



# WORKING WITH NATURE- BASED SOLUTIONS TO ADDRESS CLIMATE CHANGE

TRENDS IN NDC  
PARTNERSHIP SUPPORT

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**NDC**   
PARTNERSHIP

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

# INTRODUCTION

*“The climate and nature agendas are entwined... Only by taking urgent action to halt and reverse the loss of nature this decade, while continuing to step up efforts to rapidly decarbonize our economies, can we hope to achieve the promise of the Paris Agreement.”*

Such was the rallying call from four of the Paris Agreement’s [key architects](#) in 2022. The science is clear: There is **no viable route to limiting global warming to 1.5 degrees without urgently protecting, restoring and sustainably using nature**. Moreover, healthy ecosystems and their services are essential to adapt to the effects of an already changing climate. In turn, climate change is an increasingly critical driver of biodiversity loss and may lead to irreversible damage to the world’s ecosystems.<sup>1</sup>

While for many years, the **three Rio Conventions on Climate Change, Biodiversity and Desertification have been treated as separate issues**, 2021 and 2022 marked breakthrough years for joint action on climate and nature. The United Nations Framework Convention on Climate Change (UNFCCC) COP27 Cover Decision highlighted *“the urgent need to address, in a comprehensive and synergetic manner, the interlinked global crises of climate change and biodiversity loss.”* This strong political signal helped set the stage for the UN Convention on Biological Diversity (CBD) COP15 in December 2022, which saw the **adoption of the new, ambitious Global Biodiversity Framework (GBF)**. With two of its core targets aiming to effectively conserve 30% of ecosystems through protected areas on land and at sea and to ensure that at least 30% of degraded ecosystems are

1. IPCC, 2022; IPBES, 2019

## ABOUT INSIGHT BRIEFS

**Insight Briefs** are analyses developed by the **NDC Partnership’s Support Unit**, members, or its partner institutions to share insights into thematic issues based on requests received by countries and the support provided by the Partnership.

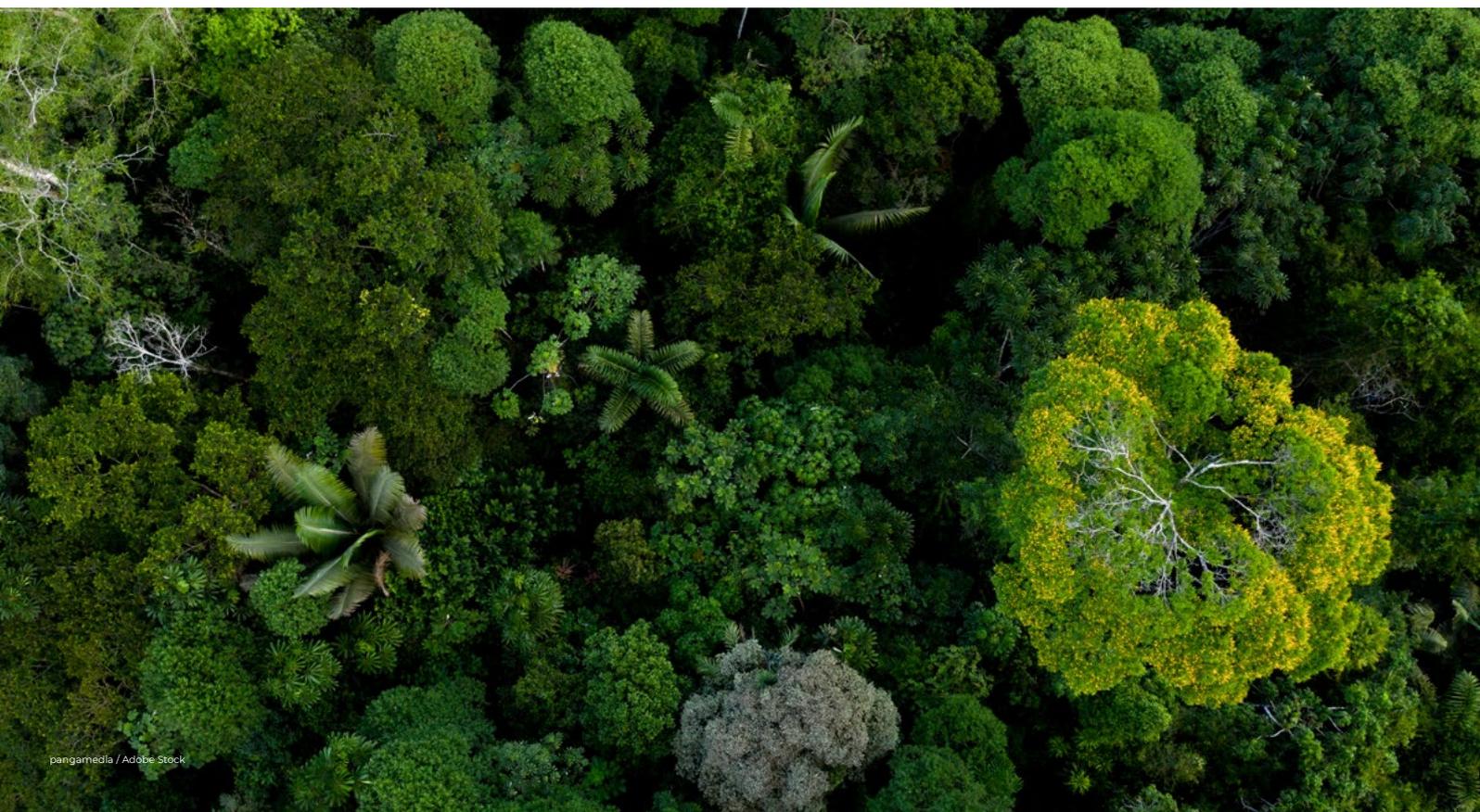
The following Insight Brief was developed by the **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)** on behalf of the **German Federal Ministry for Economic Cooperation and Development (BMZ)**, based on NDC Partnership data. It provides an analysis of requests related to nature-based solutions (NbS) by partner countries through the NDC Partnership and the support provided. It also offers recommendations to the NDC Partnership, including countries and development and implementing partners on how to strengthen support to countries in their effective uptake and implementation of NbS through their NDCs.

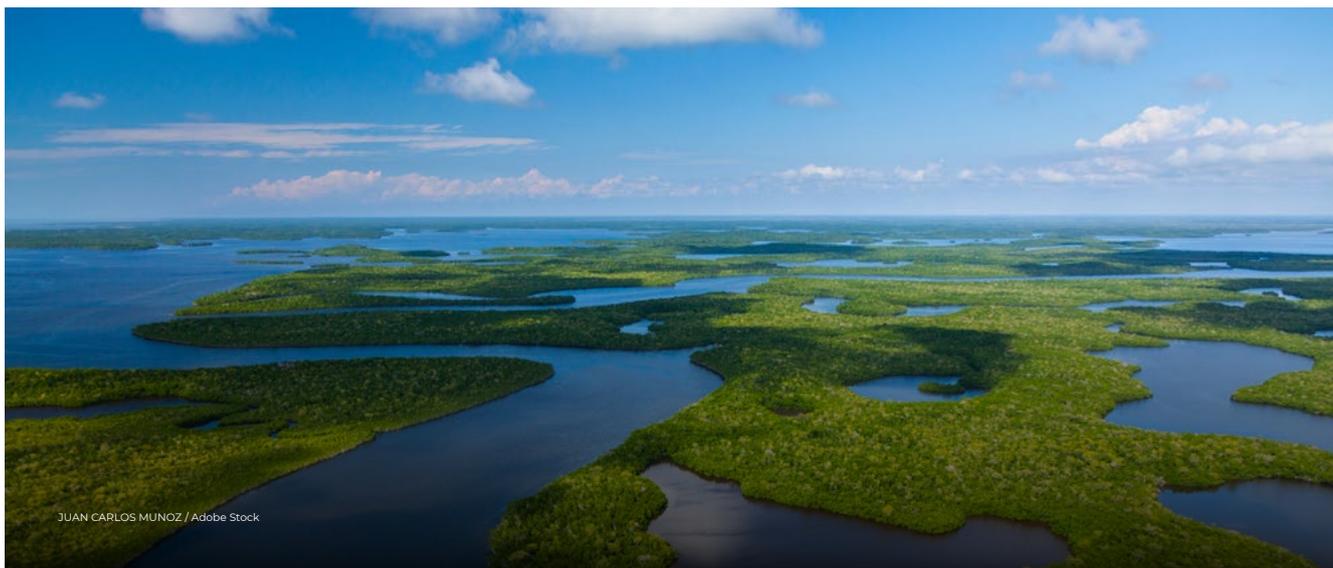
under effective restoration by 2030, the **GBF is only achievable in close synergy with climate and desertification action as well as other multilateral efforts on sustainable development and vice versa.**

**NbS have increasingly emerged as a range of integrated approaches that are vital for addressing both the causes and consequences of climate change, biodiversity loss and land degradation.** After years of debate around the NbS concept, the United Nations Environment Assembly (UNEA), in March 2022, adopted through its Resolution 5/5 a long-awaited, **multilaterally agreed definition of NbS** (see page 4).

**While this level of political recognition of NbS's multiple benefits is relatively recent, practitioners have, for decades, been implementing a wide range of approaches that work with nature and its services,** building a body of evidence that NbS can provide important benefits for climate adaptation and resilience across sectors as well as mitigation opportunities to reduce emissions and remove and store carbon at large scales. Importantly, however, NbS are not a substitute for an urgently needed socio-ecological transformation of the economy and development pathways, including the rapid phase-out of fossil fuels.

**Many countries across the world have recognized the high potential of NbS and have included measures to varying degrees in their nationally determined contributions (NDCs).** Much scope remains, nevertheless, to improve, diversify and upscale NbS in the NDCs and make real impact through their implementation.





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## **NBS DEFINITION ACCORDING TO UNEA RESOLUTION 5/5 “NATURE-BASED SOLUTIONS FOR SUPPORTING SUSTAINABLE DEVELOPMENT”**

*“Nature-based solutions, cognizant of and in harmony with the concept of ecosystem-based approaches... are **actions to protect, conserve, restore, sustainably use and manage** 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 and resilience and biodiversity benefits, and recognizes that nature-based solutions*

*(a) **Respect social and environmental safeguards**, in line with the three “Rio Conventions” ... including such safeguards for local communities and indigenous peoples*

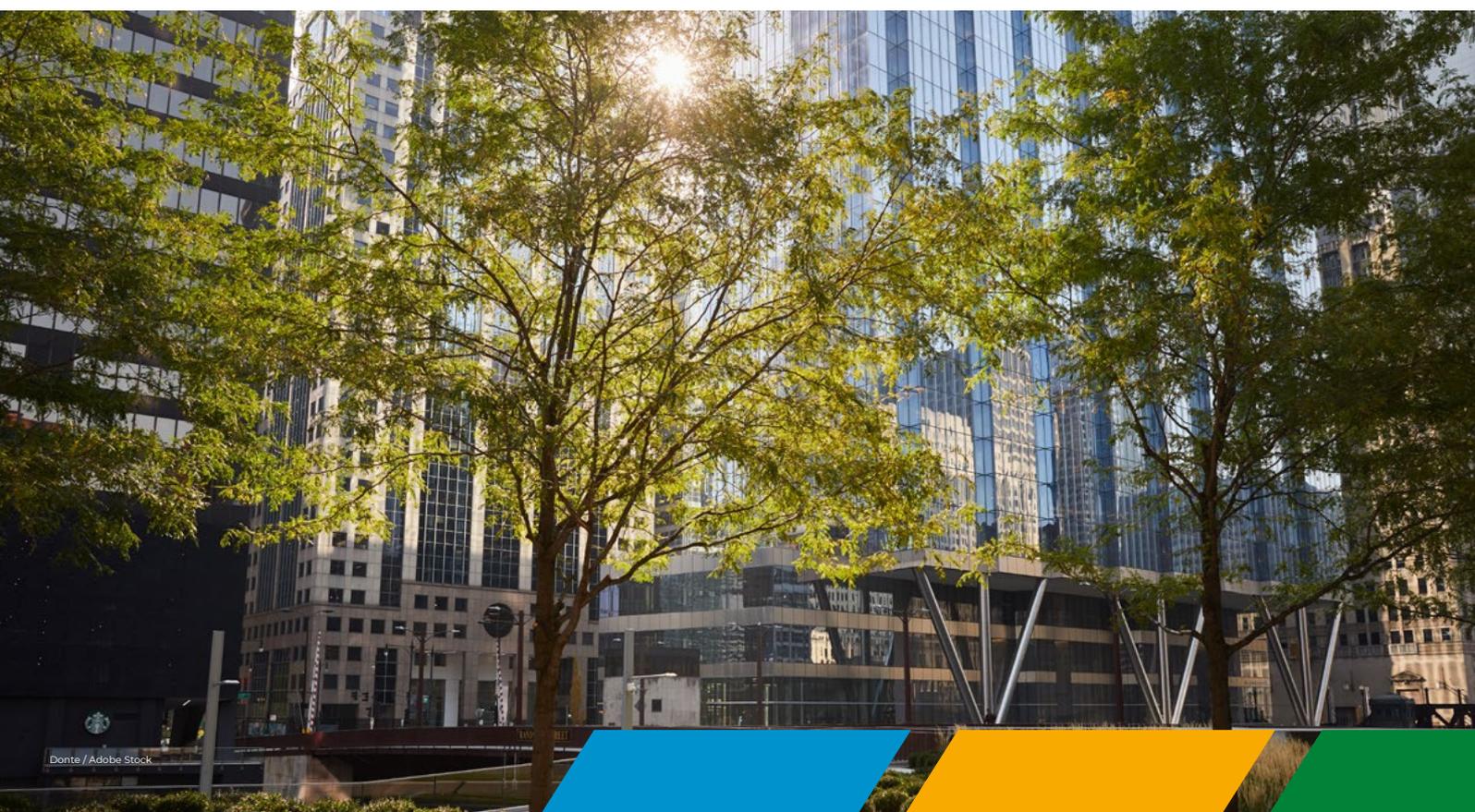
*(b) Can be implemented in **accordance with local, national and regional circumstances**, consistent with the 2030 Agenda for Sustainable Development, and can be managed adaptively*

*(c) Are among the actions that play an **essential role in the overall global effort to achieve the Sustainable Development Goals**, including by effectively and efficiently addressing major social, economic and environmental challenges, such as biodiversity loss, climate change, land degradation, desertification, food security, disaster risks, urban development, water availability, poverty eradication, inequality and unemployment, as well as social development, sustainable economic development, human health and a broad range of ecosystem services...”*

## NATURE-BASED SOLUTIONS IN MEMBER COUNTRIES' NDCS

The analysis in this Insight Brief, builds on previous [work by WWF](#) (2021) and extends the analysis to include all (completed in May 2023) of 101 NDC Partnership developing country members' first, updated and second NDCs. The findings show a clear positive trend and recognition of the importance of nature for climate action, with **96 out of 101 countries including NbS to varying degrees in their most current NDC**. Eighty-four countries have incorporated NbS-related measures into their NDC's **mitigation** and 92 countries in their **adaptation targets and actions**.

**Member countries have included NbS measures in a wide range of ecosystems** (see Figure 1). **Forests** are the most prominently mentioned ecosystems in NDCs (**92%**), including NbS such as forest conservation, restoration and afforestation or sustainable forest management. A large **majority of NDCs (75%)** have embedded **NbS in agricultural ecosystems**, including sustainable land management, agroforestry and restoration of degraded lands. Less than half of the NDCs include **NbS in wetlands (45%)**, with **peatlands (4%)** being particularly **underrepresented**, despite their well-documented high potential as carbon sinks. Notably, **NbS in urban ecosystems**, such as green/blue/nature-based infrastructure or urban ecological corridors, have to date been integrated in only **27%** of partner countries' NDCs, despite their significant contribution to climate resilience, disaster risk reduction and health and well-being of urban populations.



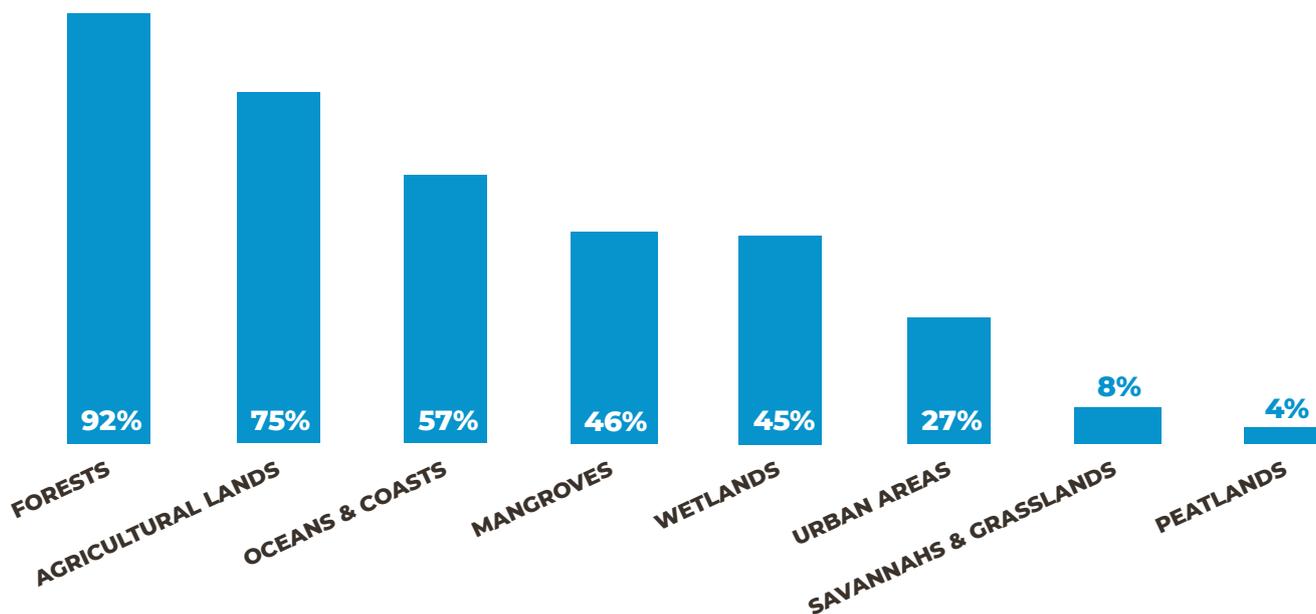


FIGURE 1. NBS UPTAKE IN NDCS BY ECOSYSTEM (PERCENTAGES ARE FOR A TOTAL OF 101 NDCS)

Despite a clear positive trend in NbS uptake in the NDCs confirmed by [various comprehensive studies](#), current insights allow for **no thorough assessment of the design and implementation quality** of these NbS measures. However, [analyses indicate](#) the urgent need for **evidence-based and quantifiable targets** for NbS, especially in adaptation, **robust enabling conditions** and **social and ecological safeguards, monitoring of effectiveness of implementation** as well as enhanced international and domestic **financial flows**. This suggests that considerable potential remains for countries to strengthen the role of NbS in future NDCs and to ensure their co-benefits for biodiversity and for people.

## Analyses of NbS integration in the NDCs indicate the urgent need for

- ✓ Evidence-based and quantifiable targets for NbS, especially in adaptation
- ✓ Robust enabling conditions and social and ecological safeguards
- ✓ Monitoring of effectiveness of implementation
- ✓ Enhanced international and domestic financial flows



# ANALYSIS OF REQUESTS RELATED TO NATURE-BASED SOLUTIONS

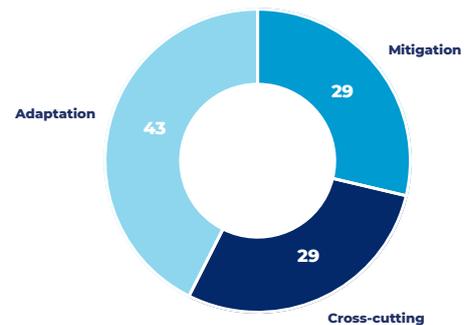
Of the 4,816 requests received by the NDC Partnership between October 2017 and May 2023, 806 (17%) were related to NbS. They were submitted by 51 of the 101 member countries. This chapter provides insights into the nature of these requests and highlights existing gaps in support.

## Trends in NbS-related requests

The following section presents trends and provides a breakdown of NbS-related requests by focus area, type of support, sector, activity type, ecosystem and regional distribution.

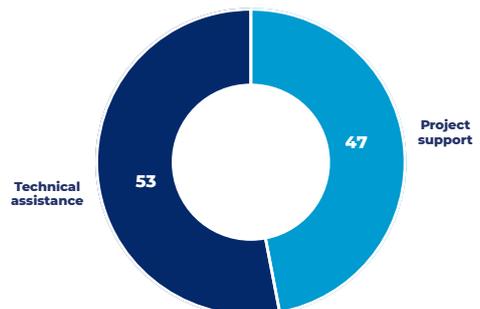
### Focus area

Of NbS-related requests, 72% touch on adaptation (29% cross-cutting and 43% adaptation specific), compared to 58% that touch on mitigation. Adaptation-specific requests related to NbS (43%) are higher than the average across all requests (28%) to the NDC Partnership.



### Type of support

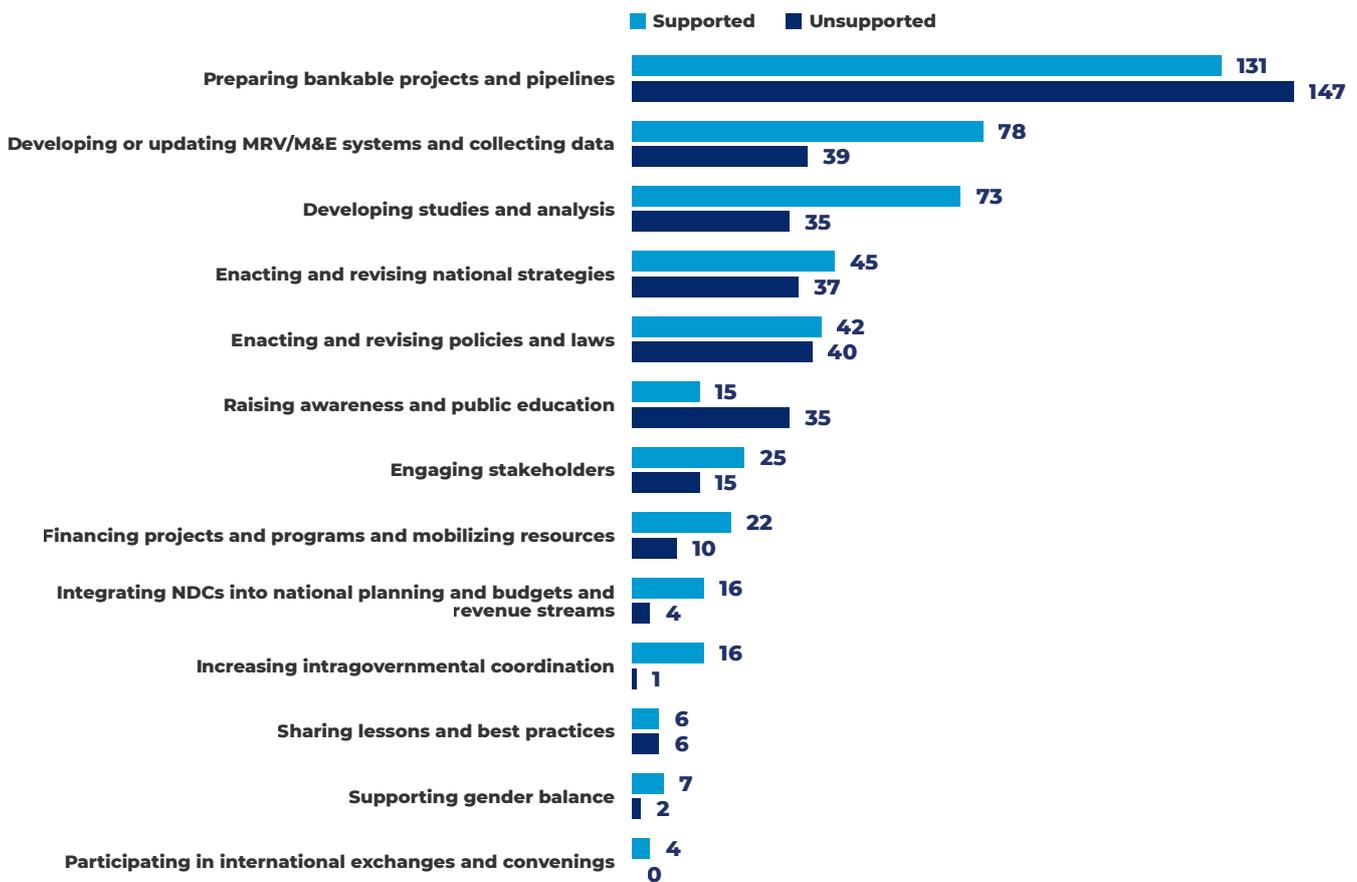
NbS-related requests are nearly equally split across project support (47%) and technical assistance (53%).<sup>2</sup> By comparison, across all topics, only 27% of all requests for support received by the Partnership are for projects.



2. Technical assistance refers to support or activities that are not a physical tangible investment while project support refers to a physical investment directly linked to mitigation and adaptation.

## Activity type

More than a third (41%) of NbS-related requests focus on aspects of NbS financing, including support for preparing bankable projects and pipelines. Finance-related requests for NbS include, for example, feasibility assessments, financial structuring and access to international sources of finance (e.g., multilateral development banks, climate funds, etc.) as well as support with developing policies, procedures and institutional arrangements for financing through carbon markets.



About a fourth (23%) of NbS-related requests concern the enabling framework conditions in which NbS implementation takes place. These include activity types such as enacting and revising national strategies, policies and laws and increasing intragovernmental coordination. For example, **Grenada** received support for reviewing and updating protected-area legislation to incorporate climate change considerations.

**Engaging stakeholders, raising awareness and public education and supporting gender balance are largely underrepresented in the requests.** Only 6% are for support in stakeholder engagement and consultation for NDC implementation, while a mere 1% relate to gender equality. **Mozambique**, for example, made a request for support to train women and community-based associations in community land, water, forest and fauna management.

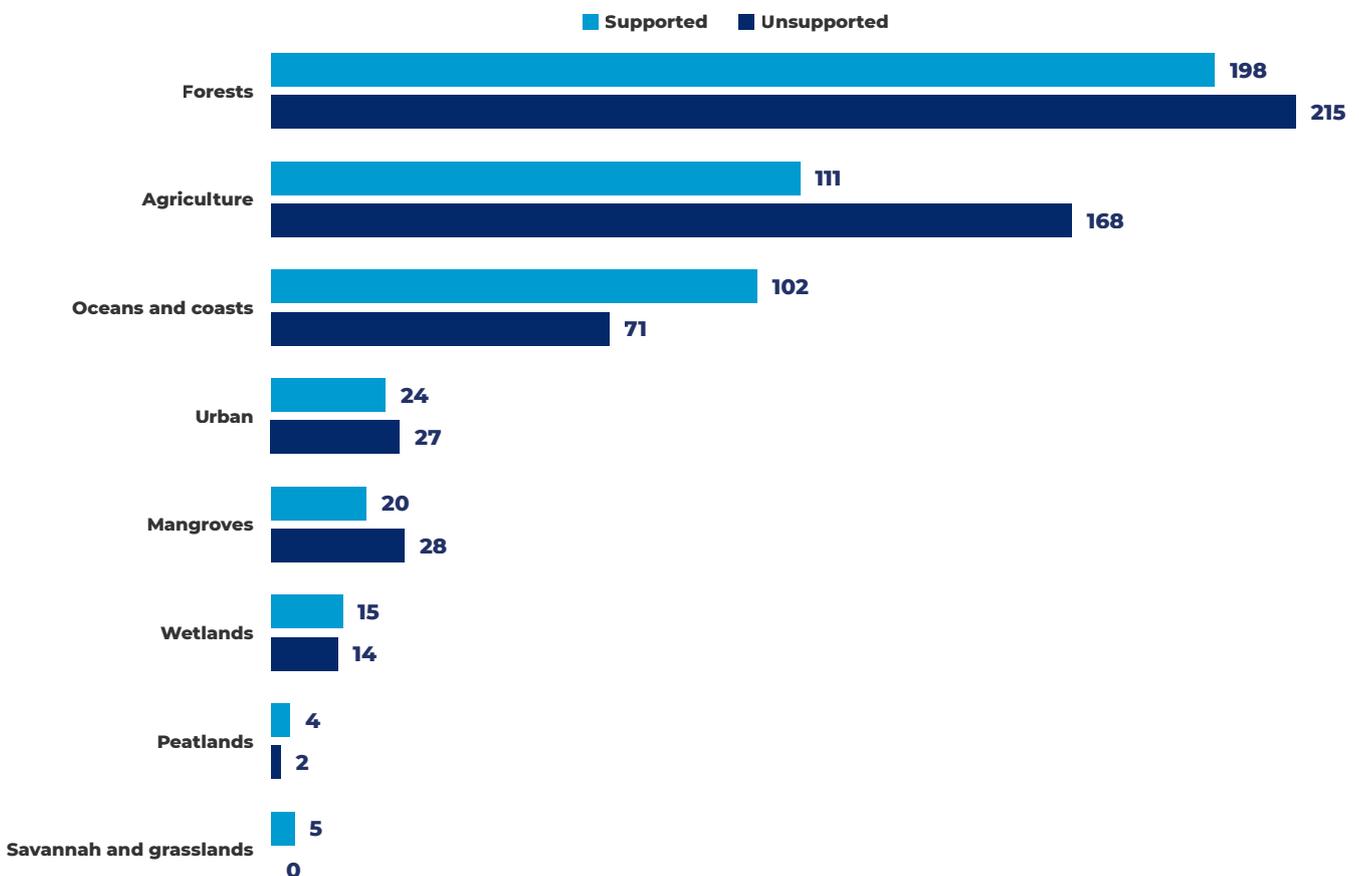
## Ecosystems

NbS-related requests involve a wide range of ecosystems, including forests (51%), agricultural lands (35%), oceans and coasts (22%) and urban areas (6%).

Requests mainly concern instruments and approaches categorized as Reducing Emissions from Deforestation and Forest Degradation (REDD+), forest conservation, sustainable forest management, as well as afforestation and reforestation measures. For example:

**Benin** requested support to develop early-warning systems for overexploitation of forests and to develop economic alternatives to reduce deforestation. **Mozambique** requested support for forestry initiatives, including community forest management, restoration of degraded forests and small- and medium-scale forest plantations.

NbS offer multiple benefits for the agriculture sector when deployed properly, such as increasing resilience against climate shocks, ensuring food and income security and mitigating emissions while promoting further benefits in ecosystem services and biodiversity. For example: **Gambia** requested support for the restoration of degraded lands using agroforestry and assisted natural regeneration.



**Despite their potential for both mitigation and adaptation, mangroves, wetlands and peatlands are rarely included in requests.** While mangroves have recently gained more attention and are well integrated into the most recent NDC updates, this trend has so far not translated into more requests to the NDC Partnership. One of the few requests related to peatlands was received from **Panama**, which requested technical assistance for the mapping of coastal peat bogs.

**Only 15% of NbS-related requests explicitly mention biodiversity.** This is while NbS by definition (see p. 4) must benefit biodiversity and support the delivery of a range of ecosystem services while addressing socio-economic challenges. Hence, any NbS measure must explicitly consider biodiversity in its design and implementation. Moreover, addressing drivers of biodiversity loss helps to ensure long-term climate impacts of NbS.



## Trends in support

### Supported requests

**The support of NbS-related requests (51%) is in line with the average support rate of all requests to the NDC Partnership (58%).<sup>3</sup>** Out of the total 533 NbS-related requests, 275 have been either fully, partially or indicatively supported through the NDC Partnership.

**NbS-related requests that focus on climate change mitigation and adaptation simultaneously (i.e., cross-cutting) are particularly well supported (70%).** This support rate is consistent with a general trend in the NDC Partnership; cross-cutting requests are better supported than mitigation- or adaptation-specific requests. This trend reflects NbS characteristics as a multiple benefit solution to climate change challenges.

**A large majority (67%) of NbS-related requests related to monitoring and reporting systems for NDCs have received support.** Supported NbS-related requests include developing capacities, developing or updating their Measurement Reporting and Verification/Monitoring & Evaluation systems and collecting data to enhance implementing and reporting of progress on their milestones and targets in their NDCs. For example, partners including GIZ, the Asian Development Bank (ADB), the United Nations Development Programme (UNDP) and WWF have supported sectoral agencies in **Thailand** to develop climate resilience indices in water resources management, agriculture and food security, tourism, natural resources management and human settlements under their National Adaptation Plan (NAP).

**Similarly, the majority (68%) of requests for developing studies and analyses relevant for NbS have been supported.** These studies or analysis for example include cost-benefit analyses and vulnerability assessments as well as policy analyses, feasibility assessments and technical projections with direct implications for policy reform or investment plan development. For example, **Belize** requested technical assistance in developing an assessment of seagrass habitat contributions to carbon sequestration.

**While there are only few NbS-related request that address engaging stakeholders or supporting gender balance, those received have been well supported.** Stakeholder engagement and consultation often includes promoting knowledge about climate change and creating a discussion amongst the public about actions needed. Five out of six requests for supporting gender balance have received assistance.

3. Globally aggregated, the support rate is at 65%; however, this includes the Climate Action Enhancement Package data, which is not reflected in this analysis, making the data sets and support rates not comparable.

## Gaps in support

**While adaptation is most prominently requested by countries in their NbS-related requests only 39% of adaptation-specific requests are supported.** This mirrors the overall adaptation support rate (42%). The response rate to mitigation and cross-cutting request is considerably higher. Considering that the objective of allocating 50% of international climate finance to adaptation has not yet been achieved and requires concerted action, this remains an important support gap.

**More than half (53%) of requests for preparing bankable projects and pipelines submitted to the NDC Partnership have not received support.** This could be an indicator that the preparation of bankable projects requires much effort in terms of data collection, analysis and general preparation, which can be challenging not only for countries but also for donor and implementing partners. Most unfunded requests relate to developing and financing adaptation projects and activities, which may be because of a lack of confidence among development and implementing partners that adaptation projects can yield financial returns and hence attract public and private investments.

**More than two-thirds (70%) of requests for awareness-raising and public education remain unsupported.** These requests are for activities to enhance public knowledge and awareness about climate change, including the integration of climate change into national curricula and educational campaigns. Unsupported requests included, for example, implementation of a program of awareness-raising for key players to reduce deforestation and forest degradation, and a campaign to raise awareness among students about nature and its impact on health with the aim of establishing and improving quality permaculture gardens in schools.

**Less than half (47%) of requests for urban ecosystems have been supported, while only 6% of NbS-related requests actually target urban ecosystems.** Two examples for unsupported requests are **the Gambia**, requesting support for strengthening and expanding urban agriculture and green spaces in its larger settlements and **Zimbabwe**, requesting support for mapping, protecting and monitoring groundwater recharge zones in urban areas, such as in its capital Harare have not been supported.

## RECOMMENDATIONS

Considering the vital role of NbS in addressing both the causes and consequences of climate change, the NDC Partnership has an important role to play in the mainstreaming, upscaling and improvement of NbS in the NDCs and their implementation. Drawing on the analyses of NbS in the NDCs and of NbS-related requests to the Partnership, the following recommendations are suggested.

### Developing countries

- › **Assess the current NDC in terms of integration of NbS measures that can provide benefits for climate mitigation and adaptation** and evaluate the potential for improvement and uptake in the new NDC. Important areas to consider when updating NDCs:
  - › **Realize the country's full NbS potential across ecosystems:** As numerous analyses have shown, there is considerable scope to better harness the benefits of NbS in ecosystems such as urban areas, wetlands and peatlands as well as mangroves and to integrate corresponding measures in the NDC.
  - › **Design measurable and robust NbS targets:** While most NDCs mention a variety of NbS measures, these are not always articulated in quantified and measurable actions and targets. Moreover, as [one study](#) recommends, “targets should aim to be clearly informed by scientific and local indigenous knowledge about ecosystems, their sustainable management and their local dependencies. For adaptation, targets should aim to address specific vulnerabilities to climate change; for mitigation, they should be based on well-supported carbon estimates and accounting.”
  - › **Ensure quality and integrity of NbS measures:** The description of robust NbS measures in the NDCs should offer sufficient detail to orient implementers on quality and integrity. It is highly recommended to reference and employ the **NbS definition provided by the [UNEA Resolution 5/5](#)** “Nature-based solutions for supporting sustainable development” and crucial **social and environmental safeguards for NbS** to ensure co-benefits for people and biodiversity. The IUCN “[Global Standard for Nature-based Solutions](#)” can provide valuable guidance.
- › **Integrate NbS support needs into the Partnership Plan** to receive targeted assistance from relevant and specialized implementing partners with the design, planning, coordination, implementation and tracking of progress of NbS-related activities.

## Development and implementing partners

- › **Increase support for NbS-related requests.** Important support gaps have been identified in the following areas: NbS for climate adaptation/ecosystem-based adaptation, activity types such as bankable projects, stakeholder engagement or awareness raising. When supporting NbS-related requests, ensure crucial safeguards especially regarding biodiversity, gender-sensitive approaches and participation of Indigenous Peoples and Local Communities (IP&LC).
- › Strengthen Partner Countries' implementation of NbS measures through **sustained technical or financial assistance within their Partnership Plans.**
- › **Increase capacities and raise awareness on NbS-related topics via webinars, training courses and knowledge products.** To start with, these could be focused on topics and trends identified in this analysis and the corresponding needs of the partner countries: NbS for climate adaptation/ecosystem-based adaptation; NbS in ecosystems such as wetlands, peatlands and urban areas (including green/blue/nature-based infrastructure); activity types such as bankable projects, stakeholder engagement or awareness raising; and social and ecological safeguards for NbS.
- › Help to break silos and **foster synergies between national plans and international processes in relation to NbS** by supporting Partner Countries in their **alignment of NDCs** with National Adaptation Plans (NAPs) and National Adaptation Programs of Action, National Biodiversity Strategies and Action Plans (NBSAPs) under the UN Convention on Biological Diversity (CBD) and the Land Degradation Neutrality (LDN) targets under the United Nations Convention to Combat Desertification (UNCCD).



# Working with Nature-Based Solutions to Address Climate Change

TRENDS IN NDC PARTNERSHIP SUPPORT

On behalf of



Federal Ministry  
for Economic Cooperation  
and Development

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*Authors: Simon Conze, Andrea Goertler, Marlina Kiefl and Cécile Schneider, with support from Haseeb Bakhtary (Climate Focus), Jan Drucktenhengst and Julia Kramlofsky*

*Responsible in BMZ: Flora Hartmann, Dr. Claudia Hiepe*

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## NDC PARTNERSHIP SUPPORT UNIT

### WASHINGTON, DC, USA OFFICE

#### WORLD RESOURCES INSTITUTE

10 G Street NE Suite 800,  
Washington, DC 20002, USA

T: +1 (202) 729-7600

E: [supportunit@ndcpartnership.org](mailto:supportunit@ndcpartnership.org)

### BONN, GERMANY OFFICE

#### UN CLIMATE CHANGE / UNOPS

Platz der Vereinten Nationen 1  
53113 Bonn, Germany

T: +49 (228) 815-1000

E: [supportunit@ndcpartnership.org](mailto:supportunit@ndcpartnership.org)