



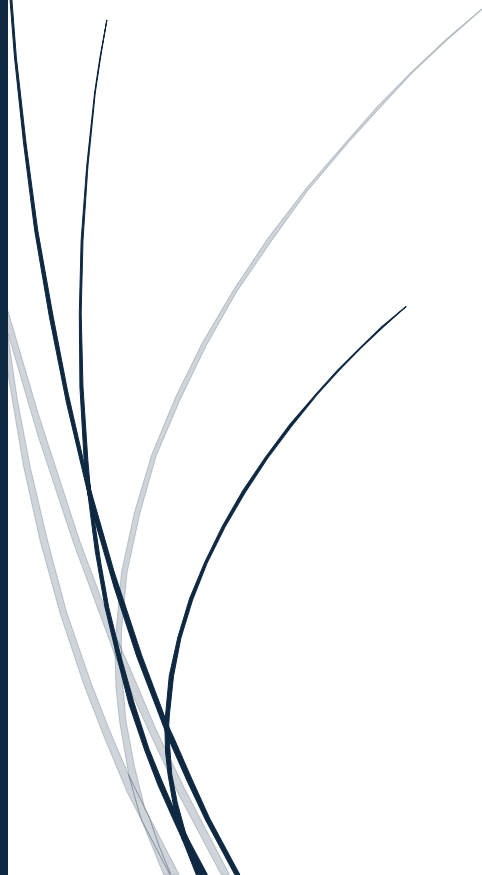
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Advancing the biodiversity- climate nexus through MEAs

National implementation plans
as catalysts for integrated action

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Contents

Summary	3
1. Introduction	0
2. Policy cycle obligations for NIPs	2
2.1 Overview of the policy cycle for NIPs.	2
2.2 NIP development	4
2.3 NIP implementation	9
2.4 Reporting on NIPs	12
2.5 Review	16
3. Materials and methods	19
3.1 Geographical scope	19
3.2 Selection of national documents	19
3.3 Identification of key commitments	22
3.4 Identification of key words for analysis	25
4. Integration of biodiversity content in Pacific Island States' UNFCCC/PA sources	28
4.1 Overview of results	28
4.2 Results by thematic groups	30
5. Integration of climate content in Pacific Island States' CBD sources	39
5.1 Overview of results	39
5.2 Results by thematic groups	41
6. Biodiversity-climate synergies playbook and checklist	46
6.1 Biodiversity-climate synergies playbook	46
6.2 Biodiversity-climate synergies checklist	48
7. Country case studies: Integration of biodiversity in climate policy	54
7.1 Samoa	54
7.2 Fiji	59
7.3 Tonga	64
7.4 Vanuatu	68
Conclusions	74
Annex 1. Status of NIP development and reporting for Pacific Island States	77
Annex 2. Key measures for integrated climate and biodiversity action	79
Annex 3. Other resolutions of relevance for the biodiversity-climate nexus	94
Annex 4. Raw data used as the basis for the analysis	96
References	98

Abbreviations

AC	Adaptation Committee
BTR	Biennial Transparency Report
BUR	Biennial Update Report
CBD	Convention on Biological Diversity
CHM	Clearing-House Mechanism
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on Migratory Species
COP	Conference of Parties
DaRT	Data Reporting Tool for MEAs
EIA	Environmental impact assessment
ETF	Enhanced Transparency Framework
ETF	Enhanced Transparency Framework
GHG	Greenhouse gas
ICTU	Information to facilitate clarity, transparency and understanding
ICZM	integrated coastal zone management
IPCC	Intergovernmental Panel on Climate Change
IPLC	Indigenous Peoples and Local Communities
KM-GBF	Kunming-Montreal Global Biodiversity Framework
LDCs	Least developed countries
MEA	Multilateral Environmental Agreement
MPGs	Modalities, procedures and guidelines
NAP	National Adaptation Plan
NBSAP	National Biodiversity Strategies and Action Plan
NC	National communication
NDCs	Nationally Determined Contributions
NFP	National focal point
NIP	National implementation plan
NIR	National Inventory Reports
NR	National report
SBI	Subsidiary Body on Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SBSTTA	Subsidiary Body on Scientific and Technical and Technological Advice
SDG	Sustainable Development Goal
SPREP	Secretariat of the Pacific Regional Environment Programme
TER	Technical Expert Review
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

Summary

Objective

The objective of this report is to enhance coherent implementation of the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC) and Paris Agreement by:

1. Identifying opportunities to align policy cycles of national implementation plans (NIPs) for more integrated action,
2. Preparing a checklist and playbook for integrated action based on existing treaty commitments,
3. Assessing the extent of integration through content analysis of NIPs and national reports submitted by 14 Pacific Island States, and
4. Preparing case studies on integrated action from four Pacific Island States.

The study is guided by key resolutions from the United Nations Environment Assembly (UNEA), including Resolution 6/6 (2024), which mandates the UN Environment Programme (UNEP) to analyze case studies, success stories, and lessons learned from national-level synergies in implementing MEAs. Resolution 6/4 (2024) encourages Member States to enhance cooperation and synergies across MEAs while respecting their individual mandates. Resolution 6/6 (para 2a) further promotes structured coordination mechanisms and joint approaches, including communication channels and convening national focal points across MEAs. These resolutions collectively emphasize the importance of integrated governance for addressing the climate–biodiversity nexus.

Methodology

This study applies to a targeted and replicable methodology combining quantitative and qualitative content analysis to assess opportunities for integrating biodiversity and climate action through NIPs. The geographic focus is on Pacific Island States, selected for their acute vulnerability to climate and biodiversity threats. The Pacific Island States' context serves both as a pilot, with potential for adaptation and replication in other regions.

The methodology includes a literature review of MEA decisions and resolutions relevant to the biodiversity–climate nexus, alongside a content analysis conducted using NVivo to examine cross-fertilization of biodiversity and climate terms across national planning and reporting documents. The NIPs analyzed include National Biodiversity Strategies and Action Plans (NBSAPs) under the CBD and Nationally Determined Contributions (NDCs and National adaptation plans (NAPs) under the UNFCCC and Paris Agreement. National reports submitted under the MEAs were also reviewed in parallel with the NIPs.

Country case studies were carried out for Samoa, Fiji, Tonga, and Vanuatu to identify institutional and thematic gaps in implementation capacity. The study also incorporates feedback from national representatives during a workshop organized in Samoa in May 2025.

1. Policy cycle analysis

National implementation plans (NIPs) include implementation plans and strategies developed and adopted by governments in accordance with obligations set out in MEAs. The policy cycle for NIPs can be delineated into four phases. The phases include:

- **NIP development phase** consisting of assessment of needs, stakeholder engagement, planning and setting of targets and identifying measures
- **NIP Implementation** through adoption of legislation and policies, as well as public awareness and outreach measures
- **Reporting phase** includes disclosing information on national implementation collected through, monitoring, progress evaluation and identification of gaps and challenges
- **Review phase** includes evaluation of collective performance by synthesizing information from national reports and other sources to inform policy adjustments

The cycles phases for NIPs across MEAs resemble each other but have some differences in terms of structure and schedules. Table A outlines the four policy cycles for the CBD and UNFCCC and Paris Agreement in a nutshell.

Table A. Summary of the four policy cycles in the CBD, UNFCCC and Paris Agreement.

	CBD	UNFCCC and Paris Agreement
NIP development phase	National Biodiversity Strategies and Action Plans (NBSAPs) • Development of NBSAPs in mandatory • The interval has been flexible • NBSAPs need to be updated and aligned with the GBF by end of 2025 • Flexibility is provided to the update	Nationally determined Contributions (NDCs) • NDC development is mandatory • Updated every 5-years, next in 2028 National Adaptation Plans (NAPs) • NAP development is voluntary
NIP implementation phase	Guidance: • Voluntary Guidelines Ecosystem-based Adaptation and Disaster Risk Reduction • Planned updates are to expand on mitigation • CMS and Ramsar Conventions complement by providing more specific guidance on renewable energies	NDC - Clarity, transparency and understanding (CTU) guidance • Structure is mandatory from NDC-2 forward • No requirement to report on biodiversity impacts • Section 4 offers voluntary entry points (e.g. GST references) NAPs - Adaptation Committee • Supports NAP development • Key resource: “Opportunities for Enhancing Adaptation in Vulnerable Ecosystems”
Reporting phase	National Reports (NRs) • Reports every 4 years (7th due 28 Feb 2026) • >90% reporting rate in last 3 rounds • Reporting is directly linked to NBSAPs • GBF Monitoring Framework provides the framework for reporting (includes mandatory and voluntary indicators)	National Communication (NCs) • Every 4 years (flexible for non-Annex I) • Ninth NC due 31 Dec 2026 • High reporting rates by Annex I Parties • Reporting has no direct NDC or NAP linkage Biennial Transparency Reports (BTRs) • Every 2 years (1st due 31 Dec 2024) • the Modalities, procedures and guidelines (MPGs) provide the framework for reporting on NDCs • Parties to define their own indicators
Review phase	Global Review	Global Stocktake

	• Global Review of collective Progress to be provided at COP-17 (2026) and COP-19 (2030) • Draws from National Reports and scientific and technical information and traditional knowledge • Complemented by a global analysis of NBSAP related to the GBF at each COP	• Reviews progress on NDC implementation • Provided ever 5 years • First GST in 2023, next in 2028 • Findings guide Parties in updating their climate action
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The policy cycles for different MEAs have been designed without considering synergies with other MEAs. Aligning policy cycles across MEAs can significantly improve coherence, efficiency, and impact of biodiversity and climate actions. Table B summarizes opportunities for aligning the policy cycle across the biodiversity–climate nexus.

Table B. Opportunities for aligning the policy cycle across the biodiversity–climate nexus.

	CBD	UNFCCC and Paris Agreement
NIP development phase	• 11 dedicated COP decisions (2004-2024) on biodiversity and climate nexus provide guidance for integrated NIP development • The Global Biodiversity Framework calls, through Targets 8 and 11, call for integrating nature-based solutions and ecosystem-based approaches in NIPs	• Guidance for integrated action included in broad terms in the First Outcome of the Global Stocktake, the Sharm-El Sheik Implementation Plan, and the Glasgow Climate Pact • NBSAPs and NAPs are both expected by the end of 2025, while the 3rd NDCs are due in early 2025, creating a clear window for coordination.
NIP implementation phase	• Expand CBD guidance to better include mitigation, such as taking into account impacts of renewable energy development	• Revise CTU guidance to provide clarity how biodiversity can be integrated in NDCs • Encourage use of voluntary entry points in CTU guidance, including description how the NDC was informed by the Global Stocktake
Reporting phase	National Reports: • Mandatory reporting on the climate–biodiversity nexus through GBF Targets 8 & 11 and associated indicators • The COP encourages modular reporting via UNEP’s DaRT tool	National Communications • No mandate for biodiversity info • Entry points for biodiversity reporting via vulnerability and adaptation sections Biennial Transparency Reports: • No mandate for biodiversity info • Entry points via voluntary vulnerability/adaptation sections • First MPG review before 2028 is a key moment to strengthen the biodiversity–climate nexus
Review phase	• The biodiversity-climate nexus will be assessed as an integral component of the GBF (particular through GBF Targets 8 and 11) • Outputs from 2026 CBD review (Target 8 and 11) should feed into the Global Stocktake • The use of common indicators will help to assess collective progress	• The first GST outcome already highlights strong interlinkages, including ecosystem-based approaches and nature-based solutions, but in a sporadic fashion • Organize joint dialogues and technical exchanges between MEAs to enhance mutual learning on the outcome of the Global Stocktake focusing on nature-based solutions

2. Checklist and playbook for integrated action

Drawing from MEA commitments, the study identifies **15 issues** to guide coherent implementation of biodiversity and climate commitments through NIPs. This includes six thematic issues and nine cross-

cutting issues. The measures under the issues have been summarized as a checklist and playbook for integrated action.

Thematic issues include:

1. **Targets:** Set national targets aligned with the Kunming-Montreal Global Biodiversity Framework (KM-GBF Targets) 8 and 11, as well as other relevant targets (e.g., 1–3, 7, 10, 16, 18–19, 21–23) that intersect with climate concerns.
2. **Ecosystem-based mitigation:** Protect and restore carbon-rich ecosystems (e.g., forests, mangroves, seagrasses), promote agroforestry, and apply nature-based carbon solutions.
3. **Ecosystem-based adaptation:** Use ecosystem-based approaches for climate resilience, including in protected areas, landscapes, and water management.
4. **Assessing climate impacts on biodiversity:** Conduct vulnerability assessments and monitor species, ecosystems, and ecosystem services affected by climate change and ocean acidification.
5. **Reducing the impacts of climate change on biodiversity:** Apply conservation, restoration, and resilience strategies to protect biodiversity from shifting climate regimes.
6. **Reducing biodiversity impacts of climate measures:** Use safeguards and environmental impact assessments (EIA) to avoid harm from mitigation and infrastructure interventions, especially in energy projects.

Cross cutting issues include:

7. **Human rights:** Respect Indigenous Peoples and Local Communities' rights, ensure free, prior and informed consent, and uphold intergenerational equity in planning and implementation.
8. **National implementation plans (NIPs):** Integrate biodiversity into climate instruments (e.g., NDCs, NAPs) and climate into biodiversity planning (e.g., NBSAPs), supported by coordination among focal points.
9. **Tools and guidelines:** Apply technical guidance from the CBD, the Convention on Migratory Species (CMS), Ramsar Convention and other MEAs on ecosystem-based approaches and safeguards.
10. **Monitoring and knowledge generation:** Track implementation using shared biodiversity-climate indicators, promote research, and document co-benefits and trade-offs.
11. **Education and awareness:** Raise public and institutional understanding of biodiversity–climate interlinkages, share best practices, and promote community engagement.
12. **Cooperation and coordination:** Strengthen institutional coordination across MEAs and sectors (e.g., water, energy, agriculture), and convene MEA focal points at national level.
13. **Governance:** Enable coherent cross-sectoral decision-making and participatory governance structures to mainstream biodiversity and climate action.
14. **Science-policy interface:** Ensure that decision-making is informed by science, including traditional knowledge and multidisciplinary research on climate-biodiversity dynamics.
15. **Gender equality:** Promote gender-responsive planning and equitable access to biodiversity and climate-related benefits.

3. Content analysis of Pacific Island States' NIPs and national reports

The content analysis was structured around two categories:

1. **Biodiversity-specific keywords** were selected and used to assess climate-related, including NDCs, NAPs and national reports, and
2. **Climate-specific keywords** were selected and used to assess biodiversity-related sources, including NBSAPs and national reports. In both categories, the words were used to assess sources from both MEAs, providing a baseline: the change in frequency of their use revealed the gap.

In both cases, the keywords were also analyzed within their original MEA sources to establish a baseline. Comparing the frequency of each term across regimes allowed the study to identify gaps and assess the extent of cross-fertilization between climate and biodiversity planning and reporting.

The content analysis shows a moderate to high degree of cross-fertilization between Pacific Island States' NIPs and national reports across the regimes. On average, 70% of selected biodiversity terms are reflected in UNFCCC/PA sources across Pacific Island States, whereas 74% of climate terms are reflected in CBD sources across PSDIS.

However, there are missed opportunities for integrated biodiversity-climate action.

Assessment of integration of biodiversity terms in NDCs, NAPs and national climate reports

The findings from analyzing **biodiversity-specific keywords in NDCs, NAPs, and national reports under the UNFCCC and Paris Agreement** highlight key opportunities to enhance biodiversity considerations in climate planning. The keywords have been grouped in four categories: broad biodiversity terms, ecosystem-specific terms, impact-related terms, and cross-cutting terms.

Broad biodiversity terms reveal the following insights:

- **Biodiversity as a general concept**, including *biodiversity*, *species*, and *ecosystem*, are widely used in both climate and biodiversity sources, but appear ten times more frequently in CBD documents, underscoring their underutilization of ecological framing in climate policy.
- **Targets** are central to the CBD, particularly through the Aichi Biodiversity Targets and GBF targets, yet no references to these targets were found in climate-related documents.
- **Conservation-related** terms are frequent in CBD sources but appear far less often in UNFCCC/PA documents. Notably, *protected areas* are rarely referenced in climate contexts, despite their role in building resilience to climate impacts.
- **Restoration** is mentioned in both regimes, but climate-related restoration tends to emphasize carbon sequestration (e.g. *afforestation*, *reforestation*), while biodiversity-related texts highlight ecosystem function and species recovery.

Ecosystem-specific terms highlight the following:

- **Forest and agricultural ecosystems** are widely referenced across both regimes. However, more specific biodiversity concepts—such as *agrobiodiversity* and *agroforestry*—show minimal uptake in UNFCCC and Paris Agreement sources, despite their relevance for sustainable land use and adaptation.
- **Coastal and marine ecosystems** appear in both MEA sources examined, particularly *mangroves* and *coral reefs*. Yet, *seagrasses*, which are carbon sinks and biodiversity hotspots, are notably absent from

UNFCCC/PA sources, despite being frequently mentioned under the CBD. *Saltmarshes* receive little attention in either regime.

Impact-related terms illustrate the following:

- **Assessing climate impacts on biodiversity** using the term *environmental impact assessment* (EIA) shows limited uptake in the UNFCCC/PA. More specific terms, such as *biodiversity impact*, *impact on species*, and *impact on ecosystems*, do not appear at all in climate sources.
- **Reducing climate impacts on biodiversity**, using terms such as *coral bleaching* and *ocean acidification*, is more frequently addressed in UNFCCC/PA sources than in CBD sources.
- **Reducing biodiversity impacts of climate measures**, assessed using terms *geoengineering* and *ocean fertilization*, yielded no references in either regime.

Cross-cutting terms reveal the following insights:

- **Human rights**, assessed through keywords drawn from Art. 8j of the CBD, including *traditional knowledge*, *local communities* and *indigenous people*, are referenced approximately 14.9% as frequently in UNFCCC/PA sources as in CBD sources.

Assessment of integration of climate terms into NBSAPs and national biodiversity reports

The analysis of **climate-specific keywords in NBSAPs and national reports submitted under the CBD** reveals opportunities to better mainstream climate considerations into biodiversity planning. As with the climate policy documents, the keywords have been grouped into four categories: broad climate terms, ecosystem-specific terms, impact-related terms, and cross-cutting terms.

Broad climate terms reveal the following:

- **Climate change as a general concept** is frequently referenced in NBSAPs and national reports, reaching 21% of the frequency observed in UNFCCC/PA sources, which reflects high cross-fertilization across regimes.
- **Climate-related targets** using the term *climate target* were not found in either regime, suggesting low usage or the need for more precise terminology.
- **Mitigation terms**, such as *carbon stock*, *sink*, or *biomass*, are seldom included in NBSAPs and CBD national reports, indicating that climate mitigation co-benefits of biodiversity actions are under-recognized or not systematically planned.
- **Adaptation** is more frequently referenced than mitigation in CBD sources but appears at only one-tenth the rate seen in climate sources (601 vs. 6,094 mentions). *Ecosystem-based adaptation* is mentioned in both regimes but remains limited (9 mentions in CBD vs. 48 in UNFCCC/PA sources).

Ecosystem-specific climate terms indicate:

- **Marine and coastal climate terms**, such as *integrated coastal zone management* and *blue carbon*, appear more frequently in UNFCCC sources than in CBD documents, reflecting stronger emphasis on ocean-based climate responses in the climate regime. *Blue carbon*, while formally not adopted by either regime, also appears more often in UNFCCC/PA documents.

Impact-related terms highlight:

- **Climate impact assessment terminology** centered around *vulnerability assessment* – a term that is well-established in the UNFCCC/PA – showing sharp divergence between regimes (10 mentions in CBD vs. 200 in climate sources)
- **Reducing the biodiversity impacts of climate measures**, particularly decarbonization-related actions like *renewable energy* and *energy efficiency*, is largely absent from CBD documents, highlighting a siloed approach to energy, climate, and biodiversity linkages.

Cross-cutting terms suggest opportunities to:

- **Human rights**, explicitly referenced in the Paris Agreement, is a term more firmly rooted in the climate regime. As a result, it appears in CBD sources at only 6.8% of the frequency observed in UNFCCC/PA documents, highlighting a gap in integrating rights-based approaches into biodiversity planning.

4. Cases studies on integrated action

Four in-depth case studies examining the integration of biodiversity in climate policy documents were carried out, focusing on Samoa, Fiji, Tonga and Vanuatu, focusing on the 15 themes outlined in the checklist and playbook for integrated action. Overall, the case studies reveal four key trends:

- **Moderate level of biodiversity integration** is observed across climate policy documents (NDCs, NAPs and national reports) in Pacific Island States.
- **Integration is unsystematic**, due to absence of specific planning and reporting guidance within the UNFCCC and PA.
- **Biodiversity is more frequently integrated directly into adaptation strategies**, whereas its role in mitigation is often indirect.
- **There is a lack of coherence in how biodiversity is addressed**, with differing levels of emphasis in national reports compared to NDCs and NAPs within individual countries.
- **Biodiversity targets and measures are often aspirational**, with limited focus on tracking actual progress
- **Vulnerability assessments are the primary tool for evaluating climate impacts on biodiversity**, identifying threats such as coral bleaching, ocean acidification, and sea-level rise.
- **Biodiversity safeguards in climate actions are indirect**, mostly addressed through Environmental Impact Assessment (EIA) of climate-related projects.
- **Concrete measures to reduce climate impacts on biodiversity** are scarce.
- **The science-policy interface is weakly addressed**, though other cross-cutting issues receive moderate attention in most countries.

1. Introduction

The objective of this study is to enhance the coherent implementation of decisions or resolutions of Multilateral Environmental Agreements (MEAs) focusing on the biodiversity-climate nexus. This will be achieved by summarizing existing MEA commitments and using them as a framework to analyze performance of selected countries, identifying concrete solutions and possible implementation gaps for achieving integrated action for stemming biodiversity loss and climate change.

The purpose of the study is to inform a Pacific subregional workshop scheduled for May 2025 in Samoa, which will focus on promoting policy coherence for environmental governance in the climate and nature nexus. The workshop is organized by the United Nations Environment Programme (UNEP) in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP) and the Secretariat of the Convention on Biological Diversity (CBD). To ensure the relevance of the study to workshop participants, it will highlight actions taken across 14 Pacific Island States, complemented by country case studies for more in-depth analysis.

The study focuses on actions taken under the CBD, including the Kunming-Montreal Global Biodiversity Framework (KM-GBF), and the United Nations Framework Convention on Climate Change (UNFCCC), including the Paris Agreement. “National implementation plans” (NIPs)¹ and national reports of these MEAs will be used as the basis for the analysis, assessed in light of relevant MEA and UNEA commitments related to the biodiversity–climate nexus.

The analysis responds to the United Nations Environment Assembly (UNEA) Resolution 6/6, which requests the Executive Director of UNEP to develop an analysis of case studies, success stories and lessons learned from cooperation, collaboration and complementarities at the national level in the implementation of MEAs (para 1b). The report also aims to respond to and help member states to further actions on the following commitments:

- [Resolution 6/4](#) (2024) that encourages Member States to “*enhance synergies, cooperation or collaboration, as appropriate, when implementing their respective obligations and commitments under MEAs and other relevant environmental instruments, while respecting their individual mandates, thereby contributing to the effective implementation of national environmental policies and actions*” (para 1a).
- [Resolution 6/6](#) (2024) that encourages Members States to “*promote synergies, cooperation and/or collaboration, as appropriate, in the implementation of MEAs, without prejudice to their specific objectives, and observing their independent and autonomous nature, including through the establishment of coordinated and cooperative approaches, structured communication channels and the convening of national focal points of various MEAs*” (para 2a).

¹ The term National implementation plan (NIP) is used in this study in a general sense to refer to plans and strategies adopted by governments to support the implementation of the CBD, UNFCCC and Paris Agreement. It should not be confused with NIPs developed specifically under the Stockholm Convention on Persistent Organic Pollutants, which serve a different purpose

The methodology of the report includes:

- **A literature review** of decisions and resolutions on synergies between biodiversity and climate change. The review focuses solely on measures directed at governments, typically framed as recommendations, encouragements, or urgings for implementation.
- **A content analysis** using NVivo software to analyze NIPs from 14 Pacific Island States to evaluate policies and actions for integrated approaches for addressing biodiversity loss and climate change.
- **Workshop discussions** with Pacific Island States' representatives during the Pacific subregional workshop on the climate-nature nexus to refine the draft report based on feedback.
- **Regular review** of the draft provided by UNEP' Law Division to ensure accuracy and alignment with relevant multilateral frameworks.

The report is structured as follows:

- Section 1 consists of a background introducing the objective and relevant UNEA resolutions.
- Section 2 on 'Policy cycle obligations for NIPs' outlines requirements for action plans on biodiversity and climate change, elaborating possibilities for their alignment across the policy cycle, including action plan development, implementation, reporting and monitoring and review.
- Section 3 "Materials and methods" describes the methodology in more detail.
- Section 4 "Integration of biodiversity content in Pacific Island States' UNFCCC/PA sources" summarizes findings from the content analysis to understand the extent biodiversity is reflected in UNFCCC NIPs and national reports.
- Section 5 "Integration of climate content in Pacific Island States' CBD sources" summarizes findings from the content analysis to understand the extent climate is reflected in CBD NIPs and national reports.
- Section 6, "Biodiversity-climate synergies playbook and checklist", provides a playbook to guide the integration of biodiversity and climate policies, accompanied by a self-assessment checklist. Both are informed by MEA obligations, content analysis findings and the Pacific Island workshop.
- Section 7 on "Country keys studies" provides a more in-depth analysis of four countries: Samoa, Fiji, Tonga and Vanuatu
- The conclusions and recommendations highlight key takeaways and next steps.

2. Policy cycle obligations for NIPs

The section provides a description of policy cycle obligations for developing, implementing, reporting and reviewing NIPs, including NBSAPs under the CBD, as well as NDCs and NAPs under the Paris Agreement and the UNFCCC. The aim is to identify opportunities to align policy cycles in order to improve the integrated development, implementation, reporting, and review of NIPs.

2.1 Overview of the policy cycle for NIPs.

Drawing from existing literature, the report will outline four policy cycles, summarizing their role in enhancing synergies across the climate and biodiversity agendas at the global level. The phases include NIP development, implementation, reporting, and review (see Figure 1). All the phases feed into each other, including the final review phase that is intended to inform NIP updates, making it a full policy cycle. The following definitions apply to the terms:

- **National implementation plans:** Plans and strategies developed and adopted by governments aimed at enhancing national implementation of a given multilateral environmental agreement (MEA).
- **Implementation:** Execution of policies and actions outlined in national plans to achieve MEA objectives, commitments and targets.
- **Reporting:** Standardized information disclosed by individual states about the national implementation process.
- **Review:** Evaluation of collective performance on a regional or global scale coordinated under the overall responsibility of the Conference of Parties (COP) or the secretariat.

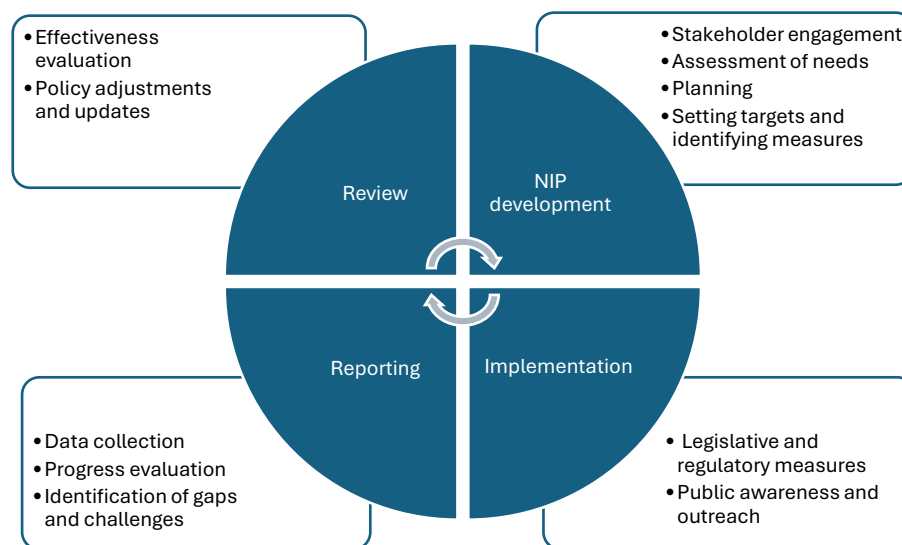


Figure 1. Policy cycle in MEAs with a NIP mechanism.

This policy cycle is a recognized framework in global environmental governance (Jann & Wegrich, 2017; Urho, 2018). It also aligns with CBD's enhanced planning, monitoring, reporting and review mechanism, where NBSAPs are expected to be a key component (Decision 15/6, Annex 1, para 1). In addition, the UNFCCC and the Paris Agreement both follow a similar cycle through the development of NDCs and NAPs, regular reporting, and a structured review process known as the Global Stocktake. Table 1 provides a summary of key dates and activities for NIP development, reporting and review in the CBD, UNFCCC and Paris Agreement.

Table 1. Summary of key dates for NIP development, implementation, reporting and review.

Agreement	NIP development	Implementation	Reporting	Review
CBD	NBSAPs to be submitted By Oct 2024, aligned with KM-GBF, with a deadline extended to Dec 2025	KM-GBF targets to be implemented by 2030 across various areas (e.g. Targets 1–3, 6–7, 13, 16, 18–19)	7th National Report due 28 Feb 2026 8th National Report due 30 June 2029	- Global analysis of NBSAPs at COP-16 and subsequent COPs - Global review at COP-17 (2026) and COP-19 (2030).
UNFCCC	NAPs expected by end of 2025, in line with the Global Goal on Adaptation (GGA)	No target dates provided, but implementation is guided by Art. 2: stabilization of greenhouse gas (GHG) concentrations to avoid dangerous interference	9th NCs expected by 31 Dec 2026 for Annex I Parties (required every 4 years), and from non-Annex I Parties subject to available support and national circumstances	No formal review mechanism, but the Global Stocktake includes adaptation as a key component, and NAPs may contribute as inputs
Paris Agreement	3rd NDCs due by 10 Feb 2025 4th NDCs expected in 2030 (5-year cycle)	- Implementation guided by Art. 2 that sets a target to limit global temperature increase to well below 2°C, pursuing efforts for 1.5°C - The Glasgow Climate Pact (2021) recognized the urgency to reduce global CO₂ emissions by 45% by 2030 and to net zero around midcentury	1st BTRs are due by 31 December 2024 from all Parties, followed by submission every two years	1st Global Stocktake concluded in 2023 2nd Global Stocktake in 2028 followed by subsequent 5-year cycles

Figure 2 provides a schematic timeline for NIP development, implementation, reporting and review. The following observations regarding alignment can be made:

- **NIP development** offers significant opportunities to align biodiversity and climate measures from the outset. NBSAPs and NAPs are both expected by the end of 2025, while the 3rd NDCs are due in early 2025, creating a clear window for coordination. As the timing of a second post-2020 NBSAP cycle remains undecided, aligning it with the submission of the 4th NDCs could yield further co-benefits.
- **Implementation** provides a significant opportunity for aligning activities for achieving climate-relevant KM-GBF targets set for 2030 and emissions reduction targets aiming for 45% by 2030 in accordance with the Glasgow Climate Pact.²

² Decision 1/CP.26 (para 22)

- **Reporting** schedules for the CBD and UNFCCC/PA have been set for the coming years. While these schedules diverge to some degree, more coherent reporting should be pursued. Harmonizing data collection and indicator frameworks can help to reduce the administrative burden on countries, leading to more integrated and comparable progress assessments.
- **The review** processes of the CBD and UNFCCC/PA are not aligned in timing, with the 2nd Global Stcoktake falling between the 1st and 2nd global reviews of the CBD. Nonetheless, opportunities for more integrated review can be explored. Despite the scheduling mismatch, the review processes can give valuable information to inform each other. For instance, the 1st global review of the KM-GBF, in particular Target 8 related to climate change, should inform the 2nd Global Stcoktake of the Paris Agreement.

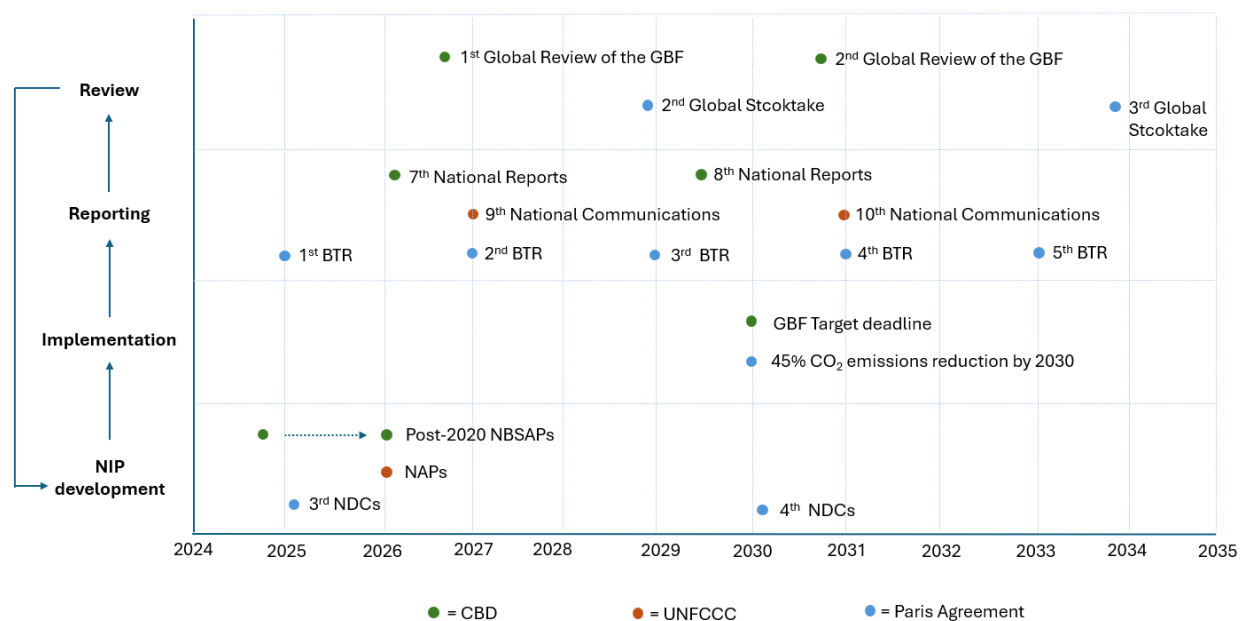


Figure 2. Timeline for NIP development, implementation, reporting and review.

2.2 NIP development

Countries are obliged to prepare NIPs, encouraging them to set goals and define measures to implement MEAs. Table 2 provides a summary of the NIPs that are intended to meet international commitments to stem biodiversity loss and climate change.

Table 2. Overview of NIPs for addressing biodiversity and climate concerns.

Name	Obligation	Number of NIPs ³	Applicability	Bindingness	Website of the registry
National Biodiversity Strategies and Action Plans (NBSAPs)	CBD Art. 6a: Each Contracting Party shall, in accordance with its particular conditions and capabilities develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned	52 post-COP15 NBSAPs (26.5% of all Parties)	Applies to all Parties.	Defined as a legally binding commitment.	https://www.cbd.int/nbsap https://ort.cbd.int/nbsaps
Nationally determined Contributions (NDCs)	Paris Agreement Art. 4.2: Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.	19 NDCs 3.0 (9.6% of all Parties)	Applies to all Parties.	Defined as a legally binding commitment.	https://unfccc.int/NDCREG See also WRI's NDC tracker: https://www.climatewatchdata.org/ndc-tracker
National Adaptation Plans (NAPs)	UNFCCC Decision 1/CP.16 (para 15): Decides to hereby establish a process to enable least developed country Parties to formulate and implement national adaptation plans, building upon their experience in preparing and implementing national adaptation programmes of action, as a means of identifying medium- and long-term adaptation needs and developing and implementing strategies and programmes to address those needs. Paris Agreement Art. 9d: Each Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions, which may include the process to formulate and implement national adaptation plans.	63 NAPs	Decision 1/COP.16 applies only to least developed countries. However, Art 7.9 of the Paris Agreement broadens the NAP process to all Parties.	There is no legally-binding commitment to submit a NAPs, but all Parties must engage in adaptation planning in some form.	https://napcentral.org/submitted-naps

³ As of 9 April 2025

CBD and KM-GBF

Art. 6a mandates Parties to develop plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes to reflect the measures set out in the convention. This should be done in accordance with its particular conditions and capabilities to develop national strategies.

The convention has not prescribed a fixed interval for updating NBSAPs. However, under the KM-GBF, Parties are required to revise or update their NBSAPs to align with the KM-GBF's goals and targets and submit them by COP-16 organized in 2024⁴. As of COP-16, only 44 Parties had submitted updated NBSAPs,⁵ prompting the COP to urge remaining Parties to do so as soon as possible.⁶ An extension has been granted, with the new deadline set for December 2025.

NBSAPs function as the main vehicle for implementation of the KM-GBF Targets.⁷ They should be seen as an umbrella process under which all national targets and actions relevant to the KM-GBF can be planned, implemented, monitored, reviewed and enhanced.⁸

COP-15 adopted guidance for revising and updating NBSAPs.⁹ The guidance provides flexibility to the revision or updating of NBSAPs to align with the KM-GBF, including the corresponding national targets, by allowing Parties to self-determine them according to specific national conditions and capabilities.¹⁰ The guidelines define the following common elements for NBSAP development¹¹:

- Align national targets with global targets to the extent possible.
- Accompany targets with actions, policies and programmes, as well as financing and capacity support.
- Include headline indicators as well as component, complementary and other national indicators.

Additionally, the following actions are recommended¹²:

- Assess opportunities to align existing NBSAPs with the new framework.
- involve a national coordination mechanism, including key government ministries and other authorities.
- Enhance synergies among NBSAPs and the planning and implementation mechanisms of other MEAs.

NBSAPs should promote synergies and integrated planning across other MEAs.¹³ This is especially important as the KM-GBF targets explicitly address climate change. Two KM-GBF targets are particularly aligned with climate change objectives (UNEP, 2024; FEBA, 2023):

- **Targets 8:** Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through

⁴ Decision 15/6 (paras 1a and 6)

⁵ Decision 16/1 (Annex I)

⁶ Decision 16/1 (para 3)

⁷ Decision 15/6 (para 1a)

⁸ Decision 15/6 (Annex 1, para 2)

⁹ Decision 15/6 (para 5)

¹⁰ Decision 15/6 (Annex 1, para 4)

¹¹ Decision 15/6 (Annex 1, paras 6 and 8)

¹² Decision 15/6 (Annex 1, paras 7-9)

¹³ Decision 15/6 (Annex 1, para 2)

nature-based solutions and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity.

- **Target 11:** Restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as the regulation of air, water and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature

Additional KM-GBF targets relevant to climate change include (UNEP, 2024):

- Targets 1, 2, and 3 on management and conservation of natural ecosystems,
- Targets 7, 10 and 16 on sustainable food production and consumption,
- Targets 18-19 on incentives and financial resources,
- Target 21 on communication, awareness-raising, education, monitoring, research and knowledge management, and
- Targets 22-23 on Indigenous Peoples and Local Communities (IPLCs) and gender equality.

The CBD highlights the critical role of cross-fertilization of NIPs, including NBSAPs and NDCs. Parties are encouraged to:

- Integrate nature-based solutions and ecosystem-based approaches into their revised NBSAPs when working towards KM-GBF Targets 8 and 11, as well as related targets, to align biodiversity planning with climate mitigation and adaptation¹⁴
- Integrate ecosystem-based approaches into NDCs and NAPs, including involving CBD NFPs in the planning and implementation processes.¹⁵

UNFCCC and Paris Agreement

NDCs

Under the Paris Agreement, Parties are required to prepare, communicate, and maintain successive NDCs that they intend to achieve (Art. 4.2). Each Party must update or submit a new NDC every five years (Art 4.9), guided by the principle of progression and reflecting enhanced ambition over time (4.3).

Unlike the CBD, the Paris Agreement establishes a fixed cycle for submission, with updates expected to align with the outcomes of the Global Stocktake, which informs efforts to close the ambition gap (see section 2.4). This cycle is designed to drive continuous improvement over time, informed by the outcomes of the Global Stocktake (Art. 14). Updated NDCs, due in early 2025, are expected to incorporate findings from the first Global Stocktake concluded at COP-28 (2023).

The Information to facilitate Clarity, Transparency and Understanding (ICTU) guidance outlines how Parties should structure their NDCs.¹⁶ While not mandatory for first submissions, the guidance must be followed

¹⁴ Decision 16/22 (para 3d)

¹⁵ Decisions 14/5 (para 5b) and XIII/4 (para 2)

¹⁶ Decision 4/CMA.1 (Annex I)

for second and subsequent NDCs submitted under the Paris Agreement.¹⁷ The ICTU guidance does not currently require Parties to specify how mitigation or adaptation actions might affect biodiversity. However, section 4 on planning processes of the ICTU guidance provides the following requests of implicit relevance to biodiversity:

- Information to be submitted on specific projects, measures and activities that contribute to mitigation co-benefits, including adaptation plans, particularly in sectors such as energy, water resources, coastal resources, agriculture and forestry - all of which are closely linked to biodiversity outcomes.¹⁸
- Information on how the Party's NDC preparation was informed by the outcomes of the global stocktake¹⁹, which in its first iteration (concluded at COP-28) emphasized nature-based solutions and biodiversity as critical to both adaptation and mitigation (see section 2.4).
- Information on engagement with local communities and indigenous peoples – key actors in the CBD and KM-GBF.²⁰

Furthermore, recent Paris Agreement decisions increasingly recognize nature-based solutions and ecosystem approaches. These include:

- The Glasgow Climate Pact (2021) explicitly recognizes the importance of protecting, conserving and restoring ecosystems, including forests and other terrestrial and marine ecosystems, to deliver crucial services and acting as carbon sinks, as well as supporting sustainable livelihoods, including for indigenous peoples and local communities.²¹
- The Sharm el-Sheikh Implementation Plan (2022) acknowledges the role of nature-based solutions and ecosystem-based approaches in climate resilience, highlighting the role of forests, oceans, water-related ecosystems (such as river basins, aquifers and lakes) and other terrestrial and marine ecosystems.²²

These developments signal a growing convergence between the CBD and the Paris Agreement and provide further opportunities for aligning NDCs with KM-GBF Targets. Parties are therefore encouraged to reflect biodiversity co-benefits and ecosystem-based approaches in their upcoming NDC updates.

NAPs

In 2010, the UNFCCC established the Cancun Adaptation Framework, initiating the process for developing countries – particularly least developed countries (LDCs) - to formulate and implement NAPs.²³ The framework emphasizes that adaptation should be country-driven, gender-sensitive, participatory, and fully transparent, taking into account vulnerable groups, communities and ecosystems.²⁴ It further specifies that adaptation action includes building the resilience of socio-economic and ecological systems, including through sustainable management of natural resources.²⁵

¹⁷ Decision 4/CMA.1 (para 7)

¹⁸ Decision 4/CMA.1 (Annex, para 4.d.ii)

¹⁹ Decision 4/CMA.1 (Annex, para 4.c)

²⁰ Decision 4/CMA.1 (Annex, para 4.a.i)

²¹ Decision 1/CP.26 (paras 21 and 53)

²² Decision 1/CP.27 (paras 11, 18, 24 and 48)

²³ Decision 1/CP.27 (paras 15-16)

²⁴ Decision 1/CP.16 (para 12)

²⁵ Decision 1/CP.26 (para 14d)

In 2011, COP-17 adopted Decision 5/CP.17, which further elaborated on the NAP process, outlining its core objectives: reducing vulnerability to climate change by building adaptive capacity and resilience, and integrating adaptation into national development planning.²⁶ The COP also adopted initial guidelines for NAP formulation,²⁷ encouraging countries to consider other relevant multilateral frameworks in adaptation planning.²⁸ Additionally, it calls for the assessment of climate change impacts and the prioritization of actions based on vulnerability and risk - factors which may include impacts on ecosystems.²⁹

NAPs differ from NDCs in two ways. First, they are voluntary but strongly encouraged under the Cancun Adaptation Framework. Second, the NAP process is not structured in cycles like NDCs. However, NAPs have acknowledged the role of ecosystems and natural resources in adaptation from the outset and have since become a central element of the UNFCCC's adaptation architecture.

2.3 NIP implementation

CBD and KM-GBF

To date, 185 Parties (94%) have submitted at least one NBSAP, and 178 Parties (91%) have submitted a post-COP10 NBSAP. A total of 52 Parties have submitted post-COP15 NBSAPs, with the submission deadline extended to the end of 2025.

According to the CBD Clearing-House Mechanism (CHM), 117 Parties have established at least one national target to support KM-GBF target 8 on climate change, with 77 (66%) reporting high alignment with the global target (CBD, 2025a).³⁰ However, a formal assessment of updated NBSAPs aligned with the KM-GBF has not yet been made. Nonetheless, at least 50% of NBSAPs explicitly emphasize the importance of nature-based solutions in addressing the vulnerability of species and ecosystems to climate change and other anthropogenic pressures (UNEP, 2021).

The CBD encourages Parties to make use of relevant tools and guidance to support the implementation of the KM-GBF³¹. Specifically, Parties are encouraged to use the tools and information available under the CBD, including the *Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction*.³² The Executive Secretary has been

²⁶ Decision 5/CP.17 (para I.1)

²⁷ Decision 5/CP.17 (para II.6)

²⁸ Decision 5/CP.17 (Annex, Para 4e)

²⁹ Decision 5/CP.17 (Annex, paras 2b and 3a)

³⁰ Note: This number is significantly lower and will need to be double-checked as the website is showing targets for many countries, but when you open the country profile it shows that targets do not exist.

³¹ Decision 16/12 (para 3)

³² Decision 14/5 (Annex)

requested to update these guidelines - expanding their scope beyond adaptation to include mitigation - and to develop specific guidelines and tools for conservation and restoration in a changing climate.³³

The development of new tools and guidance will build on key concepts to promote coherent implementation of the climate and biodiversity goals, summarized in box 1. Particularly, nature-based solutions provide a practical entry-point for integrated action. However, it will be important to move beyond an ecosystem-centric perspective and also consider the potential ecological impacts of climate mitigation strategies, including decarbonization technologies. The CMS has led the way in developing decisions and guidance to protect migratory species from the adverse impacts of renewable energy development, including wind, solar, ocean energy, geo-energy, and hydropower. These efforts could be expanded and adapted to the CBD context to broaden the scope of climate action.

Box 1. Key concepts for promoting integrated action to halt biodiversity loss and climate change

- **Ecosystem-based approach**, defined in the CBD COP Decision V/6 (2000) as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way” (para A1). CBD COP Decision VII/15 further notes that “its application could facilitate the formulation of climate change mitigation and adaptation projects that also contribute to biodiversity conservation and sustainable use” (para 8).
- **Ecosystem-based adaptation** defined by CBD’s 2nd Ad Hoc Technical Expert Group on Biodiversity and Climate Change as “the use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change”. This definition was further elaborated by the CBD COP Decision X/3 (2010) as including “sustainable management, conservation and restoration of ecosystems, as part of an overall adaptation strategy that takes into account the multiple social, economic and cultural co-benefits for local communities” (para 8j). Since then, it has been acknowledged by UNEA through Resolution 1/8 (2014) and by the Paris Agreement in the Outcome of the First Global Stocktake (Decision 1/CMA.5, 2023) as a key approach for climate adaptation.
- **Nature-based solutions** defined in UNEA Resolution 5/5 (2022) as “actions aimed at protecting, conserving, restoring, and sustainably managing natural or modified terrestrial, freshwater, coastal, and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits” (para 1). The concept was originally championed by IUCN, which played a pioneering role in its development and formalized its definition through a motion adopted at the IUCN World Conservation Congress in 2016 (WCC-2016-Res-069). The concept has been integrated into the CBD through Targets 8 and 11 of the KM-GBF (Decision 15/4, 2022) and acknowledged under the UNFCCC in the Sharm-El Sheikh Implementation Plan (Decision 1/CP.27, 2022) as part of efforts to address biodiversity and climate change in a coherent manner.

Moreover, the following guidelines have been developed by the CBD:

- Guidance on enhancing positive and minimizing impacts on biodiversity of climate change adaptation activities (CBD, 2016).
- Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction and supplementary information (CBD, 2019).

The CBD calls for using guidance developed under other biodiversity-related MEAs.³⁴ Examples include:

- Guidance for addressing the implications for wetlands of policies, plans and activities in the energy sector (Ramsar Convention, 2012).

³³ Decision 16/22 (paras 17-18)

³⁴ CDD COP Decision XVI/22

- Renewable Energy Technologies and Migratory Species: Guidelines for Sustainable Deployment (CMS, 2014).

UNFCCC and Paris Agreement

NDCs

To date, 18 countries had submitted their third NDCs (NDC 3.0), while 164 Parties (83%) had submitted first NDCs and 161 Parties (81%) had submitted second NDCs (WRI, 2025). As of 2022, 102 nations – representing 84% of updated NDCs – have committed to some degree of restoring or protecting ecosystems, or implementing nature-friendly agriculture such as agroforestry, up from 66% in the first round of NDCs (2015-2020) (FEBA, 2024).

Common guidelines and information requirements for preparing and submitting NDCs under the Paris Agreement were adopted at COP 24 as part of the Katowice Climate Package.³⁵ These “Katowice guidelines” aim to enhance the clarity, transparency, and understanding (CTU) of NDCs, thereby facilitating the assessment of collective progress toward global climate objectives. The guidelines outline broad requirements - such as providing quantifiable information on reference points, time frames and periods of implementation, and scope and coverage - but do not mandate the inclusion of specific thematic content, such as biodiversity, adaptation, or sectoral targets.

NAPs

To date, 63 countries – primarily developing countries - have developed a NAP.³⁶ More than half of countries - including over 90% of LDCs - have added elements of nature-based solutions into the adaptation components of their NDCs (UNEP, 2021). However, most of these commitments remain broad, and fewer than one-third include measurable targets. Those that do primarily focus on restoring mangroves and floodplains to mitigate flooding, drought, and sea level rise (UNEP, 2021).

In 2010, the UNFCCC established the Adaptation Committee (AC) to provide technical support and guidance to Parties to facilitate implementation of adaptation activities.³⁷ The Committee has developed guidance relevant to ecosystems that place importance on ecosystem-based adaptation. These include:

- The Technical Paper entitled *Opportunities and options for enhancing adaptation planning in relation to vulnerable ecosystems, communities and groups*, which explores methods to integrate ecosystem-based adaptation into adaptation planning highlights the need to include ecosystem-based adaptation in NDCs, NAPs, adaptation communications, and national development strategies (UNFCCC, 2018).
- The *Draft supplementary guidance for voluntary use by Parties in communicating information in accordance with the possible elements of and adaptation communication*, which includes

³⁵ Decision 4/CMA.1

³⁶ As NAPs are intended only for developing countries, their submission rate is not directly comparable to NDCs and NBSAPs.

³⁷ Decision 1/CP.16 (para 20a)

considerations for ecosystems and their services in the context of adaptation communications (UNFCCC, 2022)

Other relevant guidance include:

- *Guidelines for Integrating Ecosystem-based Adaptation into National Adaptation Plans: Supplement to the UNFCCC NAP technical Guidelines* (UNEP, 2021), which provides practical steps for mainstreaming Ecosystem-based adaptation into NAP processes, including assessing ecosystem vulnerabilities, identifying measures and integrating them into sectoral planning and budgeting.

2.4 Reporting on NIPs

Table 3 provides a summary of reporting relevant to the biodiversity-climate nexus. This is followed by more detailed description of requirements and possibilities to enhance integrated reporting.

Table 3. Summary of reporting relevant to the biodiversity-climate nexus.

	CBD National Reports	UNFCCC/PA National Communications	PA Biennial Transparency reports
Reporting	• Parties are required to report on climate-biodiversity interlinkages where relevant, including through Target 8 (climate resilience) and Target 11 (Nature contribution to people) of the KM-GBF, which refer to nature-based solutions and/or ecosystem-based approaches	• Annex I Parties have mandatory reporting on expected impacts of climate change (such as integrated coastal zone management, water resources, and agriculture) and voluntary reporting on environmental vulnerabilities or risks related to climate change impacts. • Non-Annex I Parties have voluntary reporting on vulnerability and adaptation in key climate-sensitive sectors	• Voluntary reporting under Section IV of the MPGs may cover environmental vulnerabilities, adaptation priorities (e.g. integrated plans for coastal management, water and agriculture), resilience-building efforts, nature-based solutions to adaptation.
Indicators	• Reporting on GBF targets 8 and 11 is linked to the KM Monitoring Framework that includes several mandatory headline and binary indicators, along with optional component and complementary indicators	• The reporting guidelines for both Annex I and non-Annex I Parties do not mention the use of indicators.	• The MPGs do not prescribe specific indicators. However, Parties are required to identify indicators they use to track implementation and achievement of NDCs.

CBD and KM-GBF

Under Art. 26, Parties are obligated to report on measures taken for the implementation of the provisions of the Convention and their effectiveness in achieving its objectives. COP Decision 15/6 reinforces this obligation by underscoring the critical role of national reports in evaluating the implementation and effectiveness of NBSAPs.³⁸

³⁸ Decision 15/6 (para 12)

Reporting under the CBD has generally been strong, with the 6th National Report in 2018 reaching 180 submissions (92%). Earlier rounds also had high submission rates: 192 (97%) in 2014, 179 (90%) in 2009, 153 (77%) in 2005, 137 (69%) in 2003, and 151 (76%) in 1998. (CBD, 2025b)

The reporting interval is established by the COP, which is typically around every four years. The current reporting timeline sets the 7th National Report due by 28 Feb 2026, and 8th National Report by 30 June 2029.³⁹

The new reporting template, initially adopted in COP-15⁴⁰ and subsequently revised at COP-16,⁴¹ requires Parties to assess and report on progress towards their national targets using indicators set out in the Monitoring Framework adopted at COP-15.⁴² The reporting template and Monitoring Framework are therefore closely interlinked: Parties are required to report on headline indicators, while the use of component and complementary indicators remains optional.⁴³

The KM-GBF Monitoring Framework serves as the backbone for reporting on the KM-GBF targets. Table 4 presents the full set of indicators for Target 8 on climate change, drawn from the Monitoring Framework.⁴⁴ At COP-16, Parties endorsed an update to the Monitoring Framework that supplemented the Headline Target 8 with nine additional binary indicators.⁴⁵ Moreover, in preparing their national reports, governments are encouraged to include information about how the implementation of their national targets contributes to progress under related agreements.⁴⁶

Table 4. KM-GBF indicators for Target 8 on climate change (Decisions 15/5 and 16/31).

Headline or binary indicator	Optional disaggregations	Component indicator	Complementary indicator
<u>Headline indicator:</u> - Number of countries with policies to minimize the impact of climate change and ocean acidification on biodiversity and to minimize negative and foster positive impacts of climate action on biodiversity <u>Binary indicators:</u> - Does your country's national biodiversity strategy and action plan include actions to prevent or minimize the impacts of the following? - Do your country's climate change policies address the impacts of climate change on biodiversity? - Do your country's other policies address the impacts of climate change on biodiversity? - Do your country's other policies address the impacts of ocean acidification on biodiversity? - Are the impacts of climate change on biodiversity monitored and reported on?	Disaggregation: Total climate regulation services provided by ecosystems and by ecosystem type	- Total climate regulation services provided by ecosystems by ecosystem type - Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 that include biodiversity - National greenhouse inventories from land	- Above-ground biomass stock in forest (tons/ha) - National greenhouse gas inventories from land use, land-use change and forestry - Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies - Index of coastal eutrophication

³⁹ Decision 15/6 (para 11)

⁴⁰ Decision 15/6 (para 10)

⁴¹ Decision 16/32 (Annex I)

⁴² Decision 15/5

⁴³ Decision 15/6 (paras 1b and 13)

⁴⁴ Decision 15/5

⁴⁵ Decision 16/31

⁴⁶ Decision 15/6 (para 12)

• Are the impact of ocean acidification on biodiversity monitored and reported on? • Do your country's policies or action plans on the impact of climate change and ocean acidification contain the following types of actions designed to increase biodiversity resilience or reduce impacts? • Are measures included in your country's policies or actions plans to minimize the negative impacts of climate actions on biodiversity? • Are measures included in your country's policies or actions plans to foster positive impacts of climate actions on biodiversity?		use and land use change • Bioclimatic Ecosystem Resilience Index (BERI)	• Average marine acidity (pH) measured at agreed
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Coordinating reporting with the UNFCCC and the Paris Agreement will be essential to better capture linkages and reducing administrative workload. Promisingly, Parties are encouraged to align and coordinate their reporting efforts with other relevant MEAs, including through the voluntary use of modular data reporting tools such as DaRT (see box 2).⁴⁷

Box 2. Data Reporting Tool for MEAs (DaRT)⁴⁸

The DaRT tool is hosted on the United Nations Information Portal on MEAs (InforMEA) and developed and rolled-out by UNEP in collaboration with the secretariats of the CBD and other biodiversity-related conventions, with financial support from the EU, Switzerland (FOEN), the Global Environment Fund (GEF), and Sweden (SIDA). The concept of the tool was initiated in 2016 in response to UNEA Resolution 2/17 on enhancing the work of UNEP in facilitating cooperation, collaboration, and synergies among biodiversity-related conventions. DaRT provides a single secure and private workspace where NFPs, reporting officers, and biodiversity experts, collect, organize, share and reuse biodiversity knowledge for national reporting. DaRT helps to harmonize and standardize data and reports for all conventions, thus It could develop into a tool for integrated action on climate change and biodiversity. (CBD, 2024)

UNFCCC and Paris Agreement

National Communications

Under Art. 12 of the UNFCCC, Parties are obliged to submit information related to implementation in form of a National Communication (NC). The NC must include national greenhouse gas inventories, general descriptions of steps taken or envisaged to implement the Convention and any other relevant information. While some countries use their NCs to expand on or support the implementation of their NDCs or NAPs, there is no specific decision that explicitly mandates a direct linkage between these instruments.

Parties are required to prepare NCs every four years, although non-Annex I Parties have greater flexibility, contingent upon availability of financial and technical support.⁴⁹ The 9th NC is due 31 December 2026. The NCs have high reporting levels from Annex I Parties with all 43 countries reporting in the last three rounds. 154 Non-Annex I Parties have submitted at least one NC, but only 10 Parties have submitted their 5th and 2 Parties did their 6th NC (UNFCCC, 2025).

⁴⁷ Decision 15/6 (para 12)

⁴⁸ <https://dart.informea.org/>

⁴⁹ Decision 9/CP.16

Reporting guidelines have been developed separately for Annex I⁵⁰ and non-Annex I Parties⁵¹ and do not explicitly mandate the inclusion of biodiversity-related information. However, the guidelines provide the following opportunities for integrated reporting:

- For Annex I Parties, section VII (vulnerability assessment, climate change impacts and adaptation measures) includes mandatory reporting on expected impacts of climate change, noting that Parties may refer to integrated plans for coastal zone management, water resources and agriculture.⁵² It further encourages reporting on environmental vulnerabilities or risks related to current and expected climate change impacts.⁵³
- For non-Annex I Parties, section IV (general description of steps taken to implement the convention) of the guidelines encourages reporting on vulnerability and adaptation in key climate-sensitive sectors.⁵⁴

Despite these openings, biodiversity-related action is neither systematically tracked nor well-documented in NCs. Opportunities for

Biennial Transparency Reports

The Paris Agreement established an Enhanced Transparency Framework (ETF), a universal framework for all Parties to report on progress and support (Art 13). The ETF requires all Parties to submit Biennial Transparency Reports (BTRs) every two years. The BTR replaces the previous biennial reports (BRs) for developed countries and biennial update reports (BURs) for developing countries. The first BTRs under the Paris Agreement are due by 31 December 2024, with subsequent submissions every two years. 96 Parties (48% of all) have submitted their first BTRs (WRI, 2025)

The modalities, procedures and guidelines (MPGs) for the transparency framework outline information requirements for BTRs. This includes reporting on progress towards implementing and achieving NDCs.⁵⁵

Unlike under the CBD, Parties are not required to include biodiversity-related information in their BTRs. However, voluntary reporting on interlinkages is possible under Section IV on climate change impacts and adaptation.⁵⁶ The MPGs highlight several entry points for joint reporting:

- Observed and potential impacts of climate change, including environmental vulnerabilities⁵⁷
- Adaptation priorities (e.g. integrated plans for coastal management, water and agriculture)⁵⁸
- Efforts to build resilience⁵⁹
- Nature-based solutions to climate change adaptation⁶⁰

⁵⁰ Decision 6/CP.25 (Annex I)

⁵¹ Decision 17/CP.8

⁵² Decision 6/CP.25 (Annex I, para 46)

⁵³ Decision 6/CP.25 (Annex I, para 47b)

⁵⁴ Decision 17/CP.8 (Annex, para 34)

⁵⁵ Decision 18/CMA.1 (Annex, para 10b)

⁵⁶ Decision 18/CMA.1 (Annex, para 10bc)

⁵⁷ Decision 18/CMA.1 (Annex, para 107b)

⁵⁸ Decision 18/CMA.1 (Annex, para 109b)

⁵⁹ Decision 18/CMA.1 (Annex, para 109b)

⁶⁰ Decision 18/CMA.1 (Annex, para 109g)

Moreover, while the BTR reporting template does not prescribe specific indicators, Parties are required to identify the indicators they use to track NDC implementation and achievement.⁶¹ This provides an opportunity to integrate biodiversity-related indicators, such as those linked to ecosystem resilience, land use, or nature-based solutions.

The COP has requested the Subsidiary Body for Scientific and Technological Advice (SBSTA) to undertake the first review and update of the MPGs no later than 2028.⁶² The upcoming review presents a valuable opportunity to strengthen the integration of the biodiversity-climate nexus in BTR submissions. In particular, the review could build on existing references in the Paris Agreement decisions 1/CMA.5 (2023) and 3/CP.27 (2022), which acknowledge the role of nature-based solutions and ecosystem-based approaches in addressing climate change. To advance this integration, the MPG review could consider the following enhancements:

- 1) Introduce biodiversity-related guidance to section IV, encouraging Parties to report on ecosystem vulnerabilities to climate change, biodiversity-related co-benefits and nature-based solutions (also beyond adaptation)
- 2) Recommend optional biodiversity-related indicators for in section III to support progress tracking toward NDC implementation
- 3) Encourage cross-referencing with other MEAs where objectives align, such as ecosystem-based adaptation reported under the CBD and Ramsar Convention.

2.5 Review

CBD and KM-GBF

Collective review

At COP-15, Parties outlined two modalities for collective review:

- **A Global Analysis of NBSAPs** related to the KM-GBF will be provided at COP-16 and at each subsequent COP meeting.⁶³
- **A Global Review of Collective Progress** based on national reports and other sources will be provided at COP-17 and COP-19.⁶⁴ It will also draw from a **Global Report on Collective Progress** drawing from peer-reviewed scientific, technical and technological information, and traditional knowledge.⁶⁵

The global review is Party-led process guided by the Subsidiary Body on Implementation.⁶⁶ COP-16 established an Ad Hoc Scientific and Technical Advisory Group to support the preparation of the Global

⁶¹ Decision 18/CMA.1 (Annex, para 65)

⁶² Decision 18/CMA (para 2)

⁶³ Decision 15/6 (paras 1c and 15)

⁶⁴ Decision 15/6 (para 1d)

⁶⁵ Decision 16/32 (paras 13-15)

⁶⁶ Decision 16/32 (para 19)

Report on Collective Progress.⁶⁷ The biodiversity-climate nexus will be assessed as an integral component of the GBF, reflected in particular in targets 8 and 11, as well as other interlinked targets.

UNFCCC and Paris Agreement

Individual reviews

The UNFCCC Secretariat coordinates in-depth reviews of NCs submitted by Annex I Parties. These reviews are carried out by international expert teams and result in In-Depth Review Reports (IDRs) assessing each country's implementation of its commitments under the Convention. The latest cycle of NCs (NC8) was due by 31 December 2022, with corresponding IDRs published throughout 2024.

Despite the potential to include biodiversity-related information - particularly in sections on vulnerability and adaptation - there is no standardized approach or explicit requirement to report on biodiversity. As a result, biodiversity-related actions are neither systematically tracked nor consistently documented in IDRs.

The Paris Agreement established the Enhanced Transparency Framework (ETF) to ensure clarity, transparency, and accountability in the implementation of Parties' climate commitments (Art. 13). Under the ETF, the BTRs undergo Technical Expert Review (TER) to assess consistency and completeness of the information submitted against the MPGs.⁶⁸ TER also evaluates a Party's implementation and achievement of its NDCs.⁶⁹ However, since reporting on biodiversity is currently optional, the TER does not systematically assess biodiversity-related actions or interlinkages with climate goals.

Collective reviews

The Paris Agreement also introduces the **Global Stocktake** as a collective assessment mechanism to evaluate progress of all Parties in implementing NDCs and achieving the Agreement's long-term goals on mitigation, adaptation, and means of implementation and support (Art. 14). The first Global Stocktake was finalized in 2023, and the next one is scheduled for 2028.

Although the biodiversity-climate nexus is not yet reflected in NDC reporting guidelines or the modalities, procedures and guidelines (MPGs) for reporting, the Global Stocktake offers a key opportunity to assess and enhance synergies between climate and biodiversity goals, reinforcing the importance of more integrated reporting approaches in future guidance. The first Global Stocktake outcome already highlights strong interlinkages, including⁷⁰:

- Conserving, protecting, and restoring ecosystems—such as forests and marine areas—as key to achieving the Paris Agreement goals (para 33).
- Scaling up ocean-based mitigation and restoring ocean and coastal ecosystems (para 35).

⁶⁷ Decision 16/32

⁶⁸ Decision 18/CMA.1

⁶⁹ Decision 18/CMA.1 (para 150).

⁷⁰ Decision 1/CMA.5

- Implementing integrated solutions like sustainable land use, agriculture, and nature-based solutions (para 55).
- Using ecosystem-based approaches, including ocean and mountain adaptation, to reduce climate risks and provide co-benefits (para 56).
- Reducing impacts on ecosystems and accelerating ecosystem-based adaptation and nature-based solutions across all ecosystems (para 63d).

These findings underscore the importance of more integrated reporting frameworks in future guidance under both the Paris Agreement and CBD processes.

3. Materials and methods

The section presents the materials and methods of the content analysis for the 14 Pacific Island States, aiming to assess the level of integration action across the CBD, UNFCCC and Paris Agreement.

3.1 Geographical scope

The geographical scope of the study consists of the Pacific Island States, including Cook Islands, The Federal States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. The study is intentionally limited to these countries as it is designed to inform a Pacific subregional workshop on the topic, scheduled for May 2025 in Samoa. In addition, four more in-depth case studies are done focusing on Samoa, Fiji Tonga and Vanuatu. The study is designed as a pilot project, but the methodology and findings may later be adapted and replicated in other regions or on a global scale, based on the insights gained from this focused investigation.

3.2 Selection of national documents

The selection of national documents included all NIPs and all national reports provided by Pacific Island States. A list of documents analyzed can be found in Annex 1.

Figure 3 visualizes the status of NIP development in Pacific Island States based on document reviewed. Overall, reporting by Pacific Island States countries reflects broad participation, but with notable gaps and varying levels of progress across NBSAPs, NDCs, and NAPs. The reporting patterns can be further detailed as follows:

- **NBSAPs** have been developed, often in two cycles, by most Pacific Island States. Cook Islands, Marshall Islands, Nauru, and Tuvalu still rely on their first NBSAPs, with the two former dating back to the early 2000s, highlighting the need for updates. Tonga is the only country that has prepared a post-COP-15 NBSAP, originally due for CBD COP-15 (2024), with the deadline now extended to the end of 2025.
- **NDCs** have been submitted by all 14 Pacific Island States. Most have submitted their second NDCs (due in 2020). Marshall Islands is the only country to have prepared a third NDC (due by 10 February 2025), although some countries (e.g., Vanuatu) have also submitted intermediate updates to their second NIP not consistently reflected in numbering. Cook Islands, Niue, and Palau still rely on their first NDCs.
- **NAPs** have been developed by four countries: Fiji and Tonga (in 2018), and Papua New Guinea and the Marshall Islands (in 2023).

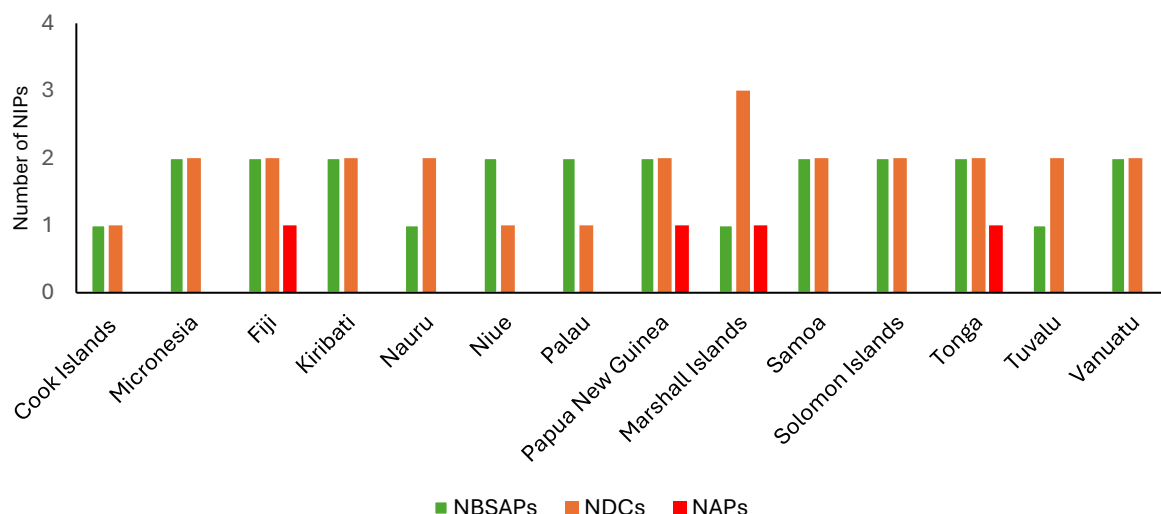


Figure 3. Status of NIP development in Pacific Island States.

Figure 4 visualizes the status of reporting in Pacific Island States. Overall, reporting by Pacific Island States has been widespread but uneven, with consistent CBD reporting, slower progress under UNFCCC frameworks, and early-stage compliance with Paris Agreement requirements. More specifically, reporting trends can be summarized as follows:

- **CBD National Reports** have been submitted by all Pacific Island States. Niue and Samoa have submitted all six reports, while ten countries have submitted the sixth report. Reporting has been relatively consistent due to mandatory requirements and regular intervals, although gaps remain, with some countries missing one or more reporting cycles.
- **UNFCCC National Communications** have been submitted by all Pacific Island States. Six countries (Cook Islands, Fiji, Micronesia, Solomon Islands, Tonga, and Vanuatu) have completed three communications. Flexibility provided to SIDS has led to significant time gaps between reports, sometimes up to 15 years, though submission rates have improved in recent years.
- **Biennial Update Reports (BURs)** under the UNFCCC and Paris Agreement have been submitted by only four countries (Micronesia, Papua New Guinea, Samoa, and Vanuatu). Notably, Papua New Guinea has submitted two BURs within a short timeframe (2019 and 2022).
- **National Inventory Reports (NIRs)** under the UNFCCC and Paris Agreement have been submitted by Fiji and Papua New Guinea, both relatively recently (2022 and 2024).
- **Biennial Transparency Reports (BTRs)** under the Paris Agreement have been submitted only by Vanuatu (in 2025), despite the initial deadline of the end of 2024.

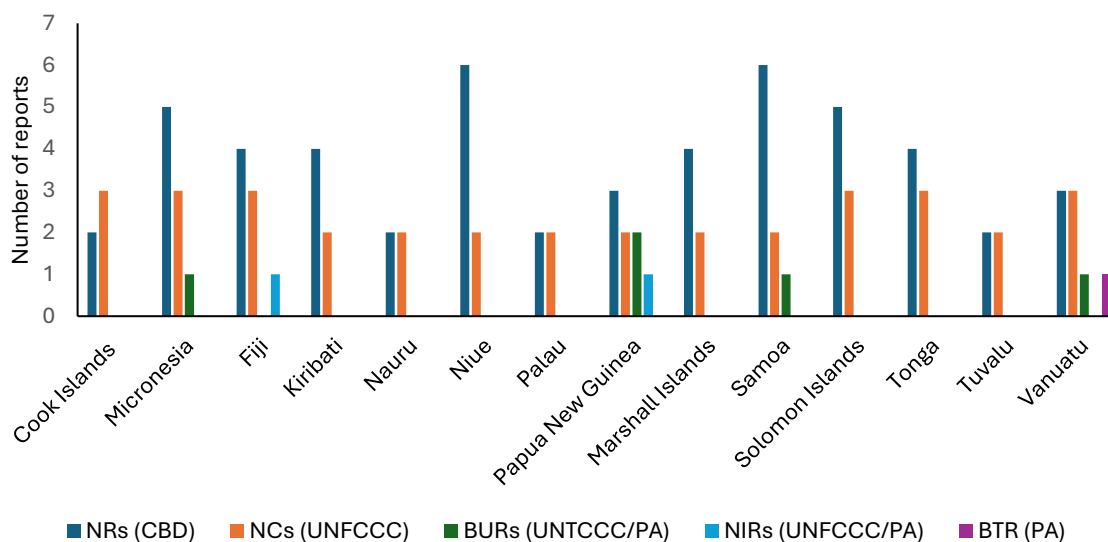


Figure 4. Status of national reporting in Pacific Island States.

Figure 5 provides a comparison of Pacific Island States and global NIP development and national reporting rates for the latest NIPs and national reports under the CBD and UNFCCC/Paris Agreement. Trends can be summarized as follows:

- **NIP development** has been relatively slow for both the post-COP-15 NBSAPs and the third NDCs (NDC-3). However, for NBSAPs, the Pacific Island States' submission rate is significantly lower than the global average
- **National reporting** for the 6th national report (6NR) under the CBD aligns closely with the global average. However, reporting rates for the first Biennial Transparency Report (BTR-1) under the Paris Agreement are significantly lower among Pacific Island States compared to the global average. This lower BTR-1 reporting rate can be attributed to the flexibility provisions granted to SIDS under the Paris Agreement, allowing delayed or simplified submissions.

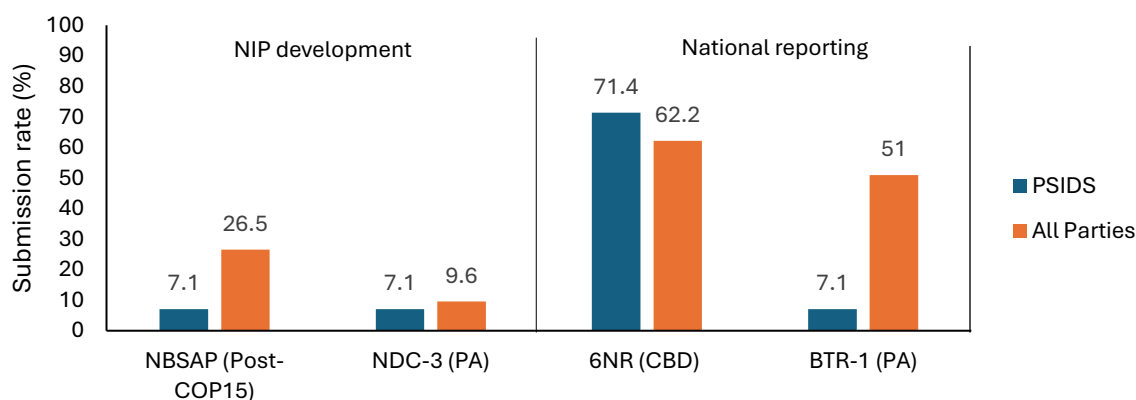


Figure 5. Comparison of Pacific Island States and global NIP development and national reporting rates.

3.3 Identification of key commitments

The literature review of decisions and resolutions on the climate-biodiversity nexus identifies 15 themes used as the analytical framework. Table 5 categorizes them into thematic and cross-cutting themes, with all underlying commitments summarized in Annex 2.

Table 5. Themes used for analyzing activities taken to address the biodiversity-climate nexus.

Thematic measures	Cross-cutting measures
1) Targets	7) Human rights
2) Ecosystem-based mitigation	8) NIPs
3) Ecosystem-based adaptation	9) Tools and guidelines
4) Assessing climate impacts on biodiversity	10) Monitoring and knowledge generation
5) Reducing the impacts of climate change on biodiversity	11) Education and awareness raising
6) Reducing biodiversity impacts of climate measures	12) Cooperation and coordination
	13) Governance
	14) Science-policy interface
	15) Gender Equality

The scope was narrowed as follows:

- **CBD:** Ten decisions on “biodiversity and climate change” (2004–2024) and Decision 15/4 on GBF adoption were used, noting that the 15 identified themes align with KM-GBF Target 8, covering: 1) minimizing climate and ocean acidification impacts on biodiversity, 2) nature-based solutions, 3) ecosystem-based approaches, and 4) minimizing negative and fostering positive biodiversity impacts of climate action.
- **UNFCCC and Paris Agreement:** No dedicated decisions on the topic have been adopted, thus the focus was decisions including paragraphs relevant for biodiversity. This includes 4 recent decisions starting from the Glasgow Climate Pact adopted in 2021.
- **Ramsar Convention and Convention on Migratory Species (CMS):** Resolutions linking climate change to wetlands and migratory species were reviewed as complementary to CBD efforts. Only CMS has developed a dedicated programme of work on biodiversity and climate change, which was also examined.
- **UNEA:** Resolutions addressing climate change and biodiversity were reviewed.
- **Excluded Conventions:** Although relevant to climate considerations, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), and the World Heritage Convention (WHC) were excluded, as they lack dedicated climate change decisions comparable to Ramsar and CMS.

Table 6 summarizes how decisions and resolutions from the analyzed multilateral frameworks incorporate measures addressing the climate–biodiversity nexus. The CBD demonstrates the most comprehensive coverage, including measures across nearly all identified themes. In contrast, the UNFCCC and Paris Agreement include measures primarily related to ecosystem-based approaches and cooperation. Resolutions under the Ramsar Convention and CMS provide complementary but more limited coverage across specific thematic areas. UNEA resolutions outline broader definitions and actions for key concepts such as nature-based solutions, ecosystem-based approaches, and ecosystem-based adaptation, but also include specific measures.

Table 6. Overview of measures in analyzed frameworks addressing the climate-biodiversity nexus.

Themes	Main MEAs reviewed		Other relevant frameworks reviewed		
	CBD	UNFCCC and PA	Ramsar Convention	CMS	UNEA
1) Targets	x			x	
2) Ecosystem-based approaches (for mitigation)	x	x	x	x	x
3) Ecosystem-based adaptation	x	x	x	x	x
4) Assessing climate impacts on biodiversity	x			x	
5) Reducing impacts of climate change on biodiversity	x	x	x	x	x
6) Reducing biodiversity impacts of climate measures	x		x	x	
7) Human rights	x				
8) NIPs	x		x	x	
9) Tools and guidelines	x		x	x	
10) Monitoring and knowledge generation	x		x	x	
11) Education and awareness raising	x		x	x	
12) Cooperation and coordination	x	x	x	x	
13) Governance			x		
14) Science-policy interface				x	
15) Gender equality	x				

Box 3 summarizes decisions on biodiversity and climate change under the CBD, UNFCCC, and Paris Agreement, which form the basis for the analysis. Annex 3 summarizes complementary resolutions from the Ramsar Convention, CMS and UNEA.

Box 3. MEAs decisions on biodiversity and climate change under the CBD, the UNFCCC and the Paris Agreement.

CBD decisions on biodiversity and climate change include:

- [Decision XVI/22](#) (2024) gives further emphasis to nature-based solutions and ecosystem-based approaches by urging to consider their integration in NBSAPs.
- [Decision 15/4](#) (2022) adopted the KM-GBF, which addresses climate change in Target 8, specifically linking it to nature-based solutions and ecosystem-based approaches. Target 11 complements this by further emphasizing the role of nature in providing essential ecosystem services, including protection from natural hazards and disasters.
- [Decision 14/5](#) (2018) adopted guidelines for ecosystem-based approaches to climate change adaptation and disaster risk reduction (para 1), and encourages taking other activities, such as integrating biodiversity and ecosystem integrity considerations into national policies, strategies and plans on climate change, such as NDCs (para 4b).
- [Decision XIII/4](#) (2016) reinforces the integration of biodiversity into climate change policies, advocating for incorporating ecosystem-based approaches in national strategies (para 4), including Nationally Determined contributions (para 5).
- [Decision XII/20](#) (2014) links biodiversity conservation with disaster risk reduction, promoting ecosystem-based approaches to enhance resilience against climate change impacts (para 5).
- [Decisions XI/21](#) (2012) encourages promoting synergies between biodiversity and climate-change policies and measures (para 6c), including emphasizes the role of protected areas (para 6d) and land-use planning (para 6f).
- [Decision XI/19](#) (2012) provides advice on the role of forests in mitigating GHG emissions in increasing carbon stocks in developing countries.
- [Decision XI/20](#) (2012) addressed climate-related geoengineering, emphasizing precautionary approaches.
- [Decision X/33](#) (2010) provides a comprehensive set of joint activities focusing on ecosystem-based approaches for mitigation, ecosystem-based adaptation, assessing climate impacts on biodiversity, reducing impacts of climate change on biodiversity, reducing biodiversity impacts of climate measures and valuation and incentive measures.
- [Decision IX/16](#) (2008) decided to integrate climate change activities within the CBD's programmes of work (para A1), urged Parties to integrate climate considerations related to biodiversity in their implementation of the Convention (A4), and urged suspend ocean fertilization activities do not take place until there is an adequate scientific basis on which to justify such activities (para C4).
- [Decision VII/15](#) (2004) noted that the ecosystem approach provides a framework for the integrated management of land, water and living resources, facilitating the formulation of climate change mitigation and adaptation projects that also contribute to biodiversity (para 8).

UNFCCC and Paris Agreement articles and decisions addressing aspects of the biodiversity and climate change linkages include:

- The Preamble of the [Paris Agreement](#) notes “the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity”, Article 5 calls upon Parties to take action to conserve and enhance sinks and reservoirs of greenhouse gases, Article 7 recognizes the role of adaptation in protecting livelihoods and ecosystems; and Article 8 relates to loss and damage, including resilience of livelihoods, communities and ecosystems.
- [The Outcome of the first Global Stocktake](#) (Decision 1/CMA.5, 2023) emphasizes “the importance of conserving, protecting and restoring nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by conserving biodiversity (para 33)” and encourages “the Implementation of integrated, multi-sectoral solutions, such as landuse management, sustainable agriculture, resilient food systems, nature-based solutions and ecosystem-based approaches, and protecting, conserving and restoring nature and ecosystems, including forests, mountains and other terrestrial and marine and coastal ecosystems” (para 55).
- [The Sharm-El Sheik Implementation Plan](#) (Decision 1/CP.27, 2022) “underlines the urgent need to address, in a comprehensive and synergetic manner, the interlinked global crises of climate change and biodiversity loss” (para 1).
- [Glasgow Climate Pact](#) (Decision 1/CP.26, 2021) “emphasizes the critical importance of nature-based solutions and ecosystem-based approaches, including protecting and restoring forests, in reducing emissions, enhancing removals and protecting biodiversity” (para 20).

3.4 Identification of key words for analysis

Key words were identified to assess the degree of cross-fertilization between the CBD and UNFCCC/Paris Agreement in NBSAPs, NDCs and national reports. The analysis uses NVivo to assess two metrics separately for each regime:

- The total number of keywords mentioned
- The number of countries referencing each term

Keywords are organized under seven thematic clusters, drawn from a literature review of decisions related to the climate–biodiversity nexus. They are further categorized based on their origin:

- Climate-relevant keywords that first appeared in CBD texts or decisions
- Biodiversity-relevant keywords that originate from UNFCCC, Kyoto Protocol or Paris Agreement

Table 7 presents biodiversity-related keywords and specifies their origin in CBD treaty text and decisions. These terms were selected based on their strong association with the CBD. Over time, some of these words have been referenced in the climate regime, such as the term “biodiversity” that is mentioned in the preamble of the Paris Agreement. However, these words are still considered conceptually rooted in the CBD and are used to assess the level of integration of biodiversity language into climate planning and reporting under the UNFCCC and Paris Agreement.

Table 7. Biodiversity-related keywords used to assess NDCs and national reports under the UNFCCC and Paris Agreement, with parallel assessment in CBD NBSAPs and national reports to establish a baseline.

Themes	Keywords from sources	Origin of term (Treaty/decision)
0) General	• Biodiversity	CBD Art. 2
	• Ecosystem	CBD Art. 2
1) Targets	• Aichi Target OR • Aichi Biodiversity Target	CBD Decision X/2 (2010)
2) Ecosystem-based approaches (for mitigation)	• Ecosystem-based mitigation	CBD Decision X/33 (2010)
	• Ecosystem-based approach	Decision V/6 (2000)
	• Ecosystem-based management	Decision V/6 (2000)
	• Nature-based solutions	CBD Decision 15/2 (2022) UNFCCC Decision 1/CP.27 (2022)
3) Ecosystem-based adaptation	• Ecosystem-based adaptation	CBD Decision X/33 (2010)
	• Corridor	CBD Decision X/31 (2010)
	• Connectivity	CBD Decision X/31 (2010)
Conservation	• Conservation - stemmed	CBD Art. 2
	• Spatial planning	CBD Decision V/6 (2000)
	• Protected area	CBD Art. 2
	• Species	CBD Art. 2
Restoration	• Restoration	CBD Art. 8f
	• Rehabilitation	CBD Art. 8f
Wetland ecosystems	• Wetland	CBD Decision IV/4 (1998)
Agricultural ecosystems	• Agriculture	CBD Decision III/11 (1996) (UNFCCC Art. 4.1c)
	• Agrobiodiversity	CBD Decision III/11 (1996)
	• Agroecology	CBD Decision 15/2; 2024
Forest ecosystems	• Forest	CBD Decision IV/7 (1998) (UNFCCC: Art. 4.1d)

Themes	Keywords from sources	Origin of term (Treaty/decision)
	• Sustainable forest management	CBD: Decision IV/7 (1998) (Kyoto Protocol Art. 2.1a.ii)
	• Forestry	CBD: Decision IV/7 (1998) (UNFCCC Art. 4.1c)
	• Agroforestry	CBD Decision VI/22 (2002)
Marine and coastal ecosystems	• Mangrove	CBD Decision VII/5 (2004)
	• Seagrass	CBD Decision VII/5 (2004)
	• Saltmarsh	CBD Decision X/29 (2010)
	• Coral reef	CBD Decision II/10 (1995)
	• Fisheries	CBD Decision II/10 (1995)
4) Assessing climate impacts on biodiversity	• Biodiversity impact OR • Impact on species OR • Impact on ecosystems OR • Impact on nature	CBD Art. 14
5) Reducing the impacts of climate change on biodiversity	• Bleaching	CBD Decision IV/5 (1998)
	• Ocean acidification	CBD Decision IX/20 (2008)
	• Thermal stress	CBD Decision IX/20 (2008)
6) Reducing biodiversity impacts of climate measures	• Ocean fertilization	CBD Decision IX/16 (2008)
	• Geoengineering	CBD Decision X/33 (2010)
	• Environmental impact assessment OR • EIA	CBD Art. 14
7) Human rights	• Indigenous people	CBD Art. 8j
	• Local communities	CBD Art. 8j
	• Traditional knowledge	CBD Art. 8j

Table 8 presents climate-related keywords along with their origin in the UNFCCC, Kyoto Protocol and Paris Agreement. These terms were selected based on their strong association with the climate regime. They are used to assess the extent to which climate-related concepts have been integrated into CBD NBSAPs and national reports.

Table 8. Climate-related keywords used to assess NBSAPs and national reports under the CBD, with parallel assessment in NDCs and national reports under the UNFCCC and Paris Agreement to establish a baseline.

Themes	Keywords – CBD Sources	Origin of terms
0) General	• Climate change	UNFCCC Art. 1
1) Targets	• Climate target	
2) Ecosystem-based approaches (for mitigation)	• Mitigation – stemmed	UNFCCC Art. 4.1b
	• Carbon stock	Kyoto Protocol Art. 3.3 and 3.4
	• Sequestration	Kyoto Protocol Art 3.3 and 3.4
	• Sink	UNFCCC Art. 1
	• Biomass	UNFCCC Art. 4.1d
3) Ecosystem-based adaptation	• Adaptation	UNFCCC Art. 4.1b
Restoration	• Afforestation – stemmed	Kyoto Protocol Art. 3.3
	• Reforestation – stemmed	Kyoto Protocol Art. 3.3
Marine and coastal ecosystems	• Integrated coastal zone management	UNFCCC Art. 4.1e (CBD: Decision VII/5 (2004))
	• Blue carbon	The term has not formally adopted as a treaty term.
	• Climate impact OR • Climate change impact OR	UNFCCC Art. 4.1f

Themes	Keywords – CBD Sources	Origin of terms
4) Assessing climate impacts on biodiversity	• Impact of climate change	
	• Vulnerability assessment	UNFCCC Decision 2/CP.11 (2005) CBD Decision X/33 (2010)
5) Reducing the impacts of climate change on biodiversity	• Resilience – stemmed	Paris Agreement: Art. 7
6) Reducing biodiversity impacts of climate measures	• Adaptive capacity	Paris Agreement Art. 7
	• Energy efficiency	UNFCCC Art. 4.1c
	• Energy conservation	UNFCCC Art. 4.1c
	• Renewable energy	UNFCCC Art. 4.1c
7) Human rights	• Human rights	Paris Agreement: Preamble

4. Integration of biodiversity content in Pacific Island States' UNFCCC/PA sources

This section examines the extent of cross-fertilization of key biodiversity terms in Pacific Island States' NDCs, NAPs and national reports under the UNFCCC and Paris Agreement. The analysis focuses on thematic measures, along with human rights as the sole cross-cutting measure. The underlying data are provided in Annex 4 (Table D).

4.1 Overview of results

A total of 39 biodiversity-related terms were selected to assess the extent to which PSDIS UNFCCC/PA sources (including NDCs, NAPs and national reports) incorporate biodiversity considerations. To contextualize this assessment, the same terms were also analyzed in CBD sources (NBSAPs and national reports) to establish a reference baseline of biodiversity terminology use. The analysis covered all NIPs and national reports submitted to date.

4.2.1 Relative frequency of biodiversity terms across regimes

Figure 6 shows that the total usage of biodiversity terms across all sources, showing they appear only 25.8% as frequently in UNFCCC/PA sources as they do in CBD sources indicating a substantial disparity in how biodiversity is addressed across the two regimes. This suggests that biodiversity considerations are referenced nearly four times more often in CBD-related documents, underscoring the specialized mandate of the CBD and the opportunity for more systematic integration in the NDCs, NAPs and national reporting under the UNFCCC and Paris Agreement.

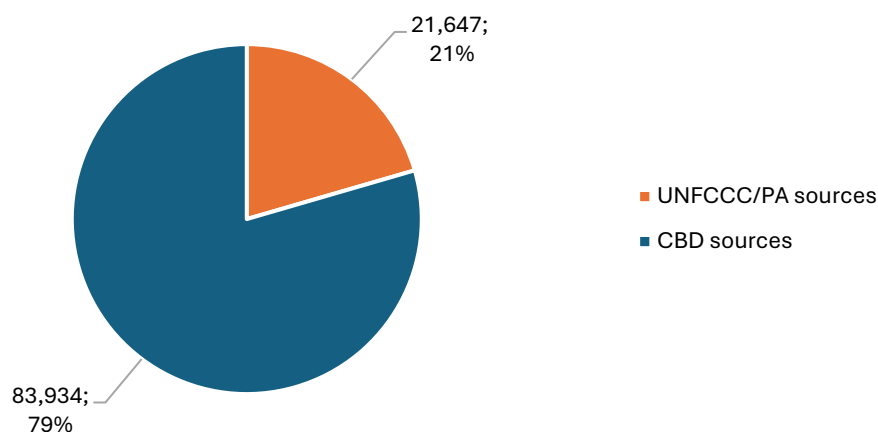


Figure 6. Total usage of biodiversity terms across regimes.

4.2.2 Frequency of individual biodiversity terms in Pacific Island States' UNFCCC/PA sources

While overall references to biodiversity terms are lower in UNFCCC/PA sources, Figure 7 provides a detailed breakdown of how frequently each of the 39 selected terms is used across these documents. The distribution reveals that general concepts such as “forest” (5,821 mentions), “agriculture” (4,998), and “species” (1,670) dominate the landscape. In contrast, more strategic or emerging terms—such as “ecosystem-based adaptation” (48), “spatial planning” (6), or “agrobiodiversity” (3)—appear far less frequently or not at all. This suggests that while foundational biodiversity themes are increasingly addressed in climate-related documents, critical areas such as ecosystem-based approaches, traditional knowledge, and IPLC-related terms remain underrepresented, pointing to a gap in strategic integration.

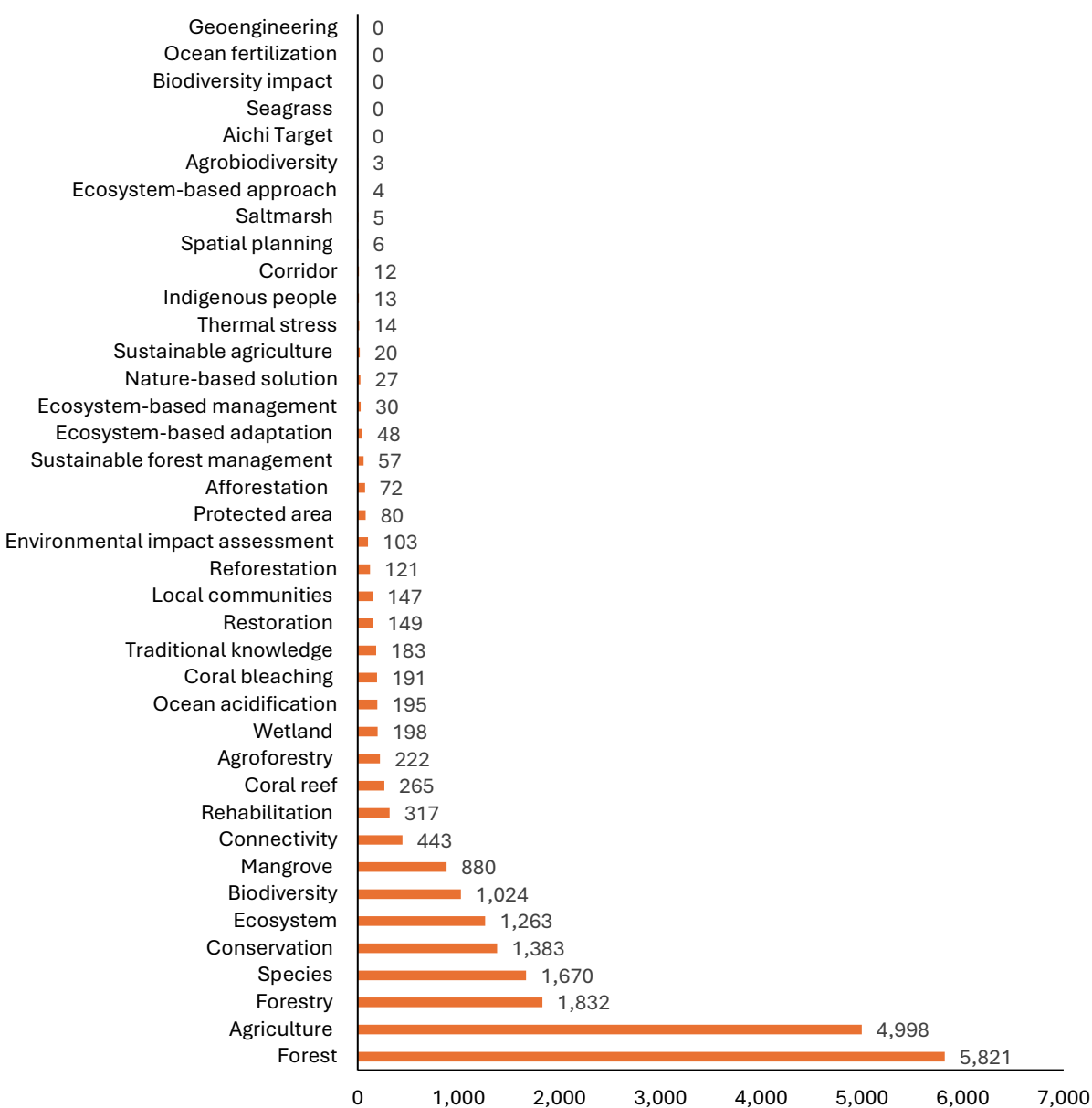


Figure 7. The total number of references to biodiversity terms in Pacific Island States’ UNFCCC/PA sources.

4.2.3 Coverage of biodiversity terms in Pacific Island States’ sources

Figure 8 illustrates focuses on term coverage, meaning the extent to which the selected 39 biodiversity terms are represented in each country’s documents. It illustrates differences in integration levels between UNFCCC/PA and CBD sources. The findings indicate that, on average, 70% of selected biodiversity terms are reflected in UNFCCC/PA sources across Pacific Island States. This suggests a moderate to high level of integration of biodiversity into climate policy instruments. In comparison, CBD sources show a higher baseline incorporation rate of 78.8%, as expected given their biodiversity-focused mandate. Among Pacific Island States, Fiji exhibits the highest degree of mainstreaming biodiversity terminology in UNFCCC/PA sources (79.5%), followed closely by Micronesia, Vanuatu, and Tonga—indicating potential frontrunners in advancing coherence between climate and biodiversity agendas.

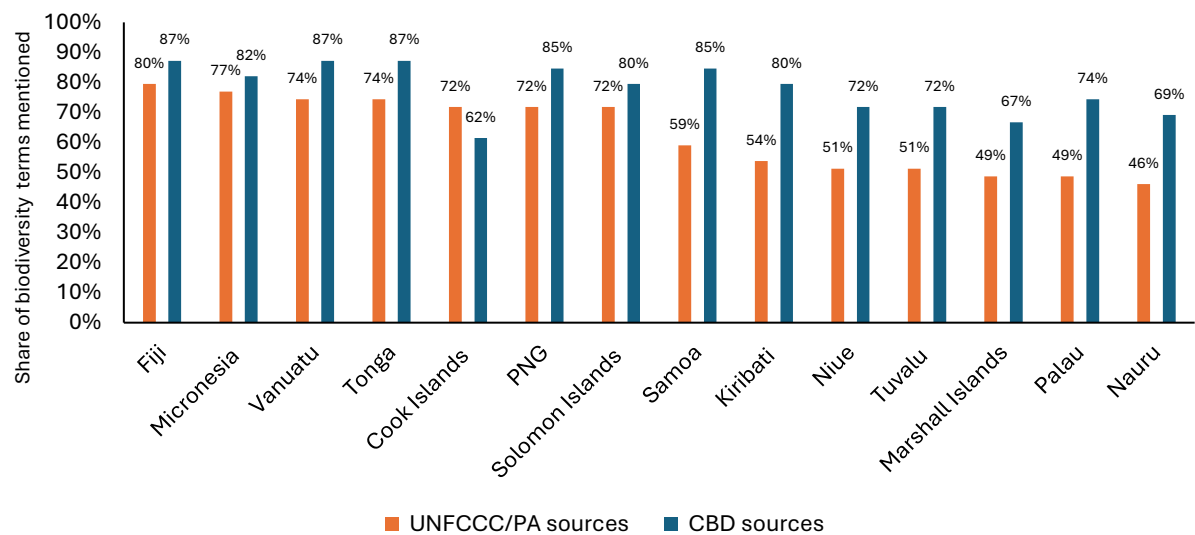


Figure 8. Share of analyzed biodiversity terms mentioned in UNFCCC/PA and CBD sources.

4.2 Results by thematic groups

Figure 9 summarizes how often key biodiversity-related themes are mentioned in countries' NDCs, NAPs and national reports under the UNFCCC and Paris Agreement, relative to their frequency in CBD sources (i.e. NBSAPs and national reports). Values indicate how many times terms appear in UNFCCC sources for every 100 appearances in CBD reports. For example, climate impact terms appear 178 times in UNFCCC reports for every 100 times in CBD sources — while conservation terms appear only 9.4 times.

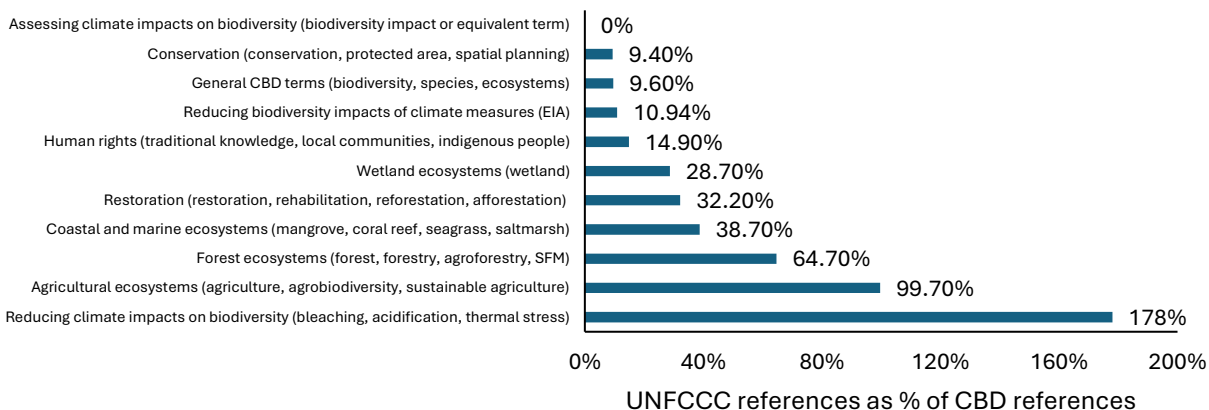


Figure 9. Frequency of biodiversity term usage in UNFCCC sources relative to CBD sources, across thematic measures.

4.2.1 General CBD terms

Art. 2 of the CBD defines biodiversity as encompassing diversity within species, between species, and of ecosystems—establishing these as the three core levels of biodiversity.

Figure 10 illustrates the extent to which these general CBD terms – biodiversity, ecosystems and species – are referenced in UNFCCC sources. However, uptake remains limited: UNFCCC sources reflect these terms at only **9.6%** of the frequency seen in CBD sources.

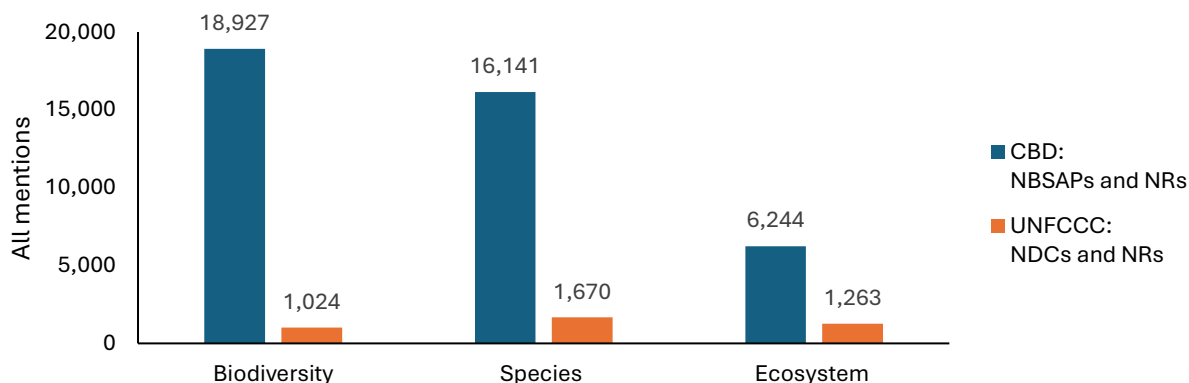


Figure 10. Use of general CBD terms in NIPs and national reports in PSDIS.

4.2.2 Biodiversity targets

CBD Decision X/2 (2010) on the adoption of the Strategic Framework for biodiversity 2011-2020, including lists 20 Aichi Biodiversity Targets. This framework has since been superseded by the KM GBF, adopted in 2022 though decision 15/4, which sets 23 new global targets for the period up to 2030.

Aichi Targets or Aichi Biodiversity Targets were mentioned a total of 553 times in 13 Pacific Island States in CBD NBSAPS and national reports. In contrast, no references to Aichi Targets were found in any UNFCCC NDCs, NAPs or national reports from these countries. The newer GBF targets is still largely absent from both CBD and UNFCCC NIPs and national reports, due to their nascent introduction to the KM-GBF. Nevertheless, three Pacific Island States have communicated climate-related biodiversity targets to the CBD Secretariat:⁷¹

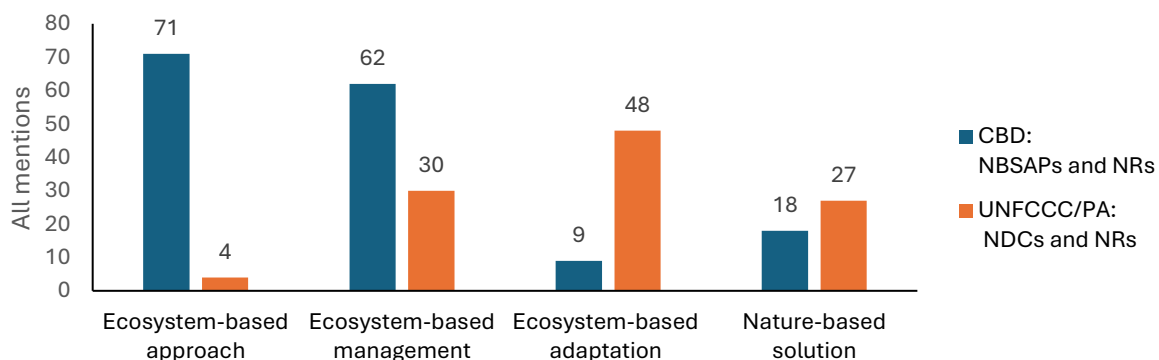
- **Fiji:** Minimize the effects of climate change and build resilience of ecosystems through nature-based solutions and Ecosystem based adaptation
- **Samoa:** By 2030, minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solutions and/or ecosystem-based approaches
- **Tonga:** Maintain 30% of Marine Management Areas with no further reduction

4.2.3 Ecosystem-based approaches

General ecosystem-based terms

CBD Decision V/6 (2000) endorses the ecosystem approach, setting the foundation for its application to the climate-biodiversity nexus. Decision X/33 (2010) builds on this by explicitly promoting ecosystem-based mitigation and adaptation as key strategies within biodiversity planning. Nature-based solutions, closely aligned with these concepts, was first endorsed by UNEP in Res. 5/5 and later formally adopted in 2022 by UNFCCC (Decision 1/CP.27) and CBD (Decision 15/2).

Table 11 illustrates the uptake of general ecosystem-based terms across CBD and UNFCCC/PA sources. Terms such as ecosystem-based approach and ecosystem-based management, originating from the CBD (e.g., Decision V/6), show higher integration in biodiversity frameworks. Conversely, ecosystem-based adaptation appears more frequently in UNFCCC/PA sources (48 mentions vs. 9 in CBD), highlighting its prioritization within climate policy instruments like NDCs and NAPs. Nature-based solutions, a newer term formally endorsed by UNEA in 2022, remains underrepresented across both frameworks, with slightly more use in UNFCCC reports.



⁷¹ Additional data was retrieved from the CBD Secretariat's website (<https://www.cbd.int/gbf/targets/8>) to supplement gaps in Pacific Island States' NIPs and national reports, as only one post-2020 NBSAP (post-KM-GBF) has been submitted to date.

Figure 11. General ecosystem-based terms used in NIP and national reports in Pacific Island States.

Conservation

CBD Art. 2 defines foundational terms such as “conservation” and “protected area,” which are central to advancing the convention’s objectives. Decision V/6 (2000) Ecosystem approach (2000) complements these definitions by highlighting the need to manage biodiversity at appropriate spatial and temporal scales.

Figure 12 illustrates the extent of cross-fertilization of conservation-related terms (conservation, protected area and spatial planning) in NIPs and national reports of Pacific Island States. While these terms are well embedded in CBD sources, their uptake in UNFCCC/PA sources remains limited. For example, the term “conservation” appears over ten times more frequently in CBD reports than in UNFCCC sources (14,286 vs. 1,383 mentions), while “protected area” appears over 16 times more frequently (1,325 vs. 80). Overall, conservation terms in UNFCCC documents represent just 9.4% of the frequency found in CBD sources.

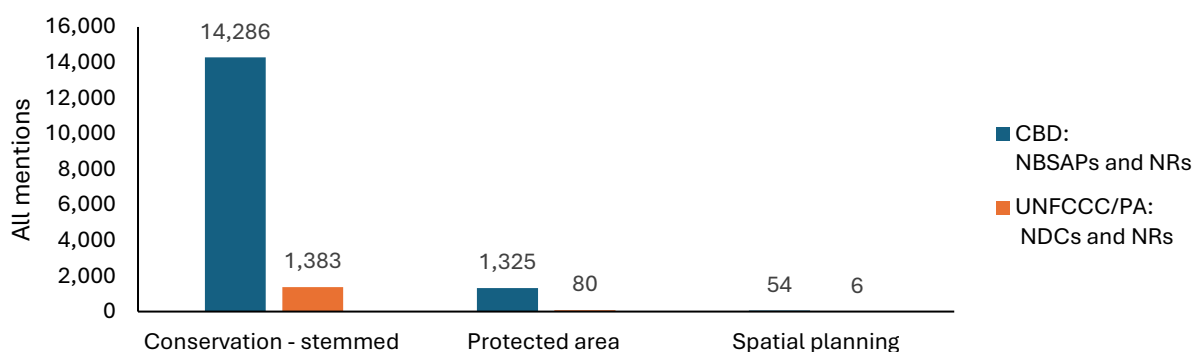


Figure 12. Conservation-related terms used in NIPs and national reports of Pacific Island States.

Restoration

CBD Art. 8f calls for the rehabilitation and restoration of degraded ecosystems, making the CBD the primary framework for restoration with a focus on biodiversity outcomes. This aligns conceptually with Kyoto Protocol Article 3.3, which highlights afforestation and reforestation to enhance carbon sinks, though limited to forests. UNFCCC Art. 4.1e also refers to rehabilitation in the context of areas affected by drought, desertification and floods.

Figure 13 illustrates the extent of cross-fertilization of restoration-related terms (restoration, rehabilitation, reforestation and afforestation) in NIPs and national reports of Pacific Island States. Overall, these terms appear in UNFCCC sources at 32.2% of the frequency observed in CBD sources, indicating moderate uptake. This high proportion may be influenced by **UNFCCC Art. 4.1**, which refers to rehabilitation, and **Kyoto Protocol Article 3.3**, which explicitly references reforestation and afforestation.

Among these terms, “restoration” appears the most specific to the CBD, with UNFCCC/PA sources reflecting only 11.2% of the CBD level (149 vs. 1,333 mentions). This suggests that while some restoration-related concepts are shared, the broader ecological framing of “restoration” remains predominantly anchored in biodiversity discourse.

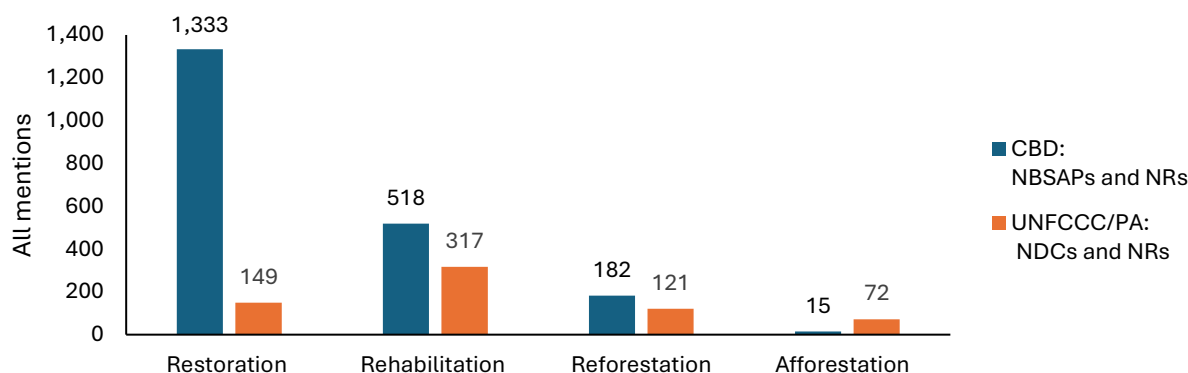


Figure 13. Restoration terms in NIPs and national reports of Pacific Island States.

Wetland ecosystems

The covers all ecosystems, though it does not explicitly mention specific ecosystems. However, **wetlands** are specifically referenced in CBD Decision IV/4 (1998), which established the *Programme of Work on inland Water Ecosystems*, with wetlands being a primary focus.

The term “*wetland*”⁷² appears over three times more frequently in CBD sources (689 mentions) than in UNFCCC/PA sources (198), meaning it is reflected in UNFCCC/PA sources at **28.7%** of the rate seen in CBD sources - further underscoring the more ecosystem-specific framing under the biodiversity regime.

Agricultural ecosystems

Agriculture is relevant under both treaties. The CBD introduces a biodiversity lens through Decision III/11 (1996), emphasizing the role of agrobiodiversity and promoting sustainable agriculture. In contrast, UNFCCC Art. 4.1c frames agriculture primarily as a mitigation sector, focusing on its role in reducing greenhouse gas emissions rather than biodiversity outcomes.

Figure 14 illustrates the extent of cross-fertilization of agriculture-related terms in NIPs and national reports of Pacific Island States. The high number of references to “agriculture” in the UNFCCC/PA sources aligns with its explicit recognition in Art. 4.1c. Indeed, agriculture-related terms appear in **UNFCCC/PA sources at 99.7% of the frequency** found in CBD sources. However, more biodiversity-specific agriculture terms (i.e. agrobiodiversity and sustainable agriculture) are almost entirely absent from UNFCCC/PA sources. This contrast highlights a key gap: while both regimes engage with agriculture, only the CBD integrates it meaningfully with biodiversity outcomes.

⁷² Only the term “wetland” was assessed due to frequent overlap and synonymous use with terms like peatland, marsh, and swamp in national reports

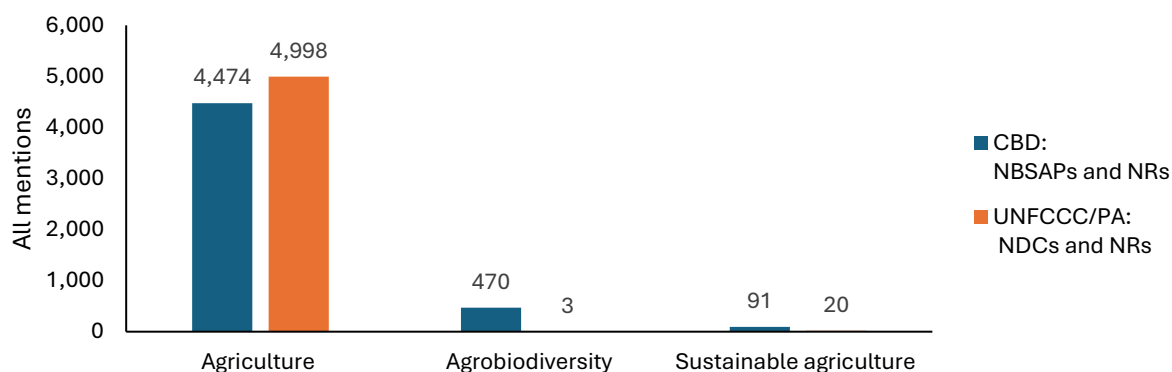


Figure 14. Agriculture terms in NIPs and national reports of Pacific Island States.

Forest ecosystems

Forests are addressed under both treaties. The CBD promotes sustainable forest management (SFM) (Decision IV/7, 1998) to conserve biodiversity, while the Kyoto Protocol Art. 2.1a.ii supports it for mitigation, without mentioning biodiversity. Biodiversity framing of forests is further strengthened by CBD Decision VI/22 (2002) that promotes agroforestry to reduce impacts of forest fragmentation. In contrast, the UNFCCC Art. 4.1c frames forestry primarily as a sector for reducing GHG emissions.

Figure 15 illustrates the extent of cross-fertilization of forest-related terms in Pacific Island States NIPs and national reports. The high number of references to “forest” and “forestry” in UNFCCC/PA documents is expected, as both terms are explicitly mentioned in Art. 4.1c of the UNFCCC. However, more integrated biodiversity-oriented terms – such as agroforestry and sustainable forest management - have far less attention in both CBD and UNFCCC/PA sources. SFM, despite being explicitly referenced the Kyoto Protocol, it particularly underrepresented in UNFCCC/PA sources. Overall, forest-related terms appear 64.7% as often in UNFCCC/PA sources as they do in CBD sources.

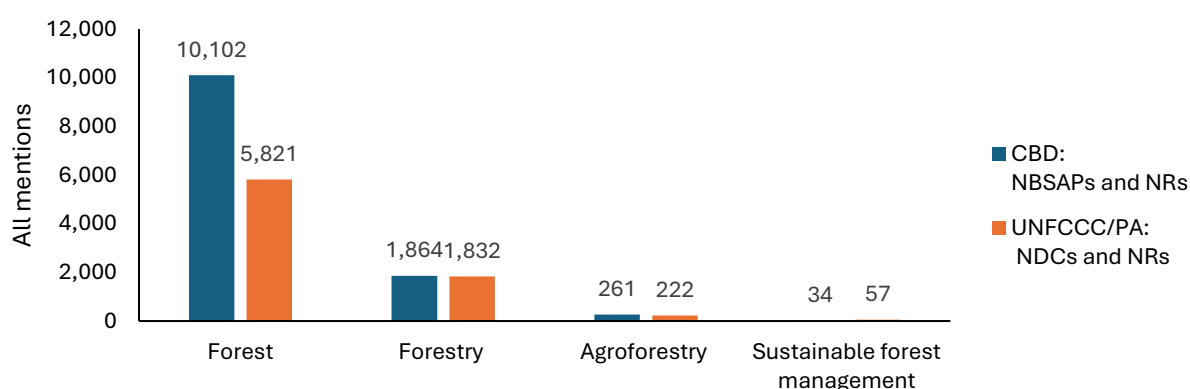


Figure 15. Forest terms in NIPs and national reports of Pacific Island States.

Coastal and marine ecosystems

Oceans are addressed under both treaties. CBD Decision VII/5 (2004) encourages the management of mangroves, seagrasses and coral reefs to maintain their resilience to extreme climatic events, while

Decision X/29 (2010) highlights salt marshes as critical habitats for conservation and climate adaptation. In contrast, UNFCCC Art. 4.1c refers to the sustainable management of coastal and marine ecosystems, but with a primary focus on mitigating GHG emissions.

Figure 16 illustrates the extent of cross-fertilization of coastal and marine-related terms in Pacific Island States NIPs and national reports. Across all terms assessed, these terms appear **38.7%** as frequently in UNFCCC/PA reports as in CBD reports.

- **Mangroves** dominate the references, with over 2,200 mentions in CBD documents and 880 in UNFCCC/PA reports, reflecting their central role in nature-based solutions and their established inclusion in carbon accounting methodologies.
- **Coral reefs** are the second most frequently cited, although the gap between regimes narrows.
- **Seagrasses** are mentioned relatively frequently in CBD sources but are entirely absent from UNFCCC/PA sources. This omission reflects their limited recognition in UNFCCC climate guidance and accounting frameworks.
- **Saltmarshes** are the least mentioned term, appearing only sporadically in reports from the Cook Islands and Micronesia. This low count reflects both their ecological rarity in most Pacific Island States—being largely absent from atoll nations—and their limited policy prioritization compared to other coastal ecosystems.

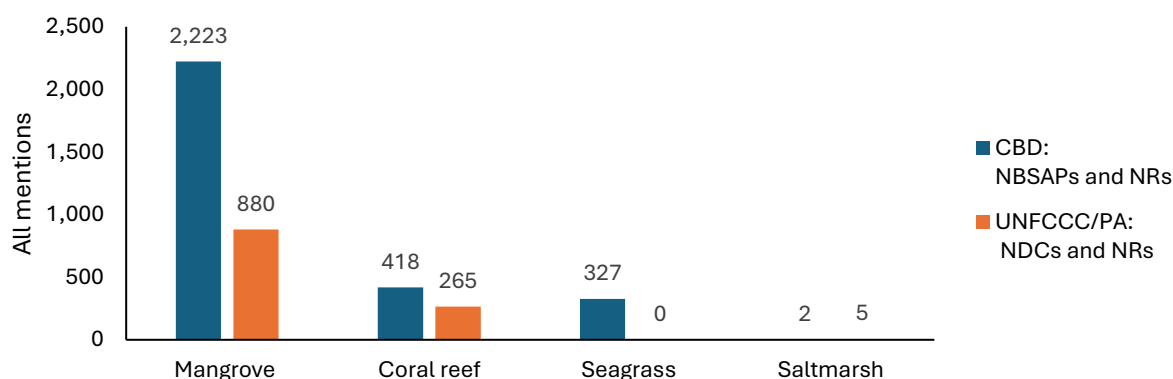


Figure 16. Ocean-related terms in NIPs and national reports of PSDIS.

4.2.4 Assessing climate impacts on biodiversity

Terms related specifically to biodiversity impacts—including biodiversity impact, impact on species, impact on ecosystems, and impact on nature—have been assessed separately, as no document explicitly refers to “biodiversity impact assessment.” These terms appear a total of 11 times in CBD sources and are entirely absent from UNFCCC/PA reports.

4.2.5 Reducing climate impacts on biodiversity

Terms such as coral bleaching, ocean acidification and thermal stress were introduced by the Intergovernmental Panel on Climate Change (IPCC) but were first taken up by the CBD: Decision IV/5 (1998) expresses concern over coral bleaching, Decision IX/20 (2008) recognizes ocean acidification as a threat for marine biodiversity, and Decision IX/20 (2008) indirectly refers to thermal stress.

Figure 17 illustrates the extent of cross-fertilization of terms (coral bleaching, ocean acidification and thermal stress) related to reducing the impacts of climate change on biodiversity. Across all terms assessed, they appear 178% as frequently in UNFCCC/PA reports as in CBD reports. Coral bleaching and ocean acidification go together and are mentioned in similar frequency. However, thermal stress has significantly less references in both sources.

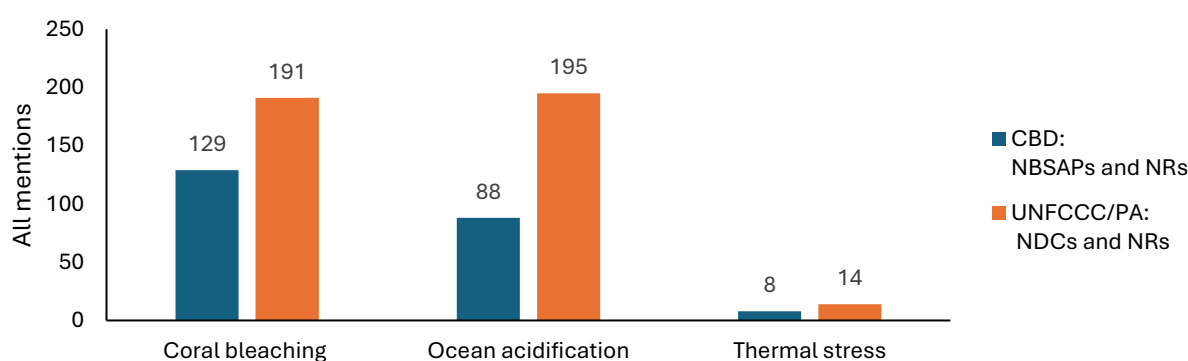


Figure 17. Terms related to reducing the impacts of climate change on biodiversity in Pacific Island States' NIPs and national reports.

4.2.6 Reducing biodiversity impacts of climate measures

Environmental impact assessment (EIA) plays a central role in the CBD, explicitly referenced in Art. 14, which promotes the use of impact assessment to minimize adverse effects on biodiversity. EIA is referenced 941 times in CBD sources, compared to just 103 instances (11%) found in UNFCCC/PA documents. In contrast, the UNFCCC/PA regime lacks a comparable provision, contributing to its more limited treatment of this tool.

CBD Decision X/33 (2010) calls for suspending geoengineering and ocean fertilization until such activities are scientifically justified. The terms “geoengineering” and “ocean fertilization”, used to assess potential biodiversity risks from climate interventions, were not referenced once in either CBD or UNFCCC/PA sources. This suggests that geoengineering is not currently considered a salient issue or perceived threat in national biodiversity and climate reporting from Pacific Island States. However, this does not preclude potential future relevance, especially if global deployment scenarios begin to carry transboundary risks for biodiversity or ocean health in the Pacific.

4.2.7 Human rights

While the CBD does not directly refer to human rights, Art. 8j is indirectly significant, as it recognizes the knowledge, innovations, and practices of Indigenous peoples and local communities, thereby supporting rights-based approaches to biodiversity conservation and sustainable use.

Figure 18 illustrates the extent of cross-fertilization of human rights terms in Pacific Island States' NIPs and national reports. Overall, these terms appear approximately 14.9% as frequently in UNFCCC/PA sources as they do in CBD sources. References to *traditional knowledge* (1,180 vs. 183 mentions) and *local communities* (1,098 vs. 147) show a consistent pattern, highlighting their stronger institutional presence in the CBD. In contrast, references to *Indigenous people* are sparse in both regimes (31 in CBD, 13 in UNFCCC/PA), suggesting a general underrepresentation of Indigenous rights language in national-level implementation and reporting.

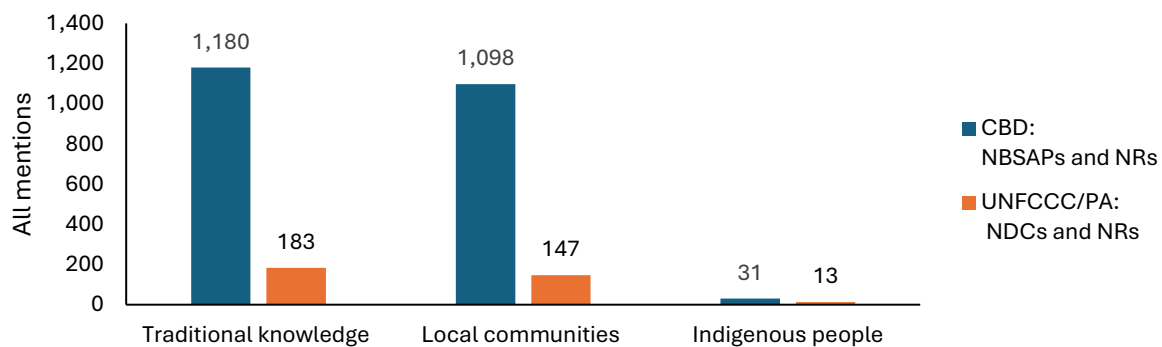


Figure 18. Human rights terms in Pacific Island States' NIPs and national reports.

5. Integration of climate content in Pacific Island States' CBD sources

This section examines the extent of cross-fertilization of key climate terms in Pacific Island States' NBSAPs and national reports under the CBD. The analysis focuses on thematic measures, along with human rights as the sole cross-cutting measure. Annex 4 (Table E) includes raw data used as the basis for the analysis.

5.1 Overview of results

A total of 17 climate-related terms were selected to assess the extent to which PSDIS CBD sources (including NBSAPs and national reports) incorporate climate considerations. To contextualize this assessment, the same terms were also analyzed in UNFCCC/PA sources (NDCs, NAPs and national reports) to establish a reference baseline of climate terminology use. The analysis covered all NIPs and national reports submitted to date.

5.2.1 Relative frequency of climate terms across regimes

Figure 19 shows that the total usage of climate terms across all sources appears only 17.1% as frequently in CBD sources as they do in UNFCCC/PA sources. This means they are used nearly six times more often in UNFCCC/PA sources, as expected given the climate-centric mandate of that regime.

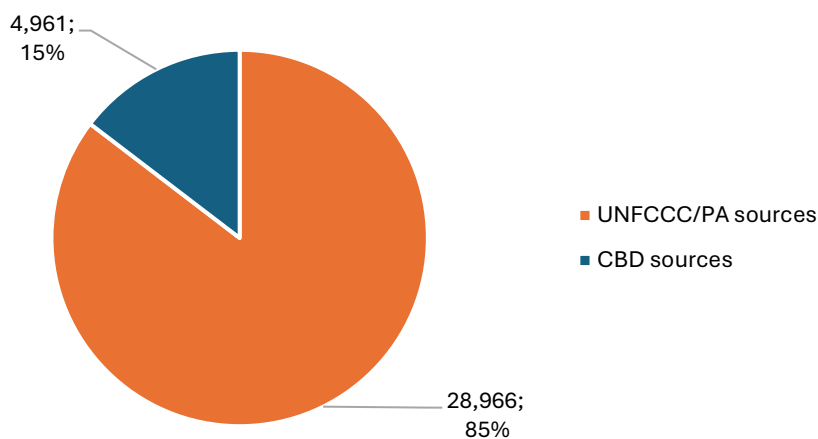


Figure 19. Total usage of climate terms across regimes.

5.2.2 Frequency of individual climate terms in Pacific Island States' CBD sources

Figure 20 illustrates focuses on term coverage, meaning the extent to which the selected 17 climate terms are represented in each country's documents. It illustrates differences in integration levels between UNFCCC/PA and CBD sources. The findings indicate that, on average, 74.1% of selected climate terms are reflected in CBD sources across Pacific Island States.

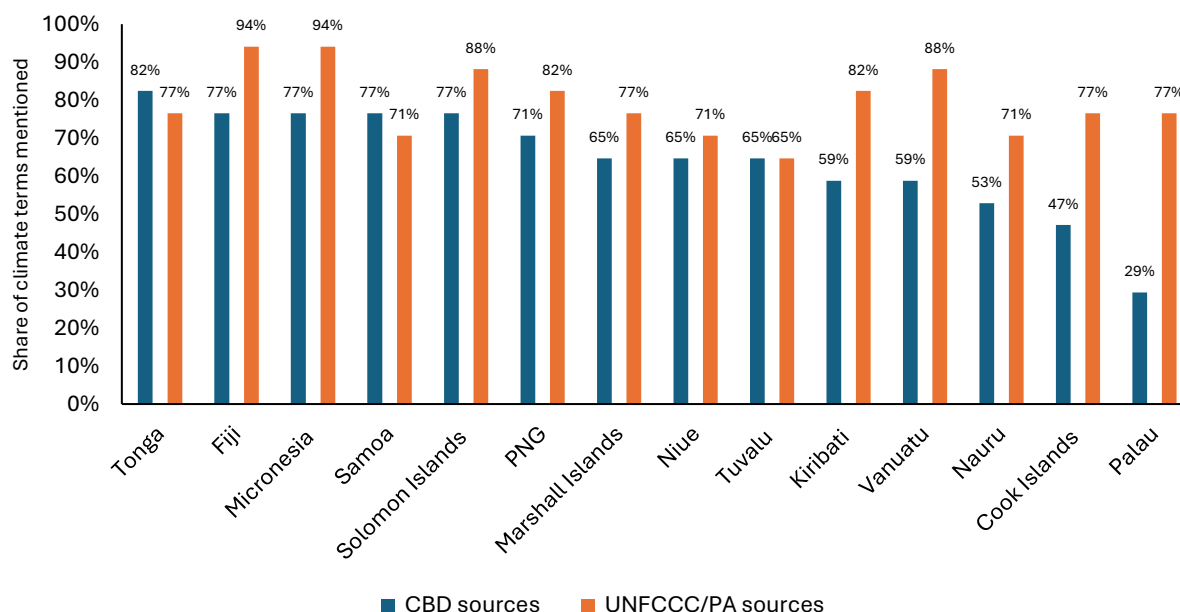


Figure 20. The total number of references to climate terms in Pacific Island States' CBD sources.

5.2.3 Frequency of individual biodiversity terms in Pacific Island States' UNFCCC/PA sources

Although climate terms are used less frequently overall in UNFCCC/PA sources compared to CBD sources, Figure 21 breaks this down by showing how often each of the 17 selected terms appears individually. It shows that while “climate change” is widely referenced in Pacific Island States' CBD sources (2,684 mentions), most other climate-related terms appear far less frequently. Terms like “resilience” (694), “adaptation” (601), and “mitigation” (465) are moderately present, but technical and strategic concepts—such as “sequestration,” “vulnerability assessment,” and “adaptive capacity”—are rarely used. Emerging terms like “blue carbon” and “integrated coastal zone management” are also underrepresented. This suggests that climate considerations in biodiversity planning are acknowledged but generally framed at a high level, with limited integration of more targeted or operational concepts.

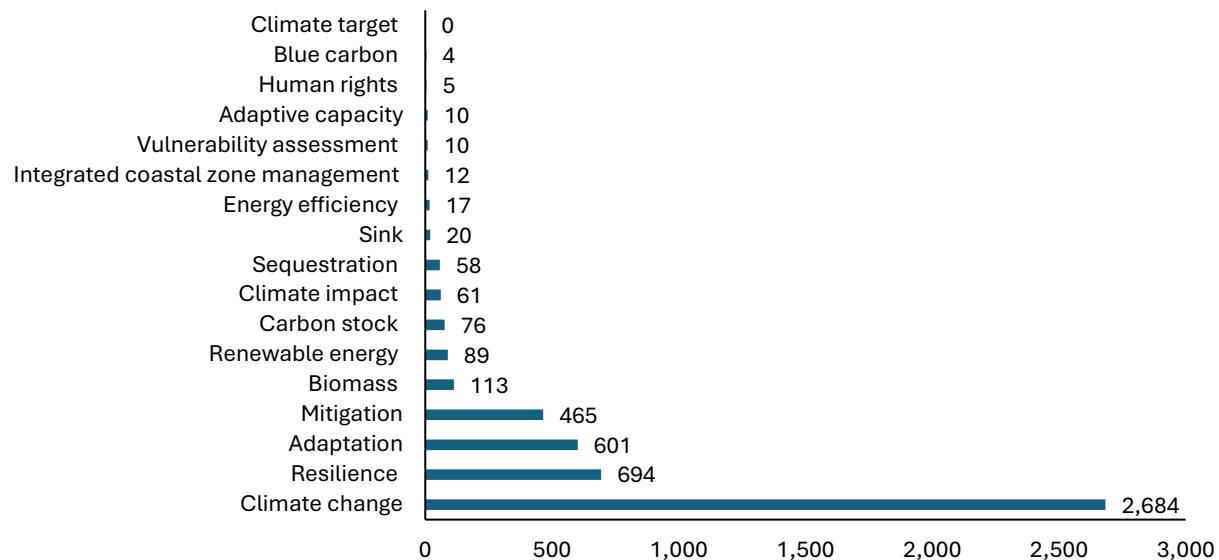


Figure 21. Share of analyzed climate terms mentioned in UNFCCC/PA and CBD sources.

5.2 Results by thematic groups

Overall, climate-related terms appear 17.1% as frequently in CBD sources as they do in UNFCCC/PA sources. Figure 22 summarizes how often key climate-related themes are mentioned in countries' NBSAPs and national reports under the CBD, relative to their frequency in UNFCCC/PA sources (i.e. NBSAPs, NAPs and national reports).

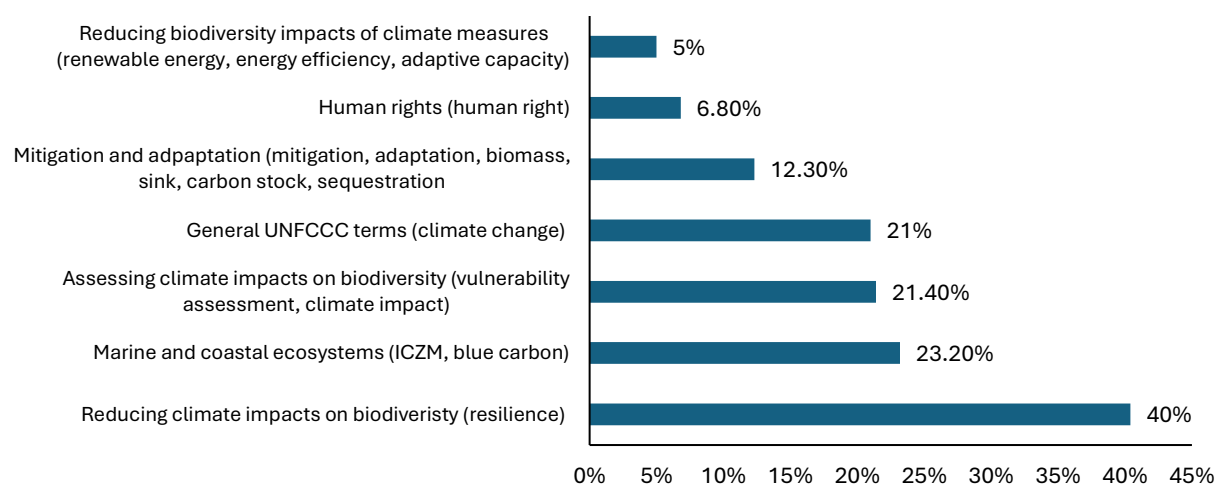


Figure 22. Frequency of climate term usage in CBD sources relative UNFCCC/PA sources, across thematic measures.

5.2.1 General UNFCCC terms

The term “**climate change**” appears 12,652 times in UNFCCC/PA sources, compared to 2,684 mentions in CBD sources. Even though the frequency of references to climate change in CBD sources is only 21%, it still shows a moderate level of integration

5.2.2 Climate targets

The term “**climate target**” was not mentioned at all in either regime, indicating that it is not a commonly used term in national biodiversity or climate reporting. This suggests that while targets related to climate change exist, the explicit use of the term “climate target” remains absent from official sources.

5.2.3 Ecosystem-based approaches

Mitigation and adaptation

Mitigation and adaptation to climate change are key objectives of the UNFCCC and the Paris Agreement. Art 4.1b of the UNFCCC ask to implement “*measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases... and measures to facilitate adequate adaptation to climate change.*” Moreover, Art. 4.1d of the UNFCCC calls on Parties to “*promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases... including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems.*”

Figure 23 illustrates the extent of cross-regime uptake of general terms related to mitigation and adaptation. Mentions of these terms in CBD documents amount to only 12.3% of those found in UNFCCC/PA sources. Notably, “adaptation” dominates the discourse in both regimes, yet it is referenced over ten times more often in UNFCCC/PA sources (6,094 vs. 601 mentions). This pronounced emphasis reflects the heightened vulnerability of Pacific Island States to climate change and their relatively limited capacity to influence global mitigation outcomes. Similarly, “mitigation” appears over six times more frequently (3,015 vs. 465). The contrast is even sharper for “sink” and “biomass”, which are rarely mentioned in CBD sources despite their ecological relevance. This disparity indicates that while the CBD occasionally references climate action, it does not embed these terms as centrally as the UNFCCC does. The low usage of terms like “sink,” “carbon stock,” and “sequestration” may reflect a limited uptake of climate science language in the CBD or signal differing institutional priorities and reporting traditions.

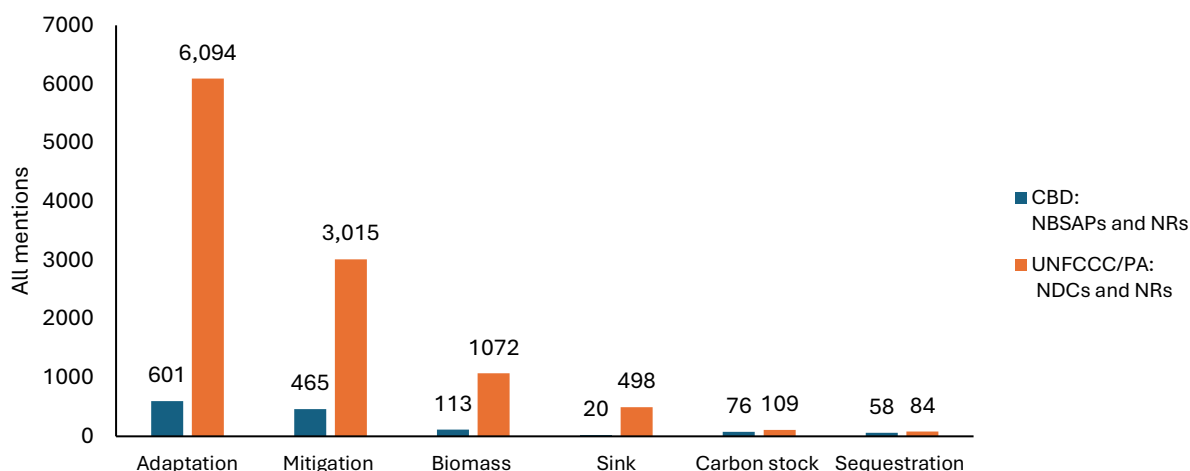


Figure 23. Mitigation and adaptation terms in Pacific Island States’ NIPs and national reports.

Marine and coastal climate responses

Marine and coastal climate terms, such as *integrated coastal zone management* and *blue carbon*, appear more frequently in UNFCCC sources than in CBD documents, reflecting stronger emphasis on ocean-based climate responses in the climate regime. Art 4.1e of the UNFCCC explicitly promotes ICZM, which is reflected three times more frequently in UNFCCC/PA sources than in CBD sources (45 vs. 12). The term “blue carbon”, while formally not adopted by either regime, also appears more often in UNFCCC/PA documents (24 vs. 4), suggesting a stronger climate framing. Together these terms appear in CBD sources at only 23.2% of the frequency observed in UNFCCC/PA sources, underscoring a greater uptake of coastal and carbon-related concepts in climate reporting. Nevertheless, both terms remain scarcely reflected in either regime, indicating limited mainstreaming overall.

5.2.4 Assessing climate impacts on biodiversity

UNFCCC Art. 4.1f mandates Parties to prepare impact assessments to minimize adverse effects of climate measures on the environment. This is further supported by Decision 2/CP.11 (2005), which promotes the use of vulnerability assessments as part of adaptation planning under the Nairobi Work Programme.

The NVivo search using terms “**climate impact**”, “**climate change impact**” and “**impact of climate change**” revealed 170 mentions in UNFCCC/PA sources, nearly three times more than the 61 mentions found in CBD sources. A separate search for “**vulnerability assessment**” showed an even sharper divergence, with 200 mentions in UNFCCC/PA sources compared to only 10 in CBD sources—a 20-fold difference. Overall, the frequency of these terms in CBD sources is approximately 21.4% of that in UNFCCC/PA sources, highlighting the greater emphasis placed on climate impact and vulnerability assessment in climate-related reporting frameworks.

5.2.5 Reducing the climate impacts on biodiversity

Art. 7 of the Paris Agreement establishes a global goal on adaptation aiming to strengthen resilience. The term has also been included in Target 8 of the KM GBF (Decision 15/2, 2022).

The term “**resilience**” was used as an indication of measures for reducing climate impacts on biodiversity. The frequency of the term in CBD sources was found to be 40.4% of UNFCCC sources (1,719 versus 694), underscoring a high level of cross-fertilization across the regimes.

5.2.6 Reducing biodiversity impacts of climate measures

Reducing GHG emissions from the energy sector is an integral part of climate action, as outlined in Art. 4.1c of the UNFCCC. However, efforts to decarbonize—including the expansion of **renewable energy** and **energy efficiency**—must also account for potential biodiversity impacts. Additionally, Art. 7 of the Paris Agreement, which aims to strengthen **adaptive capacity**, is directly relevant to minimizing unintended biodiversity impacts from climate measures.

Figure 24 illustrates the extent of cross-regime uptake of terms related to reducing biodiversity impacts of climate measures focusing on decarbonization efforts with terms “renewable energy” and “energy efficiency”, as well as “adaptive capacity.” Overall, the CBD sources reflect only **5.0%** of the term usage found in UNFCCC/PA sources. This highlights a significant gap in how the potential biodiversity implications of climate mitigation measures are integrated into CBD-related action and reporting.

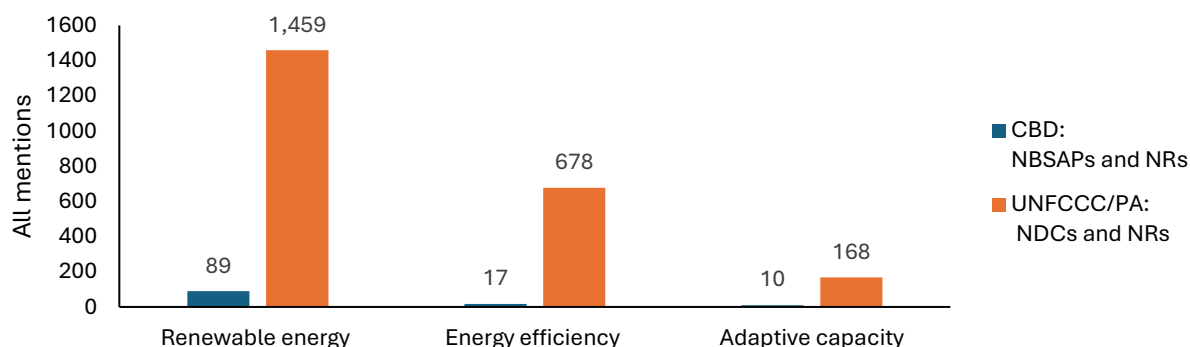


Figure 24. Terms related to reducing biodiversity impacts of climate measures in Pacific Island States’ NIPs and national reports.

5.2.7 Human rights

Human rights are relevant for both regimes, but only the Paris Agreement makes an explicit reference to them in its preamble.

The term “**human right**” appears 74 times in the UNFFCCC/PA sources, compared to just five references in CBD sources – just 6.8% of the frequency found in the climate sources. While the CBD sources seldom explicitly refer to human rights, it makes indirect references (see Section 4.2.7) through terms such as “traditional knowledge” and references to Indigenous Peoples and Local Communities (IPLCs).

6. Biodiversity-climate synergies playbook and checklist

This section consists of a playbook and checklist of measures for coherent and effective implementation of the MEAs (CBD, UNFCCC and Paris Agreement), in line with relevant guidance coming from MEAs governing bodies and COP decisions, summarized in Annex 2.

6.1 Biodiversity-climate synergies playbook

Table 9 outlines a biodiversity-climate synergies playbook, presenting measures as concrete action steps. The playbook will be complemented by feedback coming from the upcoming Pacific workshop to address the identified gaps and barriers, and to promote policy coherence for effective climate and biodiversity governance.

Table 9. Playbook for strengthening climate-biodiversity policy coherence.

Theme	Measures (Playbook guidance)
1. Targets	- Define national targets for addressing the biodiversity-climate nexus, focusing on KM-GBF Targets 8 and 11 that refer to climate change and aim to promote the use of ecosystem-based approaches and nature-based solutions - Expand target setting to KM-GBF Targets 1-3 (management and conservation of natural ecosystems), Targets 7, 10 and 16 (sustainable food production and consumption), Targets 18-19 (incentives and financial resources), Target 21 (communication, awareness-raising, education, monitoring, research and knowledge management), and Targets 22-23 (IPLCs and gender equality)
2. Ecosystem-based mitigation	- Identify, conserve, and restore carbon-rich ecosystems (forests, peatlands, mangroves, seagrasses, salt marshes, kelp forests). - Develop and implement strategies for blue carbon (e.g., seagrasses, salt marshes) restoration and protection - Promote sustainable agriculture, agroforestry, regenerative farming, and soil management to enhance carbon storage. - Establish carbon offset mechanisms that prioritize biodiversity conservation and ecological integrity. - Implement integrated, multi-sectoral solutions, including land use planning, marine spatial planning and
3. Ecosystem-based adaptation	- Develop climate-resilient protected area networks, including maintain ecological corridors and promote landscape connectivity, enabling species to migrate to suitable climatic locations or adapt to new conditions - Implement nature-based solutions for disaster risk reduction, including wetland and coastal restoration. - Review land-use planning with a view to enhancing ecosystem-based adaptation, such as the role of mangroves in adapting to changes in sea level - Strengthen the role of indigenous peoples and local communities (IPLC) in ecosystem adaptation strategies. - Integrate ecosystem-based approaches for adaptation into relevant strategies - Promote climate-smart fisheries, sustainable aquaculture, and biodiversity-friendly water management, including river basins, aquifers and lakes, and integrate water into adaptation efforts

Theme	Measures (Playbook guidance)
4. Assessing climate impacts on biodiversity	- Assess the impacts of climate change and ocean acidification on biodiversity, ecosystem services and biodiversity-based livelihoods. - Undertake vulnerability assessments to evaluate species' vulnerability to climate change, including developing and promoting standardized methodologies to this end. - Identify regions, ecosystems, species and genetic resources vulnerable to climate change and assess risks and impacts on biodiversity and livelihoods, including estimate the cost of inaction - Monitor and inventory impacts on biodiversity and livelihoods
5. Reducing climate impacts on biodiversity	- Implement in-situ and ex-situ conservation measures, including habitat restoration and captive breeding programs. - Develop strategies for assisted migration, genetic diversity conservation, and ecosystem resilience enhancement. - Incorporate traditional and indigenous knowledge into climate adaptation and biodiversity conservation. - Develop a comprehensive strategy for biodiversity conservation and sustainable use, including landscape and seascape management in areas opening up to new uses due to climate change.
6. Reducing biodiversity impacts of climate measures	- Require biodiversity impact assessments and include safeguards for renewable energy projects (e.g., wind, solar, hydropower). - Conduct SEA and EIA for climate and energy projects to help increase positive and reduce negative impacts of climate measures - Consider the status of biodiversity and its vulnerability when planning and undertaking climate-change-related activities to help minimize or avoid harmful activities - Consider incentives to facilitate climate-change-related activities that take into consideration biodiversity and related social and cultural aspects - Ban climate-related geo-engineering activities that may affect biodiversity, including ocean fertilization
7. Human rights	Integrate human rights into climate and biodiversity actions by respecting diverse knowledge, ensuring intergenerational equity, and safeguarding indigenous and local communities' rights to land and resources, including prior informed consent
8. NIPs	- Integrate climate change issues into NBSAPs - Integrate ecosystem-based approaches in NDCs and national climate change adaptation planning, and in implementation of associated measures - involve NFPs to the CBD in the updating of NDCs and ensure that information and tools and guidance developed under the CBD are used
9. Tools and guidelines	- Use CBD tools/guidelines e.g. Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction - Use other relevant tools/guidance developed under other biodiversity MEAs (e.g. CMS guidance to protect migratory species from the adverse impacts of renewable energy development). - Adopt model legislation and planning instruments—such as master land use plans—to strengthen legal and policy coherence across biodiversity and climate objectives. - Use AI-based tools to enhance integrated planning, monitoring, and vulnerability assessments to inform the migration of biodiversity and climate risks. Explore opportunities for harmonized reporting to the CBD, UNFCCC and Paris Agreement, inter alia, using modular reporting tools, such as DaRT
10. Monitoring and knowledge generation	- Monitor and evaluate ecosystem-based approaches to assess their effectiveness in climate change adaptation, mitigation, and disaster risk reduction - Develop methodologies and comparable datasets to assess climate-biodiversity linkages and the impacts of related actions.

Theme	Measures (Playbook guidance)
	- Identify and use indicators that serve both biodiversity and climate reporting (e.g., forest cover, wetland extent, land degradation metrics). - Involve national statistical agencies in the collection and harmonization of data using jointly identified biodiversity–climate indicators. - Conduct research to make explicit the associated synergies and any trade-offs between biodiversity conservation, mitigation and adaptation efforts. - Integrate biodiversity-climate synergies explicitly in the development of state of the environment reports to enhance coherence across policy domains and support joint progress tracking.
11. Education and awareness raising	- Develop education and awareness programmes on biodiversity’s role in climate adaptation, mitigation, and disaster risk reduction. - Raise awareness among the general public, natural resources managers and decision-makers on ecosystem-based approaches to climate and disaster risk resilience. - Promote platforms for sharing experiences and best practices on ecosystem-based approaches, including those of Indigenous Peoples and local communities. - Organize training courses, disseminate examples of best practice, share protocols and regulations, and promote the use of online and other tools raise awareness of the linkage
12. Cooperation and coordination	- Enhance engagement between NFPs of the UNFCCC, CBD and other biodiversity MEAs - Integrate ecosystem-based approaches to climate change adaptation and mitigation, and disaster risk reduction, into their strategic planning across sector - Improve collaboration and information exchange on wetlands and climate change at the international level through capacity building, resource mobilisation, and collaborative work programmes - Promote coordinated national policies on water, agriculture, energy, health, and poverty to align climate action with ecosystem protection. - Enhance international collaboration on ecosystems and climate change through capacity building, resource mobilization, and joint programmes
13. Governance	Build and strengthen institutional capacity and synergies between related instruments at the national level in order to address the linkage
14. Science-policy interface	- Ensure that the best available scientific information on the impacts of climate change on biodiversity is accessible and useable for planning and decision-making - Establish regional national workshops involving scientists, NGOs, NFPs from MEAs, policy makers and managers to exchange and discuss information
15. Gender	Use gender-responsive and youth-inclusive approaches to strengthen climate adaptation, mitigation, and disaster risk reduction efforts.

6.2 Biodiversity-climate synergies checklist

Table 10 outlines a biodiversity-climate synergies checklist with a scorecard that Parties can use to assess measures taken and identify possible gaps in enhancing synergies among the CBD, UNFCCC and Paris Agreement. Each completed action scores 5 points, with a maximum total score of 200 points. As general guidance, a score above 150 points indicates strong progress toward enhancing biodiversity–climate synergies, while scores below 100 points suggest significant opportunities for improvement. Further details of activities can be found from Table 22 (the checklist) and Annex 2 (MEA decisions and resolutions outlining the measures).

Table 10. Biodiversity-climate synergies checklist and scorecard.

Theme	Activity	Yes/No	Points	Score	Explanation
1. Targets Time-bound targets raise ambition and help catalyze action. Translating KM-GBF targets into national-level commitments is expected to occur through the revision of NBSAPs. This process offers a critical opportunity to scale up integrated actions addressing both climate change and biodiversity loss. While the KM-GBF explicitly references climate change in Targets 8 and 11, several other targets—specifically Targets 1-3, 7 to 10, 16, 18-19, and 21 to 23—also support climate action indirectly.	Specific targets set for climate–biodiversity nexus (KM-GBF Targets 8, 11)		5		
	Broader targets included (KM-GBF Targets 1–3, 7, 10, 16, 18–19, 21–23)		5		
2. Ecosystem-based mitigation Ecosystem-based approaches offer valuable pathways for enhancing both climate change mitigation. Ecosystems such as oceans, forests, and wetlands serve as natural sinks and reservoirs of greenhouse gases. Identifying, conserving, and restoring carbon-rich ecosystems is essential. Integrated, multi-sectoral solutions, including resilient food systems and marine spatial planning and integrated coastal zone management, provide important avenues to strengthen mitigation.	Carbon-rich ecosystems conserved/restored (e.g., forests, peatlands, mangroves, seagrasses)		5		
	Blue carbon strategies implemented		5		
	Sustainable agriculture/agroforestry promoted		5		
	Integrated land and marine planning advanced (e.g. marine spatial planning and ICZM)		5		
3. Ecosystem-based adaptation Many ecosystems, such as mangroves and coral reefs provide physical buffers against climate impacts. Land use planning provides an important mechanism for enhancing adaptation. For instance, this can include maintaining ecological corridors between protected areas and promoting landscape connectivity is critical for enabling species to either migrate to suitable climatic locations or adapt to new conditions.	Climate-resilient protected area networks developed		5		
	Nature-based disaster risk reduction strategies implemented		5		
	Land-use planning and relevant strategies integrate ecosystem-based adaptation		5		
	Indigenous/local community involvement ensured		5		
	Climate-smart fisheries and biodiversity-friendly water management integrated into adaptation		5		

Theme	Activity	Yes/No	Points	Score	Explanation
4. Assessing climate impacts on biodiversity Assessing the impacts of climate change and ocean acidification on biodiversity, ecosystem services and associated livelihoods is a critical first step for targeted, effective action. By systematically identifying regions, ecosystems, species and genetic resources most vulnerable to these environmental changes, it is possible to evaluate both the current and future risks—along with the often high costs of inaction. Comprehensive vulnerability assessments provide the foundation for understanding how climate change affects species and ecosystems, guiding the development of strategic interventions that protect biodiversity and ensure sustainable livelihoods. Monitoring of and inventorying of biodiversity impacts is necessary to understand long impact on biodiversity and livelihoods.	Impacts on biodiversity assessed (ecosystems, species and genetic resources)		5		
	Impacts on livelihoods assessed		5		
	Vulnerability hotspots (ecosystems/communities) identified and mapped		5		
	Estimates of cost of inaction prepared		5		
	Standardized methodologies used		5		
5. Reducing climate impacts on biodiversity Climate actions should enhance positive impacts on biodiversity and ecosystem services while minimizing any negative effects, especially for vulnerable species, ecosystems vital to the carbon cycle, and communities directly dependent on them. Negative impacts on biodiversity, such as ocean acidification, coral bleaching and thermal stress, will need to be managed together with any additional local factors or drivers. Implementing targeted activities to increase the adaptive capacity of species and the resilience of ecosystems in the face of climate change is critical. Developing a comprehensive strategy for biodiversity conservation and sustainable use is key, including landscape and seascape management in areas opening up to new uses due to climate change.	In-situ/ex-situ conservation measures for climate resilience implemented		5		
	Strategies for assisted migration and ecosystem resilience developed		5		
	Indigenous/traditional knowledge incorporated		5		
	Strategies for sustainable uses of areas affected by climate change developed		5		
6. Reducing biodiversity impacts of climate measures Climate action is crucial, yet if not well-designed, it can unintentionally harm biodiversity, ecosystem services, and livelihoods. It is essential to assess potential benefits and risks through robust tools like EIA and SEA before implementation. For example, renewable energy and land management projects must be planned with measures to minimize adverse impacts, while effective monitoring and verification ensure any negative effects are promptly addressed. It is important to suspend climate-related geo-engineering activities that may affect biodiversity, including ocean fertilization, until there is adequate scientific basis to justify such actions.	Biodiversity assessments required for renewable energy projects		5		
	EIA/SEA conducted for climate and energy projects		5		
	Incentives promoting biodiversity in climate actions established		5		
	Geoengineering safeguards protecting biodiversity in place		5		
7. Human rights Integrating human rights into biodiversity and climate actions is essential to ensure just and inclusive outcomes. This includes the recognition of diverse knowledge systems, the promotion of	Rights of Indigenous Peoples and Local Communities (IPLCs) integrated into		5		

Theme	Activity	Yes/No	Points	Score	Explanation
intergenerational equity, and the protection of the rights of Indigenous Peoples and local communities to lands, territories, and resources, with due regard to their right to free, prior, and informed consent. The contribution of Indigenous and local community-conserved areas to ecosystem connectivity and resilience should also be acknowledged and supported as part of rights-based and inclusive conservation approaches.	climate/biodiversity actions				
8. NIPs Aligning national planning processes under the CBD and UNFCCC/PA is critical to promoting integrated action. This includes the reciprocal integration of biodiversity and climate objectives—embedding climate change considerations in NBSAPs and ensuring biodiversity and ecosystem integrity are reflected in NDCs and NAPs. Ecosystem-based approaches and nature-based solutions serve as key mechanisms for promoting mitigation, adaptation, and disaster risk reduction. The active engagement of National Focal Points is essential to ensure coherence and the effective use of tools and guidance developed under the CBD and other MEAs.	Climate-biodiversity linkages integrated into NBSAPs/NDCs		5		
	Collaboration between CBD and UNFCCC NFPs strengthened		5		
9. Tools and guidelines Parties are encouraged to use the tools and voluntary guidelines developed under the CBD, particularly the Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction. These guidelines support the integration of ecosystem-based approaches across biodiversity and climate policies, including NBSAPs and NDCs. Existing tools should be further applied, refined, and aligned with conservation planning and species management in response to climate impacts.	CBD and other biodiversity convention tools and guidelines used for promoting integrated action		5		
	Model legislation and planning instruments adopted for biodiversity–climate policy coherence		5		
	AI-based tools used for planning, monitoring, and vulnerability assessment		5		
	Harmonized reporting to CBD, UNFCCC, and Paris Agreement explored using tools such as DaRT		5		
10. Monitoring and knowledge generation Robust monitoring and evaluation of ecosystem-based approaches is essential to assess their effectiveness in climate change adaptation, mitigation, and disaster risk reduction. To this end, it is critical to strengthen knowledge generation and develop methodologies and comparable datasets to assess climate-biodiversity linkages and the	Monitoring systems tracking climate–biodiversity synergies established		5		
	Indicators supporting biodiversity and climate		5		

Theme	Activity	Yes/No	Points	Score	Explanation
impacts of related actions. The use of indicators that serve both biodiversity and climate reporting (e.g., forest cover, wetland extent, land degradation metrics) can reduce duplication of effort and promote consistency across reporting frameworks. Additionally, research is needed to fill in the information gaps to make explicit the associated synergies and any trade-offs between biodiversity conservation, mitigation and adaptation efforts.	reporting identified and used				
	Research conducted to identify synergies and trade-offs between biodiversity and climate measures		5		
	National statistical agencies involved in data collection and harmonization using joint biodiversity–climate indicators		5		
	Biodiversity–climate synergies integrated in state of the environment reports to enhance policy coherence		5		
11. Education and awareness raising Raising awareness and building capacity are critical to scaling up the use of ecosystem-based approaches for climate change adaptation, mitigation, and disaster risk reduction. Efforts should include education and training programmes for the general public and natural resource managers along with targeted outreach to decision-makers across sectors and levels. Sharing of experiences, including those of Indigenous Peoples and local communities, should be supported through dedicated platforms and knowledge exchange mechanisms, such as those under the UNFCCC.	Public and sectoral awareness programs on biodiversity's role in climate action developed		5		
	Natural resource managers, decision-makers, and the public informed on ecosystem-based approaches		5		
	Indigenous knowledge and best practices shared through platforms and training		5		
12. Cooperation and coordination Strengthened cooperation among biodiversity-related MEAs and the UNFCCC is essential for addressing the interconnected challenges of climate change and biodiversity loss, including in sectors such as water, energy, agriculture, health, and poverty reduction. Closer engagement between national focal points and institutions should be enhanced to facilitate information exchange, align strategic planning, and support coherent implementation across sectors. Collaborative work should be supported through joint programmes, capacity building, and resource mobilization.	Coordination between CBD and UNFCCC NFPs established		5		
	Ecosystem-based approaches mainstreamed across sectors		5		

Theme	Activity	Yes/No	Points	Score	Explanation
13. Governance Effective governance is essential to address the biodiversity–climate nexus. This includes building and strengthening institutional capacity and enhancing synergies between related national instruments to ensure coordinated and coherent action.	Capacity of national institutions to address the climate–biodiversity linkage strengthened		5		
14. Science-policy interface Bridging science and policy is essential for informed decision-making on climate and biodiversity. This includes ensuring access to the best available scientific data and fostering dialogue through regional and national workshops involving scientists, policymakers, NGOs, and MEA focal points.	Scientific data on climate impacts on biodiversity informs planning and decision-making		5		
	Regional/national multi-stakeholder workshops organized		5		
15. Gender Integrating gender-responsive approaches and actively engaging youth are key to ensuring inclusive, effective and sustainable climate and biodiversity actions. These approaches enhance the design and impact of adaptation, mitigation, and disaster risk reduction efforts.	Gender-responsive, youth-inclusive climate–biodiversity actions promoted		5		

7. Country case studies: Integration of biodiversity in climate policy

This section presents four in-depth case studies examining the integration of biodiversity in climate policy documents, focusing on Samoa, Fiji, Tonga and Vanuatu. The analysis is structured around the 15 themes introduced in Section 3 and elaborated in section 6, which serve as sub-headings for each case study. The case studies focus only on the most recent climate documents of each country, including NDCs, NAPs NCs, BTRs and BURs, aiming to provide the most up-to-date situation analysis of the level of integration of biodiversity into climate planning and reporting.

7.1 Samoa

Samoa is a small island developing state located in the southwest Pacific Ocean, comprising four main inhabited volcanic islands and six smaller uninhabited islands, with a total land area of approximately 2,935 km² and an Exclusive Economic Zone (EEZ) of around 120,000 km². The country has a population of about 202,500 and contains one of the most diverse floras in Polynesia, with over 500 species of native flowering plants and around 220 species of ferns. The country is highly vulnerable to climate change impacts such as tropical cyclones, prolonged droughts linked to ENSO events, coastal erosion, and flooding, all of which threaten terrestrial and marine ecosystems. Rising temperatures and changes in rainfall patterns undermine agricultural productivity and ecosystem health, making the protection and restoration of biodiversity increasingly urgent. In this context, Samoa has acknowledged the critical importance of integrating biodiversity considerations into national climate strategies, particularly through nature-based and ecosystem-based approaches to adaptation and mitigation. This case study draws on Samoa's Second Nationally Determined Contribution (2021), Second National Communication (2010), and First Biennial Update Report (2024) as key sources.

7.1.1 Targets for integrated action

The NDC-2 (2021) includes several biodiversity-relevant targets, although none explicitly reference the Aichi Biodiversity Targets. It sets a mitigation goal to reduce greenhouse gas emissions in the Agriculture, Forestry, and Other Land Use (AFOLU) sector by 26% by 2030, compared to 2007 levels. In addition, the following adaptation targets are outlined: a 5% increase in mangrove forest area and a 5% expansion of agroforestry coverage on agricultural land by 2030 (both relative to 2018), along with a 2% increase in total forest cover by 2030 compared to 2013, through sustainable forest management.

The achievement of these targets is explicitly stated to be conditional on external support. These commitments are reaffirmed in the BUR-1 (2024), which reiterates the targets set in the NDC-2.

7.1.2 Ecosystem-based approaches for mitigation

Biodiversity

While Samoa's NDC-2 (2021) does not explicitly reference biodiversity, it includes measures such as forest expansion and the promotion of agroforestry, both of which have the potential to generate positive biodiversity outcomes. In contrast, both the NC-2 (2010) and BUR-1 (2024) include dedicated sections on biodiversity, offering more detailed descriptions of relevant activities. However, neither nature-based solutions nor ecosystem-based approaches are explicitly mentioned in any of the documents reviewed.

Agriculture

The promotion of agroforestry is highlighted as a key mitigation measure in both NDC-2 (2021, p. 9) and BUR-1 (2024, pp. 14, 69). Agroforestry is promoted through the Samoa Agriculture & Fisheries Productivity and Marketing (SAFPROM) project, which supports communities in increasing agricultural productivity and access to markets. Additionally, BUR-1 (2024) notes the implementation of community training programmes aimed at promoting agroforestry and sustainable farming practices (p. 69).

Restoration and reforestation

Forest restoration and reforestation form central components of Samoa's mitigation strategy. The NDC-2 (2021) envisions the development of a national reforestation and forest restoration programme, supported by incentive payments to encourage implementation (p. 12). Building on earlier efforts, Samoa launched a "Three Million Trees" campaign for the period 2022–2028, focused on planting native species (BUR-1, 2024, pp. 69, 74). The NC-2 (2010) reports more modest progress, with the national reforestation programme limited to approximately 100 hectares per year (p. 67).

Conservation

The BUR-1 (2024) emphasizes the need to strengthen the sustainable management of Samoa's four national parks—OLPP, Lake Lanoto'o, Mauga o Salafai, and Masamasa-Falelima—to enhance mitigation outcomes (p. 69). The NC-2 (2010) notes the designation of three new terrestrial national parks in 2007 but indicates that further analysis is needed to determine their effectiveness in contributing to GHG reductions (p. 67). It also calls for increased financial support for national park management and community-based forest protection initiatives (p. 78).

Wetlands

Strengthened wetland management is identified in BUR-1 (2024) as a priority for enhancing carbon sequestration and increasing ecosystem resilience (pp. 69, 74).

7.1.3 Ecosystem-based adaptation

None of the analyzed documents explicitly refer to "ecosystem-based adaptation," but they recognize the role of adaptation, particularly in relation to coastal and marine ecosystems.

Coastal and Marine Ecosystems

The NDC-2 (2021) proposes the expansion of mangrove forests through a large-scale programme focused on planting and restoration (p. 12). These efforts are expected to enhance ecosystem services, support

fish habitats, and protect marine ecosystems. However, the NDC-2 does not specifically mention the protection or restoration of other coastal and marine ecosystems beyond mangroves. In contrast, the NC-2 (2010) takes a broader view, identifying adaptation measures such as managing fisheries resources, establishing marine protected areas and reserves, and restoring key habitats including mangroves and coral reefs (pp. 13–14).

Species Protection

The NC-2 (2010) also highlights the reintroduction of native and endemic plant species within national reserves and parks as a priority adaptation measure (p. 14).

Conservation

Expanding the size of protected areas to safeguard valuable and vulnerable ecosystems is outlined in the NC-2 (2010) as an additional adaptation measure requiring prioritization in the coming years (p. 16).

7.1.4 Assessing climate impacts on biodiversity

Vulnerability assessment (risks to ecosystems)

Both the NDC-2 (2021, p. 11) and NC-2 (2010, p. 45) recognize the high vulnerability of agriculture, forestry, marine ecosystems, biodiversity, and fisheries to climate change. Marine ecosystems are particularly threatened by sea-level rise and warming waters, which contribute to coral bleaching, ocean acidification, and reduced fish stocks (NC-2, pp. 13, 56). Heavy rainfall has increased sedimentation in coastal waters, while mangroves and wetlands are severely impacted by coastal erosion, storm surges, and sea-level rise (NC-2, p. 56). Terrestrial ecosystems are also affected, including damage to lowland agroforestry systems, forests, shrublands, and inland wetlands due to more frequent flooding (NC-2, p. 56).

Vulnerability assessment (risks to species)

At the species level, risks include extinction of species with limited climatic ranges or highly restricted habitats (NC-2, p. 56). Additionally, rising sea temperatures threaten the timing of biological processes in species such as marine turtles and birds, with some species already showing changes in morphology, physiology, and accelerated sexual maturity in response to shifting climatic conditions (NC-2, p. 14).

7.1.5 Reducing impacts of climate change on biodiversity

No specific measures are outlined for reducing impacts of climate change on biodiversity.

7.1.6 Reducing biodiversity impacts of climate measures

Environmental impact assessment

The NC-2 (2010) highlights that all future developments must undergo environmental impact assessment, identifying this as a priority adaptation measure (p. 12). However, the reviewed documents do not more

specifically include explicit references to systematic assessments of climate change impacts on biodiversity.

7.1.7 Human rights

Stakeholder participation and consent

The NDC-2 (2021) emphasizes that forest expansion initiatives require the consent of stakeholders, including decisions on where reforestation will take place and who will be responsible for implementation and monitoring (p. 13). This reflects an effort to ensure inclusive and participatory decision-making in land and resource management.

Use of traditional knowledge

The NDC-2 (2021) outlines the promotion of agroforestry practices based on traditional knowledge systems (p. 13), while the NC-2 (2010) includes maintaining traditional conservation practices as part of its adaptation measures (p. 61).

7.1.8 Tools and guidelines

No specific tools and guidelines for biodiversity are mentioned in reviewed documents.

7.1.9 NIPs

NBSAP

NC-2 (2010) references the NBSAP (2001) among the list of national policies relevant to climate change planning (p. 41). However, The NDC-2 (2021) and BUR-1 (2024,) do not reference the NBSAP as a source informing their development, though they cite several other relevant national policies, strategies, and plans.

7.1.10 Monitoring and knowledge generation

Biodiversity-related research

Both NC-2 (2010) and BUR-1 (2024) emphasize the need to strengthen biodiversity-related research in the context of climate change. NC-2 (2010, p. 61) identifies the need for further research to understand the relationship between climate change, biological systems, and species as a priority adaptation measure. BUR-1 (2024, p. 69) highlights research on Assisted Natural Regeneration of forests and phenology studies as part of its mitigation strategy, aiming to improve understanding of ecosystem responses to changing climatic conditions.

7.1.11 Education and awareness raising

Education

The NC-2 (2010) emphasizes the importance of improving public education on adaptation measures, with a focus on establishing marine protected areas and the restoration of key habitats such as mangroves and coral reefs (p. 13).

Awareness raising activities

The reviewed documents outline several awareness-raising initiatives aimed at building environmental knowledge and engagement:

- Educational awareness and tree planting activities targeting schoolchildren, communities, and stakeholders (BUR-1, 2024, p. 69).
- Annual environmental events, including World Water Day, Forests Day, and Wetlands Day, used as platforms for public engagement (BUR-1, 2024, p. 69).
- Promotion of agroforestry alongside awareness-raising initiatives to support sustainable land use practices (NDC-2, 2021, p. 13).
- Plans for an Agro-tourism Park that integrates education, conservation, and economic development featuring local fruit tree varieties to both domestic and international visitors (BUR-1, 2024, p. 75).
- Nationwide awareness campaigns to reinforce the importance and effectiveness of conservation areas (NC-2, 2010, p. 84).

7.1.12 Cooperation and coordination

International cooperation

The NC-2 (2010) references the Convention on Biological Diversity (CBD) among other international agreements relevant to Samoa's environmental policy (p. 41), but it does not outline specific modes or mechanisms for international cooperation.

National coordination

The BUR-1 (2024) highlights strengthened collaboration between the Ministry of Natural Resources and Environment (MNRE) and the Ministry of Agriculture and Fisheries (MAF), aimed at expanding agroforestry and mixed cropping practices (p. 74).

7.1.13 Governance

Policy review

The NC-2 (2010) highlights the need to improve the management of protection regimes for marine and terrestrial biodiversity, and to review the implementation of existing laws, policies, and strategies (p. 14).

Regulatory measures

A national ban on commercial logging, introduced in 2007, is identified as a key regulatory measure supporting mitigation and forest conservation objectives (NC-2, 2010, p. 67).

7.1.14 Science-policy interface

A science-policy interface is not mentioned in reviewed documents.

7.1.15 Gender

Gender is acknowledged in Samoa's NDC-2 (2021) and BUR-1 (2024) through gender-responsive planning and women-focused capacity-building, but none of the three documents explicitly address gender in the context of biodiversity conservation. The NC-2 (2010) does not include any gender-related references linked to biodiversity.

7.2 Fiji

Fiji is a small island developing state located in the South Pacific, comprising more than 300 islands of volcanic and coral origin, approximately one-third of which are permanently inhabited. The country spans a land area of 18,270 km² and governs an Exclusive Economic Zone (EEZ) of over 1.3 million km². Fiji's unique biodiversity is shaped by its island geography, encompassing tropical forests, coastal wetlands, mangroves, coral reefs, and seagrass beds, which provide essential ecosystem services and support livelihoods, food security, and disaster risk reduction. The biodiversity of Fiji is highly vulnerable to climate change impacts, including sea-level rise, saltwater intrusion, coastal erosion, and more frequent extreme weather events, all of which intensify the degradation and fragmentation of habitats. Coral bleaching due to ocean warming, shifting rainfall patterns, and increased cyclone intensity threaten both terrestrial and marine ecosystems. Fiji's Third National Communication (2020), National Adaptation Plan (2018), and second Nationally Determined Contribution (2020) were used as sources for this case study.

7.2.1 Targets for integrated action

Fiji's NDC (2020) commits to economy-wide net-zero emissions by 2050 and outlines several targets that directly support biodiversity conservation and ecosystem resilience, even though it does not refer explicitly to the Aichi Biodiversity Targets. These include: Target 7, which emphasizes early warning systems and prioritization of nature-based solutions to mitigate flooding and cyclone impacts (p. 5); Target 10, which focuses on conserving biodiversity and ensuring the long-term provision of ecosystem services, including carbon sequestration; Target 11, which sets a national goal to plant 30 million trees by 2035; and Target 12, which commits to establishing 30% of Fiji's Exclusive Economic Zone (EEZ) as marine protected areas and achieving 100% EEZ management by 2030 via the National Ocean Policy.

The National Adaptation Plan (NAP, 2018) is recognized as a complementary vehicle to support the implementation of the NBSAP and its targets (p. 37).

7.2.2 Ecosystem-based approaches for mitigation

Ecosystem-based approaches

Fiji promotes an ecosystem-based approach as a foundational principle for addressing climate change and environmental challenges. This approach, endorsed by Cabinet and promoted throughout the National Adaptation Plan (NAP), guides national efforts to enhance resilience, sequester carbon, and protect biodiversity across key sectors (NAP, p. 5, 38). The Low Emission Development Strategy (LEDS) elaborates potential low-emission pathways in multiple sectors, including agriculture, forestry and land use, coastal wetlands, and waste, providing a cross-cutting framework that integrates mitigation and ecosystem restoration (NDC, 2020; p. 15). The **Ridge to Reef Project**, that extends from the upland to the coastal zone supports this by providing an integrated management model to preserve biodiversity, provide ecosystem services, sequester carbon, enhance climate resilience, and support livelihoods.

Coastal and marine ecosystems

Fiji's NDC (2020) emphasizes the restoration and conservation of coastal ecosystems, including mangroves, seagrasses, and coral reefs, as essential to achieving mitigation co-benefits and enhancing the ocean's role as a carbon sink (p. 6). The country commits to preserving and enhancing mangroves, promoting sustainable fishing practices, and protecting marine biodiversity, including coral reefs and other critical ocean ecosystems (p. 19). NC-3 reinforces this commitment by highlighting the need to develop mangrove ecosystem restoration and management strategies to protect coastal areas from storm surges and erosion and to filter land-based sedimentation (NC-3, 2020; p. 136). The development of a Mangrove Management Plan underway to safeguard this vital coastal resource (NC-3, 2020, p. 19–20).

Forest ecosystems

Fiji has adopted a national REDD+ programme that supports the reforestation of native and exotic forest species as part of its climate change mitigation strategy (NC-3, 2020; p. 19). The programme aims to increase carbon stocks and biodiversity values through sustainable forest management (REDD-SFM), backed by governance mechanisms such as forest surveillance systems and a national forest information system to support effective implementation (NC-3, p. 118).

Agricultural ecosystems

In the agricultural sector, current projects promote a variety of sustainable land-use practices, including agroforestry, organic farming, backyard gardening, and landscape-level planning (NC-3, 2020; p. 18). These actions contribute to both climate change mitigation and ecosystem health, aligning with the ecosystem-based adaptation and low-emission development goals outlined in the LEDS.

7.2.3 Ecosystem-based adaptation

Ecosystem-based adaptation is a core strategy in Fiji's NAP (2018), which defines three operational pillars: integrated management of land, water, and living resources; socio-ecological planning that recognizes

people-nature interdependence; and ecosystem restoration to reduce vulnerability and enhance biodiversity (p. 36–37). Specific NAP outlines measures for community-led restoration of degraded watersheds, riparian areas, and coastal zones (p. 88). The NDC (2020) complements this by promoting climate-smart agricultural practices in crop, livestock, and sugarcane farming (p. 4).

NC-3 highlights that protecting coastal ecosystems—such as mangroves, seagrasses, and coral reefs—serves both ecological and climate resilience functions by preserving fish habitats and buffering storm impacts (p. 6).

NC-3 references several ongoing projects aiming to promote ecosystem-based adaptation:

- The Pacific Ecosystem-Based Adaptation to Climate Change (PEBACC) project consist of ecosystem and socio-economic resilience analysis of Fiji, as well as specific projects in Taveuni and Macuata Provinces.
- Restoration of Ecosystem Services against Climate Change (RESCUE) aims to support adaptation through the development and implementation of Integrated Coastal Management plan in the in the Kadavu and Ra Province. The project also includes activities for restoring and protecting mangroves, promoting sustainable agroforestry models and defining protected areas in watercourses.
- Reforestation of the Degraded Foothills of the Sugar Belt (REFOREST) project focuses on improving watershed management

7.2.4 Assessing climate impacts on biodiversity

Vulnerability assessment

The NDC (2020) acknowledges that climate change is driving the degradation of key ecosystems, including coral reefs, coasts, and catchments (p. 17). The NDC refers to the 2017 Climate Vulnerability Assessment that includes 125 interventions across key areas such as ecosystem conservation (p. 17). Building on this, Fiji proposes to develop an Integrated Vulnerability and Adaptation Assessment to improve environmental planning and decision-making (NC-3, 2020; p. 136).

Identification and monitoring of vulnerable species

The NAP (2019) includes a measure to identify and map climate-vulnerable species and their habitats, establish a monitoring system for climate vulnerable species, and control invasive species (p. 88).

7.2.5 Reducing impacts of climate change on biodiversity

Integrating ecosystem services into planning

NC-3 further emphasizes the importance of mapping ecosystem services and conducting species vulnerability assessments to inform climate adaptation planning and prioritize conservation actions (p. 86).

7.2.6 Reducing biodiversity impacts of climate measures

Environmental impact assessment

The NAP (2018) complements this by introducing specific measures to better assess and manage the impacts of climate change on biodiversity. These include strengthening the enforcement and planning of the environmental impact assessment process (p. 87)

7.2.7 Human rights

Fiji's climate documents reflect human rights principles through inclusive governance, participation of local and Indigenous communities, and the recognition of traditional knowledge.

Local Communities and Indigenous Peoples

The NDC (2020) highlights engagement with local communities and Indigenous Peoples in a gender-responsive manner as part of institutional climate planning (p. 7), and commits to strengthening local governments to make informed decisions about natural resources (p. 19).

Traditional Knowledge

Fiji pledges to imbibe traditional values of living within nature's limits into development and conservation efforts (NDC, 2020; p. 20). The NAP promotes the incorporation of traditional knowledge and participation of local and Indigenous communities in planning and implementation (p. 5, 38). NC-3 (2020) proposes sharing and documenting traditional knowledge for conservation as a technology to improve environmental management (p. 136).

Rights-Based Approach

A rights-based approach is a foundational value in the NAP, guiding inclusive and equitable adaptation planning (p. 5, 38).

7.2.8 NIPs

The NAP is explicitly identified as a complementary framework to support the implementation of Fiji's NBSAP and its biodiversity targets (p. 37, 87). Similarly, the NC-3 (2020) highlights the growing influence of climate change as a driver of biodiversity loss and references the NBSAP as a relevant policy framework (p. 14).

7.2.9 Tools and guidelines

The NAP (2018) states that several tools and resources are available to support the integration of ecosystem-based approaches into development planning. These include national and international references such as UNEP' guidance on "*Options for Ecosystem-based Adaptation (EBA) in Coastal Environments: A Guide for environmental managers and planners.*"

7.2.10 Monitoring and knowledge generation

Ecosystem monitoring

The NAP includes measures to strengthen the monitoring and management of coastal ecosystems, including assessments of natural coastal defenses and ecosystem services to support long-term adaptation (p. 88). NC-3 (2020) emphasizes the need to enhance biodiversity monitoring to address pressures from coastal development and climate change (p. 86), highlighting the importance of improved data and inter-institutional coordination for informed decision-making.

Valuation

The NAP also proposes the integration of green and blue accounting and ecosystem valuation into GDP and budget processes by 2020, promoting the inclusion of environmental values in economic planning (p. 87).

7.2.11 Education and awareness raising

NC-3 identifies “education and awareness programs on the management of ecosystems” as a measure to improve Fiji’s environment (p. 136). More specifically, the NAP promotes expanding tree-planting campaigns, including mangrove planting, as part of school curricula and community awareness programs (p. 88).

7.2.12 Cooperation and coordination

The NAP assigns coordination responsibility to the Ministry of Economy, working in close collaboration with environment-related ministries to ensure coherence between biodiversity and climate adaptation (p. 6). More specific committees include the National REDD+ Steering Committee, which is a multi-sectoral body tasked with reviewing and approving REDD+ activities, incorporating stakeholders from key sectors related to land use and ecosystem governance (NC-3, 2020; p. 113).

7.2.13 Governance

Fiji’s NDC (2020) commits to developing robust legislation to protect and conserve vulnerable species and ecosystems (p. 20). Moreover, the NAP includes measures to strengthen environmental legislation and institutional frameworks, particularly through enhanced enforcement of the Environment Management Act and planning procedures (p. 87).

7.2.14 Science-policy interface

While not using the term explicitly, NC-3 (2020) reflects the science-policy interface through its reliance on data from the Climate Vulnerability Assessment and environmental monitoring systems to inform national adaptation strategies. It highlights that mapping and prioritization of ecosystem services and climate-vulnerable species is essential for informed decision-making and integrated planning (p. 86).

7.2.15 Gender

Gender and human rights-based approaches are promoted as core values in the NAP (p. 38), which advocates for equitable benefits from biodiversity and climate actions across social groups.

7.3 Tonga

Tonga is a small island developing state in the South Pacific comprising 171 islands, of which only 37 are inhabited. The country has a total land area of 750 km² and an Exclusive Economic Zone (EEZ) covering approximately 700,000 km². Its geography spans low-lying coral atolls and volcanic islands, supporting a diverse range of ecosystems including tropical forests, coastal wetlands, coral reefs, and mangroves. These ecosystems sustain high levels of biodiversity and provide essential services such as coastal protection, food security, and livelihoods. However, Tonga's biodiversity is increasingly threatened by the impacts of climate change. Rising sea levels, ocean warming, acidification, and the intensification of tropical cyclones are accelerating the degradation and fragmentation of habitats, particularly in coastal and marine areas. These climate-driven changes place growing pressure on Tonga's natural resources, undermining critical sectors such as fisheries, agriculture, water supply and tourism. In response, Tonga is working to better integrate biodiversity conservation and ecosystem-based approaches into its national climate strategies. This case study draws on Tonga's Second Nationally Determined Contribution (2020) and Third National Communication (2020).

7.3.1 Targets for integrated action

Tonga's NDC-2 (2020) does not explicitly mention any Aichi biodiversity Targets, but outlines the following biodiversity-relevant targets:

- Utilize 30% of the country's land for agroforestry or forestry by 2025 (p. 9) to be achieved, inter alia, by plant one million trees by 2023 (p. 5).
- Expand MPAs and Special Management Areas (SMAs) to cover 30% of Tonga's Exclusive Economic Zone (EEZ), with the aim of maintaining existing fish and marine species stocks (p. 9)

In comparison, Tonga's first NDC (2015) provided more extensive attention to biodiversity, with goals such as halting deforestation and degradation of indigenous forests, maintaining protected areas, promoting reforestation using ecologically appropriate species, and supporting integrated agroforestry.

7.3.2 Ecosystem-based approaches for mitigation

Forestry

The NDC-2 highlights the role of increasing the role of forestry or agroforestry. This is supported with a plan to plant one million trees, but the species to be used remain unspecified, and there is no stated preference for native species.

Agriculture

NC-3 (2020) supports agroforestry and notes that traditional farming systems are being replaced by export-oriented monocultures (p. 69). The lack of organic agriculture standards is an added challenge from a biodiversity perspective (p. 172).

Restoration

Restoration initiatives in NC-3 include plans for replanting native species and removing invasive weeds in areas such as Toloa Rainforest and Mt. Talau (p. 159).

Conservation

NC-3 (2010) recommends protecting natural forests through improved silviculture and land-use planning (pp. 69, 74).

7.3.3 Ecosystem-based adaptation

Marine and coastal ecosystems

The goal to expand MPAs and SMAs to 30% of the EEZ is expected to support both adaptation and mitigation outcomes (NDC-2, 2020, p. 24).

ICZM

NC-3 (2020) highlights the role of ICZM to address challenges caused by climate change, including restoring and protecting wetlands (p. 110). In setting an ICZM system there need to be legal and institutional framework in place for it to be enforced and work.

MPAs

Given increasing climate threats to marine ecosystems, NC-3 proposes further development of MPAs and SMAs (p. 157).

7.3.4 Assessing climate impacts on biodiversity

Vulnerability assessment

NC-3 finds that the impacts of climate change on biodiversity in Tonga are not well understood (p. 189). It highlights ocean acidification, sea-level rise, and cyclones as key threats to coral reefs, mangroves, and seagrasses (pp. 87, 96). Other concerns include ocean stratification and expanding dead zones (p. 156).

Genetic resources

NC-3 warns of genetic erosion in crops and livestock, which could heighten vulnerability to climate change (p. 89). A project implemented in 2011–2012 aimed to preserve traditional root crop varieties (p. 92).

7.3.5 Reducing impacts of climate change on biodiversity

NC-3 (2020) stresses the importance of integrating climate concerns into biodiversity policies and actions (p. 189) for reducing impacts of climate change on biodiversity. Priority areas include the effects of climate change on inshore and pelagic fisheries, commercially important species, and distinguishing between climatic and non-climatic pressures.

7.3.6 Reducing biodiversity impacts of climate measures

Environmental impact assessment

While Tonga's 2003 EIA Act requires major projects to undergo environmental assessments, an NC-3 example shows shortcomings in implementation. A coastal adaptation project passed EIA review but later caused habitat destruction, affecting bivalves, shrimp, seagrasses, and a nearby reef (p. 106).

7.3.7 Human rights

The reviewed documents, including NC-3 and NDC-2, do not explicitly reference human rights in the context of biodiversity or climate policy.

7.3.8 Tools and guidelines

Geospatial Information Systems (GIS)

NC-3 (2020) highlights the use of GIS for monitoring changes in vegetation cover in specific areas (p. 189). This involves conducting field visits, collecting data on past mangrove replanting efforts (p. 158), and reviewing previous work to support analysis and mapping using GIS tools.

7.3.9 NIPs

NC-3 underscores the need to align actions with Tonga's NBSAP, including donor engagement for implementation (p. 158). In contrast, NDC-2 emphasizes alignment with national policies and strategies but does not reference the NBSAP (p. 19).

7.3.10 Monitoring and knowledge generation

Monitoring

NC-3 highlights the importance of monitoring ecosystems and their capacity to buffer climate change (p. 129). However, limited GIS capacity and the absence of adequate systems for monitoring and mapping coastal and marine habitats, particularly seaweed beds, hinders informed decision-making and adaptive management.

7.3.11 Education and awareness raising

Outreach programme for conservation issues

The outreach programme on conservation issues includes activities such as producing public awareness materials, conducting community consultations and school visits, and organizing training sessions and awareness campaigns (NC-3, 2020, p. 158).

Mangrove documentary

Proposed activities include securing funding for the production of a mangrove documentary, conducting field visits, and collecting data and footage for the film (NC-3, 2020, p. 158).

7.3.12 Cooperation and coordination

NC-3 (2020) identifies the need for closer communication and cooperation of ministries working independently of each other (p. 183).

7.3.13 Governance

Tonga does not have legislations specific for biodiversity conservation, however there are biodiversity related legislations, regulations, policies and plans that are implemented by various government sectors (NC3, 2020, p. 13). NC-3 (2020) highlights that biodiversity governance in Tonga is fragmented across multiple sectors, with overlapping mandates, weak coordination, and limited institutional capacity (p. 189). These challenges have led to inadequate management of both marine and terrestrial protected areas, contributing to deforestation and forest degradation, despite some recent conservation progress (p. 130).

7.3.14 Science-policy interface

The reviewed documents do not refer to a science-policy interface for promoting integrated action across the biodiversity and climate agendas.

7.3.15 Gender

Gender dimensions of biodiversity are addressed in NC-3 through the lens of climate vulnerability and adaptation.

7.4 Vanuatu

Vanuatu is an archipelagic nation in the South Pacific consisting of 83 islands, with a total land area of 12,190 km² and an Exclusive Economic Zone (EEZ) of over 680,000 km². It is home to a rich diversity of terrestrial and marine ecosystems, including tropical rainforests, coral reefs, mangroves, and seagrass beds. The country hosts over 1,000 species of vascular plants, of which around 150 are endemic, and supports 121 bird species, 28 reptiles, and a large variety of marine invertebrates including more than 4,000 species of molluscs. However, Vanuatu's biodiversity is under increasing pressure from climate impacts, including rising temperatures, shifting rainfall patterns, sea-level rise, ocean acidification, and the increasing frequency of tropical cyclones. Vanuatu's greenhouse gas inventory indicates that while the country remains carbon negative due to forest carbon sinks, it remains highly vulnerable to climate-induced biodiversity loss. These vulnerabilities underscore the importance of integrating biodiversity conservation with climate change adaptation and mitigation strategies. This case study draws on Vanuatu's NDC-2 Update (2022), Third National Communication (2021), First Biennial Update Report (2021), and Biennial Transparency Report (2025).

7.4.1 Targets for integrated action

Vanuatu's NDC-2 update (2022) refers to Aichi Biodiversity Target 11 by outlining a target to "conserve at least 17% of important biodiversity areas, at least 30% of natural forest, at least 10% of wetland areas, and 10% of marine areas through effective community and government management measures by 2030" (p. 16). Other references to Aichi Biodiversity Targets are absent from the assessed documents, but the NDC-2 update (2022) sets several other biodiversity-relevant targets for 2030 (p. 5 and 10), including converting pastures to silvo-pastoral livestock systems, increasing ecotourism supported by local communities and ensuring 40 integrated coastal management plans are developed and implemented.

7.4.2 Ecosystem-based approaches for mitigation

Restoration

Forest landscape restoration is identified as a key strategy for combating deforestation and enhancing carbon sequestration (BTR-1, 2025, p. 184).

Forests

Forest-related commitments are prominently featured across Vanuatu's climate policy documents. Forests are firmly recognized for their dual role in supporting climate change adaptation and delivering mitigation co-benefits. Agroforestry is already promoted through the Vanuatu Forest Policy (2013–2023), aiming to improve food security (NC-3, 2021, p. 132). BUR-1 (2021) emphasizes the need for developing a national REDD+ initiative to support emissions reductions in the land-use sector (p. 81). Further commitments outlined in NDC-2 update (2022) include conserving mangrove forests, wetlands, and shoreline trees; implementing sustainable forest management to reduce degradation and emissions; supporting community-based afforestation efforts; and mobilizing funding for forest landscape restoration (p. 11).

Invasive alien species

BTR-1 (2025) identifies the management of forest areas affected by invasive alien species as a national priority and outlines strategies to restore their ecological integrity and resilience (pp. 167).

7.4.3 Ecosystem-based adaptation

Nature-based solutions

Nature-based solutions play an important role in Vanuatu in addressing climate adaptation by integrating ecological health and human well-being (BTR-1, 2025, p. 184). The BTR-1 (2025) emphasizes prioritizing nature-based interventions, such as revegetation, over hard infrastructure (p. 139), and aligning adaptation with the protection of carbon sinks, heritage sites, and traditional taboos (p. 167).

Conservation-oriented adaption

Vanuatu commits to advancing adaptation and risk reduction by building on and safeguarding taboos and conservation areas. A key target is the formal registration of at least 20 Community Conservation Areas by 2030 (NDC-2 update, 2022, p. 16). Additionally, efforts are being made to establish and manage buffer zones around climate-sensitive ecosystems, including enrichment planting to enhance ecological resilience (p. 11).

Oceans

Marine and coastal adaptation is a central focus in the NDC-2 update (2022), with mitigation co-benefits explicitly recognized (p. 17). The government is committed to integrating climate risk management into all levels of sustainable development and marine governance. This includes adopting national disaster prevention and response plans tailored to marine and coastal areas, implementing protection programs for vulnerable coastal communities, and conserving naturally resilient ecosystems such as coral reefs, mangroves, and coastal wetlands. Marine protected area planning is increasingly expected to account for ecological uncertainty by replicating protection efforts across different spatial zones

Adaptation measures for marine ecosystems and species

The Adaptation Plan in BTR-1 (2025, p. 174) outlines targeted actions to reduce climate-related pressures on key marine ecosystems and species:

- **Coral Reefs:** Key measures include limiting nutrient and sediment runoff, maintaining populations of algae-grazing fish, and expanding marine protected areas. The Plan also recommends identifying reefs

with high climate vulnerability, protecting less exposed reef areas as climate refugia, reducing anthropogenic pressures, and aligning marine conservation actions with climate policies.

- **Seagrasses:** The Plan promotes the conservation and management of seagrass species, recognizing their importance as providers of critical ecosystem services. It supports initiatives such as the Dugong and Seagrass Conservation Project and emphasizes the need to strengthen risk assessments and integrate them into planning processes.
- **Sea Turtles:** In response to the temperature-dependent sex determination of sea turtle hatchlings, the Plan proposes protecting male-producing nesting areas. It also recommends interventions such as shading, vegetation planting, or water sprinkling to reduce sand temperatures and, where necessary, relocating nests to safer sites.

Key Initiatives and projects

On-the-ground initiatives include mangrove rehabilitation to mitigate erosion and storm surge impacts, agroforestry systems that support soil health and food security, and the creation of Educational Managed Marine Areas (EMMAs) to safeguard marine biodiversity and ensure the sustainability of fisheries (BTR-1, 2025, p. 184).

Current projects include a regional initiative on strengthening coastal biodiversity conservation, which to map and assess the carbon storage potential and ecosystem services of seagrass and mangrove ecosystems across four partner countries (BTR-1, 2025, p. 181).

Past projects include the RESCCUE (Restoration of Ecosystem Services and Adaptation to Climate Change) project, implemented by the Pacific Community from 2015 to 2018. The project applied integrated coastal management approaches, supported by economic analysis and financing mechanisms. In Vanuatu, RESCCUE activities focused on marine protected area networks in North Efate, particularly Tasi-Vanua and Nguna-Pele (NC-3, 2021, pp. 340–341).

7.4.4 Assessing climate impacts on biodiversity

Cost-benefit analysis

Vanuatu has committed to conducting cost-benefit analyses and related studies to better understand the dynamics of ecosystem degradation and to inform forest landscape restoration planning (NDC-2 update, 2022, p. 11).

Ecosystem-specific risk assessment

Vanuatu is working to strengthen risk assessments related to seagrasses and integrate them into planning processes (2025, p. 174). These efforts aim to better anticipate and address climate-induced pressures on coastal biodiversity.

7.4.5 Reducing impacts of climate change on biodiversity

Emerging climate threats to ecosystems

Identifying ecosystem-specific threats is important for mitigating impacts of climate change on biodiversity. The sources reviewed clearly highlight the growing risks facing Vanuatu's ecosystems. According to the BTR-1 (2025, p. 151), some climate scenarios suggest that coral reefs in the country may not only cease to grow but could begin to dissolve. Additionally, marine heatwaves are expected to become more frequent and intense, posing a serious threat, particularly to marine ecosystems in Northern Vanuatu. Coastal ecosystems are also vulnerable, with sea level rise projected to cause long-term and potentially permanent inundation (BTR-1, 2025, p. 158).

7.4.6 Reducing biodiversity impacts of climate measures

Environmental impact assessment

Under the Environmental Protection and Conservation Act (2002), all environmental projects in Vanuatu must undergo environmental impact assessment before implementation, providing a legal safeguard for ecosystems (BTR-1, 2025, p. 149). To strengthen this framework, Vanuatu aims to ensure that 90% of development projects comply with EIA requirements by 2030 (NDC-2 update, 2022, p. 16).

Geoengineering

None of the national climate documents make reference to geoengineering, ocean fertilization, or other high-risk mitigation measures with potential biodiversity trade-offs

7.4.7 Human rights

Vanuatu emphasizes the importance of preserving and enhancing cultural and traditional knowledge as part of its climate and biodiversity strategies. This includes promoting locally appropriate adaptation and resilience practices that support the cultural integrity and well-being of communities facing climate impacts (NDC-2 update, 2022, p. 25).

Central to Vanuatu's approach to nature-based solutions is the integration of traditional ecological knowledge. By grounding interventions in culturally embedded practices, these solutions are more likely to be sustainable, community-driven, and aligned with long-standing relationships between people and ecosystems (BTR-1, 2025, p. 184).

7.4.8 Tools and guidelines

None of the reviewed climate policy documents describe concrete tools, guidance frameworks, or technical protocols for mainstreaming biodiversity into planning or adaptation processes

7.4.9 NIPs

The NDC-2 update (2022) refers to Vanuatu's National Biodiversity Strategy and Action Plan (NBSAP) in its commitment to identifying innovative and sustainable financing mechanisms to support the establishment and management of ecosystem-based climate adaptation. Proposed mechanisms include a green tax, tax benefit systems, the creation of trusts or endowment funds, and payment for ecosystem services (p. 33).

7.2.10 Monitoring and knowledge generation

Monitoring

Vanuatu has established a National Forest Monitoring System, which serves as the Measurement, Reporting and Verification (MRV) system for REDD+ (BTR-1, 2025, p. 112). Additional ecosystem- and species-specific monitoring activities are outlined in the Adaptation Plan of BTR-1 (2025, p. 174), including measures for long-term seagrass monitoring and sand temperature monitoring at turtle nesting sites as indicators of climate impacts. However, potential monitoring gaps remain. For example, NC-3 (2021) notes that no data or detailed information is currently available on mangrove plantations or their extent (p. 86).

Valuation

The sources reviewed recognize the importance of quantifying the value and benefits of ecosystem services for resilience and integrating this information into national planning and budgeting processes. As part of this effort, the NDC-2 update (2022, p. 16) notes the inclusion of ecosystem service-related questions in national surveys. BTR-1 (2025, p. 167) further emphasizes the need to integrate **ecosystem service valuation** into adaptation finance and planning frameworks.

Knowledge generation

Specific research activities outlined in sources reviewed include supporting seagrass-related research and the use of models to predict sand temperature changes and resulting gender ratios in sea turtle populations and BTR-1 (2025, p. 174)

Past projects relevant to knowledge generation include the Natural Solutions to Climate Change in the Pacific Islands Region – Implementing Ecosystem-based Adaptation (PEBAC) project, implemented by SPREP from 2014 to 2019. The project was carried out in three Pacific Island countries (Vanuatu, Fiji, and Solomon Islands) with the aim of providing replicable models for other countries in the region (NC-3, 2021, pp. 136, 140). In Vanuatu, project activities included ecosystem and socio-economic resilience assessments and mapping in Port Vila and Tanna; implementation of an urban forestry project in Port Vila involving riparian restoration and community-based nursery development; and the delivery of EIA training for key development agencies.

7.4.11 Education and awareness raising

Vanuatu has committed to developing advocacy and educational programmes around the value of ecosystem-based adaptation. As part of this effort, the NDC-2 update (2022, p. 16) sets a target to establish at least one model school in each province implementing environmental resilience programmes by 2030.

7.4.12 Cooperation and coordination

Vanuatu has committed to hold regular meetings or REDD+ programmes with officials from across government departments, NGOs and private sector, including training and workshops to raise the capacity of relevant stakeholders (NDC-2 update, 2022, p. 11).

7.4.13 Governance

Vanuatu has committed to prioritizing development actions that minimize threats and incorporates climate solutions from the ‘ridge to the reef’ of island communities, by strengthening local authorities and municipal planning authorities to enact and enforce land use planning laws and regulations (NIP-2 update, 2022, p. 16) The BTR-1 (2025) further highlights the need to align climate actions with existing policies like the Land Use Planning Policy and National Environment Policy (p. 167).

7.4.14 Science-policy interface

Actions are being taken to collect, record, and incorporate traditional knowledge into planning processes, while respecting appropriate cultural protocols. According to BTR-1 (2025, p. 184), traditional knowledge will be made accessible to decision-makers through databases and training, with consideration for intellectual property rights, and will also be integrated into both formal and informal education curricula.

7.4.15 Gender

The ongoing project “Restoring and Protecting Biodiversity, Coastal Landscapes, and Climate Change Resilience through Nature-Based Solutions, Women and Youth Entrepreneurship in Vanuatu” aims to enhance climate resilience, food security, and livelihoods in coastal communities through community-led nature-based solutions. Prioritizing women and youth, the project targets 22,500 beneficiaries across 5,000 households (BTR-1, 2025, p. 181).

Despite this promising initiative, none of the reviewed national climate documents explicitly address the gender-differentiated impacts of biodiversity loss or ecosystem degradation. While Vanuatu’s BUR-1 (2021) notes that “more women than men (49% versus 41%) are involved in the subsistence economy” (p. 14), the link between gender and biodiversity-related vulnerability remains largely unrecognized in policy frameworks and adaptation targets.

Conclusions

Policy cycle obligations

This review of policy cycle obligations reveals several important findings:

1. Aligning NIP development

The submission timelines for NBSAPs (by end 2025), NAPs (expected by end 2025), and 3rd NDCs (due in early 2025) provide a critical window to align national goals, actions, and co-benefits for biodiversity and climate. Realizing this opportunity requires coordinated institutional mechanisms, inclusive stakeholder processes, and shared science-policy inputs. At the national level, countries can coordinate the development of integrated activities using the playbook and checklist that identifies 15 themes as a flexible framework for advancing the integrated action on stemming biodiversity loss and climate change.

2. Advancing integrated implementation

Nature-based solutions and ecosystem-based approaches offer common ground across MEAs, notably through CBF Targets 8 and 11, as well as UNFCCC and Paris Agreement decisions from Glasgow and Sharm el-Sheikh. Parties should cross-reference NBSAPs in their NDCs/NAPs and vice versa. However, implementation tools and guidelines must continue evolving to capture the full range of biodiversity-climate interlinkages, noting that while ecosystem-based adaptation has gained traction, mitigation linkages remain underdeveloped, including mitigating decarbonization impacts. CMS has pioneered guidance to protect migratory species from renewable energy impacts, which could be adapted to the CBD context to broaden the scope of climate action. Another useful lesson comes from the Ramsar Convention, which has adopted decisions recognizing the role of wetlands in the climate context—an approach that could be adapted to other ecosystems as well. Joint technical guidance across MEAs on biodiversity safeguards for climate action is a critical next step (e.g., renewable energy impacts, ecosystem restoration standards).

3. Strengthening reporting synergies

Reporting frameworks are not yet aligned, but progress is possible. While the CBD has detailed indicators to capture climate linkages under the KM-GBF Monitoring Framework, the Paris Agreement reporting guidelines (e.g. BTRs and NCs) allow only optional biodiversity-related reporting. The first review of the Modalities, Procedures, and Guidelines (MPGs) by 2028 offers a chance to advocate for greater integration, including advocating for biodiversity-related indicators to be optionally included in BTRs. In the meantime, Parties can already take advantage of tools such as DaRT that has been endorsed by the CBD COP, offering promising pathways for harmonizing MEA reporting efforts.

4. Leveraging review cycles

Although the CBD and Paris Agreement review timelines differ, they can still inform one another. The 2nd Global Stocktake (2028) falls between the 1st and 2nd global reviews of the CBD. Outputs from the 2026 CBD global review, especially on climate-relevant targets, should feed into the Global Stocktake of the Paris Agreement. Joint dialogues or technical exchanges between MEA secretariats would help promote mutual learning and alignment.

Quantitative analysis

The quantitative content analysis of NIPs and national reports submitted by 14 Pacific Island States under the CBD, UNFCCC and Paris Agreement reveals that keyword tracking can help assess extent of integration of climate and biodiversity goals across the MEAs. However, a deeper examination of the convention texts and COP decisions shows that ecosystems have been central to both regimes from the outset, as illustrated below:

- The **UNFCCC** urges Parties to promote sustainable management and to cooperate in the conservation and enhancement of biomass, forests, oceans, and other terrestrial, coastal, and marine ecosystems. It gives particular attention to forestry and agriculture in controlling greenhouse gas emissions. Notably, sustainable forest management was incorporated into the **Kyoto Protocol** (1997), signaling a genuine attempt to integrate forest management into climate policy. The **Paris Agreement** builds on this by explicitly referring to the integrity of all ecosystems, including oceans, and the protection of biodiversity.
- In contrast, the **CBD** refers to ecosystems in broader terms, refereeing to “all ecosystems” without detailing specific sectors. This more general framing has led to the development of thematic programmes of work within the CBD to address key sectors such as forests, oceans, and agriculture—many of which overlap with those prioritized under the UNFCCC.

This partial thematic overlap created challenges in clearly attributing keywords to either regime. However, increasing the **granularity of analysis**, for example, distinguishing between general terms like “agriculture” and more specific ones like “agrobiodiversity,” revealed that although agriculture is frequently referenced in both regimes, it is rarely addressed in biodiversity-specific terms in UNFCCC and Paris Agreement documents.

Genuinely shared keywords or concepts rooted in both regimes are rare. “**Nature-based solutions**” stands out as a notable exception: conceptualized outside the MEA frameworks, it has since been adopted by both the CBD and UNFCCC. “**Blue carbon**”, another promising concept developed under UNEP and partner initiatives, has yet to be formally endorsed by either convention.

Despite some common themes, the analysis finds that cross-fertilization between the two regimes has remained limited, reflecting missed opportunities for more integrated action on biodiversity and climate. To bridge this gap, MEAs are encouraged to develop their own dedicated **programmes of work on biodiversity and climate change**, as exemplified by the CMS’s programme on migratory species. This need is particularly pressing for the UNFCCC and Paris Agreement, which have yet to conceptualize biodiversity–climate interlinkages in a structured manner. In contrast, the CBD has developed such linkages over the past two decades through a series of targeted decisions and guidelines.

More ambitiously, enhanced efficiency and coherence could be achieved through joint or coordinated work programmes on biodiversity and climate change involving multiple MEAs, in particular the CBD and the UNFCCC and Paris Agreement. Moving beyond siloed approaches is essential to operationalize concepts such as nature-based solutions. A thematic approach, focusing on oceans, forests and agriculture, would align with the priorities of both regimes and could yield significant co-benefits. Conservation and restoration also offer promising pathways for collaborative action.

Case studies

The four cases studies conducted complemented the quantitative content analysis with qualitative data. Overall, the case studies reveal four key trends:

1. **A moderate level of biodiversity integration** is observed across climate policy documents in Pacific Island States. However, integration remains unsystematic, likely due to the relatively recent recognition of biodiversity and nature-based solutions within the UNFCCC and Paris Agreement processes, as well as the absence of specific reporting guidance on this topic.
2. **Biodiversity is more frequently integrated directly into adaptation strategies, whereas its role in mitigation is often indirect, typically through approaches like agroforestry.** This reflects both the limited global mitigation footprint of 14 Pacific Island States and the heightened vulnerability these countries face from climate impacts, which makes adaptation a priority.
 - Mitigation is commonly cited as the primary objective for measures in the Agriculture, Forestry, and Other Land Use sector, while adaptation is more often the focus of measures in marine and coastal areas, including mangrove protection.
 - The role of blue carbon remains underacknowledged or absent, particularly there is little if any acknowledgment of the contribution of seagrasses.
 - While conservation and restoration efforts were often attributed to adaptation, there is little if any emphasis on increasing connectivity between ecosystems.
 - The link of afforestation and reforestation measures to biodiversity is not always clear, but the use of local species and traditional measures is often emphasized.
3. **Biodiversity considerations are emphasized in different ways across countries:** some, like Fiji, highlight them in their NDCs and NAPs, while others, such as Tonga, Samoa, and Vanuatu, emphasize them more in national reports. Although the templates for NIPs and national reports are flexible enough to include biodiversity aspects, the absence of specific placeholders hinders comparability and requires each country to independently determine suitable entry point
4. **Biodiversity-related targets and measures are often presented in aspirational terms,** particularly in NDCs and NAPs that outline forward-looking goals. A similar trend is noted in national reports, albeit to a lesser extent. This may result from targets and measures being conditional on external financial support. This may also reflect the relatively recent incorporation of nature-based solutions and biodiversity into climate policy discourse.
5. **Measures on assessing climate impacts on biodiversity** commonly include vulnerability assessments, which have identified key threats to biodiversity, such as coral bleaching, ocean acidification sea-level rise.
6. **Measures to reduce the biodiversity impacts of climate actions** are promoted only indirectly, primarily through environmental impact assessments of climate-related projects. This limited attention may stem from a lack of awareness, guidance, or prioritization in national planning. Energy-related measures (e.g. hydro and solar power) present missed opportunities to better acknowledge and mitigate biodiversity impacts.
7. **Measures to reduce climate impacts on biodiversity** are scarce.
8. **The science-policy interface** is weakly referenced across the case studies, although other cross-cutting issues receive moderate attention in most of the analyzed countries.

Annex 1. Status of NIP development and reporting for Pacific Island States

Table A. Status of NIPs development under the CBD, UNFCCC and Paris Agreement for Pacific Island States.

Country	NBSAPs	NDCs	NAPs
Cook Islands	NBSAP-1 (2002)	NDC-1 (2016)	
The Federal State of Micronesia	NBSAP -2 (2018-2023) NBSAP-1 (2002)	NDC-2 (2022) NDC-1 (2016)	
Fiji	NBSAP-2 (2020-2025) NBSAP-1 (2006)	NDC-2 (2020) NDC-1 (2016)	NAP-1 (2018)
Kiribati	NBSAP-2 (2016-2020) NBSAP-1 (2006)	NDC-2 (2022) NDC-1 (2016)	
Nauru	NBSAP-1 (2010)	NDC-2 (2021) NDC-1 (2016)	
Niue	NBSAP-2 (2015) NBSAP-1 (2001)	NDC-1 (2016)	
Palau	NBSAP-2 (2015-2025) NBSAP-1 (2008)	NDC-1 (2016)	
Papua New Guinea	NBSAP-2 (2019-2024) NBSAP-1 (2007)	NDC-2 (2020) NDC-1 (2016)	NAP-1 (2023)
Marshall Islands	NBSAP-1 (2000)	NDC-3 (2025) NDC-2 update (2020) NDC-2 (2018) NDC-1 (2016)	NAP-1 (2023)
Samoa	NBSAP-2 (2015-2020) NBSAP-2 (1998)	NDC-2 (2021) NDC-1 (2016)	
Solomon Islands	NBSAP-2 (2016-2020) NBSAP-1 (2009)	NDC-2 (2021) NDC-1 (2016)	
Tonga	NBSAP-2 (2022) NBSAP-1 (2006)	NDC-2 (2020) NDC-1 (2016)	NAP-1 (2018)
Tuvalu	NBSAP-1 (2012-2016)	NDC-2 (2022) NDC-1 (2016)	
Vanuatu	NBSAP-2 (2018-2030) NBSAP-1 (1998)	NDC-2 update (2022) NDC-2 (2021) NDC-1 (2016)	

Table B. Status of national reporting under the CBD, UNFCCC and Paris Agreement for Pacific Island States.

Country	CBD national reports (NRs)	UNFCCC National communications (NCs)	UNFCCC/PA Biennial Update Reports (BURs)	UNFCCC/PA National Inventory Reports (NIRs)	PA Biennial Transparency Reports (BTRs)
Cook Islands	NR-5 NR-4	NC-3 (2020) NC-2 (2012) NC-1 (1999)			
The Federal State of Micronesia	NR-6 NR-5 NR-4 NR-2 NR-1	NC-3 (2023) NC-2 (2015) NC-1 (1997)	BUR-1 (2023)		
Fiji	NR-6 NR-5	NC-3 (2020) NC-2 (2014)		NIR (2024)	

	• NR-4 • NR-2	• NC-1 (2006)			
Kiribati	• NR-6 • NR-5 • NR-4 • NR-2	• NC-2 (2013) • NC-1 (1999)			
Nauru	• NR-6 • NR-5	• NC-2 (2015) • NC-1 (1999)			
Niue	• NR-6 • NR-5 • NR-4 • NR-3 • NR-2 • NR-1	• NC-2 (2016) • NC-1 (2001)			
Palau	• NR-5 • NR-3	• NC-2 (2013) • NC-1 (2002)			
Papua New Guinea	• NR-6 • NR-5 • NR-4	• NC-2 (2015) • NC-1 (2002)	• BUR-1 (2019) • BUR-2 (2022)	• NIR (2022)	
Marshall Islands	• NR-6 • NR-5 • NR-2 • NR-1	• NC-2 (2015) • NC-1 (2000)			
Samoa	• NR-6 • NR-5 • NR-4 • NR-3 • NR-2 • NR-1	• NC-2 (2010) • NC-1 (1999)	• BUR-1 (2024)		
Solomon Islands	• NR-6 • NR-5 • NR-4 • NR-3 • NR-2	• NC-3 (2024) • NC-2 (2017) • NC-1 (2004)			
Tonga	• NR-6 • NR-5 • NR-4 • NR-1	• NC-3 (2020) • NC-2 (2012) • NC-1 (2005)			
Tuvalu	• NR-6 • NR-5 • NR-4	• NC-1 (1999) • NC-2 (2015)			
Vanuatu	• NR-6 • NR-5 • NR-3 • NR-2 • NR-1	• NC-3 (2021) • NC-2 (2016) • NC-1 (1999)	• BUR-1 (2021)		• BTR-1 (2025)

Annex 2. Key measures for integrated climate and biodiversity action

Table C. Key measures for integrated climate and biodiversity action found convention texts and decisions.⁷³

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
1) Targets	Decision 15/4 (2022): - Target 8 calls on Parties to “Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solutions and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity” - Target 11 calls to “Restore, maintain and enhance nature’s contributions to people, including ecosystem functions and services, such as regulation of air, water, and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.”			Resolution 14.1 (2024): Target 3.4 calls on Parties to ensure that “By 2032, the impact of climate change on migratory species and their habitats is reduced through mitigation and adaptation, including through nature-based solutions and/or ecosystem-based approaches and disaster risk reduction actions, while minimizing negative and fostering positive impacts on biodiversity.”	
2) Ecosystem-based approaches (for mitigation)	Decisions 14/5 (2018) - Promote ecosystem restoration and sustainable management post-restoration (para 4c). Decision XIII/4 (2016): - Emphasize the importance of marine protected areas, inland waters protected areas, coastal resource management and marine spatial planning in protecting and building the resilience of marine and coastal ecosystems, communities and infrastructure against the impacts of climate change (para 5) - Consider potential multiple benefits and trade-offs in the development and implementation of ecosystem-based approaches to climate change	Decision 1/CMA.5 (2023): Conserve, protect and restore nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by conserving biodiversity, (para 33).	Resolution XIII/14 (2018): Apply ecosystem-based and integrated approaches in managing their ecosystems, consistent with the Principles and guidelines for incorporating wetland issues into Integrated Coastal Zone Management in order to ensure recognition of their values, functions and services, including their role in climate-change mitigation and adaptation (para 12 a).	Resolution 12.21 (Rev.COP14) (2024): - involve Indigenous Peoples and local communities in responding to climate change Resolution 11/26, Annex I (2014): - Use environmental sensitivity and zoning maps to inform the selection of sites for climate change mitigation projects, such as renewable energy projects. Resolution 10.19 (2011):	Resolution 4/12 (2019): - Use ecosystem-based approaches for the conservation, restoration and sustainable management of mangroves (para 1) Resolution 2/12 (2016): - Prioritize coral reef conservation and sustainable management, including through the establishment and active management of marine protected areas, as well as through other spatial

⁷³ CBD, UNFCCC and Paris agreement decisions are the primary focus, while resolutions from the Ramsar Convention, CMS and UNEA provide complementary insights for the analysis.

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	adaptation and mitigation, and disaster risk reduction (para 8c). - Develop and implement ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction that are based on available science and take into account the traditional knowledge and practices of indigenous peoples and local communities (para 8g). - Promote the wide use of ecosystem-based approaches where appropriate, including in marine and coastal and urban areas, in oases systems, and in agricultural landscapes (para 8h). - Ensure that ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction activities maximize co-benefits to people and biodiversity (para 8k). Decision XI/21 (2012): - Recognize the significant role that protected areas, restored ecosystems and other conservation measures can play in climate-change-related activities (para 6d). Decision XI/19 (2012): - Reduce emissions from deforestation and forest degradation, Conserve forest carbon stocks, sustainably manage forests, Enhance forest carbon stocks (para 1). - Reduce the risk of displacement of deforestation and forest degradation to areas of lower carbon value and higher biodiversity value, and other adverse impacts to biodiversity and to indigenous and local communities (para 14). Decision X/33 (2010): - Implement ecosystem-management activities, including (para 8n): - The protection of natural forests, natural grasslands and peatlands - The sustainable management of forests considering the use of native communities of forest species in reforestation activities - Sustainable wetland management	- Preserve and restore the ocean and coastal ecosystems and scale up ocean-based mitigation action (para 35). - Implement integrated, multi-sectoral solutions, such as land use management, sustainable agriculture, resilient food systems, nature-based solutions and ecosystem-based approaches, and protecting, conserving and restoring nature and ecosystems, including forests, mountains and other terrestrial and marine and coastal ecosystems (para 55). Decision 1/CP.27 (2022): - Protect, conserve, restore and sustainably use nature and ecosystems for effective and sustainable climate action (para 1). - Protect, conserve and restore nature and ecosystems to achieve the Paris Agreement temperature goal, including through forests and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by protecting biodiversity, while ensuring social and environmental safeguards (para 18). - Consider nature-based solutions or ecosystem-based approaches [for forests], taking into consideration UNEA resolution 5/5 (para 48). Decision 3/CP.27 (2022): - Promoting sustainable agriculture, including by strengthening the role of	- Maintain and restore coastal blue-carbon ecosystems alongside coastal infrastructure to avoid, minimize and mitigate impacts that detrimentally affect these ecosystems and lead to significant GHG emissions and reductions in ecosystem services (para 12e). Resolution XI/14 (2012): - Develop and implement policies to benefit from regulatory services provided by wetlands to the global climate system that also contribute to improving human livelihoods, eradicating poverty, and meeting biodiversity goals (para 31). Resolution XII/11 (2015): - Avoid peatland drainage, which can result in GHG emissions (para 21). Resolution X/24 (2012): - Manage wetlands wisely to increase their resilience to climate change and to use wetlands wisely to reduce the impacts of climate change (para 28). - Promote the restoration of river, lake and aquifer basins and their wetlands as an important aspect of policy related to climate change (para 30). - Reduce the degradation, promote restoration, improve management practices of peatlands and other wetland	Employ adaptive management measures and the ecosystem-based approach in addressing climate change impacts, and to monitor the effectiveness of their conservation actions (para 4).	and relevant sectoral approaches, consistent with national and international law and based on best available scientific information, with a view to enhancing climate change resilience and securing continued coral reef ecosystem services provision (para 6).

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	- Restoration of degraded wetlands and natural grasslands - Conservation of mangroves, salt marshes and seagrass beds - Sustainable agricultural practices and soil management - Assess, implement and monitor a range of sustainable activities in the agricultural sector that may result in the maintenance and potential increase of current carbon stocks and, at the same time, the conservation and sustainable use of biodiversity (para 8r). - Promote biodiversity conservation, especially with regard to soil biodiversity, while conserving and restoring organic carbon in soil and biomass, including in peatlands and other wetlands as well as in grasslands, savannahs and drylands (para 8s) - Enhance the conservation, sustainable use and restoration of marine and coastal habitats that are vulnerable to the effects of climate change or which contribute to climate-change mitigation, such as mangroves, peatlands, tidal salt-marshes, kelp forests and seagrass beds (8t)	indigenous peoples and local communities, and particularly women and youth [para 10]] Decision 1/CP.26 (2021): Conserve and restore nature and ecosystems, including forests and other terrestrial and marine ecosystems, to achieve the long-term global goal of the Convention by acting as sinks and reservoirs of greenhouse gases and protecting biodiversity (para 21). Conserve and restore ecosystems to deliver crucial services, including acting as net carbon sinks, reducing vulnerability to climate change impacts and supporting sustainable livelihoods, including for indigenous peoples and local communities (para 53).	types that are significant GHG sinks, and to encourage expansion of demonstration sites on peatland restoration and wise use management in relation to climate change mitigation and adaptation activities (para 32). Resolution VIII/3 (2002): Minimize the degradation, promote restoration and improve management practices of wetlands that are significant carbon stores or have the ability to sequester carbon (para 15).		
3) Ecosystem-based adaptation	CBD COP decision XVI/22 (2024): - Maintain ecological corridors and promote landscape connectivity for enabling species to either migrate to suitable climatic locations or adapt to new conditions (preamble) - Identify and maximize potential synergies between biodiversity and climate actions, including by prioritizing the protection, restoration and management of ecosystems and species important for the full carbon cycle and contributing to climate change adaptation (para 3b). CBD COP 14/5 (2018): - Design, implementation and monitoring of ecosystem-based approaches to climate change adaptation and disaster risk reduction, including ensuring effective participation of indigenous peoples and local communities, women, youth	Decision 1/CMA.5 (2023): - Ecosystem-based approaches, including ocean-based adaptation and resilience measures, as well as in mountain regions, can reduce a range of climate change risks and provide multiple co-benefits (para 56). UNFCCC Decision 1/CP.27 (2022) - Protect, conserve and restore water and water-related ecosystems, including river basins, aquifers and lakes, and integrate water into adaptation efforts (para 24)	Resolution XI/14 (2012): - Maintain or improve the ecological character of wetlands, including their ecosystem services, to enhance the resilience of wetlands in the face of climate-driven ecological changes, including to promote the restoration of degraded wetlands and the ability of wetlands to contribute to nature-based climate change adaptation, and minimize the release of stored carbon (para 26). Resolution VIII/3 (2002): - Manage wetlands in such a way as to increase their	Resolution 11/26, Annex I (2014): - Consider expanding protected area networks and ensure the effective protection and appropriate management of sites to maintain or to increase the resilience of vulnerable populations to extreme climate events. - Develop and/or revise environmental sensitivity and zoning maps, to include critical and important sites for migratory species, as an essential tool for sustainable land use planning and management and adaptation projects.	Resolution 1/8: - Include and improve ecosystem-based adaptation and community-based adaptation in their national policies, including those on climate change adaptation, food security and sustainable management of forests, according to their national circumstances and priorities (para 2). - Formulate and implement ecosystem-based adaptation and community-based adaptation measures, to consider in an integrated manner indigenous, local and traditional knowledge systems

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	and elders and broad stakeholder engagement (para 3). Decision XII/20 (2014): - Promote and implement ecosystem-based approaches to climate change related activities and disaster risk reduction, in both terrestrial and marine environments. Decision XI/21 (2012): - Review land-use planning with a view to enhancing ecosystem-based adaptation to climate change, such as the role of mangroves in adapting to changes in sea level (para 6f) Decision X/33 (2010): - Sustainably manage conservation and restoration of ecosystems, as part of an overall adaptation strategy that takes into account the multiple social, economic and cultural co-benefits for local communities (para 8j). - Integrate ecosystem-based approaches for adaptation into relevant strategies (para 8k).		resilience to climate change and extreme weather events (para 14). Minimize the degradation, promote restoration and improve management practices wetlands to increase the adaptive capacity of society to respond to the changes in these ecosystems due to climate change (para 15).		and practices, including, where appropriate, indigenous and local communities' holistic view of community and environment, as a major resource for adapting to climate change (para 3).
4) Assessing climate impacts on biodiversity	Decision 14/5 (2018): - Monitor and assess the impacts of climate change on biodiversity and biodiversity-based livelihoods, in particular livelihoods of indigenous peoples and local communities - Identify regions, ecosystems and components of biodiversity that are or will become vulnerable to climate change at a geographic scale and assess the current and future risks and impacts on biodiversity and biodiversity-based livelihoods (para 4a). Decision XIII/4 (2016): - Address the degradation of, loss of, and impacts on biodiversity and related social, environmental and economic impacts associated with climate change and disasters, considering the costs of inaction, and the value of investing in actions in a timely manner in order to reduce biodiversity loss and other negative impact (8a). Decision XI/21 (2012): - Strengthen inventorying and monitoring of biodiversity and ecosystem services at			Resolution 11/26, Annex I (2014): - Identify and promote a standardized methodology for evaluating species' vulnerability to climate change, and undertake climate change vulnerability assessments - Identify and carry out research on the impacts of climate change on migratory species - Identify, evaluate, prioritize and reduce the additional impacts on migratory species resulting from changes in human behavior due to climate change. Resolution 9/7 (2008): Identify which migratory species are threatened or impacted by climate change (para 2).	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	appropriate scales in order to evaluate the threats and likely impacts of climate change on biodiversity and ecosystem services (para 6e). Decision X/33 (2010): - Identify, monitor and address the impacts of climate change and ocean acidification on biodiversity and ecosystem services (para 8a). - Assess the impacts of climate change on biodiversity and biodiversity-based livelihoods (para 8b).				
5) Reducing impacts of climate change on biodiversity	Decision XVI/22 (2024) - Promote the positive, and avoid or, if not possible, minimize, the negative impacts of climate actions on biodiversity, ecosystem integrity, functions and services, including for vulnerable species, and ecosystems important for the full carbon cycle or to which damage is irreversible, in particular for indigenous peoples and local communities and relevant stakeholders that directly depend on biodiversity (para 2c). - Governments and organizations, with participation of indigenous peoples and local communities, women and youth, to take into account the existing and projected impacts of climate change and climate-related policies on biodiversity when implementing the Framework (para 5). Decision XI/21 (2012): - Take into account the importance of traditional knowledge, innovations and practices related to biodiversity when addressing the impacts of climate change in sectoral plans and strategies, especially when considering vulnerable communities (para 6a). Decision X/33 (2010): - Reduce the negative impacts from climate change, through conservation and sustainable management strategies that maintain and restore biodiversity (para 8c). - Implement activities to increase the adaptive capacity of species and the resilience of	Decision 1/CMA.5 (2023): Reduce climate impacts on ecosystems and biodiversity and accelerating the use of ecosystem-based adaptation and nature-based solutions, including through their management, enhancement, restoration and conservation and the protection of terrestrial, inland water, mountain, marine and coastal ecosystems (para 63d).	Resolution X/24 (2008): Ensure that the necessary safeguards and mechanisms are in place to maintain the ecological character of wetlands, particularly with respect to water allocations for wetland ecosystems, in the face of climate driven change (para 29).	Resolution 11/26, Annex I (2014): - Prepare species action plans for species most vulnerable to climate change - Improve the resilience of migratory species and their habitats to climate change, and ensure habitat availability - Consider ex-situ measures and assisted colonization for those migratory species most severely threatened by climate change Resolution 10.19 (2011): - Improve the resilience of migratory species and their habitats to climate change (para 6a). - Consider ex situ measures and assisted colonization for migratory species most severely threatened by climate change para 6b). Resolution 9/7 (2008): - Reduce identified threats to migratory species caused by climate change, and consider the climate impacts, as well as the positive and negative impacts of climate change activities on migratory	Resolution 6/15 (2024): Make significant efforts to tackle ocean acidification and its causes and to further study and minimize its impacts (para 2e).

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	ecosystems in the face of climate change (para 8d). - Consider primarily in situ conservation actions, but also ex situ measures, such as relocation, assisted migration and captive breeding (para 8e). - Develop a strategy for biodiversity conservation and sustainable use, including landscape and seascape management in those areas that are becoming accessible to new uses as a consequence of climate change (para 8f). - Take measures for species that are vulnerable to climate change, including migratory species; and to maintain genetic diversity in the face of climate change (para 8g). - Undertake awareness-raising and capacity-building strategies on the key role of biodiversity conservation and sustainable use as a mechanism for climate-change mitigation and adaptation (para 8h).			species, in domestic land use and development planning (para 3). Design and implement adaptation strategies for migratory species threatened by climate change (para 4).	
6) Reducing biodiversity impacts of climate measures	Decision 14/5 (2018): - Enhance the positive and minimize the negative impacts of climate change mitigation and adaptation activities on ecosystem functions and services, biodiversity and biodiversity-based livelihood (para 4e). Decision XIII (2016): - Consider the status of biodiversity and its vulnerability to current and future climate change impacts when planning and implementing ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction activities, and to minimize and, where possible, avoid activities that may increase the vulnerability and reduce the resilience of biodiversity and ecosystems (para 8b). Decision XI/21 (2012) - Strengthen inventorying and monitoring of biodiversity and ecosystem services at appropriate scales in order to evaluate negative impacts of climate-change mitigation and		Resolution VIII/3 (2002): Ensure that implementation of the UNFCCC and the Kyoto Protocol, including revegetation and forest management, afforestation and reforestation, does not lead to serious damage to the ecological character of wetlands, using strategic and other forms of EIA and risk assessment (para 17).	Resolution 12.21 (Rev.COP14) (2024): - Ensure that investments in both renewable and non-renewable energy technologies are implemented in a way to minimize their impacts on biodiversity and migratory species through application of appropriate impact assessments, design and siting (para 15). - Assess steps needed to help migratory species adapt to climate change and changes in human activities as a result of climate change (para 4l) - Assess impacts on migratory species when developing and implementing relevant climate change mitigation and	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	adaptation on biodiversity and ecosystem services (para 6e). Decision X/33 (2010): • Increase positive and reduce negative impacts of climate-change mitigation and adaptation measures on biodiversity inter alia, based on results from strategic environmental assessments and environmental impact assessments (para 8u). • In planning and implementing effective climate-change mitigation and adaptation activities, including renewable energies, take into account impacts on biodiversity and the provision of ecosystem services (para 8v). • Suspend climate-related geo-engineering activities that may affect biodiversity, including ocean fertilization, until there is an adequate scientific basis on which to justify such activities and appropriate consideration of the associated risks for the environment and biodiversity and associated social, economic and cultural impacts (para 8w). • Consider the values of biodiversity and ecosystem services when planning and undertaking climate-change-related activities (para 8y). • Consider incentives to facilitate climate-change-related activities that take into consideration biodiversity and related social and cultural aspects (para 8z).			adaptation action and spatial planning in terrestrial, freshwater and marine ecosystems (para 3). Resolution 12.21 (2017): • Assess potential impacts on migratory species when developing and implementing relevant climate change mitigation and adaptation action and land use planning using SEA and EIA (para 3). • Assess and implement measures to help migratory species adapt to climate change and its related human impacts (para 4). Resolution 11.27 (2014): • Apply SEA and EIA, when planning the use of renewable energy technologies, avoiding existing protected areas and other sites of importance to migratory species (para 2) • Undertake survey and monitoring both before and after deployment of renewable energy technologies to identify impacts on migratory species and their habitats in the short- and long-term (para 2). • Evaluate mitigation measures; and apply appropriate cumulative impact studies to describe and understand impacts at larger scale (para 2). • Implement renewable energy technologies with careful planning to minimize impacts on migratory species. For wind energy, mitigate bird and	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
				bat collisions with turbines, and reduce cetacean mortality risks from auditory damage. For solar energy, avoid protected areas, minimize disturbance and displacement, and address risks such as solar flux injuries. For ocean energy, assess noise and electromagnetic field disturbances. For hydropower, incorporate mitigation measures like fish passageways to reduce impacts on migratory aquatic species. For Geo-energy, prevent habitat loss, disturbance, and barrier effects to maintain low environmental impact levels (para 3). Resolution 11/26, Annex I (2014): • Ensure that an EIA is conducted prior to undertaking major adaptation and mitigation projects, as well as exploration and production projects, taking into account impacts on migratory species. • Make the monitoring of environmental impacts a standard requirement for major climate projects. • Ensure that projects incorporate adaptive management in climate activities. • Ensure that where impacts on migratory species are significant, renewable energy	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
				and other climate change mitigation or adaptation structures are operated in ways that eliminate or minimize negative effects on migratory species. • Ensure that any climate change mitigation and adaptation action has appropriate social and environmental safeguards in place prioritizing CMS-listed species. • Develop and apply appropriate methodologies to consider potential cumulative impacts of mitigation and adaptation projects across the entire life-cycle of migratory species. Resolution 9.7 (2008): • Design and implement adaptation strategies for migratory species threatened climate change mitigation or adaptation activities (para 4). Resolution 8.13 (2005): • Implement adaptation measures to help reduce the adverse effects of climate change on Appendix I species (para 3). Resolution 7.5 (2002) (Rev.COP12) (2002): Identify where migratory species are vulnerable to wind turbines, apply the precautionary principle in wind energy development, and incorporate environmental impact data, monitoring, and spatial planning insights (para 2).	
NIPs	Decision 14/5 (2018):		Resolution XIV/17 (2022):	Resolution 12.21 (Rev.COP14) (2024):	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	- Integrate climate change issues into NBSAPs and to integrate biodiversity and ecosystem integrity considerations into national policies, strategies and plans on climate change, such as NDCs and national climate change adaptation planning (para 4b). - Integrate ecosystem-based approaches when updating their NDCs, and pursuing domestic climate action under the Paris Agreement (para 5b). Decision XIII/4 (2016): - Consider the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, and to integrate ecosystem-based approaches in the development of NDCs and implementation of associated measures, involving the NFPs to the CBD in this work and ensuring that information and tools and guidance developed under the CBD are used (para 2). Decision XVI/22 (2024): - Promote and integrate into revised NBSAPs and relevant national targets nature-based solutions and/or ecosystem-based approaches, non-market-based approaches and Mother Earth centric actions, as recognized by some countries, promoting climate change adaptation and mitigation and disaster risk reduction (para 3d). - Promote synergies with other national planning processes established under biodiversity MEAs and UNFCCC/PA (para 3d).		Deploy wetland-focused nature-based or ecosystem-based approaches to address climate change in national plans and strategies (para 8). Include in national climate change strategies the protection of mountain wetlands, and management of degraded lowland and coastal wetlands (para 31).	- Incorporate migratory species issues in national climate change strategies, NDCs, NAPs, and NBSAPs. - Establish necessary measures to implement the PoW on climate change and migratory species, integrating them into national climate strategies, NBSAPs, protected area plans, and relevant policies. Incorporate climate change in national strategies and plans for migratory species, including through a participatory, transparent and inclusive design, implementation and evaluation of nature-based solutions and/or ecosystem-based approaches (para 16).	
Human rights	Decision XVI/22 (2024): - Integrate human rights into biodiversity and climate actions by recognizing diverse knowledge systems, ensuring intergenerational equity, and safeguarding indigenous and local communities' rights to lands, territories, and resources, including recognize prior informed consent (para 3e). Decision X/33 (2010): - Recognize the role of indigenous and local community conserved areas in strengthening				

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	ecosystem connectivity and resilience across the sea and landscape (para 8i).				
Tools and guidelines	Decision XVI/22 (2024): - Use the tools and information available under the CBD, including the Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction, and other relevant tools and guidance developed under other biodiversity-related conventions. Decision 14/5 (2018): - Take use of voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction, contained in the annex to the present decision (para 2). Decision XIII/4 (2016): - Use existing tools and guidance on ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction and, where appropriate, to further develop and refine these tools and guidance (para 8j). - Promote the integration of climate change adaptation best practices, strategies and methodologies into conservation planning frameworks, in consideration of species and ecosystems responses (para 8m).		Resolution XIII/14 (2018): - Apply the guidance by the Scientific and Technical Review Panel to prioritize coastal blue-carbon ecosystems and develop and implement plans for conservation, restoration and sustainable management of these ecosystems. Resolution XI/14 (2012): - Use the Ramsar guidance on the wise use of wetlands, applicable to the threats to, and impacts on, wetlands arising from climate change, in developing their policies (para 33). Resolution VII/3 (2002): Consider and use the information on climate change and wetlands in documents COP8 DOC. 11 and COP8 DOC. 40 when integrating climate change considerations into wise use of wetlands (para 16).	Resolution 11.27 (2014): - Implement voluntary guidelines entitled 'Renewable Energy Technologies and Migratory Species: Guidelines for Sustainable Deployment' (para 2). Resolution 11/26, Annex I (2014): - Develop step down guidelines at the national level for mitigation and adaptation projects to ensure that they are not harmful to migratory species. Develop mechanisms for the promotion and implementation of best practices of migratory species management in light of climate change.	
Monitoring and knowledge generation	Decision 14/5 (2018): - Assess the effectiveness of ecosystem-based approaches for adaptation, and mitigation and disaster risk reduction (para 4f). Decision XIII/4 (2016): - Assess the effectiveness of ecosystem-based approaches to climate change adaptation and mitigation, and disaster risk reduction, including through development of improved monitoring and evaluation method (para 8i). Decision XI/21 (2012): - Strengthen knowledge and information, including comparable data sets, and related research and monitoring activities on the linkages between		Resolution XIV/17 (2022): - Assess progress in the implementation of wetland protection, conservation, restoration, sustainable use and management activities, and on improvements to the services they provide related to climate change mitigation, adaptation and resilience (para 13). Resolution XIII/14 (2018): - Collect and analyse data on blue-carbon ecosystems, map these ecosystems, and make	Resolution 10.19 (2011): - Conduct research on climate change impacts on migratory species, habitats, and dependent communities; ensure long-term, standardized monitoring; share results with range states; and identify indicator species, especially for data-deficient populations (para 7). Resolution 11/26, Annex I (2014): - Coordinate research and monitoring efforts in relation	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	biodiversity, climate change and human well-being in educational programmes (para 6b). Strengthen inventorying and monitoring of biodiversity and ecosystem services at appropriate scales in order to evaluate the threats and likely impacts of climate change on biodiversity and ecosystem services (para 6e).		this information publicly accessible by updating coastal wetland inventories, determining the range of ecosystem services supported, informing of their global extent, estimating their carbon storage and fluxes; and updating national GHG inventories (para 11). Resolution XII/11 (2015): - Map the distribution of peatlands with a view to determining the extent to which they sequester carbon (para 25). Resolution XI/14 (2012): - Consider the wise use of wetlands for accounting of greenhouse gas emissions from wetlands (para 27). - Study the role of the conservation and/or restoration of wetlands in relation to climate change mitigation and adaptation make findings available to the Ramsar Secretariat, the UNFCCC Secretariat through existing reporting processes (para 32). Resolution VIII/3 (2002): Study the role of wetlands in carbon storage and sequestration and in mitigating the impacts of sea-level rise (para 18).	to the impacts of climate change across the CMS Family. - Periodically conduct research to test the effectiveness of, and assess the risks associated with, species adaptation measures in response to climate change. - Continue to fill the information gaps through research and monitoring, in order to make explicit the associated synergies and any trade-offs between biodiversity conservation, mitigation and adaptation efforts. - Contribute technical and scientific information on climate change and migratory species to the national and central CHM of the CBD. - Monitor the effectiveness of capacity building efforts on climate change and migratory species. Resolution 8.13 (2005): Collaborate on international research projects into the effects of climate change on migratory species and their habitats to better understand implications and appropriate policy responses (para 4).	
Education and awareness raising	Decision XIII/4 (2016) Develop and implement education and training curricula and awareness-raising programmes for the general public on the importance of the ecosystem functions and services provided by biodiversity for climate change adaptation, mitigation and disaster risk reduction (para 8d).		Resolution XIII/14 (2018): Promote participation, dialogue, information sharing, and collaboration in the management of blue carbon ecosystems from a range of stakeholders, including	Resolution 12.21 (2017): Organize training courses, translate and disseminate examples of best practice, share and implement protocols and regulations, transfer technology, and	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
	- Raise awareness, particularly among decision makers in relevant sectors and at different levels of government, about ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction (para 8e). - Promote platforms, such as those established under the UNFCCC, for the exchange of experiences and sharing of best practices, including those of indigenous peoples and local communities on ecosystem-based approaches to climate change adaptation and mitigation (para 8l).		indigenous people and local communities, private sectors, national and local governments, NGOs and research institutes (para 12b). Facilitate information sharing, among Ramsar Sites and other wetland sites with coastal blue-carbon ecosystems, on the values and benefits of these ecosystems, including ecological resilience, carbon sequestration and other services, and experiences in conservation, restoration and sustainable management of these ecosystems (para 12c). Resolution X/24 (2008): Utilize peatlands to showcase the Communication, Education, Participation and Awareness activities for implementation of the Convention in the context of efforts to reduce greenhouse gas emissions and mitigate and adapt to the impacts of climate change (para 38).	promote the use of online and other tools to address specific issues contained in the PoW on climate change and migratory species (para 7). Resolution 12.21 (Rev.COP14) (2024): - Share best practice and lessons learned in the effective mitigation of climate change impacts, including through the organization of thematic and regional workshops (para 6). - Organize training courses, translate and disseminate examples of best practices, share and implement protocols and regulations, transfer technology, and promote the use of online and other tools to address specific issues (para 7). Resolution 11/26, Annex I (2014): - Increase awareness of the impacts of climate change on migratory species. - Commission and share scientific reviews, guidelines and assessments on climate change impacts, conservation for species resilience, and effects of human adaptation and mitigation on migratory species. - Enhance the capacity of natural resource managers and decision-makers to address climate change impacts on migratory species by assessing training needs, developing and expanding	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
				training programs on management tools, collaborating with academia and experts, leveraging existing courses and e-learning, and strengthening scientific capacity, including through higher education Strengthen the capacity of natural resource managers and decision-makers to address climate change impacts on migratory species by assessing training needs, developing and expanding training programs on management tools, collaborating with academia and experts, leveraging existing courses and e-learning, and enhancing scientific expertise, including through higher education.	
Cooperation and coordination	CBD COP decision XVI/22 (2024): - Enhance engagement between NFPs of the UNFCCC, CBD and other biodiversity MEAs (para 11). - Enhance collaboration among UNFCCC, CBD and other biodiversity MEAs to raise awareness of relevant interlinkages between biodiversity and climate change to support relevant national planning processes (para 11). Decision XIII/4 (2016): - Integrate ecosystem-based approaches to climate change adaptation and mitigation, and disaster risk reduction, into their strategic planning across sectors (para 4).	PA COP decision 1/CMA.5 (2023): Enhance cooperation on the implementation of MEAs and agreements, particularly their work under the Rio Conventions.	Resolution XI/14 (2012): - Reach out to UNFCCC counterparts to initiate and foster information exchange on the roles of wetland conservation, management, and restoration activities in mitigating GHG emissions (para 29). - Improve collaboration and information exchange on wetlands and climate change at the international level through capacity building, resource mobilisation, and collaborative work programmes (para 35). Resolution X/24 (2008):	Resolution 12.21 (2017): - Collaborate to address specific issues and implement the PoW on climate change and migratory species (para 6). Resolution 11/26, Annex I (2014): - Collaborate with national UNFCCC Focal Points to provide expert guidance on mitigating the impacts of human climate actions on migratory species and developing joint solutions.	

Categories	CBD	UNFCCC and Paris Agreement	Ramsar Convention	CMS Convention	UNEA
			Promote integrated coordination in developing and implementing national policies related to water management, agriculture, energy production, poverty reduction, and human health to ensure that sectoral objectives are mutually supportive in addressing impacts of climate change and the need to protect wetlands (para 36).		
Governance			Resolution VIII/3 (2002): Build and strengthen institutional capacity and synergies between related instruments at the national level in order to address the linkages between climate change and wetlands (para 19).		
Science-policy interface				Resolution 11/26, Annex I (2014): - Ensure that the best available scientific information on the impacts of climate change on migratory species is accessible and useable for planning and decision-making - Establish regional national workshops involving scientists, NGOs, NFPs from MEAs, policy makers and managers to exchange and discuss information.	
Gender	Decision XIII/4 (2016): Gender-responsive approaches and engagement of the youth are critical to ensure the success and sustainability of climate change adaptation, mitigation and disaster risk reduction policies, programmes and projects (preamble).				

Annex 3. Other resolutions of relevance for the biodiversity-climate nexus

Ramsar Convention resolutions on wetlands and climate change include:

- [Resolution XIV/17](#) (2022) encourages parties to deploy wetland-focused nature-based or ecosystem-based approaches to address climate change in national plans and strategies (para 8).
- [Resolution XIII/14](#) (2018) promotes the conservation, restoration and sustainable management of coastal blue-carbon ecosystems defined as “the carbon captured by living organisms in coastal (e.g. mangroves, saltmarshes and seagrasses) and marine ecosystems and stored in biomass and sediments.”
- [Resolution XII.11](#) (2015) encourages Parties to avoid peatland drainage, which can result in greenhouse gas emissions (para 21), and to map the distribution of peatlands with a view to determining the extent to which they sequester carbon (para 25).
- [Resolution XII.2](#) (2015) adopted the Ramsar Strategic Plan 2016-2024 that recognizes that the implementation of the Convention is critical for accelerating wetland conservation and restoration actions to deliver on global agreements, commitments and targets relating to climate change mitigation and adaptation.
- [Resolution XI.14](#) (2012) urges Parties to maintain or improve the ecological character of wetlands and their ecosystem services to enhance climate resilience, including to promote their restoration and to ability to contribute to nature-based climate change adaptation (para 26).
- [Resolution X.24](#) (2008) Parties to manage wetlands wisely to increase their resilience to climate change and to use wetlands wisely to reduce the impacts of climate change (para 28).
- [Resolution VIII.3 \(2002\)](#) called upon Contracting Parties to manage wetlands in such a way as to increase their resilience to climate change and extreme weather events (para 14) and to ensure that climate change responses would not lead to serious damage to the ecological character of wetlands (para 17)

CMS resolutions on climate change and migratory species⁷⁴:

- [Resolution 12.21 \(Rev.COP14\)](#) (2024) urges parties to incorporate migratory species issues in national climate change strategies, NDCs, NAPs, and NBSAPs (para 2).
- [Resolution 14.1](#) (2024) adopted the Samarkand Strategic Plan for Migratory Species 2024-2032, with Target 3.4 calling on Parties to reduce climate change impacts on migratory species and habitats by 2032 through mitigation, adaptation, nature-based solutions, and disaster risk reduction, while minimizing harm and promoting biodiversity benefits.
- [Resolution 12.21](#) (2017) encourages assessing potential impacts on migratory species when planning climate change mitigation and adaptation action using SEA and EIA (para 3), and assess and implement measures to help migratory species adapt to climate change and its related human impacts (para 4)
- [Resolution 11.27](#) (2014) urges Parties to implement voluntary guidelines on renewable energy technologies and migratory species (para 2), including implement specific measures for development of wind energy, solar energy, ocean energy, hydro-power and geo-energy (para 3).

⁷⁴ While all listed resolutions specifically address climate change, CMS Resolution 14.1 on the Samarkand Strategic Plan is also included for its relevant reference to climate change.

- [Resolution 11.26](#) (2014) adopted the “Programme of Work on Climate Change and Migratory Species” focusing on measures to facilitate species adaptation; vulnerability assessments; monitoring and research; climate change mitigation, human adaptation and land use planning; knowledge exchange and capacity-building; and cooperation and implementation.
- [Resolution 10.19](#) (2011) urges to employ adaptive management measures and the ecosystem-based approach in addressing climate change impacts, and to monitor the effectiveness of their conservation actions (para 4).
- [Resolution 9.7](#) (2008) urges Parties to identify which migratory species are most likely to be threatened by climate change (para 2) and to reduce those threats (para 3).
- [Resolution 8.13](#) (2005) calls on Parties to implement adaptation measures to help reduce the adverse effects of climate change on Appendix I species (para 3).
- [Resolution 7.5 \(2002\) \(Rev.COP12\)](#) (2002) addresses wind turbined and migratory species, calling Parties to identify where migratory species are vulnerable to wind turbines, apply the precautionary principle in wind energy development, and incorporate environmental impact data, monitoring, and spatial planning insights (para 2).

UNEA resolutions addressing broader aspects of the biodiversity and climate interlinkage

- [Resolution 6/15](#) (2024) on strengthening ocean efforts to tackle the triple planetary crisis encourages Member States to take significant efforts to tackle ocean acidification and its causes and to further study and minimize its impacts (para 2e).
- [Resolution 5/5](#) (2022) provides a definition for nature-based solutions and calls for the broad implementation of the resolution.
- [Resolution 4/12](#) (2019) on sustainable management for global health of mangroves encourages Member States to use ecosystem-based approaches for the conservation, restoration and sustainable management of mangroves (para 1).
- [Resolution 2/12](#) (2016) on sustainable coral reefs management encourages governments to prioritize coral reef conservation and sustainable management, with a view to enhancing climate change resilience (para 6).
- [Resolution 1/8](#) (2014) encourages countries to Include and improve ecosystem-based adaptation and community-based adaptation in their national policies, including those on climate change adaptation (para 2) and to formulate and implement ecosystem-based adaptation and community-based adaptation measures (para 3).

Annex 4. Raw data used as the basis for the analysis

Table D. Key terms and raw data from NVivo analysis of biodiversity-related content in NIPs and national reports focusing on Intersections with the UNFCCC and Paris Agreement.

Themes	Keywords from sources	CBD NBSAPs and national reports		UNFCCC/PA NDCs and national reports	
		All mentions	Country count	All mentions	Country count
0) General	Biodiversity	18,927	14	1,024	14
	Species	16,141	14	1,670	14
	Ecosystem	6,244	14	1,263	14
1) Targets	Aichi Target OR Aichi Biodiversity Target	553	13	0	0
2) Ecosystem-based approaches (for mitigation)	Nature-based solution	18	1	27	6
	Ecosystem-based approach	71	13	4	4
	Ecosystem-based management	62	9	30	9
3) Ecosystem-based adaptation	Ecosystem-based adaptation	9	7	48	7
	Corridor	97	11	12	5
	Connectivity	79	13	443	14
Conservation	Conservation - stemmed	14,286	14	1,383	14
	Protected area	1,325	14	80	13
	Spatial planning	54	8	6	5
Restoration	Restoration	1,333	14	149	9
	Rehabilitation	518	14	317	14
	Reforestation	182	14	121	9
	Afforestation	15	7	72	6
Wetlands	Wetland	689	14	198	12
Agriculture	Agriculture – stemmed	4,474	14	4,998	14
	Agrobiodiversity	470	12	3	2
	Sustainable agriculture	91	11	20	8
Forests	Forest	10,102	14	5,821	14
	Sustainable forest management	34	6	57	6
	Forestry	1,864	14	1,832	14
	Agroforestry	261	13	222	9
Marine and coastal	Mangrove	2,223	13	880	13
	Seagrass	327	12	0	0
	Saltmarsh	2	1	5	2
	Coral reef	418	14	265	14
4) Assessing climate impacts on biodiversity	Biodiversity impact OR Impact on species OR Impact on ecosystems OR Impact on nature	11	8	0	0
5) Reducing the impacts of climate change on biodiversity	Coral bleaching	129	14	191	14
	Ocean acidification	88	14	195	14
	Thermal stress	8	4	14	6
6) Reducing biodiversity impacts of climate measures	Environmental impact assessment OR EIA	941	14	103	13
	Ocean fertilization	0	0	0	0
	Geoengineering	0	0	0	0
7) Human rights	Indigenous people	31	9	13	6
	Local communities	1,098	14	147	13
	Traditional knowledge	1,180	14	183	14

Table E. Key terms and raw data from NVivo analysis of climate-related content in NIPs and national reports focusing on intersections with the CBD.

Themes	Keywords – CBD Sources	CBD NBSAPs and national reports		UNFCCC/PA NDCs and national reports	
		All mentions	Country count	All mentions	Country count
1) General	Climate change	2,684	14	12,752	14
2) Targets	Climate target	0	0	0	0
3) Ecosystem-based approaches (for mitigation)	Mitigation – stemmed	465	14	3,015	14
	Carbon stock	76	13	109	9
	Sequestration – stemmed	58	10	84	8
	Sink	20	9	498	14
	Biomass	113	14	1072	14
4) Ecosystem-based adaptation	Adaptation	601	14	6,094	14
Marine and coastal	Integrated coastal zone management	12	7	45	14
	Blue carbon	4	2	24	4
5) Assessing climate impacts on biodiversity	Climate impact OR Climate change impact OR Impact of climate change	61	12	170	14
	Vulnerability assessment	10	4	200	13
6) Reducing the impacts of climate change on biodiversity	Resilience – stemmed	694	14	1,719	14
7) Reducing biodiversity impacts of climate measures	Adaptive capacity	10	7	168	12
	Energy efficiency	17	6	678	14
	Renewable energy	89	11	1,459	13
8) Human rights	Human rights	5	3	74	6

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