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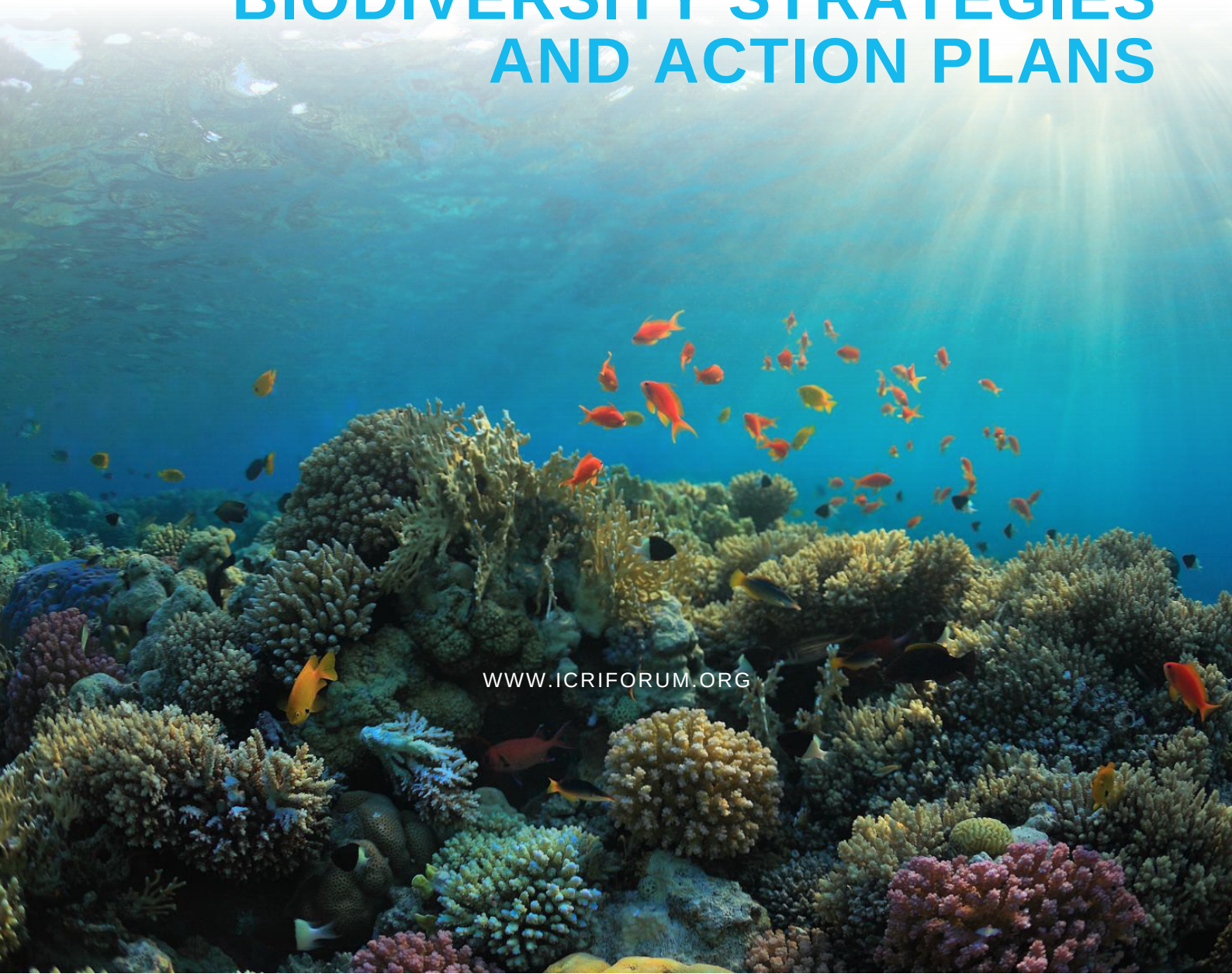
CORAL REEF INITIATIVE

A GUIDE FOR INTEGRATING CORAL REEFS AND ASSOCIATED ECOSYSTEMS INTO NATIONAL BIODIVERSITY STRATEGIES AND ACTION PLANS



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A GUIDE FOR INTEGRATING CORAL REEFS AND ASSOCIATED ECOSYSTEMS INTO **NATIONAL BIODIVERSITY STRATEGIES AND ACTION PLANS**

The International Coral Reef Initiative (ICRI)

2024

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CORAL REEF INITIATIVE

www.icriforum.org

Published by the International Coral Reef Initiative (ICRI) Secretariat, London, United Kingdom

This publication should be cited as:

International Coral Reef Initiative. (2024). Guidance Document on Integrating Coral Reefs and Associated Ecosystems into National Biodiversity Strategies and Action Plans. London, United Kingdom: *International Coral Reef Initiative (ICRI) Secretariat*.

ACKNOWLEDGEMENTS

The International Coral Reef Initiative would like to express its gratitude and acknowledge the time of the members of the ICRI *ad hoc* committee on 'Integrating Coral Reefs into National Biodiversity Strategies and Action Plans (NBSAPs)' and the ICRI Secretariat for reviewing and publishing this document. ICRI extends special thanks to member States, France, Palau, and the Philippines for their support in the preparation of the case studies. Additional thanks are also extended to ICRI members, Egypt, the Great Barrier Marine Park Authority (the Reef Authority), Malaysia, the Reef World Foundation, The UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), and the Wildlife Conservation Society (WCS) for their insightful reviews and comments. Supplementary information for reviewing and updating NBSAPs was kindly provided by the Global Biodiversity Fund Early Action Support (GBF-EAS) project and the Secretariat of the Convention on Biological Diversity (CBD).

This guidance document was developed under the United States of America Secretariat towards the implementation of the "2021 - 2024 Plan of Action: Turning the Tide for Coral Reefs", and its production was made possible through the financial support of the Principality of Monaco, the Government of Sweden, and the United Nation's Environment Programme (UNEP).

DISCLAIMER

The views expressed in this publication do not necessarily reflect those of the ICRI Chairs, Secretariat, ICRI members or funding entities. This publication has been made possible by funding from the United Nation's Environment Programme (UNEP), the Government of Sweden and the Principality of Monaco. This publication has been prepared by Simon Harding (consultant) and supervised by the ICRI Secretariat.

Document produced by:

ICRI
International Coral Reef Initiative

Developed with the financial support of:

UN environment programme
Government Offices of Sweden
Gouvernement Princier
Principauté de Monaco

CONTENTS

THE SCOPE OF THE DOCUMENT

This document serves to provide guidance to coral reef countries on how to integrate coral reefs and associated ecosystems into their revised National Biodiversity Strategies and Actions Plans (NBSAPs) to support the alignment of plans and actions, at the national level, with respect to the implementation of the Kunming-Montreal Global Biodiversity Framework (GBF). The guidance presents a range of resources and example actions that could be undertaken by countries in relation to the goals and targets of the GBF. Countries and readers are encouraged to consider the international context of the guidance in this document and utilise the information to support their respective national-level context and processes for developing and preparing NBSAPs concerning coral reefs and associated ecosystems.

The guidance document is structured around four core sections:

Section 1 provides the context, need and background in the preparation of this guidance and is followed by **Section 2** which provides the guidance on how to revise and update existing NBSAPs, the selection and incorporation of relevant targets and indicators for coral reefs and associated ecosystems and the implementation of GBF-aligned NBSAPs for these ecosystems.

The guidance is complemented by national case studies from France (Overseas Territories), the Republic of Palau and the Republic of the Philippines where coral reefs and associated ecosystems have been integrated into existing NBSAPs. These national level examples are further supported by additional examples of national-level NBSAP integration and are provided in **Section 3.** The case studies have been developed to facilitate the contextualisation of the information and guidance presented in Section 2.

The main resources and initiatives available to countries, at the time of writing, to assist in the revision of NBSAPs to align with the GBF is summarised in **Section 4 (and developed in Annex 8)**.

The guidance is based on recommendations provided through the CBD and the decisions made at the Fifteenth Conference of Parties to the CBD (COP15), With regard to the GBF and the processes established to support the revision of NBSAPs. Additional guidance is provided from non-State actors such as non-governmental organisations operating at the national, regional, or global level and peer-reviewed literature.

KEY STEPS FOR INTEGRATING CORAL REEFS AND ASSOCIATED ECOSYSTEMS INTO NBSAPS

The key steps for countries to integrate coral reefs and associated ecosystems into NBSAPs have been summarised below with references provided to the most appropriate sections contained within this guidance document:

1. Develop a timeline for the NBSAP revision process and, if possible, submit the revised NBSAP to the United Nation's Convention on Biological Diversity (CBD) prior to the next Sixteenth Conference of Parties to the CBD (COP16). If it is not possible for a country to submit a fully revised NBSAP by COP16, then countries can submit the reporting template in advance of the submission of the NBSAP via the online reporting tool[1].
2. Establish an inclusive national working group, where feasible, with representatives from all actors involved directly or indirectly with coral reefs and associated ecosystems to contribute to the NBSAP revision process.
3. Assess the existing NBSAP according to the criteria in paragraph 7 of the CBD guidance for revising or updating NBSAPs (CBD Decision 15/6, Annex 1), through the lens of coral reefs and associated ecosystems (Section 2.2). Consider the ICRI guidance provided to integrate coral reefs and associated ecosystems into NBSAPs for each paragraph / point of the CBD guidance (Annex 3).
4. Identify the main stressors for coral reefs and associated ecosystems and the key drivers of biodiversity loss for these ecosystems at the national or sub-national level (Section 2.1).
5. Develop actions to address the key pressures and drivers (Annex 4), with associated national targets that are closely aligned with GBF goals and targets, using the guidance provided on the relevance of GBF targets to coral reefs and associated ecosystems (Annex 1, Section 2.3).
6. Explore the integration, or mainstreaming, of the conservation and sustainable use of coral reefs and their associated ecosystems into NBSAPs, focusing on enhancing engagement and awareness across multiple sectors. This involves collaboration with stakeholders, Indigenous Peoples, and local coastal communities, as outlined in (Section 2.4).
7. Incorporate proposed GBF indicators into the NBSAP monitoring framework that are relevant to coral reefs and associated ecosystems (Section 2.3, Table 1) and existing indicators for coral reefs such as those recommended by ICRI (Section 2.5, Table 4).
8. When using the CBD online template for national targets, consider the example completed for a coral reef and associated ecosystems focussed target (Annex 6).
9. Consider the different approaches used to successfully integrate coral reefs and associated ecosystems into existing NBSAPs using the national case studies (Section 3).
10. Make use of the existing initiatives and resources available to countries to support the revision and update of NBSAPS such as the NBSAP Forum (Section 4).

[1] CBD/COP/DEC/15/6 19 December 2022. Mechanisms for planning, monitoring, reporting and review: www.cbd.int/doc/decisions/cop-15/cop-15-dec-06-en.pdf

GLOSSARY / LIST OF ACRONYMS

AHC	*Ad Hoc* Committee
ASEAN	Association of Southeast Asian Nations
BERI	Bioclimatic Ecosystem Resilience Index
CATAMI	Collaborative and Automated Tools for Analysis of Marine Imagery
CBD	Convention on Biological Diversity
CC	Climate Changes
CITES	The Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of Parties
FAO	United Nations Food and Agriculture Organisation
GBF	Kunming-Montreal Global Biodiversity Framework
GBF-EAS	Global Biodiversity Framework Early Action Support
GCRMN	Global Coral Reef Monitoring Network
GEF	Global Environment Facility
HAC for N & P	The High Ambition Coalition for Nature and People
ICRI	International Coral Reef Initiative
ICZM	Integrated Coastal Zone Management
IFRECOR	French Coral Reef Initiative
ILK	Indigenous Local Knowledge
IPBES	Intergovernmental Panel on Biodiversity and Ecosystem Services
IPLC	Indigenous Peoples and Local Communities
IUCN	The International Union for Conservation of Nature
IWRM	integrated water resources management
LCIA	Life Cycle Impact Assessment
LDC	Least Developed Country
MEPCA	Protected area and other effective area-based conservation measures management effectiveness
MPA	Marine Protected Area
MSA	Mean Species Abundance
MVI	Mangrove Vegetation Index
NBSAPS	National biodiversity Strategies and Action Plans
NCP	Nature's Contribution to People
NCS	national convention on statistics
OBIS	Ocean Biodiversity Information System
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
OECM	Other Effective area-based Conservation Measures
PA	Protected Areas
PAI	Protected Area Isolation Index
PAME	Protected Area Management Effectiveness
PBSAP	Philippines Biodiversity and Strategic Action Plan
PCRC	Palau International Coral Reef Center
PD	Protected area downgrading, downsizing and de-gazettement
PES	payments for ecosystem services
ProNet	Protected Areas Network metric
R-METT	Ramsar Management Effectiveness Tracking Tool
SAGE	Site-level Assessment of Governance and Equity

SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SCBD	Secretariat of the Convention on Biological Diversity
SCTLD	Stony Coral Tissue Loss Disease
SIDS	Small-Island Developing States
TAAF	French Southern and Antarctic Lands
TNC	The Nature Conservancy
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-WCMC	United Nations Environment Programme World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
WAZA	World Association of Zoos and Aquariums
WCS	Wildlife Conservation Society
WG2020	Open-ended Working Group on the Post-2020 Global Biodiversity Framework
WWF	World Wide Fund for Nature

1 CONTEXT

The Kunming-Montreal Global Biodiversity Framework's (GBF) relevance to coral reefs and associated ecosystems (mangroves and seagrass beds) in terms of the framework's action targets is also provided as well as background information on the GBF monitoring framework (Annex 1).

NBSAPs are the main vehicle for implementation of the United Nation's Convention on Biological Diversity (CBD) at the national level and are expected to be a key component of the enhanced planning, monitoring, reporting and review mechanism of the Convention for the GBF. In **Decision 15/6 (Mechanisms for planning, monitoring, reporting and review)**[2], Parties are requested to submit revised or updated NBSAPs, including national targets, by COP16, following the guidance provided in Annex I of Decision 15/6, that is aligned with the goals and targets of the GBF. Paragraph 6 of Decision 15/6 requests CBD Parties to submit revised NBSAPs, through clearing house mechanism by COP16. If it is not possible for a country to submit a fully revised NBSAP by COP16, as stated in Paragraph 7 of Decision 15/6, then countries can submit the online reporting template (Template for Submission of National Targets as Part of National Biodiversity Strategies and Action Plans Towards the Implementation of The Kunming-Montreal Global Biodiversity Framework) in Annex I of Decision 15/6 in advance of the submission of the NBSAP via the online reporting tool[3].

The ICRI NBSAP ad hoc Committee

ICRI holds an important role in coordinating consistent views across its member countries, with support from member organisations, on the need for, and substance of, updates and revisions to NBSAPs to include coral reefs and their associated ecosystems. With this in mind, the motion to establish an *ad hoc* committee (AHC) on integrating coral reefs and associated ecosystems into NBSAPs was adopted by ICRI members at its 37th General Meeting in September 2023.

The objectives of ICRI's NBSAP *ad hoc* committee are to:

1. Develop a guidance document for revising, updating, and implementing NBSAPs to integrate coral reef ecosystems, including guidance on reporting and coral reef indicators, populated with the national case studies, and appropriate alternative resources that align with, and build upon, the GBF Monitoring Framework and previous ICRI *ad hoc* committees; and
2. Develop national case studies for interested and volunteering countries.

2 GUIDANCE FOR THE INTEGRATION OF CORAL REEFS AND ASSOCIATED ECOSYSTEMS INTO NBSAPS

This section provides guidance on integrating coral reefs and associated ecosystems into NBSAPs according to a number of identified thematics including stressors and drivers of tropical coastal and marine ecosystem degradation, the GBF action targets and monitoring framework and the revision and implementation of NBSAPs.

[2] CBD/COP/DEC/15/6 19 December 2022. Mechanisms for planning, monitoring, reporting and review: www.cbd.int/doc/decisions/cop-15/cop-15-dec-06-en.pdf

[3] CBD Online Reporting Tool: https://ort.cbd.int/national-targets

2.1 ADDRESSING KEY STRESSORS FOR CORAL REEFS AND DRIVERS OF ECOSYSTEM DEGRADATION

When considering how best to integrate coral reefs and associated ecosystems into NBSAPs it is important to have a clear understanding of the main stressors and drivers of coastal and inshore marine ecosystem degradation at the national and subnational level. It is generally known that the main stressors for coral reefs are climate change (warming, acidification, and increased frequency and severity of extreme weather events), water pollution/nutrient loading (driving unfavourable water quality conditions possibly increasing the prevalence and susceptibility to disease and pathogens) and the unsustainable exploitation of ecosystems, including fishing activity and other anthropogenic activities, which can detrimentally impact coral reef structure and ecosystem functioning (Harbone *et al.,* 2017; Hughes *et al.,* 2017). These stressors are increasing both at local and global scales and interact cumulatively and synergistically to negatively affect coral reef ecosystems. Recurring mass coral bleaching events caused by climate change are a prominent cause of coral loss on coral reefs and overall ecosystem degradation. Other key disturbances can be considered as local-scale pressures (e.g., overfishing, coastal development, runoff, and eutrophication) which can be driven by human population density (Selter *et al.,* 2022).

As coral reefs and associated ecosystems are subject to multiple stressors, CBD focal points in coral reef countries should identify, as much as possible, the key stressors and drivers affecting their coastal and inshore marine environment at the national and sub-national levels so that interventions to address them can be incorporated into the revised NBSAP. CBD parties should also link these activities to one or more GBF action targets. For example, a country with overexploited coral reef fisheries and issues with wastewater management could develop interventions to address both stressors simultaneously while also considering ways to reduce the underlying drivers. These interventions can then be linked to the appropriate GBF targets, which, in this case, are primarily **T5** (harvest and trade of wild species), **T9** (sustainable use of wild species) and **T7** (pollution) but also considering **T15** (business and biodiversity), **T1** (marine spatial planning) and **T3** (MPAs / OECMs) as well as relevant cross-cutting targets, such as **T14** (mainstreaming biodiversity) which should take into account all of the considerations for implementation identified in Section C of the GBF.

To identify the key stressors affecting coral reefs and associated ecosystems at the national or sub-national level, CBD focal points, or those responsible for NBSAP revision within government, should engage with the other actors working in the inshore marine and coastal environment (e.g., government bodies, NGOs, research institutes, academia, regional organisations) to collect the latest information and understanding of the main threats and impacts affecting these ecosystems.

It is also important to consider both direct and indirect drivers of change that affect coral reefs and associated ecosystems in order to achieve the vision of the GBF. As defined by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)[4], direct drivers are factors that directly impact biodiversity and ecosystem processes and are generally grouped into five main categories: 1) land and sea use change, 2) direct exploitation, 3) climate change, 4) pollution, and 5) invasive alien species. Indirect drivers are socio-economic factors, such as human population growth, production, supply and consumption patterns and institutions that underlie changes in direct drivers.

[4] IPBES Definition: “Driver” https://www.ipbes.net/glossary-tag/driver

In terms of the GBF, the direct drivers are associated with Targets 1 to 11 while the indirect drivers are linked to cross-cutting targets covering aspects such as mainstreaming (**T14**), sustainable consumption (**T16**), and capacity building (**T20**).

2.2 REVIEWING AND UPDATING EXISTING NBSAPS WITH REGARD TO CORAL REEFS AND ASSOCIATED ECOSYSTEMS AND THE GBF

As part of **CBD Decision 15/6** regarding "mechanisms for planning, monitoring, reporting and review", the Convention requests that CBD Parties revise and update their NBSAPs following the guidance provided in Annex I of the decision[5] (the full guidance is provided in Annex 2 of this document), which covers a range of points for updating and revising NBSAPs to align with the GBF. **Guidance on how to integrate coral reefs and associated ecosystems into an NBSAP for each of these points is provided in Annex 3**.

Notably, **Paragraph 7 of Annex I to Decision 15/6**, states that CBD Parties should review their existing NBSAP and targets to assess alignment with the GBF, which "should consider, according to national circumstances, elements such as implementation gaps, existing goals, targets and indicators, the effectiveness of past actions, monitoring systems (including any data and/or knowledge systems and gaps), sectoral and cross-sectoral policies, finance and other means of implementation, and an assessment of how stakeholders, indigenous peoples and local communities, women and youth were involved in the revision and implementation".

To fully integrate coral reefs and associated ecosystems into the revised NBSAP, countries should consider all these elements with regard to their inshore marine and coastal environment i.e., identify the presence or absence of these elements in the current NBSAP for coral reefs and associated ecosystems. This assessment will reveal which aspects or components of the NBSAP should be revised or updated to fully incorporate coral reefs and associated ecosystems while also aligning with the GBF.

The alignment of existing NBSAPs with the GBF is one of the components of the Global Biodiversity Framework Early Action Support (GBF-EAS) project (Section 4). Non-State Actors have also made guidance for the NBSAP alignment process available, including an example resource developed by The Nature Conservancy (TNC) that outlines five steps to review and update NBSAPs (Section 4).

2.3 NBSAP ALIGNMENT WITH THE GBF AND ITS MONITORING FRAMEWORK – KEY TARGETS AND INDICATORS FOR CORAL REEFS AND ASSOCIATED ECOSYSTEMS

2.3.1 Relationships between GBF goals and targets and coral reefs and associated ecosystems

The relevance of each of the GBF targets to coral reefs and associated ecosystems is provided in Annex 1 (Table A.1). To successfully revise or update an NBSAP to integrate tropical coastal and marine ecosystems it is also important to understand the key relationships between ecosystems, the main drivers of biodiversity loss and their relation to the GBF goals and targets. The approach for coral reefs is also broadly applicable to mangrove and seagrass ecosystems with some differences in

[5] CBD/COP/DEC/15/6 19 December 2022. Mechanisms for planning, monitoring, reporting and review: www.cbd.int/doc/decisions/cop-15/cop-15-dec-06-en.pdf

threatening processes (e.g., replace coral bleaching with sea level rise as part of climate change effects for mangroves) (Fig. 1).

Addressing the direct drivers highlighted for coral reefs will require coordinated action, nested under multiple GBF targets, across multiple sectors[6] (Annex 4, Obura *et al.* 2021 (Table 3)). These types of actions are the primary means to achieve Goal A (increasing integrity of coral reefs and populations of important species) for ecosystems such as coral reefs.

Actions to achieve Goal A also benefit Goal B (Nature's Contributions to People (NCP) such as coastal protection and tourism value). Targets also interact to reduce drivers: for example, marine protected areas (MPAs) and sustainable management of wild species both reduce overfishing, with benefits to fish populations, fisheries, and fishers. Addressing indirect drivers by implementing cross-cutting targets of the GBF will also support coral reef recovery through the provision of technical and institutional capacity, greater financial resources, and the participation of indigenous peoples and local communities (IPLCs), women and youth in management and governance.

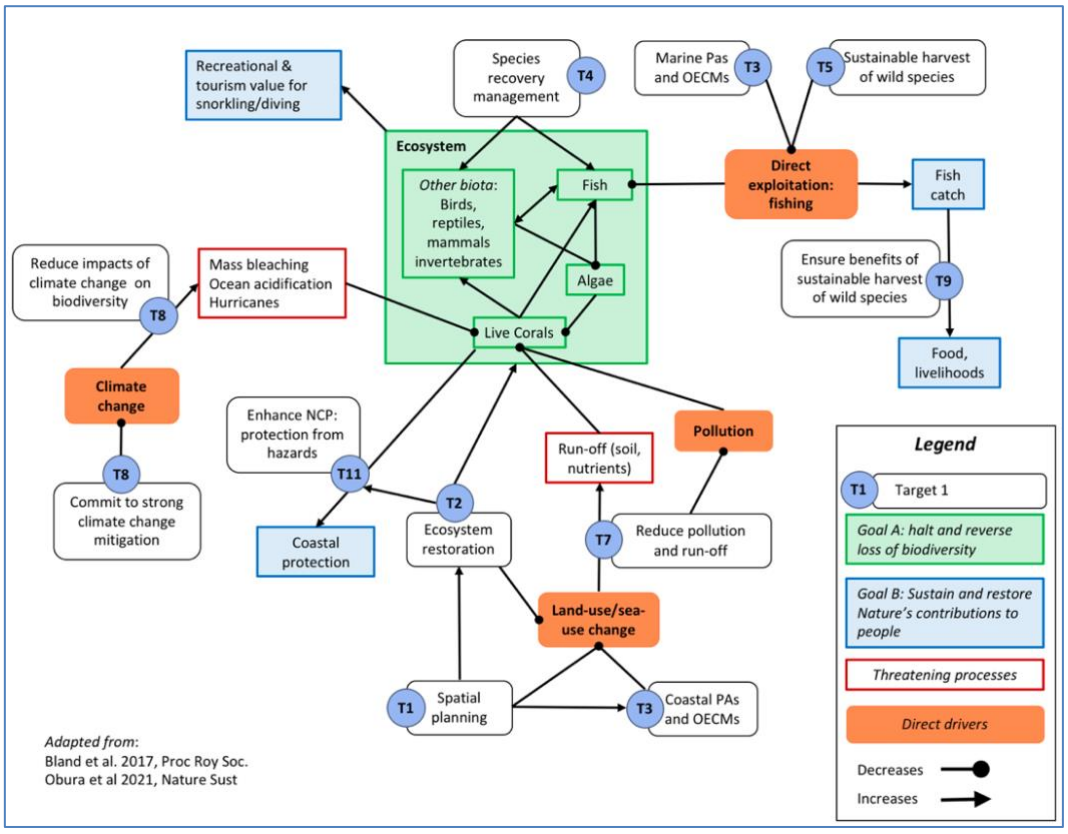


Figure 1. Key relationships between coral reef ecosystems, direct drivers of biodiversity loss and selected GBF Goals and Targets (adapted from CBD/WG2020/3/INF/11). PA' – Protected Area; 'OECM' - Other Effective Conservation Measures; 'NCP" - Nature's Contributions to People.

[6] CBD/WG2020/3/INF/11 - CBD/SBSTTA/24/INF/31 (14th January 2022). Expert Input to the Post-2020 Global Biodiversity Framework: Transformative Actions on all Drivers of Biodiversity Loss are urgently required to achieve the Global Goals by 2050: https://www.cbd.int/doc/c/5735/c241/efeeac8d7685af2f38d75e4e/sbstta-24-inf-31-en.pdf

2.3.2 Proposed Indicators for the GBF and relevance to coral reefs and associated ecosystems

Annex 1 of the CBD COP Decision 15/5[7] provides a list of the proposed indicators for the GBF monitoring framework according to the goals and targets and organised into headline, component, and complementary indicators (Table 2 - **Decision 15/5 Annex I**). In this section (2.3.2 of this guidance) the proposed indicators of the GBF, that are relevant for coral reefs and associated ecosystems are provided. Coral reef indicators proposed by ICRI and those used by the Global Coral Reef Monitoring Network (GCRMN) are provided in Section 2.5.

Indicators proposed for the GBF that are regarded as highly relevant to coral reefs and associated ecosystems are summarised in Table 1 (Annex 5 for a full list of indicators). These cover the Goals A, B, C and D of the framework and a number of targets, especially targets that address direct drivers of biodiversity loss. In some cases, the proposed indicators are more terrestrially focussed (e.g., mention of land but not sea) or there is currently a lack of a suitable indicator for coastal and marine systems. The indicators highlighted in Table 1 should all be considered for inclusion in NBSAPs to integrate coral reefs and associated ecosystems. In some cases, information for these ecosystems will contribute to a broader indicator.

For example, the extent of coral reefs, mangroves and seagrass beds will all contribute to the headline indicator for Goal A: **A2 - Extent of natural ecosystems**. In other cases, it may be necessary to develop an indicator for coral reefs that can contribute to the monitoring of the GBF. An example for a socioeconomic indicator could be the dependence of local people on reef fish for food or income which could contribute to monitoring **Target 9** and measuring the headline indicator **9.1: Benefits from the sustainable use of wild species**.

The relationships between composite headline indicators and individual complementary or component indicators should also be considered with regards to coral reefs and associated ecosystems. For example, measuring the composite headline indicator **A.1 - Red List of Ecosystems** for coral reefs will require the combination of a number of complementary indicators. An assessment for the Western Indian Ocean used data for hard coral cover, fleshy algal cover, and the abundance of both herbivorous and piscivorous reef fishes[8]. These are listed as complementary indicators for Goal A (Table 1) and could be used to report on the headline indicator (A.1) for this ecosystem. Composite indicators are useful to assess the cumulative interaction and complexity of values and can provide a clearer sense of ecosystem integrity and resilience[9].

Some of the complementary coral reef indicators are already part of global monitoring efforts for coral reefs such as GCRMN (Section 2.5). It will be important to use existing monitoring networks and available tools to contribute to the delivery and reporting of the GBF, including the GCRMN.

Some targets and their proposed indicators are not listed in Table 1 (Annex 5) but can be indirectly relevant to coral reefs and associated ecosystem through downstream effects. An example is **Target 10** (sustainable agriculture, forestry, and aquaculture) where sustainable land use can help to reduce erosion and the levels of sediment and nutrients that flow through catchments into coastal waters. This

[7] CBD/COP/DEC/15/5 (19th December 2022). Monitoring framework for the Kunming-Montreal Global Biodiversity Framework: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-05-en.pdf

[8] *Ibid*

[9] WCS recommendations for technical experts and CBD Parties regarding the GBF monitoring framework. October 2023

again emphasises the need for an integrated and multi-faceted approach in the development and implementation of NBSAPs.

2.3.3 The CBD Process to update NBSAPs or national targets

CBD Decision 15/6 also sets the timeline for the submission of updated NBSAPs or national targets. CBD Parties are requested to submit their revised NBSAPs through the Convention's clearing–house mechanism prior to COP16 (Paragraph 6). However, where this timeline is not feasible for CBD Parties, Paragraph 7 of the Decision sets forth an alternative mechanism for Parties to submit national targets that reflect the goals and targets of the GBF as a standalone submission by COP16 through a provided template and using the online reporting tool[10]. The template for target submission provided in Annex 1 of **CBD Decision 15/6** has been exampled for reference as **a completed example for a national target that mainly focusses on coral reefs and associated ecosystems** (Annex 6).

The online reporting tool enables Parties to enter, review and, when appropriate, submit information requested in the guidelines for national reports[11]. The online form also contains a section for the indicators that will be used for each national target. These can be selected from the list of proposed GBF indicators (Table 1 or Annex 5) in the monitoring framework or can be additional national-level indicators. Countries are also requested to provide information on non-state actor commitments to each national target and the means (and barriers) to target implementation i.e., whether or not additional means are required to meet a national target. If it is not possible for a country to submit a fully revised NBSAP by COP16, as stated in **Paragraph 7 of Decision 15/6**, then countries can submit the online reporting template (Template for Submission of National Targets as Part of National Biodiversity Strategies and Action Plans Towards the Implementation of The Kunming-Montreal Global Biodiversity Framework) in **Annex I of Decision 15/6** in advance of the submission of the NBSAP via the online reporting tool[12].

It will be important for countries to set a timeline for the selection and finalisation of national targets and the NBSAP revision process. Coral reefs and associated ecosystems should be fully considered in the target setting and overall NBSAP process. The GBF action targets that are considered most relevant to coral reefs and associated ecosystems are highlighted in Annex 1.

[10] CBD Online Reporting Tool: https://ort.cbd.int/national-targets

[11] SCBD/IMS/NP/JC/MC/91353 (1st November 2023): Notification 2023-117 Launch of the online reporting tool for submitting national targets: https://www.cbd.int/doc/notifications/2023/ntf-2023-117-ORT-en.pdf

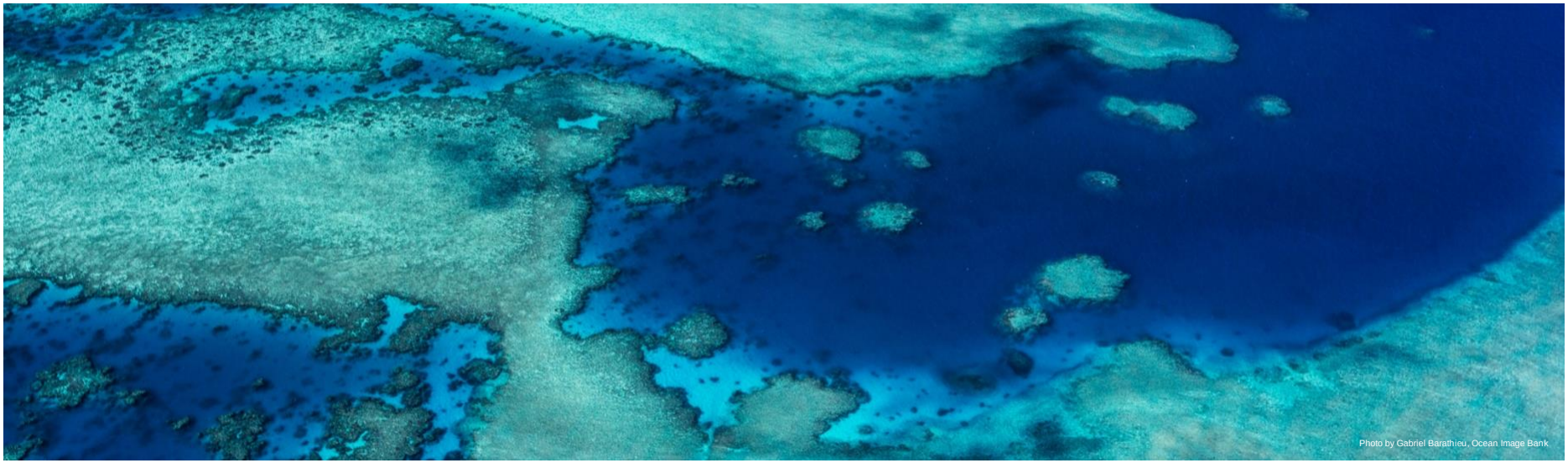
[12] CBD Online Reporting Tool: https://ort.cbd.int/national-targets

Table 1. Global Biodiversity Framework (GBF) Indicators that are regarded as highly relevant to coral reefs and associated ecosystems. Indicators recommended by ICRI for the post-2020 Global Biodiversity Framework (GBF)[1] and Global Coral Reef Monitoring Framework (GCRMN) indicators [2], are presented.

Goal / Target	Headline indicator	Component indicator	Complementary indicators
A	**A.1** Red List of Ecosystems[1] **A.2** Extent of natural ecosystems		Continuous global mangrove forest cover Trends in mangrove forest fragmentation Trends in mangrove extent Live coral cover[1, 2] Hard coral cover and composition[1] Global coral reef extent[1] Global seagrass extent (Seagrass Cover and composition) Cover of key benthic groups[1] Fleshy algae cover[1 (2)] Fish abundance and biomass[1]
B	**B.1** Services provided by ecosystems		
C	**C.1** Indicator on monetary benefits received **C.2** Indicator on non-monetary benefits		Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting
D	**D.1** International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems **D.2** Domestic public funding on conservation and sustainable use of biodiversity and ecosystems **D.3** Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems		Finance mobilized for capacity-building Financial and technical assistance provided in dollars (including through South-South, North-South and triangular cooperation)

1	**A.1** Red List of Ecosystems[1] **A.2** Extent of natural ecosystems **1.1** Percent of land and sea area covered by biodiversity-inclusive spatial plans		Number of countries using natural capital accounts in planning processes Habitat patches located within marine protected areas or integrated coastal zone management (ICZM) Extent of natural ecosystems by type(1)
2	**2.2** Area under restoration	Extent of natural ecosystems by type (1) Maintenance and restoration of connectivity of natural ecosystems	Global Ecosystem Restoration Index
3	**3.1** Coverage of protected areas and other effective area-based conservation measures	Protected Area Management Effectiveness (PAME) The number of protected areas that have completed a site-level assessment of governance and equity (SAGE)	Coverage of protected areas and other effective area-based conservation measures and traditional territories (by governance type)
4	**A.3** Red list Index	Conservation status of species listed in the CITES Appendices has stabilized or improved	
5	**5.1** Proportion of fish stocks within biologically sustainable levels	Sustainable use of wild species	
6	**6.1** Rate of invasive alien species establishment		
7	**7.1** Index of coastal eutrophication potential	Fertilizer use Proportion of domestic and industrial wastewater flow safely treated	Index of coastal eutrophication[1]
8	-		Index of coastal eutrophication[1]
9	**9.1** Benefits from the sustainable use of wild species **9.2** Percentage of the population in traditional occupations	Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.)	Proportion of fish stocks within biologically sustainable levels
11		Proportion of bodies of water with good ambient water quality	

18	**18.1** Positive incentives in place to promote biodiversity conservation and sustainable use **18.2** Value of subsidies and other incentives harmful to biodiversity that have been eliminated, phased out or reformed	Value of subsidies and other incentives harmful to biodiversity, that are redirected, repurposed, or eliminated	
19	*As for Goal D*		
22	-		Number of protected areas that have completed a site-level assessment of governance and equity (SAGE) Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability, and population group
23	-		Number of protected areas that have completed a site-level assessment of governance and equity (SAGE) Percentage of population who believe decision-making is inclusive and responsive, by sex, age, disability, and population group



2.4 NBSAP IMPLEMENTATION AND CORAL REEF INTEGRATION

The review process to conduct an NBSAPs stocktake prior to their revision and alignment with the GBF will highlight implementation gaps and identify lessons learned so that updated NBSAPs can be better designed to achieve national targets and contribute to the global framework. Santos *et al.* (2023) reviewed NBSAP implementation across eight countries, including those with coral reefs and associated ecosystems (France, Honduras, Indonesia, and South Africa), indicates that NBSAPs have been successful in raising awareness, mobilising initiatives, mobilising support for implementation and fostering accountability but challenges to implementation remain, including conflicting interests, weak financial support and poorly integrated institutional and regulatory structures. A number of leverage points have been proposed to improve future NBSAPs so that they can better support the achievement of the goals and targets of the GBF:

- Improving inclusive communication.
- Translating targets into concrete measures and defining clear responsibilities.
- Fostering cross-sectoral commitment.
- Strengthening NBSAPs' legal status and/or enshrining targets into national laws.
- Ensuring adequate public funding for NBSAP implementation.
- Reforming and redirecting subsidies harmful to biodiversity.
- Ensuring coordination among sectors and levels of governance.
- Strengthening accountability frameworks.

The authors also suggest a number of policy recommendations linked to the above points in order to build on the noted successes of previous NBSAPs (Table 2). Effective implementation of NBSAPs is linked to ensuring there is high-level political commitment across sectors, the inclusion of groups and sectors with conflicting interests and having a series of well-coordinated policy processes[13]. Raising biodiversity awareness of a range of stakeholders at multiple levels can be achieved by having a strong communication strategy to complement the NBSAP. It is also important to involve the various sectors in long-term planning procedures to ensure there is shared commitment and accountability to the adopted biodiversity policies.

In addition to the leverage points provided by Santos *et al.* (2023) countries should consider Sections and Decisions of the GBF. The GBF, particularly **Section C**, along with other decisions adopted as part of the Kunming-Montreal Package, (such as **Decisions 15/7**[14] and **15/8**[15]), can synergistically support the proposed leverage points for biodiversity conservation. **Section C** of the GBF, supplemented by these additional decisions, provides a comprehensive framework for action. Firstly, by improving inclusive communication, the GBF can ensure that diverse stakeholders, including marginalised communities and indigenous groups, have a voice in decision-making processes, fostering a more comprehensive and equitable approach to biodiversity management. Secondly, translating targets into concrete measures and delineating clear responsibilities within the GBF framework provides a roadmap for action, enhancing accountability and facilitating effective implementation at the national and local

[13] *Ibid*

[14] CBD/COP/DEC/15/7 (19th December 2022) Resource Mobilisation: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-07-en.pdf

[15] CBD/COP/DEC/15/8 (19th December 2022) Capacity-building and development and technical and scientific cooperation: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-08-en.pdf

levels. Thirdly, fostering cross-sectoral commitment through the GBF encourages collaboration among various sectors, fostering integrated approaches to biodiversity conservation.

By strengthening legal status of NBSAPs and embedding targets into national laws, the GBF can provide a legal framework for biodiversity conservation efforts, ensuring sustained commitment and enforcement mechanisms. Furthermore, ensuring adequate public funding for NBSAP implementation within the GBF framework is crucial for scaling up conservation efforts and addressing resource gaps and by reforming and redirecting subsidies harmful to biodiversity, the GBF can align economic incentives with conservation goals, promoting sustainable practices. By ensuring coordination among sectors and levels of governance, the GBF enhances synergies and avoids duplication of efforts, maximising the impact of biodiversity conservation initiatives. This in turn strengthens accountability frameworks within the GBF and ensures that commitments are upheld, progress is monitored, and corrective actions are taken when necessary.

The suggested leverage points and policy recommendations from the literature, as well as the additional Sections and Decisions, are all relevant for the successful integration of coral reefs and associated ecosystems into NBSAPs. Areas such as communication and engagement at the local (community) level are especially important as are involving sectors such as fisheries and tourism in long-term biodiversity plans. Involving sectors that are linked to land-based pollution that affects coastal waters such as agriculture, industry and wastewater management will also be critical to meet GBF goals and targets for coral reefs and associated ecosystems. Examples of successful integration of some of the above leverage points for coral reefs and associated ecosystems into NBSAPs are provided in Section 3 (national case studies).

BOX 1. NBSAPS AND MAINSTREAMING FOR CORAL REEFS AND ASSOCIATED ECOSYSTEMS

As NBSAPs are regarded as the main national planning instrument for implementing the CBD at the national level, they are the principal means by which to address the drivers of biodiversity loss by mainstreaming biodiversity across government and society (Article 6 of the CBD). However, mainstreaming remains a key challenge (IPBES 2019a; Leadley *et al.,* 2014). The failure to achieve previous global biodiversity targets set by the CBD suggests that there are shortcomings in implementation at the national level and that countries party to the Convention have not successfully mainstreamed biodiversity into the required political levels and sectors (Zinngrebe 2023). Biodiversity is not yet considered in relevant policies and regulations for sectors such as fisheries, agriculture, infrastructure and other extractive or productive industries[1]. In some cases, sector policies continue to support the drivers of biodiversity loss (IPBES 2019b). The successful implementation of NBSAPs is therefore key to achieving the GBF and mainstreaming biodiversity at the national level and is a critical component of this.

Previous research focussed on NBSAPs indicates that although mainstreaming is addressed in strategies by many countries, biodiversity and economic development are not always targeted together (Whitehorn *et al.,* 2019). Mainstreaming efforts in NBSAPs have often been broad and aspirational with a lack of specific institutional and legal steps identified to achieve the mainstreaming objectives (Prip & Pisupati 2018). The process of translating the idea of mainstreaming into tangible institutional reconfigurations has been regarded as being at a very early stage (Pisupati & Prip 2018).

With regards to coral reefs and associated ecosystems, biodiversity mainstreaming for sectors concerned with coastal tourism and development, inshore fisheries and waste management are required if both direct and indirect drivers of coastal and marine biodiversity loss are to be addressed. Addressing upstream issues in catchment areas linked to agriculture, forestry and construction are also key.
At the broader level of overall biodiversity, four leverage points have been identified for strengthening mainstreaming and national planning through NBSAPs (Zinngrebe 2023):

i. Generate ownership and accountability among core actors across sectors and levels by targeting NBSAPs to address their interests, values, and attitudes;

ii. NBSAPs need to guide both political and non-political action more effectively to address direct and indirect drivers of biodiversity loss;

iii. In order for NBSAPs to guide implementation, they need to relate to existing institutional arrangements to facilitate mainstreaming and induce accountability, and;

iv. NBSAPs need to create structures that facilitate exchange and cooperation between actors to integrate environmental aspects into other policy areas and to create accountability for the implementation of the targets.


Photo by NEOM on Unsplash

Table 2. Potential of NBSAPs and policy recommendations to strengthen their role in mainstreaming biodiversity and address implementation challenges (adapted from Cardona Santos et al. 2023: Table 7)

Activity	Potential of NBSAPs	Policy Recommendations
Raising awareness	• Inclusion of groups and sectors with conflicting interests • Increase visibility and usefulness for key groups and sectors • Reference document for activities beyond the environmental sector	• Improve communication of the strategy and targeting • Integrate international agenda to facilitate mainstreaming at national and sub-national levels • Institutionalise relevance of NBSAP in policy making and implementation processes
Mobilising initiatives for biodiversity	• Prioritise biodiversity • Link targets to concrete measures and address subnational levels • Address incoherence of policies (e.g., harmful subsidies)	• Securing high-level political ownership and legal commitment across sectors • Ensure prioritisation of biodiversity through legal framework • Integrated agenda with realistic long-term goals, linked to concrete implementation measures and defined responsibilities • Establish inter-ministerial coordination and collaboration mechanisms to ensure policy coherence
Mobilising support	• Initiate process to identify and reform public subsidies harmful to biodiversity • Capacity building, staff, and coordination mechanisms	• Redirect public funds through tax incentives and the reform of harmful subsidies • Building and harnessing structures for coordination and collaboration across sectors and with subnational levels
Fostering accountability	• Consistent collection and availability of data, accountability structures	• Foster accountability structures through assigning and enacting responsibilities • Provision of data and continuous participatory reflections of evaluations to enable learning processes

2.5 REPORTING AND THE USE OF EXISTING AND RECOMMENDED CORAL REEF INDICATORS

When deciding on which indicators to use as part of NBSAPs it is important to consider the suite of existing coral reef indicators at the global level as well as those that have been recommended for inclusion in the monitoring framework of the GBF.

2.5.1 ICRI recommended indicators for the GBF

A number of the indicators proposed for the GBF were part of the recommendation made by ICRI for the inclusion of coral reefs and related ecosystems within the post-2020 GBF[16] (Table 3). Many of the indicators recommended by ICRI were included and focussed mainly on indicators of coral reef health (Fig. 2; Table 3.a)[17]. Additional indicators were also proposed as priorities for development (Table 3.b), with one of these (Red List of Ecosystems) included in the monitoring framework of the GBF as a headline indicator for Goal A (Table 1).

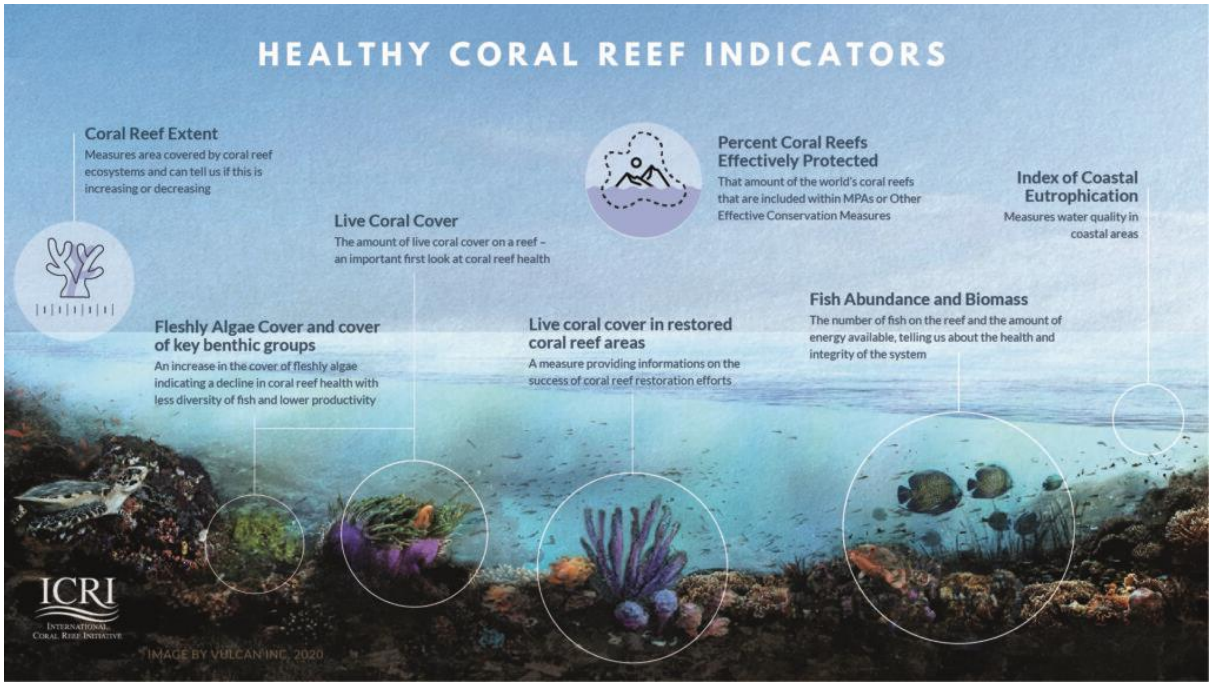


Figure 2. International Coral Reef Initiative's (ICRI) Recommended Healthy Coral Reefs Indicators for inclusion in the GBF

2.5.2 GCRMN Indicators

The key indicators used by the GCRMN to monitor coral reefs globally (Souter *et al.,* 2021) are also included in the proposed GBF indicators that are relevant to coral reefs, as complementary indicators for Goal A (Table 1), notably live coral cover and fleshy / macroalgae cover. Additional GCRMN global indicators are in development and will be closely aligned with the ICRI recommended indicators and the monitoring framework of the GBF when finalised. Socioeconomic indicators are also under consideration as part of SocMon, the Global Socioeconomic Monitoring Initiative for Coastal Management[18].

[16] ICRI recommendation on the inclusion of coral reefs and related ecosystems within the CBD Post-2020 Global Biodiversity Framework (2020): https://icriforum.org/documents/recommendation-on-the-inclusion-of-coral-reefs-and-related-ecosystems-within-the-cbd-post-2020-global-biodiversity-framework/

[17] ICRI healthy coral reef indicators supporting material: https://icriforum.org/supporting-materials/

[18] The Global Socioeconomic Monitoring Initiative for Coastal Management: https://icriforum.org/socmon/

Table 3. Coral reef indicators recommended by ICRI for inclusion in the GBF Monitoring Framework.

Coral Reef Indicator	Goal / Target	Included in GBF?	GBF indicator type	Notes
3.A INDICATORS OR CORAL REEF HEALTH				
Live Coral Cover	Goal A, Target 1	Yes	Complementary	
Coral Reef Extent	Goal A, Target 1	(Yes)	Complementary (T1)	Listed as "Extent of natural ecosystems by type"
Fleshy Algae Cover and Cover of key benthic groups	Goal A, Target 1	Yes – as two indicators	Complementary	
Fish Abundance and Biomass	Goal A, Target 1	Yes	Complementary	
Area of coral reefs included in (effectively managed) MPAs and OECMs	Target 3	No	(Headline and Complementary)	Can contribute to "3.1 Coverage of protected areas and other effective area-based conservation measures"
Index of coastal eutrophication	Targets 7 and 8	Yes	Headline and Complementary	
Live coral cover in restored reef areas	Goal A, Target 1	No		
3.B PRIORITY INDICATORS FOR DEVELOPMENT				
Red List of Ecosystems	Goal A, Target 1	Yes	Headline and Complementary	
Hard coral genera richness	Goal A, Target 1	No		But see "hard coral cover and composition" – complementary indicator for Goal A
Structural complexity of coral reefs	Goal A, Target 1	No		
CATAMI classification scheme	Goal A, Target 1	No		
Carbonate budgets	Goal A, Target 1	No		

3 COUNTRY CASE STUDIES OF CORAL REEF INTEGRATION INTO NBSAPS

This section provides three new case study summaries showcasing countries that have integrated coral reefs and associated ecosystems into their NBSAPs (full case studies are available in Annex 7) alongside summaries of existing case studies (Fig. 3). The type of integration is linked to the themes used in a recent assessment by UNEP-WCMC (Brooks *et al.,* 2022) for a case study analysis of NBSAPs and marine and coastal biodiversity. These are:

1. Addressing underlying causes of biodiversity loss and mainstreaming;
2. Reducing direct pressures and promoting sustainable use;
3. Safeguarding species and ecosystems; and
4. Enabling and enhancing implementation.

Within these four themes a number of different approaches were identified by UNEP-WCMC for the integration of marine and coastal biodiversity into NBSAPs:

- Mapping direct and indirect drivers (of biodiversity loss);
- Mainstreaming;
- Spatial planning;
- Identifying dependence on marine and coastal resources;
- Marine protected areas;
- Cross-sectoral coordination;
- Learning from the past; and
- Project-based design.

A summary of existing case studies highlighted in the UNEP-WCMC report that are relevant to coral reefs and associated ecosystems is also provided in Section 3.2.

Figure 3. Map showcasing the geographical location of the countries, territories and economies presented in the case studies, and their respective source (UNEP-WCMC (Blue); ICRI (Orange)), in this guidance document. This map is intended for visualisation purposes only as does not present true geographic boundaries. Only French Overseas Territories with coral reefs are presented and adapted from IFRECOR (2021).

3.1 EXAMPLES OF COUNTRIES THAT HAVE INTEGRATED CORAL REEFS AND/OR ASSOCIATED ECOSYSTEMS INTO THEIR NBSAPS

Three case studies were developed in collaboration with each country (France for its overseas territories, the Republic of Palau, and the Republic of the Philippines) and existing information for the purpose of this Guidance Document. Each case study provides background information on the extent and status of coral reefs and associated ecosystems in that country along with a brief overview of the main pressures operating to cause ecosystem loss.

A brief summary of the approaches used for coral reef and/or associated ecosystem integration in the three case studies is provided below:

1. **France**
   Through France's National Biodiversity Strategy (NBS2030) is developing and strengthening the MPA network in its Overseas Territories with a new **target of 50% of coral reefs under strong protection by 2030**. The strategy is also **addressing land-based pressures to improve coastal water quality** through pollution reduction in watersheds. France is also focussing on the **protection and restoration of mangroves**, especially in areas where there are high levels of pressure on the ecosystem.

2. **The Republic of Palau**
   One of Palau's NBSAP key strategic areas on species protection identifies **coral reef species (corals, fish, and macro-invertebrates) as high priority species for protection** through the use of ecosystem-based conservation approaches. Another key strategic area is **mainstreaming conservation** through broad engagement across all sectors with biodiversity conservation and sustainable resource use integrated into all aspects of planning, development, and operations.

3. **The Republic of the Philippines**
   The Philippines Biodiversity and Strategic Action Plan (PBSAP) includes a national target for coral reefs and associated ecosystems (Conservation Target 3) to ensure that the **spatial coverage of these ecosystems is maintained**. Coral reefs, mangroves and seagrass beds are also all specifically mentioned in multiple targets to achieve the direct program intervention of "**restoration of ecosystem functions**" to address habitat loss.

Further detail for each selected country example is provided in Annex 7.

3.2 SUMMARY OF EXAMPLES FROM UNEP-WCMC REPORT FOR CASE STUDIES OF COUNTRIES WITH CORAL REEFS AND ASSOCIATED ECOSYSTEMS

The UNEP-WCMC report provides eight illustrative case studies where countries were regarded as successfully integrating marine and coastal biodiversity into their NBSAP according to the above four themes. Of these, six countries are home to coral reefs and associated ecosystems to varying degrees (Belize, South Africa, The Solomon Islands, Malaysia, Japan, and The Seychelles). The approaches used by these countries to integrate marine and coastal biodiversity (i.e., coral reefs / associated ecosystems) into their current NBSAP are summarised in Table 4.

The examples provided demonstrate that countries are using a range of approaches to integrate marine and coastal biodiversity into their NBSAPs. These include tackling the main drivers of marine and coastal biodiversity loss by setting targets and actions to achieve them within an NBSAP (Belize) or focussing on particular aspects within an NBSAP such as mainstreaming (South Africa) or on implementation through a project-orientated approach (The Seychelles). Other examples provided are ensuring the effective protection and management of marine and coastal ecosystems through MPAs and Other Effective Area-based Conservation Measures (OECMs)[19] (Malaysia) and improving the sustainability of marine resource use such as economically important tuna fisheries (The Solomon Islands). Focussing on cross-sectoral coordination in NBSAPs for wide ranging issues such as ecological connectivity (Japan) and clearly defining responsibilities at the national level for NBSAP implementation (Malaysia) were also highlighted. Further information on each case study example is available in the UNEP-WCMC report[20].

[19] 'Other effective area-based conservation measures' (OECMs) are areas that are achieving the long term and effective in-situ conservation of biodiversity outside of protected areas.

[20] *Ibid*

Table 4. Examples of how countries have successfully integrated coral reefs and associated ecosystems into their NBSAPs (summarised from selected case studies in the UNEP-WCMC report).

Country	Theme	Approach
Belize	Addressing underlying causes of biodiversity loss and mainstreaming	Addressing the direct and indirect drivers of coastal biodiversity loss (for unsustainable fishing): • NBSAP identified direct and indirect drivers behind each threat • Identified action needed to address underlying causes of biodiversity loss, including target setting at the national level • Supported mainstreaming by identifying potential synergies between targets and national legislation and policies
South Africa	Addressing underlying causes of biodiversity loss and mainstreaming	Mainstreaming marine and coastal biodiversity into national policies, planning and decision-making processes: • NBSAP integrates marine biodiversity considerations into national development planning and makes cross-cutting links to sectors and other stakeholders • Strong alignment of the implementation of the National Development Plan and the strategic objectives of the NBSAP • NBSAP also links marine environmental (ecosystem) health to economic benefits
The Solomon Islands	Reducing direct pressures and promoting sustainable use	Identifying dependencies on marine and coastal resources and ensuring their sustainable use: • NBSAP supports long-term sustainability of marine resources through targets and action • Example provided is the Solomon tuna fishery • NBSAP has specific targets to address issues in the fishery such as bycatch of marine megafauna
Malaysia	Safeguarding species and ecosystems	Protecting highly biodiverse ecosystems with marine protected areas: • NBSAP includes increasing protection of vulnerable marine and coastal ecosystems through MPAs and OECMs • Specific targets and related actions to strengthen MPA / OECM management including strong recognition of the role of IPLC for community conserved areas • NBSAP also identifies responsible agencies and key partners for each target to better support implementation
Japan	Safeguarding species and ecosystems	Conserving coastal ecosystems and using cross-sectoral coordination to maintain ecological connectivity between land and sea: • NBSAP addresses fragmentation / impeded ecological connectivity between land and sea • Implementation of integrated management measures covering marine and coastal ecosystem protection and better coastal infrastructure / construction to improve connectivity • NBSAP includes measures to increase cross-sectoral coordination between relevant organisations in watersheds and the coastal zone

The Seychelles	Enabling and enhancing implementation	Packaging NBSAP activities in projects to facilitate implementation by different actors: • NBSAP has a strong focus on implementation with actions packaged as projects developed with stakeholder input • Projects that support enabling activities are prioritised to provide a foundation to build on e.g., the development of an NBSAP financing plan and an NBSAP implementation unit • NBSAP also has a range of integrated projects to tackle multiple drivers affecting coral reefs in a holistic and efficient way

The case study for South Africa shows that linking the health of the environment (ecosystem status) to the national economy is important to ensure that marine and coastal biodiversity (e.g., coral reefs and associated ecosystems) are fully considered both in NBSAPS and in national development plans. This case study also mentioned the use of a National Biodiversity Framework to coordinate and align efforts of organisations involved in conserving and managing biodiversity in support of sustainable development[21]. This approach could be adopted for coral reefs and associated ecosystems to ensure there is a joined-up approach at the national level through the coordination of all actors working in a particular country. Such a framework should also be closely linked to an updated GBF-aligned NBSAP along with national development plans.

[21] *ibid*

4 ADDITIONAL RESOURCES FOR UPDATING OR REVISING NBSAPS

This section provides a brief summary of the status (as of December 2023) of ongoing initiatives and resources available to countries for the assessment and revision of their NBSAPs to align with the GBF. The resources presented are further expanded in Annex 8.

4.1.1 Convention on Biological Diversity Resources:

- CBD/COP/DEC/15/4 (19 December 2022): The Kunming-Montreal Global Biodiversity Framework: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf
- CBD/COP/DEC/15/5 (19 December 2022): Monitoring framework for the Kunming-Montreal Global Biodiversity Framework: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-05-en.pdf
- CBD/COP/DEC/15/6 (19 December 2022): Mechanisms for Planning, Monitoring, Reporting and review: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-06-en.pdf
    - Including Annex I: Template for submission of national targets as part of NBSAPs towards the implementation of the GBF
- CBD/COP/DEC/15/7 (19 December 2022): Resource mobilisation: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-07-en.pdf
- CBD/COP/DEC/15/8 (19 December 2022): Capacity-building and development and technical and scientific cooperation: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-08-en.pdf
- CBD/SBSTTA/24/9 (9 April 2021): Synthesizing the Scientific Evidence to Inform the Development of the Post-2020 Global Framework on Biodiversity. Earth Commission Meeting Report to the Convention on Biological Diversity: https://www.cbd.int/doc/c/0160/eefb/517311d894301b66d9501354/sbstta-24-09-en.pdf
- The Kunming-Montreal Global Biodiversity Framework (GBF) 2050 Goals: https://www.cbd.int/gbf/goals
- The Kunming-Montreal Global Biodiversity Framework (GBF) 2030 Targets (Guidance Notes): https://www.cbd.int/gbf/targets
- CBD NBSAP portal: https://www.cbd.int/nbsap/
- National Reports & NBSAPs submitted to the CBD: https://www.cbd.int/reports/search

4.1.2 Additional supporting resources:

- Steps to review and update NBSAPs (National Biodiversity Strategies and Action Plans), The Nature Conservancy
- Learning for Nature website
- NBSAP Forum
- The NBSAP Accelerator Partnership
- The Global Biodiversity Framework Early Action Support Project (GEF)
- The Biodiversity Finance Initiative (BIOFIN)
- SPACES Coalition

5 REFERENCES

Aliño, P.M., Naňola, C.L. Jr., Campos, W.L. et al. 2004. Philippine coral reef fisheries: diversity in adversity. In G. Silvestre et al. (Eds.). In turbulent seas; The status of Philippine marine fisheries (pp. 65-69). Cebu City: Department of Agriculture-Bureau of Fisheries and Aquatic Resources.

Bejarano, S., Golbuu, Y., Sapolu, T., and Mumby, P. 2013. Ecological risk and the exploitation of herbivorous reef fish across Micronesia. Marine Ecology Progress Series 482: 197-215.

Brooks, H., Fletcher, R., Mapendembe, A., Tregenna, B., and McOwen, C. 2022. How blue is national biodiversity planning and action? Understanding how issues relating to marine and coastal biodiversity are included in national biodiversity strategies and action plans. United Nations Environment Programme World Conservation Monitoring Centre, Cambridge, U.K.

Cardona Santos, E.M., Kinniburgh, F., Schmid, S. et al. 2023. Mainstreaming revisited: Experiences from eight countries on the role of National Biodiversity Strategies in practice. Earth System Governance 16: 100177.

Chin, A., Lison de Loma, T., Reytar, K., et al. 2011. Status of Coral Reefs of the Pacific and Outlook. Global Coral Reef Monitoring Network. 260 p.

McKenzie, L.J., Yoshida, R.L., Aini, J.W. et al. 2021. Seagrass ecosystems of the Pacific Island Countries and Territories: A global bright spot. Marine Pollution Bulletin 167: 112308.

Cinco, T.A., Hilario, F.D., de Guzman, R.G. and Ares, E.D. 2013. Climate trends and projections in the Philippines. Paper presented at the 12th national convention on statistics (NCS), Mandaluyong City, Philippines, October 1-2 2013.

DeVantier, L. and Turak, E. 2017. Species richness and relative abundance of reef-building corals in the Indo-West Pacific. Diversity 9(3), 25.

Díaz S, Zafra-Calvo N, Obura D, *et al.* 2020. Synthesizing the scientific evidence to inform the development of the post-2020 Global Framework on Biodiversity. Earth Commission Meeting Report to the Convention on Biological Diversity. Subsidiary Body on Scientific, Technical and Technological Advice, Convention on Biological Diversity, 24th meeting Montreal, Canada 17-22 August 2020

Golbuu, Y., Wolanski, E., Harrison, P., et al. 2011. Effects of land-use change on characteristics and dynamics of watershed discharges in Babeldoab, Palau, Micronesia. Journal of Marine Biology 2011: 1-17.

Golbuu, Y., Wolanski, E., Harrison, P., et al. 2011. Effects of land-use change on characteristics and dynamics of watershed discharges in Babeldoab, Palau, Micronesia. Journal of Marine Biology 2011: 1-17.

Gouezo, M., Golbuu, Y., Fabricius, K. et al. 2019. Drivers of recovery and reassembly of coral reef communities. Proceedings of the Royal Society B: Biological Sciences 286:10.

Gouezo, M., Golbuu, Y., van Woesik, R. et al. 2015. Impact of two sequential super typhoons on coral reef communities in Palau. Marine Ecology Progress Series 540: 73-85.

Gouezo, M., Nestor, V., Otto, E.I., et al. 2019. Palau's coral reefs are generally in good condition apart from reefs still recovering from typhoon damages. Palau International Coral Reef Center. PCRC Technical Report 20-09. December 2019.

Harborne, A.R., Rogers, A., Bozec, Y.-M., and Mumby, P.J. 2017. Multiple Stressors and the Functioning of Coral Reefs. Annual Review of Marine Sciences 9: 445-468.

Hughes, T., Barnes, M., Bellwood, D. et al. 2017. Coral reefs in the Anthropocene. Nature 546, 82–90. https://doi.org/10.1038/nature22901.

IFRECOR. 2021. Health status of coral reefs, seagrass beds and mangroves of the French Overseas Territories. Initiative Francaise pour les Recifs Coralliens. Summary for Policymakers.

IPBES 2019 a. Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Diaz, S., Settele, J., Brondizio, E.S., Ngo, H.T., Gueze, M., Agard, J., Arneth, A., Balvanera, P. et al. Eds. IPBES Secretariat, Bonn, Germany; 56 p.

IPBES 2019 b. Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. IPBES Secretariat, Bonn, Germany.

Leadley, P.W., Krug, C.B., Alkemade, R., Pereira, H.M., Sumaila, U.R., Walpole, M. et al. 2014. Progress towards the Aichi Biodiversity Targets: An Assessment of Biodiversity Trends, Policy Scenarios and Key Actions. Secretariat of the Convention on Biological Diversity, Montreal, Canada. Technical Series 78; 500 p.

Licuanan, A.M., Reyez, M.Z., Luzon, K.S. et al. 2017. Initial findings of the nationwide assessment of Philippine coral reefs. Philippine Journal of Science. 146(2): 177-185.

Licuanan, W.Y., Cabreira, R.W., and Aliño, P.F. 2019. The Philippines. Chapter 23. In: World Seas: An Environmental Evaluation, Volume 2. Elsevier Science Publisher.

Licuanan, W.Y., Cabreira, R.W., and Aliño, P.F. 2019. The Philippines. Chapter 23. In: World Seas: An Environmental Evaluation, Volume 2. Elsevier Science Publisher.

Long, J.B., and Giri, C. 2011. Mapping the Philippines' mangrove forests using Landsat imagery. Sensors 11(3): 2972-2981.

Muallil, R.N., Mamauag, S.S., Cabral, R.B., et al. 2014. Status, trends and challenges in the sustainability of small-scale fisheries in the Philippines: insights from FISHDA (fishing industries' support in handling decisions application) model. Marine Policy 44: 212-221.

Muller-Karanassos, C., Filous, A., Friedlander, A.M. et al. 2021. Effects of habitat, fishing and fisheries management on reef fish populations in Palau. Fisheries Research 241.

Neri, M.P., Baloloy, A.B., and Blanco, A.C. 2021. Limitation assessment and workflow refinement of the mangrove vegetation index (MVI)-based mapping methodology using Sentinel-2 imagery. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences. LVI-4/W6-2021: 235-242. https://doi.org/10.5194/isprsarchives-XLVI-4-W6-2021-235-2021

Nestor, V., Otto, E.I., Olsudong, D. et al. 2023. Palau reefs after 19 years of monitoring show steady recovery from Typhoon. Palau International Coral Reef Center. PCRC Technical Report 23-08. August 2023.

Nicholson, E., Watermeyer, K.E., Rowland, J.A., Sato, C.F., Stevenson, S.L., Andrade, A., et al. 2021. Scientific foundations for an ecosystem goal, milestones and indicators for the post-2020 global biodiversity framework. *Nat. Ecol. Evol.*, 5, 1338–1349.

Obura, D., Gudka, M., Samoilys, M., Osuka, K., Mbugua, J., Keith, D.A., *et al.* 2021. Vulnerability to collapse of coral reef ecosystems in the Western Indian Ocean. *Nat. Sustain.*, 1–10.

Palomares, M.L.D., Parducho, V.A., Bimbao, M.A. et al. 2014. Philippine marine fisheries 101. In: M.L.D. Palomares and D. Pauly. (Eds.). Philippine marine fisheries catches: a bottom-up reconstruction, 1950 to 2010. Fisheries Research Centre Report 22 (1): 1-13. Vancouver: Fisheries Centre, University of British Columbia.

Perez, R.T., Amadore, L.A., and Feir, R.B. 1999. Climate change impacts and responses in the Philippines coastal sector. Climate Research 12: 97-107.

Philippine forestry statistics: 2021. Forest Management Bureau, Department of Environment and Natural Resources, Philippines. https:// forestry.denr.gov.ph/index.php/statistics/philippines-forestry-statistics

Pisupati, B. and Prip, C. 2018. Interim Assessment of Revised National Biodiversity Strategies and Action Plans (NBSAPs). UNEP-WCMC and Frodtjof Nansen Institute, Lysaker, Norway.

Polidoro, B.A., Carpenter, K.E., Collins, L. et al. 2010. The loss of species: mangrove extinction risk and geographic areas of global concern. PLoS ONE 5(4), e10095.

Primavera, J.H. 2000. Development and conservation of mangroves: institutional issues. Ecological Economics 35(1): 91-106

Prip, C. and Pisupati, B. 2018. Assessment of Post-2010 National Biodiversity Strategies and Action Plans. United Nations University Institute of Advanced Studies, Japan.

Setter, R.O., Franklin, E.C. and Mora, C. 2022. Co-occurring stressors reduce the timeframe of environmental viability for the world's coral reefs. PLoS Biol 20(10): e3001821

Souter, D., Planes, S., Wicquart, J., Logan, M., Obura, D., Staub, F. (eds.). 2021. Status of coral reefs of the world: 2020 report. Global Coral Reef Monitoring Network (GCRMN) and International Coral Reef Initiative (ICRI).

Tahiluddin, A.B., and Sarri, J.H. 2022. An overview of destructive fishing in the Philippines. Acta Natura et Scienta 3: 116-125. https://doi.org/10.29329/actanatsci.2022.352.04

Whitehorn, P.R., Navarro, L.M., Schroter, M., Fernandes, M., Rotllan-Puig, X., and Marques, A. 2019. Mainstreaming biodiversity: a review of national strategies. Biol. Conserv. 235: 157-163.

Yukihira, H., Shimoike, K., Golbuu, Y. et al. 2007. Coral reef communities and other marine biotopes in Palau. In: Coral Reefs of Palau, H. Kayanne et al. (eds.). Palau International Coral Reef Center: Koror, Republic of Palau, p. 231.

Yukihira, H., Shimoike, K., Golbuu, Y. et al. 2007. Coral reef communities and other marine biotopes in Palau. In: Coral Reefs of Palau, H. Kayanne et al. (eds.). Palau International Coral Reef Center: Koror, Republic of Palau, p. 231

Zinngrebe, Y. 2023. Planning for Implementation: Shifting the Focus of National Biodiversity Strategies to Local Narratives, Existing Institutional Settings, and Social Capital. Sustainability 15: 9774. https://doi.org/10.3390/su1529774

6 ANNEXES

6.1 ANNEX 1: THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK, ITS ACTION TARGETS AND MONITORING FRAMEWORK, AND RELEVANCE TO CORAL REEFS AND ASSOCIATED ECOSYSTEMS.

The GBF is built around a theory of change which recognises that urgent policy action is required globally, regionally, and nationally to achieve sustainable development so that the drivers of undesirable change that have exacerbated biodiversity loss will be reduced and/or reversed to allow for the recovery of all ecosystems and to achieve the CBD's Vision of living in harmony with nature by 2050[22]. The framework has 23 action-oriented targets for 2030 which, if achieved, will contribute to 2030 Milestones and the outcome-oriented goals for 2050[23]. Actions to reach these targets are to be implemented consistently and in harmony with the Convention on Biological Diversity and its Protocols and other relevant international obligations, considering national socioeconomic conditions. During the development of the (post-2020) GBF, the CBD Parties, through the activities of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework (WG2020), decided early on that there should not be biome-specific language in the Goals and Targets of the framework. Rather, the GBF should consider all ecosystems under the double perspective of conserving nature and ensuring the long-term provision of benefits to people (Diaz *et al.,* 2020).

Although coral reefs or other ecosystems are not specifically highlighted in these goals and targets, many of them are extremely relevant to tropical coastal and marine ecosystems. A preliminary assessment of the relevance of each of the Action Targets within the GBF to coral reefs and associated ecosystems is provided in Table A1.

Table A.1. Action Targets of the Kunming-Montreal Global Biodiversity Framework and their relevance to warm water coral reefs and associated ecosystems.

2030 GBF Action Targets	Relevance to coral reefs and associated ecosystems
Target 1. Spatial planning and retention of wilderness/intact areas	HIGH – Marine and coastal ecosystem extent, integrity, and connectivity are all aspects that will require increased capacity to monitor and achieve.
Target 2. Restoration	HIGH - Restoring tropical marine and coastal ecosystems such as coral reefs, mangroves and seagrass beds is critically important
Target 3. Protected areas and other effective area-based conservation measures	HIGH – Crucial for the recovery of tropical marine and coastal ecosystems. A key aspect is ensuring these areas are effectively and equitably managed.
Target 4. Conservation and recovery of species	HIGH – Important for endangered reef fauna such as turtles, elasmobranchs and hard corals, and an important aspect of ecosystem recovery and restoration. Links to T5 and T9 through bycatch mitigation in fisheries

[22] CBD/COP/DEC/15/4 (19th December 2022) Kunming-Montreal global Biodiversity Framework: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf

[23] *Ibid*

Target 5. Harvest and trade of wild species	HIGH – Relevance to high value trade of marine resources such as shark fins and, sea cucumbers but also strongly linked to sustainable fisheries.
Target 6. Invasive alien species	MEDIUM – However, can be regionally high e.g., lionfish in the Caribbean
Target 7. Pollution	HIGH – Particularly for land-based pollution from agricultural and urban areas and sea-based pollution such as ghost fishing gear, with an overall focus on nutrients and plastic.
Target 8. Biodiversity and climate change	HIGH – Promoting the use of nature-based solutions to increase resilience in the marine and coastal environment to CC impacts. Strong linkages with T1, T2, T3, T5, T7 and T9.
Target 9. Sustainable use of wild species	HIGH – Sustainable fisheries management is key, especially for small-scale fisheries in SIDS and LDCs
Target 10. Sustainable agriculture, forestry, and aquaculture	MEDIUM – Sustainable aquaculture, minimising downstream effects on tropical coastal ecosystems through sustainable land use
Target 11. Ecosystem functions and services	MEDIUM – Connections to marine and coastal ecosystems in terms of food provision, coastal protection, and storm-water management
Target 12. Green/blue spaces in urban areas	LOW – Focus on minimising impacts from urban areas on adjacent tropical coastal ecosystems.
Target 13. Access and benefit sharing	MEDIUM – Important for SIDS and LDCs to enable benefits and incorporate traditional local knowledge (ILK).
Target 14. Mainstreaming biodiversity across sectors	HIGH – Mainstreaming biodiversity values for tropical coastal and marine systems across sectors is extremely important.
Target 15. Business and biodiversity	HIGH – Important for sustainable seafood supply chains, coastal tourism, and waste management to minimise pressures
Target 16. Sustainable consumption	MEDIUM – e.g., to minimise waste in urban coastal areas
Target 17. Biosafety	LOW – But linked to transfer of marine invasive species
Target 18. Subsidies and incentives	MEDIUM – Important to reduce or remove harmful incentives and subsidies e.g., for inshore fisheries
Target 19. Increasing financial and other resources for biodiversity	HIGH – Critical to ensure there are sufficient resources to scale up the restoration and management of tropical coastal ecosystems
Target 20. Capacity Building and Development	HIGH – Critical for the monitoring, management, and governance of tropical coastal ecosystems in order to meet the GBF Goals
Target 21. Information and knowledge	HIGH – Adequate availability of quality information is essential for the management of tropical marine and coastal systems
Target 22. Participation of IPLCs	HIGH – Building management and governance systems that involve indigenous peoples and local communities including women and youth in decision making is essential, especially in SIDS and LDCs
Target 23. Participation of women, girls, and youth	HIGH - As per target 22

Of the 23 Action Targets, sixteen of them can be regarded as highly relevant to coral reefs and associated ecosystems covering aspects including spatial planning, protected and managed areas, ecosystem restoration, marine resource use, pollution, and climate change (Table A2).

Targets which are thought to have the highest relevance to coral reefs are those that tackle the key direct drivers of change for coastal and marine ecosystems as defined by IPBES (IPBES 2019b) (Table A2). These are primarily **Targets 1 - 9** and **15**. However, of equal relevance are cross-cutting targets (**Targets 14** and **19 – 23**), which are linked to indirect drivers of change and essential to the success of the GBF for specific ecosystems such as coral reefs (Table A2). These targets cover themes that will support the delivery of the framework through the availability of information and financial resources as well as capacity-building and equitable participation in decision-making. All these cross-cutting targets are particularly relevant to Small Island Development States (SIDS) and Least Developed Countries (LDCs) with coral reefs and associated ecosystems. Ensuring there is adequate support to implement the Action Targets for tropical coastal and marine ecosystems is highly important through capacity building and development (**Target 20**) and the availability of finance (**Target 19**). A key element for the management and governance of coral reefs and associated ecosystems will be the full participation of indigenous peoples and local communities (**Target 22**), especially for countries with large spatial and often remote areas of coral reefs where local management is key. Equally important is the participation of women and girls in decision-making for tropical coastal ecosystems at the local level (**Target 23**).

Secondary action targets are also listed (**Targets 4, 10, 16** and **18**), which will contribute to the delivery of the primary targets in addressing each driver of change for tropical coastal and marine ecosystems (Table A2). For example, the elimination of harmful subsidies for artisanal / small-scale fishing (**Target 18**) will support sustainable fisheries management for inshore marine and coastal species (**Target 9**). There are a number of action targets not listed in Table A2, which are regarded as having a lower relevance to coral reefs and associated ecosystems (see Table A1 for the full list of action targets and relevance). However, it should be noted that all goals and targets are designed to be applicable to each biome, including coral reefs and associated ecosystems, to a greater or lesser extent.

Table A2. A Preliminary Assessment of the Relevance of the GBF Action Targets for coral reefs and associated ecosystems in relation to the key drivers of change and cross-cutting themes.

Drivers of Change	Primary Action Targets	Secondary Action Targets / Notes
Direct Extraction	T4: Conservation and recovery of species T5: Harvest and trade of wild species T9: Sustainable use of wild species (e.g., fisheries) T15: Business and biodiversity (sustainable production practices and supply chains)	T18: Subsidies and incentives (elimination or reform of harmful subsidies)
Sea use change	T1: Spatial planning and retention of wilderness/intact areas (Marine Spatial Planning) T2: Restoration T3: Protected areas and other effective area-based conservation measures (effective marine and coastal ecosystem protection)	T4: Conservation and recovery of species T10: Sustainable agriculture, forestry, and aquaculture
Climate change	T8: Biodiversity and climate change (climate change mitigation and adaptation through nature-based solutions/ecosystem-based approaches)	Linkages to all other drivers for maximising ecosystem health and resilience to climate change

Pollution	T7: Pollution (reduction including nutrients, biocides and plastic) T15: Business and biodiversity (sustainable production practices and supply chains)	T10: Sustainable agriculture, forestry, and aquaculture
Invasive Species	T6: Invasive alien species (management and control)	(T17: Biosafety)
Cross-cutting:	T14: Mainstreaming biodiversity across sectors T19: Increasing resources for biodiversity T20: Capacity building and development T21: Information and knowledge T22 & T23: Participation of IPLCs, women, girls, and youth	T16: Sustainable consumption

It is crucial to view the GBF as a comprehensive approach that should be implemented in its entirety for each ecosystem, including coral reefs, to ensure that biodiversity is conserved, and ecosystems are functionally restored. This point should be kept in mind when NBSAPs are revised to integrate coral reefs and associated ecosystems and become aligned with the GBF.

6.1.1 The Monitoring Framework of the GBF

In terms of monitoring the implementation of the GBF, the monitoring framework sets out a range of proposed indicators to be used to track the progress made to achieve the Goals and Action Targets[24]. These indicators are divided into four groups:

a) **Headline indicators**: a minimum set of high-level indicators to capture the overall scope of the goals and targets of the GBF;

b) **Global level indicators** collated from binary yes/no responses in national reports[25];

c) **Component indicators**: a list of optional indicators that cover components of the GBF goals and targets and can apply at the global, regional, national, or subnational level;

d) **Complementary indicators**: a list of optional indicators for thematic or in-depth analysis of each goal and target that can apply at the global, regional, national, or subnational level.

In addition to the indicators suggested for each group above, the monitoring framework can be supplemented by further indicators at the national or subnational level (as developed by countries/Parties). The indicators proposed within the GBF monitoring framework that are relevant to coral reefs and associated ecosystems are described in Section 2 of the guidance.

[24] CBD/COP/DEC/15/5 (19 December 2022): Monitoring framework for the Kunming-Montreal Global Biodiversity Framework: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-05-en.pdf

[25] *Under development by the Ad Hoc Technical Expert Group on Indicators for the Kunming-Montreal Global Biodiversity Framework and will be made available for consideration at COP 16.*

6.2 ANNEX 2: CBD GUIDANCE FOR REVISING / UPDATING NBSAPS

CBD/COP/DEC/15/6 (Annex 1):

Mechanisms for planning, monitoring, reporting and review.

Annex I

GUIDANCE FOR REVISING OR UPDATING NATIONAL BIODIVERSITY STRATEGIES AND ACTION PLANS TO ALIGN WITH THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

1. National biodiversity strategies and action plans (NBSAPs) are the main vehicle for implementation of the Convention on Biological Diversity at the national level. They are expected to be a key component of the enhanced planning, monitoring, reporting and review mechanism of the Convention for the Kunming-Montreal Global Biodiversity Framework. The present document provides guidance on revising or updating NBSAPs in the light of the Kunming-Montreal Global Biodiversity Framework. This guidance is in line with Article 6 of the Convention and complements previous decisions of the Conference of the Parties on various aspects of NBSAPs (in particular decision IX/8, para. 8, and decision X/2, para. 3). This guidance also takes into account calls to integrate and mainstream biosafety and access and benefit-sharing in NBSAPs pursuant to relevant decisions of the Conference of the Parties to the Convention and of the Conference of the Parties serving as the meetings of the Parties to the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit-sharing, as appropriate.[26]

2. National biodiversity strategies and action plans should be seen as an umbrella process under which all national targets and actions relevant to the Kunming-Montreal Global Biodiversity Framework can be planned, implemented, monitored, reviewed and enhanced. They are the main instrument through which Parties establish and communicate their national contribution towards the Framework and its goals and targets. They should involve and facilitate the engagement of all government sectors at all levels of government, and all stakeholders, indigenous peoples and local communities, women and youth across society, to ensure that targets, actions and expected outcomes are coordinated, that the concerns of different actors are addressed, and that their ownership and commitment towards implementation are attained. The NBSAPs should promote synergies and planning across other biodiversity-related conventions and multilateral environmental agreements (MEAs).[27] Additionally, the NBSAP process should garner high-level political support, ensure interministerial coordination and vertical integration, and facilitate implementation.

3. National biodiversity strategies and action plans should be revised or updated as needed, without interrupting implementation.

4. In accordance with Articles 3, 6, 20 and 21 of the Convention, the revision or updating of NBSAPs to align with the Kunming-Montreal Global Biodiversity Framework, including the corresponding national targets, should be self-determined by each Party in accordance with their particular conditions and capabilities.

[26] Decisions 14/31, BS-VII/5, CP-VIII/15, NP-I/6, NP-I/7 and NP-I/8.

[27] Note that a number of biodiversity-related MEAs have requested Parties to mainstream the implementation of their convention into the NBSAPs (e.g. resolution 8.18 of the Convention on Migratory Species, Ramsar resolution XIII.5).

5. National biodiversity strategies and action plans should promote and support increased efforts and actions, and improved implementation and consistency over time, in a cooperative and flexible manner, ensuring responsibility and transparency of information on national targets reflecting, as applicable, all the goals and targets of the Kunming-Montreal Global Biodiversity Framework and including information regarding means of implementation for developing countries, in particular the least developed countries and small island developing States in line with the relevant Articles of the Convention.

6. Revised or updated NBSAPs following the adoption of the Kunming-Montreal Global Biodiversity Framework should contain the following common elements in order to ensure the utility of NBSAPs in the enhanced implementation, monitoring, reporting and review mechanism, while retaining their flexibility and their principal role as national implementation vehicles:

(a) National targets addressing or contributing towards each of the goals and targets of the Kunming-Montreal Global Biodiversity Framework and ensuring close alignment where possible, taking into account the availability of resources and means of implementation. Some Parties may wish to distinguish those targets and actions that will be implemented with already identified resources from those which they will only be able to achieve or implement if additional resources become available. National targets may leverage commitments made under other intergovernmental processes and relevant multilateral environmental agreements, including the Rio conventions;

(b) Concrete actions, policies and programmes designed to meet the national targets and contribute to the global goals and targets, including spatial, temporal and financial aspects, as appropriate. The development of these actions should go hand in hand with the identification of financing and capacity gaps and the development of national finance plans, or similar instruments, as well as capacity-building and development plans. This should also include the provision of finance and other means of implementation;

(c) National monitoring, reviewing and assessment. While revising or updating NBSAPs, headline indicators as well as component, complementary and other national indicators, where relevant, should be used, including to track contributions towards the goals and targets of the Kunming-Montreal Global Biodiversity Framework, taking into account national circumstances. NBSAPs may identify the relevant agencies responsible for collecting the data and compiling these indicators, any need for further development of such indicators, and any capacity development needs.

7. In order to minimize the time and resources required to revise or update NBSAPs, the alignment of existing NBSAPs and their targets with the new framework could be assessed. This assessment should consider, according to national circumstances, elements such as implementation gaps, existing goals, targets and indicators, the effectiveness of past actions, monitoring systems (including any data and/or knowledge systems and gaps), sectoral and cross-sectoral policies, finance and other means of implementation, and an assessment of how stakeholders, indigenous peoples and local communities, women and youth were involved in the revision and implementation. This exercise will allow the identification of those aspects or components of their NBSAPs that need to be revised or updated in the light of the new framework.

8. Parties may take into account different value systems, to revise or update, implement and review their NBSAPs. This may involve a national coordination mechanism, including representatives of key government ministries and other authorities at all levels, national gender and biodiversity focal points, traditional knowledge focal points, national focal points for the Cartagena and Nagoya Protocols, national focal points of the biodiversity-related conventions and the Rio conventions and for the Sustainable Development Goals, representatives of national statistical institutes and other data holders, indigenous peoples and local communities, non-governmental organizations, women's groups, youth groups, the business and finance community, the scientific community, academia, faith-based organizations, representatives of sectors related to or dependent on biodiversity, citizens at large, and stakeholders.

9. Synergies among NBSAPs and the planning and implementation mechanisms of the other biodiversity-related conventions, Rio conventions and other relevant multilateral environmental agreements, and the Sustainable Development Goals should be identified and utilized to maximize efficiency and coherence.

10. Information on commitments from non-State actors may be a useful source of information for revising or updating NBSAPs. Additionally, Parties may include these commitments in their national targets, or they could be maintained as separate commitments from actors beyond the national Government, as appropriate to national circumstances. Double counting of commitments from non-State actors should be avoided.

6.3 ANNEX 3: CBD GUIDANCE FOR REVISING OR UPDATING NBSAPS: RECOMMENDATIONS TO INCORPORATE CORAL REEFS AND ASSOCIATED ECOSYSTEMS

Note: CR/AS = coral reefs / associated ecosystems

CBD Guidance – key points	Recommendations for coral reef / associated ecosystems integration	ICRI Guidance
1. NBSAPs are the main vehicle for implementation of the CBD at the national level and a key component of the enhanced planning, monitoring, reporting and review mechanism of the Convention for the GBF	Ensure that coral reefs and associated ecosystems (CR/AS) are adequately represented throughout the NBSAP for the successful implementation of the GBF in tropical coastal and inshore waters	Section 2
2. NBSAPs should: • involve and facilitate the engagement of all government sectors at all levels of government, and all stakeholders, indigenous peoples and local communities, women, and youth across society, to ensure that targets, actions and expected outcomes are coordinated, that the concerns of different actors are addressed, and that their ownership and commitment towards implementation are attained • promote synergies and planning across other biodiversity-related conventions and multilateral environmental agreements (MEAs). Additionally, the NBSAP process should garner high-level political support, ensure interministerial coordination and vertical integration, and facilitate implementation	• Involve all government sectors at multiple levels (national, provincial, local) that are responsible for the management of CR/AS or responsible for / linked to the drivers of coastal / inshore biodiversity loss e.g., environment, fisheries, tourism, water, solid waste, agriculture, forestry, mining, construction, education. • Similarly involve all coastal actors (stakeholders and IPLC's) in the planning and implementation of activities linked to NBSAP (national) targets for CR/AS and maintain engagement and commitment throughout NBSAP / GBF implementation • Consider forming inter-ministerial 'groups' that focus on CR/AS and/or wider 'working groups' involving government, NGOs, stakeholders and IPLCS at multiple levels (e.g., national and sub-national coral reef 'task forces')	Section 2.4
3. NBSAPs should be revised or updated as needed, without interrupting implementation	Ensure that there are ongoing activities focussed on CR/AS that contribute to biodiversity protection and management while the NBSAP is being revised / updated	
4. The revision or updating of NBSAPs should be self-determined by each Party according to their particular conditions and capabilities	Develop an NBSAP that takes into account national conditions and capabilities that are related to CR/AS	
5. NBSAPs should promote and support increased efforts and actions, and improved implementation and consistency over time, in a cooperative and flexible manner, ensuring responsibility and	Revise / update NBSAP so that there are increased levels of effort and actions that focus on CR/AS as well as developing transparent reporting systems for CR/AS relevant national targets. Ensure the NBSAP includes	

transparency of information on national targets reflecting, as applicable, all the goals and targets of the GBF and including information regarding means of implementation for developing countries…	sufficiently detailed information on the means of implementation for CR/AS related actions / activities	
6a. Include national targets addressing or contributing towards each of the goals and targets of the GBF and ensuring close alignment where possible, taking into account the availability of resources and means of implementation	Include national targets that address / contribute to the GBF goals and targets that are highly relevant to CR/AS as outlined in the ICRI guidance e.g., national targets for marine spatial planning, MPAs/OECMs, ecosystem restoration, inshore fisheries, wastewater pollution and climate change as well as appropriate cross-cutting targets such as for mainstreaming	Annex 1 Section 2.3 / Figure 1
6b. Include concrete actions, policies and programmes designed to meet the national targets and contribute to the global goals and targets, including spatial, temporal, and financial aspects, as appropriate. The development of these actions should go hand in hand with the identification of financing and capacity gaps and the development of national finance plans, or similar instruments, as well as capacity-building and development plans	Develop actions, policies and programmes for the national targets developed for CR/AS. Ensure that CR/AS are appropriately included in national finance and development plans as well as in capacity-building plans linked to the protection and management of CR/AS. Identify finance and capacity gaps associated with CR/AS actions, policies, and programme prior to implementation	Annex 4; links to 7 (NBSAP assessment)
6c. National monitoring, reviewing and assessment. Use CBD proposed headline, component, complementary and other national indicators to track contributions towards the goals and targets of the GBF. NBSAPs may identify the relevant agencies responsible for collecting the data and compiling these indicators, any need for further development of such indicators, and any capacity development needs	Use CBD proposed indicators highlighted as relevant for CR/AS in the guidelines as well as indicators previously recommended by ICRI for the GBF and GCRMN indicators where applicable. Identify the agencies responsible for collecting and compiling indicator data for CR/AS in the NBSAP as well as capacity development needs for the monitoring of the CR/AS indicators. (Feed data into relevant global monitoring networks such as GCRMN, Seagrass-watch and the Global Mangrove Watch).	Section 2.3, Table 1; Section 2.5, Table 4
7. Assess the alignment of existing NBSAPs and their targets with the GBF. Consider elements such as implementation gaps, existing goals, targets and indicators, the effectiveness of past actions, monitoring systems (including any data and/or knowledge systems and gaps), sectoral and cross-sectoral policies, finance and other means of implementation, and an assessment of how stakeholders, indigenous peoples and local communities, women and youth were involved in the revision and implementation. This will help to identify which parts of existing NBSAPs need to be revised or updated to align with the GBF.	Ensure that the NBSAP assessment process includes CR/AS for the elements suggested particularly for implementation gaps, effectiveness of past actions and the involvement of / level of engagement with relevant stakeholders, indigenous peoples and local communities, women and youth in the implementation of the existing NBSAP.	Section 2.2

8. Take into account different value systems, to revise or update, implement and review NBSAPs. This may involve a national coordination mechanism, representatives of key government ministries and other authorities at all levels, national gender and biodiversity focal points, traditional knowledge focal points, national focal points for the Cartagena and Nagoya Protocols, national focal points of the biodiversity-related and Rio conventions and for the SDGs, representatives of national institutes and other data holders, indigenous peoples and local communities, non-governmental organizations, women's groups, youth groups, the business and finance community, the scientific community, academia, faith-based organizations, representatives of sectors related to or dependent on biodiversity, citizens at large, and stakeholders.	Include as many of the listed actors as possible to account for value systems linked to CR/AS when revising / updating the NBSAP, but especially government representatives, focal points, data holders, NGOs, IPLC's, women's and youth groups, business, science and research, and relevant stakeholders	Section 2.4
9. Identify synergies among NBSAPs and the planning and implementation mechanisms of the other biodiversity-related conventions, Rio conventions and other relevant multilateral environmental agreements, and the Sustainable Development Goals. Utilize these synergies to maximize efficiency and coherence	For CR/AS using the synergies between NBSAPs and other conventions such as the Convention for Migratory Species, the Ramsar Convention and the Convention on International Trade of Endangered Species of Wild Flora and Fauna (CITES) are important as well as those with the SDGs and other agreements or initiatives such as IPBES, UNFCCC and the UN Decades on Ocean Science and Restoration.	
10. Information on commitments from non-State actors may be a useful source of information for revising or updating NBSAPs. Additionally, Parties may include these commitments in national targets, or maintain them as separate commitments from actors outside of national Government.	Ensure any information on commitments from non-State Actors that can have a direct or indirect influence on CR/AS at the national or sub-national level are considered when revising or updating the NBSAP. Information from NGO's and scientific researchers working in coastal and inshore waters may be particularly relevant.	Section 4

6.4 ANNEX 4: INTEGRATED ACTIONS TO REDUCE IMPACTS OF DIRECT DRIVERS ON CORAL REEFS

(adapted from Appendix 1.5 of CBD/WG2020/3//INF/11.)

Target	Target scope	Examples of actions for coral reefs (Obura *et al.* 2021) or ecosystems in general (Nicholson *et al.* 2021)
T1	Integrated spatial planning to retain ecosystem area and integrity	Planning, regulation, and incentives to address land/sea use change
T2	Restore ecosystem area and integrity	Coral reef active restoration
T3	Expanded and effective protected areas (PAs) and other effective area-based conservation measures (OECMs)	MPAs, community management, etc.
T4	Manage for recovery of wild species	Manage for recovery of turtles, dugong, large predatory fish
T5	Sustainable harvest of biota	Identify and develop 'climate smart' fisheries with reduced ecosystem impacts and more secure livelihood benefits
T6	Manage invasive alien species	Prevent new introductions, reduce spread, eradicate, or control invasive alien species to eliminate or reduce their impacts
T7	Reduce pollution to levels not harmful to biodiversity and ecosystem functions	Reduce excess nutrients, sediments, biocides (pesticides etc.), and plastic waste
T8	Increase action on climate change to ensure resilience and minimize negative impacts on biodiversity	Commit to strong climate change mitigation, through Paris Agreement/NDCs and national implementation of emission reductions and adaptation plans relevant to coral reefs. Establish climate adaptation plans to, for example, develop ecosystem and resource use policies anticipating potential alternative states of reefs, to maximize biodiversity and benefits after a transition.
T9	Ensure benefits through sustainable management of wild species	Identify and develop 'climate smart' fisheries with reduced ecosystem impacts and more secure livelihood benefits; identify alternative livelihood options and diversified income streams in coral reef landscapes
T11	Nature-based solutions for ecosystem services	Protect and restore coral reefs and associated ecosystems (e.g., mangroves) for coastal protection

6.5 ANNEX 5: PROPOSED INDICATORS FOR THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

*Note: (Adapted from CBD/COP/DEC/15/5 Table 2) Indicators highlighted in **bold** are regarded as most relevant to coral reefs and associated ecosystems*

Goal/ Target	Headline indicator	Component indicator	Complementary indicator
A	**A.1 Red List of Ecosystems**	Ecosystem Intactness Index	**Continuous global mangrove forest cover**
	A.2 Extent of natural ecosystems	Ecosystem Integrity Index	**Trends in mangrove forest fragmentation**
	A.3 Red List Index	Species Habitat Index	**Trends in mangrove extent**
	A.4 The proportion of populations within species with an effective population size > 500	Biodiversity Habitat Index	**Live coral cover**
		Parc connectedness	**Hard coral cover and composition**
		EDGE	**Global coral reef extent**
		Living Planet Index	**Global seagrass extent (Seagrass Cover and composition)**
		Change in the extent of water-related ecosystems over time	**Cover of key benthic groups**
			Fleshy algae cover
			Ecosystem Intactness Index
			Biodiversity Intactness Index
			Ocean Health Index
			Extent of physical damage indicator to predominant seafloor habitats
			Wetland Extent Trends Index
			Percentage of threatened species that are improving in status according to the Red List
			Number of threatened species by species group
			Mean Species Abundance (MSA)
			Species Protection Index
			Fish abundance and biomass
			Genetic scorecard for wild species
			Marine species richness
			CMS Connectivity Indicator
			Species Status Index
			Intact Wilderness
			Expected Loss of Phylogenetic diversity
			Proportion of populations maintained within species

B	B.1 Services provided by ecosystems*	Red List Index (for utilized species) Living Planet Index (for used species)	**Levels of poverty in biodiversity dependent communities** Ecological footprint Expected loss of phylogenetic diversity Climatic impact index Ocean acidification **Change in the quality of coastal water ecosystems over time** Level of erosion Intact wilderness Maximum fish catch potential Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale Visitor management assessment Number of formal and non-formal education programmes transmitting spiritual and cultural values in the UNESCO World Network of Biosphere Reserves Index of development of the standard-setting framework for the protection and promotion of culture, cultural rights, and cultural diversity Cultural vitality index UNESCO Culture 2030 (multiple indicators) Processes and tools to monitor the implementation of a right to a healthy environment (e.g., included in NBSAPs and reported in national reports) Red List Index (for internationally traded species)
C	**C.1 Indicator on monetary benefits received*** **C.2 Indicator on non-monetary benefits***		**Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting**
D	**D.1 International public funding, including official development assistance (ODA) for conservation and sustainable**		**Finance mobilized for capacity-building** **Financial and technical assistance provided in dollars (including through South-South, North-South and triangular cooperation)** Finance mobilized for promoting the development, transfer, dissemination and diffusion of technology

	use of biodiversity and ecosystems **D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems** **D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems***		Number of scientists per population Joint scientific papers published (in Ocean Biodiversity Information System (OBIS)) by sector Nationally maintained research vessels Proportion of total research budget allocated to research in the field of marine technology Volume of official development assistance flows for scholarships by sector and type of study Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies
1	**A.1 Red List of Ecosystems** **A.2 Extent of natural ecosystems** **1.1 Percent of land and sea area covered by biodiversity-inclusive spatial plans***	Priority retention of intact / wilderness areas	**Number of countries using natural capital accounts in planning processes** Percentage of spatial plans utilizing information on key biodiversity areas **Habitat patches located within marine protected areas or integrated coastal zone management (ICZM)** Other spatial management plans (not captured as ICZM or marine spatial planning) Number of countries using ocean accounts in planning processes **Extent of natural ecosystems by type** Number of countries implementing national legislation, policies or other measures regarding FPIC related to conservation Ecosystem Integrity Index
2	**2.2 Area under restoration**	**Extent of natural ecosystems by type** Maintenance and restoration of connectivity of natural ecosystems	Habitat distributional range Global Ecosystem Restoration Index Bioclimatic Ecosystem Resilience Index (BERI) Priority retention of intact / wilderness areas Status of key biodiversity areas Biodiversity Habitat Index Red List Index **Red List of Ecosystems** Living Planet Index

			Species habitat Index
3	**3.1 Coverage of protected areas and other effective area-based conservation measures**	Protected area coverage of key biodiversity areas **Protected Area Management Effectiveness (PAME)** Red List of Ecosystems Connectivity Indicator The number of protected areas that have completed a site-level assessment of governance and equity (SAGE) Species Protection Index	Protected area downgrading, downsizing and degazettement (PD) Status of key biodiversity areas IUCN Green List of Protected and Conserved Areas Number of hectares of UNESCO designated sites (natural and mixed World Heritage sites and Biosphere Reserves) **Protected area and other effective area-based conservation measures management effectiveness (MEPCA) indicator** Protected Area Isolation Index (PAI) Protected Areas Network metric (ProNet) Extent to which protected areas and other effective area-based conservation measures cover key biodiversity areas that are important for migratory species Coverage of protected areas and other effective area-based conservation measures and traditional territories (by governance type) Ramsar Management Effectiveness Tracking Tool (R-METT) Percentage of biosphere reserves that have a positive conservation outcome and effective management Extent of indigenous peoples and local communities' lands that have some form of recognition Species Protection Index Number of countries implementing national legislation, policies or other measures regarding free, prior, and informed consent related to conservation **Red List of Ecosystems** Proportion of terrestrial, freshwater, and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures
4	A.3 Red list Index A.4 The proportion of populations within species with an effective population size > 500	Living Planet Index Number of plant and animal genetic resources secured in medium or long-term conservation facilities	Species threat abatement and restoration metric Changing status of evolutionary distinct and globally endangered species (EDGE Index) Percentage of threatened species that are improving in status Number of CMS daughter agreements

		Trends in effective and sustainable management of human-wildlife conflict and coexistence Green Status of Species Index Conservation status of species listed in the CITES Appendices has stabilized or improved	Rate of invasive alien species establishment
5	**5.1 Proportion of fish stocks within biologically sustainable levels**	Red List Index for used species Living Planet Index for used species **Sustainable use of wild species**	Red List Index (for internationally traded species and for migratory species) Marine Stewardship Council Fish catch **By-catch of vulnerable and non-target species** Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing Proportion of legal and illegal wildlife trade consisting of species threatened with extinction Illegal trade by CITES species classification Number of countries incorporating trade in their national biodiversity policy Proportion of terrestrial, freshwater and marine ecological regions which are conserved by protected areas or other effective area-based conservation measures Implementation of measures designed to minimize the impacts of fisheries and hunting on migratory species and their habitats Number of MSC Chain of Custody Certification holders by distribution country Trends of trade and commercialization in biodiversity-based products that is sustainable and legal (in line with BioTrade Principles and/or CITES requirements)
6	6.1 Rate of invasive alien species establishment	Rate of invasive species impact and rate of impact Rate of invasive alien species spread Number of invasive alien species introduction events	Number of invasive alien species in national lists as per the Global Register of Introduced and Invasive Species Trends in abundance, temporal occurrence, and spatial distribution of non-indigenous species, particularly invasive, non-indigenous species,

			notably in risk areas (in relation to the main vectors and pathways of spreading of such species) Red List Index (impacts of invasive alien species)
7	**7.1 Index of coastal eutrophication potential** 7.2 Pesticide environment concentration*	**Fertilizer use** **Proportion of domestic and industrial wastewater flow safely treated** Floating plastic debris density (by micro and macro plastics) Red List Index (impact of pollution)	Trends in loss of reactive nitrogen to the environment. Trends in nitrogen deposition Municipal solid waste collected and managed Hazardous waste generation Trends in the amount of litter, including microplastics, in the water column and on the seafloor **Index of coastal eutrophication** Plastic debris density Red List of Ecosystems Underwater noise pollution Name, amount/ volume/ concentration of highly hazardous pesticides by type (per land/marine area) Pesticide use per area of cropland
8	-	Total climate regulation services provided by ecosystems and by ecosystem type (System of Environmental Economic Accounts) Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 which include biodiversity BERI	National greenhouse inventories from land use and land-use change Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications **Index of coastal eutrophication**
9	**9.1 Benefits from the sustainable use of wild species** 9.2 Percentage of the population in traditional occupations	**Number of people using wild resources for energy, food, or culture** (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.)	**Proportion of fish stocks within biologically sustainable levels** Degree of implementation of international instruments aiming to combat illegal, unreported, and unregulated fishing Number of MSC Chain of Custody Certification holders by distribution country Spawning stock biomass (related to commercially exploited species)

		Red List Index (species used for food and medicine) Living Planet Index for used species	
10	10.1 Proportion of agricultural area under productive and sustainable agriculture 10.2 Progress towards sustainable forest management	Area of forest under sustainable management: total forest management certification by the Forest Stewardship Council and the Programme for the Endorsement of Forest Certification	Agrobiodiversity Index Proportion of land that is degraded over total land area
11	B.1 Services provided by ecosystems*	Number of deaths, missing persons and directly affected persons, attributed to disasters per 100,000 population Proportion of bodies of water with good ambient water quality Level of water stress	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management
12	12.1 Average share of the built-up area of cities that is green/blue space for public use for all	Recreation and cultural ecosystem services provided	
13	C.1 Indicator on monetary benefits received C.2 Indicator on non-monetary benefits	Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit	Total number of permits, or their equivalent, granted for access to genetic resources Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits Estimated percentage of monetary and non-monetary benefits directed towards conservation and sustainable use of biodiversity
14	-	Number of countries with Implementation of the System of Environmental-Economic Accounting	Human Appropriation of Net Primary Production (HANPP) Change in water-use efficiency over time
15	15.1 Number of companies reporting on disclosures of risks, dependencies and impacts on biodiversity*	Indicator based on the Task Force for Nature-related Financial Disclosures	Species threat abatement and restoration metric Number of companies publishing sustainability reports

16	-	Food waste Index Material footprint per capita Global environmental impacts of consumption Ecological footprint	Extent to which (a) global citizenship education and (b) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (i) national education policies; (ii) curricula; (iii) teacher education; and (iv) student assessments Recycling rate Life cycle Impact assessment (LCIA) e.g. LIME; Life-cycle impact assessment method based on endpoint modelling Levels of poverty in developing communities
17	-		
18	**18.1 Positive incentives in place to promote biodiversity conservation and sustainable use** **18.2 Value of subsidies and other incentives harmful to biodiversity that have been eliminated, phased out or reformed**	**Value of subsidies and other incentives harmful to biodiversity, that are redirected, repurposed, or eliminated**	Trends in potentially environmentally harmful elements of government support to agriculture (producer support estimate) Trends in the number and value of government fossil fuel support measures Number of fossil-fuel subsidies per unit of gross domestic product (production and consumption)
19	D.1 International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems*		Amount of funding provided through the Global Environment Facility and allocated to the biodiversity focal area Foreign direct investment, official development assistance and South-South cooperation Amount and composition of biodiversity-related finance reported to the OECD Creditor reporting system Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries Dollar value of all resources made available to strengthen statistical capacity in developing countries Amount of biodiversity-related philanthropic funding Proportion of total research budget allocated to research in the field of marine technology

			Total amount of approved funding for developing countries to promote the development, transfer, dissemination, and diffusion of environmentally sound technologies Number of countries (and number of instruments) with payments for ecosystem services (PES) programmes Number of countries that have (a) assessed values of biodiversity in accordance with the Convention, (b) identified and reported funding needs, gaps and priorities, (c) developed national financial plans for biodiversity, (d) been provided with the necessary funding and capacity-building to undertake the above activities
20	-		
21	21.1 Indicator on biodiversity information for the monitoring the Kunming-Montreal Global Biodiversity Framework	Species Status Index Extent to which (a) global citizenship education and (b) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (i) national education policies, (ii) curricula, (iii) teacher education and (iv) student assessments	Growth in number of records and species in the Living Planet Index database Growth in species occurrence records accessible through the Global Biodiversity Information Facility Growth in marine species occurrence records accessible through the Ocean Biodiversity Information System (OBIS) Proportion of known species assessed through The IUCN Red List of Threatened Species™ Number of assessments on the IUCN Red List of Threatened Species™ World Association of Zoos and Aquariums (WAZA) bio-literacy survey (Biodiversity literacy in global zoo and aquarium visitors) Species Status Information Index
22	-	Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure	Percentage of positions in national and local institutions, including: (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups Number of countries with systems to track and make public allocations for gender equality and women's empowerment Number of protected areas that have completed a site-level assessment of governance and equity (SAGE)

			Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability, and population group
23	-	Proportion of seats held by women in (a) national parliaments and (b) local governments Indicator on national implementation of the Gender Plan of Action Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation; and (b) who perceive their rights to land as secure, by sex and type of tenure	Percentage of positions in national and local institutions, including: (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups Number of countries with systems to track and make public allocations for gender equality and women's empowerment Number of protected areas that have completed a site-level assessment of governance and equity (SAGE) Percentage of population who believe decision-making is inclusive and responsive, by sex, age, disability, and population group Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control

6.6 ANNEX 6: COMPLETED EXAMPLE OF THE CBD ONLINE TEMPLATE FOR A NATIONAL TARGET FOCUSED ON CORAL REEFS AND ASSOCIATED ECOSYSTEMS

TEMPLATE FOR SUBMISSION OF NATIONAL TARGETS AS PART OF NATIONAL BIODIVERSITY STRATEGIES AND ACTION PLANS[28] TOWARDS THE IMPLEMENTATION OF THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

NATIONAL TARGETS			
National target 1 **Full name/title of national target** By 2030, at least 30% of coastal and marine areas, especially areas particularly important for biodiversity and ecosystem services such as coral reefs and associated ecosystems, are designated within ecologically representative, connected and equitably governed systems of protected areas and other effective area-based conservation measures	**Alignment with global goals and targets** ☒ Goal A ☐ Goal B ☐ Goal C ☐ Goal D ☐ Global target 1 ☒ Global target 3 … ☐ … ☒ Enabling conditions and/or other non-target elements of the Kunming-Montreal Global Biodiversity Framework *(Please specify)* National program to increase awareness and understanding of the importance of coral reefs and associated ecosystems in terms of ecosystem services and contribution to people and the need for their conservation and sustainable use	**Degree of alignment** ☐ High ☐ Medium ☒ Low ☐ High ☐ Medium ☐ Low ☐ … Explanation, including which aspects of the goal or target are covered *(optional)* The proposed target is focussed on marine and coastal areas only and so covers these aspects of the selected GBF Goal and target.	**Notes** *This table is to be repeated for each of the national targets.* *Please check all relevant national targets and indicate their degree of alignment with the global targets.* High = covers all elements of the global target; Medium = covers most elements of the global target; Low = covers at

[28] This information will be collected through the online reporting tool and it will also be utilized in the national reporting template.

			least one element of the global target
Policy measures and actions: 1. Quantify the area of coastal and marine ecosystems currently protected and effectively managed in national plans. 2. Select and designate the required additional areas of marine and coastal ecosystems through national planning processes and legislation 3. Develop specific action plans to effectively and equitably manage these areas which include measures for co-management with stakeholders / IPLCs and capacity strengthening for the responsible government agencies	Please outline the main policy measures or actions that will be taken to achieve this national target. *(optional)* See adjacent text		
Selected Indicators Headline indicators: 3.1 Coverage of protected areas and other effective area-based conservation measures A.1 Red List of Ecosystems A.2 Extent of natural ecosystems Component indicators: Protected Area Management Effectiveness (PAME) Red List of Ecosystems Connectivity Indicator The number of protected areas that have completed a site-level assessment of governance and equity (SAGE) Complementary indicators: Protected area and other effective area-based conservation measures management effectiveness (MEPCA) indicator Coverage of protected areas and other effective area-based conservation measures and traditional territories (by governance type) Continuous global mangrove forest cover Trends in mangrove extent Live coral cover Hard coral cover and composition Global coral reef extent	**Indicators to be used to monitor this national target** Headline indicators *(drop-down menu of headline indicators for the global targets indicated above)* ☐ ☐ ☐ Component indicators *(drop-down menu of component indicators for the global targets indicated above)* ☐ ☐ ☐ Complementary indicators *(drop-down menu of complementary indicators for the global targets indicated above)* ☐ ☐ ☐ Other national indicators ☐ _____ ☐ _____ ☐ _____ …		

Global seagrass extent (seagrass cover and composition) Cover of key benthic groups Fleshy algae cover Fish abundance and biomass <u>Other national indicators:</u> No. of marine/coastal environmental awareness programmes conducted for stakeholders / IPLC in marine and coastal areas Proportion (%) of schools with marine/coastal environmental awareness in their teaching programmes		
Non-State Actor Commitments: BINGO's working in the country have committed to achieving this national target in the sub-national regions where they are operational.	**Non-State actor commitments** ***(optional)***List the non-state commitments towards this national Target: (see adjacent text) Are there any overlaps or links between this national target and targets or commitments submitted as non-State actor commitments to the Kunming-Montreal Global Biodiversity Framework? If "Yes", please indicate which commitment(s) and which actor(s). No – BINGO's are working collaboratively with national agencies as part of national planning processes for MPAs/OECMs	*It is important to describe in this entry how the initiative involves the national Government <u>and</u> others. This box would be used to reduce double counting.*
	Means of implementation and barriers to implementation (optional) Please indicate if additional means of implementation are needed for the attainment of this national target. ☒ Additional means of implementation are needed Explain: Additional support for institutional and logistical capacity strengthening for agencies and partnerships responsible for MPA/OECM (co-) management	

	☐ Means of implementation available ☐ Other _____ _____ Additional explanation: (optional)_____ _____ _____ _____	

GLOBAL GOALS/TARGETS			
Global goals and targets	**National target(s) contributing to this global target**	**Elements of the global targets addressed by national targets**	**Notes**
Global goal or target (full name/title) Goal A and Target 3	*(Automatically generated list from Party's input in the national targets table)*	*(Free text)* The national target addresses the first part of Goal A: "*The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050*" The national target addresses all the elements of the Global target (GBF T3) but only for marine and coastal ecosystems.	*This table is to be repeated for each global goal and target* *Response is required for each of the global targets*
	Indicators used to assess the global goal or target *(Pre-populated from the indicators listed in the Party's input in the national targets table)* **Is there a reference period and national target which relates to the headline indicator? If yes,** **Explanation *(optional)*** _____		*Note that the headline indicator for each goal or target should be included in the list of indicators and associated with a relevant national target.*

6.7 ANNEX 7: THREE COUNTRY CASE STUDIES FOR THE INTEGRATION OF CORAL REEFS INTO NBSAPS

6.7.1 Case Study 1: French Overseas Territories

Section 1. Introduction

France has eleven overseas territories that contain coral reefs and associated ecosystems which are found in three marine regions: The Western Indian Ocean, the Pacific Ocean, and the Caribbean (Annex A1). The territories are all islands or island groups. In addition, French Guiana on the South American continent is home to extensive mangrove forests and part of the Amazon coral reef, which lies within its territorial waters. This case study focuses on the eleven coral overseas territories of France. Information provided for this section and the following one is predominantly taken from the most recent national assessment of the status of the marine and coastal ecosystems in these territories[29].

Coral reefs in the French Overseas Territories cover almost 60,000 km^2 and make up 10% of the global total for coral reef area. Nearly 90% of these reefs are found in two Pacific territories: French Polynesia and New Caledonia. The latter also contains 75% of all seagrass beds in the overseas territories of a total of 1255 km^2. Mangroves are also present in all territories apart from Clipperton and Reunion (Annex A1) with a total spatial coverage of 87,796 hectares (ha.) and are mainly found in French Guiana (60% of all mangroves) and New Caledonia (32%).

Coral reefs and associated ecosystems in the overseas territories provide a number of essential ecosystem services including coastal protection, fisheries, tourism, and carbon sequestration, which were assessed by the French Coral Reef Initiative (IFRECOR) in 2016. It is estimated that the services provided by these ecosystems have an annual total value of €1.3 billion including €175 million for carbon sequestration by mangroves and seagrass beds[30].

Just over two-thirds (67%) of all coral reefs are within marine protected areas (MPAs), with a large range in the coverage and degree of protection between territories (Annex A1). For example, all coral reefs in Mayotte are within MPAs but only 2% are regarded as strongly protected. As of 2020, none of the reefs of Wallis and Futuna were protected through MPAs. Overall, 27% of coral reefs have a strong protection status. Sixteen species of reef-building corals in the Caribbean territories are protected by a ministerial order. Nearly three-quarters of mangrove forests (71%) are protected across the territories but only 26% of seagrass beds were located in MPAs.

The status of coral reefs and associated ecosystems varies considerably between and within territories and between the three main regions. Ecosystem status was reported for 2020 and was split into four categories: 1. Optimal state; 2. Good state; 3. Degraded state, and; 4. Very degraded state. Overall, territories with low population densities which are subjected to low or moderate anthropogenic pressure in the coastal zone had coral reefs in generally good to optimal condition. For example, 70% of monitored reefs in the Pacific territories and the Scattered Isles were assessed to be in good to optimal state. Other territories with higher population densities and greater anthropogenic pressures were rather

[29] IFRECOR. 2021. Health status of coral reefs, seagrass beds and mangroves of the French Overseas Territories. Initiative Francaise pour les Recifs Coralliens. Summary for Policymakers. http://www.ifrecor-doc.fr/files/original/6c2c8c211206f5857e58dffdd4b12b5c.pdf

[30] VIFRECOR. 2016. Valeur économique des services rendus par les récifs coralliens et écosystèmes associés des Outre-mer français. http://ifrecor-doc.fr/files/original/8d2b089a11fc86207df5d7ac3ecd0677.pdf (French only)

degraded (e.g., 62% of monitored reefs in the Atlantic and Indian Ocean territories are in a poor to very poor status). The status of seagrass beds and mangroves generally follow a similar pattern to that of coral reefs in the overseas territories with these ecosystems degraded and in decline in the Caribbean (except French Guiana) and Western Indian Ocean (apart from the Scattered Isles) and healthier and stable in the Pacific territories, with some localised declines close to urban areas.

Section 2. Pressures and impacts on tropical coastal and marine ecosystems

The French overseas territories are subject to a range of pressures that have impacts on coral reefs and associated ecosystems. The intensity of each pressure varies according to a number of factors but is generally linked to population density and the scale of coastal development in the territory. The main pressures affecting coastal and nearshore marine ecosystems have been summarised for each territory according to the level of intensity illustrated by a traffic-light system (Table A7.1). Further information for specific pressures in each territory is provided in the IFRECOR status report (IFRECOR 2021).

Table A7.1. Summary of key pressures on marine and coastal ecosystems in Ten French Overseas Territories. Notes: 1. Pressure levels: red = high (1); amber = average (2); green = weak or local (3); white = absent or not detected (4); dark grey = not provided / not applicable (5). 2. Ecosystems of French Guiana were not assessed in 2020

	Pressure Category									
Overseas Territory	**Agriculture**	**Urbanisation**	**Sanitation**	**Industry**	**Fisheries**	**Maritime traffic**	**Port installations**	**Material extraction**	**Fires**	**Combined Pressure**
Western Indian Ocean										
Scattered Islands TAAF	4	4	4	4	1	2	5	4	5	3
Mayotte	1	1	1	3	2	3	5	3	5	1
Reunion	1	1	1	2	3	3	5	2	5	1
Pacific Ocean										
New Caledonia	2	3	3	5	2	3	3	1	1	3
Wallis and Futuna	1	2	1	3	3	3	2	2	5	3
French Polynesia	3	1	1	3	4	2	4	1	5	2 3
Caribbean										
Saint-Martin	3	1	1	3	3	2	1	3	5	1
Saint-Barthélemy	2	1	2	3	3	2	2	3	5	1
Guadeloupe	1	1	2	2	3	3	2	2	5	1
Martinique	1	1	2	2	3	3	2	2	5	1

An overall combined pressure rating is also provided for each territory (Table A7.1) which indicates that populated territories in the Western Indian Ocean and all territories in the Caribbean are subject to intense anthropogenic pressures mainly linked to high population densities, agricultural and farming practices, and coastal development / tourism.

The most important drivers of ecosystem loss are associated with coastal activities and urbanisation such as soil sealing, agricultural practices, wastewater which cause the degradation of coastal water quality. Activities at sea also contribute to ecosystem loss including fisheries, especially if targeting reef

herbivores, anchor damage in unregulated areas and some activities linked to tourism and recreation. In addition, there are local or regional scale drivers of ecosystem losses such as coral and or reef organisms' diseases (SCTLD[31] in the Caribbean, sea urchin disease) and the impacts of non-indigenous invasive species (e.g., lionfish in the Caribbean). Climate change and its effects on the physical and chemical conditions of the coastal waters are the main indirect drivers of ecosystem loss.

Section 3. Primary type of coral reef (or associated ecosystem) integration

Theme: Reducing direct pressures and promoting sustainable use
Key Topic: Marine Protected Areas

The National Biodiversity Strategy 2030 (NBS2030)[32] is the main strategy contributing to the implementation of the Kunming-Montreal Global Biodiversity Framework in France. The third edition of NBS2030 was released on November 27th, 2023. The strategy is structured around four strategic Axes:

- Axis 1: Reduce the pressures on biodiversity;
- Axis 2: Restore degraded biodiversity wherever possible;
- Axis 3: Mobilize all stakeholders;
- Axis 4: Guarantee the means to achieve these ambitions.

These axes are made up of 40 measures and 200 actions. Coral reefs are integrated under Axis 1, specifically through Measure 1 (strengthening the marine protected areas strategy to reach 10% of lands and seas under strong protection status, and 30% under well managed protected areas) and Action 7 (strengthening the protection of coral reefs in the overseas territories).

The Strategy aims to strengthen the implementation of the coral reef action plan (2018) and targets the protection of 100% of French coral reefs by 2025. In addition, it sets a new target of having 50% of French coral reefs under a strong protection status by 2030. Developing and strengthening the marine protected area network is the key component of national action to protect coral reefs. Other themes in the coral reef action plan include coral reef restoration and maintaining or enhancing monitoring systems. Implementation of the coral reef action plan will be led by IFRECOR, working in close partnership with the relevant authorities in each territory.

The NBS2030 also aims to address the land-based pressures to improve the coastal water quality by reducing pollution coming from the watershed. Actions in the coral reef action plan that will be strengthened by the NBS2030 include:

- Raising the coral reefs and associated ecosystems issues in every water management policy at both the national and local level;
- Support projects that aim to reduce land-based pollution impacting coral reefs, including Nature Based Solutions (reforestation or restoration of buffer ecosystems), and;
- Strengthen the ability of MPAs to constrain development projects in the catchment area to ensure they are compatible with the reef's protection targets.

By addressing both sea and land-based pressures, NBS2030 will enable a greater resilience of coral reefs to the degradations caused by the effect of climate change.

[31] SCTLD: Stony Coral Tissue Loss Disease

[32] Stratégie Nationale Biodiversité. 2023. Ministère de la Transition Écologique et de la Cohésion des Territoires, Paris, France.

Section 4. Secondary type of coral reef (or associated ecosystem) integration

NBS2030 is also dedicated to the protection and restoration of mangroves through particular measures and actions (A1M1 action 8: strengthen and expend the protection of mangroves). It sets a target of protecting 65% of the spatial area of mangroves in the overseas territories through efficient conservation measures by 2030. Reducing pressures on mangroves will be achieved by improving management effectiveness in protected areas and increasing the amount of mangroves acquired by the Conservatoire Littoral for restoration and protection. Specific locations where there are the greatest levels of anthropogenic pressure on mangroves will also be prioritised such as the Mayotte and the Cayenne peninsula of French Guiana. Activities will also aim to set the definition of strong protection zones for mangroves by 2030 and improve the mapping and monitoring of mangrove ecosystems.

Protecting and restoring buffer ecosystems associated with coral reefs such as mangroves will contribute to the improvement of water quality through the retention and reduction of sediment entering coastal waters. It will also foster a greater connectivity between coral reefs and the associated ecosystems that will provide benefits both reefs and the buffer ecosystems.

Annex A1. Summary information for coral reefs and associated ecosystems in the French Overseas Coral Territories[33]

Territory	Land Area (km^2)	Sea Area / E.E.Z. (km^2)	Reef-lagoon Area (km^2)	Seagrass Area (km^2)	Mangrove area (ha.)	Population density (no./km^2)	Reef Area Protected (%)	Area Strongly Protected (%)
Western Indian Ocean								
Scattered Islands TAAF	42.35	684,835	794	>38	626.23	0	70	48
Mayotte	374	68,492	1,406	7.6	623	690	100	2
Reunion	2,512	319,840	18.6	<0.01	0	341	68	68
Pacific Ocean								
New Caledonia	19,000	1,341,044	35,873	939.7	28,173	14.6	86	41
Wallis and Futuna	140	262,416	932	24	36.2	83	0	0
French Polynesia	3726	4,782,456	16,200	28.7	41.1	76	23	0
Clipperton	1.7	435,600	12	0	0	0	100	100
Atlantic / Caribbean								
Saint-Martin	53	5,098	19.4	61.5	24.2	654	33	33
Saint-Barthélemy	24		14.24	3.7	4.1	466	39	39
Guadeloupe	1,705	90,000	865	101.93	3306	229	70	9
Martinique	1,128	48,900	55.87	49.7	1856	330	100	1.8

[33] Adapted from IFRECOR 2021.

6.7.2 Case Study 2. The Republic of Palau

Section 1. Introduction

The Republic of Palau is the westernmost nation of Micronesia, situated north of the island of New Guinea and east of the southern Philippines. Palau consists of more than 586 islands across 629,000 km^2 of ocean. The country has eight principal islands, with the island of Babeldaob making up nearly three-quarters (73%) of Palau's land area of 456 km^2. The most populous islands are Anguar, Babeldaob, Peleliu and Koror, with about two-thirds of the population living on the latter island. The uninhabited Rock Islands containing the iconic marine lakes are south-west of the main island group. The country is made up of 16 states and has a total population of 21,779 (2023)[34], with 82% classed as urban (2022)[35].

Palau has a diversity of rich coral reefs including fringing, barrier and atoll reefs that cover 525 km^2 (Yukihira *et al.,* 2007), with additional hard bottom areas increasing this to 892 km^2. Marine habitats cover approximately 1,478 km^2 with 47 km^2 (Chin *et al.,* 2011) of mangroves and 75 km^2 of seagrass meadows (McKenzie *et al.,* 2021). Palau has the most diverse coral reef fauna in Micronesia with 425 coral species, 1700 fishes, 302 molluscs and 234 species of crustaceans (Yukihira *et al.,* 2007). These diverse reefs are a major source of economic revenue through tourism, with 80% of visitors coming to dive on coral reefs. Coral reefs and associated ecosystems also support a mix of subsistence, artisanal and commercial fisheries. The marine and coastal ecosystems of Palau are critical for the provision of food, income, and livelihoods for Palauan people.

Section 2. Pressures and impacts on tropical coastal and marine ecosystems

The coral reefs and associated ecosystems of Palau are subject to both acute and chronic disturbances but have been relatively resilient to date (Gouezo *et al.,* 2019). Chronic disturbances are mainly caused by over-harvesting of marine species such as reef fish and terrestrial run-off polluting coastal waters (Golbuu *et al.,* 2011; Bejarano *et al.,* 2013). These effects are strongest adjacent to the more populated islands and coastlines. The major disturbances that have affected Palau's coral reefs over large spatial scales over the past few decades are linked to the climate: the 1998 mass coral bleaching event and two super typhoons (Gouezo *et al.,* 2015). There was a 43% loss of live coral cover after the 1998 mass bleaching event with recovery of coral reefs taking between 9 to 12 years (Gouezo *et al.,* 2019). Typhoons Bopha and Haylan in 2012 and 2013 caused a decrease in coral cover of more than 80% for outer reef habitats on eastern reefs (Nestor *et al.,* 2023). Recovery of eastern coral reefs is progressing slowly through natural coral recruitment.

Chronic stressors are also affecting coral reef health in Palau with greater effects on inshore and patch reefs that are subjected to higher fishing pressure (Muller-Karanassos *et al.,* 2021) and greater levels of pollution from run-off. High levels of local-, tourism- and export-driven demand for fresh fish resulted in the over-exploitation of Palau's reef fish populations[36]. The threat from the overfishing of reef fish to

[34] United States Census: International Database (Accessed February 2024): https://www.census.gov/data-tools/demo/idb/#/dashboard?COUNTRY_YEAR=2023&COUNTRY_YR_ANIM=2023&FIPS_SINGLE=PS&CCODE_SINGLE=PW&CCODE=PW

[35] The World Bank: Urban Population – Palau: https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=PW

[36] National Environmental Protection Council. 2017. State of the Environment Report – Republic of Palau. 76 pp. Independent Report presented to the President of the Republic of Palau.

coral reef ecosystems led to the passing of a national law in 2020 to ban the export of all living resources that inhabit reef areas[37].

Coastal and watershed development to support changes in land use, infrastructure (construction and road building) linked to tourism expansion, resulted in increased erosion and sedimentation and poorer water quality for coastal waters around more populous islands such as Babeldaob and Koror. In addition to the clearance of terrestrial and mangrove forests, poor farming practices contributed to sediment pollution. Studies conducted by the Palau International Coral Reef Center (PICRC) revealed that the coral reef degradation was a direct result of land-based sediments with reefs in Airai Bay, a lagoon in south-eastern Babeldaob, particularly affected by sediment. This led to the establishment of the Belau Watershed Alliance (BWA), which successfully merged the interests of communities, government agencies, conservation practitioners, and traditional leaders to protect entire watershed areas that ultimately protect the water source[38]. Although watershed management has improved markedly for Babeldaob through the work of the BWA, sedimentation remains an issue for coral reefs and associated ecosystems in other parts of Palau.

Section 3. Primary type of coral reef (or associated ecosystem) integration

Theme: Safeguarding species and ecosystems

A revised (second) version of the Republic of Palau's NBSAP was published in 2016 and covers a ten-year period from 2015 to 2025[39]. The aim of the revised NBSAP is to "*encourage, guide and coordinate an integrated national process that will engage stakeholders across sectors to achieve the holistic conservation and sustainable use of biodiversity while protecting and enhancing economic opportunity, sustainability of livelihoods, food security, culture and the environment for present and future generations*". The policy document includes the following key strategic areas: **i**. protected/managed areas; **ii**. species protection; **iii**. biosecurity/invasive species and biosafety; **iv**. integrating biodiversity and ecosystem services into development policies; **v**. reducing direct pressures on biodiversity through sustainable use; **vi**. ensuring food security through maintenance of agricultural biodiversity; and **vii**. mainstreaming conservation. All strategic areas can be linked to coral reefs and associated ecosystems either directly or indirectly. Of the seven listed, strategic areas for protected/managed areas, species protection and reducing direct pressures are all highly relevant for coral reefs and associated ecosystems in Palau. This section focuses on species protection (Strategic Area 2) which falls within the 'safeguarding species and ecosystems' theme.

Directives for Strategic Area 2 – Species Protection are focused on improving the understanding of conservation needs for species in Palau and creating strategies to identify and protect high priority species (from extinction). The main objectives are to improve species protection by creating a comprehensive inventory of species, evaluating conservation priority status, and developing species-specific management strategies for high priority species. The overall goal (Goal 2 of the Palau NBSAP)) is to **maintain healthy populations of key species and habitats**. Species groups that are found in coral reef ecosystems are specifically mentioned in Objective 2.2 for this strategic area: "Assess

[37] Republic of Palau Public Law (RPPL) No. 10-54. 2020. To ban the export of any living resource that primarily inhabits the reef areas, territorial sea, and internal water of the Republic.

[38] Community Support for Watershed Management Leads to Ridges to Reefs Protection in Palau – Reef Resilience Network (RRN): https://reefresilience.org/case-studies/palau-land-based-pollution/

[39] The Republic of Palau Revised National Biodiversity Strategy and Action Plan 2015-2025: Promoting Wise Development to Achieve Conservation and Sustainable Use of Biodiversity. Palau Conservation Society, Policy and Planning Department, November 2016, Malakal, Koror, Palau.

conservation needs of high priority species (i.e., **corals, fish, edible macro invertebrates**, bats, birds, plant species)". Once the status of these high priority species and habitats was assessed then a national strategy and action plan for protecting and conserving vulnerable and endangered species was developed as part of Objective 2.3 (Develop appropriate and specific management strategies for high priority species). For the national strategy and species-specific management strategies the NBSAP emphasised the use of ecosystem-based conservation approaches including the Ridge to Reef approach, integrated water resources management (IWRM) and the ecosystem approach to fisheries. Implementing these approaches would ensure that coral reefs and associated ecosystems (mangroves and seagrass beds) are all included in conservation and management strategies for the marine and coastal environment of Palau.

Section 4. Secondary type of coral reef (or associated ecosystem) integration

Theme: Addressing underlying causes of biodiversity loss and mainstreaming

Palau's revised NBSAP includes a key strategic area that focuses on **mainstreaming conservation** to build broad engagement and support across all sectors so that measures for the conservation and sustainable use of biodiversity are implemented effectively (Strategic Area 7). Although coral reefs and associated ecosystems are not specifically mentioned under this strategic area it is assumed that marine and coastal biodiversity will be an integral part of the mainstreaming policy within the NBSAP. The specific goal (Goal 7) is that **biodiversity conservation and sustainable resource use is integrated into all aspects of government and community planning, development, and operations**. Strategic Area 7 includes seven objectives to comprehensively build conservation awareness and engagement across multiple sectors in Palau while also building conservation capacity both for the public and for government and civil society organisations. The policy directives for mainstreaming conservation will be achieved by:

- Increasing public awareness of biodiversity issues and engagement in the environmental decision-making process;
- Integrating biodiversity education into school curriculum at all levels through the Ministry of Education;
- Establishing sustainable cooperatives (including for reef fisheries, coastal aquaculture, and tourism) and civic associations for individuals and businesses engaged in the use of biological resources to encourage stakeholder input and enable communities to better participate in conservation initiatives;
- Building organisational/institutional capacity of government/civil society to monitor and assess progress towards conservation goals, and;
- Enabling better information/knowledge exchange at the local, regional, and global level through cooperative research between agencies within Palau and with academia/research institutes overseas.

The activities listed above demonstrate that Palau had a detailed plan in the existing NBSAP to build biodiversity conservation mainstreaming across sectors and society, which would include marine and coastal biodiversity such as coral reefs and associated ecosystems. Building awareness and engagement of coastal communities, marine resource users and the youth through the school curriculum are all critically important for the success of existing or proposed conservation and sustainable management measures for coral reefs and associated ecosystems in Palau. Similarly, the initiatives to ensure there is sufficient capacity within the various actors and stakeholders living and working with the inshore marine and coastal environment is equally important for long-term success.
Although Palau's revised NBSAP called for broad-scale integration through a more holistic way of thinking and operating (i.e., a systems approach), one lesson learned since its implementation is that

the NBSAP could have been more effective if the overall 'systems approach' was coupled with strategies that identified transitional phases and actions to facilitate this type of approach in biodiversity conservation. A more strategic approach that identified a pathway to the systems thinking and operation would have helped to facilitate the shifts required in organisational and societal culture to embrace holistic long-term thinking over short-term gains. This is required if a whole of government and whole of society approach is to be established to support GBF implementation. **Therefore, Palau recommends that countries that are developing their NBSAP should ensure that transitional strategies and actions are included to enable the shift to a more integrated long-term approach at the national level.**

6.7.3 Case Study 3. The Republic of the Philippines

Section 1. Introduction

The Republic of the Philippines is an archipelago in the Western Pacific Ocean made up of 7,641 islands, of which approximately 2,000 are inhabited. There are three major island groups: Luzon to the north, the central Visayas and Mindanao to the south. The country's territorial waters cover 2.26 million km^2 and include 27,000 km^2 of coral reefs[40]. The largest 11 islands make up 95% of its land area of approximately 300,000 km^2. The Philippines has the fifth-longest coastline measuring 36,289 km, with roughly 60% of the population residing on the coast, where most of its larger cities and population centres are located[41]. The population of just over 118 million is the 13th largest in the world and expected to increase to 180 million in the next sixty years[42]. The country has a highly diverse topography and is located in the region of high seismological activity with most islands of volcanic origin. The Philippines geographical characteristics have contributed to making it one of the most biologically diverse countries in the world (Licuanan *et al.,* 2019).

The Philippines has extensive and diverse coastal and nearshore habitats that support an extremely high diversity of species and an estimated 25% of the country's fisheries production[43]. Its coral reefs are the second most extensive in Southeast Asia and contain 600 species of hard coral, with the Sulu Sea ecoregion having the highest diversity of corals globally (DeVantier & Turak 2017). The Philippines also supports the highest diversity of marine shore fishes in the world. The loss of coral reefs has been documented in the country over the last 50 years with average hard coral cover of 22% and no sites remaining with combined coral cover (hard and soft corals) of more than 75% (Licuanan *et al.,* 2017).

The Indo-Malay-Philippine archipelago has the highest mangrove diversity in the world with 40 species recorded in the Philippines along with 20-30 species of mangrove associated shrubs and vines (Primavera 2000). The country has had the some of the fastest rates of mangrove loss with an estimated 30% reduction since 1980 (Polidoro *et al.,* 2010). Recent estimates for mangrove cover range between 228,000 (Neri *et al.,* 2021) and 311, 000[44] hectares. About 19% of the remaining mangrove area is in protected area networks, mostly in Palawan and Siargao (Long *et al.,* 2011). There has been extensive mangrove replanting since the 1990's with mixed results. For seagrass beds, 18 species of seagrass

[40] BFAR. 2019. Philippine fisheries profile 2018. Bureau of Fisheries and Aquatic Resources. Quezon City, Philippines

[41] World Population Review (February 2024): https://worldpopulationreview.com/country-rankings/countries-by-coastline

[42] World Population Review (February 2024) https://worldpopulationreview.com/countries/philippines-population

[43] *Ibid*

[44] Philippine forestry statistics: 2021. Forest Management Bureau, Department of Environment and Natural Resources, Philippines. https:// forestry.denr.gov.ph/index.php/statistics/philippines-forestry-statistics

have been recorded in the Philippines with the spatial extent of the ecosystem estimated to be between 343 and 635 km^2, mainly around Palawan and in the Sulu archipelago (Licuanan *et al.,* 2019).

Section 2. Pressures and impacts on tropical coastal and marine ecosystems

The coastal and nearshore ecosystems of the Philippines are affected by a range of stressors that are anthropogenic, natural, or climate-related in origin. The geographic location of the Philippines within the Pacific "ring of fire" and the "typhoon belt" make it highly vulnerable to natural disasters such as earthquakes, volcanic eruptions, landslides, flooding, and typhoons. Chronic stressors of pollution, sedimentation and overfishing are widespread across the country. Climate change impacts of sea level rise, storm surges, marine heatwaves and typhoons have also been extensively recorded in the Philippines over the last few decades. Large human populations, poor infrastructure and insufficient environmental management mean that the impacts from any of the stressors mentioned are often magnified with some stress combinations acting synergistically.

Climate change is having a major impact on Philippine coral reefs and associated ecosystems. Rising sea levels have led to increased inundation and erosion of wetlands and low-lying coasts and greater potential for damage from storm surge and tsunamis (Perez *et al.,* 1999). There was an increase in the number of tropical cyclones in the central Philippines with maximum sustained winds of 150 kph between 1971 and 2000 during ENSO events (Cinco *et al.,* 2013). Super typhoons such as Haiyan (Cyclone Yolanda) in 2013 have been devastating, causing loss of life, injury, damage to ecosystems and infrastructure and an immense economic toll. This cyclone is estimated to have decreased GDP growth by 0.3 points and increased national poverty incidence by around 2%. Sectors that rely on natural resources such as agriculture, fisheries and forestry are highly susceptible to natural or climate-induced hazards with those employed in them amongst the poorest and at highest risk of poverty. In terms of warming, Philippine waters are experiencing a greater rate of temperature increase than other areas in the Coral Triangle with large-scale coral bleaching events reported in 1998, 2010 and 2016. Extended exposure to waters up to 35˚C has also led to fish kills in aquaculture farms and giant clam mortalities in ocean nurseries (Licuana *et al.,* 2019).

The high population density in many parts of the Philippines means that there is immense anthropogenic pressure on natural resources through overexploitation and degradation[45]. Pollution is exacerbated by poor infrastructure and weak implementation of management measures. There are serious issues for both solid waste and wastewater management with a lack of recycling, inadequate disposal (open landfills) and very limited wastewater treatment. Agriculture and industry also substantially contribute to water pollution. Plastic pollution is also a substantial concern for the Philippines with more than half a million tonnes of plastic disposed of into the ocean each year[46].

Fisheries are very important to the Philippine economy, its food supply, and its social fabric (Palomares *et al.,* 2014). Fish accounted for over a third of Filipino's animal protein consumption in 2011[47], about double the global average, with this level likely higher for the poor. Overfishing has been a major pressure on coral reefs and associated ecosystems in the Philippines for decades. There has been a depletion of nearshore fishing grounds and a shift to pelagic fisheries further offshore for some fishers. Others have reverted to destructive fishing practices to try and increase catch levels. Destructive

[45] *Ibid*

[46] Ocean Conservancy. 2015. Stemming the tide: Land-based strategies for a plastic-free ocean.

[47] FAO (Food and Agriculture Organisation of the United Nations). 2014. Fishery and aquaculture country profiles: The Republic of the Philippines.

practices such as blast, cyanide and muro-ami fishing are still a problem in the Philippines, enabled by weak enforcement of fishing regulations (Tahiluddin & Sarri 2022). Mean catch rates (kg/day) in coral reef areas of the Philippines are among the lowest in the world, reflecting both the overexploitation and destruction of coral reef habitats (Alińo *et al.,* 2004). In some areas, reef fisheries were found to be so intensive that they were projected to collapse in 16 out of 25 towns studied (Muallil *et al.,* 2014).

Section 3. Primary type of coral reef (or associated ecosystem) integration

Theme: Reducing direct pressures and promoting sustainable use

The third and current version of the NBSAP for the Philippines was published in 2016 and covers thirteen years between 2015 and 2028[48]. The Philippines Biodiversity and Strategic Action Plan (PBSAP) is specifically designed to address and reduce the five major pressures of biodiversity loss as defined by IPBES through a combination of direct and enabling interventions. The three primary direct interventions are: **i**. restoration of ecosystem functions; **ii**. promotion of biodiversity-friendly livelihoods; and **iii**. strengthening law enforcement. Enabling interventions to support direct ones are: **i.** communication, education and public awareness (CEPA); **ii**. capacity development for biodiversity management; **iii**. biodiversity conservation-related research; **iv**. strengthening policy for biodiversity conservation; **v**. promotion of biodiversity-friendly technology; and **vi**. resource mobilisation.

The PBSAP includes twenty conservation targets to be achieved by 2028 with indicators identified for each one. Coral reefs and associated ecosystems are well represented within the targets, both directly and indirectly. Specific conservation targets that are closely linked to coral reefs and associated ecosystems are:

Target 1. The conservation status of nationally and globally threatened species in the country from 2016 is maintained or improved.

Target 3. There will be no net loss in presence and area distribution of live coral cover, mangroves, and seagrasses.

Target 8. Fish stocks of economically important species will be maintained.

Target 10. The key threats to biodiversity will be reduced, controlled, or managed.

Target 12. Capacity for biodiversity conservation if public and private sector groups in terrestrial and marine PAs / KBAs is strengthened.

Target 14. One million hectares of degraded ecosystems will be restored and/or will be under various stages of restoration.

Target 20. There will be a 20% increase from 2015 levels in the coverage of established MPAS/sanctuaries across various aquatic habitats.

In particular, there is a conservation target specifically for coral reefs and associated ecosystems (**Conservation Target 3**) to ensure that the spatial coverage of these ecosystems is maintained.

Further details for the direct and enabling program interventions for marine and coastal ecosystems are provided in Annex 5 of the PBSAP. These are arranged under the following subject headings: habitat loss, overexploitation, pollution, and climate change. Interventions for each of these main topics are listed with targets and indicators designated for each intervention. The entities responsible for each

[48] Biodiversity Management Bureau (BMB) Department of Environment and Natural Resources (DENR). 2016. Philippines Biodiversity Strategy and Action Plan (2015-2028): Bringing Resilience to Filipino Communities. C. Cabrido (Ed.). Quezon City, Philippines: BMB-DENR, United Nations Development Programme – Global Environment Facility, Foundation for the Philippine Environment.

intervention are clearly identified, including the lead entity, and the cost of completing the intervention is also estimated. Coral reefs, mangroves and seagrass beds are all specifically mentioned in multiple targets to achieve the direct program intervention of “restoration of ecosystem functions” to address habitat loss. Throughout the PBSAP there is strong emphasis on, and support for, protected areas and restoration.

Enabling interventions focussed on communication, awareness and public engagement also feature strongly for marine and coastal ecosystems in the PBSAP as well as capacity development to fund and implement action plans for stakeholders at the local level. Mainstreaming (marine and coastal) biodiversity conservation into national and local planning processes is specifically mentioned with targets linked to requiring local government units to incorporate integrated coastal management into their plans and frameworks.

Within the main topic of overexploitation for marine and coastal ecosystems there is emphasis on addressing the causes of biodiversity loss through the promotion of biodiversity-friendly livelihoods for people who depend on fisheries for income. Diversifying the incomes of coastal communities will reduce fisheries-related impacts on coral reefs and associated ecosystems. This intervention aims to develop and implement marine and coastal biodiversity-friendly livelihoods such as community-based ecotourism. Delivery of communication materials and trainings on the sustainable (biodiversity-friendly) use of coastal and marine resources also feature for stakeholders and local communities.

Overall, the Philippines NBSAP (PBSAP) provides a highly useful example of how coral reefs and associated ecosystems can be successfully integrated into national plans and strategies for biodiversity. Integration is found at multiple points with all of the key pressures on marine and coastal ecosystems addressed within the document.

6.8 ANNEX 8: ADDITIONAL RESOURCES ON ORGANISATIONS PROVIDING SUPPORT FOR THE REVISION OF NBSAPS

This support covers the multiple ecosystems that each country contains and is applicable to tropical coastal and shallow marine ecosystems, particularly for SIDS and LDCs with extensive coral reefs. The main projects, initiatives and organisations that are providing support are summarised below.

The Global Biodiversity Framework Early Action Support Project

URL: https://www.learningfornature.org/pt//groups/gef-early-action-support-project/

The Global Biodiversity Framework Early Action Support project (GBF-EAS) is designed to mobilise funding and support so that countries can meet the new global biodiversity targets. The project is supporting 138 developing, small island and middle-income nations by providing access to tools, guidance, and trainings to enable GBF implementation through NBSAPs. The project provides a financial and technical support package that focuses on four components: i. alignment with national biodiversity strategies and action plans; ii. national monitoring systems; iii. policy and institutional coherence; and iv. biodiversity finance. Further details of the proposed activities for GBF-EAS project components are available in the GBF-EAS brochure.

Key benefits and resources:

Support is provided through grants to GEF-eligible countries and through globally coordinated technical support services mainly available online through Learning for Nature and the NBSAP Forum (see below). For example, the GBF-EAS project holds monthly webinars to support governments for various topics linked to the fast-tracking process. In terms of resources to support NBSAP review and revision, the GBF-EAS project has released a booklet which outlines the type and status of guidance material available to GEF-eligible countries. The booklet summarises a range of resources available according to GBF-EAS project components and provides direct links to these resources held on multiple websites (e.g., CBD, NBSAP Forum, Biofin).

Recommended actions:

- Check the GBF-EAS website for additional resources as they are released such as webinars that are relevant to coral reefs and associated ecosystems
- Determine whether the project is already providing or can provide support to your country for one or more of the project components through grants and technical assistance, for example, for the review and revision of existing NBSAPs with regards to coral reefs and associated ecosystems.

The NBSAP Forum

URL: https://www.learningfornature.org/en/nbsap-forum/

The NBSAP Forum is an online global partnership that aims to support countries in implementing the CBD and its strategic plans, including global biodiversity targets as part of the GBF. The Forum is hosted by the CBD Secretariat, UNDP and UNEP and supported through the GEF. ICRI is a technical partner in the NBSAP Forum. The purpose of the web portal is to provide information to countries that will help them to develop and implement effective NBSAPs and prepare national reports.

Key benefits and resources:

The support available includes:

- A web-based e-learning platform that provides free opportunities to build professional capacity, available in multiple languages;
- An online forum to connect practitioners and technical experts on issues related to the alignment and implementation of the NBSAPS in support of the goals and targets of the GBF;
- A technical help desk in English, French and Spanish, staffed by UNEP, UNDP and SCBD.

Supporting information is available for GBF targets through individual fora for each target. As outlined in Annex 1, the main targets to address direct drivers of biodiversity loss for coral reefs and associated ecosystems are targets 1 to 9.

Recommended actions:

- Country representatives involved in the review or update of NBSAPs should monitor the NBSAP Forum for updates and information that will be useful for revising their NBSAP in regard to coral reefs and associated ecosystems, particularly for the individual forums for relevant targets;
- NBSAP Country representatives can also engage with other parties through the forum to discuss lessons learnt, current actions being undertaken to address common challenges or seek further advice on country- or regional-specific challenges in relation to coral reefs and associated ecosystems.

The NBSAP Accelerator Partnership

URL: https://nbsapaccelerator.org/

The NBSAP Accelerator Partnership (Accelerator) is an inclusive, collaborative effort to raise ambition for greater biodiversity action and accelerate the implementation of GBF-aligned NBSAPs. The partnership was launched at CBD COP15 and currently consists of 21 country members, including ten with coral reefs and associated ecosystems (Antigua and Barbuda, Australia, Belize, Colombia, Costa Rica, France, Indonesia, Mexico, United Kingdom, and Vanuatu), and 8 institutional members. The overall purpose of the Accelerator is to provide coherent support for the revision and implementation of NBSAPs and provide country-specific support for greater coordination, collaboration, and shared learning to achieve greater biodiversity action. The Accelerator has six interrelated goals to:

1. Enhance NBSAP preparation, implementation and review;
2. Strengthen technical and institutional capacity;
3. Facilitate biodiversity finance and innovative solutions;
4. Align financial flows for biodiversity mainstreaming;
5. Foster peer-to-peer learning and international collaboration; and
6. Elevate NBSAPs in national development planning.

Key benefits and resources:

The Accelerator provides support through two primary enablers – a matchmaking service and in-country facilitators. The match-making service aims to enable countries to access existing technical and financial resources that can be used to update and implement their revised NBSAP. The in-country facilitators coordinate these matches to help ensure there is prompt technical support and expertise available for NBSAP implementation. Sharing of experiences and best practice for activities around NBSAP alignment and implementation could be beneficial to other countries both within or outside the partnership, for example through the NBSAP Forum.

Recommended actions:

- If your country is already a member of the partnership, ensure that the country representative includes coral reefs and associated ecosystems in discussions with country facilitators;
- If your country is not a member, determine whether you can apply to join the partnership or access resources developed by the Accelerator via the NBSAP Forum

The Biodiversity Finance Initiative (BIOFIN)

URL: https://www.biofin.org/index.php/

BIOFIN was initiated after CBD COP11 by UNDP and the European Commission to respond to the global need to divert finance towards global and national biodiversity goals. BIOFIN and the UNEP Finance Initiative (UNEP FI), supported by GEF, have released a briefing note[49] on how the NBSAP review process can successfully engage public and private finance simultaneously. This will help to prepare financial institutions to play their role in contributing to the goals and targets of the NBSAP in their respective countries. While relevance to each country's circumstances, starting point, and key relevant sectors will vary, this briefing provides some broad approaches and signposts to existing tools and guidance toward engaging the financial sector.

Key benefits and resources:

The briefing paper will help policymakers identify the private finance sector actors involved in nature, and how they can support the delivery of the GBF. It also explores the enhancement of portfolio alignment with nature targets by shifting financial flows away from nature-negative activities. Methods to unlock more private finance domestically are provided as well as available options to regulate the financial sector concerning biodiversity. Finally, the briefing discusses the potential future for public-private collaboration on biodiversity finance.

Recommended actions:

The briefing paper can assist countries to engage with the financial sector (public and private) to meet the NBSAP targets that focus on, or are linked to, coral reefs and associated ecosystems.

SPACES Coalition

URL: https://spacescoalition.org/en/

SPACES is a coalition that is focussed on the use of spatial information (intelligence) in joint decision-making for nature, climate, and sustainable development objectives. The main aim is to mobilise spatial intelligence to support the achievement of nature and climate goals and targets such as those in the GBF. Spatial intelligence can help countries to understand underlying problems in current land or sea use, formulate objectives, develop alternative pathways, identify possible ways to predict impact, and monitor actual impact after implementation. It can also help to assess the potential for nature-based solutions to address societal challenges, engage with stakeholders throughout the development of integrated spatial plans that jointly deliver on climate and nature objectives, and monitor the success of their implementation.

Key benefits and resources:

[49] UNEP FI and UNDP BIOFIN (2023). Engaging Private Finance in the NBSAP Review and Implementation: Sign-posts for policy-makers

SPACES mobilises financial and technical resources to support countries' nationally-led planning processes to:

a) Develop a comprehensive plan and complementary initiatives such as supportive legislation and policies, analytics, and trainings to achieve national area-based targets including through NBSAPs;

b) Engage civil society and indigenous peoples and local communities as part of building initiatives and public support for successful implementation;

c) Develop a roadmap for mobilising domestic and international finance to channel investment and identify long-term partners in-country to ensure implementation.

Regarding GBF targets relevant to coral reefs and associated ecosystems, the SPACES coalition provides technical support to developing countries, particularly those in the High Ambition Coalition for Nature and People[50], to develop costed plans and the related strategies required to achieve and fund the delivery of targets 1 (spatial planning and management) and 2 (protected areas and OECMs) in particular. Spatial intelligence will also support the achievement of other relevant spatially related targets such as Target 5 (sustainable use of wild species), Target 7 (pollution) and Target 10 (sustainable management of areas under agriculture, aquaculture, fisheries, and forestry).

Recommended actions:

- Engage with the SPACES Coalition to develop costed plans and strategies that support the achievement of GBF targets listed above, particularly Targets 1 and 2 for coastal and inshore waters with coral reefs and associated ecosystems;
- Develop complementary initiatives with SPACES (e.g. supportive legislation or trainings) that are linked to coral reefs and associated ecosystems;
- Use support from SPACES for IPLC / civil society engagement and finance mobilisation to support implementation of activities related to coral reefs and associated ecosystems.

The Secretariat of the Convention on Biological Diversity

URL: https://www.cbd.int/

The Secretariat of the Convention on Biological Diversity (SCBD) was established to support the goals of the Convention. Its primary functions are to organize meetings, prepare reports, assist member governments in the implementation of the various programmes of work, coordinate with other international organizations and collect and disseminate information.

Key benefits and resources:

SCBD is supporting countries for NBSAP alignment both through the provision of guidance and resources online and by organising NBSAP Dialogues at the regional level. Guidance material for each GBF target is available on the SCBD website. This material provides an overview of each target by briefly introducing key terms, highlighting some of the implications for national target setting, and providing key points and guiding questions for consideration as part of national target-setting exercises. The first NBSAP Dialogue was held in August 2023 in Manila for ASEAN Member States and Timor Leste. Item 4 of this meeting was concerned with "Experiences and lessons learned in revising or updating national biodiversity strategies and action plans, including national target revision or setting".

[50] The High Ambition Coalition for Nature and People (HAC for N&P) is an intergovernmental group of more than 115 countries united by a shared ambition to implement the global goal of effectively conserving and managing at least 30 percent of the world's land and ocean by 2030.

Each participating country was provided with the opportunity to share its national experiences and lessons learned to date in updating or revising its NBSAP, including setting or revising the national targets in alignment with the goals and targets of the GBF. Country presentations and associated discussions were organized around five topics: i. Whole-of-government and whole-of-society approach; ii. National target setting or revision; iii. Integration of the provisions of the Protocols into NBSAPs; iv. Development of a national monitoring plan; and v. Challenges and opportunities for the overall revision or updating of NBSAPs.

Many of the key messages and outcomes from these Dialogues will be relevant to countries with coral reefs and associated ecosystems with the meetings covering regions such as South and South-east Asia / Coral Triangle, the Caribbean, the Red Sea, the Western Indian Ocean and the Western Pacific particularly important.

Recommended actions:

- Use the CBD guidance information for GBF targets when developing national targets that are directly or indirectly linked to coral reefs and associated ecosystems;
- Engage with the SCBD (via the CBD national focal point) to become involved in a NBSAP Dialogue in your region with the aim to include coral reefs and associated ecosystems in discussions regarding NBSAP updating / revision