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## INTRODUCTION: COSTAL BLUE CARBON ECOSYSTEMS IN INTERNATIONAL FRAMEWORKS AND **CONVENTIONS**

Multiple international and national frameworks (conventions, programs, agreements, protocols, and more) exist that guide or commit parties to manage, protect, and conserve coastal blue carbon ecosystems.

In addition to these, many policies, strategies, and management approaches have been developed that address coastal and marine ecosystems, forests, or vegetation communities, which also contribute to protecting coastal blue carbon ecosystems.

This document provides an overview of the main international frameworks and conventions that address the conservation, restoration, and sustainable use of coastal blue carbon ecosystems. Some of these frameworks and conventions specifically include coastal blue carbon ecosystems as part of their Parties' commitments, while others guide action towards other objectives that are strictly interconnected with coastal blue carbon ecosystems, such as the conservation of critical habitats and specific ecosystem types.

This analysis also intends to highlight the reporting requirements for Parties to each of these frameworks – to facilitate the identification of similarities and mainstream each Country's action towards a multitude of international obligations. However, given the diversity of blue carbon ecosystems and ongoing developments to mainstream blue carbon conservation, restoration, and sustainable use of coastal blue carbon ecosystems, this assessment can only be a snapshot and future iterations will be required to further improve and complete the evaluation.

Most of the frameworks considered address all types of coastal blue carbon ecosystems mangroves, tidal marshes, and seagrasses - with the exception of the Warsaw Framework for REDD+, which can only apply to mangrove forests.

List of relevant international frameworks addressed in this document:

- 1. The Ramsar Convention on Wetlands
- 2. The United Nations Framework Convention on Climate Change
  - 1) The Paris Agreement
  - 2) The Warsaw Framework for REDD+
- 3. The Convention on Biological Diversity
- 4. The World Heritage Convention
- 5. The Sendai Framework for Disaster Risk Reduction 2015-2030
- 6. The 2030 Agenda for Sustainable Development
- 7. The United Nations Decade on Ecosystem Restoration
- 8. The United Nations Decade of Ocean Science for Sustainable Development (2021-2030)

## 1. THE RAMSAR CONVENTION ON WETLANDS

#### **ABOUT**

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, Iran, 1971), commonly known as the Ramsar Convention or the Convention on Wetlands, is an intergovernmental treaty whose goal is the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world.

As of October 2021, 172 nations have joined the convention as Contracting Parties, and more than 2,431 wetlands around the world, covering over 254 million hectares, have been designated for inclusion in the Ramsar List of Wetlands of International Importance (of which 995 are marine or coastal wetlands).

The Conference of the Contracting Parties (COP) meets every three years to agree on a work programme and budgetary arrangements for the next triennium and consider guidance on ongoing and emerging environmental issues. Day-to-day coordination of activities has been entrusted to a Secretariat under the authority of a Standing Committee elected by the COP. The Secretariat is based at the headquarters of the International Union for Conservation of Nature (IUCN) in Gland, Switzerland, which provides administrative services to the Secretariat.

#### REFERENCE TO COASTAL BLUE CARBON ECOSYSTEMS

Article 1 of the Convention on Wetlands defines wetlands as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". Hence, wetlands include a wide variety of inland habitats, but also coastal areas such as saltmarshes, mangroves, intertidal mudflats and seagrass beds, as well as human-made wetlands such as dams, reservoirs, rice paddies and wastewater treatment ponds and lagoons.

The boundaries of each wetland shall be precisely described and also delimited on a map and they may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands, especially where these have importance as waterfowl habitat (Article 2.1).

Coastal blue carbon ecosystems are included in two of the five major wetland types that are generally recognized by the Convention on Wetlands:

- Marine (coastal wetlands including coastal lagoons, rocky shores, seagrass beds and coral reefs):
- Estuarine (including deltas, tidal marshes and mudflats, and mangrove swamps).

Several resolutions adopted by the the Conference of the Parties recognize the important role of wetlands in climate change mitigation and adaptation.

Designation and management of Wetlands of International Importance (Ramsar Sites) can protect carbon stock, sequestration capacity and other ecosystem services. The Convention's Strategic Plan 2016-2024 encompasses a target on significantly increasing area of underrepresented types of wetlands such as peatland and blue carbon ecosystems in the Ramsar

Site network (Target 6). The Strategic Plan 2016-2024 also includes a target on restoration of degraded wetlands with priority to wetlands that are relevant for biodiversity conservation, disaster risk reduction, livelihoods and/or climate change mitigation and adaptation (Target 12).

Resolution XIII.14 Promoting conservation, restoration and sustainable management of coastal blue-carbon ecosystems encourages parties to, inter alia, estimate carbon storage and fluxes in coastal wetlands and update national greenhouse gas inventories to better reflect data for wetlands using the Intergovernmental Panel on Climate Change (IPCC) 2013 Wetlands Supplement (see Chapter 2 for more information on the IPCC).

Resolution XIII.20 Promoting the conservation and wise use of intertidal wetlands and ecologically-associated habitats encourages Parties to, inter alia, include coastal ecosystems, including relevant Ramsar Sites, in national policies and strategies for climate-change mitigation (see Chapter 2 for more information on Nationally Determined Contributions (NDCs)) as well as adaptation, and to promote the role of coastal ecosystems in ecosystem-based adaptation; and encourages Parties to urgently designate intertidal wetlands and ecologically associated habitats of international importance.

#### COMMITMENTS AND REPORTING MECHANISMS

The first obligation under the Convention on Wetlands is for a Party to designate at least one wetland at the time of accession for inclusion in the List of Wetlands of International Importance (the "Ramsar List") (Article 2.4) and to promote its conservation, and in addition to continue to designate suitable wetlands within its territory for the List (Article 2.1).

Under the Convention there is a general obligation for the Contracting Parties to promote 'wise use' of wetlands in their territory (Article 3.1).

Contracting Parties have also undertaken to establish nature reserves in wetlands, whether or not they are considered to be internationally important and included in the Ramsar List, and they also endeavour to promote training in the fields of wetland research and wetland management.

Contracting Parties have agreed to consult with other Contracting Parties about the implementation of the Convention, especially in respect to transboundary wetlands, shared water systems, and shared species.

Six-year Strategic Plans adopted by the Conference of the Parties guide the implementation of the Convention.

Contracting Parties report on their progress in meeting their commitments under the Convention and implementation of the Strategic Plan by submitting triennial National Reports to the Conference of the Contracting Parties.

National Wetland Inventories prepared by Contracting Parties to the Convention inform national policies and other measures to achieve the conservation and wise use of wetlands. This is also the basis for reporting on change in the extent of water-related ecosystems over time, as required by indicator 6.6.1 of the Sustainable Development Goals, of which the Convention on Wetlands is co-custodian (see Chapter 6 for more information on the 2030 Agenda and the Sustainable Development Goals).

Implementation of the Convention is supported by International Organization Partners, a status currently conferred to six organizations in line with Resolution VII.3 Partnerships with International Organizations: BirdLife International; International Union for Conservation of Nature (IUCN); International Water Management Institute (IWMI); Wetlands International (WI); Wildfowl & Wetlands Trust (WWT); and World Wide Fund for Nature (WWF).

#### **RESOURCES**

Website

**Handbooks** 

Ramsar Sites Management Toolkit

**Toolkit for National Wetland Inventories** 

Briefing Note 10: Wetland restoration for climate change resilience

Briefing Note 12: The contribution of blue carbon ecosystems to climate change mitigation

Global Wetland Outlook 2018

## 2. THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

#### **ABOUT**

The United Nations Framework Convention on Climate Change (UNFCCC) is a "Rio Convention", one of the two opened for signature at the Earth Summit in Rio de Janeiro, Brazil, in 1992. Its sister Rio Conventions are the *United Nations Convention on Biological Diversity* (CBD) and the United Nations Convention to Combat Desertification (UNCCD). The ultimate objective of the UNFCCC is to stabilize greenhouse gas (GHG) concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system, in a time frame which allows ecosystems to adapt naturally and enables sustainable development. It has near universal membership (197 Parties).

The Conference of the Parties (COP) is the supreme decision-making body of the UNFCCC, serving also as the meeting of the Parties to the Paris Agreement. The COP meets annually to review the implementation of the UNFCCC and any other legal instruments that the COP adopts and takes decisions necessary to promote the effective implementation of the convention.

The UNFCCC secretariat (UN Climate Change) was established in 1992 and was initially located in Geneva, Switzerland. Since 1995, the secretariat has been located in Bonn, Germany.

#### REFERENCE TO COASTAL BLUE CARBON ECOSYSTEMS IN THE UNFCCC

Reference to the importance of coastal ecosystems for climate change mitigation and adaptation can be tracked across the entire text of the UNFCCC, and in particular:

• In the Preamble: "... Aware [the Parties] of the role and importance in terrestrial and marine ecosystems of sinks and reservoirs of greenhouse gases..."

And among the Commitments of the Contracting Parties (Article 4):

• [All Parties... shall] (d) Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems.

The recent Ocean and Climate Change Dialogue to consider how to strengthen adaptation and mitigation action (2-3 December 2021) recognized that critical gaps remain in scientific observation and research on blue carbon. It also noted that these gaps and opportunities on adaptation and mitigation could be identified under the UNFCCC process and could help drive the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). The dialogue was convened by the Subsidiary Body for Scientific and Technological Advice (SBSTA) of the UNFCCC, as mandated by the Conference of the Parties at its 25th session (COP25, Madrid, Spain, 2019).

## REFERENCE TO COASTAL BLUE CARBON ECOSYSTEMS IN THE PARIS **AGREEMENT**

The UNFCCC is the parent treaty of the 2015 Paris Agreement, which aims at keeping the global average temperature rise this century as close as possible to 1.5 degrees Celsius above pre-industrial levels.

The Paris Agreement reaffirms "the importance of the conservation and enhancement, as appropriate, of sinks and reservoirs of the greenhouse gases referred to in the Convention" (Preamble) and in Article 5 1 states that "Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests" (see above).

Article 13, paragraph 7 (a) of the Paris Agreement is also of relevance, as it provides the reporting requirements for contracting parties, including "a national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties".

The national inventory report of greenhouse gas emissions constitutes one of the main reporting requirements for Parties. Methodologies for national greenhouse gas inventories need to be accepted by the Intergovernmental Panel on Climate Change (IPCC). A compilation of these methodologies is available through the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

In December 2010, the SBSTA invited the IPCC to undertake further methodological work on wetlands, with the objective of filling in the gaps in the 2006 IPCC Guidelines in these areas. The 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands covers all three coastal blue carbon ecosystems – mangrove forests, tidal marshes and seagrass meadows.

### REFERENCE TO MANGROVE FORESTS IN THE WARSAW FRAMEWORK FOR **REDD-PLUS**

The Warsaw Framework for reducing emissions from deforestation and forest degradation in developing countries (often referred to by the acronym REDD+) is a framework negotiated under the UNFCCC to facilitate intergovernmental cooperation on forests and climate change. At its 19th session (Warsaw, Poland, 2013), the COP encouraged all Parties, relevant organizations and stakeholders to share information on REDD+ implementation. It requested the secretariat to develop a REDD+ Web Platform where such information will be made available. Parties further decided that the REDD+ Web Platform will contain an interactive REDD+ discussion forum to enhance sharing of information, experiences and lessons learned on the use of the IPCC guidance and guidelines. The REDD+ Web Platform also contains submissions of forest reference emission levels and/or forest reference levels by developing country Parties and the Lima Information Hub for REDD+.

Parties agreed that REDD+ should be implemented in phases, which can overlap:

1. The development of national strategies or action plans, policies and measures, and capacity-building (also known as the readiness phase);

- 2. The implementation of national policies and measures and national strategies or action plans that could involve further capacity-building, technology development and transfer and results-based demonstration activities:
- 3. Results-based actions that should be fully measured, reported and verified, allowing countries to seek and obtain results-based payments.

Mangroves are included in some countries' definitions of forests and can therefore be accounted for under their REDD+ frameworks.

#### REPORTING MECHANISMS

#### UNFCCC

The reporting requirements and the timetable for the submission of national reports are different for Annex I Parties and Parties not included in Annex I to the UNFCCC (non-Annex I Parties), in accordance with the principle of common but differentiated responsibilities and respective capabilities.

Reporting for developed countries (Annex I Parties) includes:

- Annual GHG inventory
- National communication every four years
- Biennial report.

Reporting for developing countries (Non-Annex I Parties) include:

- National communication (the first within three years of entering the Convention, and every four years thereafter)
- Biennial update report
- GHG inventory as part of the national communication and biennial update report.

### **Paris Agreement**

The Paris Agreement requires each Party to prepare, communicate and maintain successive Nationally Determined Contributions (NDCs) that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions. NDCs are submitted every five years to the UNFCCC secretariat. In order to enhance the ambition over time, the Paris Agreement provide that successive NDCs will represent a progression compared to the previous NDC and reflect its highest possible ambition.

Parties submitted their initial NDCs (INDCs) in 2015, prior and during UNFCCC COP21 (Paris, France). The first revision cycle was expected in 2020, however, due to the COVID-19 pandemic, Parties were given additional flexibility to submit their new or updated NDCs ahead of COP26 (1-12 November 2021, Glasgow, United Kingdom). A provisional analysis of the new or updated NDCs found out that 25 countries included the conservation and restoration of coastal blue carbon ecosystems as mitigation components, out of 63 NDCs submitted by 8 June 2021. A final analysis will be available ahead of COP26.

#### REDD+

The elements that are being developed during the early phases of REDD+ should be in place when developing countries seek to obtain and receive results-based finance for results-based actions that are fully measured, reported and verified. Information that needs to be reported to be eligible for results-based finance includes:

- The assessed results (tonnes CO<sub>2</sub> per year) for each relevant period
- The assessed forest reference level (tonnes CO<sub>2</sub> per year)
- The summary of information on how all the REDD+ safeguards are being addressed and respected
- A link to the REDD+ national strategy or action plan
- Information on the national forest monitoring system.

Once reported, all the information above is available on the central Lima Information Hub for REDD+.

#### RESOURCES

**UN Climate Change website** 

United Nations Framework Convention on Climate Change

Paris Agreement

2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands

**REDD+ Web Platform** 

An analysis of coastal and marine Nature-based Solutions (NbS) in new or updated NDCs

Ocean and climate change dialogue to consider how to strengthen adaptation and mitigation action - Informal summary report by the SBSTA Chair

## 3. THE CONVENTION ON BIOLOGICAL DIVERSITY

#### **ABOUT**

The Convention on Biological Diversity (CBD) was signed at the Earth Summit in Rio de Janeiro, Brazil, in 1992 by 150 Contracting Parties. The objectives of the CBD are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

The CBD Secretariat is based in Montreal, Quebec, Canada and operates under the United Nations Environment Programme (UNEP).

#### REFERENCE TO COASTAL BLUE CARBON ECOSYSTEMS IN THE CBD

Particularly relevant to the conservation, restoration and sustainable use of coastal blue carbon ecosystems are the provisions of Article 8 of the Convention ("in-situ conservation"):

"[Each Contracting Party shall] (d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;

(f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies..."

The sustainable management of ecosystems is referred to in Article 10 ("sustainable use of components of biological diversity"):

- "[Each Contracting Party shall] (a) Integrate consideration of the conservation and sustainable use of biological resources into national decision-making;
- (b) Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity;
- (c) Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements;
- (d) Support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced; and
- (e) Encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources."

### Post-2020 Global Biodiversity Framework

During the second part of the 15<sup>th</sup> Meeting of the Conference of the Parties to the CBD (COP15, Kunming, China, 25 April – 8 May 2022), a Post-2020 Global Biodiversity Framework will be adopted. The framework has four long-term goals for 2050 related to the 2050 Vision for

Biodiversity. The following Goals are of relevance for the conservation, restoration and sustainable use of coastal blue carbon ecosystems:

- Goal A: The integrity of all ecosystems is enhanced, with an increase of at least 15 per cent in the area, connectivity and integrity of natural ecosystems, supporting healthy and resilient populations of all species, the rate of extinctions has been reduced at least tenfold, and the risk of species extinctions across all taxonomic and functional groups, is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90 per cent of genetic diversity within all species maintained.
- Goal B: Nature's contributions to people are valued, maintained or enhanced through conservation and sustainable use supporting the global development agenda for the benefit of all.

The framework has 21 action-oriented targets for urgent action over the decade to 2030. The actions set out in each target need to be initiated immediately and completed by 2030. Together, the results will enable achievement of the 2050 goals. The following targets address indirectly the conservation, restoration and sustainable management of coastal blue carbon ecosystems:

- Target 2. Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems.
- Target 3. Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
- Target 7. Reduce pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and human health, including by reducing nutrients lost to the environment by at least half, and pesticides by at least two thirds and eliminating the discharge of plastic waste.
- Target 8. Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem-based approaches, contributing at least 10 GtCO2e per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.
- Target 10. Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular through the conservation and sustainable use of biodiversity, increasing the productivity and resilience of these production systems.
- Target 11. Maintain and enhance nature's contributions to regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people.

#### **REPORTING MECHANISMS**

Parties to the CBD must submit national reports – at timeframes decided by the COP – to provide information on measures taken for the implementation of the Convention and the effectiveness of these measures (Article 26). Since the adoption of the CBD, six national reports have been submitted by the Parties in 1998, 2001, 2005, 2009, 2014 and 2018.

In addition to national reporting, Article 6 of the Convention creates an obligation for national biodiversity planning: Parties are required to adopt National Biodiversity Strategy and Action Plans (NBSAPs) with measures to be adopted for the implementation of the convention.

## **RESOURCES**

Convention on Biological Diversity

First Draft of the Post-2020 Global Biodiversity Framework

## 4. THE WORLD HERITAGE CONVENTION

#### ABOUT

The Convention concerning the protection of the World Cultural and Natural Heritage (World Heritage Convention, Paris, France, 16 November 1972) is one of the most important global conservation instruments. Its primary mission is to identify and protect the world's natural and cultural heritage considered to be of Outstanding Universal Value.

Article 2 of the Convention provides the following definition of "natural heritage":

- Natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view
- Geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation
- Natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

The day-to-day management of the Convention is ensured by the World Heritage Centre of the United Nations Educational, Scientific and Cultural Organization (UNESCO), which has its headquarters in Paris, France.

#### COASTAL BLUE CARBON ECOSYSTEMS WITHIN WORLD HERITAGE SITES

In March 2021, UNESCO released the first global scientific assessment of its World Heritage marine sites' blue carbon ecosystems, highlighting the critical environmental value of these habitats. Out of the 50 marine sites on the UNESCO World Heritage List, 21 were specifically recognized for their blue carbon ecosystems. While these sites represent less than 1% of the world's ocean, they host at least 21% of the world's blue carbon ecosystem area, and 15% of the world's blue carbon assets.

The assessment itself highlights synergies among the World Heritage Convention and other international frameworks, by affirming that investing in the conservation and restoration of UNESCO marine World Heritage sites offers significant opportunities to mitigate climate change, meet the goals of the Paris Agreement under the United Nations Framework Convention on Climate Change by including these assets in Nationally Determined Contributions, and finance conservation, at least in part, through the resulting carbon credits. According to the assessment, the United Nations Decade of Ocean Science for Sustainable Development and United Nations Decade of Ecosystem Restoration offer a unique opportunity to promote the restoration of these crucial habitats and accelerate reaching the United Nations Sustainable Development Goals by 2030.

#### REPORTING MECHANISMS

Every six years, Parties are invited to submit to the World Heritage Committee a Periodic Report on the application of the World Heritage Convention in their territory. The Periodic Reporting also provides updated information about the sites to record possible changes in the state of conservation of sites, allowing the World Heritage Committee, eventually, to decide on the necessity of adopting specific measures to resolve recurrent problems. One of such

measures could be the inscription of a property on the List of World Heritage in Danger. Parties shall submit specific reports and impact studies each time exceptional circumstances occur, or work is undertaken which may have an impact on the Outstanding Universal Value of the property or its state of conservation.

#### **RESOURCES**

Convention concerning the protection of the World Cultural and Natural Heritage, adopted by UNESCO General Conference at its seventeenth session (Paris, 16 November 1972)

**UNESCO World Heritage List** 

UNESCO Marine World Heritage: custodians of the globe's blue carbon assets

## 5. THE SENDAI FRAMEWORK FOR DISASTER RISK **REDUCTION 2015-2030**

#### **ABOUT**

The Sendai Framework for Disaster Risk Reduction 2015-2030 (the Sendai Frameworks) was adopted at the Third United Nations World Conference on Disaster Risk Reduction (Sendai, Miyagi, Japan, 2015).

The goal of the Sendai Framework is to prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.

The United Nations Office for Disaster Risk Reduction (UNDRR) oversees the implementation of the Sendai Framework from its headquarters in Geneva, Switzerland.

#### COASTAL BLUE CARBON ECOSYSTEMS AND DISASTER RISK REDUCTION

In the preamble, the Sendai Framework recognizes that many disasters are exacerbated by climate change and are increasing in frequency and intensity, significantly impeding progress towards sustainable development. Addressing climate change as one of the drivers of disaster risk represents an opportunity to reduce disaster risk in a meaningful and coherent manner throughout the interrelated intergovernmental processes.

The Sendai Framework identifies four priority areas for action. The conservation, restoration and sustainable management of coastal blue carbon ecosystems contributes to addressing all of them:

Priority 1: Understanding disaster risk, through the development of disaster risk assessments and maps, including climate change scenarios. To this end, it is important to consider the adaptation potential of coastal blue carbon ecosystems.

Priority 2: Strengthening disaster risk governance to manage disaster risk. This can be achieved through collaboration across global and regional mechanisms and institutions for the implementation and coherence of instruments and tools relevant to disaster risk reduction, such as for climate change, biodiversity, sustainable development, poverty eradication, environment, agriculture, health, food and nutrition and others, as appropriate.

Priority 3: Investing in disaster risk reduction for resilience. The Sendai Framework recommends promoting the mainstreaming of disaster risk assessment, mapping and management into rural development planning and management of, inter alia, mountains, rivers, coastal flood plain areas, drylands, wetlands and all other areas prone to droughts and flooding, including through the identification of areas that are safe for human settlement, and at the same time preserving ecosystem functions that help to reduce risks.

Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction. In order to increase resilience, countries need to prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering climate

change scenarios and their impact on disaster risk, and facilitate the participation of all sectors and relevant stakeholders.

### **REPORTING MECHANISMS**

Countries must report annually on a set of 38 indicators identified to measure global progress in the implementation of the Sendai Framework.

#### **RESOURCES**

The Sendai Framework for Disaster Risk Reduction

## 6. THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

#### **ABOUT**

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth all while tackling climate change and working to preserve our oceans and forests.

#### COASTAL BLUE CARBON ECOSYSTEMS AND THE SDGS

The conservation of coastal blue carbon ecosystems contributes to achieving several Goals and Targets of the 2030 Agenda. Specific indicators have been agreed on to track progress against these Goals and Targets. The responsibility for the reporting of national data to populate the SDGs indicators is shared among the United Nations System, where different entities are mandated as custodian agency for one or more indicators.

SDG 6: Ensure availability and sustainable management of water and sanitation for all

Target 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

Indicator 6.6.1: Change in the extent of water-related ecosystems over time.

The Secretariat of the Ramsar Convention on Wetlands is co-custodian of this indicator together with the United Nations Environment Programme (UNEP). Data reporting started in 2018. More information is available here (UNEP) and here (Ramsar Secretariat).

SDG 13: Take urgent action to combat climate change and its impacts

Target 13.2: Integrate climate change measures into national policies, strategies and planning

Indicator 13.2.1: Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)

The UNFCCC Secretariat (UN Climate Change) is the custodian agency for this indicator. Data is compiled annually in advance of preparation of the annual SDG progress reports. More information is available here.

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Target 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

Indicator 14.2.1: Number of countries using ecosystem-based approached to managing marine areas

UNEP is the custodian agency for this indicator. Data is being collected in 2021 for the first time. More information is available here.

Target 14.5: By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

*Indicator 14.5.1*: Coverage of protected areas in relation to marine areas

The United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), BirdLife International (BLI) and the International Union for Conservation of Nature (IUCN) are responsible for the global monitoring of this indicator. Data has been collected annually since 2016. More information is available here.

SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

Indicator 15.1.1: Forest area as a proportion of total land area

The Food and Agriculture Organization of the United Nations (FAO) is the custodian agency for this indicator. More information is available here.

Target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

Indicator 15.2.1: Progress towards sustainable forest management

The Food and Agriculture Organization of the United Nations (FAO) is the custodian agency for this indicator. More information is available here.

Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

Indicator 15.5.1: Red List Index

IUCN and BLI are responsible for this indicator. The Red List Index is updated at least three times per year. More information is available here.

#### REPORTING MECHANISMS

As stipulated in the 2030 Agenda for Sustainable Development, the High-Level Political Forum (HLPF) has a central role in the follow-up and review of the 2030 Agenda and its 17 SDGs at the global level, working coherently with the General Assembly, the Economic and Social Council and other relevant organs and forums.

A central feature of the HLPF is the Voluntary National Reviews (VNRs) that it receives from Member States on their implementation of the 2030 Agenda and the SDGs. Regularly undertaken by both developed and developing countries, the VNRs provide a platform for partnerships, including through the participation of major groups and other relevant stakeholders.

Follow up and review at the HLPF is also informed by an annual progress report on the SDGs prepared by the Secretary-General of the United Nations. The annual progress report on the SDGs builds on the 231 unique indicators of the global indicator framework for the SDGs. Countries regularly provide data to populate the indicators to the custodian UN agencies identified for each indicator.

The HLPF is also informed by the Global Sustainable Development Report (GSDR), issued every four years and prepared based on extensive inputs from UN entities, including the Regional Commissions, scientists, government officials and stakeholders at all levels, including representatives of academies of sciences, of key international assessments, and relevant UN expert groups.

#### RESOURCES

United Nations Division for Sustainable Development Goals

Voluntary National Reviews Database

The Sustainable Development Goals indicators

## 7. THE UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION

#### **ABOUT**

On 1 March 2019, the United Nations General Assembly proclaimed 2021-2030 to be the United Nations Decade on Ecosystem Restoration, with the primary aim being to prevent, halt and reverse the degradation of ecosystems worldwide. All initiatives within this Decade will consequently have a dual focus on protecting as well as restoring ecosystems.

The resolution highlights that the numerous benefits accruing from this process can play a major role in achieving the objectives of the 2030 Agenda for Sustainable Development, as well as other related United Nations major outcome documents and multilateral environmental agreements, including the Paris Agreement adopted under the United Nations Framework Convention on Climate Change, and the achievement of the post-2020 global biodiversity framework. These include ending poverty, conserving biodiversity, combating climate change and improving livelihoods for everyone, everywhere. Indeed, efficient and sustainable ecosystem restoration, complemented by conservation of ecosystems, is uniquely able to make major contributions to all 17 SDGs across the world's agricultural areas, and its mountains, forests, wetlands, coastlines and oceans. Ecosystem restoration will in particular support Life Below Water (SDG 14) and Life on Land (SDG 15) by enhancing the quality and area of habitats for wildlife. These habitat improvements will in turn help societies mitigate and adapt to climate change (SDG 13), improve the health of societies in rural and urban environments (SDGs 3, 11), and increase the supplies of clean water (SDG 6) and sustainable food (SDG 2, 12).

The Decade is led by the Food and Agriculture Organization (FAO) of the United Nations and the United Nations Environment Programme (UNEP).

#### REPORTING MECHANISMS

To track progress of efforts to restore degraded ecosystems on an unprecedented scale, FAO and partners are developing an operational monitoring and reporting framework for the United Nations Decade on Ecosystem Restoration. As outlined in the Decade's Strategy, the Framework for Ecosystem Restoration Monitoring (FERM) builds on, and complements, existing international, regional and national reporting processes, their goals, targets, criteria and indicators by providing to people, communities and countries, under one common umbrella, access to data, methodological guidance and tools to monitor ecosystem restoration.

#### RESOURCES

**UN Decade on Ecosystem Restoration Strategy** 

Resolution 73/284. United Nations Decade on Ecosystem Restoration (2021–2030)

## 8. THE UNITED NATIONS DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT (2021-2030)

#### **ABOUT**

On 5 December 2017, the United Nations proclaimed 2021 to 2030 the UN Decade of Ocean Science for Sustainable Development. This Decade will provide a common framework to ensure that ocean science can fully support countries' actions to sustainably manage the ocean and to achieve the 2030 Agenda for Sustainable Development.

### REFERENCE TO COASTAL BLUE CARBON ECOSYSTEMS

The conservation of coastal blue carbon ecosystems contributes to achieving many of the seven Decade Outcomes and responding to several Challenges identified for the Decade.

#### **Decade Outcomes:**

- Outcome 2. A healthy and resilient ocean
- Outcome 3. A productive ocean
- Outcomes 4. A safe ocean

#### Decade challenges:

- Challenge 2: Understand the effects of multiple stressors on ocean ecosystems and develop solutions to monitor, protect, manage and restore ecosystems and their biodiversity under changing environmental, social and climate conditions.
- Challenge 3: Generate knowledge, support innovation and develop solutions to optimize the role of the ocean in sustainably feeding the world's population under changing environmental, social and climate conditions.
- Challenge 4: Generate knowledge, support innovation and develop solutions for equitable and sustainable development of the ocean economy under changing environmental, social and climate conditions.
- Challenge 5: Enhance understanding of the ocean-climate nexus and generate knowledge and solutions to mitigate, adapt and build resilience to the effects of climate change across all geographies and at all scales, and to improve services including predictions for the ocean, climate and weather.

Throughout the Decade, partners around the world will carry out a diverse type of Decade Actions from small, local actions to global research programs. A first call for Decade Actions was issued in 2020 and resulted in more than 60 endorsed programmes and contributions none of which, however, addresses blue carbon ecosystems. A second call for Decade Actions was issued on 15 October 2021 and could provide the opportunity for a coordinate global research programme on blue carbon.

#### REPORTING MECHANISMS

The development of a detailed monitoring and evaluation framework for the Ocean Decade is currently led by the Intergovernmental Oceanographic Commission of UNESCO.

### **RESOURCES**

United Nations Decade of Ocean Science for Sustainable Development website

Implementation Plan of the United Nations Decade of Ocean Science for Sustainable **Development** 



