

# Identifying and accounting for ocean specific topics in the Global Stocktake 28 February 2022

Submitted by Ocean & Climate Platform  
on behalf of IUCN, Conservation International, WWF, The Nature Conservancy,  
Plymouth Marine Laboratory

Response to the call for inputs Parties and observer States, UN Agencies and other international organizations and non-Party Stakeholders and observer Organizations, to the first global stocktake

The Global Stocktake (GST) is the Paris Agreement's ambition mechanism. It is designed to assess collective progress made towards achieving the long-term goals and to inform future action and ambition, including successive Nationally Determined Contributions (NDCs). The first GST provides the opportunity to enhance the understanding of the role of Nature-based Solutions (NbS), and to further draw attention to how nature, including the world's ocean, can contribute to reaching the goals of the Paris Agreement.

The ocean is the world's largest carbon sink. Yet this service comes with severe consequences, including extreme and long-term threats for all life on Earth<sup>1</sup>. Coastal communities rely on healthy and intact ecosystem services – for food, water, flood protection, and more. With growing pollution, deoxygenation and acidification levels not seen in thousands of years, the ocean will fail to feed and protect communities in the long run.

During the past decade, there has been increasing recognition of the ocean's relevance for climate action, as recently demonstrated by the COP26 decision to establish an Ocean and Climate Dialogue within the UNFCCC on an annual basis<sup>2</sup>. A dialogue in the UNFCCC provides a great opportunity to shed light on all facets of policy, financing and implementation action, particularly around strengthening ocean-climate action within the context of the UNFCCC. However, the GST remains the driver of the ambition mechanism of the Paris Agreement and thus it is crucial that countries, and the global community, ensure the ocean and coastal ecosystems are adequately represented in the GST to ensure it is engrained appropriately in all relevant processes of the UNFCCC.

This document highlights opportunities for ocean action as part of the GST and to provide robust, high-quality information on the matter for consideration. Additional recommendations on the role of oceans in the GST can be found in [Unpacking the UNFCCC Global Stocktake for Ocean-Climate Action](#)

## Guiding GST's technical assessors towards ocean data

The purpose of this resource is to guide the technical assessors to the GST through the various sources of input and to simplify where information on coastal and marine ecosystems, and other relevant ocean topics, can be found, as a forward-looking assessment. In the table below, we outline the full selection of the non-exhaustive list of sources of input and provide examples of the types of reports and submissions that could be submitted under each source type that would include ocean elements.

We further detail specific examples of the type of information that can be found in those reports that would be important to reference and acknowledge in the collective assessment of global progress towards achieving the goals of the Paris Agreement.

This resource continues suggesting how ocean-related information can be relevant when considering the draft guiding questions for the Technical Assessment by the SB Chairs (February 18, 2022 version), providing, by the same token, elements for answering question 20 of the same document: *How are Parties recognizing the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, in order to achieve the purpose and long-term goals of the Paris Agreement?*. The suggested resources and examples from the table demonstrate the importance and value of ocean, coastal and marine ecosystems in addressing climate change mitigation and adaptation, as well as its importance for means of implementation. This document aims also to serve as an important tool for governments or other stakeholders intending to prepare submissions to ensure there is alignment with how the ocean, coastal and marine ecosystems will be featured in their reports to ensure that assessors are able to locate the common themes.

<sup>1</sup> IPCC, 2019: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate.

<sup>2</sup> Glasgow Climate Pact, Decision 1/CP.26: <https://unfccc.int/documents/310475>

### Sources of inputs and examples of relevant ocean-related information<sup>3</sup>

Source of input (para 36 of decision 19/CMA.1)	Examples of inputs with relevant ocean information	Examples of the type of information on oceans and coastal NbS that could be found in the respective type of input
reports and communications, in particular those submitted under the Paris Agreement and the Convention.	NDCs, NAPs, BTR, National communications	<ul style="list-style-type: none"> <li>• References to the IPCC 2013 Wetland Supplement</li> <li>• Emission reduction from conservation of coastal blue carbon ecosystems</li> <li>• Increased carbon sequestration by restoring coastal blue carbon ecosystems</li> <li>• FRL/FREL in REDD+ countries</li> <li>• Ecosystem-based measures to reduce coastal flooding, buffer against extreme events, and enhance food security</li> <li>• Conservation and restoration of mangroves and coral reefs to alleviate coastal storm energy and reduce coastal erosion</li> <li>• Ecosystem-based measures to protect and restore biodiversity to build ecosystem resilience to the impacts of climate change and boost productivity</li> <li>• NbS and ecosystem based approaches in fisheries and/ or aquaculture management plans</li> <li>• Hybrid green-grey approach to coastal infrastructure</li> <li>• Community-based approaches for a sustainable blue economy including introduction of alternative livelihood schemes</li> <li>• Ocean/coastal-related vulnerabilities</li> <li>• Financial instruments which are specific to the needs of coastal and marine NbS (mitigation and adaptation) projects</li> <li>• Financial instruments and needs assessments which are specific to the needs of ocean climate science</li> <li>• Capacity-building needs for implementing IPCC Wetlands Supplement</li> <li>• Capacity-building needs for enabling environments to attract private sector finance for a climate resilient Blue Economy</li> </ul>
Voluntary submissions by Parties, including on inputs to inform equity considerations under the global stocktake	National reports to other relevant Conventions to the extent that they relate to achieving the goals of the PA.	<ul style="list-style-type: none"> <li>• Marine spatial plans (MSP) / Integrated Ocean management (IOM) / Integrated Coastal Zone Management (ICZM) to manage human interactions with marine and coastal ecosystems</li> <li>• Financial instruments and needs assessment for finance for a climate resilient Blue Economy, including for coastal and marine NbS</li> </ul>
Relevant reports from regional groups	Reports submitted by negotiating groups, like AOSIS, specifying the importance of ocean-climate indicators to their region.	<ul style="list-style-type: none"> <li>• Financial instruments and needs assessment for finance for a climate resilient Blue Economy, including for coastal and marine NbS</li> <li>• Policy brief from AGNES on climate change and sustainable ocean economy</li> </ul>
Reports of the subsidiary bodies	<ul style="list-style-type: none"> <li>• SBSTA reports that include relevant outcomes from NWP expert group on oceans.</li> <li>• <a href="#">Informal summary report by the SBSTA Chair from the 2020 Ocean and climate change dialogue to consider how to strengthen adaptation and mitigation action</a></li> </ul>	<ul style="list-style-type: none"> <li>• Relevant outcomes from the NWP Expert Group on Oceans and the meetings of the Research Dialogue, such as: Scoping Paper on the topic of Adaptation Knowledge and Knowledge Gaps on the Ocean, Coastal Areas and Ecosystems</li> <li>• Reports from the CBs to be included in the SBSTA reports to COP, such as from the WIM ExCom, or Adaptation Committee</li> <li>• NWP: coastal adaptation and nature-based solutions for the implementation of NAPs: considerations for GCF proposal development mar 2021 // prepared by the UNFCCC NWP expert group on oceans a supplement to the UNFCCC NAP technical guidelines</li> </ul>
Reports from relevant constituted bodies and forums and other institutional arrangements under or	<ul style="list-style-type: none"> <li>• AC</li> <li>• LDC</li> <li>• LEG</li> </ul>	<ul style="list-style-type: none"> <li>• LEG: Guidelines for Integrating EbA into NAPs</li> <li>• WIM: <a href="#">Policy Brief: Technologies for Averting, Minimizing and Addressing Loss and Damage in Coastal Zones</a></li> </ul>

<sup>3</sup> Based on: 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. [https://www.iucn.org/sites/dev/files/content/documents/2021/the\\_ocean\\_and\\_the\\_unfccc\\_gst.pdf](https://www.iucn.org/sites/dev/files/content/documents/2021/the_ocean_and_the_unfccc_gst.pdf)

Source of input (para 36 of decision 19/CMA.1)	Examples of inputs with relevant ocean information	Examples of the type of information on oceans and coastal NbS that could be found in the respective type of input
serving the Paris Agreement and/or the Convention.	<ul style="list-style-type: none"> <li>• TEC</li> <li>• SCF</li> <li>• PCCB</li> <li>• WIM ExCom</li> <li>• CGE</li> <li>• LCIPP FWG</li> <li>• Forum on the impact of the implementation of response measures.</li> </ul>	<ul style="list-style-type: none"> <li>• Risk management models and tools for ocean-based and coastal infrastructure, such as parametric insurance and blended ocean finance.</li> <li>• SCF: Financial instruments and needs assessment for finance for a climate resilient Blue Economy, including for coastal and marine NbS -Ocean-based projects as legitimate recipients of climate finance</li> <li>• The Glasgow Climate Pact invites the relevant work programmes and constituted bodies under the UNFCCC to consider how to integrate and strengthen ocean-based action in their existing mandates and workplans and to report on these activities within the existing reporting processes, as appropriate.</li> </ul>
Synthesis reports by the Secretariat		Mandated reports such as 1) state of GHG emissions by sources and removals by sinks and information in the ETF, which could include coastal blue carbon ecosystems; 2) NDC Synthesis report including coastal and marine NbS; 3) State of adaptation efforts; and 4) finance flows, including overview of climate from the SCF which may include coastal ecosystems particularly following the 2021 SCF Forum on NbS Financing.
Latest reports from the IPCC	<ul style="list-style-type: none"> <li>• Climate Change 2021: The Physical Science Basis (contribution from WGI)</li> <li>• 2019 IPCC SROCC.</li> </ul>	<ul style="list-style-type: none"> <li>• The IPCC AR6 will include a section on ocean and coastal systems for adaptation.</li> <li>• Working Group II report on climate change impacts, adaptation and vulnerability</li> </ul>
Relevant reports from UN agencies and international organizations	<ul style="list-style-type: none"> <li>• IMO submission that encourages the use of the IMO indicators in the GST</li> <li>• IOC State of Ocean Report;</li> <li>• Formal Outputs from the UN Decade of Ocean Science.</li> <li>• Reports from CBD, Ramsar.</li> <li>• UN Statistical Division Global Set of Climate Change Statistics and Indicators</li> <li>• UNEP's State of Finance for Nature 2021</li> </ul>	<ul style="list-style-type: none"> <li>• Emissions reduction from ocean transport and related atmospheric pollution through energy efficiency and new sources of fuels (hydrogen, ammonia and some biofuel)</li> <li>• Ecosystem-based adaptation in coastal and marine ecosystems for biodiversity (CBD reports) or for food security and resilience of small-scale fisheries (COFI or IYAFA 2022)</li> <li>• Natural Capital Accounting for coastal and marine ecosystems and climate action</li> <li>• Community of Ocean Action Voluntary Commitments (SDG14/UN Oceans)</li> <li>• Ocean-related indicators such as: ocean heat, sea level, ocean acidification, and Arctic and Antarctic sea ice extent, among others.</li> </ul>
Relevant reports from regional groups and institutions	Reports from Regional Seas Conventions	OSPAR's <a href="#">North-East Atlantic Environment Strategy</a> (NEAES)
Submissions from non-Party stakeholders and UNFCCC observer organizations	<ul style="list-style-type: none"> <li>• Joint submissions and synthesis reports among 9 UNFCCC observer constituencies.</li> <li>• Work with HL Champions and through MPGCA.</li> </ul>	Oceans and Coastal Zones Climate Action Pathway

## Connecting the draft guiding questions by the SB Chairs for the Technical Assessment component of the first Global Stocktake with the sources of input, and relevant ocean information.

### Mitigation

**Ocean and marine and coastal ecosystems' contribution to climate change mitigation – a crucial aspect to consider in assessing progress towards achieving the mitigation goal of the Paris Agreement (questions 1-5 of the guiding questions for the technical assessment) including for enhancing national and international climate action.**

The ocean covers over 70% of the Earth's surface and plays a crucial role in taking up CO<sub>2</sub> from the atmosphere. Coastal ecosystems, despite covering only 2% of the total ocean area, account for approximately 50% of the total carbon sequestered in ocean sediments.

To identify the contributions from coastal and marine ecosystems and the ocean, more broadly, the technical assessment should take into account how coastal blue carbon ecosystems – mangroves, tidal marshes, and seagrass – are included in mitigation priorities and targets in reports and communications by Parties like the *Nationally Determined Contributions* (NDCs), the *Biennial Transparency Reports* (BTRs), and the *National Inventory Reports* (NIR). Additional information can be found in documents from the SBSTA Chairs, including the standing item on *Research and Observation*, the *NWP Expert Group on Oceans* and the meetings of the *SBSTA Research Dialogue*.

Relevant measures and activities that may be included in mitigation priorities and targets in reports and communications include: reducing emissions from the destruction of coastal blue carbon ecosystems by conserving and protecting them; REDD+ programs (for mangroves) and related investment in a robust MRV system; launching a PES scheme for protecting mangroves and/or seagrasses; and increasing carbon sequestration by restoring coastal blue carbon ecosystems<sup>4</sup>.

#### **Example: [Liberia's Revised NDC](#)**

In its updated NDC, Liberia commits to “improve protection and conservation measures in 30% of mangrove ecosystems and reduce GHG emissions by a total of 1,800GgCO<sub>2</sub>e through avoided conversion and draining of mangrove ecosystems by 2030.” Additionally, they commit to “enhance coastal carbon stocks by restoring 35% of degraded coastal wetlands and mangrove ecosystems by 2030,” “promote mangroves within the National REDD+ Strategy by 2025,” and “fully integrate GHG fluxes (emissions and removals) from mangroves ecosystems... into the next national GHG inventory by 2030,” among other commitments.

Key phrases to look for could include, but are not limited to, references to implementing the 2013 IPCC Wetlands Supplement in the methodologies section of the ICTU (the information necessary for clarity, transparency and understanding), as well as references to mangrove forests as part of the LULUCF accounting (for countries that include LULUCF in their targets). Countries that engage in Reducing Emissions from Deforestation and forest Degradation (REDD+) may refer to their forest reference level (FRL or FREL). The full incorporation of mangrove forests, including in terms of soil carbon in these documents could also be considered.

Furthermore, another element to consider when assessing reports and communications, is whether Parties commit to conserve blue carbon ecosystems, restore blue carbon ecosystems, or both. Dual commitments – conservation of habitat and restoration of degraded habitat – is an indicator for high ambition. It is also important to note the spatial scope of inventory reports: inventories should consider coastal blue carbon ecosystems across the entire coast and Exclusive Economic Zone. Finally, it would be important to check the methodological robustness in inventories and reports. All major carbon pools should be included, including soil carbon in coastal blue carbon ecosystems.

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<sup>4</sup> 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. [https://www.iucn.org/sites/dev/files/content/documents/2021/the\\_ocean\\_and\\_the\\_unfccc\\_gst.pdf](https://www.iucn.org/sites/dev/files/content/documents/2021/the_ocean_and_the_unfccc_gst.pdf)

**Example:** [Australia's 2021 National Inventory Report](#)

Australia's 2021 National Inventory Report (NIR) includes additional estimates for blue carbon ecosystems, including seagrass, tidal marsh removal, and emergence/loss of mangrove forest. The report states that mangroves, tidal marshes, and seagrasses cover "8 to 12 million hectares of coastal wetlands around Australia's 60,000 kilometer coastline...and store an estimated 3 billion tonnes of carbon, mostly in the soil." Estimates of emissions and removals for mangrove ecosystems are reported under the forest land sub-categories in Australia's NIR.

Other ocean-based efforts to reduce GHG emissions in mitigation priorities and targets in reports and communications by Parties that the technical assessment could consider include the development of ocean-based renewable energy (offshore wind (fixed and floating technology), wave, tidal and floating solar); and efforts to reduce emissions from fisheries and aquaculture activities, among other measures.<sup>5</sup>

Forward-looking information to enhance national level action and support needs to stem from the assessment of collective action on mitigation, adaptation and means of implementation and support, and the identification of gaps in each of the thematic areas. In that regard, the technical assessment could evaluate how overall emission reductions commitments/pledges will, or will fail to, reduce climate impacts in the ocean, including ocean acidification, warming and deoxygenation, coupled with extreme heat waves and equally consider the absence of ocean-related information in national reports and communications, as well as in the synthesis reports from the Secretariat and the Constituted Bodies to determine what is needed to enhance national level ocean-climate action and support<sup>6</sup>.

Furthermore, while the scope of the GST is limited to the consideration of progress made by Parties – within national boundaries – broader understanding of the whole ocean as part of the climate system and its role as climate regulator is indispensable when assessing the global carbon systems and to inform any future national level action and international cooperation. The latest *IPCC Working Group I report: Climate Change 2021: the Physical Science Basis*, released in September 2021, as well as the *Special Report on Oceans and the Cryosphere*<sup>7</sup> have made it clear that the impacts from climate change on the ocean are already happening, and will be significantly exacerbated if emissions are not quickly and drastically reduced. The technical assessment could draw conclusions for future climate action based on efforts by international bodies and scientific communities that develop methodologies to collect and measure relevant ocean-related data.

**Example:**

The **UN Statistics Division's Global Set of Climate Change Statistics and Indicators** that will be adopted in March 2022, is a comprehensive statistical framework, with statistics, indicators and metadata, designed to support countries in preparing their own sets of climate change statistics and indicators according to their individual concerns, priorities and resources<sup>8</sup>. Containing 158 indicators organized by drivers, impacts, vulnerability, mitigation and adaptation, the Global Set establishes linkages with other international processes such as the SDGs, the Convention on Biological Diversity and the Sendai Framework for Disaster Risk Reduction, thereby highlighting areas of synergies that could result in enhanced international cooperation and support. The Global Set includes a number of relevant ocean indicators including ocean heat, sea level, ocean acidification, and Arctic and Antarctic sea ice extent<sup>9</sup>.

Similarly, the Ocean and Coastal Zone Pathway of the Marrakech Partnership can provide relevant information for future ocean-climate action (See section below on adaptation).

<sup>5</sup> Schindler Murray, L., Romero, V. and Herr, D. (2021).

<sup>6</sup> Lecerf, M., Herr D., Thomas, T., Elverum, C., Delrieu, E. and Picourt, L., (2021), Coastal and marine ecosystems as Nature-based Solutions in new or updated Nationally Determined Contributions, Ocean & Climate Platform, Conservation International, IUCN, GIZ, Rare, The Nature Conservancy, Wetlands International and WWF. <https://ocean-climate.org/wp-content/uploads/2021/10/coastal-and-marine-ecosystemDEF.pdf>

<sup>7</sup> IPCC. (2019c). Technical Summary. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate. Retrieved November 16, 2020, from [https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/04\\_SROCC\\_TS\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/04_SROCC_TS_FINAL.pdf)

<sup>8</sup> UN Statistical Commission (2022). Background Document to the Report of the Secretary-General on Climate Change Statistics. (E/CN.3/2022/17) <https://unstats.un.org/unsd/statcom/53rd-session/documents/BG-3m-Globalsetandmetadata-E.pdf>

<sup>9</sup> [https://climatedata-catalogue.wmo.int/climate\\_indicators#:~:text=WMO%20uses%20a%20list%20of,Arctic%20and%20Antarctic%20sea%20ice](https://climatedata-catalogue.wmo.int/climate_indicators#:~:text=WMO%20uses%20a%20list%20of,Arctic%20and%20Antarctic%20sea%20ice)

## Adaptation

**The ocean and coastal zones are inextricably linked to climate impacts, risks and vulnerabilities. Coastal-related measures must be considered when assessing adaptation to the adverse impacts of climate change and when assessing actions to foster the climate resilience of people, livelihoods, and ecosystems (questions 6-10 of the guiding questions for the technical assessment) including for enhancing national and international climate action.**

Coastal and marine ecosystems protect vulnerable coastal communities and ecosystems from the impacts of climate change (i.e. extreme weather events, coastal erosion, sea-level rise), increasing their resilience and providing key ecosystem services to local populations. Their conservation and restoration also contribute to sustainable development.

In relation to climate change adaptation, the technical assessment can consider coastal and marine ecosystem-based adaptation measures and activities within Parties' *National Adaptation Plans (NAPs)*, *Adaptation Communications (AC)*, *NDCs*, relevant sections from *National Biodiversity Strategies and Action Plans (NBSAPs)*; *National Fisheries Plans*, and other relevant national policies.

Relevant activities and measures that the assessment can look for in Party submissions and reports include: ecosystem-based measures to reduce coastal flooding, buffer against extreme events, and enhance food security; conservation and restoration of mangroves and coral reefs to alleviate coastal storm energy and reduce coastal erosion; ecosystem-based measures to protect and restore biodiversity to build ecosystem resilience to the impacts of climate change; the mainstreaming of nature-based solutions or ecosystem based approaches in fisheries and/ or aquaculture management plans; and hybrid green-grey approaches to coastal infrastructure, such as through coral reef restoration or mangrove buffers; among other measures.<sup>10</sup>

**Example:** [Adaptation initiatives in Colombia's NDC](#)

Colombia committed to implementing six climate change adaptation and risk management initiatives for sustainable use of mangroves by 2030 in its most recent NDC. Additionally, they plan to adopt and implement ecosystem-based adaptation plans for mangroves, seagrass, and other coastal ecosystems.

In addition, assessors could consider broader direct and indirect adaptation functions fulfilled by marine and coastal ecosystems. Examples of broader activities related to climate impacts, risks and vulnerabilities include country measures and activities to strengthen early warning systems and evacuation protocols; plan for coastal retreat and resettlement; improve community-based approaches for a sustainable blue economy including introduction of alternative livelihood schemes; hazard-resistant housing and infrastructure along coasts; community plans and infrastructure development that includes consideration of sea level rise and increased coastal flood risks; and investment in research for innovative adaptation strategies; among other measures.<sup>11</sup>

Assessors may wish to consider *National Disaster Risk Management Plans*, *Regional Tsunami warning systems reports*, *national infrastructure plans*, and *Housing Development Plans* to assess progress in the context of climate impacts, risks and vulnerabilities. Important sources to assess the effectiveness of coastal and marine adaptation efforts also include the *IPCC Assessment reports*, including the partially released AR6, and the *IPCC Special Report on Oceans and Cryosphere*.

**Example:** [Malaysia's Updated NDC](#)

Malaysia plans to adopt NbS and green-gray infrastructure through rehabilitation and protection programs in order to help protect against sea level rise and increasing storm surge, and to protect coastal resources. They state that “the adoption of nature-based solutions and green-gray infrastructures will be continuously promoted.”

The review of adaptation efforts undertaken by developing coastal countries or small-island states could also take into account national reporting against national coastal development plans, integrated coastal zone management strategies and marine spatial planning, with a particular focus on infrastructure development and urban centres in the coastal zone. Comparative analyses of geospatial data could

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<sup>10</sup> Schindler Murray, L., Romero, V. and Herr, D. (2021).

<sup>11</sup> Ibid.

support reporting at the national level. “Off-shore” marine adaptation efforts are currently less “invasive” and often constitute the establishment of marine protected areas.

**Example:**

The Community of Practice on Green-gray infrastructure, coordinated by CI, has developed a collection of best practices on sustainable infrastructure in its [Practical Guide on Implementing Green-Gray Infrastructure](#), including examples from developing countries.

Regarding support provided for adaptation, the integration and share of coastal and marine adaptation support in reporting under the *Enhanced Transparency Framework (ETF)*, in particular the final biennial reports for developed countries which are due in 2022, can prove useful in the assessment. A relevant analysis would look at how the support offered matches the needs and targets articulated by developing countries, e.g. as part of their *NDCs* and *NAPs*. In addition, the technical assessment could look into the share of funds provided for marine and coastal adaptation as part of the Adaptation Fund. Relevant sectors supported by the Adaptation Fund are Coastal Zone Management, Disaster Risk Reduction and Disaster risk reduction and early warning systems, Ecosystem based Adaptation. Funding provided through other global facilities such as the IUCN Global EbA Fund could be equally considered.

Finally, the Marrakech Partnership is designed to provide a space for non-Party stakeholders to enhance climate action and ambition towards fully implementing the Paris Agreement, and can serve as an important input to the GST. The Marrakech Partnership’s Global Climate Action Agenda and its *Ocean and Coastal Zone Pathway*<sup>12</sup> outlines what is needed for a healthy and productive ocean for a resilience and net-zero future including with one of the levers being nature-based solutions. The NbS lever includes adaptation and resilience actions, as well as mitigation-relevant activities.

## Finance flows and means of implementation

**Global climate finance flows, technology transfer and capacity-building in relation to ocean-based climate actions need to be considered when assessing the consistency of actions with a pathway towards low GHG emissions and climate-resilient development (questions 11-115 of the guiding questions for the technical assessment) and when assessing efforts to avert, minimize and address loss and damage associated with the adverse effects of climate change (question 17).**

The ocean provides a myriad of natural ecosystem services to help nature and people against climate change. Underinvestment in ocean and coastal protection can exacerbate the adverse impacts of climate change, with a disproportionate effect on vulnerable communities, and undermine mitigation and adaptation efforts.

When considering progress under this thematic area, it is important to account for the share of climate finance directed at ocean and coastal-based solutions, ocean science and research, and capacity-building. This can include looking at innovative financial mechanisms, comparing investments in coastal NbS against finance made available for gray coastal development and the extractive industry, especially the extraction of fossil fuels with coastal impacts. The various reports from the *Standing Committee on Finance (SCF)*, and well as any reports or outcomes stemming from the *SCF Forum* can provide additional information such as public funding made available for biodiversity and climate harmful activities, e.g. via subsidies.

**Example:**

Investments in blue and green habitat conservation and protection remains at a low level. Measured against overall climate flows, interventions in agriculture, forestry and other land-use continue to receive no more than about 2% of the funds made available to energy sourcing, energy efficiency, emissions abatement and transport, industry and waste, i.e., in 2020, US\$ 15 billion out of a total of US\$ 640 billion<sup>13</sup>.

In the last couple of years, there has been a considerable increase in new investment vehicles for the ocean. However, many are focused on either developed countries, or on technology innovation only.

<sup>12</sup> <https://unfccc.int/climate-action/marrakech-partnership/reporting-tracking/pathways/oceans-and-coastal-zones-climate-action-pathway#eq-1>

<sup>13</sup> Climate Policy Initiative 2021 Preview: Global Landscape of Climate Finance 2021. Available at: <https://www.climatepolicyinitiative.org/wp-content/uploads/2021/10/Global-Landscape-of-Climate-Finance-2021.pdf>

While acknowledging that the GST exercise is to assess collective progress, assessors could evaluate the emerging landscape on ocean finance against the backdrop of geographies and focus area (technology vs NbS).

**Examples:**

The following are examples of new efforts and finance instruments that have emerged for NbS and climate action:

- In 2017, Swiss Re launched a parametric insurance scheme to protect an economically vital coral reef in Mexico's Yucatan Peninsula, and the associated tourism revenue, from storm damage. The product ensures that after a storm, funds are quickly disbursed, enabling community members to rapidly start restoration actions and minimise coral damage<sup>14</sup>.
- In 2018, the Seychelles government announced the launch of the world's first sovereign blue bond, which will be used to help finance the island nation's transition to sustainable fisheries and the protection of marine areas.
- The Blue Natural Capital Financing Facility (BNCFF) supports the development of sound, investable blue natural capital projects with clear ecosystem service benefits, based on multiple income streams and appropriate risk-return profiles. By assessing, preparing and structuring blue nature capital opportunities into bankable investments the BNCFF helps to reduce the risk of natural capital investments.
- The Ocean Risk and Resilience Action Alliance (ORRAA) pioneers innovative finance products that drive investment in marine and coastal natural capital, reduce ocean and climate risks, and build resilience in coastal communities.

The assessment could also consider voluntary submissions including best practices in addressing the recommendations of the *Technology Executive Committee* to enhance the implementation of Nationally Determined Contributions, National Adaptation Plans and mid-century strategies ([TEC 2017](#)) with a specific emphasis on ocean aspects. In addition, the technical assessment may need to consider to what extent efforts have been channeled toward enhancing technical and financial capacity for climate risk management in coastal zones, and more generally, assess to what extent the methodologies identified in the joint brief by the Executive Committee of the Warsaw International Mechanism for Loss and Damage (WIM) and the Technology Executive Committee "*Technologies for Averting, Minimizing, and Addressing Loss and Damage in Coastal Zones*"<sup>15</sup> have been implemented.

Regarding technology transfer, assessing the technical expertise on ocean needs and opportunities, including in terms of inclusive resilience strategies, in guidance on technology needs assessments (TNAs), and outlining options for improvement will be important to trace opportunities for ocean-based solutions such as ocean-based renewable energy, ocean-based transport; fisheries, aquaculture, and shifting diets, and carbon storage in the sea-bed<sup>16</sup>. Today's lack of dedicated technical assistance windows – similar to those that can be found for solar and wind energy, energy efficiency and industrial emissions – translates into a comparably low performance on the much needed ocean technology transfer.

**Examples:**

- EIT Climate-KIC is a knowledge and Innovation Community (KIC), working to accelerate the transition to a zero-carbon, climate-resilient society. Supported by the European Institute of Innovation and Technology, it identifies and support innovation that helps society mitigate and adapt to climate change. This community believes that a decarbonized, sustainable economy is not only necessary to prevent catastrophic climate change, but presents a wealth of opportunities for business and society. The KIC is technology-neutral and presents a number of ocean-related innovations: from open access catastrophe modeling to marine litter clearing innovations, from NBS techniques for coastal cities to adaptation measures to respond to sea-level rise.
- Experts ([Reiter et al. 2021](#)) recently proposed to establish a dedicated policy framework to center on the intersectionality of climate justice with the three key layers essential to implementation of Ocean commitments—science, law, and economics—where traditional

<sup>14</sup> Brahin, P. 2020. We insure all that we love – why don't we protect mother nature. <https://www.swissre.com/our-business/public-sectorsolutions/thought-leadership/we-insure-all-that-we-love-why-dont-we-protect-mother-nature.html>

<sup>15</sup> <https://unfccc.int/topics/adaptation-and-resilience/workstreams/loss-and-damage-ld/policy-brief-technologies-for-averting-minimizing-and-addressing-loss-and-damage-in-coastal-zones>

<sup>16</sup> [Hoegh-Guldberg et al. 2019](#)

and local ecological knowledge is valued on par with western science, law and policy centers on vulnerable communities, and financial mechanisms respect national sovereignty, value local cultures, and support sustainable economic development

- A new publication by the Nairobi Work Program ([UNFCCC 2021](#)) in partnership with the expert group on oceans demonstrates how countries and coastal communities can build resilience and address challenges in adapting to the adverse impacts of climate change. The report highlights solutions and good practices for building resilience of oceans and coastal areas, and gives an overview of knowledge gaps and opportunities for coordinated action to address these gaps.

Among the wide variety of global initiatives addressing capacity-building needs, the assessors may wish to pay particular attention to those programs that help build capacity on ocean-related climate action transparency as well as to the Paris Committee on Capacity-Building (PCCB). From the GEF's Capacity-building Initiative for Transparency ([CBIT](#)) to the Initiative for Climate Action Transparency ([ICAT](#)), the Partnership for Transparency in the Paris Agreement ([PATPA](#)), GGGI's [MRV Program](#) and the UNFCCC's Consultative Group of Experts ([CGE](#)), from the NDC Partnership to bilateral formats on capacity-building, it will be important to trace to what extent the programs help build capacity on:

- measuring and monitoring of carbon fluxes on coastal and marine areas;
- measuring and monitoring the adaptation capacity of coastal communities and the impacts from and on coastal and marine areas;
- developing tailored impact frameworks concerning coastal habitat protection and restoration by and for coastal communities; and
- the design and implementation of MRV-able ocean-specific targets ranging from ocean energy to ocean transport, and habitat conservation / restoration.

**Examples:**

- The Global Ocean Forum has devised a Global Strategy for Capacity Development in Integrated Ocean and Coastal Management that consists of 1) conducting a series of Regional Assessments and 2) a new Ocean Leadership Training Program for High-Level National Ocean Leaders.
- The PCCB Toolkit (2018) includes a gender analysis toolkit for coastal management.
- By 2019, the NDC Partnership had received 60 requests for support from 17 countries related to 'oceans & coasts' for their NDC Implementation Plans and has started conversations with a number of these countries concerning opportunities for NDC coverage and implementation (NDC Partnership 2019).

The technical assessment offers also an opportunity to examine to what extent ocean issues have been incorporated in the work of the PCCB, and the potential it carries for future efforts. While there are some promising signs that certain ocean aspects are becoming relevant in the PCCB work, there is not yet any evidence for a comprehensive mapping of ocean matters and needs by the PCCB or for wider mainstreaming efforts.