assessment.

2.4 Policy relevance

The content of each section, chapter and sub-chapter of the third World Ocean Assessment needs to provide information that is relevant to policy however, direct recommendations or prescription of policy actions, whether broadly or specifically outlined, must be avoided. Any direct recommendations or prescription of policy action will be removed during the Group of Experts review. Policymakers are often best served by being informed of examples of best practices (refer to Appendix 1 for a description of best practice) that can demonstrate positive outcomes or being provided with case studies that outline the effective use or application of information or technology.

2.5 Style

The third World Ocean Assessment is intended to be read by policymakers and the general public, and must be written in a manner that will enable broad understanding. This requirement implies that technical terms that are not commonly used in general writing should be explained on their first appearance.

All sections, chapters and sub-chapters of the third World Ocean Assessment are to be drafted in English. Once finalized, they will be translated into the official languages of the United Nations. Abbreviations and acronyms should first appear in the full form before abbreviations being generally used throughout the rest of the section, chapter or sub-chapter.

2.6 Vocabulary

Technical terms and key concepts should be consistent across the sections, chapters and sub-chapters of the third World Ocean Assessment. Differing definitions of the same term should be avoided. A controlled vocabulary will be provided and will continue to be developed throughout the third cycle to ensure consistency of language and associated definitions across the third World Ocean Assessment. The provided definitions and usage guidance given in that document must be followed. If there is a need to refer to a term conveying a meaning that is different to that present in the controlled vocabulary, this must be explicitly made clear where the term is being used. The justification for the use of the term should first be discussed with the Lead and Co-lead members of the relevant section, chapter or sub-chapter and agreed upon before its use.

2.7 Attribution, including copyright permissions

Writing teams must ensure that copyright permissions for all diagrams, figures and tables used in each section, chapter and sub-chapter of the third World Ocean Assessment are obtained and fully documented. The Coordinating Author, in collaboration with the Lead and Co-lead members, will be responsible for ensuring that writing teams comply with these requirements. Where copyright permission has not been obtained for the use of material in the assessment, the relevant writing teams will be requested to replace that content with revised content that avoids any ongoing issues with attribution and/or copyright. During the review of sections, chapters and sub-chapters, attention will be paid to ensuring that attribution and copyright requirements are complied with to the same standard through the assessment. See also section 2.3.2.1 regarding attribution of the use of AI or AI-assisted technologies.

2.8 Format

2.8.1 Length

The overall budget for the translation of the third World Ocean Assessment into the five UN languages requires that the total word count for the assessment be set at 264,000 words in total, excluding references. Funding is not currently available to increase the word count above this amount.

Because some sections, chapters and sub-chapters of the third World Ocean Assessment are focused on new content, whilst others are providing a brief update to the content of the second World Ocean Assessment, the total number of words will not be distributed evenly across sections, chapters and sub-chapters of the third World Ocean Assessment.

2.8.1.1 Sections 1 and 2

Sections 1 and 2, comprising the overall summary and approach to the assessment will be written by the Group of Experts. Section 1 will comprise 12,000 words, and section 2 will comprise 5,000 words.

2.8.1.2 Section 3

Section 3 will provide a high-level, factual summary of overall change in ocean governance since the second World Ocean Assessment. Section 3 will comprise 3,500 words.

2.8.1.3 Section 4

Section 4 will provide high-level detail of the changes that have occurred in the ocean since the second World Ocean Assessment. All chapters and sub-chapters will comprise 2,500 words, with the exception of the introductory components of chapters 4 and 5 which will comprise 250 words, and sub-chapters 5N (the pelagic domain) and 5R (fjord systems), which will comprise 3,500 words as they are either an expansion or a new addition to the assessment. Chapter 6, which will comprise 12,500 words as it is made up of five components.

2.8.1.4 Section 5

The introduction to section 5 will comprise 500-word overview of socio-ecological systems in the ocean.

Section 5A, in considering ocean economies, will detail the pressures that human activities are placing on the ocean, the social and economic conditions, including the demographic, institutional, and technological factors associated with these systems and the data, tools and information, including management approaches available for utilising in identifying

pathways for transitioning human activities in the ocean to those that are more sustainable within the context of the Sustainable Development Goals. All chapters and sub-chapters of section 5A will comprise 6,300 words, except for the introduction to section 5A, which will comprise 500 words and the introductions to chapters 1 (food systems) and 3 (energy), which will comprise 300 words.

Section 5B, in considering various aspects of the ocean with regard to the concept of One Health. All chapters of section 5B will comprise 6,000 words, with the exception of the introduction to section 5B, which will comprise 500 words.

2.8.2 Overall format

Formatting of each section, chapter and sub-chapter should follow the UN formatting guide. For further details, please refer to the United Nations Editorial Manual[5]. An example style sheet based on the guidance in this manual has been provided in Appendix 1 with further details provided below.

The preference is for sections, chapters and sub-chapters of the third World Ocean Assessment to be prepared in Microsoft Word's .docx format, as supported on the UN SharePoint platform. The following fonts, font sizes and colours should be used:

For all colours:

- The ten standard colours provided by Microsoft word should be used for all content (see below).
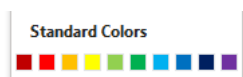
For all fonts:

- Title headers: Calibri bold 18 pt/ line spacing 21 pt, black

- Sub-title headers: Calibri bold 14 pt/line spacing 16 pt, black

- Body text: Calibri, 11 pt/line spacing 14pt, black

- Captions (tables and figures): Calibri, 9 pt/line spacing 11 pt, black

- Footnotes: Calibri, 9 pt/line spacing 10 pt, black

- Footnote markers: Calibri, 7 pt, 3pt baseline shift, black

- Numbered, lettered or bulleted lists: Calibri, 10 pt/line spacing 14pt, black

Abbreviations and acronyms should always be explained with the full name spelled out the first time an abbreviation or acronym is used. Abbreviations and acronym should not be used at the start of a sentence.

The guidelines produced by the UN state that italics and bold print are not used for emphasis, except where the General Assembly has requested this. Spelling should follow British/World English. Non-English names are not italicised. Abbreviations of Latin words (e.g., et al., vs., vice versa, etc.) are not italicised.

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[5] The United Nations Editorial Manual can be found at: https://www.un.org/dgacm/en/content/editorial-manual.

Conventions, Agreements, Declarations, Acts, official policies are italicised and spelled out in full the first time they are used if there is an abbreviation. For example, *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act).

Elemental parts of sections, chapters and sub-chapters should be identified with the number and letter identifier of the section, chapter or sub-chapter and the sequential number within the chapter. For example, the elemental parts of sub-chapter 5N of section 4 of the assessment would be as follows:

4.5N.1 Element 1

4.5N.2 Element 2

2.8.3 Format of tables

Tables may be in portrait or landscape orientation. Horizontal lines (rules) mark the top and bottom of the table and separate the column heads. Rules are not used to separate lines of data. Vertical rules are not used, either to separate columns or to box the sides of the table. Shading should never be used. Table content, when using numbers should either be aligned on the right or in the case of numbers with decimal points, on the decimal point. All decimal numbers should be carried to the same number. Table content when using text should be aligned to the left. See further detail on table formatting in the United Nations Editorial Manual[6].

Tables are numbered in Arabic numerals, with the number and letter identifier of the section, chapter or sub-chapter and the sequential number within the section, chapter or sub-chapter. For example, a table in sub-chapter 5N of section 4 of the assessment would be presented as Table 4.5N.5, while a table in chapter 8 of section 5B of the assessment would be presented as Table 5B.8.5.

Every table included in each section, chapter or sub-chapter should be referred to in the text and referred to in lower case and by its number (e.g., see Table 4.5N.5, *not* see table below).

Table captions are set out in bold type, flush left using the fonts listed above. Only the first word is capitalised (unless proper nouns denoting the specific name of a place (e.g., Berlin), person (e.g., Maria) or thing (e.g., January, Taj Mahal, Niagara Falls) are used) and the text used should not repeat the content of the table.

Tables should be formatted in Calibri, 10 pt/line spacing 11 pt, black, with rows demarcated by a 0.25 pt dividing line.

2.8.4 Format of figures

Figures are numbered in Arabic numerals, with the number of the section, chapter or sub-chapter and the sequential number within the section, chapter or sub-chapter. For example, a figure in sub-chapter 5N of section 4 of the assessment would be presented as Figure 4.5N.2, while a figure in chapter 8 of section 5B of the assessment would be presented as Figure 5B.8.2.

Every figure included in each section, chapter or sub-chapter should be referred to in the text and referred to in lower case and by its number (e.g. see Figure 4.5N.2, *not* see figure below).

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[6] The United Nations Editorial Manual can be found at: https://www.un.org/dgacm/en/content/editorial-manual.

Figure captions are set out in bold type, flush left using the fonts listed above. Only the first word is capitalised (unless proper nouns are used – see section 2.8.2 of this document) and the text used should not repeat the content of the figure. Figure captions are placed below the figure.

Figures should be formatted as follows:

- Figures should be provided in editable vector formats, ideally XLS, AI or SVG.

- Text within figures should use Calibri 10 pt/line spacing 11 pt using the standard colour palette provided in section 2.8.2 of this document.

- Figures should be 6.5" x 4.5" for half-page or 3.125" wide for single-column (no taller than 7" to allow for headings and captions).

- All writing teams are responsible for providing the alt text for their own submitted figures.

- All photographs should be no smaller than 300 dpi, and no smaller than 9" x 11.5" for full page.

- Please provide full-page chapter divider pictures rather than using solid-coloured pages.

2.8.5 Referencing

Although the Third World Ocean Assessment will be provided via a digital platform, drafts of each section, chapter and sub-chapter of the third World Ocean Assessment will need to be provided in a "hard copy" form to facilitate the review process. A complete list of works referred to should be included at the end of the text of each chapter. The list of references should be provided with the full details of the material to which reference is made.

2.8.5.1 Within body text citing of references

In alignment with United Nations Editorial Manual[7], references are cited in the text by providing the last name of the author or editor and the year of publication within parentheses. More than one work may be cited within a single parenthetical reference. Examples include:

One author: (Milanovic, 2005)

Two authors: (Bourguignon and Morrisson, 2002)

More than two authors: (Kim and others, 2017)

When the author's name is mentioned directly in the text, only the year is given in parentheses. For example: "Waldon (1998) found that...".

2.8.5.2 Reference list

The full reference for each citation in the body text of a section, chapter or sub-chapter is to be included in a reference list provided at the end of each section, chapter or sub-chapter. References are to follow the United Nations Editorial Manual, with entries normally styled in the same way as an author-date reference, except that the year of publication is given with the publishing data, not in parentheses immediately after the name of the author. The first line of each entry is typed at the left margin and subsequent lines are indented at least two

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[7] The United Nations Editorial Manual can be found at: https://www.un.org/dgacm/en/content/editorial-manual.

spaces and blocked. Digital object identifiers (doi's) are not included with references. Examples are provided below.

Book

Milanovic, Branko. Worlds Apart: Measuring International and Global Inequality. Princeton, New Jersey: Princeton University Press, 2005.

Edited book

Moran, Theodore H., and Gerald T. West, eds. International Political Risk Management, vol. 3, Looking to the Future. Washington, D.C.: World Bank, 2005.

Book, part of a series

Stiglitz, Joseph, and others. Stability with Growth: Macroeconomics, Liberalization and Development. Initiative for Policy Dialogue Series. Oxford: Oxford University Press, 2006.

E-book

Rao, J.N.K. Small Area Estimation. Wiley Series in Survey Methodology. New York: Wiley & Sons, 2005. E-book.

Chapter within an edited book

César Calderón and Luis Servén. "Latin America's infrastructure in the era of macroeconomic crises", in *The Limits of Stabilization: Infrastructure, Public Deficits and Growth in Latin America*, William Easterly and Luis Servén, eds. (Palo Alto, California, Stanford University Press; Washington, D.C., World Bank, 2003).

Journal publication

One author: Alongi, Daniel M. Mangrove forests: resilience, protection from tsunamis, and responses to global climate change. Estuarine, Coastal and Shelf Science, vol. 76, No. 1, pp. 1–13, 2008.

Two authors: Carrasquilla-Henao, Mauricio, and Francis Juanes. Mangroves enhance local fisheries catches: a global meta-analysis. Fish and Fisheries, vol. 18, No. 1, pp. 79–93, 2017.

More than two authors: Pearlman, Jay, and others. Evolving and sustaining ocean best practices and standards for the next decade. Frontiers in Marine Science, vol. 6, art. 277, 2019.

Conference proceedings

Zhang, Chang Ik, and others. An extended ecosystem-based fisheries assessment. In Proceedings of the Twelfth International Conference on the Mediterranean Coastal Environment, MEDCOAST 15, 6–10 October 2015, Varna, Bulgaria, E. Ozhan (ed.), vol. 1467–1490, 2015.

Website

United Nations Environment Programme (UNEP). Biodiversity A-Z. 2019. www.biodiversitya-z.org, 2019.

2.8.6 Provision of externally located supplementary material, data, and auxiliary files such as video and audio files

The details of all externally located supplementary material (e.g., additional information located on an external website), data files (including code located on Github) and auxiliary files (such as audio or video files) associated with each section, chapter or sub-chapter and that is intended to be linked to need to be provided. These should be directly linked to their source in the text of each section, chapter or sub-chapter (e.g., via a URL). Where components have been extracted from an external source the following should be provided:

- Author or organization responsible for the material

- Title (in quotation marks)

- Series title (if relevant)

- Format

- Date posted or last updated, if indicated

- The URL

2.8.7 Measures of weight/length/volume, units, numbers, dates and time

Measures of weight, length and volume should follow the ISO/IEC 80000 family of standards (formerly ISO standard 31). Note that the UN prefers to use measures of "ton" (1,000 kilograms) rather than imperial ton or tonne.

The United Nations Editorial Manual[8] identifies that the numbers one to ten are spelled out (e.g. two examples are presented) and 11 and above are presented numerically (e.g. to date, 12 assessments have taken place), although refer to the manual for exceptions to this. Numbers used at the start of a sentence should be spelled out (e.g. Two assessments carried out in the region).

Fractions expressed as words are not hyphenated (e.g. one third of the total waste generated). Presentation of a range of numbers should utilise an en dash (e.g. 2004–2005).

Dates are presented day month year (e.g. 19 May 2018), decades as (for example) 1990s, not nineties or 1990's, time as (for example) 9 a.m.

Per cent is spelled out, not represented by %.

2.8.8 Geographical/country names

Refer to the GeoNames database of the National Geospatial Intelligence Agency.[9] Abbreviations and acronyms should not be used for member states names.

2.8.9 Use of hyphens

Examples of commonly used words that are not generally hyphenated include: bycatch, purse seine, longline, gillnet, per cent, seamounts, shelf break, continental shelf, food chain, foodweb, supply chain, litter trap. If it is unclear if something should be hyphenated, writing teams should first, check

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[8] The United Nations Editorial Manual can be found at: https://www.un.org/dgacm/en/content/editorial-manual.
[9] See geonames.nga.mil.

the United Nations spelling list,[10] and second, check with the Lead and Co-lead member on their section, chapter or sub-chapter.

3. Specific guidance for individual sections of the assessment

3.1 Key findings of section 3 and the chapters and sub-chapters of sections 4 and 5

A key findings section is to be provided at the beginning of section 3 and the chapter and sub-chapters of sections 4 and 5 (except in the case of introductory chapters) of the third World Ocean Assessment. The key-findings are intended to provide a rapid and brief understanding of the main findings of the section, chapter or sub-chapter and should be comprised of three to five points that highlight the key results of the section, chapter or sub-chapter. These can be provided in innovative formats including the use of infographics, as seen fit, and as supported by the digital representation that the third World Ocean Assessment will be delivered through.

3.2 Section 4: Change since the second World Ocean Assessment

The first and second World Ocean Assessments set out a baseline from which changes in status of biodiversity, habitats and pressures (not considered specifically in section 5A of the assessment) on the ocean should be detailed by the sub-chapters of section 4. Writing teams are advised to familiarise themselves with the content of first and second World Ocean Assessments to ensure they are not duplicating content already provided in previous assessments. Where there might be gaps identified in the content provided in previous assessments, the details of those gaps can be provided briefly to provide context for the focus of chapters and sub-chapters, which is to detail change since the second World Ocean Assessment. All chapters and sub-chapters contained within section 4 should follow the format set out below and in section 2 of this document. The only exceptions to this are those sub-chapters that are new additions to the assessment. The structure of new sub-chapters is detailed in section 3.2.3.

3.2.1 Comparability

In order to provide for comparability between the content of sub-chapters with that provided in previous assessments, the following structure to all chapters and sub-chapters of section 4 of the Third World Ocean Assessment is required.

3.2.1.1 Introduction and context

This should provide a brief introduction to the topic, including:

- A brief summary of the baseline state provided by the first and second World Ocean Assessments;
- The scope of the topic so that it is clear what the sub-chapter will cover and what it will not.

3.2.1.2 Description of environmental change since the second World Ocean Assessment

Using the first and second World Ocean Assessments as a baseline, this component of each chapter or sub-chapter should provide an overview of any changes to the relevant taxa/biodiversity group, habitat group or pressure (and the uncertainty associated with the determination of change) that have occurred since the second World Ocean Assessment. This should be within the context of any established longer-term trends established beyond the period since the first World Ocean Assessment. This section of chapters or sub-chapters

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[10] See https://www.un.org/dgacm/en/content/editorial-manual/spelling.

should identify substantive linkages with other chapters and sub-chapters, clearly and where relevant. It should include:

- Changes in the overall status;
- Factors contributing to the change observed;
- Impacts of the change on and interactions with other components of the marine system;
- The social, economic and cultural aspects associated with any change;
- Implications for achieving the targets of the Sustainable Development Goals of the 2030 Agenda for Sustainable Development.

3.2.1.3. Region-specific changes

Following the content of the first and second World Ocean Assessment, this component of each chapter or sub-chapter should provide a synopsis of important regional issues or aspects associated with the topic for any of the following regions (as is relevant to the chapter or sub-chapter topic):

- The Arctic Ocean;
- The North Atlantic Ocean, the Baltic Sea, the Black Sea, the Mediterranean and the North Sea;
- The South Atlantic Ocean and the Wider Caribbean;
- The Indian Ocean, the Arabian Sea, the Bay of Bengal, the Red Sea, the Gulf of Aden and the Persian Gulf;
- The North Pacific Ocean;
- The South Pacific Ocean;
- The Southern Ocean.

3.2.1.4 Remaining key knowledge and capacity changes and any new gaps

Using the first and second World Ocean Assessments as a baseline, this component should provide an overview of the key changes in knowledge, understanding and capacity as well as the remaining gaps.

3.2.2 Time period to consider when providing an update

As set out in the annotated outline for the third World Ocean Assessment[11], the period for the chapters and sub-chapters of section 4 to consider change is across the period 2018-2023. Where gaps may have been identified in the content provided in previous assessments, resulting in the need to consider specific change over longer time periods (noting all change should be provided within the context of established longer-term trends beyond the time period since the first World Ocean Assessment), this may be included.

3.2.3 New or expanded sub-chapters

Where new or expanded sub-chapters have been added into section 4 of the third World Ocean Assessment (i.e., sub-chapter 5N: pelagic domain, sub-chapter 5J: fjord systems), the following structure to those sub-chapters is required.

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[11] The annotated outline of the third World Ocean Assessment can be found at: https://www.un.org/regularprocess/woa3.

3.2.3.1 Introduction and context

This should provide a brief introduction to the topic, identifying clear linkages with other sub-chapters, where relevant. It should specifically include:

- The scope of the sub-chapter so that it is clear what the sub-chapter will cover and what it will not;
- How the topic is affected by and affects other components of the marine system*;*
- How the topic is relevant to human communities and wellbeing.

3.2.3.2 Description of the current state and recent change

This component of the sub-chapters should provide an overview of the current status of the topic (and the uncertainty associated with the determination of that state) and any recent changes that have occurred , in line with the first and second World Ocean Assessments. This should be within the context of any established longer-term trends beyond the time period since the first World Ocean Assessment. This component of the sub-chapter should identify substantive linkages with other sub-chapters, clearly and where relevant. It should include:

- The overall status;
- Factors contributing to the current state and any recent changes observed;
- Pressures that might be influencing the current state and recent change and interactions with other components of the marine system;
- The social, economic and cultural aspects associated with the current state and recent change;
- Relationship to achieving the targets of the Sustainable Development Goals of the 2030 Agenda for Sustainable Development.

3.2.3.3. Region-specific issues relating to current state

Following content of the first and second World Ocean Assessment, this component of the sub-chapter should provide a synopsis of important regional issues or aspects associated with the topic for any one or more of the following regions (as is relevant to the sub-chapter topic):

- The Arctic Ocean;
- The North Atlantic Ocean, the Baltic Sea, the Black Sea, the Mediterranean and the North Sea;
- The South Atlantic Ocean and the Wider Caribbean;
- The Indian Ocean, the Arabian Sea, the Bay of Bengal, the Red Sea, the Gulf of Aden and the Persian Gulf;
- The North Pacific Ocean;
- The South Pacific Ocean;
- The Southern Ocean.

3.2.3.4 Key knowledge and capacity gaps

This component should provide a synopsis of the key knowledge and capacity gaps and any regional aspects associated for the sub-chapter topic.

3.3 Section 5: Socioecological systems

3.3.1 Consideration of outputs from those workshops held in support of the assessment (all chapters and sub-chapters of section 5A, chapters 5, 6 and 8 of section 5B)

During 2023, five regional workshops were held in support of gathering perspectives on thematic elements of the various chapters and sub-chapters in section 5 of the third World Ocean Assessment. Participants were provided with some background to the topics of sustainability pathways (of relevance to the chapters and sub-chapters of section 5A of the assessment) and the topics equity, gender and Indigenous, Traditional owner and Local community Knowledge (ITLK), all of which are cross cutting topics of relevance to all chapters and sub-chapters in section 5A (A sustainable and inclusive ocean economy) of the assessment, and specific topics to be addressed in chapters 5, 6 and 8 of section 5B (One health) of the assessment.

Individual workshops were provided with similar background materials and asked to consider the same tasks for each of the discussion sessions. Individual workshops were not pre-informed with outputs from previous workshops, however a summary of the outputs from previous workshop was provided in the end session of each workshop to provide participants with some context to their discussions, highlighting similar themes and differences between workshops.

The sustainability pathways component of the workshop focused on the first steps in identifying sustainability pathways and therefore providing a foundational basis for the development of pathways. Workshop participants were asked to identify what might be the drivers or motivators to achieving sustainability for ocean sectors (identified as chapters and sub-chapters within section 5A) and conversely, what might be the barriers or challenges to achieving sustainability. These were explored from environmental, social, economic, technological, political and governance perspectives.

The cross-cutting themes component of the workshop required participants to respond to a number of questions associated with each of the three themes of equity, gender and ITLK. In effect, the workshops served as a form of expert elicitation in gathering information relevant to section 5 of the assessment.

The outputs from the discussion groups in each component of the workshop were compiled and will be provided to the relevant writing teams for specific consideration and incorporation into the chapters and sub-chapters of section 5 of the assessment. While individual writing teams might take varying approaches to how they consider and incorporate the outputs of the workshop, they must detail how they considered the workshop outputs, the extent to which that output was utilised, and what regional insights the workshop outputs provide to the topic of each chapter and sub-chapter.

3.4 Section 5A: A sustainable and inclusive ocean economy

3.4.1 Context

Section 5A of the third World Ocean Assessment will consider the pressures that human activities are placing on the ocean, the social and economic conditions associated with ocean sectors, including the demographic, institutional, and technological factors associated with these sectors, and the data, tools and information, including management approaches available for transitioning human activities towards being sustainable and inclusive within the context of the Sustainable Development Goals.

3.4.2 Components

Each chapter or sub-chapter of section 5A of the third World Ocean Assessment should include the following components:

3.4.2.1 Pressures

This component should provide a comprehensive assessment of the stressors associated with the chapter/sub-chapter topic. Pressures that should be considered, include, but are not limited to:

- Pollution including:

    - Eutrophication/nutrients
    - Noise
    - Litter/plastics
    - Traditional contaminants (including metals, organic compounds, oil spills)
    - Emerging contaminants (e.g., pharmaceuticals, microplastics)
    - Anti-fouling

- Catastrophic events associated with spills (oils spills, chemical spills)

- Exploitation/extraction

- Alteration of coastal inputs (including that influenced by mega-droughts and mega-flooding, dams etc.)

- Alteration of habitats (including destruction)

- Alteration of oceanographic processes

- Illegal activities including:

    - Dumping
    - Illegal fishing
    - Trafficking
    - Crime
    - Piracy

- Unintended consequences of policy (harmful subsidies)

- Cumulative effects

- Contribution to climate change

Where relevant, this component should highlight linkages with the sub-chapters and chapter 6 of section 4 of the third World Ocean Assessment.

3.4.2.2 Socio-economic considerations

This component should outline those social factors and issues that need to be considered in association with the ocean sector being detailed in each chapter/sub-chapter, including benefits and disbenefits, equity (including social license), gender, Indigenous, traditional owner and local community knowledge.

It should include consideration of workshop outputs (see section 3.3.1 of this document) and identify linkages with the relevant chapters of section 5B of the assessment.

3.4.2.3 Sector-relevant governance

This component should provide an overview of sector-specific governance structures at national, regional and international scales of relevance to the ocean sector being detailed in each chapter/sub-chapter. In doing so, it should highlight linkages with section 3 of the third World Ocean Assessment (focused on providing an update on ocean governance). This should not include an evaluation of the effectiveness or voicing of an opinion on specific sectoral governance structures, as this will be interpreted by member states as being policy prescriptive. However, the inclusion of examples of where governance structures have resulted in positive outcomes (e.g., enabling balance, restoring balance, enabling adaptation etc.), could be useful in identifying how tools have been implemented or information used.

3.4.2.4 Sustainability pathways

These forward-looking, feasible pathways will identify the scientific data, tools and knowledge that could be utilized at multiple scales to transition human activities towards being sustainable and inclusive guided by a scenario informed by the Sustainable Development Goals (see Appendix 2). The aim of articulating possible pathways towards sustainability is to provide information that will assist readers of the third World Ocean Assessment, including policymakers and managers, to understand what could be utilized (and how) to move from incremental change to existing systems of human use of the ocean to transformational reorganisation. These pathways should be framed as possibilities that can include articulation of best practices (see Appendix 2 for a description of best practices), but should not prescribe policy or identify specific actions to be undertaken by entities or groups (see section 2.4).

In identifying what might be needed for transformation reorganisation, the expectation is that writing teams will utilise a tangible vision of a positive future (the scenario) using a narrative approach rather than a quantitative approach. Examples of quantitative approaches include the shared socioeconomic pathways (based on emission scenarios) used by the IPCC. A narrative approach is being utilised for the third World Ocean Assessment because quantitative approaches can constrain the potential or projected future states developed (e.g., to a set emission scenario), limiting creativity and the envision of realistic elements (incorporating contemporary, accessible and shared information and tools) that can provide the foundation for a more sustainable future.

Building a series of sustainability pathways for ocean sectors requires several steps for including diverse knowledge and value systems. The first step of this process was carried out through a series of regional workshops (see section 3.3.1) and provided perspectives on the motivations or drivers for sectoral sustainability (i.e., positive influences) and the barriers or challenges to sectoral sustainability (i.e., negative influences). The second step in this process, involving the development of a common scenario that provides the future goals or bounds within which sustainable pathways can be established, was formulated through an external workshop to the Regular Process sponsored by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection and Konsortium Deutsche Meeresforschung / German Marine Research Consortium.

The Ocean Futures Scenarios and Pathways workshop, held in Berlin 14-15 December 2023, aimed to create a technically sound vision of a sustainable ocean in 2050 and to highlight the most important characteristic aspects of that vision. This involved three interdisciplinary groups working together to sketch out what a sustainable ocean could look like in 2050. The shared themes produced by the three groups were then synthesised into a holistic scenario

for the oceans in 2050: "Prospective Horizons - A Vision for Sustainable Prosperity and Biodiversity" (see Appendix 2). In addition to identifying an "ocean in 2050 scenario" as point of reference, the workshop produced guidance) to be used by writing teams in applying the scenario when identifying sustainability pathways for each of the chapters and sub-chapters of section 5A of the assessment (see Appendix 2).

The writing teams of section 5A of the assessment are expected to utilise this guidance, and specifically the scenario defined within it, in conjunction with the outputs from the regional workshops that provide regional perspectives on the motivations or drivers and barriers or challenges to sectoral sustainability. The outputs from the regional workshops identify common motivators and barriers that pathways can be shaped by at a global level and also regional specificities that might need to be accounted for.

These are to be utilised by writing teams to identify information and tools that could be utilised by policy makers in developing practical and realistic pathways that can support transformation reorganisation for each sector. The tools and information identified for each sector should be able to be practically applied and already in existence and therefore could be applied to assist with transition of sectors in supporting realistic achievement of the Sustainable Development Goals. Examples of such tools could include ecosystem-based fisheries management frameworks, ecosystem restoration approaches, nature-based solutions for coastal protection, marine spatial planning and ocean literacy approaches. Emerging technologies that have enough evidence-base that they are likely to be widely available in the near future can be included however, pre-empting future (untested) technologies or speculating on the development of tools or technology should be avoided. This is because these are not informative in terms of what could be applied in the near future to set sectors on a sustainable pathway.

Appendix 1: Example style sheet template for the sections, chapters and sub-chapters of the third World Ocean Assessment

Title headers: Calibri bold 18 pt/ line spacing 21 pt, black

Sub-title headers: Calibri bold 14 pt/line spacing 16 pt, black

Body text: Calibri, 11 pt/line spacing 14pt, black

Body text spacing between paragraphs 14pt

Figure xx Captions (tables and figures): Calibri, 9 pt/line spacing 11 pt, black

Table xx Captions (tables and figures): Calibri, 9 pt/line spacing 11 pt, black

Footnotes: Calibri, 9 pt/line spacing 10 pt, black

Footnote markers: Calibri, 7 pt, 3pt baseline shift, black

Bullet points:

1. Numbered, lettered or bulleted lists: Calibri, 10 pt/line spacing 14pt, black
2. Numbered, lettered or bulleted lists: Calibri, 10 pt/line spacing 14pt, black

Appendix 2: Guidance Document on the development of sustainability pathways for the writing teams of relevant chapters/subchapters of section 5A of the third World Ocean Assessment (WOA).

A2.1. Introduction

The third World Ocean Assessment (WOA III) is the assessment of the United Nations on the state of the global ocean and regional seas. It offers a unique empirical perspective on the environmental quality and socio-economic dimensions of this sphere. This guidance document supports WOA writing teams tasked with developing sector-specific sustainability pathways, by offering an "ocean in 2050 scenario" as point of reference. The writing teams can use this reference to help identifying the information, tools and best practices useful to charting a path toward the scenario. The scenario was articulated by a group of scenario experts to represent realistic progress against the Sustainable Development Goals (SDGs), situated between a business-as-usual trajectory and an idealistic One Health scenario.

This document contains a glossary of terms used in this document, a short task definition, and the "Navigating the Future Seas" scenario articulated by experts.

A2.2. Glossary

This glossary is intended to define terms used in this Appendix.

Barriers: Aspects that negatively influence the development towards sustainability of a certain sector. With reference to the regional workshops of the third UN Regular Process (Concept note for the 2023 regional workshops in support of the third World Ocean Assessment, 2023).

Best Practices: Best available, environmentally effective and economically appropriate techniques and practices.

Business-as-usual trajectory: The continuation of current trends as described in the scientific literature, for example, great acceleration (Steffen et al., 2015), blue acceleration (Jouffray et al., 2020), and marine defaunation (McCauley et al., 2015).

Chapters/Subchapters: The specific chapters/subchapters in the third UN World Ocean Assessment, for which sustainability pathways will be created (A Comprehensive Outline of the Third World Ocean Assessment, 2023).

Dimensions: In the context of the third UN Regular Process regional workshops, dimensions refer to six distinct classifications used to assess drivers and barriers. These dimensions are: political, economic, governmental, societal, environmental, and technological. This classification system facilitates a comprehensive analysis, allowing for a structured exploration of the various influences and dynamics (Concept note for the 2023 regional workshops in support of the third World Ocean Assessment, 2023)

Drivers: Aspects that positively influence the development towards sustainability of a certain sector. With reference to the regional workshops of the third UN Regular Process (Concept note for the 2023 regional workshops in support of the third World Ocean Assessment, 2023).

GDP: Gross domestic product (GDP) is the standard measure of the value added created through the production of goods and services in a country during a certain period (National Accounts of OECD Countries 2009, 2009)

Information: Referring to scientific studies, generated knowledge and empirical data.

Ocean commons: A primarily spatial term referring to marine areas beyond national jurisdiction, as defined in the United Nations Convention on the Law of the Sea (UNCLOS) (De Lucia, 2019).

Ocean resilience: Capability of the oceans to withstand, adapt to and recover from anthropogenic pressures, reflecting the state of the oceans.

One Health: Relations between ocean and humanity, that benefit all, ecosystems, fauna and communities. Based on the integrated, unifying One Health approach that aims to sustainably balance and optimize the health of people, animals and ecosystems (One Health High-Level Expert Panel (OHHLEP), 2022)

Sustainability pathway: A broad outline of a potential way towards more sustainable oceans in 2050. The pathway consists of three milestones (2030, 2040, 2050).

Scenario: A general high-level description of more sustainable oceans in 2050, displayed in a set of six dimensions.

Spreadsheets: Excel spreadsheets that include compilations of drivers and barriers towards sustainability created in the second round of regional workshops in the third UN Regular Process for each relevant chapter/subchapter of the third UN World Ocean Assessment (Concept note for the 2023 regional workshops in support of the third World Ocean Assessment, 2023).

Sustainable blue economy: The extent of economic and societal transformation towards a sustainable, circular and carbon negative marine-based economy.

The 9R's: Approach by Kirchherr et al. (2017) to describe the circular economy concept with "9Rs" (refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle, recover).

Tools: Technologies, governance structures and other societal, economic political and environmental mechanisms, that can be of use on the way towards a more sustainable ocean.

A2.3. Question and Task
Guiding Question: "What information, best practices and tools could Member States/countries use to support their work in achieving the attached integrated ocean scenario across the time periods of 2030, 2040 and 2050?"

Task: To develop a sector-specific sustainability pathway, outlining the tools, best practices, and information that might be useful or is needed by Member States and regional entities to progress towards the outlined scenario.

A2.4. The Ocean in 2050 Scenario
A2.4.1 Context
The scenario: "Navigating the Future Seas: Achieving More Sustainable Oceans by 2050 through Transformative Global Governance." is an impressionistic but realistic standard, against which

potential changes in the state of the ocean can be measured in 2030, in 2040 and in 2050. It consists of six main dimensions (governance, technology, economy, society, politics, and environment), each a space of socio-economic activity. Each dimension of the scenario influences the sectoral focus of each chapter or sub-chapter in a different way and sets framework conditions (reflected in Figure A1). Questions that might be asked when considering each dimension might include: What governance structures could be utilized? What technologies need to be included? What social mechanisms might be of use?

A2.4.2 Navigating the Future Seas: Achieving More Sustainable Oceans by 2050 through Transformative Global Governance

In the year 2050, humanity has successfully steered a course toward a more sustainable future for our oceans, reflecting the goals of international agreements such as the Paris Agreement, the Sustainable Development Goals (SDGs), the Kunming-Montreal Global Biodiversity Agreement and the (now formalised) plastic pollution agreement and any newer agreements made at the regional and global levels aimed at facilitating ongoing sustainability. This achievement is the result of three decades of collaborative efforts in governance supported by effective policies, technology, society, economy, and environmental care. Transformation began after a low point in 2030 with focused policymaking in support of international agreements and governance frameworks, raising awareness of the need for transformational change in setting sustainable practices, and involving citizens in decision making processes and implementation of management and ground level actions proactively. Decision making processes included more caring objectives and transitioned to clear transparency in their approach, determination and application. By 2040, a new global governance landscape emerged, emphasising fairness and equity in policy setting and decision-making forums. Multilateral cooperation across borders and circular economies based on the 9 R's became the norm. By 2050, oceans are slowly recovering, thanks to well-coordinated more participative and anticipatory governance since 2030, ensuring fair use of resources and strong policies.

Technological innovations with an emphasis on advanced monitoring technology (including artificial intelligence and machine learning applications lead a revolution in ocean management, with advanced modelling practices, including the production of digital twins of socio-ecological ocean systems routinely used within decision making. The innovation continues to be accompanied by the development of brown (non-renewable energy based) technologies. Anticipatory governance of new technologies plays an important role in tackling this side-effect.

Societal values transform profoundly, with an emphasis on local and intergenerational wisdom transfer, and sustainable practices and actions becoming normalised. By 2050, people worldwide aren't just aware of the environment; they actively contribute to environmental restoration and wealth redistribution. An "Elevator Pitch for the Ocean" becomes a global rallying call, boosted by the blue economy and biodiversity knowledge networks.

Economic shifts toward sustainability, favouring decentralisation and local industries. In 2050, the global economy thrives on fair wealth distribution, moving away from old growth models based on GDP. The path towards equitable wealth distribution ran through a process in which degrowth in richer countries enabled growth in poorer countries. Adapted by major nations in 2040, this forms the basis for an ongoing process towards a more balanced global economic system.

The once-threatened environment progressively moves from ongoing destruction to recovery. By 2050, there is clear evidence of marine life recovery from proximities to tipping points and

extinctions, and pollution within the ocean is on an ongoing trend of reduction. After reaching a low point in 2030, global marine biodiversity is slowly recovering from there on. Initiated by a campaign to preserve marine genetic diversity. Ocean warming remains a problem because of latency in the ocean system, but the causes (increasing greenhouse gas emissions) have been mostly tackled. Comprehensive plastic management and renewable energy practices are now standard, ensuring responsible resource use and implementation of circular use.

After most of the SDGs were not achieved in 2030, the goals are being further developed based on the lessons learned. Political recommendations from 2030 become a solid governance framework, including strengthened multilateral agreements, taxation for the use of ocean commons and distribution of benefits by 2040. This trajectory is driven by an acceleration in global and regional political agreement processes, accompanied by increased societal ocean awareness and associated political persuasion and support for political parties with a focus on sustainability and the change required across all dimensions to achieve sustainability (i.e. governance, politics, society, the economy, technology, and the environment). In this scenario by 2050, all parts of society have a clearer vision for a thriving ocean, an understanding of the role the ocean has in supporting life on Earth and what is required to support sustainability.

Figure A1: A Futures Wheel diagram of the dimensions of the shared scenario. (Adapted from Glenn, 2009)

Contacts

If chapter and sub-chapter writing teams have any questions regarding the scenario or the guidance provided in this document, they are encouraged to contact:

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Writing teams are encouraged to send a brief update on progress to the above contacts once they have an initial draft of their pathways. This will provide an opportunity to clarify any questions on the scenario directly with the workshop experts and receive feedback on the draft pathways.

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