

Template Language for Including Mangroves in Nationally Determined Contributions (NDCs)



Oyster Farmer, Dionewar Island, Senegal ©FAO/Sylvian Cherkaoui

Policy Guidance

As governments are required to submit new Nationally Determined Contributions (NDCs) by the end of 2025, they have the opportunity to **enhance their national commitments** while recognizing the potential of mangrove ecosystems for climate action, including mitigation and adaptation. This document provides **mangrove-positive NDC template language for the conservation, restoration, and sustainable management of mangrove ecosystems** that countries can choose from and adapt based on their national circumstances and priorities as they revise their NDCs.

Recognizing the benefits of mangroves in NDCs

As coastal wetlands, **mangroves provide countless benefits to society and nature** by enhancing coastal resilience in the face of flooding and storms, and acting as natural buffers against storm surges, sea level rise, and coastal erosion. They also sequester and store more “blue” carbon than any other ecosystem (per unit area), and they provide critical habitat for biodiversity, including economically important fisheries species.

As such, the **benefits of mangrove ecosystems for climate, people, and nature can be recognized in the adaptation and/or mitigation sections of an NDC**, based on the countries' priorities and data availability.

Defining a mangrove-positive NDC

Mangrove-positive NDC targets are ambitious, science-based, and developed through inclusive and participatory decision-making processes.

Targets reflect both the blue carbon mitigation benefits as well as the adaptation, coastal resilience, and other ecosystem services of mangroves.

Signatories to the Mangrove Breakthrough with mangrove extent should include **measurable, time-bound, and area-based** commitments to protect, restore, finance, and/or improve the management of mangrove ecosystems in their 2025 NDCs to the Paris Agreement.

Targets have clear actions for effective implementation and are linked to and aligned with other national policies and priorities, including but not limited to National Biodiversity Strategies and Action Plans (NBSAPs), Sustainable Development Goals (SDGs), commitments to the Ramsar Convention, and other national blue carbon and mangrove strategies and action plans. When possible, NDC targets are costed and outline financing needs and opportunities.

When appropriate, targets may seek to build a country's baseline understanding of their mangrove ecosystems by, for example, committing to map and field verify the extent of their mangrove ecosystems and/or conduct in-situ mangrove carbon stock assessments. Such targets related to collecting and compiling baseline data can enable improved management of mangrove ecosystems while providing accurate data, allowing for a stepwise approach that is tailored to country needs and provides opportunities for enhanced ambition in future NDCs, as mandated by the Paris Agreement.

Countries may include mangrove targets within either, or both, the adaptation and mitigation sections of their NDC.

Within the **adaptation** section of an NDC, targets may include actions that recognize mangrove benefits including resilience, biodiversity, economic, fisheries, people/communities, and other relevant ecosystem services, which may be measured qualitatively and/or quantitatively. Targets within the adaptation section of an NDC may also include quantitative calculations of likely mitigation co-benefits based on site-specific or IPCC default values.

Within the **mitigation** section of an NDC, targets that are expressed as quantitative emissions reduction metrics should include assessments of the necessary area-based conservation and/or restoration goals to meet the emissions target and follow the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands.

In 2025, there is a timely **opportunity to recognize the many benefits that mangroves ecosystems provide** through their inclusion in NDCs. This guidance provides a suite of NDC headline targets and associated actions that could be considered for inclusion in a country's NDC. The template language can be chosen and adapted based on countries' national circumstances and priorities.

The significance of mangroves, offering food, protection against extreme weather events, livelihoods, homes for critical species, coastal resilience, and acting as substantial carbon sinks, underscores their role as a critical asset in the fight against climate change and the biodiversity crisis. Integrating the protection, conservation and restoration of mangrove ecosystems within a country's revised NDC is critical to meeting the goals of the Paris Agreement.

Template Target Language for Integrating Mangroves into NDCs

Governments are encouraged to develop data-based headline targets that outline a country's intent to enhance the capacity of their blue carbon ecosystems to serve as a carbon sink with a specific GHG emissions reduction value (for mitigation targets) and/or improve adaptation and resilience (adaptation targets). These headline targets should not only be based in data but also should be achievable within the timeframe of the NDC.

Template Headline NDC Targets for Mangroves

Mitigation	Template Headline Mitigation Target	To protect and further enhance the capacity of [COUNTRY]'s mangrove ecosystems to act as a carbon sink by 20XX, through increased protection, restoration, and sustainable management of (% of the countries' mangroves, preserving an existing carbon sink of XXX KtCO ₂ and further removing a cumulative total of XXX KtCO ₂ e between 20XX and 20XX.
	Template Headline No Net Loss Target	Reduce anthropogenic degradation and deforestation of XX hectares of mangroves by 20XX, and ensure no net loss by 20XX.
	Template Headline Restoration Target	To protect and further enhance the capacity of [COUNTRY]'s mangrove ecosystems to serve as a carbon sink, XX hectares of degraded mangrove area will be under effective restoration by 20XX.
Adaptation	Template Headline Adaptation Target	Enhance the capacity of mangrove ecosystems to help [COUNTRY] adapt to climate change by 20XX.
	Template Headline Resilience Target	Increase the climate resilience of X% of coastline/X% of population through mangrove conservation by 20XX.

Considerations for Restoration Targets and Actions

As countries revise their NDCs, they are encouraged to link those targets to frameworks provided by other international environmental commitments. For example, when countries develop restoration targets for their NDC, they may refer to [guidance by the Convention on Biological Diversity secretariat for the Global Biodiversity Framework's Target 2](#):

- **The target 'area under effective restoration'** does not require areas to be restored, given that restoration is a long-term process, but that effective restoration activities have been initiated.
- **Restoration** refers to the process of **actively managing the recovery of an ecosystem that has been degraded, damaged, or destroyed**. Restoration activities can be undertaken for a variety of reasons and across a continuum of actions. For example, **ecological restoration** includes efforts to increase the area of a natural ecosystem and its integrity through **recovering an ecosystem that has been degraded or destroyed**.
- **Ecosystem rehabilitation** includes efforts to **increase ecosystem functions and services of transformed ecosystems**. Given the long-term nature of restoration activities, target and activity language should be specific and identify the type of restoration being undertaken, the overall objectives, and the type of area or ecosystem being restored.
- For restoration activities to be effective, they need to be appropriately resourced and monitored over time. Further, **the potential for restoration should not be regarded as a justification for the further degradation of ecosystems**.
- **Restoration is more effective when ecological connectivity and integrity are considered**. An area with high ecological integrity is one which has a composition, structure, function and ecological process close to that of a natural ecosystem. Connectivity ensures the maintenance of natural species habitats. Taking into account both objectives is an important consideration in the design of restoration activities.

Template Action Language to Achieve Headline Targets

Governments are encouraged to develop clear actions to effectively implement their ambitious headline targets for the conservation, restoration, and sustainable management of mangroves. The following template actions highlight the numerous benefits of mangrove ecosystems, including climate resilience, biodiversity, economic value, fisheries, community well-being, and other relevant ecosystem services, which can be measured both qualitatively and quantitatively in a country's NDC. Governments may choose from and adapt actions from the list below based on their national circumstances and priorities.

Template Actions to Achieve Headline Targets		Link to Mangrove Breakthrough goals
Restoration	Effectively restore X hectares of mangrove ecosystems as a natural defense against coastal erosion, storm surges, and sea-level rise.	 Restore half
	Integrate targets, principles and guidelines that incentivize best practice mangrove conservation and restoration, into all relevant and existing laws, policies, programmes and activities, within all relevant sectors and facilitate knowledge sharing and capacity building on these best practice approaches.	 Restore half
	Develop a map of restorable mangrove areas and identify priority restoration areas.	 Restore half
Policies and Plans	Develop/formalize a no-net-loss policy for mangroves.	 Halt loss
	Develop a national blue carbon strategy to coordinate protection and management of coastal ecosystems including mangroves.	 Double protection
	Promote the conservation and sustainable use of mangroves and coastal forests by updating management plans.	 Double protection
	Designate a specific governance body to oversee mangrove management.	 Double protection
	Update the relevant national mangrove policy to include the most recent data on mangrove habitat extent and to incorporate climate change impacts and current threats to mangrove ecosystems.	 Double protection  Halt loss

Mangrove Breakthrough Goals













Halt Loss *Reduce net mangrove losses driven by direct human actions to zero:* Between 2010-2020, over 60,000 ha were lost, and we can estimate that 37,300 ha of this was due to direct human impacts. To bring such losses to zero by 2030 we need to start to reduce loss rates today. Assuming a linear rate of reduction in human-driven losses this would save approximately 16,800 ha by the end of 2030 compared to business as usual.

Double Protection *Ensure long-term protection is increased from 40% to 80% of remaining mangroves:* With 41% of the world's mangroves currently in protected areas, mangroves are already well covered compared to many other ecosystems. However, fundamental to lasting reduction of loss and restoration efforts is ensuring that those efforts are not reversed, through the incorporation of mangroves into permanent forms of protection.








Restore Half *Restore mangroves to cover at least half of all recent loss:* Over 1,100,000 ha of mangroves have been lost since 1996, the year that sets the baseline for our definition of "recent" loss; however, not all of these are restorable due to erosion or urbanization. It is estimated that 818,300 ha of mangroves are considered "restorable", and the goal is to restore half of this area by 2030.

Sustainable Financing *Ensure sustainable finance to existing mangrove extent:* Ensure sustainable finance for the existing mangrove extent, maintaining and sustaining the existing coverage of 14.7 million hectares.

Template Action Language to Achieve Headline Targets

Template Actions to Achieve Headline Targets		Link to Mangrove Breakthrough goals
Sustainable aquaculture	Integrate mangrove restoration with aquaculture, while avoiding further conversion of mangroves for aquaculture.	 Restore half  Halt loss
	Promote integration of sustainable aquaculture with mangrove restoration to offer opportunities to convert some abandoned aquaculture areas (such as salt pans, fish ponds, and shrimp farms) into productive aquaculture areas while implementing ecological mangrove restoration in adjacent abandoned aquaculture areas.	 Restore half  Halt loss
Addressing drivers of mangrove loss	Assess drivers of forest loss and degradation on a national scale	 Halt loss
	Identify areas where mangrove loss is occurring most rapidly and develop a monitoring and management plan to determine and address drivers of loss.	 Halt loss
	Analyze national budgets and sectoral plans to identify policies, subsidies, and other incentives that are contributing to mangrove loss. Based on this analysis, develop a roadmap to halt mangrove loss.	 Halt loss  Sustainable, long-term financing
Finance	Enhance community-based adaptation programs by supporting sustainable mangrove-based livelihoods such as ecotourism, fisheries, and agroforestry.	 Sustainable, long-term financing
	Develop a roadmap to implement innovative financing solutions, such as carbon markets and/or coastal resilience and insurance mechanisms, to finance the conservation and restoration of mangroves.	 Sustainable, long-term financing
	Conduct trainings for local communities to build their capacity to pursue ecologically sustainable livelihoods such as mangrove eco-tourism (as guides and naturalists), mangrove bee/honey businesses, and other locally-relevant livelihoods.	 Sustainable, long-term financing
	Develop a finance roadmap to support the durable conservation of mangrove ecosystems.	 Sustainable, long-term financing  Double protection

Template Action Language to Achieve Headline Targets

Template Actions to Achieve Headline Targets		Link to Mangrove Breakthrough goals
Conservation	Protect X hectares of mangrove ecosystems as a natural defense against coastal erosion, storm surges, and sea-level rise.	 Double protection
	Develop and implement integrated coastal zone management (ICZM) plans and marine spatial planning (MSP) that incorporate mangrove conservation and climate resilience strategies.	 Double protection
	Incorporate protected area designations and existing policies into climate mitigation and adaptation actions.	 Double protection
	Building on the (X) hectares of mangroves currently under protection, protect at least a further (X) hectares of mangroves.	 Double protection
Capacity Building	Strengthen the resilience of (XXX) local coastal communities through (XXX) capacity building sessions on the importance of mangrove ecosystems.	 Halt loss
	Facilitate exchange learning and build technical capacity on the principles of community-based ecological mangrove restoration (CBEMR) to support identification of priorities for mangrove restoration and successful interventions to achieve targets and commitments, including on the ecological characteristics of mangrove species, hydrological patterns, disturbance factors that prevent natural regeneration and design of recovery programmes.	 Restore half  Halt loss















Fisherman catching a blue crab in the mangroves,
Eloy Alfaro, Ecuador
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Oyster farmers, Dionewar Island, Senegal
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Template Action Language to Achieve Headline Targets

Template Actions to Achieve Headline Targets		Link to Mangrove Breakthrough goals	
Baseline Data	Develop a national mangrove database to enhance and streamline mangrove conservation, restoration, and management efforts.		Restore half
			Double protection
	Establish a national mangrove/wetlands committee with the mandate to improve data sharing and data management across relevant agencies to enhance mangrove conservation, restoration, and management efforts.		Restore half
			Double protection
	Update COUNTRY's National Wetlands Inventory to include the most recent data on mangrove habitat extent.		Halt loss
	Work to include mangroves' soil and biomass carbon in the country's National Greenhouse Gas Inventory, REDD+ Forest Reference Level, and other relevant reports.		Sustainable, long-term financing
	Develop or update the national mangrove habitat extent map.		Double protection
			Halt loss
	Conduct a land tenure analysis of the country's mangroves to inform future conservation and restoration decisions.		Double protection
			Restore half
			Halt loss
	Conduct a mangrove carbon stock assessment using IPCC guidance.		Sustainable, long-term financing

Annex: Additional Resources & Information on the Mangrove Breakthrough NDC Task Force

Policy Guidance Documents	Objective
<u>The Case for Mangrove-Related Indicators under the Global Goal on Adaptation</u>	This guidance document is intended to contribute to the refinement of indicators for measuring progress towards the Global Goal on Adaptation (GGA), specifically focused on target 9d, under the UAE-Belém Work Programme on the UAE Framework for Global Climate Resilience (UAE FGCR).
<u>Examples of Mangrove Nationally Determined Contributions (NDCs)</u>	This policy brief provides examples of mangrove NDC targets that countries have submitted to the UNFCCC as their revised NDC 3.0 . These examples can serve as a resource for governments who seek to recognize mangroves in their NDC 3.0s.
<u>Reasons for Governments to Include Mangroves in Nationally Determined Contributions (NDCs)</u>	Guidance intended to share brief statistics about the benefits of including mangroves in NDCs under the following 4 themes: 1) adaptation, 2) mitigation, 3) Loss and damage, and 4) finance.
<u>Defining a Mangrove-Positive NDC</u>	2024 guidance developed by the NDC Task Force to recommend signatories to the Mangrove Breakthrough with mangrove extent should include ambitious commitments to protect, restore, and/or improve the management of mangrove ecosystems in their 2025 NDCs to the Paris Agreement.
<u>Integrating Mangrove Ecosystems into NDCs through the Global Mangrove Watch</u>	The Global Mangrove Watch represents a critical tool, based on the most accurate science, to support countries in the process of implementing, updating or revising their NDCs, and ratcheting up national and collective ambition on the potential of mangrove ecosystems for climate action.
<u>The High-Quality Blue Carbon Practitioner's Guide</u>	The High-Quality Blue Carbon Practitioner's Guide provides a framework for measuring project planning and performance against the Mangrove Breakthrough Guiding Principles and includes links to more than 70 best practice resources for project development. The Progress Wheel tool can be incorporated into funding RfP's and project reporting.

The Mangrove Breakthrough NDC Task Force

The Mangrove Breakthrough, a science-based global call to action, and its partners are enabling the mobilization of USD 4 billion by 2030, boosting actions to restore and protect 15 millions of hectares — along with the communities and biodiversity that rely on them. We empower cross-sector collaborations by reinforcing national policies, structuring a global pipeline and driving transformative approaches. The goals of the Mangrove Breakthrough, are as follows:

1. Reduce net mangrove losses driven by humans to zero
2. Ensure long-term protection is doubled from 40% to 80% of remaining mangrove extent
3. Restore mangroves to cover at least half of all recent loss
4. Drive sustainable finance to existing mangrove extent

Building upon the success of the Mangrove Breakthrough to receive the endorsement of 37 national and subnational governments to date, the Mangrove Breakthrough NDC Task Force –co-led by The Pew Charitable Trusts, High Level Climate Champions and other member organizations of the Global Mangrove Alliance– aims to transform those endorsements into mangrove-positive NDC commitments in the lead up to the UNFCCC Paris Agreement's 2025 NDC cycle.

The NDC Task Force brings together policy and mangrove experts from international and local environmental organizations to provide technical policy guidance, coordinate knowledge sharing and access to mangrove data, and facilitate institutional and stakeholder coordination for Mangrove Breakthrough countries as they prepare their 2025 NDCs to the Paris Agreement.

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