



Convention on  
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**FEBA**  
Friends of Ecosystem-based Adaptation



**Harnessing Ecosystem-based  
Adaptation to drive progress on  
implementing the Kunming-  
Montreal Global Biodiversity  
Framework**

Integrating biodiversity and climate action across the  
Rio Conventions

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## ABOUT FEBA

Friends of Ecosystem-based Adaptation (FEBA) is a global collaborative network of more than 100 organizations and agencies working on ecosystem-based adaptation. The mandate of FEBA is to improve collective understanding, share experiences and knowledge, accelerate implementation, and build a strategic policy influence around nature and climate adaptation. The CBD COP recognizes FEBA as a key partner “to support Parties in their efforts to promote ecosystem-based approaches to climate change adaptation” (Decision 14/5). The International Union for Conservation of Nature (IUCN) serves as the FEBA Secretariat.

In January 2024, FEBA established an expert working group under the guidance of the Convention on Biological Diversity (CBD) Secretariat and the Climate and Development Knowledge Network (CDKN) to assist national target setting and implementation of Kunming-Montreal Global Biodiversity Framework Targets 8 and 11 – focusing on the links between climate change and biodiversity and specifically via EbA approaches. This publication is a product of the working group’s collaboration.

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# EXECUTIVE SUMMARY

Nature is not just a bystander in the face of our planet's greatest challenges; it's a powerful ally in our fight against climate change, biodiversity loss, and increasing social inequalities — offering effective, equitable and sustainable solutions for current and future generations.

In recent years, there has been a rising call across the Rio Conventions for the alignment of climate and biodiversity action in order to foster synergies, integration and coherence in the planning and implementation of national climate, biodiversity and land restoration plans and strategies<sup>[1]</sup>. In the context of the Convention on Biological Diversity (CBD), Targets 8 and 11 of the Kunming-Montreal Global Biodiversity Framework (KMGBF) are a call for governments and society to link biodiversity and climate action, by both minimizing the impacts of climate change on biodiversity, and by restoring, maintaining and enhancing nature's contributions to people, including to increase people's climate resilience. How countries turn this mandate into action on the ground is now in the hands of national policymakers to co-design solutions with the most impacted communities. In 2024, the convergence of the meetings of the Conferences of the Parties (COPs) to the Rio Conventions presents a pivotal moment for generating global action, and an opportunity for Parties to act on the connections between biodiversity conservation, addressing climate change, and land stewardship.

In response to the high-level political momentum around integrating climate and biodiversity action, this report aims to illustrate to policymakers that ecosystem-based adaptation (EbA) can serve as an effective tool for putting the theory of such integration into practice.

## ***One approach contributing to many goals: Ecosystem-based Adaptation***

Ecosystem-based adaptation approaches have been well recognized under the Rio Conventions since 2010, and nearly 15 years of evidence and practical experience are available from the implementation of EbA across more than 50 countries. With this evidence base, Parties can utilize EbA as a key approach in their national commitments to deliver integrated climate-biodiversity action under the Rio Conventions.

## ***Objective***

This report offers consolidated evidence, guidance and case studies on EbA from the Friends of Ecosystem-based Adaptation (FEBA) network to support the uptake of EbA across national strategies and plans for all three Rio Conventions, and to inform the development of revised national biodiversity and climate commitments. While the primary focus of this report is on the CBD and UNFCCC, it also highlights links to other global frameworks, including the UNCCD and the Sendai Framework for Disaster Risk Reduction 2015-2030, and the need for greater coherence across these.

This is presented together with tools and resources to support governments in the planning, implementation, monitoring and reporting of EbA in their national commitments and strategies, including as a contribution to the implementation of KMGBF Targets 8 and 11 as related to adaptation, resilience and disaster risk reduction.

[1] CBD, UNFCCC, UNCCD (2023): COP 28 Joint Statement on Climate, Nature and People. Available at: <https://www.cbd.int/article/climate-nature-people-statement-climatecop28-2023>

# Key Messages

## **1. The strong evidence base for EbA makes it a straightforward choice for delivering on global commitments towards integrating climate and biodiversity action - including under KMGBF Targets 8 and 11 - for the benefit of people and nature.**

Ecosystem-based adaptation is well recognized across the Rio Conventions, and nearly 15 years of evidence and practical experience are available from implementation in diverse ecosystems and across more than 50 countries, demonstrating its potential for tackling the climate and biodiversity crises while delivering on the Sustainable Development Goals. Mainstreaming EbA into national commitments, strategies and plans can help simultaneously tackle biodiversity loss, land degradation and climate change as well as make the goals for integrated climate-biodiversity action more specific, actionable, and effective.

## **2. Greater policy coherence between biodiversity, climate and land degradation targets and indicators allows for efficient use of existing resources and streamlining of planning, implementation, monitoring and reporting.**

Harmonizing national commitments, targets and indicators [2] can support countries in maximizing the use of limited financial resources and capacity for planning, implementation, monitoring and reporting. Greater policy coherence can also provide opportunities for strengthening the capacity of diverse national agencies and actors to think and plan in an integrated way and provide financial resources for the implementation of work on the ground while delivering multiple co-benefits across targets on land management, climate and biodiversity, and disaster risk reduction and resilience. Globally, the fine-tuning of the KMGBF Monitoring Framework as well as of indicators for tracking the UNFCCC Global Goal on Adaptation offer a unique opportunity to streamline monitoring and reporting processes through aligning indicators and methodologies.

## **3. Ensuring that dimensions of equity are considered as cross-cutting imperatives in integrated biodiversity and climate action can facilitate the co-development of interventions that are just and sustainable for current and future generations.**

Integrating equity, through a greater attention to human rights-based approaches, which include considerations for gender, land tenure rights and other intersecting issues to facilitate social inclusion in EbA, is essential for ensuring that adaptation strategies are fair, effective, sustainable and just for both current and future generations. This requires respecting the principle of Free, Prior, and Informed Consent (FPIC) where it applies, upholding social and environmental safeguards, and actively engaging rights-holders, including those who are marginalized, and duty bearers in capacity strengthening activities. Commitments and plans to use EbA approaches should be co-designed with communities, ensuring integration of appropriate mechanisms and safeguards, so that EbA interventions can enable inclusive decision-making and secure equitable access to benefits, while protecting both people and ecosystems.

## **4. CBD focal points, national biodiversity agencies and the research community can support the mainstreaming of EbA approaches by providing ecological expertise to their climate correlates to ensure EbA is planned and implemented as effectively as possible.**

With rising recognition of nature-based solutions under the UNFCCC and in national climate commitments in both Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs), it is more important than ever that national biodiversity agencies, scientists, biodiversity experts, and natural resource planners are involved in the co-design, implementation and monitoring of EbA activities to ensure ecological viability, amplify the biodiversity contributions of these interventions where possible, and help maximize the long-term sustainability and resilience benefits to people. National biodiversity policymakers and agencies should connect with their climate correlates to ensure the effective planning, implementation, monitoring and evaluation of EbA interventions.

## **5. Enabling national biodiversity and climate policy coherence will require new and strengthened collaboration across government agencies, subnational authorities, and non-state actors. It is better to start the process now than wait for perfection.**

Policymakers can work together with practitioners and experts from a range of disciplines through existing networks like FEBA and other knowledge brokering organisations to access diverse experiences, and pooled resources and knowledge. Connecting with subnational and municipal leaders can help integrate and elevate locally-led efforts into national climate and biodiversity agendas. Enhancing collaboration across scales of governance can help maximize the impact of climate-biodiversity action by ensuring local actors and existing custodians are included in design and development of interventions. Improved national coherence could be achieved for example by establishing an inter-departmental coordination body to facilitate integrated biodiversity and climate planning, implementation, monitoring and reporting across sectors. Importantly, policymakers should not let the perfect be the enemy of the good in developing integrated targets and actions. Taking action to tackle our planetary crises cannot wait forever: we must start now.

[2] This is not limited to the Rio Conventions, but also spans across other multilateral frameworks including the Sendai Framework for Disaster Risk Reduction 2014 and the 2030 Agenda for Sustainable Development.



# Nature and Climate Change

With the adoption of the KMGBF in 2022, global attention has turned to rates of biodiversity loss across the world – and the existential risks that this loss, if unmitigated, poses to our planet. Biodiversity loss can no longer be seen as purely an environmental problem, but one risking the stability of our economies and interconnected food and water systems; driving disease transmission and poor health outcomes; and impacting both the regulation of our climate, and the ability of our cities and communities to adapt to the impacts of climate change [3].

## The interlinkages of biodiversity and climate change are a two-way relationship:

- Ecosystem loss and degradation releases enormous volumes of greenhouse gases, reduces the ability of ecosystems to absorb carbon from the atmosphere, and exacerbates the impact of climate hazards, influencing changing temperatures, precipitation patterns, freshwater availability, and resulting in climate hazards such as stronger storms, more frequent and intense droughts, extreme heat, erratic rainfall, and rising sea levels. Ecosystem loss and degradation also increases society's vulnerability and impacts the livelihoods of communities.
- In turn, the conservation, restoration and sustainable use of biodiversity offers incredible potential to support people in both mitigating and adapting to climate change. Healthy ecosystems are what we need to protect people from the rising threat of climate change and to maintain sufficient options for future development [4]. Healthy ecosystems have the potential to save up to 10GT of CO<sub>2</sub> per year through avoided emissions and enhancement of carbon sinks - more than the emissions from the entire global transportation sector [5]- as well as the potential to reduce the intensity of climate hazards by 26 percent, with potential cost savings from climate change impacts of USD 104 billion by 2030 and USD 393 billion by 2050 [6].

As people and ecosystems are increasingly exposed and vulnerable to climate-related hazards [7] and climate adaptation needs grow around the world [8], the most vulnerable people and ecosystems, for example, in lower income countries and small island developing states - will continue to be the hardest hit, with recent studies demonstrating that over 3.3 billion people live in places that are highly vulnerable to climate change [9]. There is no one solution to climate adaptation. Adapting to climate change means not only adapting our infrastructure, but adjusting our behavior and decision-making, such as how we choose to live, how we manage our food and health systems, the way we plan our cities, and how we protect, conserve and utilize our natural resources. But for all of these, adaptation will fail without urgent action to address species and ecosystem loss.

## Ecosystem-based Adaptation

The conservation, restoration and sustainable management of ecosystems can enhance the adaptive capacity and resilience of societies to climate hazards & long-term changes such as flooding, sea level rise, and more frequent and intense droughts, heatwaves, and wildfires. Collectively, these approaches are referred to as ecosystem-based adaptation.

Ecosystem-based adaptation activities are highly context specific and can include protection of coastal zones or sustainably managed forests, restoration of wetlands and rivers, agroforestry, and urban greening among other actions. These and other types of nature-based solutions [10], once well established, can protect against the impacts of climate change by reducing erosion, buffering storm surges, reducing or preventing wildfires, and maintaining farmland productivity under unfavorable climate conditions. For instance, mangrove ecosystems alone are estimated to provide over USD 65 billion in flood protection benefits and safeguard 15 million people against flooding across the world every year [11]. EbA activities can be implemented on their own or in combination with engineered approaches (such as the construction of water reservoirs or dykes), hybrid measures (such as artificial reefs) and approaches that strengthen the capacities of individuals and institutions to address climate risks (such as the introduction of early warning systems).

Because EbA works through the enhancement of ecosystems, these approaches offer scalability and flexibility, and often require less upfront investment than other approaches - together with offering significant biodiversity co-benefits and climate mitigation advantages such as securing terrestrial and soil carbon storage. EbA can further support societal resilience, food, water and livelihood security by maintaining or increasing the productivity of working landscapes and offer additional social advantages through opportunities for capacity building and collaborative governance.

**This report will focus on working with nature for climate adaptation and resilience - EbA - but the authors note that the beauty of ecosystem-based approaches lies in the myriad co-benefits these solutions can offer. An EbA project may well have carbon storage benefits, food and water security benefits, and reduce disaster risk. At the same time, an ecosystem-based mitigation project, implemented with biodiversity and social safeguards, will likely have resilience co-benefits.**

[3] IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Available at: <https://www.ipbes.net/global-assessment>

[4] IPBES/IPCC (2021): IPBES-IPCC Co-Sponsored Workshop on Biodiversity and Climate Change. Available at: <https://www.ipbes.net/events/ipbes-ipcc-co-sponsored-workshop-biodiversity-and-climate-change>

[5] Nature (2021): Nature-based solutions can help cool the planet – if we act now. Available at: <https://www.nature.com/articles/d41586-021-01241-2>

[6] IFRC (2022): Working With Nature to Protect People. Available at: <https://www.ifrc.org/document/working-nature-protect-people>

[7] Hans-O. Pörtner and others, "Summary for policymakers", in *Climate Change 2022: Impacts, Adaptation and Vulnerability – Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, Hans-O. Pörtner and others, eds. (Cambridge, United Kingdom of Great Britain and Northern Ireland, Cambridge University Press, 2022).

[8] UNEP (2023): Adaptation Gap Report 2023. Available at: <https://www.unep.org/resources/adaptation-gap-report-2023>

[9] IFRC (2022): Working With Nature to Protect People. Available at: <https://www.ifrc.org/document/working-nature-protect-people>

[10] "Nature-based solutions" is an umbrella term for all ways of working with nature for societal benefit, while ecosystem-based adaptation is a specific type of nature-based solution that makes use of biodiversity and ecosystem services to address the climate crisis, increase resilience, and reduce the vulnerability of communities and ecosystems facing climate impacts. "Ecosystem-based adaptation" is used interchangeably with "Nature-based Solutions for Adaptation".

[11] Scientific Reports (2020): The Global Flood Protection Benefits of Mangroves. Available at: <https://www.nature.com/articles/s41598-020-61136-6>

# Climate Adaptation and Resilience in the Kunming-Montreal Global Biodiversity Framework

The Kunming-Montreal Global Biodiversity Framework integrates climate responsiveness across multiple targets. It calls for both climate action to avert the impacts of climate change on biodiversity, together with the conservation, restoration and sustainable use of ecosystems and biodiversity. This includes sustainably managing wild species, sustainable agriculture and forestry, and effectively conserving and restoring 30% of the world's lands and seas to restore and enhance nature's goods and services to humankind.

**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.”**

In setting new biodiversity strategies and actions plans, Parties and other actors should not limit their consideration of climate issues to Targets 8 and 11, but take into account how climate change interacts with the goals and targets of the whole Framework. Section C of the KMGBF further outlines important considerations for the implementation of its targets, including:

- the important contribution of Indigenous Peoples and local communities as key partners for implementation;
- the role of different value and knowledge systems;
- a whole-of-government and whole-of-society approach; the need to take into account national circumstances, priorities and capabilities;
- the right to development;
- a human rights-based approach; and
- ensuring gender equality and empowerment of women and girls and intergenerational equity.

## A Growing Political Call on Integrating Action Across the Rio Conventions

Following the adoption of the KMGBF, there has been a rising call across the Rio Conventions for the alignment of climate and biodiversity actions in order to foster synergies, integration and alignment in the planning and implementation of national climate, biodiversity and land restoration plans and strategies [12].

Under the UNFCCC, both the 2023 Global Stocktake and the decision on the Global Goal on Adaptation reaffirmed the importance of conserving, restoring and sustainably using nature for achieving mitigation and adaptation outcomes. The Global Stocktake called on countries to implement integrated, multi-sectoral solutions, and align their climate commitments and actions with the Kunming-Montreal Global Biodiversity Framework. Under the UNCCD, the role of EbA in conserving and restoring ecosystem services that are critical in building resilience to drought is increasingly being recognized, including in voluntary targets for Land Degradation Neutrality (LDN). Further, the Political Declaration of the high-level meeting on the midterm review of the Sendai Framework for Disaster Risk Reduction 2015-2030 called for the promotion of nature-based solutions in disaster risk reduction [13].

## Ecosystem-based Adaptation in National Policy Commitments

The integration of climate resilience in national biodiversity commitments, and the integration of nature into national climate commitments, are not new. A CBD synthesis report based on Fifth National Reports in 2015 found that the majority (45 of 61 analysed) of climate actions focused primarily on building resilience of people and communities to the impacts of climate change, while the remaining 16 countries emphasized activities to help ecosystems cope with climate change, rather than emphasizing people and communities as the primary targets [14].

As countries revise and update their NBSAPs in accordance with the Kunming-Montreal Global Biodiversity Framework (and as countries submit their revised NDCs to the UNFCCC in 2025), they have a unique and crucial opportunity for enhancing synergy between national climate and biodiversity strategies.

[12] CBD, UNFCCC, UNCCD (2023): COP 28 Joint Statement on Climate, Nature and People. Available at: <https://www.cbd.int/article/climate-nature-people-statement-climatecop28-2023>

[13] UNGA (2023): Political Declaration of the High-Level Meeting on the Midterm Review of the Sendai Framework for Disaster Risk Reduction 2015-2030: resolution / adopted by the General Assembly. Available at: <https://digitallibrary.un.org/record/4013125?v=pdf>

[14] CBD (2016): Synthesis Report on Experiences with Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction. Available at: <https://www.cbd.int/doc/publications/cbd-ts-85-en.pdf>

[15] NbSI (2022): Revised climate pledges show enhanced ambition for nature-based solutions. Available at: <https://www.naturebasedsolutionsinitiative.org/news/nbs-policy-platform-ndc-submissions>

# Representation of Nature in NDCs and NAPs

## NDCs

As of 2022, 102 nations – or 84% of all updated NDCs – committed to some degree of restoring or protecting ecosystems, or implementing nature-friendly agriculture such as agroforestry,<sup>15</sup> as opposed to 66% of countries in the first (2015-2020) round of NDCs.

This analysis found that the **representation of nature in NDCs was overwhelmingly focused on adaptation outcomes**: 96 included NbS for adaptation, 45 for both adaptation and mitigation, and only 3 for mitigation only.

50% of NDCs also referred to the protection or restoration of three or more types of ecosystems – most often terrestrial forests (in 81% of NDCs), coastal and marine habitats (in 57%), while grasslands or rangelands (26%) or mountain habitats (11%) were less common.

**Protecting biodiversity is among the top four reasons given for adaptation planning in the NDCs.** The top reasons given for adaptation planning in NDCs was to increase resilience to climate change (90%), followed by the need for water security and protection against extreme events (both 84%), and to protect biodiversity and ecosystems from climate change (83%), followed by sustainable development (81%) and food security (79%).



*The NbS Nationally Determined Contributions (NDCs) Policy Platform makes information about climate change adaptation planning across the globe openly available, easy and interesting to explore.*

### Read more:

- <https://www.naturebasedsolutionsinitiative.org/news/nbs-policy-platform-ndc-submissions>
- [FAO global and regional analysis of the agricultural sectors in the nationally determined contributions - Collections - Resources on Climate Change](#)

## NAPs

As of July 2024 [16], most NAP documents include at least one mention of the term NbS or EbA, with 49 out of the 57 NAP documents submitted to the UNFCCC identifying ecosystems or biodiversity as one of their priority sectors. There is a wide recognition that climate change and biodiversity loss are interconnected, where 86% of the NAP documents mention this linkage, and 79% of the NAP documents identify the role of ecosystems in helping people adapt to the impacts of climate change. Many countries have identified specific NbS and EbA actions to strengthen resilience and the majority of these identified actions focus on the sustainable management of ecosystems and natural resources (37% of the identified NbS actions), followed by actions to restore (20%) and conserve/protect ecosystems (18%).

Countries are also linking their NAPs with their respective NBSAPs. 46% of the countries that have submitted a NAP reference their NBSAP, and 10% of the NAP documents reference another national biodiversity strategy or document (that is not the NBSAP).

### Read more:

- Terton, A., Qi, J. & Jang, N. (2024, forthcoming). *Tracking Progress on the Integration of Nature-based Solutions and Ecosystem-Based Adaptation in National Adaptation Plan Processes*. NAP Global Network, International Institute for Sustainable Development. <https://napglobalnetwork.org/>

[16] Terton, A., Qi, J. & Jang, N. (2024, forthcoming). *Tracking Progress on the Integration of Nature-based Solutions and Ecosystem-Based Adaptation in National Adaptation Plan Processes*. NAP Global Network, International Institute for Sustainable Development. <https://napglobalnetwork.org/>



# Resources to facilitate Alignment of national commitments in the context of Targets 8 and 11

## *A Framework for Promoting Synergies Between Climate Adaptation and Biodiversity through the NAP and NBSAP Process*

The UNFCCC Nairobi Work Programme on Impacts, Vulnerability and Adaptation to climate change in collaboration with the Least Developed Countries Expert Group have developed a **Framework for Promoting Synergies Between Climate Adaptation and Biodiversity through the NAP and NBSAP Process**.

The framework spans four common elements across the adaptation and biodiversity planning processes, with identified opportunities for promoting synergies at each phase: assessment of needs and priorities of stakeholders, planning, implementation and financing and monitoring, evaluation and learning.

### *The framework points to practical next steps for countries to consider:*

- **Promoting coordination processes across government agencies and different sectors**, such as inter-ministerial committees and multistakeholder platforms, in collaboration with sub-national authorities is key for meaningful policy coordination, implementation, and financing. Leadership or a high-level mandate can set wheels in motion to mobilise stronger synergies to integrate biodiversity and climate change adaptation.
- **Mapping synergies between existing government policies** can further help to increase coherence on financing needs and a more efficient allocation of resources. Identifying overlaps between measures early on, including under the NAP and the NBSAP, will prevent unnecessary duplication of efforts across national administrations. Taking stock of what has already been done and included under various national commitments could increase efficiency, help to prioritise synergistic actions, and facilitate monitoring and reporting. For instance, new or updated NBSAPs submitted after 2021 and before 2025 should align with existing NAP strategies.
- **Joint analyses of financing requirements** and the identification of actions for co-financing can promote coherent planning and enable the smart use of limited resources. From a practical point of view, this could include prioritising and combining financing for solutions with biodiversity and climate change benefits; earmarking climate funding to NbS; and ensuring climate-related initiatives also benefit biodiversity to promote concrete integration of biodiversity and climate issues.
- **Wide multistakeholder engagement and multi-governance processes** empower communities and local actors in climate and biodiversity processes that affect them directly. Promoting closer relationships between actors from the national to local levels—particularly ministries responsible for economic development, planning, and financing—will help integrate local and sub-national efforts into national adaptation and biodiversity agendas. This will also champion locally driven approaches and enhance the availability of information and knowledge among local actors on integrated solutions to climate change and biodiversity loss.

Available at: [https://unfccc.int/sites/default/files/resource/UNFCCC-NWP\\_synergies\\_NAP-NBSAP\\_technical-brief.pdf](https://unfccc.int/sites/default/files/resource/UNFCCC-NWP_synergies_NAP-NBSAP_technical-brief.pdf)

## **Further resources to support aligning climate and biodiversity policy commitments**

Title	Authors	Description
Effectively Delivering on Climate and Nature: NDCs, NAPs and NBSAPs synergies (2024)	GIZ, IISD, WWF	This checklist looks across the different phases of NDCs, NAPs and NBSAPs' planning and implementation with an integrated lens, to provide practical recommendations on how national-level policymakers could advance synergistic, just, and gender-responsive actions on climate and nature at this critical juncture.
Guide to including Nature in NDCs (2024)	Nature for Climate, Conservation International	This guide is meant to serve as a tool and checklist for national decision makers as they consider nature as a part of their NDC. It includes recommendations on specific elements for countries to incorporate in their climate actions and conclude with additional resources and methodologies to consider when revising NDCs to include nature, and includes a chapter on alignment of NDCs and NBSAPs.

Promoting Synergies Between Climate Change Adaptation and Biodiversity - Through the National Adaptation Plan and National Biodiversity Strategy and Action Plan Processes (2022)	UNFCCC Nairobi Work Programme and Least Developed Countries Expert Group, IISD, GIZ	A part of the supplements to the NAP Technical Guidelines, this technical brief outlines the steps and ways to promote synergies between NAP and NBSAP processes at the national level and strengthen coherence between climate change adaptation and biodiversity conservation policies and actions.
Breaking Silos: Enhancing Synergies Across NDCs and NBSAPs (2023)	WWF	This paper reviews synergies in developing and implementing national plans and communications under the UNFCCC Paris Agreement and the KMGBF of the CBD. This paper: i) overviews the guidance for formulation and implementation of these policy documents, ii) identifies key synergies and risks across climate change and biodiversity actions, and iii) sets out recommendations for conventions, policymakers, and public-private initiatives for enhancing the cohesion between NDCs and NBSAPs.
Strengthening disaster risk reduction in national biodiversity strategies and action plans: Recommendations and guidance for governments (2024)	UNDRR	This publication offers practical recommendations for governments to enhance disaster risk reduction within NBSAPs. It aligns with global frameworks such as the Kunming-Montreal Global Biodiversity Framework and the Sendai Framework for Disaster Risk Reduction 2015-2030, promoting coherence and synergy between biodiversity conservation, climate change adaptation and disaster risk reduction.
Synergies Between Biodiversity and Climate Policy Frameworks – A Series of Thematic Papers (2022)	GIZ, IISD, UFZ	This series of six thematic papers provide an overview, a sound scientific basis, and inspirational examples and case studies of synergies between biodiversity and climate change commitments. The papers cover legal agreements under the CBD and the UNFCCC, recent scientific findings (e.g., IPBES, IPCC), practical implementation aspects related to nature-based solutions, good governance, multilevel implementation, and finance. Thematic Paper 1: Linkages and Synergies Between International Instruments on Biodiversity and Climate Change was updated in September 2024 to capture the outcomes of CBD COP 15 and UNFCCC COP 27 and 28, as well as recent developments under the CBD and UNFCCC negotiations.
30x30: A Guide to Inclusive, Equitable and Effective Implementation of Target 3 of the Kunming-Montreal Global Biodiversity Framework (2023)	WWF, IUCN World Commission on Protected Areas, The Nature Conservancy	This guide is intended to support governments and many other actors to contribute to the 30x30 target in ways that are inclusive, equitable and effective, from planning to implementation, including how to integrate into NBSAPs and how to ensure Target 3 activities are climate responsive.
Guidelines on Integrating EbA into NAPs (2021)	UNEP, UNDP, FEBA	These Guidelines aim to support adaptation practitioners at national and local levels to integrate ecosystem functions and services into a country's National Adaptation Plan processes and instruments.
Building Resilience with Nature: Maximizing Ecosystem-based Adaptation through National Adaptation Plan Processes Guidance Note (2021)	NAP Global Network/IISD	This guidance note presents “why” and “how” the NAP process can be utilized as a key mechanism and driver to mainstream and upscale EbA. It builds on the lessons learned from a review of EbA actions in NAP documents and identifies guiding principles and actions accordingly. It also presents an overview of ecosystems, ecosystem services and their role in adaptation, and how managing their transformation under a changing climate can contribute to reducing climate risks and impacts for both people and ecosystems. Furthermore, it focuses on guiding principles and recommended actions along the steps of the NAP process to integrate and enhance EbA.
Nature-based solutions for comprehensive disaster and climate risk management: Toolkit for integrated planning and implementation of disaster risk reduction and climate change adaptation (2024)	UNDRR, UNU-EHS	The toolkit on nature-based solutions for comprehensive disaster and climate risk management aims to support countries in making nature-based solutions (NbS) an integral part of planning under the comprehensive disaster and climate risk management (CRM) approach considering both disaster risk reduction (DRR) and climate change. The toolkit proposes a checklist for checking progress along the sequence of tools proposed in this toolbox, thereby helping to “take the steps” for planning NbS as a coherent order of actions for CRM. It also informs on the integration of national and subnational agendas for cooperation and coordination among various governance levels and multiple sectors.
Using metrics to assess progress towards the Paris Agreement’s Global Goal on Adaptation (2023)	FAO	This publication serves as a guide for countries in exploring how reporting for the Sustainable Development Goals indicators under FAO custodianship serves the scope of compiling information for the biennial transparency reports (BRT) under the Enhanced Transparency Framework (ETF). The paper intends to demonstrate the potential integration of adaptation reporting with SDG and Sendai Framework for Disaster Risk Reduction (SFDRR) global measurable targets and corresponding indicators to advance towards a common understanding of how to track adaptation while informing progress towards the Global Goal on Adaptation (GGA). It is aimed primarily at technical authorities and experts working on monitoring and evaluation (M&E) of adaptation in the agriculture sectors and compiling information to report on adaptation at national and international levels. Secondly, it is aimed at policy- and decision-makers that can use M&E evidence to inform adaptation planning, both in the agriculture sectors, including forests, fisheries, specifically and as part of broader national adaptation planning, implementation, and budgeting processes.
Ecosystem-based approaches for integrating disaster risk reduction, climate, land and biodiversity goals (2024)	PEDRR	This policy brief discusses common goals, shared challenges and a way forward on how ecosystem-based approaches can create a bridge between the specific national planning instruments in place. The aim is to meet national priorities and the Sustainable Development Goals by simultaneously addressing multiple goals and targets of the respective Conventions and frameworks.

## Country Examples

Country	NBSAP	NDC / NAP
Philippines	In the Philippines NBSAP (2015-2028), incorporation of ecosystem-based adaptation approaches under the coastal and marine sectoral category, including: 1.1 Climate change adaptation and disaster risk reduction management are integrated in local plans that consider needs of IPs, women and youth	The NDC (2021) notes that: The Philippines shall undertake adaptation measures across but not limited to, the sectors of agriculture, forestry, coastal and marine ecosystems and biodiversity, health, and human security, to preempt, reduce and address residual loss and damage. The NAP (2023-2050) has identified "Scaling up nature-based solutions" as one of five thematic cross-sector strategies to achieve the NAP, emphasizing the importance of prioritizing nature-based solutions where possible to enhance climate resilience and protect vulnerable populations.
Indonesia	Consideration of climate in Indonesia's NBSAP (2015-2020) is centered on the protection of biodiversity from climate change impacts, while noting "Improvement of activities dealing with climate change adaptation and mitigation at national and local levels" as a key activity.	On the other hand, one of four principles underpinning the NDC (2022) was identified as: Promoting climate resilience in food, water and energy; recognising the importance of fulfilling the needs of a growing young population for food, water and energy, Indonesia will improve its management of natural resources to enhance climate resilience by protecting and restoring key terrestrial, coastal and marine ecosystems. The Indonesia NAP (2020) calls to "Combine Ecosystem-based adaptation (EbA) and community-based adaptation (CbA) approaches" under the marine and coastal sector.
Colombia	Consideration of climate in Colombia's NBSAP (2016-2030) is largely focused on protection of biodiversity from climate change impacts, with key identified goals including: By 2025: The country will assess the contribution of restoration processes to the mitigation and adaptation to climate change, and combating desertification. By 2025: 50% by 2030 100% of endemic species at heightened risk of extinction to have conservation plans - accounting for climate change By 2030: Having evaluated risk to ecosystems of climate change, incorporate these into management plans for these ecosystems to combat degradation and loss	Colombia's current NDC (2020-2030) strongly recognizes the value of nature-based solutions and the need for protection of water, ecosystems and biodiversity, including adaptation priority targets to: "Develop a portfolio of Nature-based Climate Solutions using mangroves and seagrasses for adaptation" "Development of local capacities in climate change, blue carbon and adaptation based on ecosystems aimed at environmental authorities with jurisdiction in the marine and coastal zone" "Implementation of an adaptation measure based on ecosystems in a contributing basin of a hydroelectric plant"
Brazil	Brazil's NBSAP (2017-2020) is directly aligned with the National Adaptation Plan, noting: Implementation of sectoral biodiversity and ecosystem targets under the National Climate Change Adaptation Plan (PNA): 1. Develop a strategy for ecosystem-based adaptation measures in areas subject to extreme events and other impacts from climate change. 2. Develop the modelling of impacts from climate change on biodiversity to inform public policies on biodiversity conservation, recuperation and sustainable use. 3. Implement monitoring in 50 federal protected areas, for the evaluation and in situ monitoring of the impacts from climate change and future impacts on biodiversity	Brazil has identified ecosystem-based adaptation as one of 9 principles underpinning the NAP (2016): "Promote and integrate a crosscutting Ecosystem-based Adaptation (EbA) methodology for all sectors, for use of ecosystem services as an alternative and/or complementary adaptation strategy" Biodiversity and Ecosystems is also one of 11 sectors/themes identified, with identified targets in direct parallel to the NBSAP, Preparation of Ecosystem-based Adaptation strategy measures in areas at risk of extreme events and other climate change impacts. Modelling of the impact of climate change on biodiversity for use in public policies for conservation, recovery and sustainable use of biodiversity. Deployment of monitoring in 50 federal Conservation Units, for in situ evaluation and monitoring of the impacts of climate change on current and future biodiversity.
Fiji	Fiji's NBSAP (2020 - 2025) identifies EbA and ecosystem-based disaster risk reduction as one of its nine principles underpinning the NBSAP and commits to mainstream climate change into biodiversity actions, including by: Integrate disaster risk reduction and climate change adaptation strategies and actions into NBSAP focal areas. Include vulnerability assessments and climate change impact projections into resource management planning, such as integrated coastal, watershed, land-use, forest and marine management plans Undertake research to identify effective adaptation measures to support biodiversity and natural resource sectors such as fisheries, forest and land-use adaptation and disaster risk reduction responses.	Fiji has actively linked its NAP (2018) with national biodiversity and ecosystem protection goals, with promotion of 'ecosystem-based' and 'gender and human rights-based' approaches to adaptation identified as one of the four values underpinning the NAP. Fiji's NDC (2020) further commits to utilizing nature for climate resilience, including: "Fiji will take measures to ensure that public infrastructure is resilient to cyclones and floods, prioritizing nature-based economically viable solutions..." "Fiji will prioritize the conservation and protection of its marine biodiversity and critical ocean ecosystems. This would include measures for promoting sustainable fishing practices, coastal protection, preservation, and enhancement of its mangroves, and engaging with coastal communities to promote sustainable practices and livelihoods." "Adaptation Target 7: Develop simplified and standardised early warning and monitoring systems, and prioritise nature-based solutions to mitigate the impact of flooding and cyclones."



# Aligning Indicators for Effective Monitoring and Evaluation

As countries make progress on developing integrated actions to manage ecosystems in a way that achieves both biodiversity- and climate-related targets, there is also a growing opportunity to achieve synergies by aligning methodologies and indicators to measure the implementation and outcomes of such actions, and to report on the results. With the development of new monitoring frameworks for both the Global Biodiversity Framework under the CBD and the Global Goal on Adaptation under the UNFCCC, there is an excellent opportunity to benefit from and align with existing monitoring and reporting processes.

## Nationally

At the national level, monitoring of EbA activities is needed to report against countries' commitments under both the CBD and the UNFCCC. In the context of revising NBSAPs in line with the KMGBF, countries are also considering changes needed to their national biodiversity monitoring systems to accommodate the inclusion of indicators from the KMGBF Monitoring Framework. Under the UNFCCC, many countries are currently engaged in developing and implementing national adaptation monitoring systems as part of their response to the UAE Framework on Global Climate Resilience.

There is also increasing demand for project- or programme-level monitoring of adaptation outcomes as adaptation finance frameworks develop, to allow those who implement adaptation actions to demonstrate impact and secure further funding.

Harmonizing or, ideally, co-designing indicators and approaches for monitoring, data management and analysis can not only save money and effort, but also support wider communication of the multiple benefits that can be achieved by ecosystem-based adaptation.

Countries looking to identify national-level indicators for EbA can draw on a range of existing data collection efforts from areas such as conservation, agriculture, forestry, fisheries, water management, ecosystem restoration, sustainable development and disaster risk reduction. Under the UNFCCC, the UAE-Belém work programme on indicators for the Global Goal on Adaptation has produced useful compilations of adaptation indicators that are either already in use across a wide range of contexts, or being proposed as examples or potential new indicators [17].

Adaptation monitoring priorities will depend on each country's specific situation with regard to key climate hazards, including slow-onset changes, and the ecosystem services that can help to address them. For example, a combination of data on the location of settlements that are at risk from flooding with data on the condition of mountain vegetation, forests and wetlands could be used to track EbA actions for flood prevention, while data on actual flooding intensity and duration and sustained damages could shed light on their results.

## Internationally

At the global level, there is currently a unique window of opportunity to align indicators between the CBD and UNFCCC, as both conventions fine-tune their monitoring frameworks for the Kunming-Montreal Global Biodiversity Framework[18] and the UAE Framework for Global Climate Resilience (under the GGA), respectively. Targets 8 and 11 of the KMGBF have a direct connection with target 9 (d) of the UAE Framework for Global Climate Resilience: "Reducing 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". Many of the indicators that are set to constitute part of the KMGBF monitoring framework for targets 8 and 11, as well as relevant indicators linked to other KMGBF targets (e.g. restoration, sustainable forest management), are therefore relevant to consider in the ongoing process under the UNFCCC of selecting indicators for measuring the GGA.

The two-year work programme to develop indicators for measuring progress achieved towards the targets outlined in the UAE Framework for Global Climate Resilience, will conclude at UNFCCC COP30 in Belém in 2025. In the submissions on potential indicators, Parties and Observers have submitted over 5000 examples and suggestions for indicators, out of which over 700 are related to the ecosystems target area. The timeline until UNFCCC COP30 therefore represents a particularly unique and valuable opportunity for CBD and UNFCCC focal points to connect and identify mutually beneficial indicators and related monitoring processes.

## Further information:

- Information about each of the KMGBF targets and indicators can be found in the [KMGBF Guidance Notes](#); detailed information and the complete metadata available for the indicators of the KMGBF monitoring framework is accessible [here](#).
- A compilation of existing indicators produced under the UAE-Belém work programme on indicators for the Global Goal on Adaptation under the UNFCCC can be found [here](#).

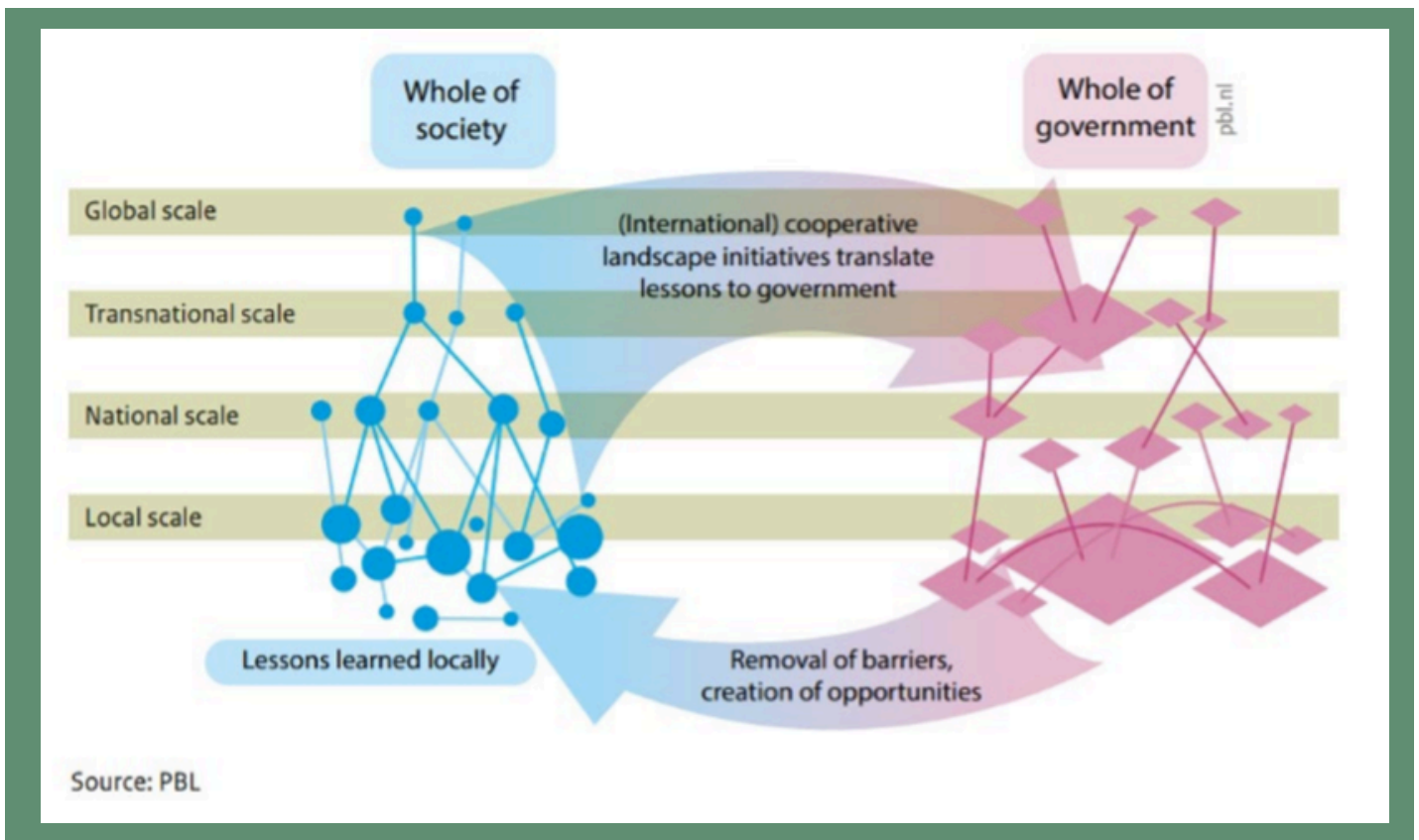
[17] UNFCCC (2024): Synthesis of submissions on the UAE - Belém work programme on indicators. Available at: <https://unfccc.int/sites/default/files/resource/Synthesis%20of%20Submissions%20UAE-Bel%C3%A9m%20Work%20programme%20Final.pdf>

[18] CBD (2022): Monitoring Framework for the Kunming-Montreal Global Biodiversity Framework. Available at: <https://www.cbd.int/gbf/related/monitoring>

## Whole of Society Approach to Implementation

Both government and non-state actors and institutions play complementary roles in the effective implementation of EbA and, accordingly, in achieving Targets 8 and 11 of the GBF. By collaborating across sectors and actor groups, and promoting multi-actor partnerships to mobilize and leverage resources including knowledge, finance, infrastructure and human resources, state and non-state actors can enhance ecosystem resilience, promote biodiversity conservation, and advance climate change adaptation and mitigation efforts at local, national, and global scales. These actors include:

Government	Non-State Actors
<p>Government institutions National environmental and conservation agencies Ministries of finance and planning Local government authorities Intergovernmental bodies</p>	<p>CBOs / NGOs / CSOs Private sector Academic and research institutions Knowledge networks, including the NDC Partnership, NAP Global Network, NAP Global Support Programme, and NBSAP Accelerator International organisations and donors Indigenous Peoples groups Local Communities Media</p>



Adapted from Building Synergies Between Climate & Biodiversity Governance: A Primer for COP28, available [here](#).

# Harmonizing Land Restoration Activities across the Rio Conventions in Rwanda

Rwanda faces interlinked challenges of climate change, biodiversity loss, and land degradation. To address these, the country aims to protect 10.3% of its land for biodiversity and increasing forest cover to 30% under its National Biodiversity Strategy and Action Plan (NBSAP), restore 1,069,476 hectares of land under its Land Degradation Neutrality (LDN) commitment and 805,000 hectares under its Nationally Determined Contributions (NDC). Additionally, under the Bonn Challenge, Rwanda targets restoring 2,000,000 hectares. Achieving coherence and synergies across these objectives is vital and requires a collaborative approach.

A study conducted by the Economics of Land Degradation in 2023 [19] reveals that EbA activities under the NBSAP, NDC and LDN can be largely synergistic if implemented with multiple actor groups including state and non-state actors coordinated by a national focal point who would strengthen inter-ministerial collaboration. Support from the research community can assist with evidence-based implementation of land targets linked to GBF targets 2, 8 and 11 and the co-development of shared indicators and joint monitoring, evaluation and learning tools. Land degradation is estimated to cost Rwanda around USD 2.2 billion annually and investments to support ecosystem restoration and soil erosion control are estimated at USD 1.4 billion. For each dollar spent on EbA activities through land restoration, the return is about USD1.53, particularly in agroforestry expansion, which is both economically and environmentally beneficial. Mobilising joint funding from international finance bodies such as GEF, AF, CIF and GCF, philanthropies and other donor funds can support these coordinated efforts.

## Co-benefits in Land Restoration through EbA (GBF Targets 2, 8 and 11).

The study highlights that restoring forests, wetlands, and expanding agroforestry on agricultural lands provides significant economic returns. Agroforestry on croplands could yield USD 168 million in gross benefits annually, contributing to food security and agricultural productivity. However, restoring shrublands or converting grasslands without agroforestry remains economically unviable. Additional co-benefits of restoration include the sequestering of an estimated 13.5 million tons of carbon over 30 years, 2.5 times the country's current annual emissions. Forest restoration is the most cost-effective carbon sequestration measure, while agroforestry, despite higher costs, offers broad coverage and substantial contributions to sequestration.

## Conclusion

This report presents **consolidated evidence, guidance and case studies on EbA from the FEBA network** to support the uptake of EbA across national planning and to inform the development of revised national biodiversity and climate commitments.

This is presented together with **tools and resources to support governments in the planning, implementation, monitoring and reporting** of EbA in national commitments and strategies, including as a contribution to the implementation of GBF Targets 8 and 11 as related to adaptation, resilience and disaster risk reduction.

Ecosystem-based adaptation offers incredible potential to be scaled across national climate and biodiversity strategies and commitments to help protect ecosystems and biodiversity from the impacts of climate change – and accordingly, help people around the world adapt in an effective, equitable and sustainable way for present and future generations.

If the commitments countries have made under the Rio Conventions are to be delivered, they can no longer be implemented in isolation. **We have no time to waste if we are going to achieve the global goals set by the Kunming-Montreal Global Biodiversity Framework and the Paris Agreement.**

[19] ELD (2023): Economics of Harmonizing Land Restoration Activities across the Rio Conventions in Rwanda and Implications for Food Security. Available at: [https://www.eld-initiative.org/fileadmin/ELD\\_Filter\\_Tool/Case\\_Study\\_Rwanda\\_2023/Rwanda\\_2023\\_Rio\\_Synergies\\_ELD\\_Policy\\_Brief.pdf](https://www.eld-initiative.org/fileadmin/ELD_Filter_Tool/Case_Study_Rwanda_2023/Rwanda_2023_Rio_Synergies_ELD_Policy_Brief.pdf)



## Annex 1. Relevant CBD Decisions and Official Guidance on EbA

The first formal reference to ecosystem-based adaptation was adopted by the CBD in 2010 in decision X/33, defined as the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change (CBD, [2009](#) and [2010](#)). The conceptualization of EbA, and its implementation, drew on a wide range of existing practices by the conservation and development sectors, such as sustainable natural resource management and community-based and locally-led adaptation. The below provides a brief overview of relevant CBD Decisions and Guidance Documents related to EbA.

Title	Description
<p>Kunming-Montreal Global Biodiversity Framework: Targets 8 and 11 (<a href="#">2022</a>)</p>	<p>The KMGBF integrates climate responsiveness across multiple targets, but in particular focused the intersection between climate and biodiversity in Targets 8 and 11. 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.”</p>
<p>CBD Technical Series No. 93: Voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction and supplementary information (<a href="#">2019</a>)</p>	<p>The guidelines provide a set of principles, safeguards, and overarching considerations for planning and implementing EbA and Eco-DRR. The guidance includes a step-by-step approach to implementation, each accompanied by a set of tools and resources. Brief guides are also included on mainstreaming EbA and Eco-DRR across sectors. The voluntary guidelines were adopted by parties at CBD COP14 in 2018 (CBD, 2018)</p>
<p>Guidance on enhancing positive and minimizing negative impacts on biodiversity of climate change adaptation activities (UNEP/CBD/SBSTTA/20/INF/1) (<a href="#">2016</a>)</p>	<p>Provides guidance on enhancing the positive and minimizing the negative impacts on biodiversity of climate change mitigation and adaptation activities, with specific examples for different sectors and ecosystems.</p>
<p>CBD Technical Series 86: Managing ecosystems in the context of climate change mitigation: A review of current knowledge and recommendations to support ecosystem-based mitigation actions that look beyond terrestrial forests (<a href="#">2016</a>)</p>	<p>This report summarizes current knowledge on the potential of ecosystems beyond terrestrial forests to contribute to climate change mitigation, with the intent to support Parties in implementation of CBD Decision X/33. It provides information on the capacity of existing management techniques for peatlands, grasslands and savannahs, coastal ecosystems and croplands to sustain and enhance carbon stocks and carbon sequestration, and addresses synergies between ecosystem-based mitigation and ecosystem-based adaptation.</p>
<p>CBD Technical Series 85: Synthesis Report on Experiences with Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction (<a href="#">2016</a>)</p>	<p>A review and synthesis of global experiences on EbA and Eco-DRR, including key findings from a technical workshop on EbA and Eco-DRR, held in Sandton, Johannesburg, South Africa, in 2016.</p>
<p>CBD Decision XII/20: Biodiversity and Climate Change and Disaster Risk Reduction (<a href="#">2014</a>)</p>	<p>Calls on governments and other relevant organizations to promote EbA and Eco-DRR approaches and integrate these into their respective policies and programmes on Biodiversity and Climate Change and DRR, recognizing that while biodiversity and ecosystems are vulnerable to climate change, the conservation and sustainable use of biodiversity and restoration of ecosystems can play a significant role in climate change mitigation and adaptation, combating desertification and disaster risk reduction.</p>
<p>CBD Decision X/33: Biodiversity and Climate Change (<a href="#">2010</a>)</p>	<p>Calls on governments for the implementation of EbA, including sustainable management, conservation and restoration of ecosystems.</p>
<p>CBD Decision X/29: Marine and coastal biodiversity (<a href="#">2010</a>)</p>	<p>Noted the adverse impact of climate change on marine and coastal biodiversity, and invited Parties to integrate coastal and marine ecosystem-based adaptation solutions into NBSAPs, NAPs, and national marine and coastal management programmes.</p>
<p>CBD Technical Series No. 41: Connecting Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change (<a href="#">2009</a>)</p>	<p>Provided scientific guidance and case studies of ecosystem-based adaptation, together with other linkages between climate and biodiversity. Provided the first CBD definition of ecosystem-based adaptation.</p>
<p>CBD Technical Series No. 42: Review of the Literature on the Links between Biodiversity and Climate Change: Impacts, Adaptation and Mitigation (<a href="#">2009</a>)</p>	<p>Provided a scientific literature review following the IPCC 4th Assessment Report, concluding that biodiversity and healthy, intact ecosystems are critical for climate adaptation and mitigation.</p>
<p>CBD Decision V/6 (<a href="#">2000</a>): Ecosystem Approach</p>	<p>Called on Parties to apply the ecosystem approach, a strategy for the integrated management of land, water and living resources – and recognized that the ecosystem approach could support climate change mitigation and adaptation. This provided an important precursor to ecosystem-based adaptation, which was further refined to be explicitly people-centered.</p>