

# UNPACKING THE UNFCCC GLOBAL STOCKTAKE for Ocean-Climate Action



Recommended Citation:

Schindler Murray, L., Romero, V. and Herr, D. (2021): Unpacking the UNFCCC Global Stocktake for Ocean-Climate Action. IUCN, Rare, Conservation International, WWF, and Ocean & Climate Platform.

Acknowledgements:

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# 1. Introduction

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In 2015, the adoption of the UNFCCC’s Paris Agreement set in motion a series of national-level commitments – known as Nationally Determined Contributions (NDCs) – in which countries communicate the ambitious actions that they plan to take to meet the goal to limit global warming to well below 2°C and pursue efforts to limit it to 1.5°C. The Paris Agreement sets out, among other actions, mitigation, adaptation and finance goals.

The Paris Agreement relies on the ambition mechanism or the concept of “ratcheting up” every five years with revised, increasingly ambitious commitments defined at a national level based on country context, capacity, and ambition through the NDCs. The ambition mechanism is the tool defined to assess progress towards meeting the goals of the Paris Agreement and to inform the next round of NDCs. The Global Stocktake (GST) is an avenue for informing and raising the ambition of countries’ NDCs. It could trigger additional public support and action on the ground. Understanding where ocean issues can be adequately included within the GST and then integrating them into this process will be critical factors to ensure the ocean’s contribution to achieving the goals of the Paris

Agreement is reflected, understood, and prioritized. Further, the IPCC SROCC (2019) indicates that over the 21<sup>st</sup> century, the ocean is projected to transition to unprecedented conditions with increased temperatures, greater upper ocean stratification, further acidification, oxygen decline and altered net primary production. Clear understanding and integration of the ocean’s role can encourage and leverage its widespread inclusion in domestic and international climate change mitigation, adaptation, and resilience policies.

The mitigation and adaptation potential of ocean and coastal ecosystems is ingrained in the Paris Agreement (Article 5.1 and Article 7.5<sup>2</sup>, respectively). As the Earth’s largest long-term natural carbon sink, the ocean is the primary regulator of the global climate in a healthy system. Ocean-climate actions can serve as a part of the solution for climate change mitigation (protecting blue carbon ecosystems, ocean-based renewables, etc.) and climate change adaptation (sustainable fisheries for food security, etc.)<sup>3</sup> Despite the clear interrelationship between climate change and the ocean, the ocean-climate nexus is still hardly accounted for in many UNFCCC discussions<sup>4</sup>

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1 Article 5.1: “Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1(d), of the Convention, including forests.” Art 4, 1(d): “promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems”  
2 Article 7.5: “Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.”  
3 Northrup, E., et al. 2021. Enhancing Nationally Determined Contributions: Opportunities for Ocean-Based Climate Action. <https://doi.org/10.46830/wriwp.20.00054>  
4 UNFCCC Information Note: SBSTA Ocean and Climate Dialogue to Consider How to Strengthen Adaptation and Mitigation Action. [https://unfccc.int/sites/default/files/resource/OD\\_InformationNote.pdf](https://unfccc.int/sites/default/files/resource/OD_InformationNote.pdf)





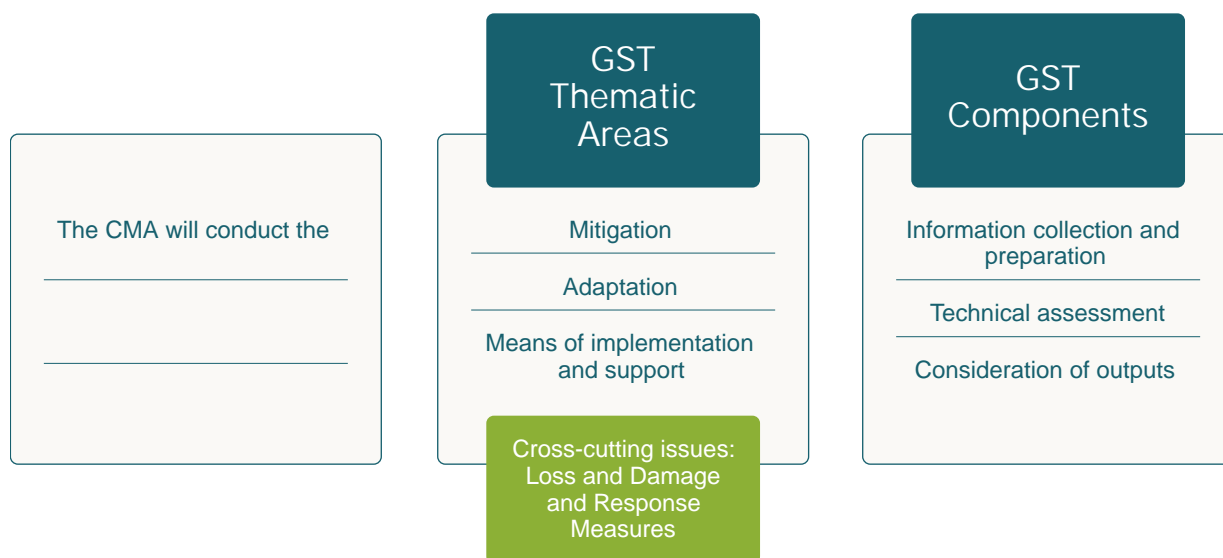
- % the information collection and preparation phase (component 1);
- % the technical assessment phase (component 2); and
- % the consideration of outputs in a high-level event (component 3).

To inform the GST process, the Chairs of the Subsidiary Body for Implementation (SBI) and Subsidiary Body for Scientific and Technological Advice (SBSTA) are requested to develop guiding questions to inform each of the components starting at SB52 for the 2023 GST. The guiding questions will be specific for each of the components above. These questions will be the anchor for how to guide the discussion, inputs, and decisions associated with how to present the GST outcomes. The GST is further structured by **thematic category 1. Mitigation, 2. Adaptation and 3. Means of implementation and support** (see section 3 for details) as well as for cross-cutting issues like loss & damage and response measures.

A SBSTA/SBI joint contact group (JCG) will be established, likely similar to the Periodic Review mechanism, to support the different components of the GST process and serve as a vehicle for Parties' more formal negotiations on the outcomes of the GST. The three thematic areas are considered within the **three respective Components** that make up the GST, and are governed by the SBSTA and SBI Chairs in the JCG:

Component 1: Information collection and preparation: this Component focuses on gathering, compiling and synthesizing information as well as preparing for the technical assessment. The inputs for Component 1 are to be collected starting one negotiation session prior to technical assessment and end six months before the consideration of outputs. Acceptable inputs are identified in the non-exhaustive list of inputs<sup>8</sup>, including but not limited to NDCs (and related Biennial Transparency Reports (BTRs)) as well as IPCC reports. Acknowledging that current available information may not cover all relevant sectors, SBSTA and SBI were also requested to identify potential information gaps and make requests for additional input noting the cut-off date for the collection period.

Component 2: Technical assessment: this Component will take stock of the implementation of the Paris Agreement and will assess the information collected in Component 1, as well as opportunities to enhance climate action and support the continued achievement of the Agreement. Component 2 includes the establishment of technical dialogues (TD), which will be transparent and inclusive and will likely entail in-session workshops and roundtables that will occur when the Subsidiary Bodies ("SBs") are in session. The technical assessment aims to appraise the three thematic areas in a balanced manner while taking into account equity and the best available science.<sup>5</sup>



7 Decision 19/CMA.1 FCCC/PA/CMA/2018/3/ADD.2 (para 7)

8 Decision 19/CMA.1 FCCC/PA/CMA/2018/3/ADD.2, Matters relating to Article 14 of the Paris Agreement and paragraphs 99–101 of decision 1/CP.21 (para 36)

Component 3: Consideration of outputs: The final Component will focus on showcasing and discussing the implications of the findings of the GST with the view to achieving the long-term goals of the Paris Agreement, as well as informing Parties to update and enhance their NDCs and accelerate climate action. Component 3 will consist of high-level events and summarize important political messages and avenues to enhance climate action, as well as international cooperation and support. The consideration of outputs could potentially end with a CMA decision or declaration outlining the findings.

#### b. Sources of input to the Global Stocktake

In 2018, the Katowice climate package was adopted at the COP24 Climate Conference as a set of CMA decisions that comprise the “Paris Rulebook,” or the rules to implement the Paris Agreement. The sources of input and the modalities for the GST were part of that negotiation package. The GST will consider information that informs

the thematic areas and considers information on a collective level regarding:

- a) GHG emissions by sources and removals by sinks and mitigation efforts undertaken by Parties;
- b) overall effect of Parties' NDC including information from the ETF;
- c) adaptation efforts, support, experience and priorities;
- d) finance flows, including information from the latest biennial assessment and overview of climate finance





### 3. Ocean topics in the GST thematic areas

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The tables in the sections below detail ocean and coastal based mitigation and adaptation actions focusing on NbS and indicating other relevant ocean-based efforts, as well as means of implementation and support for ocean-climate action. The tables further below detail the measures and activity information for each respective action and its corresponding report that this activity would be included in. Essentially, the tables map how to find the type of ocean actions that are most relevant to you and where these actions might be included in the sources of input to the GST.

efforts in coastal regions, within national jurisdictions, that are captured by their reporting under the IPCC's 2013 Wetlands Supplement and in the related National GHG Inventory. Activities outside of national jurisdictions (ie, international waters), are generally outside of the scope of the Paris Agreement.

While it is unclear what the GST's technical assessment on mitigation will specifically entail at this time, draft deliberations in 2018 on the GST, as captured in the APA Joint Reactions Note<sup>14</sup> suggested preliminary guiding

#### a. Thematic Area 1: Mitigation

The first thematic area of the GST will consider the state of GHG emissions and removals and mitigation efforts of Parties, including information on the overall effects of NDCs, information on global and sectoral GHG emissions, as well as relevant information from the ETF (Article 13), low emissions development strategies (LEDS) and developing country circumstances. The IPCC Sixth Assessment Report (AR6) and its related outputs to be published in 2022 will be an input to the whole of the GST, in addition to a UNFCCC Special Event<sup>13</sup> dedicated to detailing the key messages related to the GST. Mitigation approaches for ocean climate action will primarily be focused on Parties'

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13 Decision 19/CMA.1 para 29

14 Ad Hoc Working Group on the Paris Agreement (APA). (2018, August 2). Ad Hoc Working Group on the Paris Agreement: Additional tool under item 6 of the agenda (APA1.6.Informal.1.Add\_4). Retrieved October 12, 2020, from [https://unfccc.int/sites/default/files/resource/APA1.6.Informal.1.Add\\_4.pdf](https://unfccc.int/sites/default/files/resource/APA1.6.Informal.1.Add_4.pdf)



metrics and national circumstances make quantitative goals challenging. Thus, the global adaptation goal describes the intent to: 1) enhance adaptive capacity and resilience, and 2) reduce vulnerability, with a view to contributing to sustainable development. The non-status initial guiding questions for adaptation are noted below, but will also be developed ahead of Component 1:

- % How can we most effectively and adequately increase the ability to adapt to the adverse

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16 Ocean & Climate. (2019). Policy recommendations: A healthy ocean, a protected climate. Retrieved October 22, 2020, from <https://ocean-climate.org/wp-content/uploads/2019/11/mep-plaidoyer-ENG-WEB-1.pdf>

|   |  |  |
|---|--|--|
| Develop low-carbon, sustainable blue economies        | <ul style="list-style-type: none"> <li>• Consider marine spatial planning (MSP) / Integrated Ocean management (IOM) to manage marine and coastal ecosystems<sup>18</sup></li> <li>• Include Indigenous peoples and local communities and their knowledge and techniques in the design and implementation of adaptation measures</li> <li>• Support and invest in green-gray infrastructure approaches over hard engineering (e.g. concrete walls)</li> <li>• Promote sustainable fishing practices and explore low-carbon alternatives e.g. seaweed production for food and fuel<sup>19</sup></li> </ul> | <ul style="list-style-type: none"> <li>• NBSAPs (relevant sections and as aligned with CBD Post 2020 GBF Indicators)</li> <li>• NAP or AC</li> <li>• NAP</li> <li>• NAP or AC, specifically related to agriculture/ fishing and food security</li> </ul> |
| Research and promote innovative adaptation strategies | <ul style="list-style-type: none"> <li>• Invest in and support research that develops alternative restoration stems</li> </ul>   |  |

i. Ocean relevant actions

| Oceans-related means of implementation and support themes       | Relevant activities to be considered by Parties  | Indicative type of input this measure could be reflected  |
|---|--|---|
| Finance   |  |   |
| Adequately fund ocean-related mitigation and adaptation actions | <ul style="list-style-type: none"> <li>Financial instruments which are specific to the needs of ocean-based mitigation and adaptation projects</li> <li>Case studies from the insurance sector to develop insurance products for coastal settlements and regions (for example the Zurich Flood Resilience Alliance)</li> <li>Number/amount of \$ from Multilateral-development banks (MDBs)?</li> <li>Case studies on environmental impact and sustainability bonds for coastal resilience and nature-based infrastructure that can deliver cash up front and could include performance-based components would allow risk sharing and faster delivery<sup>21</sup></li> <li>Case studies on public-private trust funds for coastal and small-island conservation, such as the Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT)<sup>22</sup></li> <li>Share data and information on financial risk tools to assess the risk of various ocean investments<sup>23</sup></li> <li>Align implementation efforts with socially and environmental sound efforts like the Sustainable Blue Economy Finance Principles from UNEP FI, and Ocean Risk and Resilience Action Alliance<sup>24</sup></li> </ul> | <ul style="list-style-type: none"> <li>International commitments in NDC or reports from the SCF, IOC Capacity Development Reports<sup>25</sup></li> <li>Empirical information from case studies (Note: While the GST might not assess case studies directly, empirical information developed by Parties to aid in identification of where and what type of action and support is needed, what works and in which contexts, and how action and support can be delivered would have a better chance of being incorporated into the GST, and further provides critical reflection points throughout all stages of the GST with tangible examples and experiences)</li> </ul> |
| Climate finance options for ocean                               | <ul style="list-style-type: none"> <li></li> </ul>   |   |









## 4. What can you do?

As the process of the GST has started (Figure 2) it is crucial that the various actors engage actively into providing relevant input, and further supporting efforts that can shape and influence the outcome of this exercise. Outlined

below are examples of stakeholder groups and the types of actions and interventions that could be considered. The actions are divided by thematic areas of the GST and are non-exhaustive.

### a. Governments

|                               |  |
|-------------------------------|--|
|                               | Support and champion Party requests for ocean/coastal-relevant guiding questions to be adopted as part of the GST process  |
|                               | Allocate delegation support to cover relevant SBSTA items throughout all components, including ensuring ocean-topics are integrated appropriately  |
| General                       | Continue to include coastal and marine ecosystems and NbS as well as ocean related vulnerabilities into the NDC 5-year increased ambition cycle  |
|                               | Increase and enhance cross-departmental collaboration to break down silos  |
|                               | Incentivize and account for the benefits of establishing effective networks of marine protected areas, to help build ecosystem resilience  |
| Thematic area 1<br>Mitigation | Include ocean and coastal elements in the revised NDC (now or future), and clarify/redefine metrics to ensure comparability of the relevant element, as the GST is about collective progress |
|                               | Integrate relevant coastal wetland carbon accounting in the BTR or National GHG inventory (note: the first BTR is due AFTER the GST, in 2024)  |
|                               | Promote NbS related indicators that can help countries report across a multitude of international commitments and actions  |
| Thematic area 2<br>Adaptation | Include ocean and coastal elements in the revised NDC (now or future), NAP and adaptation communication  |
|                               | Clarify/redefine metrics in the NAP or Adaptation Communication to ensure comparability of the relevant element, as the GST is about collective progress                                     |
|                               | Promote NbS related indicators that can help countries report across a multitude of international commitments and actions  |
|                               | Submit national biodiversity report with climate adaptation metrics from the CBD post-2020 global biodiversity framework   |
|                               | Apply a seascape approach to ensure the relevant ecosystem service provision while maintaining or even increasing resilience   |

|                        |  |
|------------------------|--|
|                        | Fund scientific research that will be assessed and reviewed by the IPCC  |
|                        | Clearly communicate the financial support needed to include, measure, report, etc. ocean climate actions – via NDCs and other means of communications to the UNFCCC  |
|                        | Clearly communicate the needs for capacity building and technology transfer  |
| Thematic area 3<br>MOI | Support the implementation and development of targeted funding and finance streams and mechanisms for coastal and marine NbS   |
|                        | Support and develop ocean-climate proposals to the GCF   |
|                        | Call for free, open and accessible data to increase the transparency and utility of the scientific inputs.   |
|                        | Build a thoroughly participatory process to engage key stakeholders (including from the ocean community) that will help strengthen the political momentum within the GST, thus triggering nationally enhanced ambition |

## b. Research institutes

|                               |  |
|-------------------------------|--|
|                               | Publish relevant studies and submit for inclusion ahead of the deadline for AR6  |
|                               | Engage in the SBSTA Research Dialogue, and other ocean-climate working groups like through the Ocean Decade challenges and relevant GESAMP working group   |
| General                       | Sponsor a joint assessment or workshop between IPCC and IPBES on ocean and climate change  |
|                               | Present new findings relevant for raising additional awareness on ocean and climate issues, including via the UN Decade of Ocean Science for Sustainable Development, and UN Decade of Ecosystem Restoration, ahead of COP28 or at relevant sessions of the Technical Dialogues.   |
|                               | Advance understanding through revised assessments on climate resilience indicators of MPA networks; and consider the application of climate change vulnerability criteria in network design  |
|                               | Consolidate scientific knowledge on the role of the ocean in climate mitigation  |
|                               | Document, understand and predict the evolution of the ocean heat and circulation, as well as their influence on weather, climate variability and climate change  |
| Thematic area 1<br>Mitigation | Better understand, qualitatively and quantitatively, the role of the ocean in climate regulation through the sequestration of anthropogenic carbon, or of other climate-active gases   |
|                               | Analyze the interactions between marine biodiversity and climate regulation, in particular by better identifying feedback loops between the ecological impacts of different pressures (e.g. overfishing, pollution, climate change) and CO2 storage mechanisms   |
|                               | Deepen knowledge on the adaptive capacity of coastal and marine organisms,   |
| Thematic area 2<br>Adaptation | Advance studies and understanding on interdependent social and natural resilience and adaptation processes   |
|                               | Further study the cumulative and interacting effects of climatic /environmental ocean stressors (e.g. ocean warming, ocean deoxygenation, ocean acidification) and anthropogenic pressures (e.g. overfishing, pollution, habitat destruction) on the coastal and marine biosphere, carbon cycle and socio-economic systems |
|                               | Engage in, and report on relevant research around capacity building success, challenges and needs as well as financing opportunities for coastal and marine NbS  |
| Thematic area 3<br>MOI        | Contribute to global monitoring networks that are supporting the relevant indicators as established by UN Sustainable Development Goal 14  |



|                               |  |
|-------------------------------|--|
| Thematic area 2<br>Adaptation | Report on measures taken to reduce any negative impacts from climate adaptation efforts and related infrastructure on coastal and marine biodiversity or on vulnerable communities                         |
|                               | Report on measures looking at green-grey opportunities for climate adaptation  |
| Thematic area 3<br>MOI        | Identify, promote and scale-up key opportunities to leverage more finance to increase ambition in NDCs, including via NbS projects for adaptation and mitigation and report to the GST                     |
|                               | Fund developing country Parties to support technical capacity building and training on basic measurement, reporting and verification capacities, including to implement the IPCC's 2013 Wetland Supplement |
|                               | Establish a favourable investment climate, providing a legal basis for investment, ease of doing business, and liquidity, as well as a consistent tracking mechanism                                       |

## 5. Conclusion

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The Global Stocktake is a critical point to collectively come together to assess progress towards achieving the goals of the Paris Agreement for mitigation, adaptation, and resilience, as well as to inform future action to enhance the necessary ambition. Within the current GST framework, it is clear that ocean science, actions and needs should be engrained in each of the thematic areas and can be further articulated and strengthened to clarify that linkage. To be comprehensive and provide a realistic outlook, the GST will also need to go beyond presenting the emissions gaps but also include the insights and guidance for how to close the

gap for all thematic areas.<sup>35</sup> While the majority of actions and commitments to reduce emissions needs to be driven and be implemented by national and local governments, civil society plays an important role as well. Civil society's engagement could serve as a complementary force to the scientific bodies already engrained in the process through the Global Climate Action Agenda's Marrakesh Partnership or by supporting the clarification of ocean actions for

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35 Mark Roelfsema et al., 2020. <https://www.nature.com/articles/s41467-020-15414-6.pdf>

## 6. Acronym List

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|        |  |
|--------|--|
| AC     | Adaptation Communications  |
| BTR    | Biennial Transparency Report (for the Paris Agreement)                                 |
| CBD    | UN Convention of Biological Diversity  |
| CMA    | Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement |
| ETF    | Enhanced Transparency Framework  |
| GST    | Global Stocktake   |
| IPCC   | Intergovernmental Panel for Climate Change   |
| JCG    | Joint Contact Group  |
| LEDS   | Low Emissions Development Strategy   |
| MOI    | Means of Implementation and Support  |
| NAP    | National Adaptation Plan   |
| NIR    | National Inventory Report  |
| NbS    | Nature-based Solution  |
| NBSAPs | National Biodiversity Strategies and Action Plans (for CBD)                            |
| NDC    | Nationally Determined Contribution   |
| PA     | Paris Agreement  |
| PES    | Payment for Ecosystem Services   |
| SBI    | Subsidiary Body for Implementation (for the UNFCCC)                                    |
| SBSTA  | Subsidiary Body for Scientific and Technological Advice (for the UNFCCC)               |
| TD     | Technical Dialogue   |

