

# **Coral reef commitments are largely absent from national biodiversity and climate frameworks**

*The paper is a non-peer reviewed preprint submitted to EarthArXiv.*

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## Abstract

Global agreements under the Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC) call for integrated action on biodiversity loss and climate change. Yet national implementation remains poorly understood, even for ecosystems highly vulnerable to warming, such as tropical coral reefs. Bleaching-level heat stress has affected over 85% of global reefs and likely impacted at least 97 of 101 reef-holding countries (Spady et al., 2025a), jeopardizing the benefits reefs provide for people and nature. We assessed how the 25 countries with the largest reef areas (“high-coral countries”) are translating global commitments into national strategies by analyzing National Biodiversity Strategies and Action Plans (NBSAPs) and targets aligned with the Kunming–Montreal Global Biodiversity Framework (KM-GBF), as well as Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) under the Paris Agreement. As of August 2025, 71% of high-coral countries had submitted KM-GBF-aligned biodiversity targets, but none included measurable commitments for coral reefs. Only one country linked climate threats to quantitative Target 3 commitments, and just 8 of 25 referenced marine ecosystem action under Target 8. Under the Paris Agreement, fewer than half (48%) mentioned coral reefs in NDCs, and only three included measurable reef-related commitments; seven countries referenced reefs in NAPs, none with quantitative targets. These findings reveal a major disconnect between global ambition and national action, with coral reefs largely absent from operational planning. We propose three priorities to close this gap: (i) co-develop dedicated national coral reef strategies; (ii) elevate coral reefs within NBSAPs as biodiversity and climate-resilience priorities; and (iii) include measurable coral reef commitments within future NDCs and NAPs. Strengthening policy coherence across biodiversity and climate frameworks is essential to secure climate-resilient coral reefs and the communities that depend on them.

## Introduction

Biodiversity loss and climate change are interconnected crises with shared drivers and impacts (IPBES Secretariat, 2024). While there are opportunities for joint solutions (Pörtner et al., 2021), policy responses are often siloed and even antagonistic rather than synergistic (Mori et al., 2024; Pörtner et al., 2023). Since the early 1990s, countries have advanced work under two separate framework conventions: the UN Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC). Flagship agreements under these conventions, the Kunming–Montreal Global Biodiversity Framework (Convention on Biological Diversity, 2022) and the Paris Agreement (United Nations Framework Convention on Climate Change, 2015), commit Parties to raise ambition through iterative national plans: National Biodiversity Strategies and Action Plans (NBSAPs) under the CBD and Nationally Determined Contributions (NDCs) under the UNFCCC. During four decades of meetings, negotiations, and agreements, the political ambition and responses to biodiversity loss and climate change have largely remained on separate tracks, reinforcing siloed implementation at the national level (Pettorelli et al., 2021; Runhaar et al., 2024). Failing to integrate climate and conservation action carries the risk of maladaptation (Gill et al., 2023a).

Recent political statements call for aligning these processes under specific and measurable global goals, i.e., by “fostering stronger synergies, integration and alignment in the planning and implementation of national climate, biodiversity and land restoration plans and strategies” (Ocean & Climate Platform, 2025; United Nations Convention to Combat Desertification, 2024), and taking steps to “identify and maximize potential synergies between biodiversity and climate actions, including by prioritizing the protection, restoration and management of ecosystems”

(Convention on Biological Diversity, 2024). However, guidance on how to operationalize such integration under the current global frameworks remains limited.

Tropical coral reefs illustrate the urgency of integrating climate and biodiversity actions. They cover only a tiny fraction of the seafloor (<1%) yet support a large share of marine biodiversity and associated coastal livelihoods, and are highly vulnerable to increasingly frequent marine heatwaves and bleaching, with projected catastrophic impacts under current emissions trajectories of >2°C warming (Climate Action Tracker, 2024; International Coral Reef Initiative (ICRI) Secretariat, 2025; Knowlton et al., 2021; Souter et al., 2021; Spady et al., 2025b). At the same time, new science shows that some coral reefs have the capacity to *avoid, resist, or recover* from bleaching (McClanahan et al., 2023). These areas should be part of a global portfolio of climate-resilient refuges (Beyer et al., 2018) where local threats are reduced. These reefs can continue to support biodiversity and provide coastal adaptation benefits if countries invest in their protection rather than writing them off as lost.

This urgency is not only ecological but also social. Nearly one billion coastal residents, including Indigenous Peoples and local communities, live within 100 kilometres of coral reefs (Sing Wong et al., 2022). For many of these communities, coral reef decline means loss of livelihoods and erosion of cultural heritage (Nash et al., 2020; United Nations Environment Programme et al., 2018). Coral reefs therefore present a governance challenge that spans climate mitigation, adaptation, biodiversity conservation, and social equity (Claudet et al., 2024; Morrison et al., 2020). However, national policy processes often address these issues separately, which can marginalize Indigenous and local rightsholders and reduce the effectiveness of conservation (Gill et al., 2023b). Integrating climate and biodiversity planning is essential to ensure that coral reefs, and the communities who depend on them, remain central to national decision-making (Claudet et al., 2024).

Despite their importance and vulnerability, this urgency is not reflected in international policy frameworks. The negotiated texts of the KM-GBF and Paris Agreement refer only to broad concepts such as “natural ecosystems”, “areas of particular importance for biodiversity and ecosystem functions and services”, or “vulnerable groups, communities and ecosystems” (Convention on Biological Diversity (CBD Secretariat), 2023; United Nations Framework Convention on Climate Change, 2015). This allows flexibility for Parties to interpret and implement the agreements within their national contexts. However, in practice, they also enable countries to omit specific ecosystems, such as coral reefs, from national strategies. Impacts of this generalization on national implementation and reporting on progress remain to be seen.

Previous efforts have analyzed how ocean ecosystems appear in climate commitments more generally (Gallo et al., 2017; Lecerf et al., 2023), and there has been a significant increase in ocean-based climate action compared with the previous NDCs, with 78% of Parties including in the new NDCs at least one explicit reference to the ocean – an increase of 39% (UNFCCC, 2025). For the KM-GBF, studies have investigated how indicators can be applied to national assessments of coral reefs (Gudka et al., 2024), but since the KM-GBF was adopted in 2022, there has been no global assessment to track whether and the extent to which coral reef commitments, targets, or policies are reflected in national biodiversity strategies, or in tandem with climate commitments under the Paris Agreement.

To address this gap, we evaluate national efforts to implement the KM-GBF and the Paris Agreement with respect to coral reefs. We analyze public submissions to the CBD and UNFCCC from the 25 countries with the largest coral reef areas and ask three questions: (1) Are global commitments reflected in national targets and plans? (2) Are coral reefs explicitly

included within these instruments? and (3) Do countries link area-based conservation with climate adaptation for reefs? We focus on area-based conservation and climate action because these elements have the strongest guidance and political momentum within both global frameworks.

## **Methods**

### *Geographic scope*

We focused on the 25 countries with the largest extent of coral reef area globally (“high-coral countries”). We use the latest estimates of shallow coral reef area as a global estimate of coral reefs that encompass all shallow tropical areas identified as reef geomorphic zones where coral could occur (Lyons et al., 2024). We restricted our analysis to the 25 countries with the largest areas of shallow reef habitat to ensure a manageable sample size and to avoid disproportionate influence from countries with minimal reef extent. Each country is a UN Member State (United Nations, 2025) able to sign, ratify, or accede to intergovernmental agreements such as the CBD and the UNFCCC.

As reef area in Lyons et al. (Lyons et al., 2024) is reported at the level of individual territories, identifying a single list of 25 countries required to cross-walking coral reef areas from overseas territories to the sovereign governments responsible for submitting national biodiversity and climate commitments. This applied to France, the United Kingdom, and the United States, whose overseas territories were aggregated under their respective UN Member States (Table S1).

Within the 25 countries, the United States was excluded from sections of our analysis because it has not ratified the CBD and it formally notified the UNFCCC Secretariat of its planned withdrawal from the Paris Agreement in November 2025. All of the remaining 24 countries are expected to submit NBSAPs and national biodiversity targets aligned with the KM-GBF, as well as NDCs aligned with the goals of the Paris Agreement. Some countries have also developed and endorsed NAPs.

### *Analytical framework*

For each country, we reviewed formal national communications submitted to the CBD and the UNFCCC. For biodiversity, we used the CBD’s Online Reporting Tool (ORT), which facilitates submission of national commitments under the KM-GBF. We extracted all targets and commitments related to Goal A, including national targets aligned to KM-GBF Targets 3 (area-based conservation) and 8 (addressing climate threats to biodiversity), their associated indicators, and national biodiversity action plans and strategies submitted by each country.

For climate, we used the UNFCCC’s online registry, including the NDC registry. We compiled the most recent NDCs (2.0 or 3.0) from all high-coral countries, including the relevant Mitigation and Adaptation commitments (both those unconditional on new climate finance and those that are conditional), as well as NAPs and, where relevant, National Adaptation Communications.

We relied only on documents formally submitted to these reporting platforms and did not include materials that may exist outside the CBD or UNFCCC processes. Submissions not originally in English were translated using DeepL (*DeepL Translate*, n.d.) (<https://www.deepl.com/>). For each

of the 25 high-coral countries, we applied a consistent set of questions to assess how coral reefs are reflected in national biodiversity and climate commitments.

Under the CBD, we reviewed whether countries had:

1. Submitted national biodiversity targets and/or a full NBSAP aligned with the KM-GBF.
2. Included national targets corresponding to KM-GBF Target 3 on area-based conservation, and whether these targets specified both a quantitative coverage goal (for example, a percentage of marine and coastal areas) and a timeline (for example, by 2030).
3. Included national targets corresponding to KM-GBF Target 8 on reducing climate change impacts on biodiversity, with attention to any elements explicitly referencing marine systems, coastal ecosystems, or coral reefs.

Under the UNFCCC, we assessed whether countries had:

1. Submitted a current NDC (NDC 2.0 or NDC 3.0) with a 2030 or 2035 target year.
2. Included commitments related to marine or coastal conservation within the NDC, noting whether these explicitly mention coral reefs or implicitly cover them through broader ecosystem categories.
3. Submitted a NAP or National Adaptation Communication and whether these adaptation instruments contained coral reef–relevant measures, including any quantitative or time-bound elements.

## Results

### *Status of KM-GBF biodiversity commitments among high-coral countries*

Seventeen of the 25 (68%) high-coral countries that are Party to the CBD had formally registered their national biodiversity targets aligned to the KM-GBF with the CBD Secretariat as of August 2025 (Table 1); one country (United States) has not ratified the KM-GBF and therefore would not be expected to submit national targets.

For the 17 countries with registered national biodiversity targets, all 17 countries included national targets aligned to KM-GBF Target 3 on area-based conservation (the “30x30” target) (Table 1). Ten of these countries (alphabetically: Australia, Belize, Fiji, France, Madagascar, Mexico, Papua New Guinea [PNG], Saudi Arabia, UAE, UK) explicitly committed to protecting 30% of marine and coastal areas by 2030, while Indonesia has committed to protecting 30% of its territorial sea and archipelagic waters by 2045, totalling 11 out of 25 (or 44%) of the high-coral countries.

Across high-coral countries, the average stated ambition of high-coral countries with KM-GBF Target 3 commitments is to protect 23.4% of all marine and coastal areas – generally across the entirety of their Exclusive Economic Zones (EEZs), by 2030.<sup>1</sup> This contrasts sharply with current protection levels of 10.6%, on average across the high-coral countries (Table 1), which is slightly higher than the current global average of 9.6% protected across EEZs (as of November 2025).

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<sup>1</sup> Indonesia’s target is 30% of the country’s territorial sea and archipelagic waters by 2045.

Few national targets specify which ecosystem types should be prioritized for protection, and no quantitative Target 3 commitments explicitly reference coral reefs in the titles of targets themselves.<sup>2</sup> Ten countries prioritize important areas for biodiversity for area-based conservation, in line with the KM-GBF (Convention On Biological Diversity, 2022; Zhao et al., 2024). Among all countries reviewed, France was the only country to explicitly mention coral reefs in its quantitative national targets on area-based conservation; however, this reference appears only in the supplementary information as a policy measure supporting the national area-based conservation target (Annex 1).

Of the 17 countries with registered national biodiversity targets, 16 have also submitted at least one related target to KM-GBF Target 8 most directly tied to impacts from climate change (Table 1), with Mexico's national target corresponding to KM-GBF Target 8 still in development. Among those who have submitted targets aligned with KM-GBF Target 8, seven countries (28%) address marine ecosystems, with three countries (Eritrea, Malaysia, Tanzania) identifying marine ecosystems in the title of their national biodiversity targets, and another four (Indonesia, Philippines, PNG and UK) including content on marine ecosystems within the supplementary information (Table 1).

Zero out of the 25 high-coral countries identify coral reef ecosystems specifically in the title of their national target on climate change, although three countries (Malaysia, PNG and the Philippines) refer to coral reefs in their supplementary text on policy measures and Tanzania refers to coral reefs in their explanatory notes (Annex 1). One country, Tanzania, specifies "vulnerable ecosystems" as priorities for climate action in the title of their national target, and PNG includes a reference to vulnerable ecosystems in their supplementary information on policy measures (Annex 1). PNG is the only country to commit to using coral-specific indicators in their national reporting on progress in implementing the KM-GBF (Annex 1).

Importantly, countries can indicate when a single national target contributes to multiple global targets under the KM-GBF when submitting them through the CBD ORT. This is an important mechanism to address interlinkages between targets. However, linking of area-based targets and climate-related targets is rare: only two of the 17 countries (12%), Eritrea and Malaysia, with quantitative national targets for KM-GBF Target 3 on area-based conservation also flagged those targets as contributing to KM-GBF Target 8 on reducing climate-related threats to biodiversity (Annex 1).

Nine high coral countries (36%, see Table 1) submitted full NBSAPs that detail their plans to achieve high-level targets at the national scale, which must necessarily cover multiple regions and ecosystem types. Almost all - eight of the nine (32%) - refer at least once to coral reef ecosystems (Annex 2). Four countries highlight the threat of climate change to reefs, and four refer to existing policies at the national level that pertain to coral reefs (Annex 2). Two countries (8%) have NBSAPs with relevant commitments for area-based protection of coral reefs, including France, which commits to protecting 100% of coral reefs within its territories, and Cuba, which specifically creates a link between protected areas strategies and restoration of coral reef ecosystems (Annex 2). None contained specific commitments or strategies on how to specifically protect coral reef climate refugia or uniquely climate-resilient reef ecosystems (Table 1), although Australia did commit to measuring the integration of climate change into broader protected area planning (Annex 2).

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<sup>2</sup> Target text is accompanied by additional spaces for detailed supplementary information in the ORT.

Table 1. High-coral countries included in this analysis, showing estimated coral reef habitat (km<sup>2</sup>) (Lyons et al., 2024), stated national commitments for KM-GBF Targets 3 and 8 including marine and coastal protection (% of Exclusive Economic Zone [EEZ] by 2030 or as noted), current EEZ protection as of July 2025 in the World Database on Protected Areas (WDPA), and membership in the High Ambition Coalition for Nature and People (HAC). Countries that have not uploaded targets or NBSAPs are indicated with a '-'.

Country	Area of shallow coral reefs, km <sup>2</sup>	Coral habitat, km <sup>2</sup>	KM-GBF Targets Submitted, including Target 3	% EEZ target	(EEZ) protected as of July 2025 (Source: WDPA)	KM-GBF Target 8 includes marine ecosystems	Coral mentioned in KM-GBF Target 3 and/or 8	Coral mentioned in post KM-GBF NBSAP	Measurable outcome for corals in NBSAP
Bahamas	107,449	1,504	No	-	7.68%	No	No	-	No
Cuba	51,510	3,536	Yes	13	4.22%	No	No	Yes	No
Indonesia	32,310	14,173	Yes	30 <sup>1</sup>	3%	Yes	No	Yes	No
Australia	28,233	9,416	Yes	30	45.39%	No	No	Yes	No
Philippines	15,097	7,741	Yes	16	1.62%	Yes	Yes	-	No
France	10,372	3,335	Yes	30	49.76%	No	Yes	Yes	Yes
Papua New Guinea	8,572	3,533	Yes	30	0.14%	Yes	Yes	-	No
Saudi Arabia	8,446	2,257	Yes	30	3.55%	No	No	-	No
Fiji	5,368	2,661	Yes	30	0.94%	No	No	-	No
United States	5,105	2,103	-	-	19.03%	-	-	-	-
UK	4,050	344	Yes	30	46.76%	Yes	No	Yes	No
Mozambique	3,666	1,052	Yes	12	2.16%	No	No	-	No
Solomon Islands	3,512	1,703	No	-	0.11%	No	No	-	No
Madagascar	3,465	1,508	Yes	30	1.32%	No	No	-	No
Eritrea	3,459	1,103	Yes	10	0%	Yes	No	-	No
Maldives	2,989	1,308	No	-	0.06%	No	No	-	No
Tanzania	2,988	1,017	Yes	[40]	2.31%	Yes	Yes	Yes	No

<b>Malaysia</b>	2,869	1,041	Yes	10	4.84%	Yes	Yes	Yes	No
<b>Marshall Islands</b>	2,543	1,662	No	n/a	0.33%	No	No	-	No
<b>Myanmar</b>	2,439	1,721	No	n/a	0.48%	No	No	-	No
<b>Belize</b>	2,418	642	No	n/a	20.38%	No	No	-	No
<b>UAE</b>	2,286	629	Yes	30	12%	No	No	Yes	No
<b>Kiribati</b>	2,198	899	No	n/a	11.90%	No	No	-	No
<b>Mexico</b>	1,754	492	Yes	30	22.57%	-	No	No	No
<b>Egypt</b>	1,728	476	Yes	20	5.07%	No	No	-	No
<b>Summary/Notes</b>	Total extent: 201,706 km <sup>2</sup>		68% (17 out of 25) submitted national targets, all included T3	Average commitment = 23.4%	Average current protection: 10.6%	28% (7 out of 25) submitted national target for KM-GBF		32% (8/25) have submitted NBSAP	0% (0/25) have measurable outcomes for reefs in NBSAP

<sup>1</sup> Noting Indonesia's target is 30% of the country's territorial sea and archipelagic waters by 2045.



### *Status of UNFCCC climate commitments among high-coral countries*

According to the UNFCCC registry, all 25 high-coral countries, including the United States, have submitted at least one NDC. However, despite a February 2025 deadline for Parties to submit their updated “NDC 3.0” outlining targets through 2035, only 8 of the 25 countries (32%) had done so as of August 2025 (Table 2). For the purposes of this analysis, we consider NDC 2.0 in the majority of cases where NDC 3.0 is not yet available.

Coral reef ecosystems are mentioned explicitly in NDCs of 12 (out of 25, or 48%) of the high-coral countries (Table 2), although many of these references are quite brief. Seven of high coral countries (28%) have NDCs with what can reasonably be interpreted as conservation commitments (Table 2); however, only three high-coral countries (out of 25, or 12%), including Belize, Fiji, and UAE have submitted an NDC 3.0 that includes a measurable commitment pertaining specifically to coastal or coral reef ecosystems (Annex 3).

Considering published NAPs available on the UNFCCC registry, seven high coral countries (out of 25, or 28%) make reference to coastal and marine ecosystems (Table 2) and five countries (out of 25, or 20%) specifically include coral reef conservation or management as key adaptation strategies (Table 2). Four countries (the Philippines, PNG, Fiji and Madagascar) have specifically referenced the protection of coral reefs or coastal ecosystems as a key part of adaptation strategies (Annex 4).

Table 2. High-coral countries and the inclusion of coral reef ecosystems in national climate commitments. The table shows each country's estimated coral reef habitat (km<sup>2</sup>), the most recent Nationally Determined Contribution (NDC) version available in the UNFCCC registry, and whether their NDCs or National Adaptation Plans (NAPs) include references to coral reefs. Coral reef areas (shallow coral reefs and coral habitat) provided in Table 1.

Country	Latest NDC	Coral in latest NDC	Measurable commitment	NAP	Coral in NAP
Bahamas	2.0	Yes	No	No	No
Cuba	3.0	Yes	No	No	No
Indonesia	2.0	No	No	No	No
Australia	2.0	No	No	No	No
Philippines	2.0	No	No	Yes	Yes
Papua New Guinea	2.0	Yes	No	Yes	Yes
Saudi Arabia	2.0	Yes	No	No	No
Fiji	2.0	Yes	Yes	Yes	Yes
France	2.0	No	No	No	No
Mozambique	2.0	No	No	Yes	Yes
Solomon Islands	3.0	Yes	No	No	No
Madagascar	2.0	No	No	Yes	Yes
Eritrea	2.0	No	Yes	No	No
UK	3.0	No	Yes	No	No
Maldives	3.0	Yes	No	No	No
Tanzania	2.0	No	No	No	No
Malaysia	2.0	No	No	No	No
United States	3.0	No	No	No	No
Marshall Islands	3.0	Yes	Yes	Yes	No
Myanmar	2.0	No	No	No	No

<b>Belize</b>	3.0	Yes	Yes	No	No
<b>UAE</b>	3.0	Yes	Yes	No	No
<b>Kiribas</b>	2.0	Yes	No	Yes	No
<b>Mexico</b>	2.0	Yes	No	No	No
<b>Egypt</b>	2.0	No	Yes	No	No
<b>Summary/Notes</b>	32% (8 out of 25) submitted NDC 3.0	48% (12 out of 25) have referred to coral in their NDC	28% (7 out of 25) include a measurable conservation commitment	28% (7 out of 25) have submitted NAP	20% (5 out of 25) included coral in their NAP

## Discussion

While the biodiversity and climate targets of the KM-GBF and Paris Agreement were intended to be ecosystem agnostic (and thus holistics to all ecosystems), the intention was for governments to include key ecosystems in their proposed actions, including KM-GBF targets, NBSAPs, and NAPs of the Paris Agreement. We find that coral reefs, despite being among the ecosystems most vulnerable to biodiversity loss and climate change, remain insufficiently represented in national biodiversity and climate commitments among the top 25 countries by coral reef extent. In addition, the references to coral reefs occurred in descriptive or diagnostic sections of NBSAPs and NDCs rather than as quantified targets or measures of success, indicating that some Parties can recognize coral reefs as important ecosystems but lack operationalization in target-setting or monitoring frameworks.

This limited visibility of coral reefs also suggests missed opportunities to advance policy coherence between the biodiversity and climate policy frameworks (Laffoley et al., 2021; Pettrelli et al., 2021). Only two countries linked area-based conservation commitments with climate threats to coral reefs, suggesting that the integration of climate resilience into biodiversity planning remains rare. This disconnect reflects patterns observed in other ecosystem governance domains, in which biodiversity and climate planning are conducted through parallel institutional processes with limited cross-mechanism coordination (Chandra & Idrisova, 2011; Runhaar et al., 2020, 2024).

By excluding specific mention to coral reefs, this jeopardizes the delivery of positive impacts for critically impacted ecosystems, like coral reefs. Including coral reefs in national frameworks and targets such as NBSAPs or NAPs can allow countries to meaningfully address key drivers of coral reef loss, such as pollution, overfishing, or coastal development through the beneficial auxiliary functions of conservation targets: building partnerships, raising awareness, promoting investment, and developing tools and knowledge (Doherty et al., 2018).

The limited visibility of coral reef specific commitments and targets in national plans can restrict the ability of countries to access the scale of finance needed for effective conservation. Although available climate adaptation finance is substantially greater than biodiversity finance, national submissions rarely describe coral reefs as adaptation infrastructure, despite strong evidence that reefs can reduce wave energy by up to 97% and provide significant coastal protection benefits (Burke & Spalding, 2022; Ferrario et al., 2014). Recent analyses show that restoring even 20% of coral reef areas in Florida and Puerto Rico could generate flood-reduction benefits that exceed restoration costs, yet funding for disaster management and recovery remains orders of magnitude higher than funding for reef restoration (Storlazzi et al., 2025). In line with efforts to mainstream nature-based solutions into climate planning (Seddon et al., 2021), explicitly recognizing coral reefs as adaptation assets could help countries better align conservation objectives with climate finance opportunities.

We found some variability across countries in how clearly they link coral reef conservation to climate and biodiversity commitments. For example, countries with smaller total reef areas, like Brazil, have made more explicit links between coral reef conservation and climate adaptation than many of the top reef-holding countries. In June 2025, Brazil launched 'ProCoral' (Ministério do Meio Ambiente e Mudança do Clima (MMA), 2025), a national strategy for coral reef conservation included as a target in Brazil's NBSAP and NAP. Conversely, some countries had no measurable or reef-specific commitments in their NBSAPs or NDCs, even though they have domestic policies that outline detailed actions for coral reefs. For example, Fiji's National Ocean

Policy 2020-2030 describes a priority for coral reef protection that includes expanding Marine Protected Areas (MPAs) and strengthening community-led conservation efforts, however this context is missing in Fiji's formal commitments to the KM-GBF (while coral reefs are mentioned in their UNFCCC NAP). This highlights a key limitation of text-based reporting analyses: formal submissions to the CBD and UNFCCC can provide a minimum expression of national ambition and may underrepresent domestic action where national plans are negotiated on different timelines or through different ministries, and are reported differently. At the same time, advocacy is needed to ensure countries create and deliver on domestic policies. These nuances point to opportunities to strengthen reporting templates and data structures under the KM-GBF and Paris Agreement to better capture quantified targets to biodiversity and climate commitments for specific ecosystems, including coral reefs.

Although our analysis provides a comparative overview of how coral reefs appear in national biodiversity and climate commitments, several limitations should be acknowledged. Because we relied on formal submissions to the CBD and UNFCCC, our results reflect only what countries report through these mechanisms and may underrepresent active domestic policy efforts occurring through other instruments or planning processes not captured in NBSAPs, NDCs, or national adaptation plans, or national policies that we are unfamiliar with. Additionally, by focusing on the 25 countries with the largest shallow reef extent, we capture the majority of global reef area but not the full diversity of political leadership or ecological importance. Countries with smaller reef areas can still drive meaningful progress (e.g., Brazil), either by advancing cross-sectoral reef governance or by championing ocean-climate integration internationally. Together, these limitations indicate that the ambition reflected in formal submissions likely represents a conservative estimate of national action and highlight opportunities to improve the reporting templates and indicators of the KM-GBF and Paris Agreement so they better capture ecosystem-specific and climate-resilient conservation targets and actions.

## **Policy implications and opportunities for implementation**

Our findings identify three areas where policy adjustments could enhance the integration of coral reefs across national biodiversity and climate commitments.

First, countries should work towards co-development and national endorsement of coral reef strategies or action plans with targets for actionable, area-based implementation. Several high-coral countries such as Belize, Fiji, Madagascar, Solomon Islands and Tanzania are already making good progress in this regard. While instruments such as NBSAPs, NDCs, and NAPs provide high-level direction, they represent only one subset of policy mechanisms addressing biodiversity loss and climate change. In many countries, revising existing national commitments may not be feasible within current political cycles or planning timelines, and capacity limitations may prevent detailed ecosystem-specific sub-targets. Developing dedicated coral reef strategies that are co-created with subnational agencies, Indigenous Peoples, and coastal communities can bridge this gap by aligning with national commitments while prioritizing coral reef action where it is most needed. Growing efforts to standardize coral reef data through national reef hubs and monitoring platforms offer an opportunity to support these strategies with transparent, evidence-based decision-making. Locally-led strategies grounded in national objectives can therefore accelerate implementation, improve accountability, and ensure that coral reef conservation reflects local priorities and knowledge systems. Furthermore, once these strategies are endorsed as national policy, they stand a much better chance of being incorporated into the next round of NBSAP and NDC submissions.

Second, irrespective of development of national strategies, coral reefs should be elevated within biodiversity planning through explicit commitments in NBSAPs to protect climate-resilient reefs and enhance the climate resilience of reef conservation. Despite their global importance, many high-coral countries have not yet submitted updated targets aligned with the KM-GBF, and among those that have, few include explicit, measurable objectives for coral reef protection. Although the KM-GBF does not reference individual ecosystems, Parties are free to establish sub-targets for specific ecosystems within NBSAPs, which would increase transparency and accountability, particularly for ecosystems as imperiled as coral reefs. Integrating coral reefs into national planning would also help operationalize KM-GBF Target 3 (“30x30”), which has strong visibility and attracts significant public and private finance, yet currently lacks guidance for incorporating climate resilience into area-based conservation. As Parties undergo iterative KM-GBF reviews, including the upcoming global stocktake in 2026, there is a timely opportunity to strengthen domestic implementation by incorporating climate-informed spatial planning, resilience criteria, and monitoring of climate impacts into NBSAPs. As of October 2025, 11 countries, including 8 high-coral countries have endorsed a high-level political commitment through the UN Ocean Conference to protect climate-resilient coral reefs via the actions outlined above, as well as strengthening national coral reef monitoring systems and reducing local stressors (Wildlife Conservation Society (WCS) et al., 2025).

Lastly, countries should include measurable commitments to coral reef conservation within their next round of NDCs for 2035 (which should have been submitted in 2025). Coral reefs remain largely invisible within climate planning, likely due to the historic focus of NDCs on terrestrial mitigation actions or blue carbon ecosystems such as mangroves and seagrasses. Yet recent momentum to integrate ocean action into both mitigation and adaptation commitments provides a clear entry point to position coral reefs as priority adaptation infrastructure. Among the top reef-holding nations, 64% have not yet submitted their NDC 3.0 and 72% have never submitted a NAP to the UNFCCC, underscoring the opportunity to elevate coral reefs in forthcoming submissions. Aligning climate-smart biodiversity commitments with national climate plans, and securing endorsement from senior climate authorities, would enhance policy coherence and improve implementation. Given that climate finance exceeds biodiversity finance by a significant margin (OECD, 2024a, 2024b), explicitly framing coral reefs as a climate adaptation strategy, based on their role in coastal protection, fisheries, and livelihoods, could unlock additional adaptation funding and accelerate climate-resilient reef conservation. Fortunately, an analysis of the UNFCCC Secretariat conducted after the deadline for this paper finds encouraging signals of ocean-based climate action, with an overall 39% increase submitting Parties making reference to the ocean (United Nations Framework Convention on Climate Change, 2025).

## **Conclusions**

Despite growing momentum to advance an ambitious Ocean Agenda in global biodiversity and climate negotiations (Jake Wise, 2025), our analysis shows that coral reefs – with strong ecological importance and climate vulnerability – remain underrepresented in national biodiversity and climate commitments. While some countries acknowledge reefs descriptively, this falls short of setting measurable targets or integrating climate resilience into their biodiversity and climate frameworks. This gap limits the political and social will to tackle the coral reef crisis, and practically constrains access to sustainable finance, such as the opportunity to position coral reefs as vital natural infrastructure for climate adaptation finance. Despite some variation across countries, our findings suggest that current ambition to address the joint biodiversity and climate crises for coral reefs is too low.

To address these gaps, countries with important global coral reef areas can take several practical steps. First, develop and nationally endorse dedicated coral reef strategies in order to enable actionable implementation aligned with national commitments. Second, embed explicit, climate-informed coral reef targets within NBSAPs to strengthen biodiversity planning under the KM-GBF. Third, elevate coral reefs within NDC 3.0 submissions as adaptation assets to improve coherence between climate and biodiversity policy and unlock access to larger pools of climate finance for natural infrastructure of coral reefs. Together, these actions to better position coral reefs within national and international biodiversity and climate agendas can significantly improve the future outlook of coral reefs.

## Data Availability

All data used in this study are publicly available from the Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC). Biodiversity data were obtained from the CBD Online Reporting Tool (ORT)(Convention On Biological Diversity, 2025), including all national targets and commitments related to Goal A of the Kunming–Montreal Global Biodiversity Framework (KM-GBF), national targets corresponding to KM-GBF Targets 3 and 8, their associated indicators, and the National Biodiversity Strategies and Action Plans (NBSAPs) submitted by the countries included in this analysis. Climate data were obtained from the UNFCCC online registry, including the most recent Nationally Determined Contributions (NDC 2.0 or 3.0) with mitigation and adaptation commitments (both unconditional and conditional on new climate finance), as well as National Adaptation Plans (NAPs) and, where relevant, National Adaptation Communications.

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## Supplementary Information

Table S1. Identification of the 25 countries with the largest coral reef area required linking coral reef extent reported for overseas territories (Lyons et al., 2024) to the sovereign governments responsible for submitting national biodiversity and climate commitments. Overseas territories of France, the United Kingdom, and the United States included in the Lyons et al. 2024 analysis were grouped with their respective Member States to reflect national submissions to the CBD and UNFCCC.

Country (i.e., Party or Member State)	Nations and territories identified with coral reef area in Lyons et al. 2024 <sup>1</sup>	Area of shallow coral reefs, km <sup>2</sup>	Coral habitat, km <sup>2</sup>
France	France, French Polynesia, New Caledonia, Guadeloupe, Martinique, Mayotte, Réunion, Saint-Barthélemy, Wallis and Futuna, Clipperton Island, Glorioso Islands, Juan de Nova Island, Bassas da India, Europa Island	10,372	3,335
United States	American Samoa, Guam, Hawaii, Howland and Baker Islands, Jarvis Island, Johnston Atoll, Navassa Island, Northern Mariana Islands, Palmyra Atoll, Puerto Rico, United States Virgin Islands, United States of America, Wake Island	5,105	2,103
United Kingdom	Anguilla, British Virgin Islands, Cayman Islands, Chagos Archipelago, Montserrat, Pitcairn, Turks and Caicos Islands	4,050	344

<sup>1</sup>All listed territories include coral reef areas as reported by Lyons et al. 2024

## Annex I. Detailed text from national targets in line with the KM-GBF

Country	T3	T8	Target Text	Explanatory Note	Policy measures	Indicators	Marine priorities
Papua New Guinea		X	TARGET 8: Minimize the impacts of climate change on biodiversity and build resilience	n/a	<p>T8A.5 Increasingly prioritise management of vulnerable ecosystems and species in all development plans, in the face of climate change impacts.</p> <p>T8A.6 Implement and further improve measures to manage and protect marine and coastal ecosystems from climate change impacts, to avoid significant adverse impacts on communities and vulnerable ecosystems and species.</p> <p>T8A.7 Explore specific adaptation and conservation measures for biodiversity, such as ex-situ breeding or seedbanks, special protection measures for vulnerable areas or species, re-establishing damaged corals and seagrass, and additional counter measures for pests and diseases.</p>	<p>T8I.4 Proportion of reefs impacted by coral bleaching;</p> <p>T8I.5 Percentage of live coral cover in coastal and marine environments (SOE indicator).</p>	Supplementary text
Eritrea	X	X	Target 1: By 2030, 15% of the degraded terrestrial coastal and marine ecosystems, and particularly those that provide essential services to livelihoods and well-being of people, are under restoration or rehabilitation through appropriate ecosystem restoration and management measures to enhance their resilience, integrity, structure and function; loss of natural habitats, degradation and fragmentation of ecosystems is at least halved and where feasible brought close to zero.	n/a	n/a	n/a	Target text
Philippines		X	PBSAP Target 8: Minimize the Impact of Climate Change	n/a	Strengthen the resilience of ecosystems within protected areas through reforestation, mangrove restoration, and the protection of coral reefs to reduce the impact of storms, flooding, and other disasters.	n/a	Supplementary text



Tanzania		X	Target 8: Minimize the impact of climate change on terrestrial, freshwater, coastal, and marine habitats, and other vulnerable ecosystems to maintain their integrity and build resilience by 2030.	Restoration programs have been implemented for degraded ecosystems to increase resilience (e.g., reforestation, wetland rehabilitation, coral reef restoration). Capacity-building programs have been implemented to strengthen technical expertise on ecosystem resilience and climate change adaptation Target aligned with international frameworks such as the UNFCCC and the Paris Agreement, ensuring coherence between biodiversity and climate policies.	n/a	n/a	Target text and supplementary text
Malaysia	X	X	[National] Target 8: By 2030, At Least 20% Of Terrestrial Areas And Inland Waters, And 10% Of Coastal And Marine Areas Are Conserved Through An Effectively Managed And Ecologically Representative System Of Protected Areas And OECMs	n/a	We need to design and mitigate future development with biodiversity in mind, to ensure that key conservation landscapes across both the terrestrial and marine realms remain sizable and connected. We need to maintain and re-establish ecological connectivity between the most important habitats, in particular our protected areas as well as other important sites for biodiversity. Malaysia has made significant progress in landscape and seascape level conservation initiatives such as the Central Forest Spine (CFS), the tri-lateral Heart of Borneo (HoB) initiative and the 6-nation Coral Triangle Initiative (CTI) which aim to integrate biodiversity protection and management across broad landscapes and seascapes.	n/a	Target text and supplementary text
France		X	Mesure 1 : Renforcer la stratégie aires protégées pour atteindre les 10 % de surface en protection forte et bien gérer les 30 % d'aires protégées.  <i>English translation:</i> Strengthen the protected-areas	n/a	"...Renforcer la protection des récifs coralliens..."  <i>English translation:</i> "...Strengthen the protection of coral reefs..."	n/a	Supplementary text

			strategy to achieve 10% of the area under strict protection and ensure effective management of 30% of protected areas.				
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## Annex II. Examples of references to coral reefs in NBSAPs:

Country	Coral reef references	Threats from climate to coral reefs	Coral reefs and Target 3
Cuba	<p>Incrementar la implementación de medidas de rehabilitación de arrecifes, con énfasis en áreas protegidas, zonas con mayor deterioro y las priorizadas por la Tarea 6 del Plan de Estado para el enfrentamiento al cambio climático.</p> <p>Rehabilitar los ecosistemas marinos costeros (ej. arrecifes, pastos, manglares, dunas, bosques, matorrales).</p> <p><i>English translation:</i></p> <p>Increase the implementation of reef rehabilitation measures, with an emphasis on protected areas, zones with greater degradation, and those prioritized under Task 6 of the State Plan for addressing climate change.</p> <p>Rehabilitate coastal and marine ecosystems (e.g., reefs, seagrasses, mangroves, dunes, forests, shrublands).</p>	n/a	<p>Líneas de acción priorizadas:</p> <p>Incrementar la implementación de medidas de rehabilitación de arrecifes, con énfasis en áreas protegidas, zonas con mayor deterioro y las priorizadas por la Tarea 6 del Plan de Estado para el enfrentamiento al cambio climático.</p> <p><i>English translation:</i></p> <p>Prioritized lines of action:</p> <p>Increase the implementation of reef rehabilitation measures, with an emphasis on protected areas, zones experiencing the greatest degradation, and those prioritized under Task 6 of the State Plan for addressing climate change.</p>
France	<p>France has jurisdiction over the world's second largest maritime area, covering more than 10 million km<sup>2</sup>, more than 96% of which is in the French Overseas Territories. This area includes 55,000 km<sup>2</sup> of coral reefs and lagoons, representing more than 10% of the world's coral surface area and more than 20% of the world's atolls.</p> <p>To limit changes in land and sea use, the National Biodiversity Strategy will continue efforts to effectively protect at least 30% of the national territory, both terrestrial and marine, with 10% under strong protection. France owns 10% of the world's coral reefs and will protect 100% of its reefs by 2030, with half under strong</p>	n/a	<p>France owns 10% of the world's coral reefs and will protect 100% of its reefs by 2030, with half under strong protection.</p>

	<p>protection. It will also place 5% of the sea in the metropolitan area under strong protection, including 100% of the Posidonia meadows in the Mediterranean. More than 400 new protected areas will be created in mainland France and the French overseas territories by 2027, and additional resources will be mobilised to ensure better management of the sites.</p>		
Indonesia	<p>As one example:</p> <p>Sumber daya keanekaragaman hayati di sektor kelautan juga menggambarkan potensi yang signifikan untuk pembangunan ekonomi biru di Indonesia. Valuasi dari komoditas perikanan yang bersumber dari lestariannya keanekaragaman hayati dengan terumbu karang di Indonesia mencapai USD 2,9 miliar atau Rp 39,4 triliun<sup>76</sup>. Manfaat utama yang paling signifikan dengan lestariannya keanekaragaman hayati pada terumbu karang adalah komoditas perikanan dan ekowisata. Tingginya keanekaragaman hayati pada ekosistem terumbu karang memberikan tempat yang aman bagi spesies komoditas perikanan untuk berkembang biak dan mendapatkan nutrisi yang akan meningkatkan biomassa ikan.</p> <p><i>English translation:</i></p> <p>Biodiversity resources in the marine sector also represent significant potential for blue economy development in Indonesia. The valuation of fishery commodities sourced from the preservation of biodiversity with coral reefs in Indonesia reaches USD 2.9 billion or IDR 39.4 trillion<sup>76</sup>. The most significant benefits of sustainable biodiversity in coral reefs are fishery commodities and ecotourism. The high biodiversity in coral reef ecosystems provides a safe place for fishery commodity species to reproduce and obtain nutrients that will increase fish biomass.</p>	<p>Pada ekosistem laut, perubahan iklim merupakan ancaman paling signifikan terhadap terumbu karang, dan memiliki prospek jangka panjang yang juga memperburuk dampak dari ancaman lain. Mengingat sensitivitas yang dimiliki pada terumbu karang terhadap kenaikan suhu akan menyebabkan coral bleaching sehingga peningkatan suhu permukaan bumi lebih dari 1,5oC akan menyebabkan kerusakan yang masif bahkan kepunahan pada terumbu karang.</p> <p><i>English translation:</i></p> <p>In marine ecosystems, climate change is the most significant threat to coral reefs and has long-term prospects that also exacerbate the impact of other threats. Given the sensitivity of coral reefs to temperature increases, coral bleaching will occur so that an increase in global surface temperature of more than 1.5oC will cause massive damage and even extinction of coral reefs.</p>	n/a
Australia	Mentions "Reef 2050 Plan"	<p>"Biodiversity is vulnerable to climate change, as demonstrated by the increased frequency of fires, floods, coral-bleaching events and mass deaths of flora and fauna."</p> <p>"Waterways and wetlands are a critical part of our natural environment. They provide habitat for many species, reduce the impacts of floods, absorb pollutants and improve water quality. Biodiversity in aquatic ecosystems within Australia and in its surrounding marine</p>	<p>"We need strategies that will minimise the impact of climate change and promote adaptation to it. Examples include protecting natural ecosystems that provide carbon storage services, particularly primary forests, marine seagrass communities, wetlands and peatlands, and increasing carbon stores through revegetation. Embedding considerations of adaptation and ecological transformation into decision-making, and supporting actions that build resilience, is key to</p>

		<p>areas is threatened by climate change, including the impacts of changed frequency, magnitude and intensity of floods and droughts; changes in water quality and the condition of habitats fringing rivers and streams; and marine heatwaves, ocean acidification and the effects of rising sea levels. These impacts are compounded by unsustainable levels of water extraction and invasive species.”</p> <p>National target: Minimise the impact of climate change on biodiversity”</p>	<p>helping natural systems retain their capacity to store carbon and adapt to shifting climatic conditions.”</p> <p>Progress Measure 5D “Number of protected areas that include explicit consideration of future climate scenarios and adaptation responses in their planning and management”</p>
UK	<p>“The UKOTs (United Kingdom Overseas Territories) and CDs (Crown Dependencies) make a significant contribution to global biological diversity, both individually and collectively. They...are home to approximately 4,700 km<sup>2</sup> of corals, comprising the twelfth largest area of coral reefs in the world (Overseas Territories Conservation n.d.)”</p>	n/a	n/a
Tanzania	<p>“Tanzania's marine biodiversity is equally significant, within its 284,837 km<sup>2</sup> of marine waters (NBS, 2021). Important biophysical features of the coastline include mangroves, coral reefs and seagrass beds as well as the sandy beaches. Biodiversity conservation in the coastal and marine ecosystems provide enormous ecosystem services, including the famous fisheries as well as coastal and marine tourism.”</p> <p>“Coral reefs in Tanzania are estimated to cover about 3,580 km<sup>2</sup> of the country's coastline, the largest area covered by coral reefs in the entire Eastern Africa. Coral reefs support diverse marine ecosystems that include over 500 species of commercially important fish and invertebrates.”</p>	<p>“The Climate change impacts include changes in species distribution, altered timing of biological events, extinction of vulnerable species, shifts in ecosystem structures and function. Other impacts are ocean acidification, changes in water availability, intensification of invasive species, disruption of migratory species, reduced resilience and changes in ecosystem services. The impacts also include shifts in ecosystem structure and composition, disruption of ecological interactions, ocean ecosystems and coral reefs, forest ecosystem changes, ecosystem fragmentation, and soil degradation.”</p>	n/a
Malaysia	<p>“Malaysia has one of the largest continental shelf areas in the tropics. In comparison with other continental areas, this region is rich in biodiversity, housing the greatest species diversity of marine life globally. Malaysia has a coastline of approximately 4,800 km<sup>2</sup>. Marine and coastal biodiversity habitats comprise coral reefs, seagrass beds, and mud flats, as well as coastal hill forests and mangrove forests. It is estimated that the coral reefs in Malaysia covers about 4,006 km<sup>2</sup> with an average coral cover of 41.3%. With the extensive blanketing of coral</p>	<p>Climate change is a growing global threat not only to biodiversity and ecosystems but ultimately to the world. These threats pose severe impacts on livelihoods through increasing natural disasters, drought, increasing temperatures, increasing sea level rise, erosion of shorelines, reduced crop yields, coral reef bleaching, decreased water availability, increasing incidences of diseases, and many more. There is a need to recognise</p>	n/a

	<p>reefs, the habitat provides habitat support for at least 700 species of fish. In Malaysia, Marine Protected Areas (MPAs) are coastal and sea zones that have been legislated and regulated to manage and protect marine natural resources and biodiversity where a total of 53 MPAs have been gazetted.”</p> <p>“Landscape ecosystems play a crucial role in regulating extreme weather events and natural disasters through buffer systems, as exemplified by mangroves, coastal peat swamps, seagrass beds, and coral reefs. which prevent further coastline damage. Rainforests moderate flooding by acting as a water catchment where water is retained during heavy rainfall. This also helps prevent further soil erosion and damage to residential areas, public amenities and such in nearby villages or cities in the event of flooding.”</p>	the potential environmental impacts caused by land-based climate mitigation approaches.	
UAE	<p>النظام البيئي البحري والساحلي: تمتد سواحل الدولة من الخليج العربي إلى بحر عُمان، وتبلغ ، مساحة المياه البحرية الإقليمية 27,624 كم2 كما تضم مجموعة من الجزر والعديد من الموائل المتنوعة منها الشعاب المرجانية والحشائش البحرية والشواطئ الرملية والصخرية والطينية والسيخات 205 كم. تلعب البيئات البحرية والساحلية دوراً الساحلية وغابات أشجار القرم التي تجاوزت مساحتها في توفير الغذاء، حيث يعتبر صيد السمك هاماً شريان الحياة التقليدية في المجتمع، كما استخدمت للنقل والسكن، وشكل اللؤلؤ البيئة البحرية تاريخياً في الماضي حجر الأساس للقتصاد المجتمع، وتعتبر للعديد من النواحي البيئة البحرية والساحلية موائل بحرية، فهي تمثل مواقع لتفريخ السمك الهامة وتساهم في حماية الشواطئ من التعرية الساحلية، في المساهمة في التكيف مع تغير كما تلعب دوراً المناخ، وتعد مصدر اهتمام للنشاطات الصناعية والتجارية والثقافية والترفيهية.</p> <p><i>English translation:</i></p> <p>“Marine and coastal ecosystem: The country's coastline stretches from the Arabian Gulf to the Sea of Oman, covering a total area of 27,624 km2. It also includes a group of islands and many diverse habitats, including coral reefs, seagrass beds, sandy, rocky and muddy beaches, and 205 km of salt marshes. Marine and coastal environments play a role in providing food, as fishing is considered an important traditional lifeline in society. They have also been used for transportation and housing. Historically, pearls have formed the cornerstone of the community's economy. Many species consider the marine and coastal environment their habitat, as it represents important fish spawning sites and contributes to protecting beaches from coastal erosion, helping to adapt to climate change. It also plays a role in industrial, commercial, cultural, and recreational activities.”</p>	n/a	n/a

### Annex III. Example commitments on coral reefs (and adjacent, connected coastal ecosystems) within NDCs

<p><b>Belize</b></p> <p><i>Government of Belize. Belize's Third Nationally Determined Contribution. Ministry of Sustainable Development, Climate Change, and Solid Waste Management (Government of Belize &amp; Ministry of Sustainable Development, Climate Change &amp; Solid Waste Management, 2025)</i></p>	<p><b>Example Commitments and Targets:</b></p> <p><i>Mitigation Targets</i></p> <ul style="list-style-type: none"> <li>- Increase protected areas of mangroves (cumulative no. of hectares) 6,000 ha (2030) to 8,000 ha (2035).</li> <li>- Explore opportunities for improvement of existing and establishment of new public conservation areas, partnerships with landlords of privately owned mangroves, and local communities.</li> <li>- Adopt and implement the Belize National Mangrove Restoration Action Plan by 2026</li> <li>- Establish a centralised monitoring and reporting system which integrates forestry, biodiversity and agriculture within the Forest Department by 2030</li> </ul> <p><i>Adaptation Targets</i></p> <ul style="list-style-type: none"> <li>- Expand biodiversity protection zones to 30% by 2030 (% from Belize's ocean)</li> <li>- Increase resilience of coastal zone habitats by implementing the measures in the national adaptation plan by 2035</li> </ul> <p><i>Adaptation Actions</i></p> <ul style="list-style-type: none"> <li>- Implement the Belize Sustainable Ocean Plan, which includes the Marine Spatial Plan by 2030</li> <li>- Develop a National Sectoral Adaptation Plan for coral reefs by 2026, and implement it by 2035, which includes assessing restoration potential, a monitoring and evaluation framework and climate-responsive adaptive management strategies.</li> <li>- Conduct an assessment of the impacts of ocean acidification on Belize's coastal habitats and marine resources by 2030 and establish a monitoring program for ocean acidification in Belize by 2035</li> <li>- Establish a monitoring programme for water quality in Belize's marine and coastal areas by 2035</li> <li>- Examine opportunities for enhancement of biodiversity protection, genetic diversification and issues related to invasive species by 2030</li> <li>- Conduct vulnerability assessments to determine areas and species in danger to climate change and its impacts by 2030</li> <li>- Conduct a gap assessment for the implementation of the National Biodiversity Sectoral Adaptation Plan which includes regulatory considerations for private companies and institutions by 2030</li> </ul>
<p><b>United Arab Emirates</b></p> <p><i>United Arab Emirates Ministry of Climate Change and Environment. The United Arab Emirates' Third Nationally Determined Contribution (NDC 3.0) Accelerating Action Towards Mission 1.5C (Government of the United Arab Emirates &amp; Ministry of Climate Change &amp; Environment, 2024)</i></p>	<p><b>Commitments:</b></p> <p><i>The UAE's environmental strategies are underpinned by the National Biodiversity Strategy and Action Plan (NBSAP 2031) and the National Desertification Strategy 2030. These frameworks guide the conservation of biodiversity and sustainable land management, aligning with global efforts under the CBD Kunming-Montreal Global Biodiversity Framework and the UNFCCC's UAE Consensus.</i></p> <p>Domestically, the UAE met the Aichi target of protecting by 2020 at least 18.4% of terrestrial and inland water and 12.1% of coastal and marine areas, and is working to contribute to the 30% goal for 2030.</p> <p>By 2030, the UAE aims to plant an additional 160 million mangroves, significantly enhancing biocapacity.</p>

## Annex IV. Commitments to protection of coral reefs (and adjacent, connected ecosystems) with NAPs

<b>Philippines</b>	<p>Outcome 2: Protected and rehabilitated biodiversity across habitats and ecosystems</p> <p>Rehabilitate and restore coastal and marine ecosystems. Managed realignment of coastlines; re-establishing and protecting coastal habitats, including mangroves, saltmarshes, coral reefs, sea grass beds, and other such ecosystems with high adaptation potential.</p>
<b>PNG</b>	<p>Strategy Action 5.2 Coastal rehabilitation and protection to enhance resilience of coastal communities and ecosystems.</p> <ul style="list-style-type: none"> <li>• Mangrove management and rehabilitation.</li> <li>• Planting of seagrass and coral replanting, rehabilitation, and protection.</li> <li>• Establishment of marine protected areas (MPAs), locally managed marine areas (LMMA).</li> <li>• Development of a sustainable reef to ridge programme to enhance the resilience of vulnerable communities to improve food and water security.</li> <li>• Protection and promotion of biodiversity conservation through [ecosystem-based adaptation] EbA approaches</li> </ul>
<b>Fiji</b>	<p>Action 12.F.6: Support the restoration, enhancement and conservation of coastal ecosystems such as mangroves, seagrasses and coral reefs, in collaboration with Forestry and Fisheries ministries, local communities and actors, community fishery reserves and other partners such as tourism associations.</p> <p>Action 11.11: Produce national guidelines to assist government, communities, and private sector entities to establish protected area agreements and corresponding management and monitoring plans and ensure all of these are included in relevant national and international reporting on conservation targets.</p> <p>Action 16.2: Prioritise and delineate critical areas for protection and sustainable management based on ecosystem services, cultural importance, biodiversity, food security, water security, access and benefit sharing, and importance for adaptation and disaster risk reduction.</p> <p>Action 16.4: Assess and monitor the state of coastal ecosystems and protect and enhance the natural coastal defences.</p>
<b>Madagascar</b>	<p><b>PRIORITÉ STRATÉGIQUE 1 : METTRE EN PLACE DES RÉSERVES MARINES ET PROTÉGER LES CORAUX ET LES MANGROVES</b></p> <p>Les mangroves et les récifs coralliens sont connus pour être de véritables nurseries à poissons, tout en représentant un atout important de la promotion du tourisme à Madagascar. Il est donc primordial de protéger ces espaces pour garantir le renouvellement des ressources halieutiques d'une part et sécuriser un secteur en croissance (tourisme) d'autre part, et qui s'appuient sur les ressources naturelles du pays. Par ailleurs, dans le contexte des changements climatiques, les régions côtières se trouvent particulièrement exposées à l'élévation du niveau de la mer. À Madagascar, les changements climatiques en milieu marin se traduisent par le blanchissement des coraux ou encore par l'élévation moyenne de 7 à 8 mm par an du niveau de la mer.<sup>40</sup> Bien que menacées par le changement climatique, les mangroves et les barrières de corail constituent des puits de carbone et forment une protection naturelle idéale contre nombreux aléas naturels et climatiques, dont l'érosion côtière. Leur protection et leur reconstitution permettent donc de réduire la vulnérabilité des espaces côtiers où ils sont présents. Réaliser un inventaire des récifs coralliens et de leur état de conservation Les connaissances très parcellaires sur les écosystèmes et la plupart des ressources limitent les prises de décision pour leur préservation. Dans la plupart des cas, la dégradation est déjà très avancée avant que des mesures de gestion aient été prises. Néanmoins, un grand pas a été fait en ce qui concerne les connaissances sur les récifs coralliens de Madagascar depuis la réalisation d'un projet de caractérisation et de cartographie des récifs au niveau global dans le cadre du projet américain Millennium Coral Reef Mapping lequel a produit, entre autres, un Atlas des Récifs Coralliens de l'Océan Indien Ouest (Andréfouet, 2012). Ces données doivent être consolidées au niveau national. Appuyer le processus de mise en protection des Aires Marines Protégées incluant les systèmes coralliens et les mangroves à haute valeur de conservation La politique nationale s'inscrit dans une démarche ambitieuse de protection des milieux terrestres et marins à Madagascar, en lien avec des démarches internationales telles que la « vision Durban » de 2003 (objectif de tripler les surfaces d'aires protégées) et les décisions de Sydney de 2014 (avec notamment l'objectif spécifique de tripler également les aires marines protégées). Cette volonté et la politique de gestion et de conservation de la biodiversité se heurtent cependant à différentes problématiques, il s'agit donc de renforcer la bonne gouvernance et la gestion opérationnelle de ces aires protégées, dont les territoires sont parfois très difficiles d'accès. Les gestionnaires, qui sont confrontés à des problèmes de gestion rationnelle des ressources et des problématiques socio-économiques ancrées, seront ainsi mieux soutenus.</p> <p><i>English translation:</i> Strategic Priority 1: Establish marine reserves and protect corals and mangroves</p>

	<p>Mangroves and coral reefs are known to be true nurseries for fish, while also representing an important asset for promoting tourism in Madagascar. It is therefore essential to protect these areas to ensure the renewal of fishery resources on the one hand and to secure a growing sector (tourism) on the other, which depends on the country's natural resources. Moreover, in the context of climate change, coastal regions are particularly exposed to sea-level rise. In Madagascar, climate change in marine environments is reflected in coral bleaching as well as an average sea-level rise of 7 to 8 mm per year. Although threatened by climate change, mangroves and coral reefs serve as carbon sinks and form an ideal natural protection against numerous natural and climatic hazards, including coastal erosion. Their protection and restoration therefore help reduce the vulnerability of coastal areas where they occur. Carry out an inventory of coral reefs and their conservation status</p> <p>Fragmented knowledge of ecosystems and most resources limits decision-making for their preservation. In many cases, degradation is already very advanced before management measures are taken. Nevertheless, significant progress has been made regarding knowledge of Madagascar's coral reefs following a global reef characterization and mapping project under the U.S. Millennium Coral Reef Mapping initiative, which produced, among other outputs, an Atlas of the Coral Reefs of the Western Indian Ocean (Andréfouet, 2012). These data now need to be consolidated at the national level. Support the process of protecting Marine Protected Areas including coral systems and mangroves with high conservation value</p> <p>National policy aligns with an ambitious approach to protecting terrestrial and marine environments in Madagascar, linked to international initiatives such as the 2003 "Durban Vision" (objective of tripling the areas of protected lands) and the 2014 Sydney decisions (including the objective to also triple marine protected areas). However, this ambition and the policy for biodiversity conservation and management face several challenges, making it necessary to strengthen good governance and the operational management of these protected areas, whose territories are sometimes very difficult to access. Managers, who face challenges related to rational resource management and entrenched socio-economic issues, will thus be better supported.</p>
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