BLUE CARBON - NATIONALLY DETERMINED CONTRIBUTIONS INVENTORY

Appendix to:

Coastal blue carbon ecosystems

Opportunities for Nationally Determined Contributions

UNEP

blue forests

gef

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Reviewers
Herr, D., Kurvits, T., and Neumann, C.

Layout and production
Charles El-Zeind and Elsa Lindevall

Photo credits
Cover: Tim Calver, The Nature Conservancy; Wade Fairley, WorldFish; back cover: Wade Fairley, WorldFish

Please address comments to angela.martin@BlueCSolutions.org

Blue carbon and NDCs

Context

This appendix provides an inventory of the existing Intended Nationally Determined Contributions (INDCs) and ratified National Determined Contributions (NDCs) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) that include coastal blue carbon ecosystems, namely mangroves, tidal saltmarshes and seagrasses, as climate mitigation or adaptation solutions. This document serves as the appendix to '*Coastal blue carbon ecosystems. Opportunities for Nationally Determined Contributions*'[i], which provides additional information and analysis, available from: www.iucn.org/resources/publications. For the time being, if a country does not submit an NDC when the country ratifies the Paris Agreement, any INDC submitted by that country prior to ratification will automatically count as its first NDC[ii]. In this appendix, the term NDC is used to refer to both NDCs and INDCs. This inventory and the corresponding report provide a tool for countries to include or enhance actions for blue carbon ecosystems in future NDCs.

Paris Agreement and purpose of NDCs

The Paris Agreement was adopted by all 196 Parties to the UNFCCC at COP21 in December 2015. One of the important elements of the Paris Agreement is that countries can independently determine how to lower their emissions, which they outline in pledges called NDCs. Every five years Parties are asked to communicate a revised NDC (Art 4.9 of the Paris Agreement). Each successive NDC signifies a progression from the previous one, representing the highest possible ambition (Art. 4.3 of the Paris Agreement). One of the principles to ensure enhanced ambition of these commitments over time includes the principle of "no backsliding." While it is a non-legal aspect of the Agreement, it indicates that the current level of ambition is the baseline, and that for each review period countries should increase their ambition accordingly.

Nature based solutions

Parties can develop their NDC actions and priorities based on a portfolio of measures including the conservation and restoration of nature as a climate change solution. The recognition of the roles that natural ecosystems can play in climate change mitigation and adaptation are often referred to as nature-based solutions.

Coastal blue carbon

Blue carbon ecosystems, namely mangroves, tidal saltmarshes and seagrasses, remove significant amounts of carbon from the atmosphere and store it in their biomass and soil. The carbon sequestered in the soil can be stored for hundreds to thousands of years, helping to mitigate climate change[iii]. In addition, coastal wetlands provide adaptation and coastal protection benefits by absorbing incoming wave energy, providing coastal and storm surge protection, and preventing erosion. Coastal wetlands may keep pace with sea level rise and, in some instances, are more cost-effective than artificial infrastructure like seawalls and levees[iv,v]. Healthy coastal wetlands also support other benefits, including spawning grounds for commercial fish, water purification and local livelihoods. Thus, blue carbon ecosystems can be a nature-based solution with multiple co-benefits.

When degraded, these co-benefits are greatly diminished along with the ecosystems' capacity to sequester carbon, and stored carbon can be released back to the atmosphere, along with other greenhouse gases. The protection and restoration of coastal blue carbon ecosystems is therefore recognised as a priority for both

climate change mitigation and adaptation, and many countries have identified measures that harness these benefits in their NDCs, including:

- 28 countries' NDCs include a reference to coastal wetlands in terms of mitigation.*
- 59 countries are including coastal ecosystems and the coastal zone in their adaptation strategies.

Other Contributions

The UNFCCC has various mechanisms through which countries can report planned actions and progress on climate change. Many countries include blue carbon ecosystems in their National Adaptation Plans (NAPs), National Adaptation Plans of Actions (NAPAs), and National Appropriate Mitigation Actions (NAMAs). For more information on blue carbon in other UNFCCC mechanisms, see section 4 of "Coastal blue carbon ecosystems. Opportunities for Nationally Determined Contributions", available from: www.iucn.org/resources/publications.

Inventory of blue carbon related NDCs

The inventory below classifies the types of mitigation or adaptation action related to coastal blue carbon ecosystems as identified in the NDCs, with specific actions and timelines listed where available, and direct quotes from the NDCs. Countries that have ratified the agreement are denoted with a (*), and countries that have included the term "blue carbon" in their NDC have been noted with a (Ŧ) in the Country Name column. Countries are listed in alphabetical order. The inventory recognises the following categories of blue carbon related actions:

Mitigation actions

LULUCF and Forestry: Countries that include coastal wetlands as part of Land Use, Land-Use Change and Forestry (LULUCF) and other forest commitments.

General Mitigation: Countries that include coastal wetlands as part of general mitigation aims.

Mitigation Co-benefits: Countries that specifically recognize both the mitigation and adaptation benefits of coastal wetlands.

Adaptation actions

Conservation, protection and restoration efforts: Countries that include coastal wetlands as adaptation solutions, with references to conservation and management, protection, and reforestation measures.

Coastal zone management for climate adaptation: Countries that include information and make specific references to planning tools, such as Integrated Coastal Zone Management (ICZM).

Adaptation in the fisheries sector: Countries that include information and/or see the need to prioritise adaptation in job-generation sector using coastal and marine resources (e.g. fisheries).

For additional information on these categories, see Table 1 of "Coastal blue carbon ecosystems. Opportunities for Nationally Determined Contributions", available from: www.iucn.org/resources/publications.

*This does not include countries that note mitigation as an adaptation co-benefit only

Blue Carbon Inventory of NDC Actions

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Angola	LULUCF and Forestry		2030	**Mangroves role in mitigation recognised with specific targets for afforestation and reforestation of degraded mangrove habitats identified as a mitigation measure. Coastal zone included as a priority area for adaptation measures.** "Afforestation and Reforestation of degraded forest lands and mangrove habitats have a strong potential for mitigation purposes." ". . . committed to increase carbon sequestration from the forestry sector to 5 million tons of CO_2e per year by 2030." "Angola prioritises the implementation of Adaptation measures in the following main sectors: . . . 2. Coastal Zone 3. Land-Use, Forests, Ecosystems and Biodiversity . . ." "Enhancement of coastal adaptive capacities at the institutional, systemic and community levels; response to urgent needs posed by climate change."
Antigua and Barbuda*	General Mitigation	Adaptation Co-benefits		**Wetlands role in mitigation with adaptation co-benefits recognised, with protection for all remaining wetlands and watershed areas with carbon sequestration potential by 2030 identified as a mitigation measure.** "Conditional Mitigation Targets: . . . By 2030, all remaining wetlands and watershed areas with carbon sequestration potential are protected as carbon sinks." "Similarly, mitigation actions can have adaptation co-benefits. For example, expanding the protection of wetlands and watersheds to sink GHG emissions also serves as an adaptation strategy by enhancing water retention and reducing the risks of climate impacts, namely flooding and storm surge."
Australia*	LULUCF and Forestry		2021-2030	**Wetlands role in mitigation recognised through inclusion of IPCC 2013 Supplement.** "Intends to apply the IPCC 2006 Guidelines and IPCC 2013 Revised Supplementary Methods, or as otherwise agreed."
Bahamas*	LULUCF and Forestry	Conservation, protection and restoration efforts Adaptation in the fisheries sector	2020	**Mangroves role in mitigation and marine environment role in adaptation recognised with protection of mangrove ecosystems to increase their carbon sink ability identified as a mitigation measure, and protection and conservation of near shore marine environment identified as an adaptation measure. National Forests across the Bahamas may be considered for inclusion in REDD+ activities.** "In 2008, as a part of the Caribbean Challenge Initiative, we committed to the protection of 20% of our near shore marine environment by 2020, and have this year achieved half of our goal. These protected areas will conserve and protect habitat for Grouper and Bonefish spawning aggregations, coral reefs, sea grass meadows, mangrove nurseries and important bird areas." "Results of a mangrove ecosystem study on one Pine Island (Andros) indicate that approximately 5,661,077tCO_2eq may be removed from the atmosphere through the proper management of the ecosystem. Proper management will improve the functionality of our mangrove ecosystems and increase their carbon sink ability." "These Pine Islands and other designated National Forests across The Bahamas may be considered for inclusion in REDD+ activities, pending further study."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Bahrain ₮	General Mitigation Mitigation Co-benefits	Conservation, protection and restoration efforts	2030	**Mangroves and seagrass' role in both mitigation and adaptation recognised, and explicitly referenced as blue carbon. Mangrove Transplant Project identified as an adaptation measure with mitigation co-benefits.** "Adaptation action with mitigation co-benefits: Blue Carbon: A Mangrove Transplantation Project for the cultivation of plants and planting mangrove seedlings in order to rehabilitate degraded coastal areas began in 2013. The project succeeded in the cultivation of mangroves in Tubli Bay and Doha Arad. There is increasingly strong recognition that there is a need to properly manage particular habitats that act as critical natural carbon sinks. The Black Mangrove is found naturally in Bahrain and is able to sequester carbon and provide an efficient buffer for coastal protection. At present, the Kingdom of Bahrain does not have a full understanding of its mangroves as a carbon sink and is planning to engage with the International Union for Conservation of Nature to do so. Seagrass beds, which constitute an important carbon sink, are distributed along the southeast coast, and along the west coast of Bahrain. At present the Kingdom of Bahrain does not have a full understanding of its seagrass areas as a carbon sink and is planning to further engage with the International Union for Conservation of Nature to do so."
Bangladesh*	LULUCF and Forestry	Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Mangroves role in mitigation and adaptation recognised, with coastal mangrove plantation identified as a mitigation measure. and community conservation of wetlands and coastal zone management planned as adaptation measures**. "Sector: Land use, land use change and forestry: Continuation of coastal mangrove plantation." "About 195,000 hectares of mangrove plantations have been raised so far and these new plantations are also playing an important role in carbon sequestration." "Adaptation measure: Community based conservation of wetlands and coastal areas." "Adaptation: Considering the vulnerabilities, the government has identified the following areas of interventions to address adverse impacts of climate change: Key Areas to address adverse impacts of climate change: . . . Coastal Zone Management including Salinity Intrusion control"
Belize*	General Mitigation	Conservation, protection and restoration efforts Coastal zone management for climate adaptation Adaptation in the fisheries sector	2020-2030	**Mangroves role in mitigation with adaptation co-benefits recognised, with mangrove restoration, protection, and a transition to a net carbon sink identified as mitigation measures that have adaptation co-benefits. Integrated coastal zone management included as an adaptation measure.** "Mitigation: Mangroves: Description: Protecting and restoring mangrove forests. This activity can be an effective mitigation action while also helping the protection of low-lying coastal areas against impact of storms and soil erosion. Mangrove forests also fulfil critical role as nursery ground for regional fish stocks and maritime ecosystems. Objective: Protection of existing mangroves from deforestation and restore lost mangroves. Anticipated emission reduction: Restoration and protection have the potential to turn Belize's mangrove system into a net carbon sink by avoiding current emissions of around 11.2Gg CO_2 per year and removing additional 2.2 – 35Gg CO_2 per year between 2020 and 2030. The expected cumulative emissions reduction would be up to 379Gg CO_2 between 2015 and 2030." "It is also recognised that many mitigation actions will produce co-benefits that promote adaptation and resilience to climate change. Forest protection and replanting of mangroves that are implemented for mitigation purposes are expected to protect the coastline against storm surges and erosion . . ." ". . . Initiatives such as mangrove restoration and protection offer new opportunities in scientific fields study to assess the carbon storage capacity of mangrove ecosystems, known as the Blue Economy. " "Adoption and Implementation of the Belize Integrated Coastal Zone Management Plan."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Benin*		Conservation, protection and restoration efforts		**Coastal zones role in adaptation recognised with protection of coastal zone and restoration of mangrove ecosystems identified as adaptation measures.** "Protect the coastal zone in the face of sea level rise for erosion control. Correct the instability of sediments from thinning and beach loss. Restore the fragile ecosystems (mangrove) . . ."
Brunei*	LULUCF and Forestry	Adaptation in the fisheries sector		**Mangroves role in mitigation recognised and forest preservation identified as a mitigation measure. Forestry, coastal and flood protection identified as adaptation priorities.** "Brunei Darussalam is considered one of the world's leading nations in terms of its actions to preserve forest cover, with currently approximately 75% of its 5,765 square kilometres national land area is under forest cover. It is comprised of what experts believe to be the oldest tropical rainforest ecosystem in the world, but also mangroves, peat swamps and other areas which sequester carbon dioxide from the atmosphere." "Brunei Darussalam has identified the following sectors for priorities for further climate change adaptation actions: . . . vi. Fisheries. Climate change adaptation is currently most advanced in the biodiversity and forestry sectors."
Cambodia		Coastal zone management for climate adaptation Adaptation in the fisheries sector		**Mangrove ecosystems and coastal zone resources identified for sectoral adaptation measures.** "Adaptation: . . . most vulnerable sectors to the impacts of climate change: Coastal zones: Coastal zone resources already face a number of pressures, including from over-fishing, over-exploitation of forest resources and mangrove ecosystems leading to increased erosion. Climate change adds to these existing challenges through sea level rise . . ." "Adaptation: . . . Priority Actions: . . . mainstreaming of climate change into sector and sub-sector development plans."
Cameroon*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation Adaptation in the fisheries sector		Mangroves role in adaptation recognised, with restoration and management of mangroves and protection and management of the coastline identified adaptation measures. "Adaptation: . . . Protection and management of the shoreline against the effects of climate change; Restoration and management of mangroves; Utilisation of resources; Adaptation of infrastructures."
Cape Verde		Conservation, protection and restoration efforts Adaptation in the fisheries sector		**Coastal zones, habitats and fisheries sector identified for adaptation with protection of coastal zones and habitats and prevention of their degradation, and fisheries strategies included as adaptation measures.** "Adaptation contribution: . . . Seek to diversify income generating activities in rural areas by promote artisanal fishing activities (providing training, equipment, micro-credit) in coastal areas; . . . Seek to rehabilitate or construct infrastructures for the protection of coastal zones against seal level rise and beach erosion; and Seek to implement actions for the adaptation of fishing activities and fishing communities, building on the scenarios and strategies already developed by the Fishery Development National Institute (INDP)."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
China*	General Mitigation			**Wetlands role in mitigation recognised with pledge to increase wetlands carbon storage capacity through stronger protection and restoration as a mitigation measure.** "To strengthen the protection and restoration of wetlands and to increase carbon storage capacity of wetlands."
Comoros	General Mitigation			**Marine conservation identified as a mitigation measure.** "Protected areas: The government of Comoros plans to strengthen its actions for the conservation of biodiversity, marine and terrestrial. Also it plans to pay for a total of 50,000 ha of land to be converted into natural vegetation, principally forests and considered a protected area with project completion in 2030."
Congo, The Republic of		Conservation, protection and restoration efforts		**Mangroves role in adaptation recognised, with mangrove conservation and implementation of a coastal zone strategy identified as adaptation measures.** "The adaptation strategy of the coastal zone contributes to this: the strategy creates measures to visualize an integrated plan for the coastal zone by establishment of appropriate legal frameworks, acquire monitoring tools, and training and information. The guidelines recommend the implementation of a development plan for coastal urban areas, promotion of income generating activities related to marine and coastal ecosystems. To this must be added a device comprising conservations projects of mangroves for coastal protection, the species protection, the establishment of specific facilities for the reception and management of waste, the monitoring of marine turtle nesting and the establishment of a coastal observatory and the marine environment."
Cook Islands*	General Mitigation Mitigation Co-benefits	Conservation, protection and restoration efforts		**Coastal protection and marine conservation identified as mitigation and adaptation measures.** "The Cook Islands is confident that its strategies and policies pre 2020 and post 2020 will reduce and offset its carbon emissions and strengthen resilience. These actions include inter alia coastal protection, water security, agriculture, forestry, marine conservation, waste, tourism and land management." " . . . Designating its entire EEZ of almost two million sq km as a marine park is evidence of national commitment to the global effort to building the resilience of marine ecosystems."
Costa Rica*		Adaptation in the fisheries sector		**Coastal zone role in adaptation recognised with community based sustainable coastal zone development identified as an adaptation measure.** "Community Based Adaptation: . . . looking to empower the population to face climate change impacts, by increasing the resilience agriculture producers, developing safeguards for securing water supply and sustainable coastal zone development."
Cote d'Ivoire*		Conservation, protection and restoration efforts		**Mangroves and coastal zones role in adaptation recognised and reforestation of mangroves identified as an adaptation measure.** "Plans for climate resilience development: Coastal zones. Regulate the construction and the extraction of sand on the coastline, relocate and rebuild places that are in danger of sea level rise and put them where sea level will rise. Build protective structures (dike, breakwater) and passive restoration (windbreakers, replanting and reforestation -mangroves-)."
Cuba		Conservation, protection and restoration efforts		**Mangroves role in adaptation recognised and mangrove recovery identified as an adaptation measure.** "Adaptation: Principal Action: Recover the areas of most affected mangroves in the Cuban archipelago and stop deterioration of coral reef crests if possible."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Djibouti		Conservation, protection and restoration efforts Adaptation in the fisheries sector		**Mangroves role in adaptation recognised with mangrove rehabilitation and coastal fisheries programmes identified as adaptation measures.** "Funded adaptation measures: Support programme to reduce vulnerability in coastal fishing areas (PRAREV-PÊCHE): The programme's overarching objective is to support the populations in rural coastal zones affected by climate change in order to improve their resilience, reduce their vulnerability to such changes and promote the co-management of marine resources. The rehabilitation of mangroves will enhance their role as a shield for coastal protection against the tides and erosion. In addition, the restoration of coral reefs and mangroves will generate additional revenue through the development of ecotourism activities." "Implementing Adaptation Technologies in the Fragile Ecosystems of the Tadjourah and Hanlé Plains: The project's objective is to set up climate change adaptation measures to protect and enhance the resilience of the local communities and the ecosystems in the Tadjourah and Hanlé Regions . . . Component 2: Rehabilitation of ecosystems (plant cover in Hanlé and Tadjourah, and mangroves in the coastal zone of Tadjourah) . . . "
Dominican Republic		Conservation, protection and restoration efforts		**Coastal and marine areas identified for adaptation measures.** "The 2030 National Development Strategy (NDS) . . . promotes . . . protection of the environment and natural resources, and promoting adequate climate change adaptation . . . The elements of the strategic planning approach to adaptation are: Ecosystem-Based Adaptation/Resilience of Ecosystems . . . Coastal and marine areas."
Ecuador	General Mitigation	Conservation, protection and restoration efforts		**Conservation of marine and coastal biodiversity identified as a mitigation and adaptation measure, updating management plans of protected areas and monitoring marine and coastal ecosystems identified as adaptation measures.** "Enhanced Climate Chance Actions: . . . streamlining adaptation and mitigation actions on the basis of the prioritization of key identified sectors . . . In the ecosystem sector . . . This will foster biologic terrestrial and marine and coastal biodiversity conservation. Furthermore, climate change criterion will be incorporated and implemented in the management plans for protected areas as well as in studies on the dynamics of terrestrial and marine and coastal ecosystems . . . particularly in light of possible climate change scenarios."
Egypt		Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Coastal zones role in adaptation recognised and coastal zone protection and management identified as adaptation measures.** "Adaptation options for coastal zones are highly site-dependent. However, changes in land use, integrated coastal zone management, and proactive planning for protecting coastal zones are necessary adaptation policies." "Additional Adaptation Policies and Measures: Proactive planning and integrated coastal zone management."
El Salvador	LULUCF and Forestry		2030	**Coastal zones role in adaptation recognised and coastal zone protection and management identified as adaptation measures.** "Adaptation options for coastal zones are highly site-dependent. However, changes in land use, integrated coastal zone management, and proactive planning for protecting coastal zones are necessary adaptation policies." "Additional Adaptation Policies and Measures: Proactive planning and integrated coastal zone management."

Country	Mitigation	Adaptation	Year	NDC Actions
Fiji*		Conservation, protection and restoration efforts		**Mangroves role in adaptation recognised, with mangrove planting and enforcement of buffer zones for coastal and mangrove areas identified as adaptation measures.** "The planting of mangroves, construction of seawalls and the relocation of communities to higher grounds are part of ongoing adaptation initiatives." "Review the town plan regulations to facilitate the enforcement of zoning and buffer zones for coastal areas, rivers banks, high risk areas and mangrove areas. Review to be completed by 2016."
Gabon*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Mangroves role in adaptation recognised with mangrove conservation and a coastal zone strategy identified as adaptation measures.** "Adaptation: . . . Moreover, the general guidelines of the strategy advocated the implementation of a development plan of the coastal urban areas, promotion of income-generating activities related to marine and coastal ecosystems. To this we must add a device comprising conservations projects of mangroves for coastal protection . . . and the creation of coastal and marine environments monitoring centres."
Gambia*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Coastal zone identified for adaptation measures, with protection of coastal zone and its resources included in legislative and policy instruments.** "Adaptation . . . : Enhancing Resilience of coastal and estuarine/riverine economies and livelihoods of the districts in the coastal zone by reducing their vulnerability to sea-level rise and associated impacts of climate change . . . " "Policies, Strategies, Programmes and Projects: . . . The National Environmental Management Act (NEMA) . . . makes provisions for the overall management of the coastal zone and all other wetlands. The priorities identified for a sound environmental management can be summarized as: . . . (iv) Ensuring the functioning of institutional and legal frameworks for sustainable management and protection of the coastal zone and its resources."
Georgia		Coastal zone management for climate adaptation		**Coastal zone protection and management identified as adaptation measures.** "It is imperative to assess and implement adaptation measures in order to minimize economic losses. Combination of various coastal zone protection technologies are recommended by the second "Technology Needs Assessment" report of Georgia to prevent the significant damage caused by the Black Sea level rise." "Due to very high social costs involved, priority will be given to the integrated coastal planning and management instruments, rather than investments in coastal erosion abatement only."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Grenada*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation	2025-2030	**Mangroves and other coastal ecosystems roles in adaptation recognised. Integrated coastal zone management policy, preservation and enhancement of coastal ecosystems and their services, and mangrove rehabilitation identified as adaptation measures.** "Building Coastal resilience: Grenada's economy is very dependent on healthy coastal areas, our beaches, coral reefs and mangroves all provide many ecosystem, social and economic benefits, therefore it is important to protect them from the adverse impacts of climate change. Grenada is in the advanced stages of developing its integrated coastal zone management policy and management system with the aim of facilitating integrative planning and management processes with the view to preserving and enhancing coastal ecosystems and ecosystem services while enabling social and economic development. As part of the policy development Grenada had to undertake a detailed mapping of the coastal features to provide a definition of the coast. Grenada has also re-established its beach monitoring program under new terms of reference and stronger institutional backing. Grenada is also undertaking several community ecosystem based adaptation actions including coral restoration, mangrove rehabilitation, all with alternative livelihood implications."
Guatemala		Coastal zone management for climate adaptation		**Coastal marine ecosystems role in adaptation recognised, with plans to strengthen the processes of adaptation in coastal marine areas identified as an adaptation measure.** "Adaptation: . . . as a priority, to strengthen the processes of adaptation in: . . . Coastal marine areas."
Guinea*	LULUCF and Forestry		2030	**Mangroves role in mitigation recognised, with sustainable management and targets for reduction of deforestation of mangroves identified as a mitigation measure.** "Mitigation commitments and potential: . . . Manage its forests sustainably: . . . Stabilize the area of mangroves between now and 2030 (peak deforestation in 2020; more systematic replanting measures will have been introduced by then . . . "
Guinea-Bissau		Conservation, protection and restoration efforts	2025	C**oastal ecosystems role in adaptation recognised and coastal areas and ecosystems identified as priorities for adaptation measures, including in national policy.** "National Context: . . . Currently about 15% of the country's land and maritime territory is a sanctuary for the preservation of biodiversity and this percentage is expected to increase to 26% in 2020. . . . In terms of adaptation the country has defined as priorities . . . Coastal and Forests in its NAPA (2006)." "Adaptation Contribution: . . . It is therefore necessary and urgent that the Guinea-Bissau Government take initiatives such as . . . the protection of coastal ecosystems and adopt measures to reduce long term risks"
Guyana*	General Mitigation	Conservation, protection and restoration efforts	2025	**Mangroves role in mitigation and adaptation recognised with mangroves included in emission reduction targets and mangrove restoration identified as an adaptation measure.** "Emission Reduction Programme for Forests: . . . Existing mangrove forests will be counted in this target and the mangrove restoration programme along the vulnerable coast will be expanded."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Haiti	LULUCF and Forestry	Conservation, protection and restoration efforts Coastal zone management for climate adaptation Adaptation in the fisheries sector	2030	**Mangroves role in mitigation and adaptation recognised, with mangrove protection and restoration, coastal zone management and fisheries management identified as adaptation measures.** Coastal zones as identified as vulnerable areas, with a need to develop a national strategy to support adaptation of coastal zones in the light of climate change impacts, in particular through the adoption of protection, conservation and sustainable development of mangroves. Commits to protect, conserve, and enlarge mangrove forests 19.500ha from now until 2030. “Priorities and Objectives for Adaptation: . . . The integrated coastal zone management and rehabilitation of infrastructure . . . Haiti is committed by 2030 to: . . . Protecting coastal zones to the impacts of climate change.” “Mitigation Measures: Conditional mitigation: . . . Protect, conserve and extend mangrove forests to (19 500ha) by 2030. . . . Preserve marine protected areas (MPAs) in the country . . . Unconditional mitigation: . . . Agriculture, forestry and land use: Protect and conserve existing mangrove forests (10 000ha) by 2030 . . . Protect marine protected areas (MPAs) in the south coast of Haiti.” “Adaptation Measures: . . . Development of a national strategy to adapt coastal zones [and] address the impacts of climate change . . . Adoption of protective measures, conservation and sustainable management of mangrove ecosystems. Coastal surveillance, sustainable fisheries management . . . Conservation and protection of marine biodiversity and coral reefs. Support for community management of marine protected areas.”
Honduras*		Conservation, protection and restoration efforts		**Marine coastal ecosystems role in adaptation recognised with protection, conservation and restoration of coastal and marine ecosystems identified as adaptation measures.** “Adaptation: . . . plans and actions to protect, conserve and restore coastal and marine ecosystems and their biodiversity.”
Iceland*	LULUCF and Forestry			**Wetlands role in mitigation recognised through use of IPCC 2013 Supplement and included in LULUCF.** “Iceland intends to include LULUCF in its post-2020 contribution to climate mitigation, in accordance with established and accepted methodology for LULUCF accounting. In particular Iceland intends to employ afforestation and vegetation to contribute to its goals. Iceland will also use wetland restoration as part of its climate efforts, and possibly other LULUCF activities.”

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
India*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Mangroves and other coastal ecosystems role in adaptation recognised, with mangrove bioshields, protection for coastal zones and coastal zone management identified as adaptation measures, including for India's 1,238 islands.** "1) India has demarcated vulnerable areas on the coasts and declared them as Coastal Regulation Zone (CRZ) with restrictions imposed on setting up and expansion of industries, operations and processes in these areas. 2) India is also implementing programmes for Integrated Coastal Zone Management (ICZM). The vision of the project is to build national capacity for implementation of comprehensive coastal management through ecological management, conservation and protection of critical habitats, coastal geomorphology and geology of coastal and marine areas, coastal engineering, socio-economic aspects, policy and legal issues and other related fields in the area of coastal governance. 3) Mapping and demarcation of coastal hazard lines for development of emergency response plans is being carried out in all the coastal states and union territories. 4) Another initiative to protect coastal livelihood is 'Mangroves for the Future (MFF)' coordinated by International Union for Conservation of Nature (IUCN) in India. 5) Similar to Small Island Developing States, the 1,238 Indian islands are vulnerable to loss of coastal wetlands including mangroves and salt water intrusion in fresh water aquifers. With changing climate, islands are highly susceptible to frequent and more intense tropical cyclones and associated storm surge, droughts, tsunamis and volcanic eruptions, which will have adverse impact on economy of these islands and health of their inhabitants. 6) The Government notified the Island Protection Zone (IPZ) in 2011 with the objective of ensuring livelihood security to the local communities, conserving and protecting coastal stretches, and promoting development in a sustainable manner. The IPZ focuses on disaster risk reduction through bioshields with local vegetation (mangroves) and other soft protection measures, and the conservation of beaches and sand dunes."**
Jamaica		Adaptation in the fisheries sector		**Fisheries sector identified as a priority sector for adaptation action.** "The main sectors for the development of climate change strategies and action plans are . . . fisheries . . ."
Kiribati*	General Mitigation		2030	**Mangroves, other coastal vegetation and seagrass beds roles in mitigation recognised with specific targets for protection, enhancement and stewardship identified as mitigation measures.** "[Mitigation] Actions: . . . mangrove forest enhancement with a mitigation potential of 7,080 tCO_2e in 2025." "In addition to these quantified outcomes, Kiribati will proactively protect and sustainably manage its mangrove resources, as well as protect and enhance coastal vegetation and seagrass beds. Together these actions represent effective stewardship of more than 6 million tonnes of Carbon Dioxide stored, more than 100 times the current annual national emissions inventory."
Lebanon		Conservation, protection and restoration efforts	2030	**Coastal zones identified as priority areas for adaptation measures, with plans to be developed by 2030.** "Examples of Adaptation Measures: Biodiversity: Overarching objective: By 2030, adaptation plans for ecosystems vulnerable to climate change have been developed and implemented. This will be achieved by: Conducting needs assessment and defining pilot national monitoring sites and species. Coastal zones are considered a priority . . . "
Liberia				**Mangroves role in adaptation recognised with management and conservation of mangrove ecosystems and coastal zone management identified as adaptation measures.** "Coastal Zone: Develop and implement Coastal Zone policy, strategy and management plan. Construct hard structures such as sea walls or revetment. Manage and conserve coastal mangrove ecosystem. Facilitate technology transfer and training of institutional and local experts in coastal zone management and monitoring."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Madagascar*	Mitigation Co-benefits	Conservation, protection and restoration efforts	2020-2030	**Mangroves and coastal zones roles in adaptation with mitigation co-benefits recognised, with specific restoration targets for mangroves identified as an adaptation measure with mitigation co-benefits.** "Moreover, the choice of the identified adaptation sectors (agriculture, coastal zone management, human health), as well as ecosystem based adaptation approach (forests, mangroves, biodiversity, water resources) can have significant benefits on the mitigation. In fact, these actions may contribute to the strengthening of carbon stocks. Forests and mangroves sustainable management, in addition to greenhouse gas (GHG) emission reduction associated with deforestation limitation, can specifically illustrate this link." "ADAPTATION: . . . Priority Actions before 2020: Expected Impacts of actions before 2020: . . . Restoration of 35,000 hectares of primary forest areas and mangroves . . . 4. Actions to be undertaken between 2020 and 2030: . . . Restoration of natural habitats (forests and mangroves: 45,000 ha; lakes, streams, etc.)."
Malaysia		Coastal zone management for climate adaptation		**Coastal management recognised as an adaptation measure. Wetlands may be included in LULUCF in future.** "As part of the solution towards coastal erosion, both hard and soft engineering approaches had been implemented. For the longer term, Integrate Shoreline Management Plans (ISMPs) have been developed and implemented for specific areas. In addition, a National Coastal Vulnerability Index to sea-level rise is being developed. Detailed sea level rise studies had also been conducted at some of the vulnerable coastal areas to project future vulnerabilities in a 20-year sequence from 2020 to 2100." "Assumptions and methodological processes: . . . LULUCF: The inclusion of non-forest land (cropland, grassland, wetlands and settlement) will be determined later."
Marshall Islands, Republic of*	General Mitigation Mitigation Co-benefits	Conservation, protection and restoration efforts	2025	**Mangroves role in adaptation with mitigation co-benefits recognised, and mangrove rehabilitation identified as an adaptation measure with mitigation co-benefits.** "RMI also considers that adaptation action will have mitigation co-benefits, with efforts such as mangrove and agriculture rehabilitation programs likely to enhance carbon sinks as well as assist with protection of water resources and the health of the RMI people."
Mauritius*		Conservation, protection and restoration efforts Adaptation in the fisheries sector	2030	**Wetlands, seagrass and mangroves role in adaptation recognised with protection and rehabilitation of wetlands, seagrass and mangroves included in adaptation measures.** "Adaptation Measures: Priority Adaptation Actions: . . . Improvement of the management of marine and terrestrial protected areas and expansion of protected area network including rehabilitation of wetlands, sea-grass, mangrove plantation, increase in tree coverage areas and coral reef rehabilitation/farming."
Mexico*	General Mitigation Mitigation Co-benefits	Conservation, protection and restoration efforts	2030	**Mangroves and seagrass' roles in mitigation and adaptation recognised with protection of mangroves, sea grass and other coastal and marine ecosystems identified as mitigation and adaptation measures.** "Increase carbon capture and strengthen coastal protection with the implementation of a scheme of conservation and recovery of coastal and marine ecosystems such as coral reefs, mangroves, sea grass and dunes."

Country	Mitigation	Adaptation	Year	NDC Actions
Morocco*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation	2030	**Coastal and marine areas role in adaptation recognised with management of coastal zones and marine protected areas identified as adaptation measures.** “Morocco’s Vision to Address the Risks of Climate Change Impacts: . . . The protection of populations, through a risk-prevention management approach . . . particularly in the most vulnerable areas (coastal zones . . .)" “Main Adaptation Objectives: . . . For 2030: Establishment of marine protected areas representing 10 % of the Exclusive Economic Zone.” “Main Sectoral Strategies Enabling the Implementation of Adaptation Objectives: . . . integrated Management Strategy for Coastal Areas . . . National Strategy for Integrated Coastal Management.”
Myanmar		Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Mangroves and coastal zones roles in adaptation recognised with plans to conserve coastal ecosystems including mangroves, a mangrove rehabilitation project and coastal zone management identified as adaptation measures.** “Developing a coastal zone management plan to effectively conserve terrestrial and under water resources including mangrove forests. Also cooperating with international organizations providing technology and funding to reduce the risk of climate related disaster risk for local communities. The National Strategy Action plan (NSAP, 2015) has been published as well.” “Specifically, Myanmar is implementing projects such as . . . the Project for Mangrove Rehabilitation Plan for the Enhancement of Disaster Prevention in Coastal and Delta Areas.”
Nauru*		Conservation, protection and restoration efforts		**Coastal protection identified as a priority adaptation measure.** “Adaptation: . . . The priority actions are arranged under sectors targeting the following areas: water; health; agriculture; energy; land management and rehabilitation; infrastructure and coastal protection; biodiversity and environment; community development and social inclusion; and education and human capacity development.”
Nigeria		Adaptation in the fisheries sector		**Fisheries sector identified for adaptation measures.** “Strategies for Freshwater Resources, Coastal Water Resources and Fisheries: . . . Enhance artisanal fisheries and encourage sustainable aquaculture as adaptation options for fishing communities.”
Niue*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Management and protection of coastal zones identified as an adaptation measure.** “In particular, climate change impacts are likely to further exasperate . . . coastal water quality issues for Niue. For these reasons, protecting and enhancing natural resources . . . are among the government’s main priorities.” “Approach to Building Resilience to Climate Change: . . . In its commitment to building resilience, Niue has developed the Niue Joint National Action Plan (JNAP) [which] . . . also fulfils meeting the task of operationalising the Coastal Development Policy.”
Oman		Conservation, protection and restoration efforts		**Fisheries and marine environment identified as priority area for adaptation measures.** “Type of adaptation contributions: . . . efforts will be in the following areas: . . . coastal erosion and sea level rise; Fisheries and marine environment . . . ”

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Philippines ₮	LULUCF and Forestry Mitigation Co-benefits	Conservation, protection and restoration efforts		**Marine ecosystems role in mitigation and adaptation recognised with explicit reference to blue carbon, and legal protection for marine ecosystems and marine resources identified as an adaptation measure. Marine ecosystems may be included in REDD plus and national biodiversity targets.** "The Philippines is endowed with diverse ecosystems, which are considered extremely important for enabling the country to develop resilience in the face of climate change. Among these are its forests and marine resources, which are seen as contributing to both adaptation and mitigation needs. Marine ecosystems can play a crucial role with its potential on blue carbon. Some of these ecosystem contributions are articulated in the Philippine National REDD Plus Strategy and the recently updated Philippine Biodiversity Strategy and Action Plan. The Philippine legislature is poised to declare by law 97 protected areas as national parks under the Expanded National Integrated Protected Areas Systems, which could contribute to increasing resiliency against climate change."
Saint Lucia*		Conservation, protection and restoration efforts Coastal zone management for climate adaptation Adaptation in the fisheries sector		**Mangroves and wetlands role in adaptation recognised with coastal zone management identified as an adaptation measure with mitigation co-benefits.** "Adaptation Financing: . . . among the many critical adaptation interventions identified in the Second National Communication: Building Codes: Natural Defences (mangroves, wetlands etc.)." "Key National Policies, Legislation and Actions that address Climate Change Mitigation and Adaptation: . . . Agriculture / Fisheries: . . . National Fisheries Plan 2013 . . . General: . . . Adoption of a National Coastal Zone Management Policy." "Adaptation: . . . Adaptation Implementation: . . . Coastal Zone Management for Climate Resilience."
Saint Vincent and the Grenadines*		Conservation, protection and restoration efforts		**Mangroves role in adaptation recognised with specific targets for protection of near shore and coastal areas and coastal and marine resource management identified as adaptation measures.** "Additionally, many of the coastal protection ecosystems such as dunes, mangroves and reefs have been removed or are degraded, which exacerbate vulnerability of coastal infrastructure to storm and hurricane activity (particularly wind and storm surges)." "Adaptation planning in the coastal zone: . . . The country has started to promote itself as a dive destination and has signed on to the Caribbean Challenge Initiative (CCI) with the pledge to protect 20% of its near shore marine and coastal resources by 2020."
Saudi Arabia* ₮	General Mitigation Mitigation Co-benefits	Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Mangroves and other coastal ecosystems roles in mitigation and adaptation recognised, with explicit reference to blue carbon. Coastal zone management and planting of mangrove seedlings identified as adaptation measures.** "Adaptation with mitigation co-benefits: . . . Marine Protection: Implement coastal management strategies that are designed to reduce coastal erosion, increase the sinks for blue carbon, maintain related ecosystems and address the threats that climate change poses for marine livelihoods. Support the planting of mangrove seedlings along its coasts. In addition, strengthen and enhance the coral reef restoration program throughout the northwestern Arabian Gulf." "Integrated coastal zone management planning (ICZM): Take the necessary action to develop and implement ICZM plans that would take into account the protection of coastal infrastructures such as roads, residential areas, industrial complexes, desalination plants, seaports, etc."

Country	Mitigation	Adaptation	Year	NDC Actions
Senegal*	LULUCF and Forestry	Conservation, protection and restoration efforts		**Mangroves role in mitigation and adaptation, and wetlands role in adaptation recognised. Mangroves included in REDD+ activities with specific targets identified for mangrove protection and reforestation as mitigation measures. Protection of vulnerable coastal areas and restoration of threatened coastal ecosystems identified as adaptation measures.** "Reduction of emissions from deforestation and forest degradation: Unconditional Options . . . annual reforestation and restoration of mangroves by state and other actors . . . Conditional Options: . . . 4000 ha/year of mangroves closed for protection and reforestation from 2017." "Objectives of adaptation . . . Coastal Areas . . . Protection of vulnerable areas; Scientific and technical studies on restoration of threatened coastal ecosystems; Resource management . . ."
Seychelles* ₮	General Mitigation	Conservation, protection and restoration efforts		**Ocean biomass and marine ecosystems role in mitigation recognised with blue carbon explicitly referenced. Mangrove protection and management of coastal ecosystems are identified as adaptation measures.** "Ecosystem-Based Adaptation – Seychelles is currently implementing three ecosystem-based adaptation projects . . . The projects focus on management of coastal ecosystems, protection of mangroves . . . " "Mitigation: . . . excluding the offsetting capacity of ocean biomass and marine ecosystems (or blue carbon), Seychelles was a net sink of GHGs in 2000 at -564,232 tCO_2e
Sierra Leone*		Adaptation in the fisheries sector		**Fisheries management identified as an adaptation measure.** "Management of coastal and fisheries resources through promotion of non-destructive fishing techniques to maintain resilience of marine ecosystems."
Singapore*		Conservation, protection and restoration efforts		**Mangrove conservation and coastal management identified as adaptation measures.** "The array of natural ecosystems (including evergreen rain forest, mangroves, freshwater streams, freshwater swamp forest, coral reefs and mudflats) will continue to be conserved, with targeted programs for habitat enhancement and species recovery where required." "Management of coastal and fisheries resources through promotion of non-destructive fishing techniques to maintain resilience of marine ecosystems."
Somalia*		Conservation, protection and restoration efforts		**Marine and coastal ecosystems role in adaptation recognised, with coastal management identified as an adaptation measure, including replanting of mangroves.** "Investment Cost for Improvement and Sustainable Management of Coastal and Marine Resources: In order to restore the Marine and Coastal Environment of Somalia, including the replanting of mangroves, protecting marine species, preventing and halting coastal mining stones for urban construction through environmental policy, legal and regulatory actions, mass media awareness, arranging workshops, seminars and meetings to build up the capacity of the coastal communities to contribute to sustainable development of coastal and marine resources and to through remedial action regain depleted resources."
South Africa*		Conservation, protection and restoration efforts		**Wetlands role in adaptation recognised with increasing wetlands programmes identified as an adaptation measure.** "In adaptation . . . Some of the key programmes that will have to be scaled up further, include: Working on Wetlands estimated at US$0.12 bn per year . . . "

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Sri Lanka*	LULUCF and Forestry	Conservation, protection and restoration efforts		**Mangroves and wetland ecosystems roles in mitigation and adaptation recognised with prevention of deforestation and forest degradation included as a mitigation measure, and restoration, conservation and management of seagrass, mangroves and other wetland ecosystems identified as adaptation measures.** “Restoration, conservation and managing coral, seagrass, mangroves and sand dunes in sensitive areas” as part of their Coastal and Marine Sectors. They also want to establish 1,000 ha of coastal forests and green belt along the island. In addition, they recognize the importance of coastal and marine resources in climate change adaptation." “Forestry Sector: Current forest cover in Sri Lanka is 29.6% and is planned to be increased to 32%. This includes management of mangrove and wetland ecosystems, management and conservation of natural forests, restoration of degraded forests in underutilized lands and urban forestry. Measures to prevent deforestation and forest degradation will also be taken.”
Sudan		Conservation, protection and restoration efforts Coastal zone management for climate adaptation		**Salt marsh, mangrove and seagrass’ roles in adaptation recognised, with protection for these ecosystems and coastal zone management identified as adaptation measures.** “Sudan's Intended Adaptation Contributions: . . . Coastal Zone: New information systems: Enhancing monitoring programs in natural and urban settings to detect biological, physical, and chemical changes and responses due to direct and indirect effects of climate change; Implement integrated coastal zone management: an integrated approach to land use planning, creation of ecological buffer zones, establishing protected inland zones to accommodate salt marsh, mangrove and sea grass; Building awareness: This involves enhancing the awareness of coastal developers through national and international activities, technical assistance, and capacity-building.”
Suriname	LULUCF and Forestry	Conservation, protection and restoration efforts		**Mangroves role in mitigation and adaptation recognised with legal and physical protection of mangrove ecosystems planned as mitigation measures under REDD+, and mangrove restoration and expansion identified as an adaptation measure.** “Proposed Contributions: Mitigation: Forests: . . . Suriname is currently undertaking a process of REDD+ Readiness at the national level and initial steps are being taken to assess the drivers of deforestation and to develop strategy . . . A draft law for the protection of the mangrove forest along the North Atlantic coast of Suriname was prepared by the government. In addition, coastline stabilization by means of ‘wave breakers’ to reduce wave force, promote sedimentation and subsequent mangrove regeneration, will increase mangrove forest stock and carbon sequestration.” “Adaptation: Unconditional Contribution: . . . Furthermore, adaptation measures to building climate resilience include improving natural and mechanical infrastructure such as . . . mangrove protection, restoration and expansion . . . The reasons for this measure are to increase natural protection of the vulnerable coastline; protect the mangrove ecosystems on the coast; sequester carbon and reduce GHG emissions caused by uprooting of plants during coastal erosion; to promote natural mangrove regeneration leading to increased fish production and reduced poverty levels.”
Tanzania		Conservation, protection and restoration efforts Adaptation in the fisheries sector	2030	**Mangroves and shorelines role in adaptation recognised with restoration of mangroves and shorelines and stronger coastal and fishery resource management identified as adaptation measures.** “Adaptation priority sectors are: . . . Coastal and Marine Environment, Fisheries . . . ” “Adaptation Contributions: . . . Coastal, Marine Environment and Fisheries: a) Strengthening management of coastal resources . . . e) Mangrove & shoreline restoration programme. f) Enhancing conservation & fishery resource management. g) Strengthening key fisheries management services for sound development and management of the fishery sector for resilience creation.”

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Thailand*		Conservation, protection and restoration efforts		**Mangrove and marine ecosystems role in adaptation recognised with specific targets for forest cover and protection of marine ecosystems identified as adaptation measures.** "Thailand's prioritized adaptation efforts include: . . . Increase national forest cover to 40% through local community participation, including in particular headwater and mangrove forests to enhance adaptive capacities of related ecosystem . . . Develop participatory, integrated marine conservation and coastal rehabilitation plan to protect marine ecosystem and enhance climate proofing infrastructure to strengthen coastal protection against erosion."
Togo	Mitigation Co-benefits	Conservation, protection and restoration efforts		**Coastal zones role in adaptation with mitigation co-benefits recognised, with protection of coastal zone and coastal zone management identified as an adaptation measure with mitigation co-benefits.** "Togo's needs in terms of adaptation, with co-benefits on mitigation: . . . protecting the coastal zone." "Planning Process: . . . adaptation and mitigation measures . . . Sustainable management of the coastal zone." "Several Programmes Demonstrating Togo's Commitment: . . . to implement operational projects whose goal is to decrease the vulnerability of the concerned territories and their inhabitants . . . Fighting coastal erosion from PK 11 to PK 45; strengthening infrastructure resistance to climate change in coastal zones; erosion and adaptation in the coastal zones of West Africa; strengthening community resilience to climate change in the coastal zone."
United Arab Emirates* ∓	General Mitigation			**Wetlands, coastal and marine environments role in mitigation recognised and explicitly referenced as blue carbon. Minimising impacts on coastal carbon systems identified as a mitigation measure.** "Wetlands, Coastal and Marine Environment Conservation (Blue Carbon): . . . The UAE has developed and implemented a number of strategies and plans, which aim to improve understanding of wetlands, including coastal carbon systems, and will also assist in minimizing anthropogenic impacts. The UAE is also undergoing significant restoration and plantation efforts of both mangroves and sea-grass, supporting ecosystem-based adaptation as well. In 2013, the UAE initiated the Blue Carbon Demonstration Project, which provided decision-makers with a stronger understanding of the carbon sequestration potential in the Emirate of Abu Dhabi. In 2014, the project's scope was expanded to cover the entire country, and is known as the UAE's National Blue Carbon Project."
United States of America*	LULUCF and Forestry			**Wetlands role in mitigation recognised through inclusion of IPCC Guidelines on emissions by sources and removals by sinks.** "Quantifiable information on the reference point, time frames, assumptions and methodological approaches including those for estimating and accounting for anthropogenic greenhouse gas emissions and removals: . . . The United States intends to include all categories of emissions by sources and removals by sinks, and all pools and gases (which would include wetlands, as well as from soil), as reported in the Inventory of United States Greenhouse Gas Emissions and Sinks; to account for the land sector using a net-net approach; and to use a "production approach" to account for harvested wood products consistent with IPCC guidance."
Uruguay*		Conservation, protection and restoration efforts		**Coastal ecosystems role in adaptation recognised with restoration and maintenance of coastal ecosystems identified as adaptation measures.** "Restoration and maintenance of coastal ecosystems services that provide protection against extreme events and of ecosystems services that protect drinking water sources."

Country	*Mitigation*	*Adaptation*	*Year*	*NDC Actions*
Vanuatu*		Coastal zone management for climate adaptation		**Coastal zone management identified as an adaptation measure.** "National Adaptation Programme of Action - Priorities: . . . Integrated coastal zone management."
Venezuela		Conservation, protection and restoration efforts		**Coastal protection identified as an adaptation measure.** "Our Constitution . . . enshrines Environmental Rights . . . The State will protect the environment . . . ecological processes . . . other areas of particular ecological importance . . . It is an obligation, with the active participation of society, to ensure that the population develops in a pollution free environment where . . . coasts . . . are specially protected under law."
Vietnam*		Conservation, protection and restoration efforts	2030	**Mangroves role in adaptation recognised with specific targets on mangrove protection and restoration identified as adaptation measures.** "Climate change adaptation in the period 2021 – 2030: . . . Protect, restore, plant and improve the quality of coastal forests, including mangroves, especially in coastal estuaries and the Mekong and Red River deltas . . . Forest coverage increases to 45%; the area of protection forest in coastal areas is increased to 380,000 hectares, including 20,000 to 50,000ha of additional mangrove planting."

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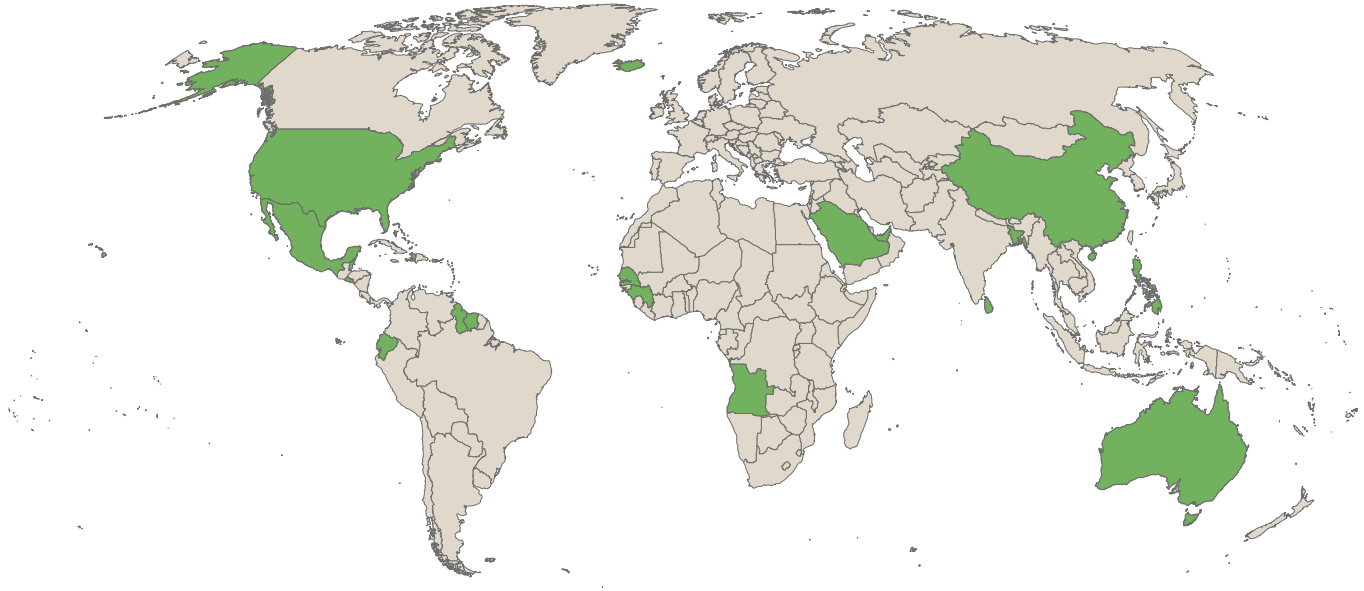
MITIGATION



Angola **Antigua and Barbuda** Australia **Bahamas** Bahrain **Bangladesh** Belize **Brunei** China **Comoros** Cook Islands **Ecuador** El Salvador **Guinea** Guyana **Haiti** Iceland **Kiribati** Marshall Islands **Mexico** Philippines **Saudi Arabia** Senegal **Seychelles** Sri Lanka **Suriname** **United Arab Emirates** United States of America

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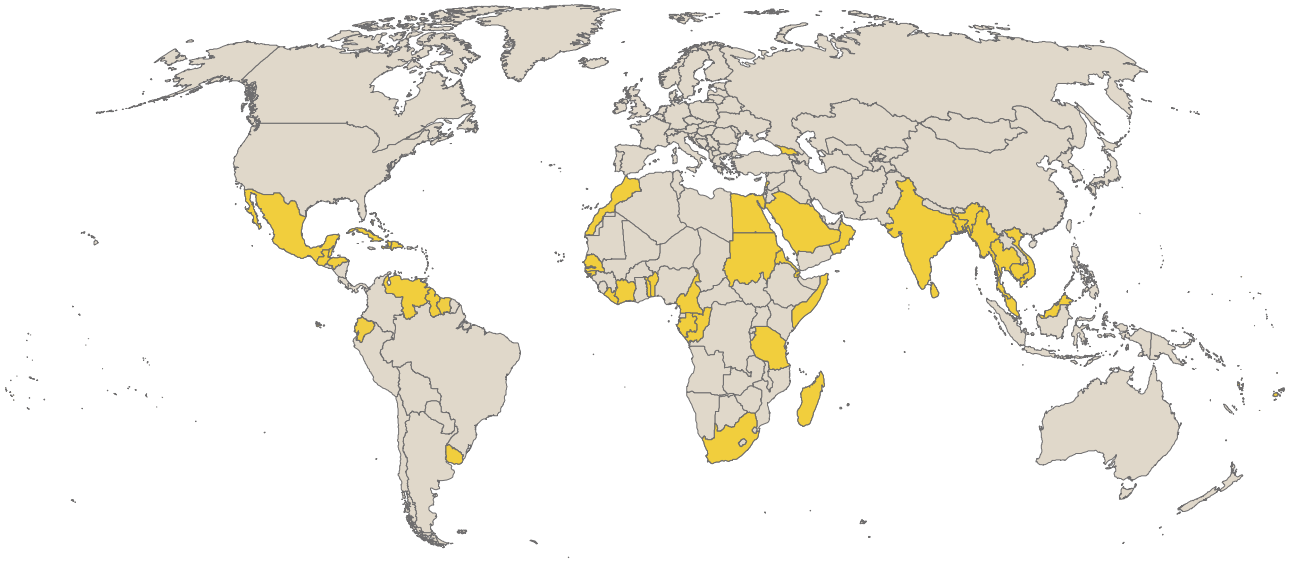
Map of 28 countries that include a reference to coastal wetlands in terms of mitigation in their NDCs

ADAPTATION



Bahamas Bahrain **Bangladesh** Belize **Benin** Cambodia **Cameroon** Cape Verde **Cook Islands** Côte d'Ivore **Cuba** Djibouti **Dominican Republic** Ecuador **Egypt** Eritrea **Fiji** Gabon **Gambia** Georgia Grenada **Guatemala** Guinea-Bissau **Guyana** Haiti **Honduras** India **Lebanon** Liberia **Madagascar** Malaysia **Marshall Islands** Mauritius **Mexico** Morocco **Myanmar** Nauru **Niue** Oman Republic of Congo **Saint Lucia** Saint Vincent and the Grenadines **Saudi Arabia** Senegal **Seychelles** **Singapore** Somalia **South Africa** Sri Lanka **Sudan** Suriname **Tanzania** Thailand **Togo** Uruguay **Vanuatu** Venezuela **Vietnam**

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Map of 59 countries that include coastal ecosystems and the coastal zone in adaptation strategies in their NDCs

Blue Forests Project
Arendal, Norway
www.gefblueforests.org

Blue Climate Solutions,
a project of The Ocean Foundation
Washington, DC, USA
www.bluecsolutions.org

The Nature Conservancy
Washington, DC, USA
www.nature.org

Conservation International
Arlington, Virginia, USA
www.conservation.org

IUCN
Gland, Switzerland
www.iucn.org

World Wildlife Fund
Washington, DC, USA
www.worldwildlife.org

GRID-Arendal
Arendal, Norway
www.grida.no