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Evaluation of the GEF support for Nature-Based Solutions

Approach Paper
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Glossary

APR	Annual Performance Report
CBD	Convention on Biological Diversity
CO2	Carbon Dioxide
DGM	Dedicated Grant Mechanism
EbA	Ecosystem-Based Adaptation
EiE	Education in Emergencies
EU	European Union
FGD	Focus Group Discussion
FIP	Forest Investment Programme
GBFF	Global Biodiversity Framework Fund
GEB	Global Environmental Benefit
GEF	Global Environment Facility
GESI	Gender, Equity and Social Inclusion
GHG	Greenhouse Gases
IAP	Integrated Approach Pilot
ICCCAD	International Center for Climate Change and Development
IEO	Independent Evaluation Office
IIED	International Institute for Environment and Development
ILM	Integrated Land Management
INDC	Intended Nationally Determined Contribution
IPLC	Indigenous Peoples and Local Communities
IUCN	International Union for Conservation of Nature
KII	Key Informant Interview
LDCF	Least Developed Countries Fund
LIFE	Financial Instrument for the Environment (L'Instrument Financier pour l'Environnement)
M&E	Monitoring and Evaluation
MDB	Multilateral Development Bank
MEA	Multilateral Environmental Agreement
MEL	Monitoring, Evaluation, and Learning
NAP	National Action Plan
NbS	Nature-Based Solutions
NDC	Nationally Determined Contribution
NGO	Nongovernmental Organization

RAPTA	Resilience, Adaptation Pathways and Transformation Assessment
REDD	Reducing Emissions from Deforestation and Forest Degradation
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RfP	Request for Proposal
SCCF	Special Climate Change Fund
SDG	Sustainable Development Goal
SFM	Sustainable Forest Management
SGP	Small Grants Programme
SLM	Sustainable Land Management
STAP	Scientific and Technical Advisory Panel
TOC	Theory of Change
TOR	Terms of Reference
UNEA	United Nations Environment Assembly
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change

Note: All dollar amounts are U.S. dollars unless otherwise indicated. The nominal GEF replenishment periods are as follows:

Pilot phase: 1991–94

GEF-1: 1995–98

GEF-2: 1999–2002

GEF-3: 2002–06

GEF-4: 2006–10

GEF-5: 2010–14

GEF-6: 2014–18

GEF-7: 2018–22

GEF-8: 2022-2026

1. Introduction

1. The *Evaluation of the GEF support for Nature-Based Solutions* aims to assess the effectiveness of nature-based solutions (NbS) in achieving the Global Environment Facility's (GEF) objectives by concurrently addressing societal challenges, biodiversity net gain, and co-benefits for human well-being (WWF-UK, 2021). This document sets out the proposed approach and design for the evaluation. The evaluation findings will also contribute to the (Eighth) Comprehensive Evaluation of the GEF and GEF engagement strategy, and to GEF 9 replenishment. The GEF's Independent Evaluation Office (IEO) is leading this evaluation in collaboration with ITAD.

2. Understanding the Terms of Reference

2.1. Background: Introducing NbS and its position in the GEF

2. The GEF occupies the position of being a catalyst, an innovator, an incubator, and a facilitator of transformative change toward global environment sustainability (GEF and World Bank n.d.). It is mandated to invest in Global Environmental Benefits (GEBs), climate change adaptation benefits, and transformational change that respond to national and international commitments made under the Multilateral Environmental Agreements (MEAs) and their associated protocols (GEF IEO 2022). The GEF supports several programs, projects, and initiatives addressing local and global environmental and climate concerns related to more than 50 topics.¹ The GEF's mandate provides a good anchor and a strong justification for the integration of NbS in its strategies and programs.

3. GEF investments in the integration of NbS are supported by a family of trust funds: (i) GEF Trust Fund, (ii) Least Developed Countries Fund (LDCF) GEF-managed trust fund, (ii) Special Climate Change Fund (SCCF) GEF-managed trust fund, and (iv) Global Biodiversity Framework Fund (GBFF). The GEF Trust Fund, which is replenished once every four years, serves as a financial mechanism for four international conventions, namely, the UN Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC), and the UN Convention to Combat Desertification (UNCCD), and the Stockholm Convention on Persistent Organic Pollutants (2001). The LDCF and SCCF are mandated to serve the Paris Agreement on combating climate change and adapting to its effects. The GEF-8 Strategy for Climate Change Adaptation is supported by the LDCF and SCCF trust funds. The GBFF supports countries in achieving the Kunming-Montreal Global Biodiversity Framework goals and targets, focusing on strengthening national-level biodiversity management, planning, policy, governance, and finance approaches. Targets 8 and 11 support NbS:

- Target 8: Minimize the impact of climate change on biodiversity, contribute to mitigation, adaptation and resilience including through nature-based solutions and ecosystem-based approaches, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.
- Target 11: Maintain and enhance nature's contributions to people through nature-based solutions and ecosystem-based approaches.

4. Having been launched in August 2023, the financial mechanism has not yet provided funding but has strong future relevance for NbS integration. Together, this family of GEF trusts funds provide opportunities for NbS integration in diverse areas, including biodiversity, climate change, and land degradation, rivers, wetlands, and watersheds, agriculture and food systems, and urban areas.

5. The success of donor negotiations and advocacy efforts by various stakeholders influences the final funding amounts received by the GEF. However, the role of IEO reporting is critical as a tool for prioritizing

¹ <https://www.thegef.org/what-we-do/topics>

efforts, focal areas and emerging themes. GEF comprehensive independent assessments that focus on its performance and results. So far, seven replenishments have been made and seven such evaluations have been conducted (GEF IEO 2022).

6. The GEF has invested NbS via interventions *Ecosystem-based adaptation (EbA)* to generate societal benefits and GEBS as well as *Integrated land management (ILM)*, *Sustainable land management (SLM)*, and *Forest and landscape restoration* that have potential to generate these benefits before its 5th Replenishment Round (GEF-5, 2010-14). From GEF-6 onward (2014-18), the GEF began to explicitly incorporate NbS into its strategy and programming directions. The GEF is currently in its eighth round (GEF-8, 2022-26); its programming treats NbS as one of the cross-cutting themes (GEF and World Bank n.d.). These developments show that the position of NbS in the GEF has ascended from the periphery toward the center of GEF programming directions, policy, and projects since GEF-6. The GEF Scientific and Technical Advisory Panel (STAP) treats NbS as a way of solving both societal and global environmental problems (Bierbaum 2020). There is precedent for the emergence of particular themes across GEF cycles. Some programmatic areas have grown in importance over several cycles and emerged as impact programs. Whilst it is not clear if NbS could or should form an impact program in its own right, lessons can be learned from other thematic areas that have done so, such as the Sustainable Cities program (GEF 2021).

7. Both internal and external reasons account for the growing prominence of NbS in GEF strategy and programming. The influential external developments include (i) the development of NbS principles, (ii) NbS inclusion in the United Nations Framework Convention on Climate Change (UNFCCC), one of the MEAs that the GEF serves, and (iii) NbS being included as one of 11 public finance priorities by the UN Climate Change Conference in Glasgow (COP26) Presidency (UNEP and IUCN 2021; GEF IEO 2023a).² CBD COP 15 guidance to the GEF, Decision 15, annex 1, paragraph 11 states “*The GEF-8 biodiversity strategy and programming directions should promote and implement, as appropriate, the ecosystem approach, and/or nature-based solutions as defined by the United Nations Environment Assembly at its fifth session.*” At the same time, private sector actors, including financial institutions and institutional investors, have shown a growing interest in the value of nature and NbS and made advancements in successful models to blend and catalyze private investment in nature and NbS (TNC, 2019). More than 80% of revised Paris Agreement climate pledges (nationally determined contributions —NDCs) include NbS in their mitigation and/or adaptation plans (Seddon 2022). Most NDC targets, however, are qualitative (Zhai et al. 2023). The internal reasons for the strengthening of the position of NbS in the GEF are (i) GEF’s growing recognition of the potential value of NbS toward the pursuit of the GEF’s mandate, and (ii) subsequent internal processes to clarify and integrate it into GEF strategies and programming. The latter is illustrated by the GEF Secretariat’s analysis of 50 completed and ongoing GEF projects to determine how they incorporated NbS components, and the subsequent STAP review of 30 of these projects to identify the different types of NbS in GEF interventions. The STAP identified the following eight types of NbS: agroforestry; area-based conservation; biodiversity; ecosystem-based management; integrated coastal zone management; integrated water resource management; restoration and rehabilitation; and sustainable land management (Bierbaum 2020). has also become prominent in the interventions of the Least Developed Countries Fund (LDCF) the Special Climate Change Fund (SCCF) portfolio, which the GEF supports for the benefit of the planet and society (GEF 2023a). Another area of focus that has been arising in parallel with the emergence of NbS is an increase in the prominence of the private sector as a partner and source of co-finance across GEF cycles. The private sector is of relevance to NbS as a means of investment opportunity (across different project types) and as an implementer, alongside more traditional GEF implementation partners like governments and non-governmental organizations. The role of the private sector is thus an important consideration.

² https://www.researchgate.net/figure/Timeline-of-the-development-of-the-nature-based-solutions-NbS-concept_fig1_355065146

2.2. The evaluation: Strategy, portfolio, and TOC

8. The evaluation covers three interacting GEF NbS elements: (i) strategy, (ii) portfolio, and (iii) TOC.

2.2.1. Strategy

9. Evaluating strategy entails identifying strategic changes in direction and in pathways of change. Prioritizing NbS in line with the guidance from MEAs, the GEF views NbS as a cross-cutting theme for its strategy and programming, including projects funded under the GEF Trust Fund, the LDCF and the SCCF (GEF 2023a). The GEF NbS strategy for integrating NbS is informed by systems thinking, contextual complexities, and differences, and seeks to contribute toward systems/transformational change (Salafsky et al. 2021). It is also informed by major international agreements impacting the implementation of the Rio Conventions. The approach to strategy employs single, multi- and integrated programming. The strategic pathways cover different phases of innovation from problem analysis in context, solution modeling, and piloting to scaling out,³ up,⁴ and deep.⁵

10. The evaluation will cover the NbS strategic work from GEF-5 to GEF-8. This is also the period during which NbS emerged from being part of environmental management tools such as EbA and ILM to being a distinct and recognized concept and strategy in the GEF with high potential to contribute to adaptation and additional benefits to the resilience of people and ecosystems, biodiversity conservation, sustainability in food production landscapes and seascapes, and climate change mitigation. During the same time, NbS has become one of the four key themes for the LDCF and the SCCF. Under its strategy for integrating NbS, the GEF supports innovative interventions in the focal areas of (i) biodiversity, (ii) climate change, (iii) international waters, (iv) land degradation, and (v) waste and chemicals in sectors such as agriculture, tourism, and health care (GEF and World Bank n.d.; GEF IEO 2022).

11. Each focal area has a set of challenges, objectives, and outcomes. The GEF's integration of NbS in its strategy covers single, multi and integrated programming.⁶ The strategic pathways cover different phases of innovation from problem analysis in context, solution modelling, and piloting to scaling out⁷, up⁸, and deep⁹ that recognize systems thinking, contextual complexities and differences, and system/transformational change (Salafsky et al. 2021). More specifically, the evaluation has an interest in the following dimensions at the strategic level:

- The evolution of NbS as reflected through GEF programming directions, policy, and projects (including projects funded through the LDCF and SCCF) and in response to Convention guidance, country priorities, and regional priorities including additionality and comparative advantage (position/niche).¹⁰
- The evolution of GEF's strategic approach for NbS over its different phases and in response to the convention guidance, the drivers of biodiversity loss, and country/regional priorities? GEF NbS strategic gaps (perspective).¹¹
- Conditions and mechanisms of change in context (GEF IEO 2018).

³ Replication within a program and promoting the diffusion and adoption of innovation in the wider system.

⁴ Developing system-level strategies, including raising the necessary resources and building teams to implement the strategies.

⁵ Transforming the intent by changing the underlying values, goals, and mental models of the actors in the overall system.

⁶ Ibid.

⁷ Replication within a program and promoting the diffusion and adoption of innovation in the wider system.

⁸ Developing system level strategies, including raising the necessary resources and building teams to implement the strategies.

⁹ Transforming the intent by changing the underlying values, goals, and mental models of the actors in the overall system.

¹⁰ Strategic position, distinct niche, intended beneficiaries and results.

¹¹ Strategic approach, values, theory of change, and their alignment or tensions with the position/niche.

- NbS entry points at the GEF project and program level, and its implementation as a cross-cutting theme in recent GEF phases (execution).¹²
- The NbS' additionality, comparative advantage and contributions to just transitions and transformational change (impact) (Patton and Patrizi 2010). Transformational change is a deep and fundamental change in a system's form, function, or processes. Transformational change consists of five interacting dimensions, namely, relevance, systemic change, speed, scale, and adaptive sustainability (effectiveness and impact) (CIF 2021).
- National/country strategies also inform the GEF strategy and programming directions. The evaluation will also review the external and internal coherence and national policy coherence across sectors.
- The influence of the current NbS knowledge, existing standards, and guidelines on GEF's programming directions, policy, and projects (learning and adaptation).¹³
- Opportunities and entry points for:
 - Catalyzing finance for NbS beyond traditional public grant resources, including models for blended finance and bonds, inclusive microfinance, investment funds, and insurance as demonstrated by several projects on NbS focused that are supported through the GEF Challenge Program for Adaptation Innovation.
 - Increasing the scale and impact of NbS for climate change adaptation and resilience.
 - Improving operations to motivate, design, and measure impacts of more fully integrated programming of NbS across the family of GEF trust funds.

2.2.2. Portfolio

12. NbS can include interventions such as agroforestry, area-based biodiversity conservation, ecosystem-based management, integrated coastal zone management, integrated water resource management, restoration and rehabilitation, climate-smart agriculture, and sustainable land management (Bierbaum 2020). They exclude biomimicry-related approaches (Cohen-Schacham et al. 2019). The GEF supports innovation across its portfolio and across its focal areas for scaling interventions and outcomes for higher additionality and transformational change (GEF IEO 2022). Since NbS-related approaches have been supported and applied in GEF strategies and portfolios before the term came into use, the evaluation will begin by identifying programs and projects (section 3.2.3) that can retrospectively be considered to align with key NbS principles (Cohen-Schacham et al. 2019). The evaluation will also identify how NbS are integrated within the impact and integrated programs. The principles are:

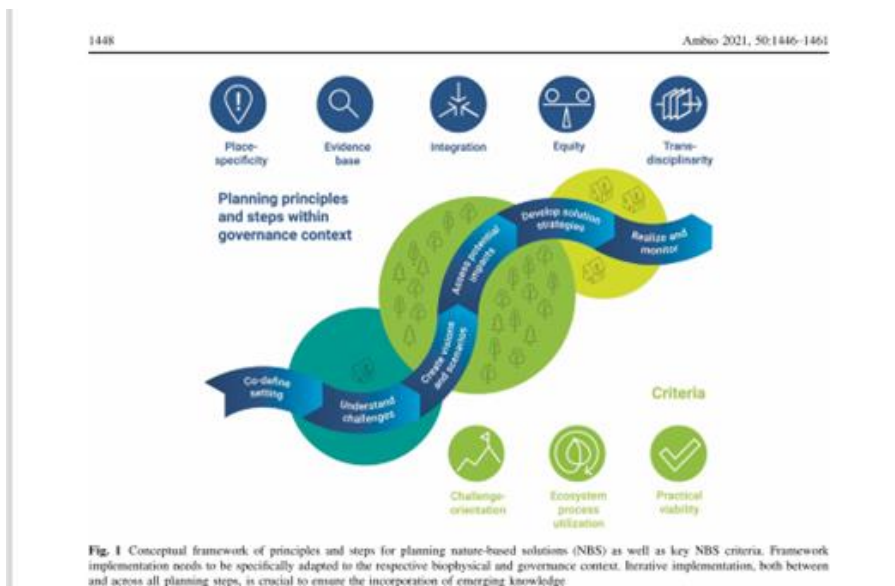
1. NbS embrace nature conservation norms (and principles).
2. NbS can be implemented alone or in an integrated manner with other solutions to address societal challenges.
3. NbS are determined by site-specific natural and cultural contexts that include traditional, local, and scientific knowledge, full participation, and gender equity and IPLCs, where relevant.
4. NbS produce societal benefits in a fair and equitable way in a manner that promotes transparency and broad participation. With this principle, Cohen-Schacham et al. (2019) emphasize the importance of considering locally affected communities' needs, but later iterations of NbS principles/criteria place greater emphasis on gender equality and the addressing the needs of traditionally excluded groups and indigenous peoples (IUCN 2020a).
5. NbS maintain biological and cultural diversity and the ability of ecosystems to evolve over time.

¹² Thinking and action adapted to the complex and uncertain real on- the-ground conditions.

¹³ Identifying, articulating, sharing, and utilizing lessons to improve and adapt the strategy, approach and execution in real time and overtime.

6. NbS are applied at a landscape scale, incorporating multiple stakeholders, including individuals, civil society and public and private sectors, as appropriate.
 7. NbS recognize and address the trade-offs between the production of a few immediate economic benefits for development and future options to produce the full range of ecosystem services, incorporating equitable financing options
 8. NbS are an integral part of the overall design of policies, measures, or actions to address a specific challenge.
13. In addition the above principles, NbS planning is based on the following principles:
- Evidence-based: Evidence is needed to make credible recommendations and take appropriate action. Therefore, the evaluation of NbS effectiveness and efficiency is essential.
 - Integration: The design and planning of NbS across temporal and spatial scales and interconnected habitats benefit from drawing on insights from diverse ecosystem-based and socio-economic approaches to producing social, economic, and ecological benefits while addressing societal challenges.
 - Equity: NbS design and implementation benefit from recognizing the rights, values, and interests of different actors, inclusive and effective participation of all relevant actors, and recognition, distributive, procedural, and environmental justice.
 - Transdisciplinary: Systematic involvement of researchers from different disciplines and non-academic participants in the design and implementation processes to create new knowledge and answer a common question. The process ought to be mindful of cognitive justice (Christian et al., 2021). Figure 2.1 provides a visual relationship of the relationship between the principles and the planning and implementation process.

Figure 2.1 NbS planning and implementation principles (Christian et. al, 2021, p. 1448)



2.2.3. Theory of Change

14. Some GEF studies have highlighted that although the GEF prioritizes NbS for its strategy and programming, it lacks a dedicated TOC outlining how this will be implemented (Bierbaum 2020). The IEO's Mekong evaluation highlighted the value of ToC (GEF IEO 2023c). The STAP notes the need for the GEF to

develop a robust TOC for NbS integration in strategy and programming that pays attention to assumptions, the drivers of environmental degradation, causal pathways, and responses to the future that can change and be adapted if necessary (Bierbaum 2020). The TOC will help structure the meaningful measurement of success and enable flexible adjustments during the life of an intervention (Davies 2018; Stafford Smith 2020). The TOC utilizes the Resilience, Adaptation Pathways and Transformation Assessment (RAPTA) framework, designed for addressing sustainability goals in dynamic contexts across scales (O’Connell et al. 2019). The RAPTA framework is consistent with the GEF’s goal of achieving systemic, transformative, and long-lasting impact based on systems understanding. The RAPTA TOC components include co-generated (i) critical assumptions about contextual conditions and causal links, (ii) the relevant challenges in the systems of interest, (iii) enablers and constraints, (iv) interventions, (v) outputs, (vi) outcomes, and (vii) impact (Stafford Smith 2020; GEF IEO 2016). The GEF NbS TOC needs to be developed as part of this evaluation so that it can serve as part of the evaluation. The process will start with a draft TOC developed by the evaluation team based on relevant GEF NbS documents, as it is being developed during implementation, after strategy and program design. In line with GEF guidance and good practice in TOC development, the draft TOC will subsequently draw on the contributions of relevant GEF stakeholders including the private sector, where relevant, in a stepwise process. Figure 2.2 shows the initial articulation of the draft TOC, based on the review of GEF documents (Bierbaum 2020; GEF IEO 2016; GEF IEO 2023b; GEF Secretariat 2016; GEF IEO 2019; GEF and World Bank n.d.; GEF IEO and IPDET 2022; GEF 2023a; GEF 2023b).

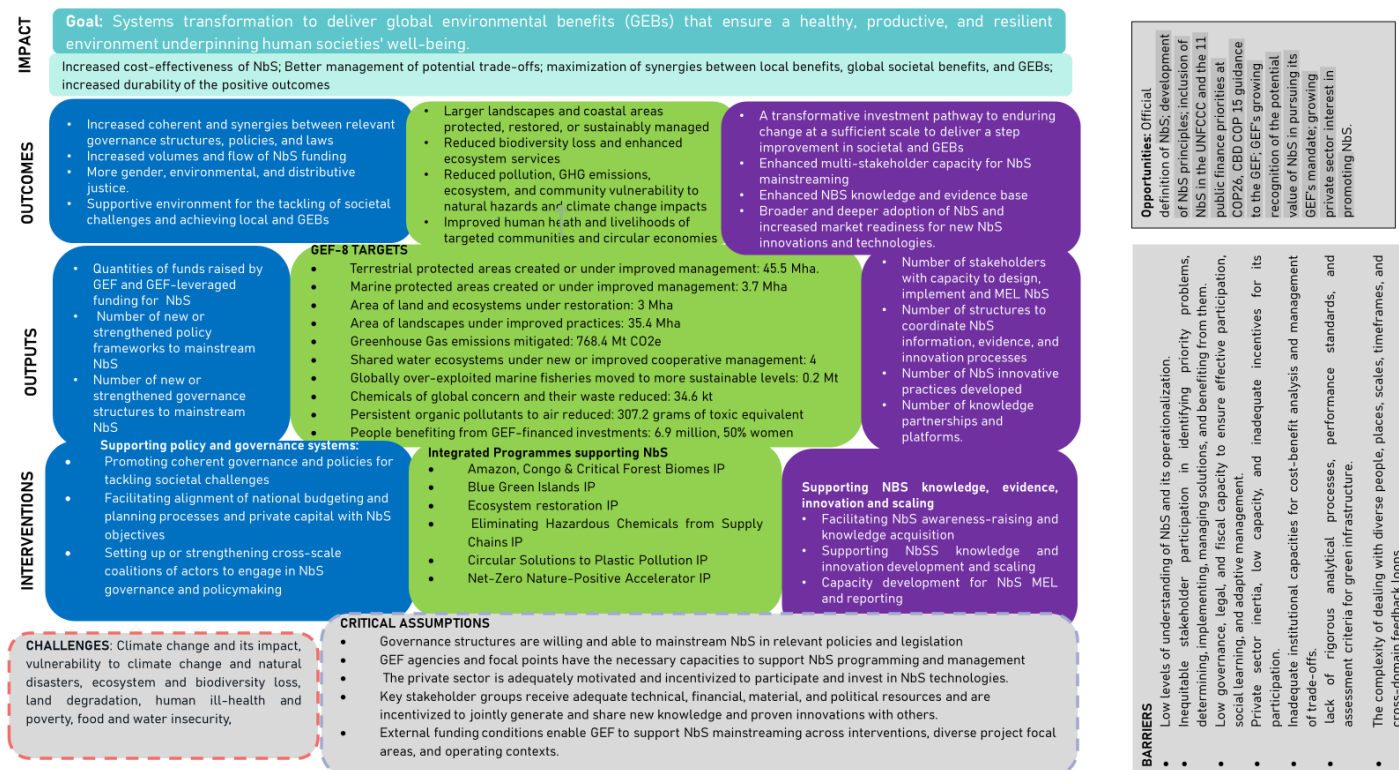
15. The data used for constructing the draft ToC was drawn from various sources, notably, NbS literature (Terton, 2022; Han & Kuhlicke, 2021; Nelson et al., 2020), GEF-8 programming directions (GEF/C.64/Inf.11; GEF/C.64/04/Rev.011), and ToC documents, STAP NbS ToC reports (Stafford et al., 2022; Salafsky et al., 2021; Stafford et al., 2022). GEF documents revealed that Integrated Programs (Ips) are central to the delivery of NbS. GEF-8 has prioritized six IPs due to their coverage of global environmental challenges being addressed and the potential to achieve balance in representing recipient countries participating and GEF agencies involved. The ones not prioritized are Food Systems, Sustainable Cities, and Wildlife Conservation for Development.

16. The draft TOC narrative is as follows. As a financial mechanism, GEF’s mandate to invest in Global GEBs, CCA benefits, and transformational change supports the mainstreaming of NbS to tackle environmental and societal challenges such as land degradation, biodiversity loss, and climate change. It supports the (i) integration of NbS in policy, legal, and multi-stakeholder platforms; (ii) building of NbS programming and implementation capacities, knowledge, evidence, and innovation generation and sharing, and (iii) design and implementation of projects that integrate NbS. The interventions produce outcomes concerned with improved conditions for NbS integration, including legal, financial, economic, and social; enhanced NbS knowledge, evidence, innovations, and technologies; and socio-economic and environmental benefits that address nexus societal and environmental challenges, respectively. The combined sets of outcomes will generate global societal and environmental benefits that have the potential to demonstrate the relevance and effectiveness of integrating NbS. The diverse opportunities and barriers will moderate success. Lessons, insights, and innovations produced by the set of interventions will be shared and scaled out, up, and deep for broader impact. The assumptions underpinning the success of this include:

- Governance structures are willing and able to mainstream NbS in relevant policies and legislation.
- GEF agencies and focal points have the necessary capacities to support NbS programming and management.
- The private sector is adequately motivated and incentivized to participate and invest in NbS technologies.

- Key stakeholder groups receive adequate technical, financial, material, and political resources and are incentivized to jointly generate and share new knowledge and proven innovations with others.
- External funding conditions enable GEF to support NbS mainstreaming across interventions, diverse project focal areas, and operating contexts.

Figure 2.2. GEF NbS Theory of Change



2.3. Conceptual framing: NbS and transformational change

2.3.1. Nature-based solutions

17. There are various **definitions** of NbS. Although the GEF currently lacks a specific operational definition, it has been promoting solutions and interventions using environmental tools to safeguard, replenish, and promote the sustainability of natural resources for nearly three decades. **Benefit areas** have encompassed addressing environmental degradation and loss of biodiversity, EbA, climate change mitigation and adaptation, disaster risk reduction, economic and social development, food and water security, human health, and even conflict reduction. Most GEF documents borrow from the International Union for Conservation of Nature's (IUCN's) Global Standard definition, which describes NbS as "actions that protect, manage, or restore natural or modified ecosystems to effectively and adaptively address societal challenges while providing human well-being and biodiversity benefits" (IUCN 2020a). The GEF's current use of NbS is also consistent with the United Nations Environment Assembly (UNEA) definition of NbS, which is widely accepted and encompasses "activities focused on the protection, preservation, restoration, sustainability and utilization, and governance of natural or altered terrestrial, freshwater, coastal, and marine ecosystems. The main intended benefits revolve around addressing social, economic, and environmental challenges in a flexible and effective manner, while simultaneously enhancing human well-being, ecosystem services, resilience, and biodiversity benefits." (Nature-based Solutions Initiative 2022).

18. IUCN has developed a Global Standard to verify, design, and scale up NbS. At the time of the evaluation, the IUCN Global Standard is the only comprehensive criteria for NbS that exists and this evaluation therefore builds on this to assess GEF's use of NbS. The IUCN Standard has eight criteria, all of which need to be met for an intervention to be verified as NbS (IUCN 2020a). The Standard's indicator system provides an opportunity to assess whether an intervention can be called NbS or not, but also to assess performance (strong, adequate, weak, or insufficient) against NbS indicators. This provides a useful entry point for selecting GEF projects that will constitute the portfolio to be evaluated.

19. GEF's NbS to climate change practice is also consistent with the following four guiding principles for NbS determined by leading NbS scientists: (1) NbS are not a substitute for the rapid phase-out of fossil fuels; (2) NbS involve a wide range of ecosystems on land and in the sea, not just forests; (3) NbS are implemented with the full engagement and consent of Indigenous peoples and local communities in a way that respects their cultural and ecological rights; and (4) NbS should be explicitly designed to provide measurable benefits for biodiversity (Seddon et al. 2021).

20. The STAP has observed that conceptual limitations of GEF NbS projects include their low focus on societal challenges, addressing trade-offs, and long-term durable benefits, and there is little information on why something did or did not work (Bierbaum 2020). Several GEF IEO evaluations also point this out for interventions that could be classified as NbS but do not explicitly mention NbS.

21. **This evaluation will adopt the widely accepted IUCN and UNEA definitions of NbS, while being cognizant of other definitions. All, however, revolve around the central theme of harnessing nature to address societal challenges (while at the same time producing benefits to nature and people). It therefore aims to identify and classify NbS projects by the societal challenges they seek to address, ecosystems targeted, specific NbS activities/actions pursued, and the environmental, social, and economic benefits (global and local) that are intended to accrue.**

22. The evaluation will apply the NbS concept to classify NbS projects by building on the recommendations from the STAP review (GEF STAP 2020; Bierbaum 2020) and the IUCN Global Standard (IUCN 2020a; IUCN 2020b). NbS projects can be categorized based on various factors, including societal challenge addressed, **thematic focus**, **ecosystem type**, intervention type/**approach**, and **intended benefits**. NbS is associated with various challenges and opportunities (see Annex C), which will be explored in the GEF context in this evaluation. The preliminary questions (and variables) that the tool will aim to answer and apply include the following:

Box 2.1. Questions for NbS classification tool

1. **Does the project address one or several societal challenges?** To qualify as NbS, the projects will need to address societal challenges, in addition to providing environmental and economic benefits. We will therefore assess whether the project was designed and implemented to address multiple societal challenges.
2. **Does the project consider scale and the wider landscape?** The area in which the social challenge is addressed is often a part of a wider system and therefore cannot be addressed in isolation. Because NbS operates across scales, NbS interventions must recognize and respond to interactions between the economy, society, and ecosystem. To qualify as NbS, the project must therefore include considerations of the wider landscape in which it operates.
3. **Does the project seek to deliver a net gain to biodiversity and ecosystems and avoid or minimize loss?** Biodiversity benefits are a key aspect of NbS, and because these are derived from nature they depend on ecosystem health to succeed. These criteria will assess whether the project's design and implementation are responding to key aspects of biodiversity and ecosystem challenges and outcomes. Of particular interest to GEF is also the extent to which GEF-supported projects help avoid biodiversity

loss (as opposed to providing net gain) and contribute to Global Environmental Benefits (GEBs) - biodiversity benefits of global significance that go beyond local level impacts.

4. Are the solutions proposed and implemented under the project economically viable? A key element of NbS definitions is cost-effectiveness. This looks at whether consideration is given to the economic viability of the intervention to ensure sustainability.
5. Are the solutions proposed and implemented based on inclusive, transparent, and empowering governance processes as a core aspect of NbS (e.g., to help promote durability, scalability, and transformational change)?
6. Does the project balance trade-offs between primary objectives and the provision of multiple benefits? Relating to the tensions across and between social, economic, and environmental outcomes, NbS interventions must recognize potential trade-offs and their associated costs and benefits, which may be subject to change throughout the life cycle of the NbS implemented.
7. Is the NbS project (and solutions implemented) managed adaptively based on evidence? NbS operate in complex systems. To qualify as NbS, projects therefore require adaptive management, based on evidence and iterative learning to meet enabling conditions and minimize unintended negative impacts.
8. Are the solutions proposed and implemented sustainable and mainstreamed within an appropriate jurisdictional context?

23. **The application of the principles behind our evaluation approach, definitions of NbS, and use of the NbS classification tool are described in more detail in section 3.**

2.3.2. Transformational change

24. Transformational change consists of five interacting dimensions. The significance of each dimension varies in relation to context and timing, but dimensions are necessary to address in bringing about transformational change. The five dimensions that will be evaluated for transformational change are:

- Relevance - alignment with and attentiveness to goals and context through time. Relevance requires continuous responsiveness to dynamic contextual change and intervention goals across different time scales.
- Systemic change - fundamental shifts in system structures and functions. It builds on scaling and speed. Systemic changes enable resilience and influence the sustainability of changes.
- Speed – accelerate or decelerate impacts to achieve the appropriate speed of change. Speed is increased when barriers are overcome, and enables systemic change.
- Scale - contextually large change processes and impacts.
- Adaptive sustainability – robustness, resilience, and adaptiveness of change. It entails ongoing relevance to contexts and opportunities. This dimension becomes significant during the later stages of an intervention (CIF 2021).

25. Similarly, the GEF understands transformational change in line with its mandate to invest in the generation of GEBs as “deep, systemic, and sustainable change with large-scale impact in an area of global environmental concern, such as biodiversity, land degradation, and climate change.” (GEF IEO, 2018, p. v). This means that the interventions that it invests in must (i) be relevant to global environmental concerns, (ii) support or cause a fundamental change in a system or market, (iii) support or cause full-scale impact at local, national, and regional levels, and (iv) contribute toward financial, economic, environmental, social, and political sustainability in the long term, beyond the life of an intervention (GEF IEO, 2018, p. 2). GEF’s

conceptualization of transformational change informed the selection of countries to participate in the strategic review and the formulation of impact questions.

2.2.3 Additionality

26. GEF views additionality in the context of its role as a change catalyzer whose investments contribute to environment and development outcomes and wider associated with GEBs and societal benefits respectively. GEF has identified the following six additionality outcome areas: environmental, legal and regulatory, institutional and governance, financial, socio-economic, and innovation. The impact areas include sustaining progress, replicating, scaling up, mainstreaming, and market change (GEF IEO, 2020). Additionality can, therefore, be treated as a specific type of transformational change associated with scaling and systemic change. Additionality manifests itself in the following ways: (i) acceleration of the adoption of reforms, the enhancement of outcomes, or the reduction of risks and greater viability of project intervention, (ii) spill-over effects beyond project outcomes that may result from systemic reforms, capacity development, and socioeconomic changes, and (iii) broadening of impact beyond project completion that can be associated with GEF interventions. Additionality takes place at the project level – projects that are funded by the GEF

2.4. Rationale, purpose, and objectives of the evaluation

27. NbS has recently gained increasing traction and salience as a way of addressing both environmental and societal problems. Several UN conventions and scientific bodies recognize the importance of nature-based solutions in addressing climate change and biodiversity loss. Target 8 and Target 11 of the Kunming-Montreal Global Biodiversity Framework explicitly mention NbS to address societal challenges and provide benefits for both human well-being and biodiversity. It is also embedded in the UNFCCC, the Paris Agreement, and the United Nations Convention to Combat Desertification (UNCCD) (GEF IEO 2023a). The United Nations Framework Convention on Climate Change (UNFCCC) recognizes Nature-based Solutions (NbS) as a powerful tool to address societal

challenges such as climate change, biodiversity loss, and food security. The Paris Agreement of the UNFCCC also promotes the use of NbS in several ways. It recognizes the importance of NbS in addressing climate change, biodiversity loss, and food security, which are all critical issues addressed by the agreement. Article 5 of the Paris Agreement calls for the conservation and enhancement of sinks and reservoirs of greenhouse gases, which can be achieved through the use of NbS. In addition, the Nationally Determined Contributions (NDCs) submitted by Parties to the Paris Agreement include NbS in some form to help achieve their climate goals. Moreover, the Paris Agreement also encourages the financial mechanisms of the UNFCCC to define NbS to include both adaptation and mitigation. The UNCCD also recognizes the importance of nature-based solutions in combating desertification and land degradation. It encourages the parties to explore complementarities within relevant MEAs, within their respective mandates and goals, in the achievement of the objectives of the UNCCD at the national level, including, as appropriate, in the implementation of sustainable land management, ecosystem-based approaches or nature-based solutions. In addition to the UN Environmental Conventions, NbS have been highlighted in recent global assessment reports conducted by bodies such as the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Despite the importance, the current levels of

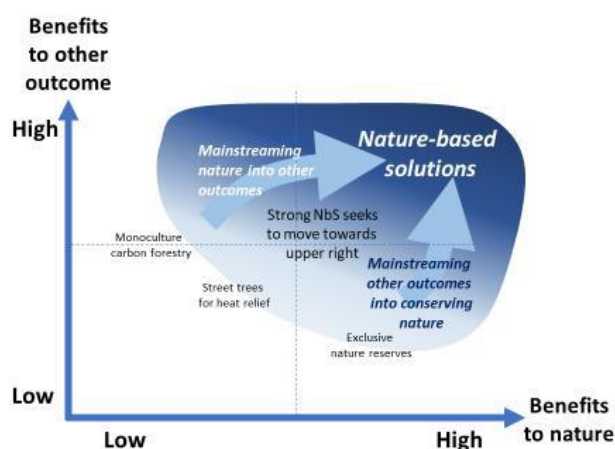


Figure 2.3 Conceptualizing the balance between (global) benefits to nature and (global) benefits to human well-being ('other outcomes') from NbS interventions (GEF STAP Review 2020)

funding for NbS are low (Climate Policy Initiative 2020), and the existing **evidence base** on the effectiveness and benefits of NbS is limited (GEF IEO 2023a). Consequently, the most scalable approaches and **transformative actions** are not yet known or fully bankable. There is therefore a need within the community implementing MEAs to conduct NbS evaluations and establish what works, what does not work, and why, and to identify lessons, good practices, and innovation and scale impact. The GEF IEO that evaluates the GEF's work on NbS intends to contribute to the needed evidence, knowledge, and insights for increasing the flow of fundings to the GEF's NbS work as well as to enable adaptive programming and management of the GEF.

28. In line with this evaluation rationale, the purpose of the evaluation is to serve as a standalone assessment of the GEF's NbS integration strategy and portfolio, while also feeding into the Eighth Comprehensive Evaluation of the GEF which will inform the replenishment process for the GEF-9 period. The specific objective of the evaluation is to provide insights and lessons for future NbS programming, design, and implementation. This entails (i) assessing the **use and contribution of NbS** to delivering GEF objectives (on addressing global environmental challenges)¹⁴ and their associated co-benefits,¹⁵ (ii) constructing GEF's NbS TOC, (iii) identifying realized outcomes and contribution to transformational change (including innovation and scaling), (iv) establishing whether the GEF is doing the right things and going in the right direction, (v) identifying GEF capacities, gaps, and opportunities, covering both financing and programming, (vi) articulating the GEF's comparative advantage and additionality, (vi) drawing out **lessons learned**, and (iii) suggesting how NbS can be most optimally employed within **future programming**. The evaluation will review this at the strategic, program/project, and country levels.

29. The **audiences** for the evaluation include replenishment participants, the GEF Council, the GEF Assembly, members of the GEF, and external stakeholders.

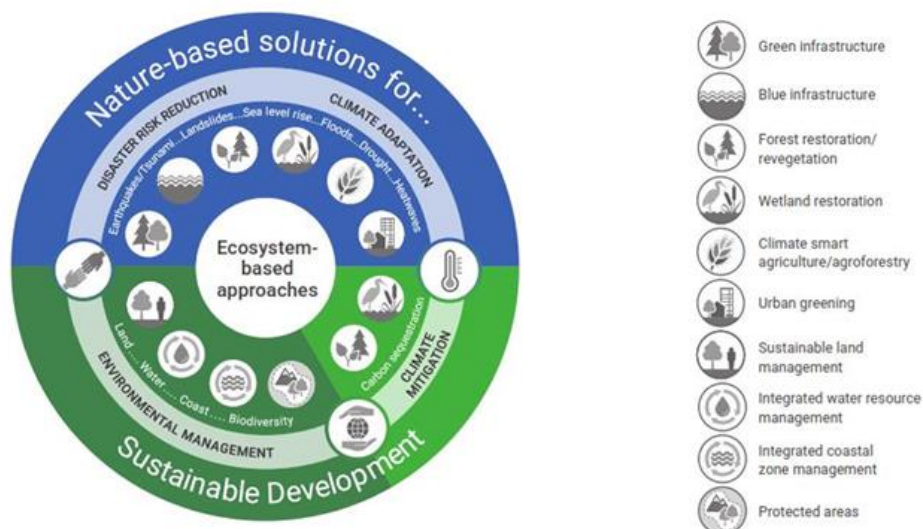
2.5. Scope of the evaluation

30. In recent years, the GEF has increasingly adopted elements of, and terminology related to, NbS in its programming and planning, even though it may not have used the term 'NbS' (which is a relatively new concept). The STAP's review of 30 projects exhibiting robust NbS components identified eight types of NbS across all GEF focal areas: agroforestry; area-based conservation; biodiversity; ecosystem-based management; integrated coastal zone management; integrated water resource management; restoration and rehabilitation; and sustainable land management. These observations are aligned to other sources (See Figure 2.3).

¹⁴ Biodiversity loss, chemicals and waste, climate change (mitigation and adaptation), international waters, land degradation, sustainable food systems, forest management, and cities in developing countries.

¹⁵ For NbS these can include local environmental co-benefits (e.g., air and water quality) and societal co-benefits (e.g., for human health and livelihoods).

Figure 2.3 Partnership for Environment and Disaster Risk Reduction & Friends of EbA (2020 in Suratno et al. 2023, p. 9)



31. Building on this, and the latest scientific thinking on NbS evidence (e.g. Woods Ellis et al. 2024; Seddon 2022; Seddon et al 2020; Seddon et al 2021; Chausson et al. 2020; Key et al 2022), and its application by funders (e.g. JNCC 2021), this evaluation will look at the following key GEF documents and areas of work to explore how GEF alignment with NbS principles and terminology has evolved:

- **GEF Trust Fund strategy and programming directions** from GEF-5 (2010-14) to GEF-8 (2022-26). Each replenishment cycle has involved shifts in donors, beneficiaries, terminology, and focus. Elements of NbS can be found in early programming, but each replenishment cycle has involved strategic shifts toward better alignment with what is now known as NbS. GEF-8 programming now places NbS at its core, as a cross-cutting theme and built into key programs.
- The **LDCF and SCCF strategy, programming directions, and portfolio**. NbS is one of the four key themes for the LDCF and SCCF portfolios, which aim to leverage the latest scientific advancements and insights related to NbS for adaptation. An evaluation found that 88% of LDCF projects reduced vulnerability and increased resilience through innovation and technology transfer for climate change adaptation, 80% mainstreamed climate change adaptation and resilience for systemic impact, and 66% fostered enabling conditions for effective and integrated climate change adaptation (IEO 2022 LDCF evaluation). These three objectives align well with IUCN NbS criteria relating to addressing societal challenges and sustainable and mainstreamed implementation. Similarly, all of the 10 recently approved projects under the SCCF reduced vulnerability and increased resilience through innovation and technology transfer for climate change adaptation, and all but one mainstreamed climate change adaptation and resilience for systemic impact (IEO 2022 SCCF evaluation).
- Increasing **GEF emphasis on integrated programming** aligns with the NbS requirement to balance trade-offs and provide multiple benefits, and adopt a landscape-level approach to planning and implementation (simultaneously addressing interactions between the economy, society, and ecosystem). The table 2.1 below lists some of these programs and their NbS considerations (characteristics that align with the key characteristics of, or common approaches used under, NbS). These include NbS multifocal and single-area projects under the GEF Integrated Approach Programs.

Table 2.1 GEF integrated programs

Program name	NbS considerations
The Amazon Sustainable Landscapes Impact Program	The program aims to improve integrated landscape management and conservation of ecosystems in targeted areas in the Amazon region
The Congo Basin Sustainable Landscapes Impact Program	The program aims to catalyze transformational change in the conservation and sustainable management of the Congo Basin through landscape approaches that empower local communities and forest-dependent people, and through partnerships with the private sector.
The Drylands Sustainable Landscapes Impact Program	The program aims to avoid, reduce, and reverse further degradation, desertification, and deforestation of land and ecosystems in drylands through the sustainable management of production landscapes (IEO 2022 OPS7).
The Restoration Initiative	The program aims to restore degraded landscapes for the betterment of both humanity and nature in nine African and Asian countries in support of the Bonn Challenge. Since 2018, this program has been working towards the restoration of mangroves, arid lands and tropical forests in alignment with global goals for climate, biodiversity, and desertification.
Food Security Integrated Approach Program	The program emphasizes the optimization of biodiversity values and sustainability in food production landscapes and seascapes.
Sustainable Cities Integrated Approach Pilot	The program aims to promote among participating cities an approach to urban sustainability that is guided by evidence-based, multi-dimensional, and broadly inclusive planning processes that balance economic, social, and environmental resource considerations.
Good Growth Partnership Integrated Approach Pilot	The program aims to advance an integrated supply chain approach focused on three major commodities that account for more than 70% of tropical deforestation: beef, oil palm, and soy. The program approach aims to shift these important commodity supply chains towards sustainability, while delivering continued social and economic benefits to producers.

- **Sustainable Forest Management (SFM)** is closely aligned to NbS; although it is not one of the five focal areas of the GEF, it is a major outcome of GEF work. The GEF established the Amazon Sustainable Landscapes Program, with SFM at its heart, in GEF-6, and SFM is an impact program under GEF-7. In GEF-8, GEF's approach to SFM is developing integrated approaches to tackling deforestation drivers and focusing on intact forest landscapes in globally critical forest biomes including in Amazon, Congo, Indo-Malaya, Meso-America, and Western Africa. It also establishes a results framework which includes an assessment of socioeconomic co-benefits and monitoring levers of transformational change in economic systems driving environmental degradation (IEO SFM evaluation 2022). The GEF's SFM portfolio has contributed to at least 78 million hectares of forests coming under new protected area status and/or improved protected area management, and contributed to other key aspects of NbS such as the provision of economic gains (in 24% of projects), community empowerment and equity (in 55% and 37% of projects respectively), and alignment with government priorities (75% of projects) (IEO SFM evaluation 2022).
- **GEF policies** on stakeholder engagement (including the private sector), gender equality, environmental and social safeguards standards, principles and guidelines for engagement with

Indigenous people, and guidelines on the implementation of the public involvement policy. These are all key components of the social aspects of NbS.

- **The GEF evaluation policy**, which emphasizes gender responsiveness and participatory evaluation. These are key components of the social aspects of NbS.
- Evaluation of **GEF support for transformational change** (2018). This is relevant because the concept of transformational change overlaps with the key NbS criterion of whether initiatives are sustainable and mainstreamed within an appropriate jurisdictional context.

32. The **geographical scope of this evaluation** will be the developing countries and countries with economies in transition supported by the GEF. Combined, these countries have a greater share of global biodiversity and higher levels of poverty, so arguably they have the most potential for NbS, which seeks to ensure multiple benefits. This is reflected in the NDCs of developing countries, which tend to pay more attention to NbS than those of developed countries (Zhai et al. 2023). In recent years, the GEF has focused more on major biomes with intact high conservation value forests for its sustainable forest management work, such as the Amazon and the Congo Basin, so these areas will likely be a geographical focus of this study, among others. The Amazon is a particular focus for GEF investment as it has tremendous biodiversity wealth and significant importance in the context of climate change mitigation and adaptation, and it is home to about 33 million people, offering substantial potential for integrated programming and NbS.

2.6. Evaluation criteria and main questions

33. This evaluation aims to assess the GEF's integration of NbS in its strategy and portfolio for results, insights, and lessons for future programming, design, and implementation. Evaluation questions are organized at two levels: strategy and portfolio. **The strategy-level questions are organized against the five dimensions of strategy**, which were developed for evaluation to evaluate strategies focusing on **systems/transformational change**. The five dimensions—(i) position/niche, (ii) perspective/approach, (iii) effectiveness and impact, (iv) execution, and (v) learning and adaptation—were introduced in section 2.2.1 (Patton and Patrizi 2010). **Portfolio-level questions are organized around the OECD DAC evaluation criteria**: (i) relevance; (ii) effectiveness; (iii) coherence; (iv) impact; and (v) sustainability. To enhance the quantification of effectiveness, the evaluation will incorporate cost-benefit analyses and cost-effectiveness assessments where possible, focusing on quantifying benefits in financial terms relative to the costs of NbS projects. This approach will support a more rigorous assessment of the economic value and efficiency of project interventions. The evaluation matrix (Table 2.2) consists of the strategy dimensions/DAC criteria, associated evaluation questions, data collection methods, and data sources.

Table 2.2. Draft evaluation matrix

Workstream 1: Strategy review			
Key Evaluation Questions	Dimension of Strategy	Data Source	Task and Method

<ol style="list-style-type: none"> 1. How have the current knowledge, existing standards, and guidelines on NbS informed the GEF's programming directions, policy, and projects? 2. What new opportunities exist for the GEF? What could the GEF be doing to respond to the opportunities? 3. What is the GEF's comparative advantage and additionality on NbS? 4. How is GEF utilizing NbS to generate societal benefits covering both public goods and economic viability? 	<p>Position/niche</p>	<p>Internal and external GEF and NbS documentation</p> <p>GEF and wider stakeholders</p>	<ol style="list-style-type: none"> 1. Task four: Strategy review 2. Task four: Strategy review and light-touch comparative assessment 3. Task four: Strategy review and light-touch comparative assessment Task five: Strategy KIIs
<ol style="list-style-type: none"> 5. How has the GEF's strategic approach for NbS evolved over its different phases and in response to the convention guidance, the drivers of biodiversity loss, climate change adaptation, climate change mitigation, and land degradation, and country/regional priorities? 6. What are the NbS entry points at the GEF project and program level? How is NbS being implemented as a cross-cutting theme in recent GEF phases? 7. What is the GEF's TOC for NbS integration in strategy and programming related to the full family of GEF trust funds? 	<p>Perspective</p>	<p>Internal and external GEF and NbS documentation</p> <p>GEF and wider stakeholders</p>	<ol style="list-style-type: none"> 4. Task four: Strategy review 5. Task four: Strategy review and light-touch comparative assessment 6. Task four: Strategy review
<ol style="list-style-type: none"> 8. What are the main result areas across GEF NbS interventions, and which activities have principally contributed? 9. To what extent has the GEF successfully avoided new grey infrastructure through its NbS support? 10. What is the potential for transformational change across GEF NbS interventions (e.g. what comes across as new, innovation, and scaling), and what strategy levers have supported this? 	<p>Effectiveness and impact</p>	<p>Internal and external GEF and NbS documentation</p> <p>GEF and wider stakeholders</p>	<ol style="list-style-type: none"> 7. Task four: Strategy review Task five: Strategy KIIs 8. Task four: Strategy review Task five: Strategy KIIs All the tasks under effectiveness will draw from strategy review, portfolio analysis, KIIs, and case studies. INFACT THIS COULD APPLY ACROSS ALL THE DIMENSIONS.
<ol style="list-style-type: none"> 11. How well are the strategy implementation and execution arrangements working at and across scales? 12. How do current GEF structures and silos enable or impede integration and synergies of NbS within and across the full family of GEF trust funds? 13. What adjustments to the present capacities are required to better adapt to future needs? 	<p>Execution</p>	<p>Internal and external GEF and NbS documentation</p> <p>GEF and wider stakeholders</p>	<ol style="list-style-type: none"> 9. Task four: Strategy review 10. Task four: Strategy review

<p>14. What processes are in place to support learning on NbS across the GEF portfolio, and how effective are these processes for informing the design and implementation of NbS?</p> <p>15. How GEF funds be better leveraged to crowd in private capital flows from commercial banks, private equity, and capital markets into financing NbS programs and projects will be valuable?</p> <p>16. Looking forward, what are the opportunities and changes needed for the power of NbS to be actualized as a cross-cutting theme and integrator within and across the family of GEF trust funds?"</p>	<p>Learning and adaptation</p>	<p>Internal and external GEF and NbS documentation</p> <p>GEF and wider stakeholders</p>	<p>11. Task four: Strategy review Task five: Strategy KIIs</p>
<p>Workstream 2: Program and project review and country case studies</p>			
<p>Key Evaluation Questions</p>	<p>DAC criteria</p>	<p>Data source</p>	<p>Task and Method</p>
<p>1. What are the characteristics of the current GEF NbS portfolio, what GEF-centered criteria are being used and how does this align with wider definitions of NbS?</p> <p>2. How relevant are specific NbS actions to: (i) GEF objectives; (ii) country needs and context; and (iii) other programs in-country/landscape level?</p>	<p>Relevance</p>	<ul style="list-style-type: none"> • GEF project and country documents • GEF APR dataset • Geospatial data • GEF NbS project stakeholders • Results framework, and midterm and terminal evaluation reports of the selected projects 	<p>Task six: NbS identification & classification</p> <ul style="list-style-type: none"> • Project NbS screening (keyword search/options for MAXQDA machine learning and AI explored) • Project NbS Scoring (MAXQDA) • Project NbS classification (Power BI visuals) <p>Task seven: Evidence review</p> <ul style="list-style-type: none"> • Evidence review (project docs. and meta-evaluation) against OECD DAC (MAXQDA) <p>Task nine: Case study research</p> <ul style="list-style-type: none"> • Case study sampling • Extended desk review • Country visits and project verification • KIIs and FGDs • Stories of Change
<p>3. What results (benefits and co-benefits – environmental, social, and economic) are observed for GEF NbS projects (by project type)?</p> <p>4. What have been the benefits for marginalized groups, including women and IPLCs?¹⁶ How can just transitions best be promoted by NbS within the GEF?</p> <p>5. What are the unintended (positive or negative) benefits from GEF NbS actions?</p> <p>6. What are the key success and constraining factors related to NbS within the GEF portfolio? What NbS</p>	<p>Effectiveness</p>	<ul style="list-style-type: none"> • GEF project and country documents • GEF APR dataset • Geospatial data • GEF NbS project stakeholders • Results framework, and midterm and terminal evaluation reports of the selected projects 	<p>Task seven: Evidence review</p> <ul style="list-style-type: none"> • Evidence review (project docs. and meta-evaluation) against OECD DAC (MAXQDA) <p>Task nine: Case study research</p> <ul style="list-style-type: none"> • Case study sampling • Extended desk review • Country visits and project verification • KIIs and FGDs • Stories of Change

¹⁶ Marginalized groups can include those excluded by virtue of their gender, sexual orientation or gender identity, age,(notably youth/children), disability, and race/culture (GEF 2023c). In the context of natural resource use and NbS, women and IPLCs are often marginalized and thus merit particular attention.

<p>intervention types / actions have proved most effective in the GEF portfolio? What trade-offs and tensions are evident (and where and how have these been addressed)?</p> <p>7. How, and how well, are NbS projects being monitored and evaluated within the GEF (and how/how well are benefits, disbenefits, trade-offs and equity data being captured)?</p>			
<p>8. To what extent is the NbS portfolio aligned with the GEF programming direction and NbS TOC as it relates to the full family of GEF trust funds?</p> <p>9. To what extent have relevant stakeholders been involved in the development and implementation of NBS projects? What coordination mechanisms and capacities exist to facilitate knowledge and communication of GEF programming and across Ministries? What are the levels of national policy coherence at the sectoral level and across different scales (GEF IEO, 2023)?</p>	<p>Coherence</p>	<ul style="list-style-type: none"> • GEF project and country documents • GEF APR dataset • Geospatial data • GEF NbS project stakeholders • Results framework, and midterm and terminal evaluation reports of the selected projects 	<p>Task seven: Evidence review</p> <ul style="list-style-type: none"> • Evidence review (project docs. and meta-evaluation) against OECD DAC (MAXQDA) <p>Task nine: Case study research</p> <ul style="list-style-type: none"> • Case study sampling • Extended desk review • Country visits and project verification • KIIs and FGDs • Stories of Change
<p>10. To what extent do projects demonstrate transformational change/potential for the benefit of the environment and society?</p>	<p>Impact</p>	<ul style="list-style-type: none"> • GEF project and country documents • GEF APR dataset • Geospatial data • GEF NbS project stakeholders • Results framework, and midterm and terminal evaluation reports of the selected projects 	<p>Task seven: Evidence review</p> <ul style="list-style-type: none"> • Evidence review (project docs. And meta-evaluation) against OECD DAC (MAXQDA) <p>Task nine: Case study research</p> <ul style="list-style-type: none"> • Case study sampling • Extended desk review • Country visits and project verification • KIIs and FGDs • Stories of Change
<p>11. How, and with what success, are GEF NbS financing and the innovation and emerging impacts of GEF-supported NbS projects being sustained or scaled to be more transformational?</p>	<p>Sustainability</p>	<ul style="list-style-type: none"> • GEF project and country documents • GEF APR dataset • Geospatial data • GEF NbS project stakeholders • Results framework, and midterm and terminal evaluation reports of the selected projects 	<p>Task seven: Evidence review</p> <ul style="list-style-type: none"> • Evidence review (project docs. And meta-evaluation) against OECD DAC (MAXQDA)

3. Approach and methodology

3.1. Overall approach (overarching principles)

34. The evaluation will ensure compliance with the GEF IEO standards set out in the GEF Evaluation Policy, including: (a) independence; (b) credibility; (c) utility; (d) impartiality; (e) transparency; (f) integrity; (g) participation; (h) gender equality; and (i) competencies and capacities (IEO 2019). Building on these, the evaluation will also be guided by a set of core evaluation principles which will influence the way the evaluation is conducted. These will serve as additional principles that align and complement the core GEF

IEO evaluation principles and standards. The evaluation methodology is informed by the complexity of the subject of the evaluation, the objectives, GEF IEO evaluation principles, as well as the evaluation questions and outputs (GEF IEO expectations). Consequently, these principles are embedded in the evaluation:

- **Utilization-focused** – As per GEF IEO standards, evaluations must serve the information needs of intended users. The evaluation approach will therefore foster ownership of the process and outputs among intended users in the GEF. This requires this evaluation to be relevant, practical, and contextualized, with findings communicated strategically through regular updates for stakeholders, the co-creation of recommendations with the GEF, and the framing of key conclusions around aspects pertinent to strategy evaluation and maximizing strategic impact.
- **Participatory and inclusive** – the GEF IEO standard on participation stipulates that evaluations must be inclusive, so that the diverse perspectives and the values on which they are based, and the types of power and consequences associated with each perspective, are represented. The evaluation intends to maintain a high level of participation throughout the evaluation process. In addition to involving key GEF stakeholders in a TOC workshop early in the evaluation and at the end during the findings workshop, the evaluation design includes a strong commitment to ensuring the perspectives of various stakeholders are heard, contextualized, and reflected in the final products. During the data collection phase, the team will ensure that the KII guides invite project participant reflections from a wider variety of stakeholders and communities, including women, IPLCs, and other marginalized/vulnerable groups (supported by the use of simple ‘stories of change’ templates - Box 3.1) and private sector representatives where relevant. Second, to systematically identify how and why outcomes benefit various stakeholders and beneficiary groups, Gender, Equity and Social Inclusion (GESI) will be addressed in the analysis and will be assessed.
- **A concept-informed** methodology that recognizes and works with the concepts of NbS, transformational change, and additionality. This evaluation is a key tool to understand GEF’s role in the NbS landscape, assess the GEF additionally, and provide insights into what the GEF has done right and where there are gaps, ultimately identifying concrete entry points for the GEF in a structured way forward to scale its NbS efforts. The findings will point to new insights to support the design and delivery of the GEF’s work on NbS.
- **Theory-based** – evidence on results and lessons learned will be analyzed against a TOC, which sets out the intended benefits and co-benefits of NbS, likely pathways to change, and underlying change assumptions. This will incorporate the systems thinking and system change in relation to landscape-level and transformational impacts. Evaluation theory helps understand the complexity of the subject of the evaluation better (Mukute et al. n.d.). Besides, TOC, to reveal pathways of change (Tyrrel 2019), the evaluation will use a utilization focus approach to respond to the needs and expectations of the intended users of the evaluation findings and recommendations (Patton 1997), process tracing, to show how GEF NbS mechanisms are interacting with context to produce outcomes (Beach and Pederson 2013), and light-touch contribution analysis (Dinshaw et al. 2014).
- **Mixed methods, and evidence-based process** that is systematic, objective, and transparent for credibility of findings and recommendations. The evaluation will combine and triangulate evidence collected at multiple levels: at the strategic level by drawing from GEF strategic documents, frameworks, KIIs with GEF stakeholders, and the wider literature to see if the GEF is responding to recent developments. At the portfolio level, the evaluation will draw from project documentation and evaluations. At the country level, the evaluation will conduct country case studies, KIIs, and project site visits, and where available also draw on relevant geospatial mapping data to complement the data collected. This mitigates the risk of bias of any single source and ensures the evaluation captures evidence at all levels.

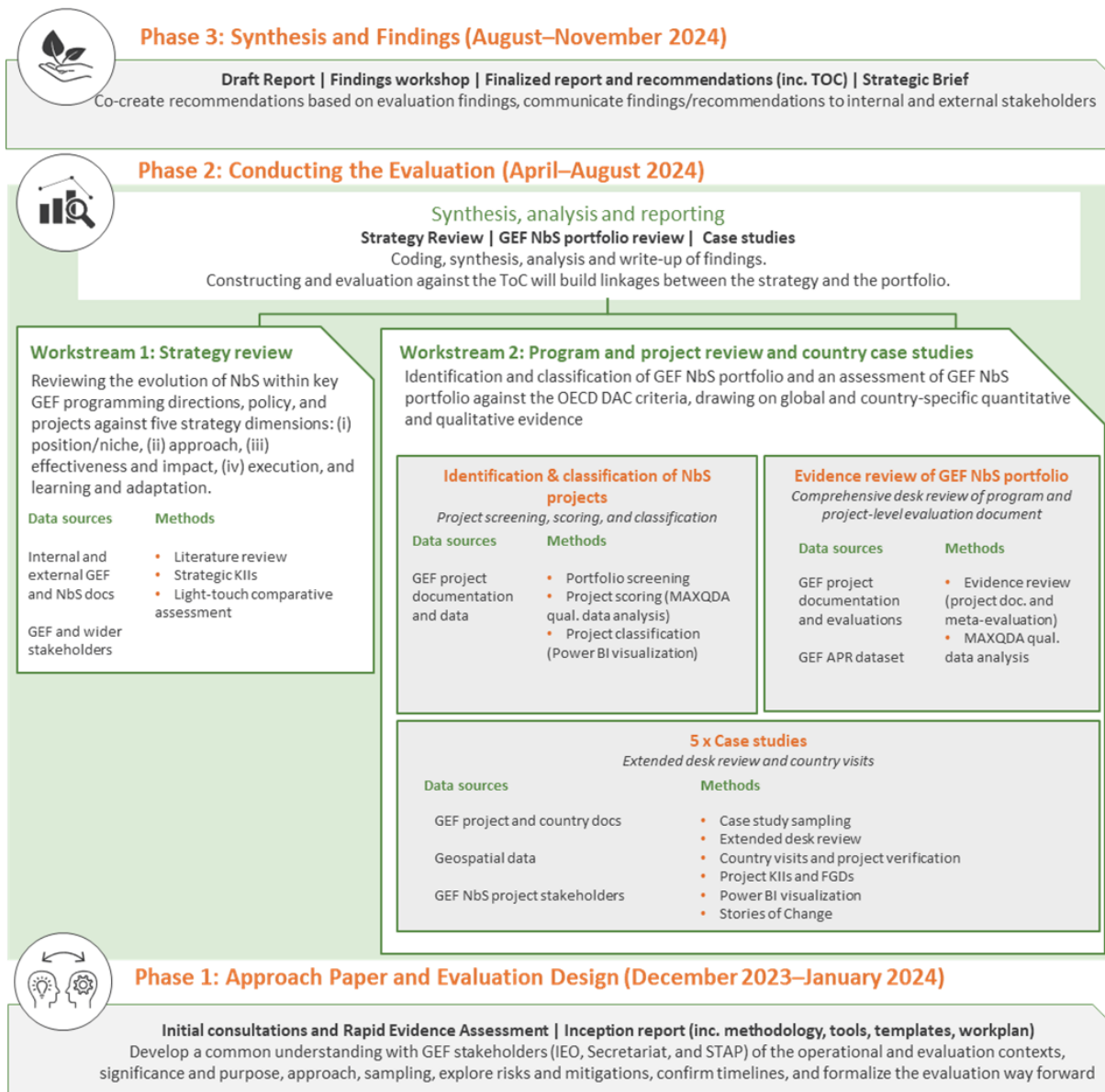
- **Proportionate** - The burden on GEF stakeholders will be reduced by drawing heavily on existing data and reports (meta-evaluation approach). This will involve desk-based analysis and synthesis of both the findings from project reports and previous program evaluations and reviews.

35. The methodology will also ensure focus on what the evaluation should do by striking a balance between rigor, participation, and feasibility in terms of budget, time, and expertise. Purposive and stratified sampling will be used to select key informants, projects, and case studies for in-depth data generation based on selection criteria.

36. The evaluation methodology will be operationalized through two evaluation workstreams—Workstream 1: Strategic Review; and Workstream 2: Program and Project Review—and a related set of evaluation questions. The findings against the two workstreams will be reviewed for coherence. The evaluation process will consist of three phases: (i) Approach Paper and Evaluation Design (inception); (ii) Conducting the Evaluation (data generation and analysis); and (iii) Synthesis and Findings (figure 3.1).

Figure 3.1. Approach diagram

Objective: Assess (i) the use and contribution of NbS to delivering GEF objectives and other co-benefits, (ii) the lessons learned, and (iii) how NbS can be most optimally employed in the future (Dec 23–Sep 24)



3.2. Data collection, analysis and synthesis

37. The tasks below summarize the data collection, analysis and synthesis methods, tools and activities according to the workstream and evaluation phase.

3.2.1. Evaluation inception tasks

38. The inception period was **designed to produce this Approach Paper** focusing on the draft TOC, evaluation methodology (including evaluation questions), matrix, plan, case study framework, analysis and reporting templates, and data collection tools. The following activities shaped the Approach Paper:

Task 1-3: Inception phase, literature review and producing the Approach Paper

39. A high-level kick-off meeting was held on December 1, 2023. The evaluation team discussed the significance of the evaluation, strategic evaluation questions, key documents to review, how to conduct fieldwork in cooperation with ongoing GEF activities in the selected countries, and what to cover in the approach paper. The meeting also confirmed that the case studies will serve to illustrate NbS work and offered some criteria for selecting the case studies. Literature covering the GEFs integration of NbS in its strategy, portfolio, and TOC and additional literature on the wider context of NbS were reviewed to inform the approach paper.

3.2.2. Workstream 1: Strategy review

Task Four: Strategy review.

40. Both the desk review and key informant interviews will generate findings on the practical application of the NbS concept; NbS integration into MEAs, the Sendai Framework; NbS mainstreaming in GEF strategies, the GEF NbS portfolio, GEF-supported country programs (country cases), and project-based case studies; and light-touch comparative assessment of how other global funds support NbS. wider This means that a comparative analysis, key findings and insights from portfolio analysis and case studies theory will inform the strategy review. In addition, country cases will be conducted to augment the project-based case studies. We propose to use purposive stratified sampling to identify stakeholders to interview and documents to analyze to get a balanced evidence base, generate data on where NbS fits in the GEF strategies, and whether it has generated the intended benefits.

41. The desk review will be conducted at two levels (i) beyond GEF to secondary generate data on the evolution of NbS and its integration with relevant UN conventions and commitments and how other global funds are working with NbS, and (ii) within GEF to generate secondary data on key GEF programming directions, policy, funding, project design and implementation, and GEF MEL systems. The desk review will also help us identify key informants and triangulate data from key informant interviews.

More specifically, the desk review under Work Stream 1 will review the literature on the evolution of NbS globally and the GEF document on its strategic approach for NbS in response to convention guidance, drivers of biodiversity loss, and country/regional priorities. This will also cover the GEF's management of any trade-offs—between biodiversity loss and other outcomes in implementing NbS—and support for marginalized communities within NbS policy, guidance, and programming to assess how strategy and execution arrangement are working across scales and what adjustments are required to adapt to future needs. The evaluation team will build upon the institutional history approach by telling the 'story' of NbS within the GEF with the help of annotated timelines describing key events and occurrences.

42. As part of the desk-based review of Workstream 1, a **light-touch comparative assessment will be conducted** on how other funds support NbS actions, to help contextualize and orient GEF approaches and to

build a foundational understanding of what opportunities exist for GEF and what the GEF’s comparative advantage and additionality on NbS currently is . We will select from a range of relevant programs, for example: recent actions under the FIP; the Amazon Fund (REDD+); Defra’s Biodiverse Landscapes Fund; the European Union (EU) Financial Instrument for the Environment (LIFE) program (including the Natural Capital Finance Facility); the Global EbA Fund; the work of the Nature Conservancy on NbS – across forests, wetlands, grasslands, and agriculture; and private sector investments, e.g., Earthly or Gold Standard.¹⁷

Task Five: Strategic stakeholder consultations.

43. Primary data generation will be generated through KIIs. The proposed criteria for selecting key informants are to ensure the representation of actors with practical knowledge and experience on NbS, integration of NbS in MEAs, and mainstreaming of NbS in GEF policies, programming, implementation, scaling, monitoring evaluation, and learning. The GEF IEO and the ERG will guide us in selecting the key informants based on their nuanced understanding of the relevant actors. We propose to select key informants from the following stakeholder groups whose insights and expertise are crucial to the success of this research:

- a. **UN environment policymaker:** To provide input on integrating NbS in MEAs and related instruments. We suggest interviewing UNEA.
- b. **GEF management and advisors:** To provide input on integrating NbS in policy, programming, financing, implementation, and evaluation. These will be selected from STAP members and secretariat, GEF Secretariat, IEO, Indigenous People’s Advisory Group (IPAG) members, and academic and private sector advisors.
- c. **GEF agencies:** To provide input on their practical understanding of NbS and its integration of GEF-supported programs and projects at scale in diverse regions and biomes of the world, covering the various GEF NbS focal areas. We suggest interviewing agencies that provide us with the necessary breadth and depth of experience.
- d. **GEF national focal points:** To provide input on how different countries are designing, implementing, scaling, monitoring, evaluating, and learning from NbS mainstreaming. We suggest engaging countries where GEF has made high investments and is more advanced in piloting NbS.

44. These findings can then be further triangulated and tested at the program and project level, and recommendations for improvement (strategic approach and guidance) can be synthesized. Some of the consultations will be in the form of workshops with GEF IEO and GEF Secretariat to validate findings, including the ToC.

3.2.3. Workstream 2: Portfolio—definition, identification, screening, and classification—and evidence review

45. The first phase of this work will involve conducting a **comprehensive desk-based assessment of GEF projects**, including **screening and assessing projects**, to identify those most closely aligned with the UNEA and IUCN definitions of NbS, followed by an **evidence review of project documentation against the evaluation questions**.

- For the **identification and classification of NbS projects**, the evaluation team will implement a detailed methodology *for NbS project screening*, departing from previous methods that relied on automated keyword searches (World Bank 2023). Initially, GEF will provide us with a comprehensive list of projects relevant to this evaluation. From this list, a smaller, representative subset will be chosen using stratified sampling for detailed screening. Each project in this subset will undergo a

¹⁷ REDD+: Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks in Developing Countries.

two-step screening process. First, evaluators will manually review project description summaries in CEO endorsement request forms to identify and interpret key terms relevant to NbS alignment. Second, the relevant projects will be analyzed using a MAXQDA coding framework based on two key questions within the NbS classification tool to pinpoint definitive NbS elements within each project. This approach aims to provide comprehensive guidance on NbS alignment, serving as a robust guideline for current and future project evaluations.

- For the **subsequent evidence review**, the evaluation team will review the identified NbS-aligned portfolio, including applying a meta-evaluation approach to existing results data against the evaluation questions (*Workstream 2 EQs 1-11*). The review will also include results frameworks, midterm reviews and terminal evaluations, cost data, and a synthesis of other relevant GEF studies, data, and previous evaluations. This will quantify and qualify the balance between nature and societal benefits across the portfolio and correlated success factors. For the evaluation of Project documentation, the evaluation team will develop a coding system and will use MAXQDA to tag information from core project documentation (e.g., Project description summaries outlined in CEO endorsement requests forms) against this.

Task Six: Identification and classification of NbS projects in the GEF portfolio.

Project screening

46. The NbS screening methodology will apply a multi-pronged approach to enhance both efficiency and effectiveness, as well as help refine the screening criteria. The screening process will consist of two key phases: i) a preparatory manual screening of a small project sample, followed by ii) an in-depth manual analysis using the coding framework through MAXQDA to identify definitive NbS elements within the projects. At the end of the screening process, the aim is to definitively determine components that signify NbS alignment in projects, which will serve as reference and guidance for assessment. The sampling frame from which NbS solutions will be identified is all projects from GEF-5 onward, covering both closed and ongoing projects, numbering approximately **1,482** projects.¹⁸ Because it will neither be possible nor useful to conduct the full NbS classification of all GEF projects, a stratified sampling method will first be applied to select a statistically significant and representative sample of 305 projects. This approach ensures the accuracy of the NbS alignment analysis and ensures proportional representation from various project categories. Once this subset of 305 projects is established, an **initial screening** will be carried out to identify the sub-population of NbS-aligned projects, based on **two key questions** within the NbS classification tool, reflecting the IUCN's standard definition:

1. **Does the project address one or more societal challenges?** e.g.: (i) climate change adaptation and mitigation; (ii) disaster risk reduction; (iii) food security; (iv) health; (v) social and economic development; and/or (vi) water security.
2. **Does the project seek to deliver a net gain to biodiversity and ecosystems?** e.g., by addressing (i) biodiversity loss, and (ii) ecosystem degradation.

47. Although all eight IUCN criteria in the Global Standard need to be met to be defined as NbS, many earlier cycle GEF projects did not report on social project components as strongly as in current cycles; hence the initial project screening will use only two criteria. This process will learn from and build on a review conducted by the World Bank (2023) of World Bank portfolio NbS projects for climate resilience between

¹⁸ In total, 1,482 projects are included in this analysis, with 211 having cleared CEO endorsement, 150 implemented, 8 suspended, 739 under implementation, and 374 financially closed.

2012 and 2021 (World Bank 2023). This identified **search terms to select projects with NbS components**. Projects were then screened later to identify more details on the NbS applied.

48. The **initial screening** will depend on what data is available in GEF spreadsheets containing project information, but the process will aim to **filter projects inclusive of one search term from both of the following two key questions**, with potential key search terms as follows:

For key question 1:

- ‘societal challenge’, ‘societal benefit’, ‘societal gain’
- ‘nature-based solution*’, ‘nature-based’, ‘nature positive’
- ‘disaster risk’, ‘landslide’, ‘storm surge’, ‘flood’, ‘drought’, ‘desertification’, ‘erosion’, ‘coastal protection*’, ‘heatwave’, ‘fire risk’, ‘wildfire’, ‘cyclone’, ‘ecosystem-based DRR (Eco-DRR)’
- ‘natural infrastructure’, ‘nature-based infrastructure’, ‘green infrastructure’, ‘bio-engineering’, ‘bioengineering’, ‘building with nature’, ‘engineering with nature’, ‘green-gray’, ‘slope stabilization’
- ‘natural climate solutions’
- ‘ecosystem-based’, ‘ecosystem-based adaptation’, ‘climate change adaptation’, ‘climate resilience’,
- ‘climate change mitigation’, ‘greenhouse gas emission*’, ‘carbon sequestration*’
- ‘economic development’, ‘social development’
- ‘job creation’, ‘employment creation’, ‘livelihood*’
- ‘ecosystem service*’
- ‘water security’, ‘water provision*’, ‘water quality’
- ‘food security’, ‘crop yield*’, ‘soil conservation’, ‘fisheries’, ‘food system’
- ‘human well-being’
- ‘green space’
- ‘human health’, ‘health benefit*’, ‘public health’.

For key question 2:

- ‘Biodiversity benefit*’¹⁹, ‘biodiversity net gain’, ‘biodiversity gain*’
- ‘ecosystem integrity’, ‘ecosystem connect*’, ‘ecosystem benefit*’, ‘ecosystem gain*’, ‘ecosystem restoration’
- ‘ecosystem degradation*’, ‘ecosystem loss’.

Project scoring

49. Following an initial screening, the evaluation team will assess and score the identified sample list of GEF projects using a **more detailed NbS classification tool** based on the IUCN Global Standard (but adapted to the GEF context). This will draw on potential additional IUCN criteria as outlined in further detail in Box 2.1 in section 2.3 and presented as a summary below.

Questions for NbS scoring and classification:

1. Does the project address one or several societal challenges? Does it do this intentionally or incidentally? Both intentional and incidental societal benefits can allow a project to be classified as NbS, but stronger NbS are likely to adopt a genuinely integrated approach to addressing societal challenges and delivering biodiversity/ecosystem benefits. In the GEF context, looking at project stated purpose or metrics could reflect the strength of weighting given to both societal and biodiversity benefits (e.g. CO2 sequestered

¹⁹ The asterisk indicates different word endings with the same root (e.g. benefit* would cover benefits, benefitting, benefit, benefitted).

would show the project purposefully aimed to address climate change, whereas metrics such as forest area planted suggest that carbon sequestration may instead be considered a co-benefit).

2. Does the project consider scale and the wider landscape?
3. Does the project seek to deliver a net gain to biodiversity and ecosystems, or does it ensure avoided biodiversity loss. Does the project go beyond the local level to provide biodiversity benefits of global significance (NB NbS can provide local and / or global biodiversity benefits, but GEF projects often prioritize the latter)? ?
4. Are the solutions proposed and implemented under the project economically viable? Are projects cost-effective and how do they perform following a cost-benefit analysis?
5. Are the solutions proposed and implemented based on inclusive, transparent, and empowering governance processes as a core aspect of NbS (e.g., to help promote durability, scalability, and transformational change)?
6. Does the project balance trade-offs between primary objectives and the provision of multiple benefits? In the GEF context, this can include situations where GEF has supported the Global Environmental Benefit components of projects, and other funders have supported project components such as those relating to societal benefits. In practice there can be trade-offs between these different aims.20Is the NbS project (and solutions implemented) managed adaptively based on evidence? In the GEF context, this includes looking at whether projects contribute to knowledge management and learning.
7. Are the solutions proposed and implemented sustainable and mainstreamed within an appropriate jurisdictional context?

50. The scoring of the sampled list of GEF projects will look at the **CEO endorsement reports**. Depending on the number of projects in this population, the evaluation team may or may not need to select a **representative sample of projects** for assessment. Projects will be **scored** against **selected** indicators, as illustrated in Table 3.1, to identify which projects have the strongest NbS. These indicators will be drawn from the IUCN Global Standard described in Box 2.1 in section 2.3. As such, this approach builds on the STAP conceptualization in Figure C.1 (Annex C), which highlights the dual importance of both benefits to nature and benefits to people and society that true NbS should deliver. This approach also facilitates exploration of the key challenges associated with NbS that need to be addressed (Annex C), such as the importance of addressing both the costs and the benefits of interventions, an understanding of trade-offs (between nature and people, or between different groups of people), and sustainability and institutional mainstreaming over time (and whether this has evolved).

Table 3.1. Example scoring criteria for the classification of NbS, adapted from IUCN Global Standard (2020a)

Project	Criterion 1: Is the intervention effectively addressing societal challenges?	Indicators	Score			
Name		The most pressing societal challenge(s) for rights holders and beneficiaries are prioritized	3	3	Present	
			2	2	Partial	
Theme			1	1	Unknown	
			0	0	Negative	
NbS type		The societal challenge(s) addressed are clearly understood and documented	3	3	Present	
			2	2	Partial	
Period-\$-Partners			1	1	Unknown	
			0	0	Negative	

20 NB it is beyond this evaluation's scope to go outside GEF documentation and seek project level documentation from co-funders.

'Present' means there is good evidence from project documentation this indicator has been met.

'Partial' means there is some evidence from project documentation this indicator has been met, but the evidence is not strong.

'Unknown' means project documentation provides no indication of whether this indicator has been met or not.

'Negative' means project documentation provides evidence that suggests this indicator has not been met.

51. Projects with a 0 (negative) score against any NbS indicator will be excluded from further analysis, because they would not be classified as NbS according to the IUCN Global Standard. **The remaining projects (or a subset of the stronger ones, depending on how many there are) will be taken forward into the evaluation project sample for further classification and evaluation (task 7).**

52. **MAXQDA qualitative data analysis software** will be used to support the analysis and scoring of NbS of programs across the GEF portfolio. **Additionally, MAXQDA will be employed to collect evidence to answer the evaluation questions related to this area of work, as will be elaborated below.** The evaluation team will upload the project documentation, or a representative sample of project documentation, into MAXQDA. The evaluation team will develop a **coding framework which draws on key themes and words that encapsulate NbS**, drawing on a wider range of NbS criteria based on the IUCN framework. Project documentation will then be reviewed and thematically coded by the evaluation team. Encoding will be primarily deductive, using a coding structure structured according to the IUCN criteria. MAXQDA will also be used under **task 7** for a more comprehensive evidence review of the NbS portfolio, following the same process of using a **coding framework structured according to the evaluation questions.**

Project classification

53. As part of the GEF program and project review, data visualization software will be used to visually map and present the characteristics of the GEF NbS portfolio, based on project data. The use of Power BI will help provide a range of visualizations of the geographic spread, scoring and characteristics of the sampled NbS projects within the GEF's portfolio. This will cover those projects that are most closely aligned with NbS based on the more rigorous NbS scoring and project documentation review.

54. The visualizations will provide accessible, 'at a glance' representations of where and what NbS investments contribute toward (and, for example, help to identify synergies and gaps). Alongside a more in-depth evidence review to be conducted under task 7 to respond to the evaluation questions outlined in Table 2.2, the project categorization and visualizations will help build an understanding of the relevance (*Workstream 2 EQs 1-2*) and coherence (*Workstream 2 EQs 8-9*) with respect to NbS and broader GEF aims. Visualizations will include charts, graphs, and maps presenting data on: the number of projects; the size of investments; project status; indicators of success/challenges; and a range of other characteristics relating to NbS, ecosystem type, etc. as outlined above. For example, GEF projects could be placed on figure 3.2 to visualize comparative strengths on nature and other benefits. This information will be extracted as part of the more in-depth evidence review using MAXQDA, further detailed under task 7.

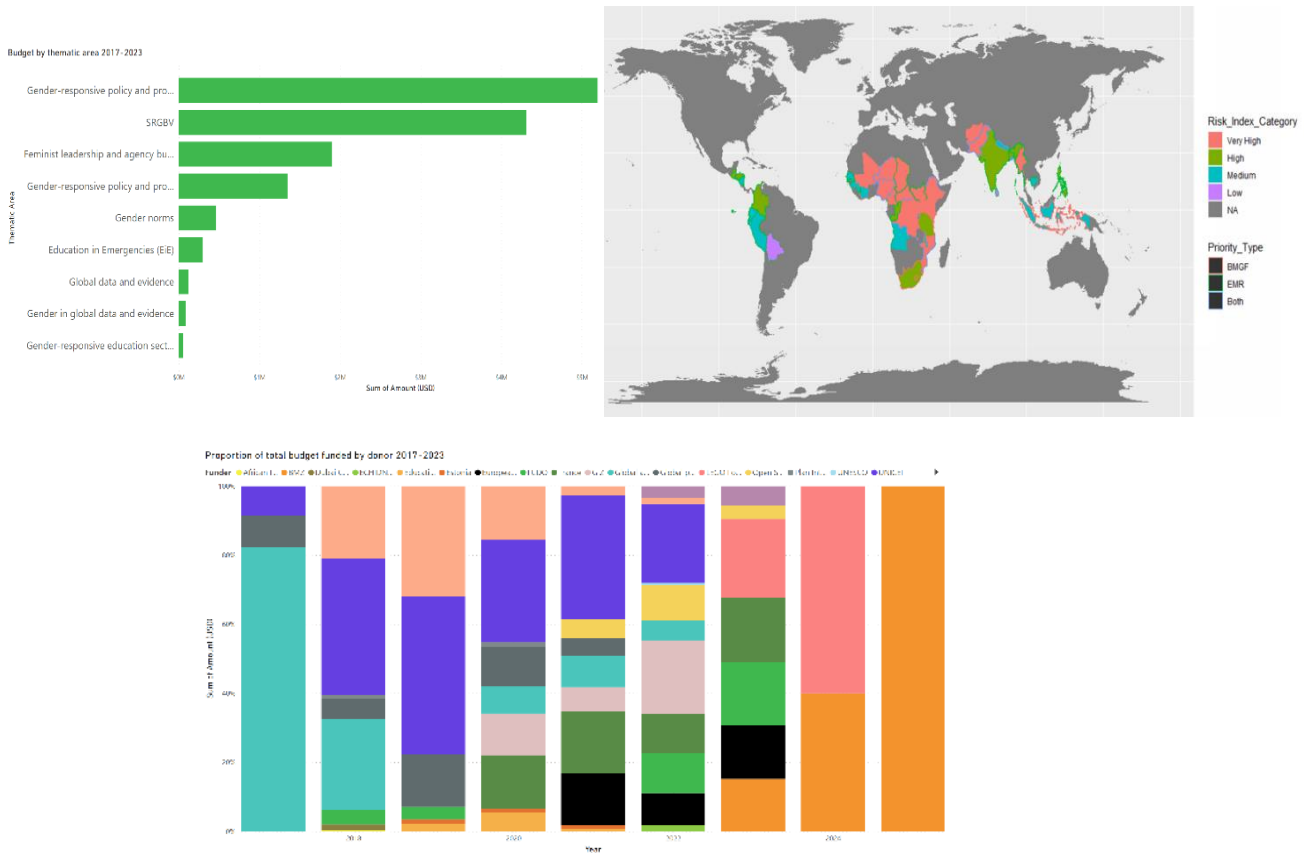
55. The characteristics to be mapped and/or visualized could include:

- **GEF funding window** - comparison with expenditure/number of NbS to illustrate portfolio NbS trends over time.
- **GEF theme** – comparison of NbS prevalence in different GEF focal areas, multifocal area projects, child projects under the integrated approach pilots (IAPs), LDCF and SCCF, etc.
- **Region and biome** – mapping of regions and ecosystem types targeted, e.g., the IUCN Global Ecosystem Typology, which defines 25 biomes.²¹

²¹ <https://www.iucn.org/resources/conservation-tool/iucn-global-ecosystem-typology>

- **Societal problem addressed** - prevalence of NbS addressing different (combinations of) benefit areas, e.g.: (i) environmental degradation and loss of biodiversity; (ii) climate change mitigation and adaptation; (iii) disaster risk reduction; (iv) economic and social development; (v) food and water security; and (vi) human health.
- **NbS intervention type** – expenditure on different intervention types, e.g.: (i) agroforestry; (ii) area-based conservation; (iii) biodiversity; (iv) ecosystem-based management; (v) integrated coastal zone management; (vi) integrated water resource management; (vii) restoration and rehabilitation; (viii) sustainable land management; (ix) food security projects and (x) urban-related NbS such as bioswales, permeable pavements, green roofs, and rainwater harvesting facilities.
- **NbS approaches used** - drilling down further to quantify the specific types of NbS used in different ecosystems, e.g.: green parks and green belts - urban areas; mangrove restoration through the use of native or adapted species - coastal areas; and biodiversity mainstreaming in cattle ranching - farmland. These types will be diverse and first require further analysis and classification.
- **IPLC, women and other user involvement** – prevalence of NbS projects with (adequate-strong) user involvement.
- **Scalability/sustainability** - funding levels (by sector), and other indicators of transformational potential, e.g., prevalence of projects with (adequate-strong) consideration of economic viability, inclusive governance, adaptability, and jurisdictional mainstreaming.
- **Other administrative variables** – e.g., project duration, project status, total GEF funding and co-financing, and range/type of implementing partner.

Figure 3.2. Examples of Data visualizations



Task Seven: Evidence review of sampled NbS projects

56. **Using the evaluation questions detailed in the evaluation matrix (Table 2.2)**, a comprehensive desk review of sampled program-level and project-level documents will be conducted from the identified NbS-aligned portfolio to answer **Workstream 2 EQs 1-11**. This will **incorporate a meta-evaluation approach to existing results data**. The evaluation team will assess options to review results frameworks (notably from Project Identification Forms for concept-stage projects or CEO endorsement request documents for established projects), midterm reviews and terminal evaluations, cost data, and a synthesis of other relevant GEF studies, data, and previous evaluations. The evaluation team will also draw on GEF APR data sets (e.g., outcome and sustainability ratings) to compare the ratings of NbS project against the GEF projects in the APR dataset more generally. The meta-evaluation approach allows us to **draw on existing evaluation-related evidence**, hence boosting the validity/reliability of our analysis. The starting point is the NbS-aligned portfolio of projects, which were screened as having ‘present’, ‘partial’, or ‘unknown’ NbS criteria, plus, as a further criterion, those projects (circa 80%) that have passed the midterm review stage. Depending on the number of projects meeting these criteria, we may need to select a smaller sample of projects, in which case we will select those most strongly aligned with NbS (those with most ‘present’ NbS criteria). In the sample of projects to review, the evaluation team will ensure there is a balance between completed, ongoing, and recently approved projects to review. This will help answer different aspects of the evaluation matrix, with completed projects providing insights into effectiveness (**Workstream 2 EQs 3-7**), while ongoing and approved projects provide insight into design elements relevant to criteria of relevance (**Workstream 2 EQs 1-2**) and coherence (**Workstream 2 EQs 8-9**) the remaining can help with assessing the design elements.

57. **MAXQDA will be used to support the analysis of the comprehensive evidence review of the NbS portfolio**. Evidence will be gathered, analyzed, and ‘scored’ along the main evaluation criteria of relevance (**Workstream 2 EQs 1-2**), effectiveness (**Workstream 2 EQs 3-7**), coherence (**Workstream 2 EQs 8-9**), impact (**Workstream 2 EQ 10**), and sustainability (**Workstream 2 EQ 11**), based upon a coding framework closely linked to the evaluation questions and benefit areas included in the TOC.

58. The assessment will include an analysis of **relevance**, providing insights into the characteristics of the GEF NbS portfolio, and how relevant NBS actions are to GEF objectives, country needs and other programs at the landscape level (**EQs1-2**). The assessment will also include analysis and quantification of key variables influencing results and **effectiveness (to respond to Workstream 2 EQs 3-7)**—e.g.: multi-stakeholder engagement; analysis/management of trade-offs (**EQ6**); institutional understanding; (multi-sector) financing; sustainability planning; strong monitoring and evaluation (M&E) systems (**EQ7**); inclusion of marginalised groups such as women and IPLCs (through participatory processes) (**EQ4**)—and how these factors correlate with and contribute to the identified benefit areas of NbS (**EQ3**) – quantified as ‘present’, ‘partial’, etc., using a similar scale to the classification tool. This will also enable us to compare the balance between benefit areas, including global benefits of strong interest to the GEF. An analysis of unintended benefits, both positive and negative, as well as sub-analyses of ‘who benefits’, including women and IPLCs (**EQ5**) **will also be considered**. The assessment will also include an analysis of the extent to which the NbS portfolio is aligned with GEF programming direction (**EQ8**) and assess the extent to which relevant stakeholders have been involved in the development and implementation of NBS projects (**EQ9**) (further delved into under task 9).

59. Finally, the portfolio evaluation will look to identify **transformative projects**—i.e., projects that have been scaled and operate at an institutional, systemic level to expand impact—and similarly identify the success factors underpinning them (**EQ11**). Such factors can include political will and local ownership, capacity and capability enhancements, increased innovation, the sharing of evidence of effectiveness, the creation of leverage/incentives for others to act, replicability, sustainability, scalability, or reaching critical mass. Analyzing and scoring the data in this way will enable us to produce a comparative assessment and meta-analysis across the large portfolio, including a variety of illustrative charts. The evaluation team will

also assess sustainability and the extent to which the net benefits of interventions are likely to continue by drawing on sustainability ratings of projects in the GEF APR dataset as an indicator of whether net benefits will continue.

3.2.4. Country case studies

Purpose of case study approach

60. Following the portfolio review, the team will develop up to five case studies to reach a greater level of granularity and depth in understanding how NbS have been integrated at country levels, and what has been achieved. In addition to exploring the key evaluation questions set out in the evaluation framework, the development of case studies is expected to illustrate in greater depth how NbS have been designed and implemented in context, and what factors enable or constrain progress. Crucially, the case studies will provide an opportunity to explore in-depth key observations, findings, or lessons identified during the strategy and portfolio reviews, providing, through an open enquiry, a greater level of insight into how NbS can be implemented effectively. This approach will be steered by the biodiversity, landscape management, and private sector engagement expert.

Task Eight: Case study sampling.

61. Five in-depth NbS case studies, in a staggered process will be developed, allowing us to test the tools from one to the other. Based on emergent perspectives, potential focus countries include **Indonesia, Tanzania, Nepal, or a country in the Amazon basin**; these are all known biodiversity hotspots and key areas of interest for the GEF, all with varying degrees of GEF investments through the various trust funds. However, the **final selection will follow a more comprehensive set of both strategic and practical aspects**. The selection of contexts and focus for each will be determined following the strategy and portfolio reviews to ensure that the cases provide complementary insights into issues emerging from other strands of research. It is expected that the case studies will cover a range of critical NbS approaches, contexts, challenges, and cross-cutting themes (such as gender and IPLC involvement, transformative projects, and good practice in MEL), as well as highlighting different implementation modalities and exploring complementarity of different initiatives within a context. Once case study contexts have been identified, a sample of GEF projects to be covered within these case studies will be selected.

62. The focus of the case studies will be selected in close consultation with the IEO but will reflect the most prevalent areas of NbS portfolio funding, aspects of strategic importance to the GEF, and the potential to illuminate effective and good practices (based on our NbS portfolio analysis and scoring). Although sampling criteria will be framed by these broad topics of interest, within this we will also seek to ensure a diverse selection and representation of project variables, based upon the criteria presented in Table 3.2.

Table 3.2. Suggested project sampling criteria for case studies

Criteria	Implications on selection
Geography/biome	Priority GEF regions and countries with critical biomes of the world.
Benefit areas	Projects intended to bring about GEB and societal benefits.
GEF themes and NbS types	Projects that cover at least two themes and three types of NbS interventions.
GEF funding cycles	Projects drawn from GEF-6 and GEF-7 (which have also been around for long enough to have generated outcomes).
Scope of interventions	Projects that use the whole set of interventions identified in the draft ToC.

Funding types	Projects that have received co-funding from other NbS funders will be prioritized.
Key stakeholder involvement	Projects that have involved IPLCs, women, intended users, and the private sectors in NbS interventions will be prioritized.
Transformative projects/potential	Projects that have an explicit focus on contributing to transformational change.
Feasibility of conducting in-person case study research	Countries that are ready to participate in the evaluation and safe to visit.

Task Nine: Case study research.

63. Case studies will be developed from evidence identified by the desk review and primary data collection drawn from country visits to verify the results and learning from a range of identified GEF NbS projects (aiming to review 3-5 projects in-country).

64. **The main focus of the country-based and project-based research will be on understanding relevance (Workstream 2 EQs 1-2), effectiveness (Workstream 2 EQs 3-7) and coherence (Workstream 2 EQs 8-9) with respect to NbS and broader GEF aims**, enabling a more in-depth examination of project-level results (including unintended outcomes), the distribution of benefits and co-benefits across different groups (including, in particular, IPLCs and women), actual or potential/signals of impact and transformational change, and opportunities, constraints, and key lessons (including what works, and why). This will be a two-step process:

(i) Extended desk review: Prior to country case visits, an extended desk review of investment plans, grant documents, results frameworks, and country contexts relevant to the selected NbS project will be conducted. This assessment will help frame primary data collection and the refinement of data collection tools. Additional secondary data analyzed will include relevant country policies and strategies, to be reviewed for cross-sectoral relevance and multi-scale coherence. Other examples include (where available and relevant) remote sensing data (e.g., of forest cover and forest loss, as provided by Global Forest Watch)²²—both within and adjacent to project areas and pre- and post-project intervention—to add additional quantitative outcome estimates and/or further contextual detail.

(ii) Country visits and project verification: Country visits will involve consultations with 20-30 project stakeholders. Stories of change (Box 3.1) will be used to learn about what has happened and how, to identify areas of success or potential improvements, and to understand what is important to project participants. This step will also focus on exploring how GEF funds could potentially catalyze private finance by drawing lessons and identifying effective strategies to attract commercial banks, private equity, and capital market investments into NbS projects.

65. This in-depth approach will help identify clusters of nature-based and societal outcomes to which the GEF has contributed, identify trade-offs (over time, between areas or social groups), how these were managed, and how positive synergies were achieved (Workstream 2 EQs 3-7). It will also enable us to verify, in depth, the differential impacts for IPLCs, women, and other marginalized/vulnerable groups (Workstream 2 EQ 4). Published behavioral and policy change theory can be used to understand the transformational potential or impact of projects that have been scaled or that have otherwise engaged in change at an institutional or systems level (as well as exploring private sector engagement and private sector funding flows) (Workstream 2 EQ 10). Detailed analyses will be conducted to recommend how future GEF funds can

²² <https://www.globalforestwatch.org/>

be better leveraged to crowd in private capital flows from commercial banks, private equity, and capital markets. From this research, detailed case study accounts will be produced of the pathway(s) that enabled different clusters of outcomes, opportunities and constraints, and serve as benchmarks for future GEF projects, as well as helping the evaluation to refine the TOC, synthesize the lessons learned, and distill recommendations for future GEF's strategy for integrating NbS.

Box 3.1. Utilizing stories of change

At the level of individuals, where relevant for case study projects, the evaluation will gather stories of change – a Participatory Action Research approach. It can be a challenge to capture how projects are impacting target populations or the level of contribution a project has had to a change. A story of change is a short story told through the words of a program participant that explains how their participation has impacted on their life. It is a more participatory way of collecting evidence and allows for a better understanding of what kind of changes are happening and are most valued by those affected. Such an approach aligns with the importance of oral storytelling to recognized culturally appropriate evaluation methodologies, including giving voice to the heterogeneous experiences of marginalized groups, women and, especially, Indigenous peoples and local communities.

3.3. Data analysis and reporting

66. The evaluation plans to use deductive, inductive, and abductive data analyses to convert data into useful knowledge/evidence to address the intention of the evaluation, and address the needs of the intended audience (Britton 1998). Most of the data will be qualitative, and some of this will be converted into quantitative data via scoring and/or ranking.²³ Through deductive analysis, we will test the GEF NbS TOC to understand how it has been applied and to what effect. Inductive analysis will help organize findings against evaluation questions and establish patterns that will help us reach key conclusions. Abductive analysis will involve building new knowledge (Footprint Evaluation Initiative 2022) and making recommendations for future programming. The analysis will include a specific focus on demonstrating how GEF funds can act as a catalyst for mobilizing private finance, detailing the mechanisms and strategies effective in engaging the private sector to invest in NbS projects.

Task Ten: Analysis and draft reports.

67. Evaluative evidence—from literature review, stakeholder interview transcripts, portfolio analysis, and case studies—will be analyzed and triangulated against the evaluation questions to assess the relevance, coherence, results, effectiveness, sustainability, and equity of the NbS portfolio (disaggregated by constituent themes, intervention types, and benefit areas – environmental, social, and economic). This will include weighting and reporting on the strength of evidence for each question. In terms of results, effectiveness, and sustainability, our coding framework will allow us to extrapolate how change happens, including identifying which interventions and mechanisms work best, levers of change, and in which contexts. A focus on GESI will help identify how and why outcomes benefit various stakeholders and beneficiary groups, especially marginalized groups such as IPLCs, women, other resource users, and citizens. Analysis will also explore how these efforts have contributed to or can be optimized to leverage further private sector investments, with specific recommendations and lessons drawn for better engagement with commercial banks, private equity, and capital markets.

68. This will feed into a draft **Final Evaluation Report** for feedback from GEF stakeholders. In addition, a draft **Strategic Brief will be prepared**. To maximize utility, we propose to structure this according to four

²³ www.intrac.org/wpcms/wp-content/uploads/2017/01/Data-Analysis.pdf

dimensions of strategy evaluation. These include: (i) position or niche in the system; (ii) perspective (comprising approaches, methods, and tactics); (iii) learning and adaptation; and (iv) effectiveness and impact (Patton and Patrizi 2010).

Task Eleven: Findings workshop.

69. Consistent with GEF IEO's quality assurance practice, two quality assurance measures will be adopted for this evaluation. The first is a Reference Group, composed of representatives from the GEF Secretariat, GEF Agencies, and STAP who will provide feedback and inputs throughout the evaluation process and facilitate access to information and appropriate contacts. The second is a Peer Review Panel, consisting of selected evaluators from GEF Agency Evaluation Offices, evaluation organizations, and recognized experts who will provide feedback on the draft report. One workshop will be organized to review preliminary findings with key GEF stakeholders to update the TOC and to help foster learning and adoption of lessons. For example, the team will identify and present critical process lessons around managing trade-offs and maximizing co-benefits (including for women and IPLCs), as well as on good practice in scalability and MEL. Based upon feedback from the workshop, the Evaluation Report (and accompanying Strategic Brief) will be finalized.

Output: Final evaluation report. The Final Report will comprise: the Strategic Brief, summarizing key findings and lessons learned; evaluation overview and purpose; TOC; a synthesis of findings from the strategic review, portfolio analysis, case studies, and workshops; an in-depth overview of lessons learned and recommendations; and a methodological annex. The report will be presented in clear, concise language suitable for a range of audiences, incorporating reader-friendly visual representations of our findings (including from Power BI).

70. Knowledge management and communications efforts would include a wider seminar with interested GEF partners or external audiences (e.g., multilateral, bilateral, philanthropic and academic institutions, including, potentially, multilateral development bank [MDB] and private sector actors), or a journal article to help contribute to the global evidence base on NbS effectiveness and benefits.

3.4. Methodological limitations

71. The evaluation team identified methodological limitations and risks and suggested mitigation measures as outlined in Table 3.4 below.

Table 3.4. Methodological limitations and mitigation measures

Topic	Limitations/Risks	Mitigation
Data availability	Varying degrees of data availability across the GEF portfolio.	Adopt a mixed-method approach to data collection to avoid relying on any one data source.
Sample size of key informants	Low inclusion of perspectives from GEF stakeholders in the evaluation.	Draw extensively on strategy and portfolio documents and apply meta-evaluation.
Low GEF focus on societal matters of concern and trade-offs	Increased likelihood of low levels of information on societal benefits produced.	Primary data generation with marginalized groups such as IPLCs pay close attention to societal benefits, while interviews with

		executing agencies, government, and private sector stakeholders will pay attention to trade-offs.
Absence of a GEF definition of NbS and TOC	A lack of clarity on the part of the evaluation focus.	The evaluation will use the evaluation to come up with a GEF-centric definition of NbS and a GEF NbS TOC.
Travel and security	Potential challenges in arranging case study visits due to political change, security concerns and time taken to secure necessary permissions	Start planning early to allow for enough time to secure necessary permission and include several options for countries to visit to avoid unforeseen setbacks in terms of security.

4. Evaluation phases and workplan

72. The evaluation falls into three key phases, as follows:

- **Evaluation design:** This includes the discussions on evaluation design and methodology, as well as existing GEF documentation and databases and how to access this, and culminates in the submission of this approach paper.
- **Data collection phase:** This includes the data collection, both interviews and country visits, to compile the data necessary to put together the three components of the evaluation that will make up the evaluation report:
 - Strategic-level review
 - Project and program-level review
 - Country-level case studies
- **Analysis and reporting:** This involves the written and visual presentation of the data collection phase for the three reviews conducted as part of this evaluation.

Key dates of the evaluation

March 2024	Draft Approach Paper and Evaluation Matrix
May 2024	Final Approach paper and Evaluation Matrix
June 2024 – February 2025	Data collection
February 2025	Drafts for strategy review, portfolio review, and case studies
March 2025	Zero draft of the Evaluation Report
April 2025	Final Evaluation Report

5. Annexes

Annex A: Interview guides

Draft interview guide: GEF's integration NbS Strategy review

Interviews will be held with the GEF Secretariat and IEO, the STAP, partner GEF agencies (from an implementation perspective but also including those agencies also pursuing and defining NbS, notably IUCN and UNEP), key GEF system donors and relevant Convention Secretariats. The questions that will be posed to each key informant will vary according to their respective organizations' understanding of the NbS context and evolution as well as knowledge of the NbS work of the GEF, building on the standard question set below.

Introduce the evaluation and securing informed consent

The evaluator will present the rationale and purpose of the evaluation and why the key informant's input is sought. She/he will also explain how the evaluation findings will be communicated and to whom. This will be followed by confidentiality assurance and seeking the consent of the key informant to participate in the evaluation interview.

Interview approach

The evaluator will use the questions in the table below to guide data generation. The interviewing approach will be two-way and conversational, with two-way communication to enable probing by the evaluator and an in-depth exploration of key informant responses. The sequencing of questions may vary depending on the key informant responses and logic. Some or all evaluation questions will be posed in each interview depending on the key informant organization's relationship with the GEF and NbS.

Checklist of evaluation questions

The following checklist of evaluation questions will be used:

Dimension	Key Evaluation Questions
A. Position /Niche	<ol style="list-style-type: none"> 1. How have the current knowledge, existing standards, and guidelines on NbS informed the GEF's programming directions, policy, and projects? 2. What new opportunities exist for the GEF? What could the GEF be doing to respond to the opportunities? 3. What is the GEF's comparative advantage and additionality on NbS? 4. How is GEF utilizing NbS to generate societal benefits covering both public goods and economic viability?
B. Perspective/approach	<ol style="list-style-type: none"> 5. How has the GEF's strategic approach for NbS evolved over its different phases and in response to the convention guidance, the drivers of biodiversity loss, climate change adaptation, climate change mitigation, and land degradation, and country/regional priorities? 6. What are the NbS entry points at the GEF project and program level? How is NbS being implemented as a cross-cutting theme in recent GEF phases? 7. What is the GEF's TOC for NbS integration in strategy and programming related to the full family of GEF trust funds?
C. Effectiveness	<ol style="list-style-type: none"> 8. What are the main result areas across GEF NbS interventions, and which activities have principally contributed? 9. To what extent has the GEF successfully avoided new grey infrastructure through its NbS support? 10. What is the potential for transformational change across GEF NbS interventions (e.g. what comes across as new, innovation, and scaling), and what strategy levers have supported this?
D. Execution	<ol style="list-style-type: none"> 11. How well are the strategy implementation and execution arrangements working at and across scales? 12. How do current GEF structures and silos enable or impede integration and synergies of NbS within and across the full family of GEF trust funds? 13. What adjustments to the present capacities are required to better adapt to future needs?

E. Learning and adaptation	<p>14. What processes are in place to support learning on NbS across the GEF portfolio, and how effective are these processes for informing the design and implementation of NbS?</p> <p>15. How GEF funds be better leveraged to crowd in private capital flows from commercial banks, private equity, and capital markets into financing NbS programs and projects will be valuable?</p> <p>16. Looking forward, what are the opportunities and changes needed for the power of NbS to be actualized as a cross-cutting theme and integrator within and across the family of GEF trust funds?"</p>
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Draft interview guide: GEF NbS portfolio and case studies

The interviews with the GEF Secretariat, executing agencies, government (focal points), private sector partners, and participating marginalized groups such as IPLCs. The questions that will be posed to each key informant will vary according to their respective organizations' role in GEF NbS interventions, building on the standard question set below.

Introduce the evaluation and securing informed consent

The evaluator will present the rationale and purpose of the evaluation and why the key informant's input is sought. She/he will also explain how the evaluation findings will be communicated and to whom. This will be followed by confidentiality assurance and seeking the consent of the key informant to participate in the evaluation interview.

Interview approach

The evaluator will use the questions in the table below to guide data generation. The interviewing approach will be two-way and conversational, with two-way communication to enable probing by the evaluator and an in-depth exploration of key informant responses. The sequencing of questions may vary depending on the key informant responses and logic. Some or all evaluation questions will be posed in each interview depending on the key informant organization's role in the GEF NbS interventions.

Checklist of evaluation questions

The following checklist of evaluation questions, which are based on most DAC criteria, will be used:

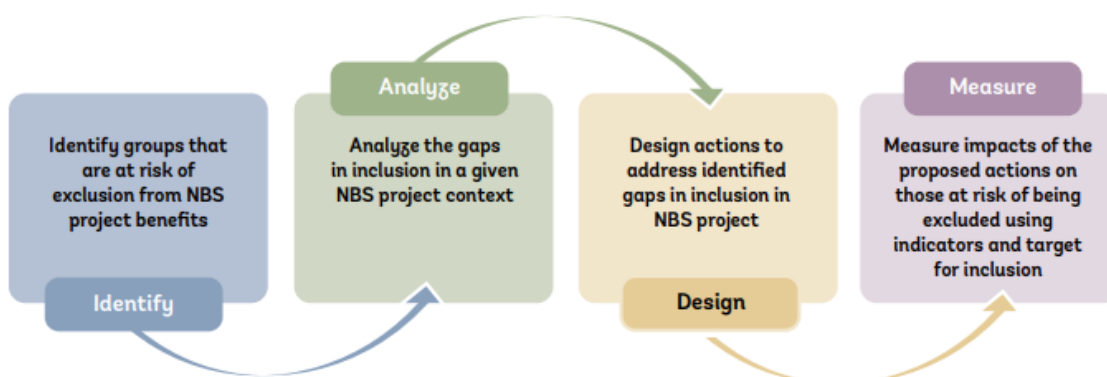
DAC criteria	Evaluation questions
Relevance	<p>1. What is the current GEF NbS portfolio and what GEF-centered criteria will be used?</p> <p>2. How relevant are specific NbS actions with: (i) GEF objectives; (ii) wider understanding and definitions of NbS; (iii) other programs in-country/landscape level?</p>
Effectiveness	<p>3. What results (benefits and co-benefits – environmental, social, and economic) are observed for GEF NbS projects (by project type)?</p> <p>4. What have been the benefits for marginalized groups, including women and IPLCs? How can just transitions best be promoted by NbS within the GEF?</p> <p>5. What are the unintended (positive or negative) benefits from GEF NbS actions?</p> <p>6. What are the key success and constraining factors related to NbS within the GEF portfolio? What trade-offs and tensions are evident (and where and how have these been addressed)?</p> <p>7. How, and how well, are NbS projects being monitored and evaluated within the GEF (and how/how well are benefits, disbenefits, trade-offs, and equity data being captured)?</p> <p>8. What are the key lessons for future design, programming, and implementation?</p>
Coherence	<p>9. To what extent is the NbS portfolio aligned with the GEF programming direction and NbS TOC?</p> <p>10. To what extent have relevant Ministries been involved at the national level? To what extent have relevant stakeholders been involved in the development and implementation of NBS projects? What coordination mechanisms and capacities exist to facilitate knowledge and communication of GEF</p>

	programming and across Ministries? What are the levels of national policy coherence at the sectoral level and across different scales? ²⁴
Impact	11. To what extent do projects demonstrate transformational change/potential for the benefit of the environment and society?
Sustainability	12. How can GEF NbS financing and the evidence, innovation, and emerging impact of GEF-supported NbS projects be scaled to be more transformational?

Participation and gender equality

The GEF 2019 evaluation policy promotes participation and gender equality as a key principle of evaluation. To this end, project stakeholder engagement strategies need to be tailored to ensure representative and meaningful participation (as opposed to passive attendance) of marginalized groups such as IPLCs and women throughout the research process. Staffing, resourcing, and capacity to mainstream and legitimize GESI analysis across the project team needs to be adequate. The World Bank (2023) presents factors for NbS projects to consider to ensure that gender and social inclusion are appropriately addressed during project conceptualization, design, and implementation. Figure C.1 details four steps to incorporate gender and social inclusion considerations into NbS. These steps will inform the strategy to ensure gender and social inclusion is addressed in fieldwork and interviews (and also our methods for assessing GESI in the GEF strategy and portfolio).

Figure C.1. Steps to Incorporate Gender and Social Inclusion Considerations into Nature-Based Solutions (Trohanis et al. 2023)

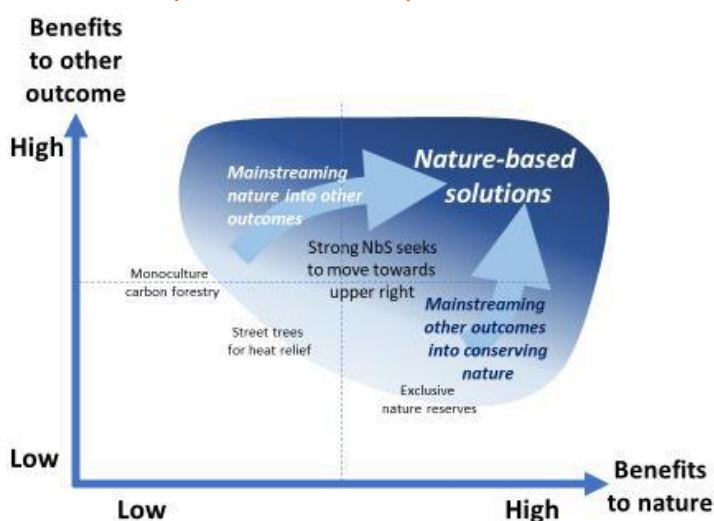


²⁴ GEF IEO. (2023). GEF/C.64/09: Enhancing Policy Coherence through GEF Operations,

Annex B: Nature-based solutions – issues, challenges and opportunities

There are evident tensions around how to balance beneficial outcomes for nature and people. Nature-based solutions in the literature vary considerably in how they treat this balance. The International Union for the Conservation of Nature (IUCN) definition of NbS (see below) emphasizes that NbS must be implemented in a way that supports biodiversity *and* people. IUCN defines NbS as solutions to a societal challenge to which nature can contribute - this definition places the emphasis in favor of society, whereas the GEF’s objective is to maximize global environmental benefits. The GEF Scientific and Technical Advisory Panel (STAP) review (2020) of 30 GEF NbS projects found that: “in practice, the sample GEF NbS projects were usually weaker on describing societal challenges and stronger on describing nature challenges because the GEF seeks to fund only the additional environmental benefits and not the societal elements. It follows that global environmental benefits were better specified and enumerated than socioeconomic benefits. And projects usually reported only synergies; trade-offs [see below] were not addressed.”²⁵

Figure C.1. Conceptualizing the balance between (global) benefits to nature compared to (global) benefits to human well-being ('other outcomes') from NbS interventions (GEF STAP Review 2020)



The revised IUCN guidelines (2020a) add greater emphasis on achieving a “net gain” in biodiversity and ecosystem services. In response, the STAP recommended that NbS projects produce a **clear statement of the relevant societal problems, as well as the nature problems**, and the links between them. This requires the development of conceptual models that make the balance between the benefits to nature and to humans more explicit. Such a model began to be elaborated by the STAP and is illustrated in figure E.1 (the aim is to help projects push toward the upper right of the figure).

Trade-offs and who benefits? Trade-offs involve more than just trading societal objectives against nature objectives. They include differential benefits for different groups in society (Seddon 2022). As an illustration, simplistic reforestation for climate mitigation may provide good global societal benefits in ways that destroy local or Indigenous people’s livelihoods (Reid et al. 2019; Seddon et al. 2020; Roberts et al. 2020). This sort of outcome has driven a rising critique of NbS from nongovernmental organizations (NGOs), linked to low-income countries that worry about their lands being co-opted, especially given the experiences of some REDD²⁶ and REDD+ interventions (e.g., Locatelli et al. 2014; McDermott et al. 2013). The GEF has a focus on delivering global environmental benefits, albeit within frameworks that aim to deliver local benefits for ethical reasons and to help ensure the durability of outcomes. For example, local involvement that results in local livelihood benefits can enhance the likelihood of local groups not undermining investments in

²⁵ GEF STAP review 2020.

²⁶ Reducing Emissions from Deforestation and Forest Degradation.

reforestation or species protection, and hence enhances the durability of these investments. However, even where there are demonstrable potential benefits for local people, Seddon et al. (2020) note that NbS vary greatly in how much they are designed and implemented by local communities (for example, whether genuine participatory processes were used, governance structures were supportive, or appropriate policy/legal frameworks were in place).

There is a strong and growing evidence base on the need to **consider and prioritize gender equality and social inclusion (GESI)** in biodiversity, conservation, and natural resource management. Positive GESI contributions are also known to leverage improvements in environment-oriented programming, often increasing program effectiveness. In its guidance on integrating gender and social inclusion in NbS, the World Bank (2023) argues that “Active participation of local and Indigenous communities is critical for successful NbS” and “There is a need for better understanding of gender and social inclusion challenges in the context of NbS and how they can be addressed to have an effective, long-lasting impact on development outcomes.”

The issue of **balancing outcomes for different beneficiaries** at different scales in space and time is a genuine challenge for the GEF. Balancing short and long-term (e.g., intergenerational) benefits, whether local or global, is particularly hard, and Giordano et al. (2020) show how divergence in perceptions of benefits (both actual and prospective) among stakeholders further complicates this picture. The STAP recommends maximizing global environmental benefits by improving effective integration and identifying positive synergies among multiple benefits, and avoiding doing harm by minimizing negative interactions and managing any trade-offs. For example, if the emphasis is on the production of global benefits, ways should be found to transfer part of those benefits to local actors equitably (e.g., payment for ecosystem services schemes).

Durability of benefits. Factors the STAP has previously identified as important for durable, scalable,²⁷ transformative outcomes²⁸ include: stakeholder trust and motivation; enduring capacity and financing; and resilience (including adaptability). Reid et al. (2019) and Seddon et al. (2020) note a diversity of enablers and barriers to the achievement and durability of NbS outcomes, including, notably, **institutional and governance cultures and norms** - the STAP recommends firstly analyzing the barriers to, and enablers of, scaling and transformation, including institutional, governance, cultural and vested interests, as well as focusing on behavior change as an enabling factor. NbS also need to be **resilient** in the face of climate change (i.e., there are risks of losing nature or societal gains if projects do not plan for this). The STAP recommends assessing climate risk at the project development stage, developing ameliorative actions to ensure that project outcomes are achieved, and considering how co-benefits can be enhanced by adaptive actions. Third, avoiding **leakage** is essential to ensuring that GEF investments contribute to reversing overall environmental change and that the benefits endure in the long term - for example, projects that reduce deforestation in one area but that serve only to shift it to another area, either in the next valley or another country. This may be difficult to achieve at the individual project level but should be a relevant consideration at a landscape or program level and in scaling up (the Land Degradation Neutrality approach may provide one interesting solution for NbS actions). The STAP recommends ensuring durability in project outcomes and impacts by applying all of the above key elements and engaging the right stakeholders, building the incentives for these key actors to act, incorporating adequate flexibility in project design and implementation, and underpinning it all with a systems-thinking approach.

There is a need for more attention on the costs and benefits of interventions, assessed comprehensively across outcomes for both society and nature. Another key challenge identified within the literature is

²⁷ i.e. the ability for benefits to extend beyond project timelines/geographical boundaries (though policy change, knowledge transfer, capacity strengthening etc.)

²⁸ GEF defines transformational change as [deep, systemic, and sustainable change with large-scale impact in an area of global environmental concern](#).

quantifying co-benefits, particularly to the extent that these can be made bankable for market-based sources of finance. This is due to a lack of rigorous assessment of the potential of NbS to deliver intended benefits, and challenges in measuring effectiveness. This is partly because NbS actions are important now but have long payback periods, and is also because some social benefits are difficult to quantify (e.g., peacebuilding). As a consequence, the benefits of GEF investments may be underreported, it is harder to mobilize private finance, and it is difficult to make sensible and informed decisions on the trade-offs between benefits of different types.²⁹ The STAP recommends identifying and enumerating co-benefits, including non-global environmental benefits (e.g., improvements in air quality and water quality) and socioeconomic benefits (e.g., jobs, food security, health), particularly where these can be made bankable for market-based sources of finance. Assessing trade-offs between societal costs and benefits would also benefit from monetary valuations.

Many of the papers reviewed by the STAP (and also Reid et al. 2019) noted the **importance of context-specificity in implementing NbS**, emphasizing both as a matter of choosing the appropriate approach for a context and as being key to engaging stakeholder support. Different actors approach trade-offs with different perspectives, depending on their primary purpose. This again underlines the importance of having a good multi-stakeholder dialogue process, building on existing platforms and being flexibly structured to extend and evolve over time, to help identify and work toward equitable outcomes. However, the May 2020 workshop found that roles and responsibilities around stakeholders are not always well defined, and that structures can be top-heavy, with limited IPLC involvement and engagement.

Annex C: Case study guide

Case studies will be developed as a form of open enquiry, allowing for a deepening of knowledge around the evaluation criteria and an opportunity to focus on key lessons emerging, both enablers and barriers. A template will be developed for each case study, defined through sampling criteria (defined in Table 3.2 above), and will be structured to allow for a deeper dive into existing strategy-level questions and portfolio-level questions (laid out above) with defined stakeholders. The template will also incorporate: the context (such as spatial in terms of region and locality, temporal in terms of GEF cycle, plus economic and socio-political); a summary of approaches to NbS (including which projects, where located how they are organized); key achievements; and key lessons (including enablers, barriers, the influence of different models, types of support).

Annex D: Draft Evaluation Report Outline

Table of contents and list of figures and tables

Acronyms and abbreviations

Executive summary

I. Introduction

- GEF's integration of NbS in its strategy and portfolio aims, objectives, intervention types and activities
- Implementation and execution arrangements
- Financing and co-financing arrangements
- Geographic distribution of the interventions
- NbS MEL

²⁹ STAP Overview (March 2020).

II. Background and context

- The global NbS mainstreaming context (including Conventions)
- Characterization and composition of the GEF NbS portfolio
- Sectors mainstreaming NbS
- Regranting arrangements and project sizes

III. Evaluation focus

- Rationale, purpose, and objective
- Scope
- Evaluation levels and key evaluation questions

IV. Methodological considerations

- GEF NbS interventions and outcomes
- GEF NbS ToC
- Financing and co-financing
- Capacity building
- Policy and governance strengthening
- Implementation of NbS in landscapes and communities
- Knowledge and innovation co-production, and scaling
- Strategy and portfolio results to date
- Case study findings

V. Strategy-level findings

- Position/niche
- Perspective
- Execution
- Effectiveness and impact
- Learning and adaptation

VI. Portfolio-level findings

- Relevance
- Effectiveness
- Coherence
- Impact
- Sustainability

VII. Conclusions and way forward

- NbS and transformational change
- NbS and additionality
- Recommendations

Annexes

- Cited works
- Key informant interviewees
- Glossary

- Approach paper

The main body of the evaluation report will be about 80 pages.

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