

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

Second world ocean assessment (WOA II) – review by States

Instructions

NOTE: Only comments submitted in accordance with the six instructions below will be accepted and transmitted to the writing teams for consideration.

1. Each Member State may submit **one** set of written comments.
2. Comments must be submitted using the template provided in this document.
3. The document containing the comments must be saved in either **.doc** or **.docx** format
4. All comments must be in **English**.
5. Comments must be submitted either through the Permanent Mission to the United Nations, or through designated National Focal Point for the Regular Process.
6. Comments must be submitted to the secretariat of the Regular Process by e-mail (doalos@un.org; temnova@un.org; legesseh@un.org).

About the process for review by States

- States may comment on any aspects of the draft, including content, structure and references. States may provide general comments or comments on specific wording, tables, figures, maps, etc. Line numbers are provided to facilitate line-by-line review, should States so desire.
- All comments received from a State will be shared with the writing teams and the Group of Experts under the name of that State without featuring any sub-divisions (offices, departments, ministries etc.) of that State.
- The comments received from States will be shared with other States along with the second draft of WOA II and the agreed responses by the Group of Experts to the comments. States will then have the opportunity to review and raise any remaining questions they may have with the Group of Experts.
- Relevant background documents are made available on the website of the Regular Process: <http://un.org/regularprocess/WOA-II-review-by-states>

Tips on using the template

- The template below uses a table format. This format allows for an unlimited number of comments to be added for each chapter or sub-chapter. To add more comments on a chapter or sub-chapter, simply add more rows.
- States may copy text from the draft into the table if they wish to use “track changes” in editing text.
- The template is shared in **.doc** and **.docx** format. These formats can be used with Microsoft Office products, in Google Docs and open-source office suites such as LibreOffice.
- To enable cross-departmental collaboration across departments or agencies, States may wish to consider adding the template to a shared drive or cloud storage solution, where multiple collaborators can add their comments simultaneously.

Template

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| The Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects | |
| <i>Third draft (of 19 October) of the second world ocean assessment (WOA II)</i> | |
| Comments submitted by Viet Nam | |
| Contact person: | |
| <i>Please fill out the below with the details of a person the secretariat can contact in case there are any questions.</i> | |
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| Checklist: | |
| | This document contains all comments on the draft of WOA II from Viet Nam |
| | All comments are submitted in the template provided below. |
| | The document is submitted in either .doc or .docx format. |
| | All comments in this document are in English. |
| | This document is submitted by (1) the Permanent Mission of Viet Nam to the United Nations OR (2) its duly designated National Focal Point for the Regular Process. |
| | This document is sent to the secretariat of the Regular Process (doalos@un.org ; temnova@un.org ; legesseh@un.org). |

| Overall comments on the first draft of the second world ocean assessment (WOA II) | |
|---|--|
| [Indicate the scope of comment A, including to which chapters and sub-chapters comment A is relevant] | [Comment A] |
| [E.g. all chapters] | [There should be a consistent approach on referring to ...] |
| ... | |
| Chapter 1: Overall summary | |
| Section | Comment |
| 2. Drivers | “Changing governance structures and geopolitical instability” as one of the four drivers mentioned in this Chapter has not been analyzed or developed adequately in the subsequent relevant section of Chapter 4, particularly the “geopolitical instability” element. |
| Section name | |
| Section name | |
| ... | |
| Chapter 2: Approach to the assessment | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 3: Scientific understanding of the ocean | |
| Section | Comment |
| 3.5. The North Pacific Ocean | <p>1. Having taken a good note of the Disclaimer of this WOA report, Viet Nam emphasizes the need to avoid any possible misunderstanding in terms of sovereignty, sovereign rights and jurisdiction in the South China Sea. In this connection, Viet Nam respectfully requests the following amendments at page 41:</p> <p><i>“Intensive expansion of marine research capability and capacity, including remote sensing and in situ platforms and land-based infrastructures, by the People’s Republic of China (Chen and Lei, 2019), has enhanced monitoring capacity in marine area under Chinese jurisdictionthe South China Sea and adjacent seas.</i></p> |

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| | <p><i>China has established a monitoring system to perform routine monitoring of marine environmental quality, and assess ecosystem health status of habitats-in-the-coastal waters along China”.</i></p> <p>2. With relevance to the title of this section 3 (Key region-specific changes and consequences), those activities such as land reclamation and island-building at large scale and their impacts on marine environment should be mentioned and assessed.</p> <p>3. Besides those activities of States mentioned in this section, Viet Nam holds the view that the report should make assessment on the role of regional organizations and initiatives with regard to the protection and preservation of the marine environment. For example: the Coordinating Body on the Seas of East Asia (COBSEA), the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), The Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF), etc.</p> |
| Chapter 4: Drivers | |
| Section | Comment |
| 2.4. Changing in governance structures and geopolitical instability | <p>There is an inconsistency between this section and the summary part in Chapter 1.</p> <p>The geopolitical instability as one element of the driver “changing in governance structure and geopolitical instability” has not been addressed adequately in this Section.</p> <p>Viet Nam would like to draw attention to the research by Suárez-de Vivero and Rodríguez Mateos, <i>Forecasting geopolitical risks: Oceans as source of instability</i>, 2017 cited in the draft report (page 54). In this article, while maritime “territorial tensions and conflicts”, and “maritime border” issue (particularly in the South China Sea) have been identified as arenas of geopolitical instability; the authors emphasize the correlation between marine environment and security.</p> <p>As a result, Viet Nam respectfully requests to incorporate in this section of the report a reference to the impacts of maritime territorial or jurisdictional tensions and conflicts, as part of the ‘geopolitical instability’ element, on the marine environment.</p> |
| 3.4. Changing in governance structures and geopolitical instability | |
| Section name | |
| ... | |
| Chapter 5: Physical and chemical state of the ocean | |
| Section | Comment |
| Section name | |

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|--|---|
| Section name | |
| Section name | |
| ... | |
| Chapter 6: Trends in the biodiversity of main taxa of marine biota (overall introduction) | |
| Section | Comment |
| | |
| | |
| | |
| Chapter 6A: Plankton | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 6B: Marine invertebrates | |
| Section | Comment |
| 3.2. Assessment and state of marine invertebrate biodiversity | <p>There have been several reports on the negative impacts of land reclamation and island building on marine environment in general.</p> <p>If the current report does not address the impact of these activities on marine invertebrates, it should be identified as a gap that requires further studies in the Regular Process.</p> |
| Chapter 6C: Fish | |
| Section | Comment |
| 6C. Fish | Please add " <i>Eschmeyer's catalog of fishes</i> " as one of the primary data sources listed in the Table 2 (page 137). |
| Section name | |
| Section name | |
| ... | |
| Chapter 6D: Marine mammals | |
| Section | Comment |
| | In this Chapter, the report should include an assessment on the impact of noise from such activities as the exploitation of oil and gas, of wind energy on marine mammals. |

| Chapter 6E: Marine reptiles | |
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| Section | Comment |
| 4.2. Sea snakes | Threats to sea snakes need to be identified and assessed in a more comprehensive way in this section. |
| Section name | |
| Section name | |
| ... | |
| Chapter 6F: Seabirds | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 6G: Marine plants and macroalgae (merged with Chapter 6H and incorporates elements from Chapter 7H) | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 6H: Macroalgae (merged with Chapter 6G) | |
| Chapter 7: Trends in the state of biodiversity in marine habitats | |
| Chapter 7A: Sand and mud substrates and rocky substrates and reefs (merged with Chapter 7B) | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7B: Rocky substrates and reefs (merged with Chapter 7A) | |

| Chapter 7C: Intertidal zone (to precede Chapter 7A) | |
|---|--|
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7D: Atoll and island lagoons | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7E: Tropical and subtropical coral reefs | |
| Section | Comment |
| | <p>In the current WOA-II draft, the issue of developing marine infrastructures, especially offshore land reclamation has been mentioned in Chapter 14, section 5.2. Ecosystem and socioeconomic consequences of continued change in systems. However, the detrimental effects of island-building and land reclamation on the marine environment are not a possibility in the future but a reality.</p> <p>In consistence with our previous comments at Chapter 3 and Chapter 6B, section 3.2., Viet Nam requests to include in this chapter an appropriate reference to the negative impact of land reclamation and island-building on the coral reefs. This reference is based on the following reports:</p> <p><i>South China Sea Arbitration</i>. Award of 12 July 2016:</p> <ul style="list-style-type: none"> - Independent Expert Report. Assessment of the Potential Environmental Consequences of Construction Activities on Seven Reefs in the Spratly Islands in the South China Sea, by Sebastian C. A. Ferse, Peter Mumby, and Selina Ward, 26 April 2016, - Annex 240. Eastern South China Sea Environmental Disturbances and Irresponsible Fishing Practices and their Effects on Coral Reefs and Fisheries (22 March 2014), by Kent E. Carpenter, Ph.D. Vol. VII, 389–437; - Annex 699. Environmental Consequences of Land |

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| | Reclamation Activities on Various Reefs in the South China Sea (14 November 2015), by K. E. Carpenter and L. M. Chou, Vol. II, 235–92; |
| Chapter 7F: Cold-water corals | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7G: Estuaries and deltas | |
| Section | Comment |
| 2. Documented changes in the state of estuaries and deltas | Viet Nam respectfully requests to include in the report a reference to the Mekong river estuary and delta. The impacts of dam construction on the Mekong river on its estuary and delta have been mentioned in several researches, including the 2010 Final Report by the International Centre for Environmental Management, prepared for the Mekong River Commission, entitled “ <i>Strategic Environmental Assessment of Hydropower on the Mekong Mainstream</i> ”; the articles by Intralawan, Wood and Frankel, <i>Economic Evaluation of Hydropower Projects in the Lower Mekong Basin</i> , 2017; and by Pittock et al., <i>The Mekong River: trading off hydropower, fish, and food</i> , 2017, etc. |
| Chapter 7H: Kelp forests and algal beds (elements incorporated into Chapter 6G) | |
| Chapter 7I: Seagrass meadows | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7J: Mangroves | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |

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| ... | |
| Chapter 7K: Salt marshes | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7L: Submarine canyons | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7M: High-latitude ice | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7N: Seamounts and pinnacles | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7O: Abyssal plains | |
| Section | Comment |
| Section name | |
| Section name | |

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|---|----------------|
| Section name | |
| ... | |
| Chapter 7P: Open ocean | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7Q: Ridges, plateaus and trenches | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7R: Hydrothermal vents and cold seeps | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 7S: Sargasso Sea | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 8: Trends in the state of human society in relation to the ocean | |
| Chapter 8A: Coastal communities (elements incorporated into Chapter 8C) | |
| Chapter 8B: Human health as affected by the ocean | |

| Section | Comment |
|---|--|
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 8C: Maritime industries (incorporates elements from Chapters 8A, 18, 23, 24) | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 8D: Maritime cultural services (elements incorporated into Chapters 30 and 31) | |
| Chapter 9: Pressures from changes in climate and atmosphere | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 10: Nutrient inputs | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 11: Liquid and atmospheric inputs from land, ships and offshore installations | |
| Section | Comment |
| 5.4. Economic and social consequences and/or other | With regards to China's plan to build offshore floating nuclear power reactor, the IAEA's document entitled "Advances in Small |

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| economic or social changes | Modular Reactor Technology Developments”, 2018 Edition has provided relevant information at pages 89 – 92 with the permission of China. Besides, the South China Morning Post also published articles relevant to this topic (For example: <i>Could China build the world’s smallest nuclear power plant and send it to the South China Sea?</i> , Stephen Chen, 11/10/2016; <i>Securing power in the South China Sea: Beijing’s plans for floating nuclear reactors get US\$150 million boost</i> , Sarah Zheng and Kristin Huang, 11/8/2017). |
| Chapter 12: Solid waste | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 13: Erosion and sedimentation | |
| Section | Comment |
| 6. Key remaining knowlegde and capacity-building gaps | Further to its comment under Chapter 7G, Section 2: There have been several researches on the dam construction on river and coastal erosion and sedimentation. Viet Nam requests this topic to be identified as a knowledge and capacity-building gap to be further studied and addressed in the Regular Process. |
| Section name | |
| Section name | |
| ... | |
| Chapter 14: Coastal and marine infrastructure | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 15: Capture fisheries | |
| Section | Comment |
| Section name | |

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|---|---|
| Section name | |
| Section name | |
| ... | |
| Chapter 16: Aquaculture | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 17: Seaweed harvesting and use | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 18: Desalination and sea salt production (elements incorporated into Chapter 8C) | |
| Chapter 19: Seabed mining | |
| Section | Comment |
| 2.1. Current state of changes | <p>With the same rationale mentioned in the above first comment to Chapter 3, Section 3.5 (the North Pacific Ocean): Having taken a good note of the Disclaimer of this WOA report, Viet Nam emphasizes the need to avoid any possible misunderstanding in terms of sovereignty, sovereign rights and jurisdiction in the South China Sea, and thus respectfully requests the deletion of the words “<i>along its continental shelves</i>” in the following sentence on page 699: <i>“China identified abundant marine aggregates along its continental shelves, mainly in the East China Sea, the Taiwan Strait, and the northern continental shelf of the South China Sea, which have been roughly estimated to be 1.6x10¹² tons (Qin and others, 2014)”.</i></p> |
| Section name | |
| Section name | |
| ... | |

| Chapter 20: Hydrocarbon exploration and extraction | |
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| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 21: Anthropogenic noise | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 22: Marine renewable energy | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 23: Marine transportation (elements incorporated into Chapter 8C) | |
| Chapter 24: Tourism and recreation (elements incorporated into Chapter 8C) | |
| Chapter 25: Invasive species | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 26: Marine genetic resources | |
| Section | Comment |
| Section name | |

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|---|--|
| Section name | |
| Section name | |
| ... | |
| Chapter 27: Marine hydrates | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 28: Cumulative effects (renamed from “cumulative impacts”) | |
| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 29: Marine spatial planning | |
| Section | Comment |
| 5.4. Case study – China | <p>With the same rationale mentioned in the above first comment to Chapter 3, Section 3.5 (the North Pacific Ocean): Having taken a good note of the disclaimer of this WOA report, Viet Nam emphasizes the need to avoid any possible misunderstanding in terms of sovereignty, sovereign rights and jurisdiction in the South China Sea, and thus respectfully requests the following amendment at page 849:</p> <p><i>“In this phase, the MFZ is divided into three levels so that the entire maritime area of China claimed by China is covered (Huang and others, 2019). At the The first level, the seas of China are divided into includes five geographic regions: the Bohai Sea, the Yellow Sea, the East China Sea, the South China Sea, and the Taiwan Straits.”</i></p> |
| Section name | |
| Section name | |
| ... | |

| Chapter 30: Management approaches (incorporates elements from Chapter 8D) | |
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| Section | Comment |
| Section name | |
| Section name | |
| Section name | |
| ... | |
| Chapter 31: Overall benefits from the ocean (incorporates elements from Chapter 8D) | |
| Section | Comment |
| 5.1. United Nations Convention on the Law of the Sea, its implementing agreements and related instruments | <p>The full respect for and implementation of UNCLOS, particularly the obligation to protect and preserve the marine environment and the obligation to cooperate, is of great importance. Any failure in this regard could lead to geopolitical instability and thus leaves negative impact on the marine environment.</p> <p>In this connection, Viet Nam requests to further emphasize in this section of the report the importance of the full respect for and implementation of UNCLOS, particularly the obligation to protect and preserve the marine environment and the obligation to cooperate.</p> |