

ENACT 2024 Nature-based Solutions Discussion Paper

Strategic action across the Rio Conventions

THE
ENACT
2024



Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection



**ENACT
PARTNERSHIP
FOR NBS**



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EXECUTIVE SUMMARY

To achieve their intended impact, Nature-based Solutions (NbS) must effectively address the interconnected challenges of climate change, biodiversity loss, and land degradation while enhancing human well-being. The ENACT (Enhancing NbS for an Accelerated Climate Transformation) Partnership works to integrate collective global efforts to address climate change, land and ecosystem degradation and biodiversity loss through NbS. It does so by providing a hub for Parties and non-state actors working on NbS to collaborate and build support across the Rio Conventions through a collective voice for evidence-based policy on NbS.ⁱ

The ENACT 2024 NbS Discussion Paper synthesises recent scientific findings on NbS, highlighting their capacity to provide significant adaptation and mitigation benefits. Key recent insights on NbS include evidence for the following impacts:



Adaptation and Vulnerability Reduction: NbS are shown to substantially reduce vulnerabilities in the Global South, with 95% of interventions reported to decrease vulnerability through improved ecosystem sensitivity.¹



Social-Ecological Resilience: NbS bolster community resilience by engaging local communities and respecting local values, as evidenced by high levels of local participation and successful community-managed projects.²



Economic Benefits: NbS offer substantial economic advantages, including job creation and economic resilience. Studies show that 67% of economic outcomes are positive, and NbS can provide flexible responses to economic shocks.³



Mitigation Potential: NbS are effective for climate mitigation, with tropical and temperate forest conservation identified as high-confidence strategies for carbon sequestration.⁴



Urban Impact: In urban areas, NbS combat issues like heat islands and extreme weather, with significant benefits observed in temperature reduction and stormwater management.⁵

ⁱ The Partnership was launched at the Sharm el-Sheikh UNFCCC COP27 by the Egyptian COP Presidency in collaboration with the Government of Germany and IUCN. IUCN hosts ENACT's secretariat, which leads the implementation of the Partnership.





The most recent research also highlights key areas for investment and future research focus:

Scaling and Integration: Effective NbS implementation requires robust knowledge integration, sustainable funding, and adaptive governance. Successful models emphasise cross-sectoral collaboration and innovative financing.⁶

Equity and Justice: Ensuring equitable access and inclusive planning for NbS is crucial to address social disparities and maximise the benefits across different communities.⁷

These scientific highlights underscore the critical role of NbS in achieving sustainable development goals and the need for a comprehensive and integrated global approach to fully leverage their benefits.

Aligning efforts across the Rio Conventions—namely the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), and the United Nations Convention to Combat Desertification (UNCCD)—is crucial for fostering an integrated approach at all levels of governance. These conventions, while addressing distinct challenges, are interconnected in their impact on enhancing biodiversity, creating climate resilience and fostering ecosystems integrity. By harmonizing their policies to meet joint targets across the conventions, countries can optimize resource use, and avoid duplication of efforts, ultimately leading to more effective conservation, restoration and climate change adaptation and mitigation measures. An integrated approach not only promotes ecological integrity but also supports socioeconomic development, ensuring that communities can thrive while protecting the planet for future generations.

Building on the weight of the evidence, the ENACT Partnership offers the following action-focused policy proposals to accelerate NbS within the Rio Conventions:

ALIGNING POLICIES

Governments should integrate clear, measurable NbS targets into national strategies across the Rio Conventions. For the CBD, this means embedding NbS targets into National Biodiversity Strategies and Action Plans (NBSAPs), focusing on ecosystem resilience and biodiversity conservation. The UNFCCC should call for incorporating NbS into Nationally Determined Contributions (NDCs) and adaptation communications, tracking measures like carbon sequestration and ecosystem restoration. UNCCD should emphasise including NbS in National Action Programs (NAPs) and Land Degradation Neutrality (LDN) targets to combat land degradation and desertification.

ACCELERATING FINANCE

Scaling up financing for NbS is crucial. Therefore, countries should include mechanisms, tools or instruments for NbS financing in their respective national strategies and policies relating to the three conventions (CBD, UNFCCC and UNCCD). In all instances, access to financing should be enhanced particularly to chronically underserved and marginalised groups. These measures should be achieved through additional funds and not compromise current financing.

STRENGTHENING GOVERNANCE

Effective NbS planning requires a whole-of-society approach, ensuring full and inclusive participation. The CBD should establish or strengthen existing stakeholder platforms that include representatives from Indigenous Peoples, local communities, women, youth, and other groups in vulnerable situations in NbS planning and decision-making. The UNFCCC should call for integrating inclusive governance





practices into NDCs and adaptation plans, while the UNCCD should promote community-driven LDN initiatives, supporting equitable participation and benefit-sharing among all stakeholders.

By advancing these policy proposals, achievement of the Rio Convention's linked ambitions toward critical environmental and development goals can be enhanced and accelerated through leveraging the impact of NbS.

Endnotes

- 1 Woroniecki, S., Spiegelenberg, F. A., Chausson, A., Turner, B., Key, I., Md. Irfanullah, H., & Seddon, N. (2023). Contributions of nature-based solutions to reducing people's vulnerabilities to climate change across the rural Global South. *Climate and Development*, 15(7), 590-607.
- 2 Turner, B., Devisscher, T., Chabaneix, N., Woroniecki, S., Messier, C., & Seddon, N. (2022). The role of nature-based solutions in supporting social-ecological resilience for climate change adaptation. *Annual Review of Environment and Resources*, 47(1), 123-148.
- 3 Chausson, A., Smith, A., O'Callaghan, B., Mori-Clement, Y., Zapata, F., & Seddon, N. (2023). Can nature-based solutions support economic recovery? A review of reviews on the economic outcomes of NbS.; Vicarelli, M., Sudmeier-Rieux, K., Alsadadi, A., Shrestha, A., Schütze, S., Kang, M., ... & Mysiak, J. (2024). On the cost-effectiveness of Nature-based Solutions for reducing disaster risk. *Science of The Total Environment*, 174524.
- 4 Buma, B., Gordon, D. R., Kleisner, K. M., Bartuska, A., Bidlack, A., DeFries, R., ... & Hamburg, S. P. (2024). Expert review of the science underlying nature-based climate solutions. *Nature Climate Change*, 14(4), 402-406.
- 4 Vicarelli et al., 2024.
- 5 Nassary, E. K., Msomba, B. H., Masele, W. E., Ndaki, P. M., & Kahangwa, C. A. (2022). Exploring urban green packages as part of Nature-based Solutions for climate change adaptation measures in rapidly growing cities of the Global South. *Journal of Environmental Management*, 310, 114786.; Ferrario, F., Mourato, J. M., Rodrigues, M. S., & Dias, L. F. (2024). Evaluating Nature-based Solutions as urban resilience and climate adaptation tools: A meta-analysis of their benefits on heatwaves and floods. *Science of the Total Environment*, 175179.
- 6 Calliari, E., Castellari, S., Davis, M., Linnerooth-Bayer, J., Martin, J., Mysiak, J., ... & Zandersen, M. (2022). Building climate resilience through nature-based solutions in Europe: A review of enabling knowledge, finance and governance frameworks. *Climate Risk Management*, 37, 100450.
- 7 Kato-Huerta, J., & Geneletti, D. (2022). Environmental justice implications of nature-based solutions in urban areas: A systematic review of approaches, indicators, and outcomes. *Environmental Science & Policy*, 138, 122-133.





LIST OF **ABBREVIATIONS**

CBD	Convention on Biological Diversity
CO₂-eq	Carbon dioxide equivalent
COP	Conference of Parties
ENACT	Enhancing NbS for Accelerated Climate Transformation
GCF	Green Climate Fund
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
LDN	Land Degradation Neutrality
NAP	National Adaptation Plan
NbS	Nature-based Solution
NBSAP	National Biodiversity Strategies and Action Plan
NDC	Nationally Determined Contribution
SDG	Sustainable Development Goal
UNCCD	United Nations Convention to Combat Desertification
UNEA	United Nations Environmental Assembly
UNFCCC	United Nations Framework Convention on Climate Change



INTRODUCTION

It is now widely recognised that climate change, biodiversity loss, and land degradation are interconnected and that successfully addressing these challenges will require globally coordinated action and integrated approaches^{8 9}. NbS offer a facilitative framework around which global agreement can be built and integrated approaches designed. NbS, by UNEA definition, go beyond single-issue actions and include:

*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, resilience and biodiversity benefits.*¹⁰

This definition links to the widely agreed notion that NbS are “place-based partnerships between people and nature.”¹¹ When designed and implemented following appropriate standards, NbS maximise positive synergies and minimise negative trade-offs at the intersection of climate, nature, and society.¹²

For these reasons, NbS have been enshrined in various Rio COP decisions such as CBD COP 15 decision on the Kunming-Montreal Global Biodiversity Framework¹³, UNFCCC COP 28 decision on the outcomes of the global stocktake¹⁴, and UNCCD COP 15 decision on relationships with other conventions¹⁵.

With all three Rio Convention COPs taking place, 2024 stands as an important year to maximise attention on the need for coordinated implementation across the Conventions to deliver globally agreed goals. The delivery of the goals is set at 2030 and discussions this year will focus on a stock take and key actions to be taken at the 2025 half-way point to near-term climate mitigation targets, the Kunming-Montreal Global Biodiversity Framework, and the UNCCD Strategic Framework and the Sustainable Development Goals (SDGs). Further, the current revision of climate and biodiversity strategies (such as NDCs, NBSAPs and NAPs) are a unique opportunity for accelerating transformation.



The objective of this discussion paper, launched at CBD COP 16 and iteratively distributed at UNFCCC COP 29, and UNCCD COP 16, is to support policy makers by providing evidence-based policy actions on NbS to enhance cohesion across the Rio Conventions.

[The ENACT Partnership](#), supporting the [COP 28 Joint Statement on Climate, Nature and People](#), works to accelerate collective global efforts to address climate change, land and ecosystem degradation, and biodiversity loss through NbS. It does so by providing a platform for Parties and non-state actors working on NbS to collaborate and build support across the Rio Conventions through a collective voice for evidence-based policy on NbS. Its three goals on enhancing i) resilience of people in vulnerable situations, ii) conservation, restoration and sustainable management of ecosystems and iii) mitigation by ecosystems directly contribute to all three Rio Conventions and connect them.



The objective of this discussion paper, launched at CBD COP 16 and iteratively distributed at UNFCCC COP 29, and UNCCD COP 16, is to support policy makers by providing evidence-based policy actions on NbS to enhance cohesion across the Rio Conventions.

It will:

- Highlight the most recent scientific evidence on the effectiveness of NbS actions related to addressing effects of climate change and biodiversity loss.
- Recommend clear, action-linked policy proposals to support NbS through and across the Rio Conventions.
- Make the case for enhanced collaboration and partnerships, in line with [SDG17](#), to enhance NbS for accelerated action in the second half of this critical decade.

Endnotes

- 8 C.f. 2021 IPBES-IPCC Co-Sponsored Workshop report. Moreover, the [IPCC AR6 report](#) establishes clearly that nature and land-use related activities provide one third of the required pre-2030 climate mitigation action to maintain a 1.5°C trajectory of temperature rise, in addition to providing critical adaptive capacity and climate resilience.
- 9 The need for holistic, integrated and/or synergistic implementation was an important theme at [UNEA-6](#) in February 2024, where a [resolution on synergies](#) across multilateral environmental agreements was adopted.
- 10 The United Nations Environment Assembly (UNEA) [Resolution 5/5](#) on “Nature-based solutions for supporting sustainable development” in March 2022.
- 11 Seddon, N., Smith, A., Smith, P., Key, I., Chausson, A., Girardin, C., ... & Turner, B. (2021). Getting the message right on nature-based solutions to climate change. *Global change biology*, 27(8), 1518-1546.
- 12 While a full presentation of NbS examples is beyond the scope of this paper, there are significant existing repositories of good practice examples accessible [here](#).
- 13 CBD COP 15 Decision [15/4. Kunming-Montreal Global Biodiversity Framework \(cbd.int\)](#).
- 14 UNFCCC COP 28 Decision 1/CMA.5 Outcome of the first global stocktake [FCCC/PA/CMA/2023/16/Add.1](#), Paragraph 33 & 55.
- 15 UNCCD COP 15 Decision 8 Promotion and strengthening of relationships with other relevant conventions and international organisations, institutions and agencies [ICCD/COP\(15\)/23/Add.1 \(unccd.int\)](#).



2 EVIDENCE FOR NATURE-BASED SOLUTIONS (NBS) EFFECTIVENESS

To achieve their intended impact, NbS must be designed and implemented in a way that considers all three global environmental crises – climate change, biodiversity loss, and land degradation – while enhancing human well-being through alignment with the SDGs. This requires that the implementation, policy, and funding approaches to conservation, restoration, and management of ecosystems advance beyond the status quo following the most robust global NbS standards and incorporating the most recent scientific evidence for impact.¹⁶

This section highlights the most recent, aggregated, widely available science on NbS outcomes through a review of reviews.¹⁷ It emphasises their policy-relevant findings by foregrounding the key NbS messages from core scientific bodies under the Rio Conventions.

The IPCC has stated that there is “high confidence that Nature-based Solutions provide adaptation and mitigation benefits and contribute to sustainable development goals.”¹⁸

This has been made increasingly evident in recent research, such as that by Woroniecki et al.,¹⁹ which demonstrates that NbS can substantially reduce vulnerabilities in rural areas of the Global South. Their 2023 review of the literature found that 95% of the cases reported reduced vulnerability, with 73% of interventions decreasing ecosystem sensitivity to climate impacts. **The Global Land Outlook’s** message in the UN Decade on Ecosystem Restoration (2021-2030) underscores the critical role of restoration as a nature-based solution to achieve economic, social, and environmental goals outlined in the 2030 Agenda for Sustainable Development.²⁰ A scientifically supported case study from Northwestern Ethiopia showed how exclosures for land restoration reduced soil erosion and improved vegetation cover, benefiting local farmers by enhancing soil fertility and fodder availability.²¹

Supporting these findings, Turner et al.’s²² 2022 review highlights that NbS strengthen social-ecological resilience by fostering community engagement and adaptive capacity. Their review reveals that most NbS involve local community participation and respect for local values—63% of NbS cases reported active local engagement, and 70% considered local values. For instance, a comparison between community-managed and government-managed forests in Tanzania demonstrated that forests managed with local involvement were more resilient to climate hazards.²³ Importantly, the review identified



high confidence that Nature-based Solutions provide adaptation and mitigation benefits and contribute to sustainable development goals
(source: IPCC)”

95%
of the cases reported reduced vulnerability in rural areas of the Global South

71%
of studies reported NbS as a consistently cost-effective approach



a gap in knowledge diversity, with only 8% of cases incorporating both local and external knowledge, which limits the potential effectiveness of NbS.

Villamayor-Tomas et al.'s²⁴ 2024 review of 363 empirical observations further illustrate the effectiveness of NbS in developing countries, reporting positive outcomes in 76% of observations related to risk reduction and development. Their review highlights successful applications like reforestation and wetland restoration, which have shown positive impacts across agricultural and coastal sectors. Complementing this, Buma et al.'s²⁵ 2024 expert-driven review confirms the high mitigation potential of NbS. Their review identified tropical and temperate forest conservation and reforestation pathways as high-confidence solutions for carbon sequestration, reinforcing the role of NbS in climate mitigation efforts.

Finally, Vicarelli et al.'s²⁶ 2024 review examined the cost-effectiveness of NbS for disaster risk reduction, finding that 71% of studies reported NbS as a consistently cost-effective approach. Their comprehensive analysis of over 20,000 studies showed that NbS, such as those involving mangroves (80% effectiveness), forests (77%), and coastal ecosystems (73%), are often more effective and economically advantageous compared to conventional engineering solutions. This evidence supports the integration of NbS into disaster risk management and highlights their potential for achieving both environmental and economic benefits.

63%
of NbS cases
reported active
local engagement

According to the **IPBES Global Assessment Report on Biodiversity and Ecosystem Services**, integrating ecosystems into urban planning can significantly enhance resilience to climate change, proving that NbS are a cost-effective and impactful approach to achieving SDGs.²⁷ Recent research underscores this potential, with Nassary et al.'s²⁸ 2022 review of 50 recent studies demonstrating that Urban Green Infrastructure (UGI) in rapidly growing cities of the Global South can effectively combat urban heat islands, improve air quality, and bolster overall urban resilience. They emphasise that there is a notable research gap in data from certain regions, especially in Africa and Oceania, which calls for increased attention and study to fully leverage UGI's benefits.

Further supporting these findings, Ferrario et al.'s²⁹ 2024 comprehensive meta-analysis of 89 studies revealing that NbS substantially mitigates extreme weather impacts, such as heatwaves and floods. Their analysis shows that NbS can lower urban temperatures by an average of 1.1°C and significantly reduce stormwater runoff, with a reduction of approximately 58%

“integrating ecosystems into urban planning can significantly enhance resilience to climate change, proving that NbS are a cost-effective and impactful approach to achieving SDGs

source: IPBES

1.1°C
NbS can lower urban
temperatures

in excess water. These benefits highlight the effectiveness of NbS in enhancing urban climate adaptation and resilience strategies. Collectively, these insights reinforce the value of integrating nature-based approaches into urban planning and policy, particularly in regions that are currently under-researched.

≈ **58%**
reduction in excess
water

The IPBES-IPCC workshop 2021 recognised that NbS are vital in achieving transformative environmental change as they work at the interplay between the climate system, oceans, and land to provide crucial mitigation and adaptation services without harming ecosystems.³⁰ This perspective is supported by recent research, including Wudu et al.'s³¹ 2023 review which emphasises that conservation-focused NbS can significantly mitigate biodiversity loss and support ecosystem health. Their global review underscores the importance of integrating carbon and biodiversity conservation approaches to effectively preserve global biodiversity. The authors call for more focused studies on emission reduction strategies and the impacts of climate change on biodiversity at various scales to enhance the effectiveness of NbS.



NbS are vital in achieving transformative environmental change as they work at the interplay between the climate system, oceans, and land to provide crucial mitigation and adaptation services without harming ecosystems.

source: IPBES-IPCC

To maximise the impact of restoration and other NbS, there is an urgent need to scale up and accelerate these efforts. Calliari et al.³² highlight that, in Europe, successful NbS implementation relies on effective knowledge, finance, and governance frameworks. Their 2022 review of 107 European NbS cases reveals that significant progress can be made by addressing three main areas: integrating and valuing NbS knowledge, increasing private sector investment alongside public funding, and adapting governance structures to support large-scale NbS initiatives. They emphasise the necessity of global collaboration and innovative financing to unlock the full potential of NbS.

67%
of the observed
economic outcomes
from NbS are positive

In terms of economic impacts, Chausson et al.'s³³ 2023 review provides compelling evidence that NbS can offer substantial economic benefits, including job creation and enhanced ecosystem services, which contribute to broader economic resilience. Their review shows that 67% of the observed economic outcomes from NbS are positive, while 24% are mixed, with only 3% each being unclear, negative, or neutral. This indicates that well-designed NbS not only support economic recovery by creating diverse job opportunities and stabilising income but also offer a flexible and rapid response to economic shocks. These findings reinforce the value of investing in NbS as a strategy for both environmental sustainability and economic development.

Finally, Kato-Huerta and Geneletti's³⁴ 2022 review addresses the environmental justice implications of NbS in urban areas, stressing the need for equitable access and inclusive planning processes. Their systematic review of 152 articles from 2000 to 2021 reveals that while NbS can offer numerous benefits, there are often disparities in how these benefits are distributed across different communities. The study highlights the necessity for further research to identify and address environmental injustices by improving planning methods and ensuring community involvement in NbS design and implementation. This approach aims to ensure that the benefits of NbS are equitably shared and that the solutions effectively address social disparities.

Endnotes

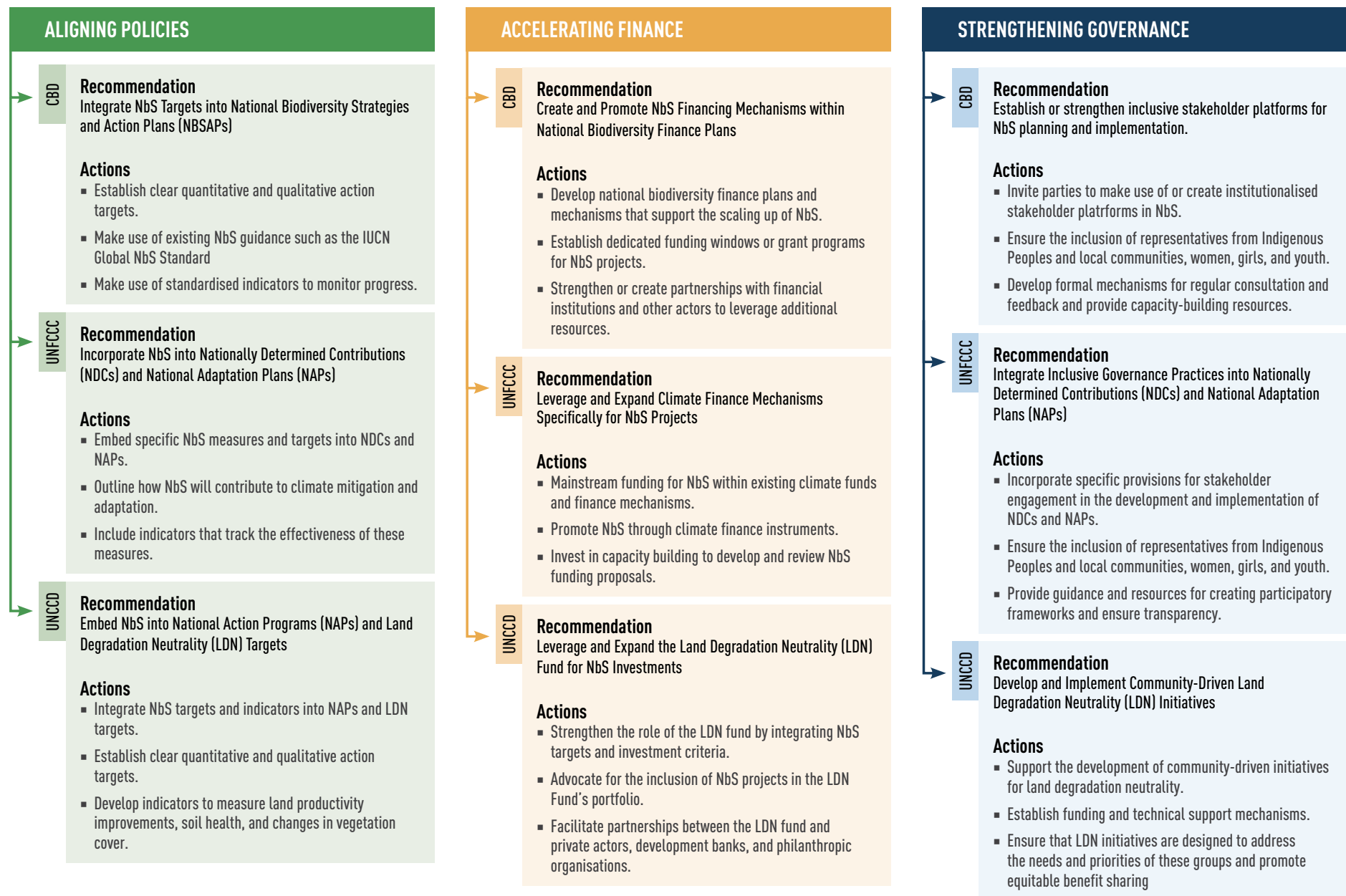
- 16 Seddon, N. (2022). Harnessing the potential of nature-based solutions for mitigating and adapting to climate change. *Science*, 376(6600), 1410-1416. This important research was thoroughly covered in the 2022 [Roadmap to the State of NbS Report](#) launched at COP27, and undergirds much of the research presented in this section.
- 17 This process followed an SLR method which is fully outlined [here](#). SLR is a process to collate, analyse and review relevant evidence on a given topic following specified eligibility criteria. The standard method includes 4 steps: SALSA (search, appraisal, synthesis, analysis).
- 18 [Climate Change 2022: Impacts, Adaptation and Vulnerability Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change](#) (IPCC)
- 19 Woroniecki et al., 2023.
- 20 [Global Land Outlook – Second Edition \(UNCCD\)](#) (2022)
- 21 Mekuria, W., Langan, S., Johnston, R., Belay, B., Amare, D., Gashaw, T., ... & Wale, A. (2015). Restoring aboveground carbon and biodiversity: a case study from the Nile basin, Ethiopia. *Forest Science and Technology*, 11(2), 86-96.
- 22 Turner et al., 2022.
- 23 Strauch, A. M., Rurai, M. T., & Almedom, A. M. (2016). Influence of forest management systems on natural resource use and provision of ecosystem services in Tanzania. *Journal of environmental management*, 180, 35-44.
- 24 Villamayor-Tomas, S., Bisaro, A., Moull, K., Albizua, A., Mank, I., Hinkel, J., ... & Noltze, M. (2024). Developing countries can adapt to climate change effectively using nature-based solutions. *Communications Earth & Environment*, 5(1), 214.
- 25 Buma et al., 2024.
- 26 Vicarelli et al., 2024.
- 27 [IPBES – The Global Assessment Report on Biodiversity and Ecosystem Services](#) (2019)
- 28 Nassary et al., 2022.
- 29 Ferrario et al., 2024.
- 30 [IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change](#) (2021)
- 31 Wudu, K., Abegaz, A., Ayele, L., & Ybabe, M. (2023). The impacts of climate change on biodiversity loss and its remedial measures using nature based conservation approach: a global perspective. *Biodiversity and Conservation*, 32(12), 3681-3701.
- 32 Calliari et al., 2022.
- 33 Chausson et al., 2023.
- 34 Kato-Huerta & Geneletti, et al., 2022.

3

POLICY AND ACTION PROPOSALS

It is critical that governments in partnership with the private sector, civil society and research institutions accelerate actions toward climate, biodiversity, land and sustainable development targets within this decade. To achieve this, parties must act together to coordinate implementation across the Rio Conventions to deliver on the globally agreed goals. The ENACT Partnership works for increased harmonization across the Rio Conventions—UNFCCC, CBD, and UNCCD—in support of this objective. These conventions, while addressing distinct challenges, are interconnected in their impact on enhancing biodiversity, creating climate resilience and fostering ecosystems integrity. By harmonizing across the conventions, countries can optimize resource use, and avoid duplication of efforts, ultimately leading to more effective conservation, restoration and climate adaptation and mitigation measures. This can be facilitated through accelerated implementation and scaling up of NbS interventions in line with the Rio COP commitments and the COP 28 Joint Statement on Climate, Nature and People by strengthening collaboration within the following three frameworks of action:





ALIGNING POLICIES

Foster stronger integration of clear, measurable and aligned targets, and indicators on NbS contributions to resilience, biodiversity conservation and mitigation within NBSAP, NDC and NAP revision and implementation

Actions for each Rio COP:



Convention on
Biological Diversity

Convention on Biological Diversity (CBD)

Recommendation

Integrate NbS Targets into National Biodiversity Strategies and Action Plans (NBSAPs)

Action

During the revision or implementation of NBSAPs, establish clear and measurable targets specifically for nature-based solutions and Targets 8 and 11 in the GBF. This includes setting quantitative goals for enhancing ecosystem resilience, conserving biodiversity, and integrating NbS into key biodiversity policy priorities. Develop a set of standardised indicators to monitor progress, such as metrics for restoration success and ecosystem services improvements, ensuring that, where possible, these are aligned with indicators in NDCs and NAPs. *Ensure that these targets and indicators integrate the UNEA 5/5 NbS criteria and make use of existing guidance such as the NbS Global Standard as a facilitative framework for NbS planning, implementation and review.*



United Nations Framework Convention on Climate Change (UNFCCC)

Recommendation

Incorporate NbS into Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs)

Action

Embed specific NbS measures and targets into NDCs and adaptation communications in a way that builds on the best, recent evidence-based recommendations. This should involve outlining how nature-based solutions will contribute to climate mitigation (e.g., carbon sequestration through reforestation) and adaptation (e.g., flood protection through wetland conservation). Include indicators that track the effectiveness of these measures, such as carbon dioxide equivalent (CO₂-eq) sequestered, area of ecosystems restored, and reduction in climate-related risks. Ensure that these targets and indicators integrate the UNEA 5/5 NbS criteria and make use of existing guidance such as the NbS Global Standard as a facilitative framework for NbS planning, implementation and review.

ALIGNING POLICIES



United Nations Convention to Combat Desertification (UNCCD)

Recommendation

Embed NbS into National Action Programs (NAPs) and Land Degradation Neutrality (LDN) Targets

Action

Integrate NbS targets and indicators into NAPs and LDN targets to address land degradation and desertification. This involves setting measurable goals for implementing NbS, such as restoring degraded land through sustainable land management practices and agroforestry. Develop indicators to measure land productivity improvements, soil health, and changes in vegetation cover. Ensure that these NbS targets align with broader LDN goals and contribute to overall land resilience.

ACCELERATING FINANCE

Scaling of finance and investments for nature-based solutions from all sources, including domestic budgets, multilateral development banks, multilateral climate and biodiversity funds, bilateral development agencies, private sectors actors, and philanthropic sources and priorities this finance in the form of grants over loans.



Convention on
Biological Diversity

Convention on Biological Diversity (CBD)

Recommendation

Create and Promote NbS Financing Mechanisms within National Biodiversity Finance Plans

Action

Support the development of national biodiversity finance plans (under Component 4 of T19) that include specific mechanisms for scaling up investment in nature-based solutions. The plan should outline strategies to attract and utilise funds from domestic budgets, international biodiversity funds, and private sector investments. Establish dedicated funding windows or grant programs for NbS projects within existing funds in a way that structures NbS finance similarly across fund types and create partnerships with financial institutions and philanthropic organisations to leverage additional resources.

ACCELERATING FINANCE



United Nations Framework Convention on Climate Change (UNFCCC)

Recommendation

Leverage and Expand Climate Finance Mechanisms Specifically for NbS Projects

Action

Mechanisms, tools or instruments for NbS financing should be developed and strengthened within existing climate finance mechanisms. This strategy should facilitate access to multilateral climate funds, such as the Green Climate Fund (GCF), and bilateral climate finance, ensuring that NbS projects are eligible for funding. Promote NbS through climate finance instruments by ensuring that NbS are facilitated in existing work to create a streamlined application process and offer technical assistance to help stakeholders prepare successful funding proposals. Further, invest in building capacity to review NbS proposals within these funds.

Example

Mainstreaming could include providing grants or low-interest loans for projects like reforestation or wetland restoration, with dedicated resources from the GCF and bilateral climate funds.



United Nations Convention to Combat Desertification (UNCCD)

Recommendation

Leverage and Expand the Land Degradation Neutrality (LDN) Fund for NbS Investments

Action

Strengthen the role of the LDN Fund by integrating specific nature-based solutions targets and investment criteria into its funding framework. Advocate for the inclusion of NbS projects in the LDN Fund's portfolio, ensuring that such projects are prioritised and receive adequate support. Additionally, facilitate partnerships between the LDN Fund and private sector actors, development banks, and philanthropic organisations to increase the scale and impact of investments in land degradation and desertification solutions.

Example

Expand the LDN Fund's investment criteria to prioritise projects that use NbS, such as agroforestry or soil restoration, and develop a partnership strategy with private sector companies and development banks to co-finance these projects, enhancing their scale and sustainability.

STRENGTHENING GOVERNANCE

Promoting a whole-of-society approach in the synergistic planning and implementation of nature-based solutions, ensuring the full, equitable, inclusive, and effective representation and participation of indigenous peoples, local communities, women, girls, youth, and other communities in vulnerable situations in the planning and implementation



Convention on Biological Diversity (CBD)

Recommendation

Establish Inclusive Stakeholder Platforms for NbS Planning and Implementation

Action

Invite parties to create and institutionalise stakeholder platforms or councils dedicated to nature-based solutions, ensuring they include representatives from indigenous peoples, local communities, women, girls, youth, and other groups in vulnerable situations. These platforms should be involved in all stages of NbS planning, decision-making, and implementation. Develop formal mechanisms for regular consultation and feedback and provide capacity-building resources to enable meaningful participation.

Example

A country could set up a National NbS Advisory Council with dedicated seats for indigenous and local community representatives, women's organisations, and youth groups. The council would meet quarterly to review and advise on NbS strategies and projects, ensuring that diverse perspectives are incorporated.



United Nations Framework Convention on Climate Change (UNFCCC)

Recommendation

Integrate Inclusive Governance Practices into Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs)

Action

Incorporate specific provisions for stakeholder engagement in the development and implementation of NDCs and national adaptation plans drawing on the expansive case literature and standards developed for NbS. This includes mandating the inclusion of Indigenous Peoples, local communities, women, youth, and other groups in vulnerable situations in the consultation processes and decision-making bodies. Provide guidance and resources for creating participatory frameworks and ensure transparency in how stakeholder inputs are used.

STRENGTHENING GOVERNANCE



United Nations Convention to Combat Desertification (UNCCD)

Recommendation

Develop and Implement Community-Driven Land Degradation Neutrality (LDN) Initiatives

Action

Support the development of community-driven initiatives for land degradation neutrality that actively involve indigenous peoples, local communities, women, youth, and other groups in vulnerable situations in planning and execution. Establish funding and technical support mechanisms to facilitate these community-led projects. Ensure that LDN initiatives are designed to address the needs and priorities of these groups and promote equitable benefit-sharing.

4

ENACT EXAMPLES FOR ACCELERATING NBS

ENACT Partner

- United Nations Environmental Program
- World Conservation Monitoring Centre (UNEP-WCMC)



Title

Build the resilience of people, assets and nature to the impacts of climate change through high integrity nature-based solutions

Summary

UNEP-WCMC's Nature-based Solutions (NbS) team will support decision making on and development, deployment and monitoring of high integrity NbS for adaptation and resilience building. This will include development of training materials to help decision makers, and their technical teams take better account of nature in the development of NAPs, and other climate, environment and development plans and strategies. Through several different initiatives we will also support individual countries in the development of NBSAPs that take account of and promote the potential of NbS for enhancing the resilience of people and nature and emphasize their role in advancing progress towards multiple objectives. We will provide support for assessing and monitoring the outcomes of NbS in the context of NBSAPs, NAPs and more widely to enhance the evidence base for informed decision-making on NbS.

Alignment with 2024 Discussion Paper

These initiatives directly support recommendations on NBSAPs and NDCs and contribute to policy alignment more broadly

Responsible Units/Departments

Nature-Based Solutions Unit

Key Partners

Government, Civil Society, Private Sector, Inter-governmental Organisations, Development Finance Institutions



ENACT Partner

European Union



Title

Horizon 2020 and Horizon Europe

Summary

Horizon 2020 was the European Union's primary funding program for research and innovation from 2014 to 2020, with a budget of nearly €80 billion. A significant focus was on NbS, with an aim to harness the power of natural processes to address environmental challenges such as climate change, biodiversity loss, and urban resilience. The program encouraged interdisciplinary collaboration among businesses, academia, and research institutions to develop innovative solutions that support sustainable development.

Following Horizon 2020, the program transitioned to Horizon Europe, which runs from 2021 to 2027. Horizon Europe continues to prioritize nature-based solutions, aiming to enhance ecological sustainability while promoting economic growth and improving quality of life across Europe.

Alignment with 2024 Discussion Paper

Horizon Europe exhibits the possibilities and impact of enhanced funding for NbS. The program allocates substantial resources to projects that explore and implement NbS, recognizing their potential to address critical challenges like climate change, biodiversity loss, and urbanization.

Key aspects of this alignment include:

1. **Dedicated Funding:** Horizon Europe includes specific calls for projects focused on NbS, ensuring that they receive adequate financial support.
2. **Interdisciplinary Research:** By fostering collaboration among various sectors—such as ecology, urban planning, and engineering—Horizon Europe encourages innovative approaches that integrate NbS into broader environmental and social frameworks.
3. **Policy Integration:** The program aims to align NbS initiatives with EU policies, such as the European Green Deal, promoting coherence between funding, research, and policy objectives.
4. **Partnerships and Networks:** Horizon Europe supports the formation of partnerships and networks that connect stakeholders across Europe, facilitating knowledge sharing and best practices in implementing NbS.
5. **Impact Assessment:** Emphasizing the evaluation of ecological and socio-economic impacts of NbS projects, Horizon Europe encourages outcomes that demonstrate the effectiveness and benefits of these solutions.

Responsible Units/Departments

The administration of Horizon 2020 and Horizon Europe was primarily handled by the European Commission, specifically through the Directorate-General for Research and Innovation (DG RTD). Within this directorate, several units focused on different aspects of the programs, including funding, project management, and policy development.

Additional Resources

[Horizon 2020](#), [Horizon Europe](#), [Funding Portfolio](#)

ENACT Partner

Germany



Summary

With the Federal Action Plan on Nature-based Solutions for Climate and Biodiversity (ANK), the German government aims to make a key contribution to significantly improving the general condition of ecosystems in Germany, thus strengthening their resilience and climate mitigation performance. With the Action Plan, the German government will protect, strengthen and restore ecosystems. The plan links climate action with nature conservation and ensures that degraded ecosystems regain their health, their resilience and their biodiversity. It comprises 69 measures in a total of ten fields of action, for example, peatlands, forest ecosystems, seas and coasts, settlement and transport areas or research and capacity building. Agriculture and forestry will become sustainable and allow more space for a diverse range of flora and fauna on the managed areas.

At the core of the program are the financing of restoration measures and incentives for adapted economic approaches that contribute to nature-based climate action. New funding programs are launched for this purpose. Given the diversity of the affected ecosystems and potential funding recipients, there cannot be a “one-fits-all approach”. Rather, tailor-made implementation concepts for the individual funding areas are developed. With the Action Plan, the German government ensures that funding goes where it can best be used so that nature-based climate action can unfold its long-term benefits.

Alignment with 2024 Discussion Paper

The Action Plan will contribute to the biodiversity, climate and further sustainability goals of the German government through a great variety of approaches and aligns different areas of policy through the strengthened NbS implementation.

Furthermore, the ANK is a broad-based program that makes particular use of synergy effects between nature conservation and climate action. Therefore, there are many links to other federal government programs. For example, there is a particularly close link between the ANK and the Climate Action Program. The measures that were incorporated into the 2023 Climate Action Program for the land use sector are fed by the ANK. These measures are formulated and implemented as part of the ANK. There is also a particularly close link to the EU Nature Restoration Regulation. The ANK will make a key contribution to implementing the European restoration goals.

Through the different funding guidelines, the ANK will also enhance financing for NbS throughout different land use sectors in Germany. The governance on NbS implementation will be strengthened through the non-investive approaches of the Action Plan.

Responsible Units/Departments

Overall coordination by Working Group N III 2 (Climate Policy in the Land Sector, Restoration of Nature); Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection

Further Divisions within the Federal Ministry are responsible for implementing the individual measures.

Key Partners/Stakeholders

The Action Plan is the result of a comprehensive participatory process in 2022. The Federal Environment Ministry received around 120 opinions and more than 1,000 online comments. The content of every proposed improvement was reviewed. It helped forge a broad alliance for implementation including landowners, nature conservationists and other local stakeholders.

The Action Plan is implemented in close cooperation with the Bundesländer (Federal States). In the implementation phase of the ANK, the national Centre of Competence for nature-based climate action (KNK) is the first point of contact for the topic at the federal level. In addition to coordinating nationwide advice on the topic of nature-based climate action, the competence centre provides information about various funding opportunities, provides specialist information and also brings stakeholders and interested people together in various event formats. The KNK not only promotes networking in the countries, regions and those involved locally, but also supports the practical implementation of measures with established care structures - both at the local, regional and national level.

Acknowledgments

The International Union for Conservation of Nature (IUCN) would like to thank the ENACT Partners and Co-chairs, The Arab Republic of Egypt and Germany, for their contributions to the development of this discussion paper.

This paper was made possible through the generous contributions of ENACT's donors: International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV).

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ENACT Partners

Canada, European Commission, France, Japan, Malawi, Norway, Republic of Korea, Slovenia, Belgium, Pakistan, Spain, the Netherlands, Switzerland, the United States of America and the Republic of Peru, UN Climate Change High-Level Champions, United Nations Environment Programme (UNEP), the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and the United Nations Convention to Combat Desertification (UNCCD).



Federal Ministry
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