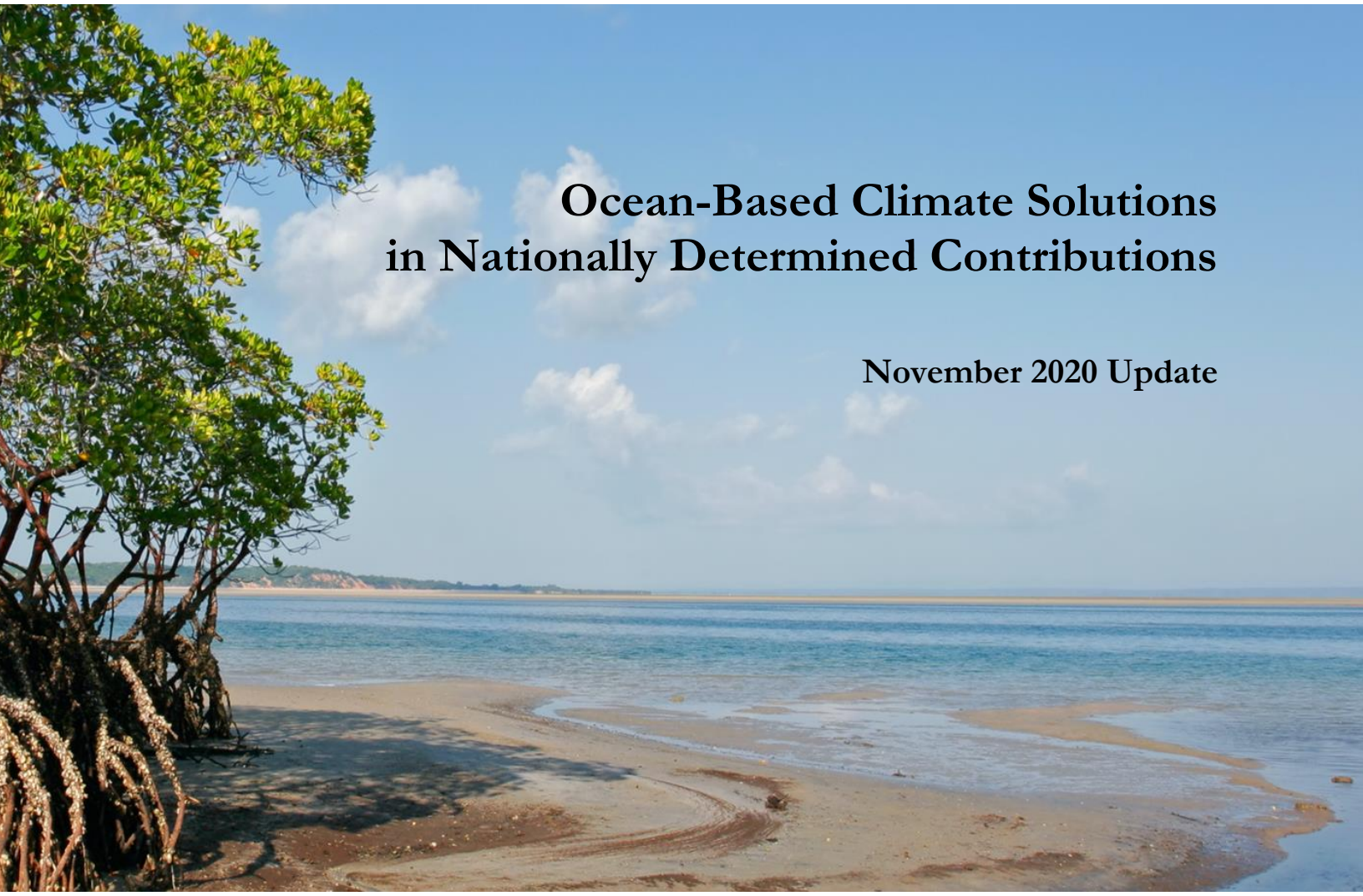
Ocean Conservancy



Ocean-Based Climate Solutions in Nationally Determined Contributions

November 2020 Update

National climate goals under the Paris Agreement (Nationally Determined Contributions, or NDCs) are currently insufficient to address the climate crisis. Yet the promise of the Agreement is that it created not only an initial set of commitments but also a "ratchet" cycle, in which countries submit NDCs every five years.

Until recently, the international climate effort and the ocean conservation effort have been largely siloed. Although a majority of countries referenced the ocean in their first round of NDCs, only a minority discussed ocean actions as climate solutions. Fewer than 20 percent of countries with coastal blue carbon ecosystems, for example, discussed their role as carbon sinks.[1,2,3]

There is now increasing recognition of the linkages between the ocean and climate change. As Parties to the Paris Agreement begin to communicate their second round of national climate goals, this policy brief tracks the inclusion of concrete, ocean-based mitigation and adaptation actions. It sorts commitments first by ocean-based solution and then by country. Updates to this brief will post regularly, as countries submit further NDCs.

- As of this update, seven of the nine coastal countries that have submitted NDCs have included ocean elements.

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Contents

Section titles link to relevant sections

1. Scaling Up Offshore Renewable Energy

Return to contents

Thailand

Link to submission

- In its section on support needs (specifically technology development and transfer), Thailand lists research into the potential of offshore renewable energy as a priority area (p. 7).[4]

2. Reducing Emissions from Shipping and Ports

Return to contents

Japan

Link to submission

- Among the measures that contribute to its emissions reduction target, Japan includes switching to energy efficient fishing vessels (p. 14). [5]
- Among the measures that contribute to its emissions reduction target, Japan includes promoting energy efficient ships and low-carbon ports (p. 17).

Vietnam

Link to submission

- Among its mitigation actions, Vietnam cites its efforts to mainstream climate considerations in its planning of seaports (p. 5).[6]

3. Protecting and Restoring Blue Carbon Ecosystems

Return to contents

**See also sections on advancing marine protected areas and protecting coastal communities, infrastructure, and ecosystems for complementary/related actions. There is some repetition of notable and cross-cutting commitments.*

Chile

Link to submission

- In the "integration component" (i.e., the section on actions with both mitigation and adaptation co-benefits) of its enhanced NDC (specifically in its contributions on peatlands), Chile states that it will identify wetlands under a national inventory by 2025 (p. 59). [7]
- In the integration component of its enhanced NDC (specifically in its contributions on peatlands), Chile states that it will create standardized metrics to assess the mitigation and adaptation capacity of wetlands by 2030 (p. 59).
- In the integration component of its enhanced NDC (specifically in its ocean contributions), Chile states that "new protected areas will be established in under-represented marine ecoregions" (p. 64). In the scope of this commitment, Chile includes the following sub-goals:
  - "By 2025, protect at least 20 coastal wetlands as new protected areas."
  - "By 2030, protect at least 10% of under-represented marine eco-regions (Humboldt, Central Chile, Araucanía and Chiloe), in the framework of a participatory marine spatial planning."
  - "By 2030, protect at least 10 additional coastal wetlands as protected areas."
- In the integration component of its enhanced NDC (specifically in its ocean contributions), Chile states that it will assess and strengthen mitigation and adaptation co-benefits in protected areas, with the sub-goals that three protected areas will have standardized metrics to evaluate mitigation and adaptation by 2025 and that Chile will apply metrics

for monitoring and verifying mitigation and adaptation in at least five protected areas by 2030, "while strengthening co-benefits in their management plans" (p. 66).

Jamaica

Link to submission

- Jamaica notes its use of the IPCC 2013 Wetlands Supplement in estimating greenhouse gas emissions and removals (p. 2, p. 8).[8]

Norway

Link to submission

- Norway notes its use of the IPCC 2013 Wetlands Supplement in estimating greenhouse gas emissions and removals (p. 12).[9]

Singapore

Link to submission

- Singapore notes its use of the IPCC 2013 Wetlands Supplement in estimating greenhouse gas emissions and removals (p. 8).[10]
- In its accompanying information on adaptation efforts (sub-section on water and floods), Singapore cites its efforts to conserve and restore mangrove forests to protect coastlines (p. 22).

Vietnam

Link to submission

- Among its adaptation actions, Vietnam cites its efforts to protect and restore mangrove and "coastal protection" forests, "aiming to exceed over 30% of the plan to 2020" (p. 19).
- Among its criteria for evaluating the implementation of its NDC, Vietnam includes increasing forest area to 42-42.5% and increasing coastal protection forests, including mangroves (p. 38).

4. Advancing Marine Protected Areas (MPAs)

Return to contents

**See also sections on protecting and restoring blue carbon ecosystems and protecting coastal communities, infrastructure, and ecosystems for complementary/related actions. There is some repetition of notable and cross-cutting commitments.*

Chile

Link to submission

- In the integration component of its enhanced NDC (specifically in its ocean contributions), Chile states that "new protected areas will be established in under-represented marine ecoregions" (p. 64). In the scope of this commitment, Chile includes the following sub-goals:
  - "By 2025, protect at least 20 coastal wetlands as new protected areas."
  - "By 2030, protect at least 10% of under-represented marine eco-regions (Humboldt, Central Chile, Araucanía and Chiloe), in the framework of a participatory marine spatial planning."
  - "By 2030, protect at least 10 additional coastal wetlands as protected areas."
- In the integration component of its enhanced NDC (specifically in its ocean contributions), Chile states that "all marine protected areas of Chile created up to 2020 will have a management or administration plan under implementation, taking into account actions for adaptation to climate change," with a range of sub-goals for 2025 and 2030 (p. 65).
- In the integration component of its enhanced NDC (specifically in its ocean contributions), Chile states that it will assess and strengthen mitigation and adaptation co-benefits in protected areas, with the sub-goals that three protected

areas will have standardized metrics to evaluate mitigation and adaptation by 2025 and that Chile will apply metrics for monitoring and verifying mitigation and adaptation in at least five protected areas by 2030, "while strengthening co-benefits in their management plans" (p. 66).

5. Protecting Coastal Communities, Infrastructure, and Ecosystems

Return to contents

** See also sections on protecting and restoring blue carbon ecosystems and advancing marine protected areas for complementary/related actions.*

Chile

Link to submission

- In its adaptation contribution, Chile states that it will develop and begin implementation of its adaptation plan on coastal areas in 2022 and will update its coastal areas adaptation plan in 2027 (p. 41).

Singapore

Link to submission

- In its accompanying information on adaptation efforts (sub-section on research investment), Singapore states that the Centre for Climate Research Singapore will develop a National Sea Level Rise Programme to create better projections and improve understanding of long-term sea level rise (p. 20).
- In its accompanying information on adaptation efforts (sub-section on sea level rise), Singapore notes that "minimum platform levels for new development projects have been raised to four metres above the Singapore Height Datum (SHD)" since 2011; it also states that "new critical infrastructure, such as the Tuas Port and Changi Airport Terminal 5, will have platforms raised even higher, to at least five metres above the SHD" (p. 21).
- In its accompanying information on adaptation efforts (sub-section on sea level rise), Singapore notes that it has "installed coastal erosion protection measures on more than 70% of its coastal areas" (p. 21).
- In its accompanying information on adaptation efforts (sub-section on sea level rise), Singapore notes that it has developed a national sea level rise protection plan and states that it will continue researching coastal protection approaches, which may combine nature-based solutions as well as engineering solutions such as sea walls. Given that Singapore expects its coastal protection projects to cost "S$100 billion over 100 years," it has created a Coastal and Flood Protection Fund with S$5 billion of preliminary funding (p. 21).
- In its accompanying information on adaptation efforts (sub-section on water and floods), Singapore states that it will incorporate floodplains into coastal and riverine parks to "protect coastal and low-lying regions from sea level rise or flooding" (p. 22).
- In its accompanying information on adaptation efforts (sub-section on biodiversity), Singapore states that it will "conserve more native plants and animals," including by "enhancing 30 hectares of forest, marine and coastal habitats" by 2030 (p. 24).

Thailand

Link to submission

- Among its adaptation priorities, Thailand notes its aim to "reduce loss and damage from water-related disasters" (p. 4).

Vietnam

Link to submission

- Among its adaptation actions, Vietnam cites its efforts to "prevent and mitigate impacts of high tides, inundation, and saline intrusion due to sea level rise," as well as efforts to create flood risk maps and take flood prevention actions for coastal cities, with a focus on the Mekong River Delta (p. 19).

- Among its adaptation actions, Vietnam cites its efforts to protect and restore mangrove and "coastal protection" forests, "aiming to exceed over 30% of the plan to 2020" (p.19).
- Among the adaptation elements highlighted for its updated NDC, Vietnam includes developing coastal protection / wave prevention forests, including bamboo forests (p. 20-21).
- Among the adaptation elements highlighted for its updated NDC, Vietnam includes building housing in the North-Central and South-Central regions that is resilient to typhoons and floods, creating drainage projects for metropolitan areas, preventing coastal erosion, and creating resilience to saltwater intrusion (p. 21).
- Among the adaptation elements highlighted for its updated NDC, Vietnam includes resettling communities in areas "frequently affected by natural disasters" (p. 21).
- Among its criteria for evaluating the implementation of its updated NDC, Vietnam includes increasing forest area to 42-42.5% and increasing coastal protection forests, including mangroves (p. 38).

6. Creating Climate-Ready Fisheries

Return to contents

Chile

Link to submission

- In its adaptation contribution, Chile states that it will update its fisheries and aquaculture adaptation plans in 2022 and 2027 (p. 41).

Jamaica

Link to submission

- Jamaica notes its project Promoting Community-Based Climate Resilience in the Fisheries Sector (p. 3).

Vietnam

Link to submission

- Among its adaptation actions, Vietnam cites its efforts to implement "sustainable and organic" aquaculture practices (p. 19).
- Among its criteria for evaluating the implementation of its updated NDC, Vietnam includes improving "the system of fishing ports and typhoon shelters for fishing boats on islands, especially forefront islands," among other climate resilience measures, such as fostering information connectivity among fishing ports, boats, and storm shelters (p. 38).

Citations

[1] D Herr and E Landis. Coastal blue carbon ecosystems: Opportunities for Nationally Determined Contributions. 2016. International Union for Conservation of Nature et al. Available from: http://www.mangrovealliance.org/wp-content/uploads/2017/08/BC-NDCs_FINAL.pdf.
[2] ND Gallo, DG Victor, LA Levin. Ocean commitments under the Paris Agreement. *Nature Climate Change* 7 (2017): 833–838 and supplementary material. Available from: https://www.nature.com/articles/nclimate3422.
[3] G Taraska. Integrating ocean and climate policy: A next step forward in the global climate effort. 2018. Center for American Progress. Available from: https://www.americanprogress.org/issues/green/reports/2018/12/19/464467/integrating-ocean-climate-diplomacy/.
[4] Thailand's Updated Nationally Determined Contribution. 2020. Available from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Thailand%20First/Thailand%20Updated%20NDC.pdf.
[5] Japan's Nationally Determined Contribution. 2020. Available from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Japan%20First/SUBMISSION%20OF%20JAPAN'S%20NATIONALLY%20DETERMINED%20CONTRIBUTION%20(NDC).PDF.

[6] The Socialist Republic of Viet Nam: Updated Nationally Determined Contribution (NDC). 2020. Available from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Viet%20Nam%20First/Viet%20Nam_NDC_2020_Eng.pdf

[7] Chile's Nationally Determined Contribution. 2020. Available from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Chile%20First/Chile's_NDC_2020_english.pdf.

[8] Update of Nationally Determined Contribution (NDC) of Jamaica to the United Nations Framework Convention on Climate Change (UNFCCC). 2020. Available from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Jamaica%20First/Updated%20NDC%20Jamaica%20-%20ICTU%20Guidance.pdf.

[9] Update of Norway's Nationally Determined Contribution. 2020. Available from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Norway%20First/Norway_updatedNDC_2020%20(Updated%20submission).pdf.

[10] Singapore's Update of Its First Nationally Determined Contribution (NDC) And Accompanying Information. 2020. Available from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Singapore%20First/Singapore's%20Update%20of%201st%20NDC.pdf.