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EVALUATION OF GEF'S SUPPORT TO MAINSTREAMING BIODIVERSITY

(Prepared by the GEF Independent Evaluation Office)

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

FIGURES:

TABLES:

ACRONYMS

APR	Annual Performance Report
BD	Biodiversity
BCRLIP (India)	Biodiversity Conservation and Rural Livelihoods Improvement Project
BLU	Biodiversity and Land Use Project (South Africa)
CAF	Andean Development Corporation
CAPE	Cape Action for People and Environment (South Africa)
CBD	Convention for the Conservation of Biological Diversity
CECODES	Colombia Entrepreneurial Council for Sustainable Development
CFR	Cape Floristic Region (South Africa)
CONPES	National Economic and Social Planning Commission (Colombia)
ECA	Europe and Central Asia
FEDEGAN	National Federation of Cattle Ranchers (Colombia)
FNC	National Federation of Coffee Growers of Colombia
FSP	Full-size project
GEF	Global Environment Facility
GEF-SGP	GEF Small Grants Programme
GOMBRT	Gulf of Munnar Biosphere Reserve Trust (India)
IEO	Independent Evaluation Office
IIAP	Pacific Institute of Environmental Research (Colombia)
IUCN	International Union for the Conservation of Nature
KfW	Kreditanstalt für Wiederaufbau
LAC	Latin America and Caribbean
M&E	Monitoring and evaluation
NBSAP	National Biodiversity Strategic Action Plan
PTCF	Periyar Tiger Conservation Foundation (India)
PDET	Ethnic and territorial development plan (Colombia)
PES	Payment for ecosystem services
PPG	Project preparation grant
REDD+	UN Programme on Reducing Emissions from Deforestation and Forest Degradation
REM	REDD Early Movers
SAIIAE	South Africa Inventory of Inland Aquatic Ecosystems
SANBI	South Africa National Biodiversity Institute
SINCHI	Amazon Institute for Scientific Research (Colombia)
StatSA	National Statistics Office (South Africa)
ToC	Theory of Change
UNDP	United Nations Development Programme
WWF	World Wildlife Fund

EXECUTIVE SUMMARY

Introduction

1. **This is the first stand-alone evaluation of the Global Environment Facility's (GEF's) support to mainstreaming biodiversity interventions.** The purpose of this evaluation is to assess the overall performance and effectiveness of GEF biodiversity mainstreaming projects drawing on the portfolio and in-depth case studies conducted in Colombia, India and South Africa. The study is based on the evaluative evidence drawn from the portfolio analysis of 471 biodiversity mainstreaming related projects, and three country case studies looking at the experiences from GEF-3 through GEF-6. The three countries selected for the case studies are at different stages of the mainstreaming process in addressing the drivers of biodiversity loss. They were chosen based on the portfolio analysis which show these three countries were in the top seven in terms of number of GEF projects and grant amounts. These countries have also had long-term complementary interlinked projects over the GEF phases and are representative of the opportunities and challenges faced by the GEF and its national and international partners in conserving biodiversity of global importance.

2. **The evaluation used a mixed-methods approach.** Methods included a desk review of documentation (project documents, mid-term review, and terminal evaluations), literature review, site visits, and interviews with key stakeholders including government officials, implementing and executing agency staff, civil society organizations and project beneficiaries. The IEO also interviewed academics and agency staff, staff of the SCBD, and government officials with relevant expertise in mainstreaming biodiversity and who were involved in design, implementation, and evaluation of biodiversity mainstreaming interventions.

The GEF Biodiversity Mainstreaming Portfolio

3. **The Biodiversity Mainstreaming portfolio is composed of 471 projects amounting to $2.34 billion in grants and $12.73 billion in co-financing.** The number of biodiversity mainstreaming projects and levels of grant funding have been relatively consistent between GEF-3 and -5, followed by a small increase in number of projects and slight decrease in total grant funding under GEF-6. There were steady increases in the co-financing ratio achieved at the portfolio level, reaching 1:6 during GEF-6 in line with the target set by the GEF co-financing policy. The mainstreaming portfolio has increased substantially in GEF-6 from previous replenishment periods and is in 51 percent of projects with 55 percent of the funding. It is the largest portfolio, surpassing Protected Areas and Protected Area systems portfolio in size in GEF-6.

4. **The regional distribution of biodiversity mainstreaming support is generally consistent with that of the world´s globally-significant biodiversity.** Throughout successive cycles, GEF biodiversity mainstreaming support has been focused on the Asia-Pacific and Latin America & Caribbean regions, followed by Africa. As of June 2018, the largest number of GEF projects supporting biodiversity mainstreaming is in Latin America (140 or 30% of projects) closely followed by Asia and Pacific (129 or 27% projects), and Africa (110 or 23% projects); whereas 46 projects were based in the Europe and Central Asia region. 73 percent of mainstreaming interventions focus on encouraging inclusion of biodiversity-friendly activities in production practices and over half of the projects with

mainstreaming biodiversity objectives are implemented in the forestry and agriculture sectors.

Findings and Conclusions

Relevance

5. The GEF´s biodiversity mainstreaming portfolio has played a significant role in the implementation of the global convention for the Conservation of Biological Diversity (CBD) and its member countries. The GEF has been instrumental in supporting national policy reform and planning frameworks that promote biodiversity considerations across sectors and territories.

Project Design

6. **Projects are explicitly designed to address recognized threats to biodiversity.** In most cases, the reviewed projects had components and activities to address recognized threats to biodiversity with the aim of mitigating their effects on biodiversity of global importance. This is being pursued through diverse approaches that include the extension of landscape management practices, agroforestry and sustainable production systems, and biological connectivity linking vulnerable forests to protected areas. Implementation strategies are integrative and multi-tiered in their approach. Findings of applied research, field demonstrations and extension have been transferred to senior sector and government levels, for the purpose of transforming productive models and informing policy decisions.

Performance

7. **Most of the GEF projects have successfully elevated biodiversity conservation to targeted sectors, institutions, policies and territories with globally significant biodiversity.** A smaller number of projects and national partners are successfully accelerating biodiversity mainstreaming across sectors, institutions and territories. There are fewer cases of accelerated mainstreaming, by which mainstreaming processes gain in scale and momentum, and begin to have effect at systemic levels. The acceleration of mainstreaming to a broader range and scale of actors involves incremental processes that build over time and exceed the lifespan of most projects. This is also influenced by external factors – the capacity and commitment of national partners, governance cycles and political junctures, resource availability, competing sector priorities – that fall outside the influence of most projects. As a result, many projects may require continuity into successive cycles to accelerate mainstreaming processes that enable the achievement of expected outcomes.

8. **Similar positive influences and challenges affect outcomes in the biodiversity conservation and mainstreaming projects across the three countries.** While the challenges are largely determined by specific national or landscape contexts, successful mainstreaming is ultimately influenced by the interaction of economic and environmental interests, institutional monitoring and enforcement capacities, communications and outreach capabilities, and the existence of enabling policy and legal-regulatory frameworks. Other positive features that facilitate mainstreaming include the presence of preconditions such as well-developed policy and regulatory frameworks for biodiversity conservation, recognized

and capable scientific-research institutions and expertise, and favorable political junctures. Mainstreaming efforts are more successful when there are strong government champions who cut across organizational "silos".

9. **The potential for biodiversity mainstreaming is conditioned to a large extent by intervening factors that encompass project effectiveness and efficiency, the commitment of national partners, and externalities outside the project´s control.** The progress achieved in mainstreaming biodiversity is directly influenced by intervening factors that are both directly related to the project´s implementation performance – efficiency, timely output delivery, monitoring and adaptive management - as well as external to the immediate project context, i.e. national capacities and institutional commitment, governance cycles, political and policy junctures. Conversely, the implementation of several projects in the country samples was affected detrimentally by late approvals and start-up, recruitment delays, and/or low partner capabilities and responsiveness.

Additionality

10. **The GEF biodiversity mainstreaming portfolio has contributed to legal-environmental, regulatory, governance, and socio-economic additionalities going beyond incremental cost benefits. These include innovative approaches based on multi-stakeholder partnerships** that link "grassroots" organization to regional research institutions, advocacy platforms and national environmental authorities. Landscape management practices are validated on the ground and elevated to influence national policy and legislative-regulatory reform. Several projects have contributed to landmark biodiversity legislation, transformed core institutional/sector practices, and measurable conservation impacts in forest cover, pasture or other biodiversity indicators. However capturing other additionalities such as socio-economic and environmental impacts deriving from the GEF´s support for biodiversity mainstreaming in productive landscapes and seascapes is a challenge.

Theory of Change, and Monitoring and Evaluation

11. **The GEF´s Theory of Change for mainstreaming biodiversity is validated by the empirical experience of projects and provides a sound conceptual basis for their design and evaluation.** The underlying problems that were identified by the GEF Secretariat in collaboration with GEF partners and internal and external experts– loss of habitat in productive landscapes and seascapes and decline of globally-significant biodiversity outside protected areas – have been addressed with greater attention being given (and resources invested) to biodiversity conservation in production landscapes and seascapes. The ToC is further supported by the correspondence of its expected outcomes with those of the projects that were reviewed.

12. ToC has not been systematically applied in project implementation. The GEF´s Theory of Change model for biodiversity mainstreaming is validated by project experiences in diverse contexts and is reflected in programming trends over successive cycles. It also recognizes the dynamic and nonlinear process of mainstreaming. Projects need to account for this non-linearity in implementation and recognize the need for dynamic adjustments.

For example, projects with policy and regulatory change requirements need to be cognizant of changes in government legislative priorities or in champions of reforms.

13. **The current monitoring and evaluation framework for GEF biodiversity projects does not appear to focus sufficiently on quantitative measures and on outcomes and impacts.** Conventional project monitoring practices are generally limited in scope to measure changes in habitat quality, forest cover, vegetation productivity, land use, species richness and evenness, or other indicators that offer insight on the state of biodiversity. Longer-term effects are even more difficult to track unless capacities exist at the country level, once technical activities are finished and the budget is closed. Although considerable effort has been invested in the design of M&E frameworks and SMART indicators, project indicators tend to remain qualitative instead of quantitative – with inconsistent baselines that often rely on secondary data or are drawn from sources that apply different criteria and timelines, undermining a reliable tracking of changes over time.

14. **The GEF-7 core indicators and sub-indicators are a move in the right direction but not adequate.** While these hierarchical indicators are more efficient and relevant in line with earlier IEO recommendations, they are not adequate to capture the socio-economic benefits, financial flow, policy and regulatory reforms influenced by GEF interventions. The biodiversity mainstreaming indicators heavily rely on qualitative measurements and area estimates. There is also an ambiguity about the requirement on collection of spatially explicit boundary information. In addition, there is a need to measure socio-economic benefits influenced by GEF interventions along with biodiversity-based indicators since the success of mainstreaming projects depend on balancing the trade-offs between socio-economic benefits and environmental impacts.

Recommendations

(1) **Design mainstreaming interventions with a longer-term perspective and a resource envelope to ensure sustainability.** Sustainability of biodiversity mainstreaming depends on programming for multiple phases and accompanied financing as standard project durations are often insufficient to enable ecological change, build baseline capacity, influence institutional mind sets, and change behaviour. Mainstreaming interventions, including the most straightforward activities such as spatial and land-use planning, depend on the presence of suitable pre-conditions, and involve iterative processes. While GEF's ToC and the GEF 7- strategy reflects this understanding, agencies should design projects with a longer-term perspective and systematically apply the ToC. Countries should explore sources of innovative financing including private and public sector contributions to support long-term transformation processes that biodiversity mainstreaming interventions require.

(2) Improve and Strengthen M&E design and implementation. Indicators at the project and portfolio level should capture environmental, socio-economic, financial and policy and regulatory outcomes to assess performance and for assessing benefits and trade-offs, and for adaptive management. Quantitative measurements of bio-physical and socio-economic impacts are required to complement existing qualitative assessments. Measuring changes in biophysical

attributes requires knowledge of the spatially explicit delineated boundaries. IT based solutions can be used to accomplish this based on GEF experience supporting similar initiatives. Biodiversity mainstreaming projects are time-intensive and assessing their outcomes and contributions in terms of incremental transformations presents a major challenge during project lifetime. To some extent, this can be overcome by in-depth assessments at post completion for groups of projects that address common issues and apply comparable approaches, or in countries that have a series of mainstreaming interventions over time.

(3) The GEF should continue to leverage its convening power to improve policy design and process and strengthen inter-ministerial and inter-sectoral collaboration. In the context of countries allocating more resources to biodiversity mainstreaming and their evolving priorities, GEF should continue to leverage its convening power to bring together different actors within governments, council members, funders, policy leaders and partners to strengthen the policy process and build capacity. The GEF should work with countries and implementing partners to actively strengthen collaboration across relevant ministries and sectors. While such collaborations enable engagement with a broad range of stakeholders, these partnerships also help address externalities such as market shocks, land tenure insecurity, political discontinuity, conflict, natural disasters and climate change risks.

(4) **Include a systematic analysis of associated benefits and trade-offs in project design.** Project designs should include provisions for systematic analysis of benefits and trade-offs of socio- economic and ecological outcomes, both ex-ante and ex-post, associated with biodiversity mainstreaming interventions. Due consideration should be given to transitional costs and short term socioeconomic trade-offs that may precede benefits.

SYNTHESIS REPORT

Introduction: The Global Mainstreaming Context

1. **Mainstreaming biodiversity has received increased attention from international institutions as a mechanism for addressing the drivers of biodiversity loss and for achieving multiple environmental and development goals.** Mainstreaming of environmental conservation and sustainable development have been incorporated within the policies of international institutions. The concept of biodiversity mainstreaming, as it applies to this study, is founded on the 1992 Convention on Biological Diversity (CBD) which states that all parties shall 'integrate, as for as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross- sectoral plans, programmes and policies' under Article 4.

2. **Mainstreaming biodiversity has been a challenge.** The 2011-2020 CBD Strategic Plan for Biodiversity and Aichi Biodiversity Targets emphasize that "there has been insufficient integration of biodiversity issues into broader policies, strategies, programs and actions, and therefore the underlying drivers of biodiversity loss have not been significantly reduced." The strategic plan identifies one of the key entry points for achieving a positive outcome is "action to address the underlying causes of biodiversity loss, including production and consumption patterns, by ensuring that biodiversity concerns are mainstreamed throughout government and society." Indeed, a recent study noted that by spreading transformational practices at landscape and seascape scales, biodiversity mainstreaming links protected areas to the more than 85% of global landscapes and seascapes that fall outside the world's protected area system.[1]

3. **Mainstreaming biodiversity has been increasingly recognized as important in the biodiversity strategy through GEF phases.** The cumulative experience and lessons of the GEF´s conservation efforts over the years have underscored the importance of mainstreaming – across sectors, institutions and space - as a key driver of long-term success. The GEF defines biodiversity mainstreaming as "the process of embedding biodiversity considerations into policies, strategies and practices of key public and private actors that impact or rely on biodiversity, so that it is conserved and sustainably used both locally and globally." [2][3] The inclusion of biodiversity mainstreaming components within the project portfolio gained momentum under GEF-3 (2002-2006), as conservation efforts were extended from protected areas to productive landscapes and seascapes. Under the GEF-4 (2006-2010) and GEF-5 (2010-2014) cycles, mainstreaming was a specific objective within the biodiversity strategy focusing on agriculture, forestry, fisheries and tourism. During GEF-5, biodiversity mainstreaming targeted productive sectors and landscapes and seascapes outside the protected area systems. The 2014-2018 GEF-6 cycle has continued this vision, seeking to ensure that interventions are spatially targeted and support the conservation or sustainable use of globally significant biodiversity. In GEF-6, the IAPs were also launched to promote biodiversity mainstreaming in production landscapes. These trends were reflected in the growing number of projects with biodiversity mainstreaming components and

[1] Biodiversity Mainstreaming in Practice: A STAP Advisory Document (Scientific & Technical Advisory Panel, 2017)
[2] Idem.

increased grant allocations between the GEF-3 through GEF-6 cycles, covering the 2002-2018 period. GEF support to biodiversity mainstreaming is also happening through interventions in other focal areas such as international waters.

4. The GEF 7 biodiversity focal area strategy with its emphasis on integrated programming indicates a better alignment with the CBD COP 13 guidance[4].Under GEF-7, biodiversity mainstreaming continues to be one of the strategic objectives of the Biodiversity Focal Area.GEF-7 programming strategy identifies nine entry points for mainstreaming biodiversity across sectors and within production landscapes and seascapes[5]. The GEF-7 strategy reflect a growing tendency towards more programmatic and integrated approaches at landscape and seascape levels consolidating GEF's efforts, focus, and investments. Another example of evolution of GEF's thinking regarding mainstreaming is the inclusion of Natural Capital Assessment and Accounting (NCAA) as a separate entry point in GEF- 7. NCAA is crucial for making a strong business case for biodiversity and its inclusion as a separate program in GEF-7 is important for advancing the biodiversity mainstreaming agenda. With the introduction of Impact Programs in GEF-7, efforts will focus on addressing the drivers of biodiversity loss in globally important biomes through a landscape approach.

5. **The regional distribution of biodiversity mainstreaming support is generally consistent with that of the world´s globally-significant biodiversity.** Throughout successive cycles, GEF biodiversity mainstreaming support has been focused on the Asia-Pacific and Latin America & Caribbean regions, followed by Africa (albeit without significant differences between these regions) (Figure 1). As of June 2018, the largest number of GEF projects supporting biodiversity mainstreaming is in Latin America (140 or 30% of projects) closely followed by Asia and Pacific (129 or 27% projects), and Africa (110 or 23% projects); whereas 46 projects were based in the Europe and Central Asia region.

6. **GEF biodiversity mainstreaming projects and prior work by STAP have generated valuable insights into the dynamics of mainstreaming.** The empirical experiences of biodiversity conservation and mainstreaming projects that were implemented across the globe through successive GEF cycles, have generated valuable insight and lessons into the dynamics of mainstreaming that are researched and documented. The earliest substantive guidance[6] on mainstreaming was from a 2005 working paper built largely on case study evidence from diverse non-GEF sources. At this time, there was no evidence base from the GEF's own portfolio. The guideline document identified a combination of factors and conditions that effective mainstreaming requires.

7. The next major body of work relevant to GEF mainstreaming was presented in a Scientific and Technical Advisory Panel (STAP) advisory document, *Mainstreaming Biodiversity in Practice*,[7] based on papers presented at a Workshop in Cape Town in October 2013. The review introduced a mix of GEF and non-GEF evidence, but with little apparent

[4] Decision CBD/COP/DEC/XIII/21

[5] These are: Biodiversity Mainstreaming in Priority Sectors; the Global Wildlife Program; Natural Capital Assessment and Accounting; Sustainable Use of Plant and Animal Genetic Resources; Inclusive Conservation; the Food Systems, Land Use & Restoration Impact Program; the Sustainable Cities Impact Program; the Sustainable Forest Management Impact Program; and International Waters Focal Area/Sustainable Fisheries. Three biomes are identified as priorities in GEF-7: the Amazon, the Congo Basin, and Drylands

[6] Achieving Mainstreaming Outcomes: Guidelines for Effective Interventions, Section 14 of GEF Working Paper 20. 2005.

[7] STAP 2014. GEF

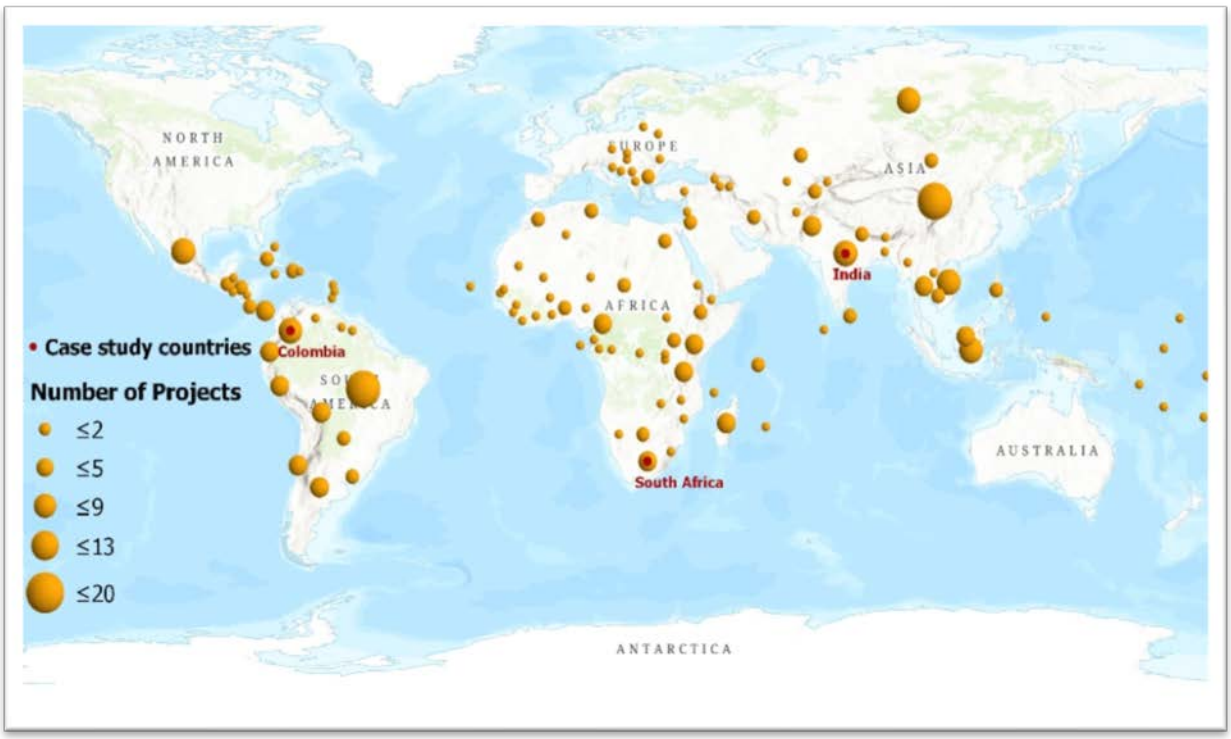
project-specific basis. The document provides an important knowledge base and set the stage for subsequent assessments. It presented two key conclusions:

(a) Mainstreaming is not a controlled experiment, but rather a social experiment in changing the value structures of institutions and individuals with vital consequences for the natural world and the humans who rely on it. Therefore, while mainstreaming may not prove amenable to rigorous testing, it does deserve more systematic inquiry.

(b) Good governance and strong institutions are key determinants of project success or failure. A balance needs to be struck between working in countries and sectors where there is sufficiently strong governance capacity for mainstreaming outcomes to have a good chance of success and tackling the most pressing mainstreaming challenges in situations where globally valuable biodiversity is threatened but capacity is often lacking.

8. In 2016, the GEF Secretariat released a review of mainstreaming in practice based upon a sound platform of GEF-specific project evidence and presented the GEF's first ToC model on mainstreaming biodiversity.

Figure 1: Global Distribution of GEF Biodiversity Mainstreaming Projects



9. **The present evaluation is the first independent review of biodiversity mainstreaming in the GEF.** This evaluation aims to contribute to the learning process through an assessment of GEF-supported biodiversity mainstreaming processes, the overall performance and effectiveness of mainstreaming projects drawing on the portfolio and in-depth case studies conducted in Colombia, India and South Africa. These countries have

globally significant biodiversity resources but also face intense pressure due to anthropogenic activities. They were chosen based on the portfolio analysis which show these three countries were in the top seven in terms of number of GEF projects and grant amounts (Figure 1). These countries have also had long-term complementary interlinked projects over the GEF phases.

The GEF Theory of Change (ToC) Model for Biodiversity Mainstreaming

10. The GEF Theory of Change[8] while recognizing that mainstreaming biodiversity occur within complex socio-economic and ecological systems, illustrates the causal pathways linking the combined inputs of the GEF program and project support outcomes that feed into national and global biodiversity conservation objectives. It analyses the sequence of desired changes (known as "causal" or "impact pathways") to which projects and programmes are expected to contribute. It shows the causal relationships between changes at different results levels, connecting outputs to outcomes and the "intermediate states" that must be reached to achieve the intended impact. However, despite the linear and static illustration of the GEF ToC Model, the assumptions about change and results levels is understood as non-linear and dynamic with multiple complex feedback loops in- between stages, drivers as well as externalities. The ToC also identifies "impact drivers" that move implementation forward and "external assumptions" influence design and performance yet are outside the project's influence. The GEF ToC offers a useful analytical tool both for project design and implementation and for evaluating the implementation approach utilized.

11. The GEF mainstreaming biodiversity ToC, built on the lessons gleaned from theoretical resources and practical experience of biodiversity mainstreaming in the GEF indicates high levels of correspondence and linkages between GEF inputs and outputs, and the strategic outcomes. The following illustration of causal pathways, from the GEFSEC review of biodiversity mainstreaming in practice (Figure 2), indicates high levels of correspondence and linkages between GEF inputs and outputs, and the strategic outcomes that feed into the over-arching GEF objective of "*conserving globally significant biodiversity and ensuring its sustainable use in production landscapes and seascapes*." The pathways are driven by impact drivers or "features of the project" that are directly influenced by the project´s design and approach and have direct effect on performance; these include flexible design, adequate financing, adaptive management practices and effective communications with stakeholders.

12. The ToC identifies factors outside the project influence as important moderators of success. The pathways and linkages are influenced by external assumptions or "moderators of success" such as national capacity and commitment, enabling legal and policy frameworks - that are outside the project yet bear influence on the magnitude and quality of project outcomes, and therefore need to be realistically assessed at the design stage. Indeed, project performance and impact can be undermined when external assumptions are

[8] Using the collective knowledge of GEF, its partners and independent experts, the GEF ToC on mainstreaming was systematically articulated in GEF-6 to provide an overarching strategic framework for mainstreaming projects and help guide GEF's investment strategy at the portfolio level.

underestimated and not given due consideration in project design and implementation strategies.

Figure 2: Theory of Change: Mainstreaming Biodiversity in Sectors and Production Land/Seascapes

Source: Biodiversity Mainstreaming in Practice: A Review of GEF Experience (GEF, 2016)

Purpose of the Evaluation

13. **The purpose of this evaluation is to assess the effectiveness of GEF´s contributions to biodiversity mainstreaming, and to identify good practices and challenges in biodiversity mainstreaming interventions.** The audience for this evaluation report is the GEF Council, the GEF Secretariat, implementing partners and the wider community of stakeholders active in support of biodiversity. The study is based on the evaluative evidence drawn from the portfolio analysis of 471 biodiversity mainstreaming related projects, and three country case studies looking at the experiences of India, South Africa and Colombia from GEF-3 through GEF-6. Some projects that were initiated earlier - such as India´s Eco-development project - are mentioned given their value in the overall mainstreaming experience in the country. [9]

14. The evaluation is guided by the following key questions:

[9] The list of country projects is listed annexed to this report.

(a) What is the current context within which the GEF is operating in biodiversity mainstreaming?

(b) Is the current theory of change and the monitoring and evaluation systems for mainstreaming biodiversity adequate?

(c) What is the performance of the completed mainstreaming biodiversity projects?

(d) What are the challenges in mainstreaming biodiversity through GEF support in Colombia, India and South Africa?

(e) What is the GEF's role in policy reforms in BD mainstreaming and what has been the experience in this area?

Methodological Considerations

15. **This synthesis report draws on the portfolio analysis of mainstreaming biodiversity related projects and the country studies[10] and presents an independent assessment of the GEF´s support for biodiversity mainstreaming.** The country studies are based on samples of biodiversity conservation projects that were implemented in Colombia, India and South Africa over the past decade (spanning GEF 3 – 6) and in several cases are still under implementation. The project samples were pre-selected by GEF IEO in consultation with national focal points and environmental authorities in each country. The results of the portfolio analysis and the main country findings are integrated in this chapter, with the aim of identifying common trends and challenges at different levels of mainstreaming and articulating a set of over-arching lessons and recommendations for consideration.

16. **The evaluation applies a mixed methods approach.** The assessment was conducted between December 2017-September 2018. The methodology combined the desk review of project documentation – project documents, Project Implementation Reports (PIRs) and other progress reports, mid-term and terminal evaluations, key informant interviews, - in-county interviews with national executing agencies and project stakeholders, and visits to selected project sites.

17. Because mainstreaming is very much conditioned by country contexts and external variables that are outside the influence of most projects, it is difficult to establish mainstreaming indictors that can be compared across countries. Nor is this advisable given the ongoing dynamic of mainstreaming processes that are in motion and continue to unfold beyond the project cycle. Research on biodiversity mainstreaming is relatively recent and, for the most part, still in ´learning mode´. The analysis focuses on practices at different levels – within sectors, at policy levels, in the field - that can be fed into the programming of GEF biodiversity conservation initiatives, and on identifying recurrent challenges that should be considered when designing implementation strategies. The country studies look at biodiversity mainstreaming from different perspectives – at policy levels involving knowledge dissemination; within productive economic sectors (i.e. mining, coffee, cattle ranching, grape cultivation for winemaking, fisheries); and spatially as landscape management and sustainable resource management practices are disseminated across territories.

[10] Available on the GEFIEO website

18. **The mainstreaming process goes through several phases and is non-linear.** Overall this evaluation looks at biodiversity mainstreaming as a mosaic of processes that are in motion and continue to unfold. Mainstreaming can be seen as a journey that follows different streams, conceptualized into the following stages for the purpose of analysis: [11]

(a) *Transformation,* where conservation moves out from protected areas (PAs) to the wider landscape, reflecting changes in the perception of biodiversity conservation as it applies to society.

(b) *Elevation*, by which the conservation sector becomes more effective at working with economic sectors and biodiversity is taken up by a broader range of sectors, institutions and actors.

(c) *Acceleration*, as increased adoption of biodiversity considerations and changing institutional and sector models start to have effect at the systemic level. This stage is critical to contain the threats to biodiversity and have a measurable impact on biodiversity indicators at the landscape scale.

(d) A subsequent stage of *Normalization* is posited where biodiversity becomes a recognized asset for the economy and is engrained in the management of productive landscapes and seascapes, and the various sectors.

19. **The countries selected are at different stages of the mainstreaming process in addressing the drivers of biodiversity loss.** Most of the mainstreaming processes detected in the country project samples had completed or were well advanced into the transformational stage, and many have advanced to different stages of elevating biodiversity conservation – reaching target sectors, farmers associations and local governments that are situated in biodiversity "hotspots" threatened by deforestation and incompatible land uses that include unlicensed mining, extensive ranching, illegal crops and unauthorized roads constructions. There are also examples of early mainstreaming acceleration, by which GEF projects and national partners are extending landscape management and sustainable production to farmers, mobilizing PES mechanisms and co-financing from a widening range of public and private partners that are documented in the country chapters.

20. **The evaluation´s focus is on three countries that are representative of the opportunities and challenges in mainstreaming.** Colombia, South Africa and India are lower-middle income to upper-middle income countries that have established governance frameworks and national capacities for environmental management and conservation. In this respect, they may be more advanced in relation to other countries of their regions. Yet the various country case studies that are analyzed are representative of the opportunities and challenges faced by the GEF and its national and international partners in conserving biodiversity of global importance.

[11] These stages are based on the findings of the South Africa country study (J. Smith, 2018). They are non-linear and can overlap in sequence.

Country Selection: Why Colombia, India and South Africa?

21. **India** is one of the world's 17 mega-biodiverse nations. **South Africa** is home to 10% of the world's plant species and 7% of its reptile, bird and mammal species, and 15% of the world's marine species with high endemism levels. The Cape Floristic Region is the richest of the world's six floral kingdoms and includes three of the world's 34 biodiversity hotspots. **Colombia** is ranked as the third country in the world in biodiversity (after Brazil and Indonesia), concentrating close to 10% of the planet´s biodiversity on 0.8% of its surface; it has the highest diversity of birds in the world with 1,800 of the more than 9,000 species that exist. Likewise, all have established biodiversity policy frameworks that include National Biodiversity Strategic Action Plans (NBSAPs) with cross-sector objectives, Protected Area systems, and mechanisms for payment for ecosystem services (PES). The three countries face biodiversity threats that affect diverse landscapes and ecosystems; the direct threats of deforestation, land and water degradation are aggravated by inconsistent capacities and commitment among productive sectors and government ministries. Nevertheless, each country also has recognized environmental institutions that have developed over the years (often with GEF support) into centers of expertise, and which play a lead role in the construction of biodiversity conservation awareness and policy.

22. The rationale for choosing these countries is also based on their long-term relationship with the GEF. All have received considerable GEF support over the years for biodiversity conservation and mainstreaming, generating a body of experiences and lessons that offer insight into the dynamics of biodiversity mainstreaming processes, and are therefore critically important to the purpose of this evaluation.

The GEF Biodiversity Mainstreaming Portfolio

23. *The number of biodiversity mainstreaming projects and levels of grant funding have been relatively consistent between GEF-3 and -5, followed by a small increase in number of projects and slight decrease in total grant funding under GEF-6. There were steady increases in the co-financing ratio achieved at the portfolio level, reaching 1:6 during GEF-6 in line with the target set by the GEF co-financing policy.*

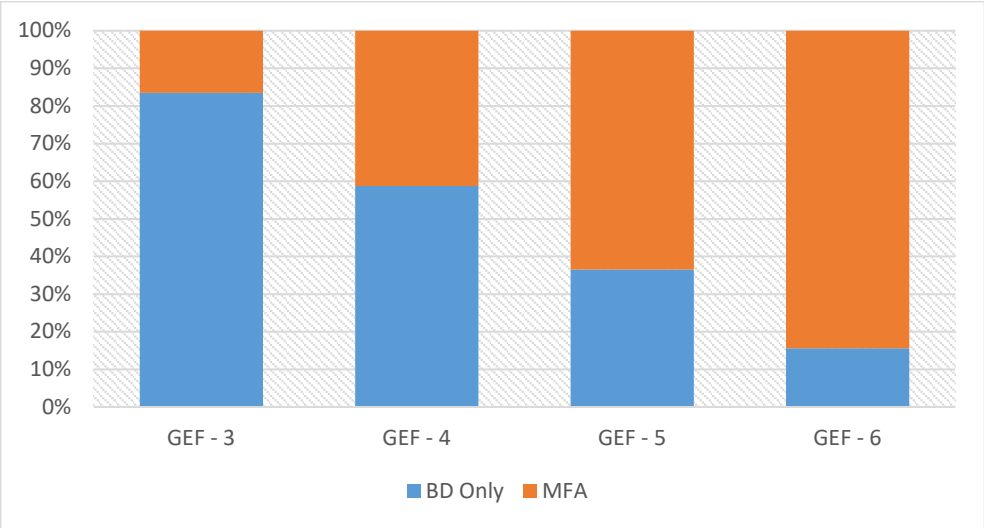
24. **The Biodiversity Mainstreaming portfolio is composed of 471 projects[12] amounting to $2.34 billion in grants and $12.73 billion in co-financing**. These are regionally distributed in Latin America (30% of projects, 35% of grant funding), Asia (27% of projects, 26% of funding), Africa (23% of projects, 20% of funding) and Europe & Central Asia (10% of projects, 6% of funding), with the remainder corresponding to global initiatives. Most of these are full-size and multi-focal projects that are designed around specific sectors and production landscapes/seascapes. UNDP has implemented the largest number of biodiversity mainstreaming projects, followed by the World Bank and UN Environment. The biodiversity mainstreaming portfolio started during the GEF-3 replenishment cycle. Since GEF 3, approximately 25% of projects in the Biodiversity portfolio aims to mainstream biodiversity. The mainstreaming portfolio has increased substantially in GEF-6 from previous

[12] The GEFSEC as part of review of biodiversity mainstreaming projects had identified 357 mainstreaming projects since GEF 3 that were tagged as per type of intervention and sectors. The IEO leveraged this database and updated it to include newer projects. The data is as of June 2018.

replenishment periods and is in 51 percent of projects with 55 percent of the funding. It is the largest portfolio, surpassing PA and PA systems portfolio in size in GEF-6.

25. **Mainstreaming biodiversity portfolio has seen a substantial increase in the number of multi-focal area (MFA) projects since GEF-3.** As with the overall biodiversity portfolio, the mainstreaming biodiversity portfolio has seen a substantial increase in the number of multi-focal area (MFA) projects since GEF-4. By GEF-5, more that 50 percent of projects in both the overall biodiversity portfolio and the mainstreaming biodiversity portfolio were MFA projects. Figure 3 shows the comparison of grant amounts towards biodiversity mainstreaming through single focal area projects and multifocal area projects across the replenishment periods between GEF-3 and GEF-6. This move towards MFA projects may be attributed to the availability of Sustainable Forest Management (SFM) incentive associated with the forest-focused eligible MFA projects.

Figure 3: Funding allocation for mainstreaming biodiversity through BD only projects vs. MFA-BD projects



Co-financing

26. **The co-financing ratio has remained constant with the largest share from Governments.** Across the GEF replenishment periods from GEF-3 to GEF-6, there has been a steady increase in the co-financing ratio at the portfolio level, as evidenced by an increase in the median ratio. Co-financing ratios for biodiversity mainstreaming projects in GEF-6 has reached 1:6, in line with the target set by the GEF co-financing policy (Figure 4). Overall the main source of co-financing has been government, followed by GEF agencies and multilateral institutions. The private sector contribution to the mainstreaming co-finance has been very low. The co-financing by governments has increased over the GEF phases, at the same time the contribution by agencies and multilateral intuitions has decreased (Figure 5).

Figure 4: Biodiversity Mainstreaming portfolio Co-financing

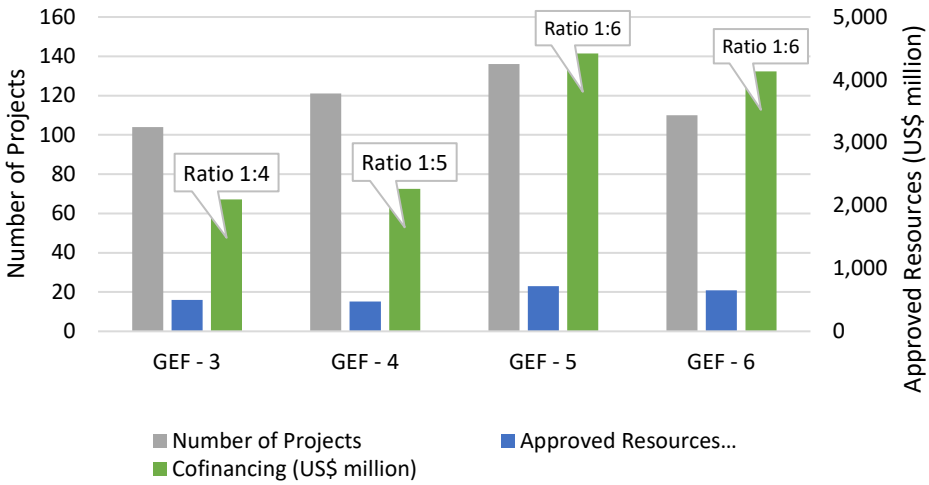
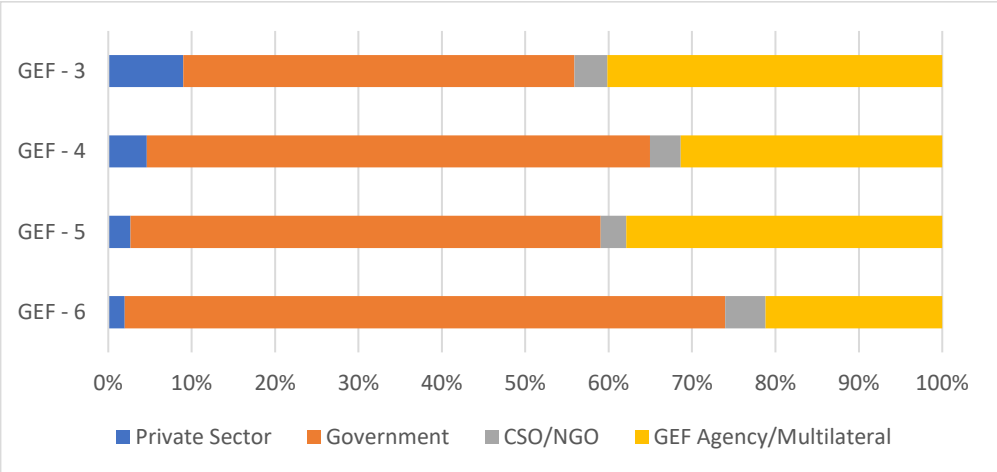


Figure 5: Financing across types for BD Mainstreaming Projects



Project Size

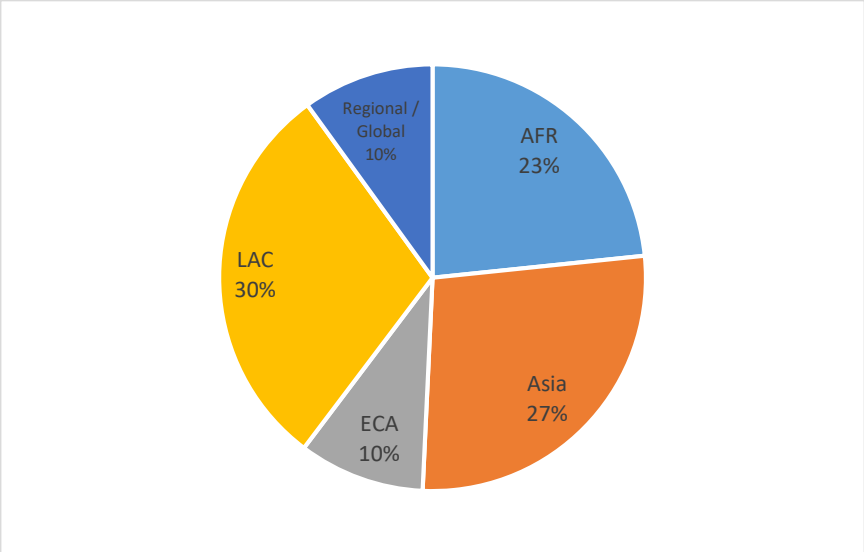
27. **Majority of the biodiversity mainstreaming projects are full-sized projects.** The Biodiversity Mainstreaming portfolio has 373 (79%) full-sized projects, accounting for 95% ($2.2 billion) of total GEF funding and 98 (21%) medium-sized projects accounting for 5% ($113.6 millions) of total GEF funding.

Geographic coverage

28. **Biodiversity mainstreaming projects are proportionally distributed across GEF regions.** In regional terms, 140 projects (30% of the total) were implemented in the Latin America and Caribbean region for a total grant funding of 819.3 million (35% of the total

grant allocation), followed by Asia with 129 (27%) projects and $609.2 million in funding (26%), and Africa with 110 projects (23%) and $475 million (20%) in funding (Figure 6).

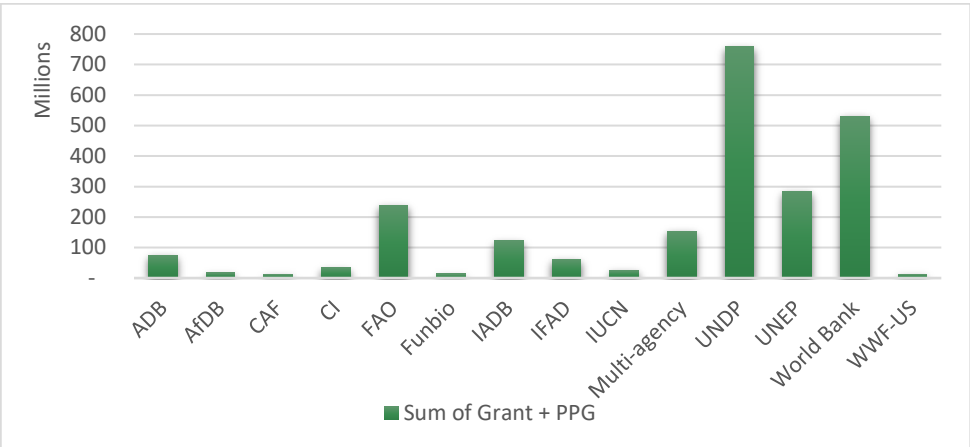
Figure 6: Percentage of projects by Region



Projects by implementing agencies

29. UNDP has implemented the most number of biodiversity mainstreaming projects (180 projects – and $758 million in financing), followed by the World Bank and UN Environment with 81 projects each and $529 million and $285 million in financing respectively (Figure 7).

Figure 7: Sum of grant and project preparation grant(PPG) of mainstreaming biodiversity projects by Implementing Agency



Types of mainstreaming interventions[13]

30. Developing policy and regulatory frameworks, spatial and land use planning, encouraging biodiversity-friendly production practices, and piloting financial mechanisms to incentivize the inclusion of biodiversity considerations. Since GEF-3, 73 % of mainstreaming projects include activities to mainstream biodiversity considerations in production sector followed by planning and policy processes. Less than 13% activities focus on piloting financial mechanisms to mainstream biodiversity.

Sectors of mainstreaming

31. **Over half the mainstreaming biodiversity projects are in forestry, agriculture or allied sectors.** A majority of projects with mainstreaming biodiversity objectives are implemented in the forestry and agriculture sectors, or in sectors that include mainstreaming biodiversity in Forestry and agriculture sectors. At the regional level, projects in Africa target agriculture sector while a mix of agriculture and forestry dominate LAC and Asia.

Main Findings

Relevance

32. **The GEF biodiversity mainstreaming portfolio is highly relevant to the CBD and its member countries and the private sector.** One key guidance of the COP is to promote synergies between the biodiversity related conventions, and GEF is adhering this COP guidance by steering towards multiple focal area projects and adopting integrated approaches in its programming. The CBD-mandated National Biodiversity Strategies and Action Plans (NBSAPs) are an important national-level instrument used for biodiversity mainstreaming planning (CBD and UNEP, 2008). GEF support has enabled 190 of 196 (96 percent) parties to the CBD to submit National reports to the CBD Secretariat; this is close to universal submission.

33. The GEF is supporting the CBD with respect to the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) through its investments in mainstreaming biodiversity projects that help countries meet the SDG targets particularly Goal 14, covering life below water, and Goal 15, covering life on land, and their associated targets.

34. GEF's interventions in integrating natural capital in the value chain, product certification, sustainable management of landscapes and seascapes to ensure long-term availability of biodiversity-dependent raw material and ecosystem provisioning services are particularly crucial for the private sector.

Performance of GEF Biodiversity Mainstreaming Projects

Eighty-five percent of biodiversity mainstreaming projects had outcome ratings in the satisfactory range. High scores were received for implementation and execution quality, with lower ratings for monitoring and evaluation and sustainability.

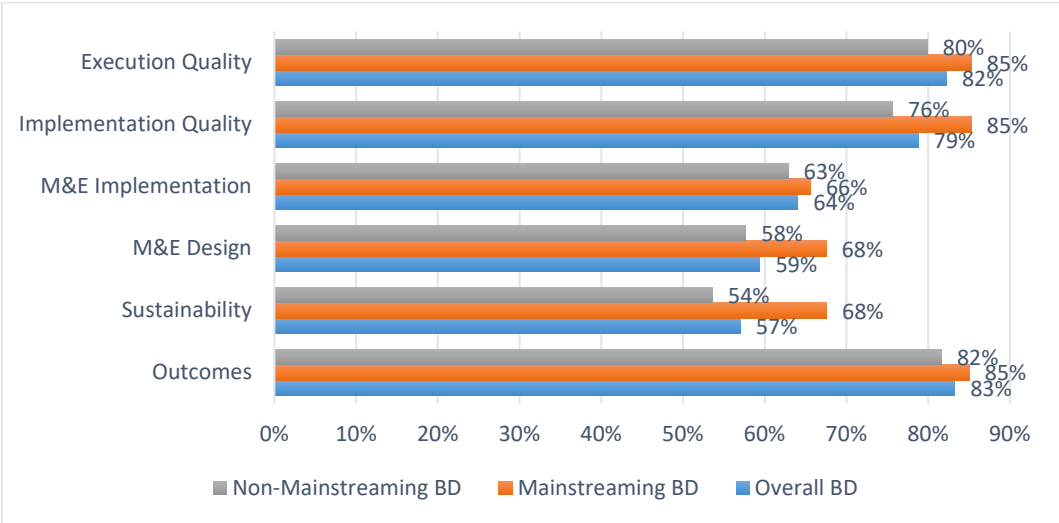
[13] Per classification used by GEFSEC 2016 report *"Biodiversity Mainstreaming in Practice: A Review of GEF Experience."*

35. The IEO's 2017 Annual Performance Report (APR) database was used to review the performance trends of 161 completed projects with biodiversity mainstreaming objectives. The dataset included ratings on outcomes, sustainability, and the quality of implementation, execution, and monitoring and evaluation (M&E) design and implementation This includes 106 full-sized projects and 55 medium-sized projects. Of these, 130 are biodiversity stand-alone projects and 31 are multi-focal area projects with biodiversity component. There are 95 projects from GEF-3, 65 from GEF-4 and only 1 project from GEF-5.

36. Reporting in the APR is primarily based on the evidence provided in the terminal evaluation reports of completed projects.[14]

37. **The outcome ratings of GEF mainstreaming biodiversity projects are comparable to the GEF overall portfolio.** Eighty five percent of biodiversity mainstreaming projects have satisfactory outcomes. This is comparable to the outcome ratings for non-mainstreaming biodiversity projects (82 percent) and all biodiversity projects (83 percent). Eighty five percent of the mainstreaming BD projects score satisfactory on execution quality and implementation quality. However, the biodiversity mainstreaming projects score lower on M&E design, M&E implementation and sustainability ratings (Fig 8).

Figure 8: Performance ratings for biodiversity projects



38. **There are regional differences in the performance ratings.** Mainstreaming projects in ECA perform relatively better in outcomes, monitoring and evaluation (M&E) implementation (87%), implementation quality (93%);mainstreaming projects in Africa have the lowest APR rating both in sustainability(53%) , M&E implementation (52%) and for outcomes (81%)s. Overall the sustainability ratings for the mainstreaming projects in Asia, ECA and LAC are comparable (70 %). Global projects tend to have the highest ratings for

[14] All terminal evaluations (TE) and ratings are reviewed and validated by the IEO and/or the evaluation office of the respective GEF partner Agency.

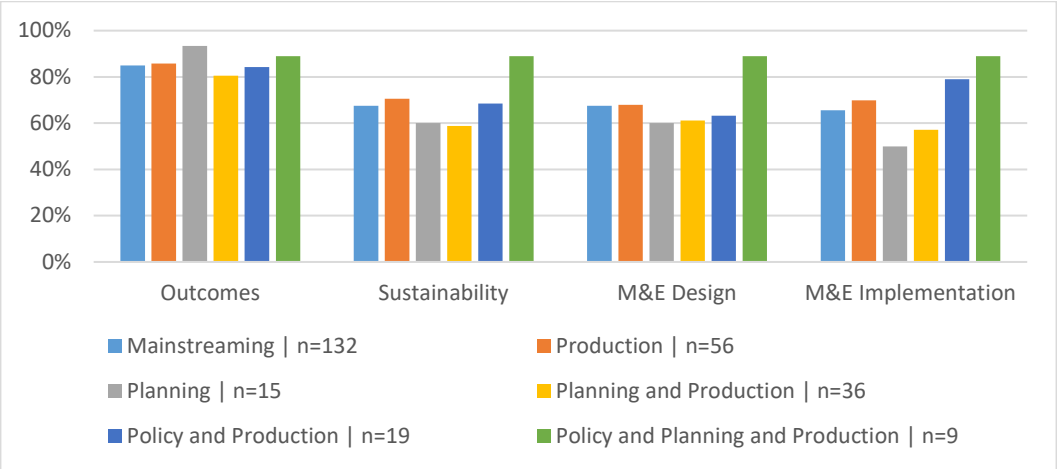
outcomes (93%), sustainability (91%) and execution quality (92%) but score lower in M&E design (53%) and M&E implementation (69%) (Table 1).

Table 1: Performance Ratings of BD Mainstreaming projects by region

Region	Outcomes	Sustainability	M&E Design	M&E Implementation	Implementation Quality	Execution Quality
AFR | n=36	81%	53%	64%	52%	77%	77%
Asia | n=40	85%	72%	68%	56%	85%	88%
ECA | n=30	90%	70%	70%	87%	93%	87%
LAC | n=40	83%	68%	75%	69%	87%	87%
Global | n=15	93%	91%	53%	69%	85%	92%

39. **Performance rating by intervention type**: Planning interventions performed the best in terms of outcomes (93%) ratings. Interventions in policy, planning and production performed best in terms of sustainability, M&E Design and Execution Quality (89%). All intervention types received low to moderate ratings for sustainability, M&E Design and M&E Implementation (Figure 9).

Figure 9: APR rating by Type of intervention



40. **Broader adoption[15]:** Broader adoption of GEF promoted approach and or technologies typically take place through mainstreaming, replication, scaling-up and market-change.

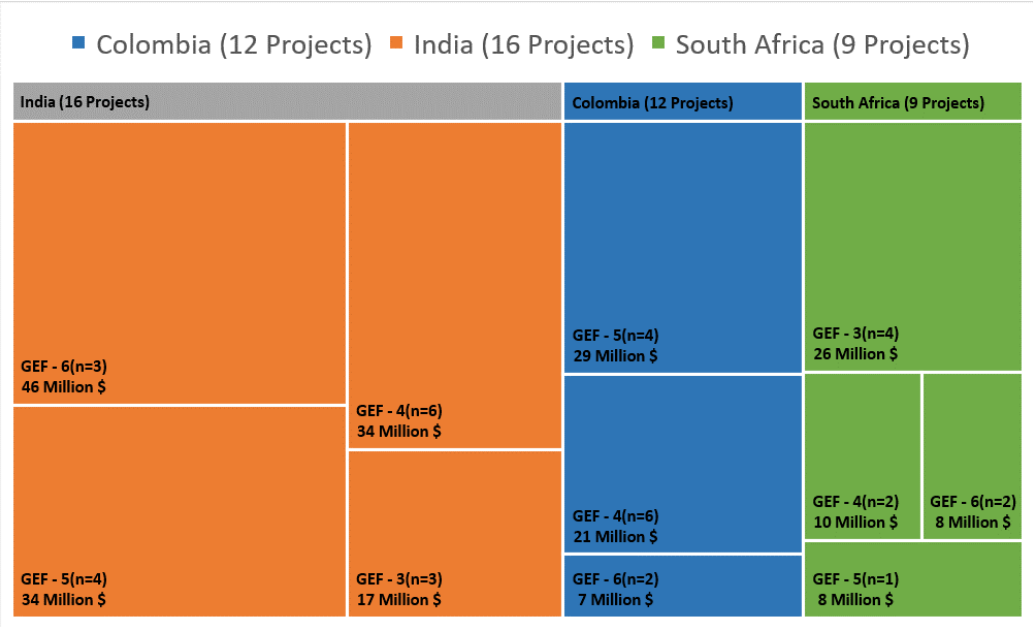
[15] Mainstreaming: Information, lessons, or specific results of GEF are incorporated into broader stakeholder mandates and initiatives such as laws, policies, regulations, and programs. This may occur through governments and/or through development organizations and other sectors. Replication: GEF-supported initiatives are reproduced or adopted at a comparable administrative or ecological scale, often in another geographical area or region. Scaling-up: GEF-supported initiatives are implemented at larger geographical scale, often expanded to include new aspects or concerns that may be political, administrative or ecological in nature. Market change: GEF-supported initiatives help catalyse market transformation by influencing the supply of and/or demand for goods and services that contribute to global environmental benefits. This may encompass technological changes, policy and regulatory reforms, and financial instruments.

41. **Broader adoption of initiatives with BD mainstreaming components takes place at local scale.** Of the 69 mainstreaming biodiversity projects, 64 % showed broader adoption. A majority (41%) of the broader adoption of GEF-supported initiatives in biodiversity mainstreaming are taking place at low scales (i.e. within local administrative units or markets) with only 3%(2) projects where broader adoption is happening at a large scale. For example, the Terminal Evaluation of one of the two GEF biodiversity mainstreaming projects that achieved broader adoption at a large scale, a PES project (#2443) in Mexico stated strong national strategies on the environment, and institutionalization of these strategies and programs across public and private sectors contributed to the project's success, sustainability and broader uptake. The factors that were cited by the biodiversity mainstreaming projects as contributing to broader adoption are stakeholder ownership (both community, local governments and high level government actors at the national scale), incorporating lessons from both historical and other parallel initiatives, technical and institutional capacity development, inter agency and institutional collaboration and partnerships, and provisions in project framework for potential replication, long term engagement, and sustainability.

Project portfolios in Colombia, India and South Africa

42. **The three case study countries have had a long-term engagement with GEF mainstreaming projects.** In total there are 37 projects, 12 in Colombia 16 in India and 9 in South Africa. Most of these are national projects with the exception of 2 in South Africa (Figure 10).

Figure 10: Treemap showing the grant amount in each case study country through the GEF phases



43. **The performance outcome ratings of completed projects in all 3 countries was satisfactory.** The TE data is available for four completed projects in Colombia, six in India and five in South Africa. All projects in India and Colombia had satisfactory outcome ratings and four of the five projects in South Africa had satisfactory ratings. Colombia had satisfactory rating on all the parameters except sustainability which was also low for the

other two countries. The TER data of projects in South Africa also highlight the importance of M&E design and implementation as only 60% of the projects had satisfactory ratings.

Synthesis of Country Findings

A. Transformation by raising awareness and informing policy: The contribution of applied research and knowledge dissemination to biodiversity mainstreaming

44. **The country studies demonstrate how GEF projects have assisted transformational processes by supporting applied research and the dissemination of findings, while enhancing the technical capacities and strategic positioning of institutional partners that have become influential in shaping national biodiversity policies and programs.** Practically all of the GEF biodiversity mainstreaming projects in the country samples have advanced successfully in transforming[16] practices within targeted sectors, institutions and production landscapes towards biodiversity-friendly models. Many project case studies – coffee in Colombia, fisheries in India – indicate that biodiversity-friendly production models and ecosystem-based landscape management practices have been adopted and mainstreamed within key sectors – coffee in Colombia among other examples – and among communities situated in landscapes with biodiversity of global importance.

45. The GEF´s support to national biodiversity research institutions has had an important catalytic effect, strengthening their capacity and positioning to inform government policy levels, the conservation community and the public at large. In all countries, the socialization of updated biodiversity research findings by recognized national research institutes has played a decisive role in shaping national biodiversity conservation policies and advocacy platforms.

46. Biodiversity research and awareness raising by recognized national institutes play a fundamental role in shaping policies supporting biodiversity conservation. Institutions such as the Frederick von Humboldt Institute for Biological Research, the Neumann Pacific Institute for Environmental Research (IIAP) and Amazon Institute of Scientific Research (SINCHI) of **Colombia** have received technical and institutional support from the GEF over the years, and served as national executing partners in various country projects. In **India**, the Field Learning Centres that were established under the GEF-World Bank *Biodiversity Conservation and Rural Livelihood Improvement Project,* and scientific institutions such as the Wildlife Institute of India, are designated knowledge partners that provide updated spatial biodiversity data that are fed into policy briefs for decision-makers. **South Africa** is considered a (regional and global) hub of biodiversity expertise and has had an important role in articulating global mainstreaming lessons by hosting international events including STAP workshops. The South African National Biodiversity Institute (SANBI) is a recognized authority on mainstreaming that has a strong knowledge dissemination function; it publishes periodic assessments of the state of national biodiversity that are based on best available science. In all cases, these institutions have played a fundamental role in

[16] In the context of mainstreaming, *transformation* is the stage at which biodiversity conservation moves out of protected areas (PAs) and towards the wider landscape.

transforming public sector attitudes and shaping over-arching environmental policies that support biodiversity conservation.

Country examples:

47. **Colombia´s** Von Humboldt Institute has played a lead role in raising national biodiversity awareness and articulating national policy. The Humboldt Institute is an influential driver of biodiversity research, policy analysis and advocacy - updating knowledge of biodiversity trends and threats through diverse publications, reviewing trends in biodiversity policy and expenditure, and communicating findings to a broad audience that includes government decision-makers, NGOs, rural associations and community organizations in biodiversity hotspots, the media and general public. It has participated in the design of the Integrated Strategy for Forest Management and Control of Deforestation, the 2016-2030 National Biodiversity Action Plan and the 2016-2030 National Biodiversity Action Plan (actively supported by the Colombian Entrepreneurial Council for Sustainable Development (CECODES) that brings together the energy, mining, agro-industry, and construction and finance sectors). The Humboldt Institute designed and manages Colombia´s Environmental Information System (SIAC), the country´s principal environment data base that is used by the National Council for Economic and Social Planning (CONPES). It also assisted CONPES in formulating the *Crecimiento Verde* (Green Growth) policy that was adopted in 2018 and incorporates environmental criteria for the allocation of public resources.

48. Demonstrating the link between landscape management and better-quality, more sustainable coffee production required changing the extension model of the National Federation of Coffee Growers of Colombia (FNC) which had long promoted a mono crop, input-intensive and treeless model of coffee cultivation - as well as engrained habits of coffee farmers who had been taught this approach over the past generations. The GEF´s support for on-site research was instrumental in convincing the FNC (which reaches an estimated 560,000 farmers in 602 municipalities) to change their production and extension models. This has led to the incorporation of shade-grown coffee (under certain conditions) and landscape management practices that include reforesting native tree species, re-establishing biological connectivity between forested areas, protecting watersheds, lowering agro-chemical applications and recycling wastes from initial coffee processing.

South Africa

49. **South Africa´s** first NBSAP (2005) was based on consultative processes that balanced conservation and development concerns. The Plan called for mainstreaming within productive landscapes and sectors, and effectively conveys the results of scientific research to policy and legislative levels. The second NBSAP (2015) was yet stronger, building on lessons learned in the first and including indicators of mainstreaming at multiple levels. Its spatial prioritization of the NBSAP priorities is internationally recognized and considered to be “at the forefront of international practice” (according to interviewees and in the literature[17]), based on its periodic National Biodiversity Assessments (NBAs).

[17] SANBI & UNEP-WCMC. 2016. Mapping biodiversity priorities: A practical, science-based approach to national biodiversity assessment and prioritization to inform strategy and action planning. UNEP-WCMC, Cambridge, UK and OECD. 2018. Mainstreaming Biodiversity for Sustainable Development (page 5).

50. The *Cape Action for People and Environment* (CAPE) project supports the conservation of South Africa´s Cape Floristic Region (CFR), which includes three of the world's 34 biodiversity hotspots. As part of its implementation strategy, the project created a Learning Network that has been operational for 10 years - showcasing conservation achievements, disseminating lessons and promoting landscape management practices. The project´s 10-year milestone is part of a longer-term strategy that seeks to mainstream conservation on a broader scale.

India

51. The GEF-World Bank implemented "*India Eco-development project"* project has played an important transformational role in **India´s** mainstreaming journey, by demonstrating the significance of community and local government participation in the management of protected areas (PAs) and conservation of biodiversity. Biodiversity conservation was in turn supported by the development of environmentally-friendly opportunities for income generation. This eight-year project is considered to have set the stage for integrated conservation and development approach in India. One of the positive outcomes of the project was the establishment of a Government-owned Trust to sustain the park management and foster eco-development initiatives. Another significant outcome was the creation of the Periyar Tiger Conservation Foundation (PCTF) to sustain the management of the tiger reserve. The establishment of the PCTF has had a transformational effect, by demonstrating a model that led to the establishment of similar Foundations in India´s other tiger reserves. This arrangement provides a framework for collaboration between civil society organizations and government authorities in the management of the reserves.

52. The project *"Mainstreaming conservation and sustainable use of medicinal plant diversity in three Indian States"* aimed to achieve the long-term conservation and sustainable use of India's medicinal plant diversity – and particularly of its globally significant species – by mainstreaming these objectives into forest management policy and practice at the national, state and local levels. The project was implemented in the Indian states of Arunachal Pradesh, Chhattisgarh and Uttarakhand, which are home to more than 30 Globally Significant Medicinal Plants and encompass a broad range of ecological conditions and biological diversity. This has had a transformational effect on the management and conservation of medicinal plants in India, which traditionally was fragmented across different ministries and organizations with overlapping responsibilities. The project supported the design of a 'National Inter-Sector Strategy on Conservation and Sustainable Use of Medicinal Plants' that seeks biodiversity mainstreaming through an integrated institutional/sectoral framework. This strategy has been appropriated and is likely to be sustained in the states of - home to more than 30 Globally Significant Medicinal Plants - through the medicinal plant boards of several states in India. The project also led to the first registration of a medicinal plant (*Cinnamommum tamala*) under India´s Geographical Indications of Goods (Registration and Protection) Act, setting a precedent that can be up-scaled on a broader scale (Figure 11).

Figure 11: Indian bay leaf (Cinnamommum tamala) being dried in the sun

Photo: Ishan Tankha/UNDP India

B. Elevating[18] biodiversity conservation and landscape management to a broader range of sectors and institutions.

53. **A majority of the projects and national partners are in the process of elevating biodiversity conservation considerations to other sectors and institutions, to address the threats and mainstream environmentally-friendly practices.** Their implementation strategies combine the "upstreaming" of landscape management and biodiversity-friendly production models to a wider range of non-environmental institutions and sectors (from open-pit mining and coffee farming in Colombia to the cultivation of grapes for winemaking in South Africa and artisanal fishing in India) through capacity development, advocacy and dissemination. Policy and legal-regulatory reform are often needed to elevate BD concerns transversally, reaching a broader range of sectors and influential actors. The GEF´s support to the elaboration of National Biodiversity Strategic Action Plans (NBSAPs) has contributed to this endeavour at a macro-policy level. However, project experiences suggest that legislative and regulatory reform often involve extended processes that are incremental, influenced by political externalities and difficult to consolidate within the standard (four-to-five year) project cycle.

54. The next stage of the mainstreaming journey elevates biodiversity considerations across sectors, institutions and production landscapes and seascapes, leading to their appropriation on a broader scale. As this process unfolds, the conservation sector becomes more effective at working with economic sectors and getting a broader range of stakeholders to buy into biodiversity conservation (often in combination with PES, carbon funds and other market-based mechanisms).

[18] *Elevation* is the mainstreaming stage at which the conservation sector becomes more effective at working with economic sectors, and biodiversity issues are taken up by a broader range of sectors, institutions and actors.

55. A large share of the project sample applied landscape management and conservation practices in geographic areas with globally-significant biodiversity that are outside the protected area system. In such cases, mainstreaming efforts were directed at target populations and productive sectors that are associated with threats to biodiversity, yet offer opportunities to demonstrate biodiversity-friendly production models that are based on an ecosystems vision.

Country examples:
South Africa

56. WWF's GEF-supported *Biodiversity and Wine Initiative* – now evolved into a more focused "Conservation Champions" initiative – works with **South Africa´s** wine sector to for example incorporate biodiversity indicators as part of the industry-wide sustainability standards. The wine sector efforts focus in on endangered ecosystems of the Cape Floral Kingdom – while not geographically large areas, they are uniquely important for South Africa's threatened biodiversity. The initiative is also proposing the mainstreaming of biodiversity and ecosystem considerations in other forms of voluntary standards such as for water management in agriculture. WWF's work in the wine sector is considered a landmark initiative for promoting integrated landscape management approaches that combine livelihood improvement and food security with the conservation of endangered species. Ongoing GEF projects (e.g. Biodiversity and Land Use, BLU) continue to support voluntary mainstreaming in the wine (and fruit, forestry, and sugar sectors) and have evolved approaches from pilot and voluntary initiatives to more strongly focus on the legal and regulatory aspects to protect strategic water basins. Demonstrations of the Ecological Infrastructure concept are cross-cutting to different industries and emphasize water security, a key political and development priority.

Colombia:

57. Colombia´s *Mainstreaming Biodiversity in the Coffee Sector* project has successfully elevated landscape management and biodiversity conservation within the National Federation of Coffee Growers, and in particular the FNC rural extension network that is represented across the national coffee landscape. This process started with the initial demonstration of associated biodiversity-friendly farming practices in 13 municipalities that combine agro-forestry and shaded cultivation, watershed management, re-establishment biological connectivity between forested areas, and recycling of wastes. These practices are now incorporated within the FNC´s core extension package, and are in process of being extended to a broader range of stations across the national coffee landscape.

58. *Mainstreaming Biodiversity in Sustainable Cattle Ranching* was implemented in Colombia´*s* eastern savannahs and southern mountain valleys through the National Cattle Ranching Association (FEDEGAN), in collaboration with Nature Conservancy Trust (TNC) and other executing partners (Figure 12). The practices that were promoted by the project are being significantly up-scaled by the Grasslands Alliance in collaboration with the *Visión de la Amazonía* and REDD+ Early Movers (REM) programs, which are expanding the scale of intervention from 325 families and 9,500 hectares to 1,400 families on 50,000 ha. Another initiative funded by the U.K. Business, Energy and Industrial Strategy has also built on the GEF project by channeling carbon sequestration payments to approximately 3,000 ranchers covering an area of 116,000 ha.

Figure 12: Analysis of long term satellite data indicate slight increase in vegetation productivity

The first pair of high resolution images below (a,b)show increase in tree cover and tree fences between the year 2002 and 2015. (c) Dense time series analysis using satellite data derived vegetation index (NDVI) shows slight increase in the vegetation. (d,e) cows in silvapastural system

c. Vegetation productivity Trend

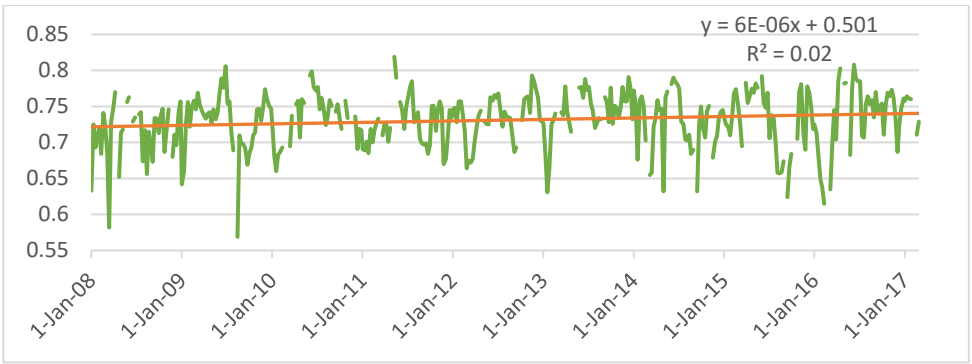


Image (d) left and (e) right

Source: GEFIEO (2018)

59. *Implementing the Socio-ecosystems Approach to Conserve and Sustainably Use Biodiversity in the Caribbean Region* is an ambitious project that aims to elevate biological connectivity and biodiversity conservation within the planning and budgeting frameworks of departmental and municipal governments, applying the Socio-Ecosystem Connectivity (SEC)

approach. This is being achieved through the integrated planning processes that are presently underway to design the new Ethnic and Territorial Development Plans Programs (PDETs) that were introduced to post-conflict areas following the Peace Agreement. The PDET framework is being used as the entry point to articulate biodiversity conservation activities at municipal, regional and sectoral levels, and build support for the development of biological corridors linking forests with protected areas.

India:

60. "Transforming Indian agriculture for global environmental benefits and the conservation of critical biodiversity and forest landscapes" is a recently-approved initiative in India that aims to transform the management of agricultural landscapes that contain globally-significant wild animal species, and elevate these practices in the states of Rajasthan, Madhya Pradesh, Uttarakhand, Odisha and Mizoram. This project seeks to mainstream ecologically sustainable agricultural approaches at policy levels, addressing all aspects of production by promoting cooperative management between protected areas, local resource users and agricultural agencies through innovative operations. It will also help in developing the Green-Ag toolbox, an inter-sectoral intervention system to address the specific concerns of the identified Green Landscapes that will facilitate the sharing of experiences and learning for improved communication and policy formulation.

61. Likewise, *"Integrated Biodiversity Conservation and Ecosystem Services Improvement Project"* is another ongoing project that aims to build capacities in relevant government agencies at the central and state level, in order to elevate biodiversity conservation within development plans and policies. It plans to demonstrate strategies to improve the conservation status of forest ecosystems, with consideration of development models to measure carbon stocks and carbon sequestration in forests, in conjunction with sustainable livelihoods models to improve incomes and employment.

62. The UNDP-implemented *"Mainstreaming Coastal and Marine Biodiversity Conservation into Production Sectors in the Sindhudurg Coast, Maharashtra"* project was designed to mainstream biodiversity conservation objectives into production sectors across the coastal zone. The project strategy included the implementation of 2 "child projects" to generate a broader set of experiences for further replication by the government. One of these was specifically focussed on private industries (energy and agriculture-related), while the other targeted agriculture, fisheries, and tourism (Figure 13). The project contributed significantly to bringing about positive regulatory measures related to aspects of the fishery sector (i.e. fishing net dimensions), with less success in adjusting the regulatory framework for the tourism sector. It has also led to the led to the establishment of District Cross Sectoral Committees that facilitate coordination between the different sectors. The lead role of District Administration in the project is considered to encourage mainstreaming within productive sectors.

Figure 13: Sustainable Oyster farming, Malavan

Photo: GEFIEO

C. Elevating biodiversity considerations in production landscapes and seascapes

63. **In the three countries, GEF projects were decisive in bringing biodiversity considerations to larger landscapes and seascapes, and populations. However, the scarcity of data regarding benefits and trade-offs and systematization of results associated to these practices is a continuing constraint.** Possibly the greatest mainstreaming challenge lies in ***elevating*** biodiversity conservation in productive landscapes and seascapes where local populations rely on the exploitation of natural resources for their livelihood. The *elevation* of ecosystem-based landscape management and conservation to a critical mass of communities, local governments and productive sectors is essential to establish conditions for accelerated mainstreaming on the ground - and have measurable effects on biodiversity and/or threats to it. However limited access to conservation financing incentives such as carbon markets and PES mechanisms and time constraints make mainstreaming difficult to achieve within the project cycle.

64. A number of GEF projects and national executing partners are successfully accelerating biodiversity mainstreaming at the landscape scale - through the extension of biodiversity-friendly coffee farming systems that meet international certification requirements and bring higher prices, the demonstration of sustainable cattle ranching, sustainable livelihood alternatives to sea coral mining, and the negotiation of conservation agreements with farmers in biodiversity "hotspots" where government agencies have limited presence.

Country examples

India:

65. Another early GEF project that has supported **India's** mainstreaming journey was the "Conservation and Sustainable Use of Gulf of Mannar's Biosphere Reserve's Coastal

Biodiversity", which addressed habitat destruction, the over-harvesting of marine resources, and land-based marine pollution in the Gulf of Mannar Biosphere Reserve of Tamil Nadu State. The project was able to elevate biodiversity conservation considerations through the establishment of the Gulf of Mannar Biosphere Reserve Trust (GOMBRT), a cross-sectoral coordination body devoted to integrated management, awareness-raising and livelihoods development in fishing communities. Project activities have led to the complete cessation of coral mining along the coast and on 21 islands; increased live coral cover and total fish landings, the sustainable use of marine resources with the adoption of eco-friendly fishing gears, the banning of destructive fishing practices, and access to low-interest micro-credit that was increased from US$ 1.4 million and rising to US$ 1.8 million. Village Marine Conservation and Eco-Development Councils were established in 248 villages and local conservation measures adopted.

66. Another pioneering GEF initiative in India, the "Biodiversity Conservation and Rural Livelihoods Improvement Project" (BCRLIP) has promoted new models of conservation at the landscape scale through capacity development and institution building to mainstream conservation outcomes. The project supported the demonstration and scaling-up of landscape management and conservation approaches, and the development of multi-stakeholder partnerships for their dissemination and mainstreaming. Through the adoption of a Protected Area Management Plan for the Wild Ass Sanctuary in the Little Rann of Kutch landscape (UNESCO World Heritage sites), the project brought at least 600,000 hectares within landscapes more effectively managed for conservation outcomes. An area of approximately 500,000 ha within the Sanctuary is under effective conservation management, while an additional 100,000 ha. across the other project landscapes is being managed for conservation outcomes, combining work on improving habitats with sustainable resource use, wildlife rescue/rehabilitation and reduced dependency on PA resources.

67. The project has led to a broader adoption of landscape management approaches: The State Government of Gujarat has funded two new landscape management plans based on the BCRLIP experience. Similarly, the Forest Department of Kerala State utilized its own funds to implement the approach in the Agasthyamalai landscape. The national government has continued the BCRLIP as a Central Sector Scheme under the MOEFCC and allocated budgetary resources for its continued implementation.

Colombia:

68. The elevation of landscape management and biodiversity-friendly farming practices within the extension network of **Colombia´s** National Coffee Federation has triggered their adoption on a broader geographic scale. The project initially strategy foresaw the demonstration and extension of biodiversity-friendly coffee cultivation in 13 municipalities of 3 departments with variances in altitude, climate and average farm size. By the project´s end in 2014, more than 31,000 hectares of certified coffee on 10,524 farms were meeting international biodiversity certification standards; and 1,022 hectares were under landscape management, contributing to the connectivity of 10,340 hectares of forest. Almost 400,000 trees were planted from 264 native species, and (again in 2014) 9,475 tons of CO2 captured and sold on the PES market. However, there is also a need to consider transitional costs and the short term socioeconomic trade-offs that may precede such benefits; for example, the Guaviare farmers participating in the Heart of Amazon project are losing half of the income

they would otherwise have made, had they continued to plant coca leaves which is an illicit crop and is considered a threat to biodiversity.

69. Through the "*Forest Management and Sustainability in the Heart of Colombia´s Amazon* project" (known as *Corazón de la Amazonía*), the Amazon Institute of Scientific Research (SINCHI) is disseminating an integrated conservation approach to raise the environmental awareness and commitment of farming communities to landscape management and environmentally-friendly production, in high-biodiversity areas that are emerging from extended periods of armed conflict. The project strategy aims to contain the encroachment of threats to biodiversity – population migration, deforestation, extensive cattle ranching - by strengthening the sustainable livelihoods of communities that are situated in areas surrounding the Chiribiquete National Park and much of Guaviare department´s forest landscape (Figure 16). The approach combines participatory biodiversity assessments that activate local knowledge, the socialization of findings, and the negotiation of three-year Conservation Agreements with individual farmers in exchange for agricultural inputs and technical assistance. These Agreements are aggregated into area management plans *(Planes de Manejo de Veredas)* for sustainable production that contemplate agroforestry associations and the commercialization of non-timber products. The project also works at "upstream" levels by seeking to elevate biodiversity conservation within local and regional development plans and budgets, in coordination with municipal governments and other public sector agencies.

70. *Conservation of Biodiversity in Landscapes impacted by Mining in the Chocó Biogeographic Region* aims to transform the productive landscapes by containing the threats of land degradation and water contamination caused by unlicensed gold mining and their effects on public health and social stability in an extensive post-conflict region(Figure 14 and Figure 17). Project activities on the ground have centered on landscape management, monitoring of biodiversity vulnerability, vigilance of illegal mining and the creation of municipal forest reserves and protected areas. It works with communal organizations such as the *Comités Comunitarios* and COCOMACIA and has an active partnership with GEF-SGP that has led to the funding to start-up enterprises for harvesting the heart of palm and açai fruit of the *Euterpe oleracea* tree, and the production of natural cosmetics (Figure 15). The project implementation strategy combines interventions and partnerships at different levels that feed into each other.

Figure 14: Mining leading environmental degradation

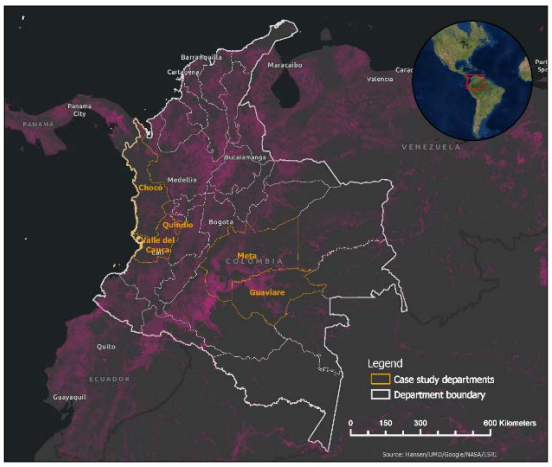
Photo: Mauricio C Leal, WWF Colombia

Source: GEFIEO (2018)

Figure 15: Close coordination with the GEF SGP, heart of palm processing

71. The resulting synergies are elevating mining issues and their impact on biodiversity, both horizontally among municipal governments, community councils and territorial organizations, as well as vertically to the Pacific Environmental Research Institute (IIAP) and Colombia´s National Congress, with the purpose of revising the current Mining Code with stronger environmental safeguards and sanctions for unlicensed mining. However, these efforts have had limited impact to date on the dispersed, small-scale and unlicensed operations that constitute over 95% of mining activity in the Chocó region.

Figure 16: The extent of deforestation in Colombia



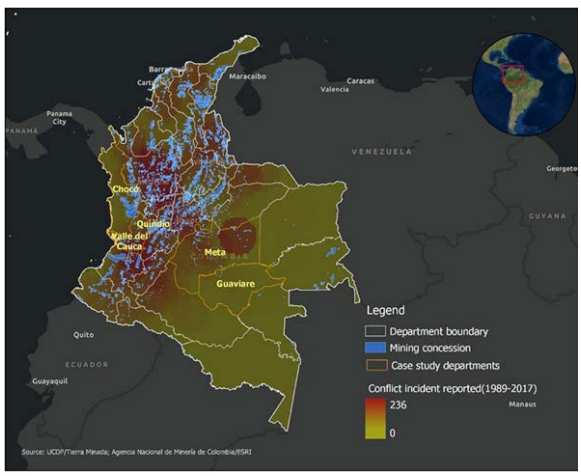


Figure 17: Mining concessions and conflict areas in Colombia

South Africa:

72. The South African Mining & Biodiversity Guidelines (DEA et al. 2013) are recognized for their success (in e.g. Roe and Tayleur, 2016). The guidelines focused on large multi-national corporations with significant footprints in the grasslands biome, but applicable

more broadly as well. They have been taken up at the regional level and influenced the SADC guidelines. The voluntary initiatives have been successful in this sphere, but a growing number of small and illegal mining endeavors in the grasslands threatens to undermine intended outcomes. Current GEF projects (e.g. BLU) are focusing more on the legal and regulatory aspects of mining, and are including strategic water areas.

D. Accelerating biodiversity mainstreaming [19]

73. **Few GEF projects have reached the stage of accelerating biodiversity mainstreaming processes, which is necessary to contain threats to biodiversity and have a measurable conservation impact.** This is difficult to achieve during the project lifetime. Biodiversity mainstreaming processes tend to require gestation periods after their demonstration and dissemination before conservation practices "kick in" and are adopted systemically. Accelerated mainstreaming processes are often ex-post to the actual project and rely more on the sustained engagement of national partners after implementation. As such, it is conditioned by national stakeholder capacities and commitment, governance cycles and other factors that are external to the project. The GEF biodiversity projects that have triggered accelerated mainstreaming have tended to be longer-term than average, with extensions or successive project phases crossing over GEF cycles. Previously, the GEF Secretariat review of mainstreaming biodiversity projects also concluded that mainstreaming is time-intensive. The GEF-7 biodiversity strategy recognizes the importance of this finding and mentions that investments in mainstreaming will be over multiple phases.

74. Acceleration is the stage at which the elevation of biodiversity considerations and transformation of institutional or sector paradigms begin to have effect at a systemic level. Reaching this stage is necessary to contain threats to biodiversity and have measurable impact on biodiversity conservation on a landscape scale. However, the acceleration of mainstreaming is difficult to achieve during the project cycle due to time and budget limitations; most projects last four to five years and do not monitor progress beyond the final evaluation. Acceleration is also conditioned by institutional capacity and commitment, governance cycles and other externalities. Mainstreaming processes are likely to require gestation periods following their demonstration and dissemination before improvements are adopted on a broader scale. Most of the projects in the sample are still in process of elevating biodiversity considerations within targeted sectors, territories and communities. Several ongoing projects are likely to require continuity into the GEF-7 cycle (or parallel development cooperation support) in order to sustain and accelerate mainstreaming processes over time.

South Africa:

75. **South Africa** continues to innovate in its application of spatial data for planning and management purposes, for example through a comprehensive spatial planning screening tool supported by the BLU project. Availability of spatial biodiversity data varies

[19] *Acceleration* is the mainstreaming stage at which the adoption of biodiversity considerations and changing institutional/sector models start to have effect at the systemic level. This stage is critical to contain the threats to biodiversity and have tangible impact on production landscapes and seascapes.

considerably across the country, meaning that confidence levels vary also. There are numerous challenges of scale, hurdles to having data that is appropriately nested, and to ensuring data is interpreted correctly. Efforts are steadily ongoing to improve data sets, and the dedication of effort can also be responsive to policy questions. This exemplar highlights that the 2011 NBA shone a spotlight on wetlands being highly threatened yet poorly represented with data, and flags that a comprehensive South African Inventory of Inland Aquatic Ecosystems (SAIIAE) with some GEF support via part of the National Freshwater Inventory (NFI). This work has been supported by the ongoing GEF-5 Biodiversity and Land Use (BLU) project.

76. Towards Biodiversity in National Accounts, the exemplar from the South African case study, illustrates the transition from accelerated mainstreaming towards "normalization": SANBI and the National Statistics Office (StatsSA) are presently advancing in the design of a Natural Capital Accounting framework that will incorporate biodiversity indicators into the System of National Account, via a GEF-6 project. Once operational, this is expected to improve the integration of biodiversity considerations within public investment and development policy decisions. In GEF-7, the Natural Capital Assessment and Accounting entry point is based on similar rationale.

Colombia:

77. Three years after the project´s end, **Colombia´s** National Federation of Coffee Growers (FNC) continues to provide farmer extension services that combine landscape management and environmentally sustainable cultivation practices. As of mid-2018, these practices had been extended to over 60,000 farmers in 32 municipalities, covering a total area of almost 165,000 hectares. An average of 6,000 tons/year of CO2 are expected to be captured as a result of these practices over the next 20 years**.** Mainstreaming is also being accelerated through agreements with public and private partners that have directly contracted FNC extension services or co-financed the environmental services being provided. In Valle department alone, the FNC has agreements with (i) AquaValle (the regional water authority) to assist farmers in planting trees for the protection of water sources, (ii) ASOCAÑA (the national sugar cane association) for reforestation of upper water basins to reduce sedimentation, and (iii) the department´s regional autonomous development corporation, for landscape conservation services that exceed US$ 2 million. Four municipalities have approved ordinances that give property tax discounts to coffee farmers who apply landscape management practices (Figure 18).

Figure 18: Sustainable Coffee Cultivation in Colombia - Left portion of the image show farms connecting to the Tatama national park through biological corridors. The replication field is also being prepared for shade grown coffee. Right side shows the shade grown

Source: GEFIEO (2018)

78. The conservation approach that is being implemented by the SINCHI Institute under the *Corazón de la Amazonía* project has potentially strategic importance as a model that can be applied to post-conflict areas across the Amazon region. The project experience has improved conditions for accelerated transformation, and various aspects of its methodology are being used by the larger *Visión de la Amazonía* program, a highly visible national initiative that is linked to the regional REDD+ Early Movers program (REM) that is funded by the governments of Norway, United Kingdom, Northern Ireland and Germany (through KfW) for conservation and sustainable development in the Amazon region. *Visión de la Amazonía* is extending landscape management practices and conservation agreements on a larger scale in Guaviare and Caquetá departments, with the target of approving 1,400 agreements for the conservation of 53,500 hectares of forest (indirectly benefitting a considerably larger area (Figure 19 and 20).

Figure 19:Amazon forest Guaviare

Source: GEFIEO (2018)

Source: GEFIEO (2018)

Figure 20: Amazon project community engagement in a post conflict situation

India:

79. The GOI is continuing the Biodiversity Conservation and Rural Livelihoods Improvement Project as a Central Sector Scheme under the MOEFCC and has allocated budgetary resources for its continued implementation. Similarly, through the sustainable agroforestry project in Nagaland, the sustainability of the jhum[20] system has been supported through policy reforms and Participatory Land Use Planning (PLUP) (Figure 21). The government of Nagaland has invested an additional US$ 1 million in scaling-up activities, and activities are underway to replicate the lessons learned across the state through an ongoing project supported by the International Fund for Agricultural Development (IFAD) that started in 2017. The recently approved US$43 million GCF project "Enhancing climate resilience of India's coastal communities" builds upon the India Biodiversity Program to influence systemic level changes in the coastal zone adaptation using ecosystem-based approaches.

Figure 21: Sustainable farming in Nagaland

Photo: UNDP India

E. Normalization[21] in biodiversity mainstreaming

80. **There is little evidence that biodiversity conservation mainstreaming has advanced to the "normalization" stage, although some processes appear to be headed in that direction**. The consolidation or full internalization of biodiversity mainstreaming is affected by a number of variables that are outside the project scope. In addition, mainstreaming processes are likely to require longer gestation periods to change institutional and personal behavior or have measurable effects on biodiversity.

Findings and Conclusions

This section summarizes the key findings and conclusions drawing on the portfolio and three country case studies

[20] Shifting cultivation or jhum is the socially preferred agricultural practice in the hilly parts of north-east India including Nagaland and often considered the most suitable form of agriculture for the agro-climatic conditions and steep terrain

[21] A subsequent stage of *Normalization* is posited where biodiversity becomes a recognized asset for the economy and is engrained in the management of productive landscapes and seascapes, and the various sectors.

Relevance

81. **The GEF´s biodiversity mainstreaming portfolio has played a significant role in the implementation of the global convention for the Conservation of Biological Diversity (CBD).** To date, 471 biodiversity mainstreaming projects have been approved – most of them "full size" – with cumulative funding of $2.34 billion in grants and $12.73 billion in co-financing. The GEF has promoted biodiversity mainstreaming through the different funding cycles, incorporating it as an objective under GEF – 4 and 5 (2006-2014) with the aim of extending conservation practices to productive landscapes and seascapes across economic sectors. Support for biodiversity mainstreaming grew during the GEF 3 – 5 cycles with increases in the number of projects and total grant funding. In GEF-6 cycle, which approved fewer mainstreaming projects yet allocated larger project grants to improve the likelihood of impact at the landscape scale. Most biodiversity mainstreaming projects have focused on productive sectors that are associated with threats to biodiversity, followed by projects supporting planning and policy. Although a reliable assessment of biodiversity mainstreaming support under the new GEF-7 cycle is premature at present, mainstreaming is one of the main objectives of the Biodiversity Focal Area and mainstreaming "entry points" are highlighted in the GEF-7 strategy document.

82. **The GEF has been instrumental in supporting national policy reform and planning frameworks that promote biodiversity considerations across sectors and territories.** In particular, the support given to strategically-positioned national institutions in terms of capacity development, biodiversity research and knowledge management – i.e. South Africa´s National Biodiversity Institute and CAPE learning network, India´s Foundation for Revitalization of Local Health Traditions (FRLHT), Colombia´s Humboldt and Pacific Institutes – have been particularly important in enabling the dissemination of reliable information on the state of biodiversity and emergent threats, informing policy levels and driving the formulation of national biodiversity conservation action plans (NBSAPs) in addition to other policy instruments. Some of this research has fed into the design of national programs and country GEF projects. This has in turn encouraged the articulation of different sectors and actors, public and private (often for the first time) that have influence on globally-significant biodiversity at the country level.

Project Design

83. **Projects are explicitly designed to address recognized threats to biodiversity.** In most cases, the reviewed projects had components and activities to address recognized threats to biodiversity - incompatible land uses and economic (usually extractive) such as unlicensed mining, extensive cattle ranching, over-fishing and extraction of coral, mono-crop agriculture – with the aim of mitigating their effects on biodiversity of global importance. This is being pursued through diverse approaches that include the extension of landscape management practices, agroforestry and sustainable production systems, and biological connectivity linking vulnerable forests to protected areas. Implementation strategies are integrative and multi-tiered in their approach: Several projects have transferred the findings of applied research, field demonstrations and extension to senior sector and government levels, for the purpose of transforming productive models and informing policy decisions. Such approaches encouraged synergies and learning – both horizontally among local governments, producer associations and territorial organizations,

as well as vertically with sector and government policy levels – expanding the scale and momentum of the biodiversity mainstreaming processes.

Performance

84. **Most of the GEF projects that were studied in the three countries have successfully elevated (or are in process of elevating) biodiversity conservation to targeted sectors, institutions, policies and territories with globally significant biodiversity.** All projects support biodiversity mainstreaming to the extent that they have implemented (or are implementing) conservation activities in productive landscapes and seascapes, and sectors outside the protected area systems. The country findings indicate that many of these projects have advanced, often significantly, in elevating biodiversity conservation to target sectors, policies, and territories.

85. **A smaller number of projects and national partners are successfully accelerating biodiversity mainstreaming across sectors, institutions and territories.** There are fewer cases of accelerated mainstreaming, by which mainstreaming processes gain in scale and momentum, and begin to have effect at systemic levels. The acceleration of mainstreaming to a broader range and scale of actors appears to be essential for containing biodiversity threats and achieving measurable conservation impacts over time. However, this involves incremental processes that build over time and exceed the lifespan of (most) projects that are based on four-to-five-year horizons. This is also influenced by external factors – the capacity and commitment of national partners, governance cycles and political junctures, resource availability, competing sector priorities – that fall outside the influence of most projects. As a result, many projects that are ongoing at present may require continuity into the GEF-7 cycle to accelerate mainstreaming processes that enable the achievement of expected outcomes.

86. **Mainstreaming efforts are more successful when there are strong government champions who cut across organizational "silos".** The development of institutions as members of networks in support of biodiversity mainstreaming is complex and is hindered when Governments operate through Ministerial "Silos". Mainstreaming needs strong champions to cut across these silos. South Africa and Costa Rica are both frequently cited as good examples; but they cannot be treated as templates for other countries to follow, as they have specific advantages in terms of how they have been able to apply mainstreaming. For example, in South Africa conservation science is well-established and there is a conservation policy body of excellence. The Governance framework, upon which coherent and coordinated implementation of mainstreaming depends, is relatively strong and there is a functioning infrastructure. There are relatively few other countries in Africa, where all of these conditions currently prevail. Buy in from government partners and building stakeholder management capacity could help break "silos". Based on the types of experience and challenges presented above, funding for mainstreaming programmes, according to experts, should have preconditions, namely:

(a) Buy in from government, established by budget allocations and functioning networks of Government (and perhaps non-government) bodies active in biodiversity mainstreaming

(b) Stakeholder management capacity (but this cannot be realistically assessed in advance by GEF because it may raise political sensibilities).

87. **Engaging the private sector remains a challenge for the GEF.** According to documentary analysis and stakeholder interviews, the GEF and its partners have found it difficult to engage with large-scale commercial enterprises in biodiversity mainstreaming projects. A challenge in with such industries as commercial agriculture, forestry and mines is that they are large and deal in major investments. Other constraints to engaging the private sector in mainstreaming projects is the lack of expertise within the conservation community, lack of incentive, knowledge and guidance. Experts also expressed that the GEF could leverage its relationship with the Government to engage the private sector but if Government is not prepared to engage with these large-scale operators, GEF has neither the mandate nor the capacity to do so alone. Recently, GEF has launched innovative financing approaches such as NGI, and created spaces through Natural Capital Coalition to leverage private sector capital and ensure that projects are well-resourced for the longer-term.

88. **Longer project time frames through extension of project timelines enabled initiatives to achieve strategies and outcomes.** As noted in the South Africa country study, the proponents of the Water Security project consider that the transformative changes envisioned by the project are likely to take ten years - and not the four years that were formally approved and budgeted. The CAPE learning network has been operational for more than ten years, showcasing achievements and disseminating lessons through a dynamic monitoring and evaluation system; the project used the 10-year milestone to revise and update its forward-looking strategy, which is based on a "far-sighted" approach to sustainability. Projects supporting the mainstreaming of medicinal plants and the promotion of "green agriculture" in India were approved for seven-year periods in order to accompany implementation processes on the ground in a more consistent manner. Projects such as the Colombia´s *Corazón de la Amazonía* have been able to overcome the constraints of working within restrictive timelines, by programming successive project phases across GEF funding cycles.

89. **Similar positive influences and challenges affect outcomes in the biodiversity conservation and mainstreaming projects across the three countries.** While the challenges are largely determined by specific national or landscape contexts, successful mainstreaming is ultimately influenced by the interaction of economic and environmental interests, institutional monitoring and enforcement capacities, communications and outreach capabilities, and the existence of enabling policy and legal-regulatory frameworks. In Colombia´s Chocó Biogeographic region, the enforcement of licensing or environmental requirements on illegal mining operations that are dispersed across an extensive region has not been possible. Vast areas of high-biodiversity forest within the Colombian Amazon are increasingly vulnerable to encroaching threats (deforestation and extensive ranching in particular), following the Peace Agreement that put an end to armed conflict and opened the territory to immigration.

90. Other challenges include the lack of environmental safeguards under the current legislation – in the case of Colombia´s national mining code or the approval of legal provisions for the participation of afro-Colombian communities in natural resource management (pending for over 20 years) – that weaken the ability to apply biodiversity mainstreaming to productive landscapes and seascapes. The challenges faced in South Africa are driven by high levels of poverty and inequality, low levels of education and employment, a need for rapid, broad-based economic growth, and for delivery of services including water, electricity and safety. The India country chapter refers to the challenges of

species loss and ecosystem degradation due to land use changes, natural resource extraction and development pressures – reflecting to an extent the Colombian context as well. Despite the commonalities in the mainstreaming experiences, there are also country specific challenges that need to be highlighted. Examples of these which impose major constraints to mainstreaming biodiversity include rapid economic growth, infrastructure development and agricultural expansion in India; commodity driven land use change, land tenure insecurity, a history of conflict and the ongoing peace process in Colombia, and; economic challenges and emigration in South Africa.

91. There are also positive features in common that facilitate mainstreaming, such as having well-developed policy and regulatory frameworks for biodiversity conservation, recognized and capable scientific-research institutions and expertise, and favorable political junctures as reflected in the shift to majority rule in South Africa, and the two-term presidential administration (and Peace Agreement) in Colombia that has enabled more sustained conservation efforts that has led to significant expansions of the protected area network, and facilitated the consistent implementation of GEF projects.

92. **The potential for biodiversity mainstreaming is conditioned to a large extent by intervening factors that encompass project effectiveness and efficiency, the commitment of national partners, and externalities outside the project´s control.** The progress achieved in mainstreaming biodiversity is directly influenced by intervening factors that are both directly related to the project´s implementation performance – efficiency, timely output delivery, monitoring and adaptive management - as well as external to the immediate project context, i.e. national capacities and institutional commitment, governance cycles, political and policy junctures. Successful cases of post-project mainstreaming, i.e. coffee in Colombia, were able to make use of (or surmount) such factors, through effective implementation strategies and partnering with established national partner institutions or organizations of recognized capacity that were strategically positioned. Conversely, the implementation of several projects in the country samples was affected detrimentally by late approvals and start-up, recruitment delays, and/or low partner capabilities and responsiveness.

Box: Mainstreaming takes time and requires enabling policy environment

Successful mainstreaming requires time and depends on the existing preconditions such as enabling policy environment, and policy coherence. South Africa and Costa Rica are both frequently cited as good examples; as they have specific advantages in terms of how they have been able to apply mainstreaming. South Africa, as the country case study illustrates has a long history of conservation, and good biodiversity assets. Conservation science is well-established and there is a conservation policy body of excellence. The institutional framework, upon which coherent and coordinated implementation of mainstreaming depends, is relatively strong and functioning infrastructure.

Costa Rica's mainstreaming approaches focussed on creating a conducive policy environment for biodiversity conservation. The preconditions in Costa Rica was such that they jumped right in, to create those pre-conditions through multi-stakeholder consultations to begin its mainstreaming journey. For example, it started by establishing and changing key institutions, such as by merging the Ministry for Energy and the Ministry of Environment to ensure policy coherence, created positive incentives for biodiversity conservation through PES, eliminated perverse incentives, and improved coordination across government ministries and agencies, and improved land rights and access. Reference: (Cavelier and Munro Gray, 2014; Huntley and Redford, 2014; Redford et al., 2015)

93. **Integration of mainstreaming biodiversity into national financial planning with government ownership is crucial.** Stakeholders have observed that while GEF's support to NBSAPs is useful and necessary, there is often not enough buy in from those parts of the government that need to promote the implementation and achievement of mainstreaming. To ensure that biodiversity considerations are factored in to the economic development and financial planning processes would require long term support to national level processes in order to influence key national decisions. An important area underpinning effective mainstreaming is Natural Capital Accounting. GEF has supported several national level initiatives aimed at providing economic estimates of a country's biodiversity and ecosystem services values. Beginning GEF-6 through its Program 10, national level interventions to integrate Biodiversity and Ecosystem Services into Development and Finance Planning has been piloted. This is based on lessons from GEF experience which suggests that one of the ways to ensure that biodiversity is prioritized is to accurately account for and incorporate the values of natural capital and ecosystem services in economic development and poverty reduction strategies that drive decisions about human welfare and development. In GEF-7, Natural Capital Assessment and Accounting is one of the entry points for biodiversity focal area investment.

94. **Catalytic support and facilitation can be more effective than direct implementation in supporting biodiversity mainstreaming processes.** Mainstreaming processes are incremental and conditioned by institutional and systemic variables that are often outside the influence of GEF projects. The mainstreaming process is neither linear nor rapid, and often requires nurturing beyond the project cycle in order to have tangible effects. In this respect, government ownership is essential to sustain transformational processes that are gradual and require longer-term relationships in order to balance competing priorities, manage transitions and – if necessary - persevere through unfavorable political junctures.

GEF assistance has played a catalytic role by supporting the initiatives of diverse partners that include government ministries, congressional committees, regional and municipal environmental authorities, territorial-based organizations. This has strengthened domestic capabilities for research, advocacy and knowledge dissemination, improving conditions for continued mainstreaming beyond the project cycle. However, facilitation-based approaches such as these have tended to require timelines and adaptive management provisions that are difficult to compress within conventional project modalities that seek to maximize expenditure delivery within prescribed time-frames.

95. A combination of factors contributed to the scale-up of mainstreaming interventions from a piloting and demonstration stage at smaller spatial unit, lower governance and jurisdictional levels to larger spatial unit and higher level of governance, policy and practice. These factors include – alignment with national priorities, financial sustainability, establishing long-term strategic partnerships with credible and nationally recognized knowledge institutions with proven expertise in biodiversity conservation; engaging key stakeholders groups across sectors and leveraging their networks to scale-up; utilizing the availability of demonstrated good practices/pilots, and champions to guide interventions, and; strategically linking and involving relevant policy and planning bodies at the central/federal level with project execution.

Additionality

96. **The GEF biodiversity mainstreaming portfolio has contributed to legal-environmental, regulatory, governance, and socio-economic additionalities going beyond incremental cost benefits.** These include innovative approaches based on multi-stakeholder partnerships that link "grassroots" organizations to regional research institutions, advocacy platforms and national environmental authorities. Landscape management practices are validated on the ground and elevated to influence national policy and legislative-regulatory reform. Several projects have contributed to landmark biodiversity legislation, transformed core institutional/sector practices, and measurable conservation impacts in forest cover, pasture or other biodiversity indicators. Examples of additionalities that were generated, directly or indirectly, in the three countries through the GEF project sample are provided in tables (2-4).

97. **Capturing other additionalities is a challenge.** The economic and social impacts deriving from the GEF´s support for biodiversity mainstreaming in productive landscapes and seascapes have not been quantified. A systematic assessment of benefits and tradeoffs associated with biodiversity mainstreaming interventions remains a pending priority for designing better projects, and evaluating impact. In Colombia, coffee producers are receiving a better price for the smaller-yet-denser bean that is produced with shade cultivation and agro-forestry, quantified data is lacking. In Colombia, the GEF has financed heart-of-palm/*açai* fruit and natural cosmetics enterprises but they are just getting started and it is premature in delivering economic or social benefits. There is limited quantitative evidence on social and economic impacts at the time of project completion (Table 2-4).

Table 2: Additionalities Generated by GEF Biodiversity Mainstreaming Projects in Colombia

ADDITIONALITIES GENERATED BY GEF BIODIVERSITY MAINSTREAMING PROJECTS IN COLOMBIA					
Legal/Regulatory Additionality	**Institutional and Governance Additionality**	**Financial Additionality**	**Socio-Economic Additionality**	**Innovation Additionality**	**Environmental**
- National legislation for regulated land use and biodiversity conservation in Colombia´s highland moor ecosystems (*Ley 106 de Protección de Páramos*) was approved in 2018 with technical and advocacy support from the "Mainstreaming Biodiversity in Mining in the Chocó Bio-geographic Region" project. - The same project seeks to modify the national mining code under Law 685, in order to strengthen environmental	- GEF projects have been instrumental in developing the capacity, knowledge development and strategic positioning of national research institutions (Humboldt, SINCHI, IIAP) to influence national policy and public opinion. - Projects have helped to build cooperation linkages between local government, community organizations and regional/national authorities, i.e. COCOMACIA in Chocó, farmers' organizations in Guaviare department. Projects in the Chocó and Amazón regions	- Coffee growers that apply shade cultivation and landscape management practices introduced by "Mainstreaming Biodiversity in the Coffee Sector" are receiving a better price for their product, exceeding the biodiversity standards that are required for international certification. - The GEF-SGP has funded community enterprises for the processing and	- There are unquantified improvements in income among coffee growers that apply the landscape management practices introduced by the "Mainstreaming Biodiversity in the Coffee Sector" project. - The GEF-SGP has funded community enterprises for the processing and commercialization of non-timber products, In partnership with "Mainstreaming Biodiversity in Mining in the Chocó Bio-geographic Region." These are generating sustainable income and employment in a post-conflict region with high biodiversity.	- Innovative productive practices for coffee farming, oil palm cultivation and processing of non-timber products are being disseminated by several GEF biodiversity mainstreaming projects.	- GEF biodiversity mainstreaming projects have contributed to the following: - 1.022 hectares of coffee farms under landscape management, contributing to the connectivity of 10.340 hectares of forest - 387.395 trees planted on coffee parcels from 264 native species - Increases in forest and pasture cover on cattle ranches that apply live fences, forest connectivity, pasture rotations and other biodiversity-friendly practices

safeguards and normatize community participation through EIAs and public hearings. - The GEF-supported Alexander von Humboldt Institute has driven the formulation of national biodiversity policies that cut across sectors. - Major reduction of mercury use in mining with prices soaring ten-fold, following Colombia´s prohibition of mercury importation in compliance with the international 2013 Minamata Convention. The GEF facilitated this process.	(*Mainstreaming BD in Mining, Corazón de Amazonía*) are involving local government and community organizations in landscape/natural resource management in post-conflict areas. - The National Federation of Coffee Growers has comprehensively revised the production model used by its national extension network to incorporate landscape management, soil conservation and agro-forestry practices that were introduced by "Mainstreaming Biodiversity in the Coffee Sector".	commercialization of non-timber products, In partnership with "Mainstreaming Biodiversity in Mining in the Chocó Bio-geographic Region." These are generating sustainable sources of income and employment in a post-conflict region with high biodiversity. - Coffee farmers that apply landscape management practices are accessing PES and (in some municipalities) property tax deductions.	- GEF projects have strengthened horizontal/vertical organizational linkages for the national cattle and coffee federations, to mainstream BD considerations. This has broadened their range of partnership and cooperation. - Territorially-based community organizations and producer associations (Chocó, Guaviare, and coffee producers) have developed stronger relations with local and regional government authorities, the Ministry of Environment and Sustainable Development and national research institutes.		- 9.475 tons of CO_2 captured in 2014 and sold on the PES market by coffee farmers. - Creation of the 17,900 hectare *Alto Atrato* Protected Area in Chocó Biogeographic Region. - Over 26,000 hectares of production landscape under land use management plans and 4,825 hectares of forest are within Conservation Agreements with farming communities in Guaviare province. - Up-scaling of GEF initiatives for sustainable cattle ranching and sustainable rural development over wider territories, through larger programs and donors (i.e. REM, *Corazón de Amazonía*).

Table 3: Additionalities Generated by GEF Biodiversity Mainstreaming Projects in India

ADDITIONALITIES GENERATED BY GEF BIODIVERSITY MAINSTREAMING PROJECTS IN INDIA					
Legal/Regulatory Additionality	**Institutional and Governance Additionality**	**Financial Additionality**	**Socio-Economic Additionality**	**Innovation Additionality**	**Environmental**
- Mainstreaming project enabled revision of India's National Forest Working Plan Code (NFWPC) in April 2014, to include provisions related to resource inventory and participatory and sustainable management MAPs. - First medicinal plant species in India registered under the GI Act as a result of the GEF mBD project - Inclusion for the first time of a new chapter on 'Conservation of Coastal and Marine Ecosystems' in India's National Wildlife Action Plan (2017-2031). - Project recommendations incorporated in the Andhra Pradesh State Forest Action Plan and also in the Smart City proposal of Kakinada and the Andhra Pradesh State Fisheries Action Plan in India.	- Joint Patrolling, being one of the activity in the Fisheries Plan for Sindhudurg Coast, India initiated by the Fisheries and Forest Departments. - Establishment of Trust Funds and Foundations (PTCF, GOMBRT, EGREE, MMGF) (GEF Project Ids: 84, 634, 3936, 4242) - Establishment of Tiger Conservation Foundation for 50 Tiger Reserves through inclusion of	- The State Government of Gujarat India allocated financial resources for better management of approximately 500,000 Ha area in the Little Rann of Kutch landscape. - Scope of the 'Mangrove and Marine Biodiversity Foundation (MMBF)' was expanded to the entire State of Maharashtra one district,	- 78% of surveyed farmers in Nagaland, India felt income from agriculture increased during the project period. - More than 3000 women beneficiaries in the Nagaland project India benefitted from selling produce from jhum and women's income increased by 25% during the project period - Mainstreaming of gender	- The GOI continued Biodiversity Conservation & Rural Livelihood Improvement Project (BCRLIP) as a Central Sector Scheme under the MOEFCC with allocation of additional budgetary resources.	- As per the India State of Forest Report (ISFR) 2017, the Coringa Wildlife Sanctuary, had an increase of 4 sq.km. of mangroves between 2015-2017 - In Sindhudurg, India, 100,000 mangrove saplings planted to rehabilitate 20 ha. Of degraded mangrove area; In 2015, the Maharashtra Remote Sensing Application Centre (MRSAC) in India reported 3,300 hectares of mangrove in Sindhudurg as against 2,000 hectares recorded in 2005.

- Biodiversity inclusive Fisheries Plan for Sindhudurg Coast, India was prepared and under implementation; Square mesh net at the cod end of trawl nets adopted by all (317) trawlers in Sindhudurg District. Inclusion of enabling provisions in the National Forest Working Plan Code for participatory and sustainable management of medicinal plant resources (GEF Project Id: 1156) • Application of Geographic Indicators of Goods Act, 1999 for community benefits (GEF Project Id: 1156) • Establishment of Trust Funds and Foundations (PTCF, GOMBRT, EGREE, MMGF) (GEF Project Ids: 84, 634, 3936, 4242) - Mainstreaming project informed the development of a uniform state Land Use Policy in Nagaland, India with considerations for sustainable *jhum* practises, associated with the principles Participatory Land Use Planning (PLUP)	Section 38V in the Indian Wild Life (Protection) Act, 1972 - Micro-plans for 41 villages in the EGREE Region completed and implemented for strengthening SHGs/Community-Based Organizations (CBOs) in natural resource use and sustainable livelihoods. - Establishment of Tiger Conservation Foundation for 50 Tiger Reserves through inclusion of Section 38V in the Indian Wild Life (Protection) Act, 1972	Sindhudurg enabling generation of a large corpus of funds. - Government of Nagaland, India invested US$ 1 million in scaling-up sustainable jhum cultivation activities, and plans are in place to replicate the lessons learned across the state through an upcoming project supported by the International Fund for Agricultural Development (IFAD)	consideration and enhanced women empowerment (GEF Project Id: 84) - Eco Tourism support to Coringa Tourism Point helped in 16 folds increase in the revenue of Sanctuary, which is again plowed back to management of sanctuary and support community. - Crab farming initiated with 28.5 acres of land in 15 villages and 149 beneficiaries trained in mangrove crab farming in Sindhudurg in India.		- Sustainable jhum cultivation improved vegetation cover by over 2,000 hectares of land in project areas i and brought improvements in land productivity (5% over baseline) (TE) - Nesting habitats of the Olive Ridley Turtle have been protected and data reveals increase in the nesting vs hatching ratio; Three new species of bird and one snake have been recorded in the EGREE region by the project. Also, EGREE region recorded (73-92 number) highest concentration of fishing cats in India.

Table 4: Additionalities Generated by GEF Biodiversity Mainstreaming Projects in South Africa

ADDITIONALITIES GENERATED BY GEF BIODIVERSITY MAINSTREAMING PROJECTS IN SOUTH AFRICA					
Legal/Regulatory Additionality	**Institutional and Governance Additionality**	**Financial Additionality**	**Socio-Economic Additionality**	**Innovation Additionality**	**Environmental**
- South Africa's first NBSAP (2005) was already geared for mainstreaming, and its update (2015) Is accompanied by costing (conducted with the support of BIOFIN) and the finding that mainstreaming is a cost-effective means to protect biodiversity in the country. - The GEF-CEPF provided much of the funding that made biodiversity mainstreaming possible in South Africa. Without this funding, South Africa would not have been able to develop its biodiversity mainstreaming practice to the successful level it has reached today." Source: Manuel, J. et al. (2016), "Key	- In South Africa, SANBI evolved along with the GEF projects it executed. Key developments include the broadening of the legal mandate of SANBI from plants/botany to cover all biodiversity; incorporation of a National Biodiversity Framework. See exemplar 1 on evolution of SANBI. Also project contributions to "changing the rules" in theory of change Source: SA country report - CAPE and ABI's social movement initiated as a result of GEF projects– still active to 2020 and beyond	In SA, through relevant projects, at least US $70 million has been leveraged from private sector partners, and many times more than that which has not been counted e.g. by individual land owners participating in various initiatives private sector co-finance. - Private sector funding for mainstreaming notably via co-financing in the mining,	- External financing encouraged development and equity focus to conservation interventions (source: interviewees for SA country report). International engagement supported outward-looking conservation sector in transformation phase (where had been internationally isolated during Apartheid)	- Practical, valuable and widely used spatial tools such as Critical Biodiversity Area (CBA) maps, Strategic Water Sources Areas (SWSA) mapping, have been developed, and integration of biodiversity layers into Strategic Development Frameworks has been achieved. Source: SA country report. - South Africa's Biodiversity stewardship approach was proven success in the agriculture sector within the CAPE & Grasslands Programmes (SANBI 2014). - In the case of ABI in particular, a strategy came	- Increased protection and better management on private and communal land – the massive footprint of stewardship which covers an area 3 times the size of Kruger National Park - have been developed in just 15 years. Stewardship success also help "make the case" for core investments in the PA estate.

Ingredients, Challenges and Lessons from Biodiversity Mainstreaming in South Africa: People, Products, Process", OECD Environment Working Papers, No. 107, OECD Publishing, Paris. http://dx.doi.org/10.1787/5jlzgj1s4h5h-en - Other examples include the, Agulhas Biodiversity Initiative ABI's experience influenced DEAT Policy on Buffer Zones for National Parks (2009); Draft SANParks Buffer Zones Policy (or Bioregional Landscape Linkage Program); The Department of Agriculture farm planning policy; The Western Cape Spatial Development Framework (Source TE, 2010)	- Successes of the CAPE programme, the South African biodiversity mainstreaming approach was broadened to include policy reform and the integration of biodiversity considerations along entire supply chains within the relevant production sectors (Source, OECD 2016)	agriculture/wine and tourism sectors. - Where GEF projects have ended, efforts have been sustained through core resourcing and ad hoc or highly specific support from domestic and international grant-makers including e.g. DEA's Green Fund, the WWF Nedbank Green Fund, the Leslie Hill Succulent Trust, the European Union, and the Table Mountain Fund Source: SA country report		directly out of the GEF TE (Child 2010). Brian Child is credited for helping the team brainstorm the "5 Cs" which have provided an organizing framework for efforts to continue: •Convening •Communication •Conceptualizing new ways of doing things •Collating data and sharing information – share, bring it back from research •Cash – getting resources to do programs Source: (SA country report; TE – Child 2010) - The BLU project initiated an "EI Challenge Fund" that provides financial support for tangible demonstrations of the EI concept that also support job creation.	Source: SA country report. - GEF projects (AGI, STEP) contributed towards conservation of lowland fynbos and raise awareness of thicket biome's globally important status as a biodiversity 'hotspot' (Source TE; other reports)

Theory of Change, and Monitoring and Evaluation

98. **The GEF´s Theory of Change for mainstreaming biodiversity is validated by the empirical experience of projects and provides a sound conceptual basis for their design and evaluation**. The underlying problems that were identified by the GEF Secretariat in collaboration with GEF partners and internal and external experts– loss of habitat in productive landscapes and seascapes and decline of globally-significant biodiversity outside protected areas – have been addressed with greater attention being given (and resources invested) to biodiversity conservation in production landscapes and seascapes. Practically all of the country project samples consist of initiatives that address threats to biodiversity outside the protected area systems, with most addressing specific sectors – unregulated mining, cattle ranching, coffee cultivation, fisheries, wine production - and associated land uses in targeted regions that contain globally-significant biodiversity. This is consistent with the increased tendency to design biodiversity mainstreaming projects around sectors (to a greater extent than planning or policy), as observed during the GEF -3 to 6 cycles that span a 15+ year period. The ToC is further supported by the correspondence of its expected outcomes with those of the projects that were reviewed: Most of the project outcomes are based on the transformation of productive practices to biodiversity-friendly modalities, mainstreaming the sustainable use of terrestrial and marine resources, and enhanced policy and regulatory frameworks.

99. **Sustainability of the intervention is not prioritized as a mainstreaming project outcome.** There is a disconnect between the prioritizing the sustainability of the project with concomitant financing as a GEF biodiversity mainstreaming outcome, and the limited attention this aspect has received in the project portfolio that were examined. In this respect, ensuring access to PES and other financial or fiscal mechanisms, although not the key factor, plays an important role in encouraging changes in land use, and in production systems, particularly among rural communities that live a in and around biodiversity hotspots and rely on natural resources for their livelihood.

100. **ToC has not been systematically applied in project implementation.** While the GEF´s Theory of Change model for biodiversity mainstreaming is validated by project experiences in diverse contexts, and reflected in programming trends over successive cycles. However, at the project level there are operational questions regarding the compatibility of implementing projects according to causal pathways that involve a more incremental dynamic – with successive outputs feeding into higher levels of the pathway – in relation to established project timeframes and expenditure/delivery pressures. The external assumptions (or “moderators of success”) that are outside the project´s influence, have direct effect on performance and impact, yet are often assumed in project design without a realistic assessment of existence of enabling preconditions, baseline capacity, governance cycles, or the actual time that needed to shape policy and regulatory frameworks or have a measurable impact on biodiversity conservation. Flexible project design and adaptive management, which are recognized as drivers or “features of the project” in the GEF´s ToC model, become essential for the implementation of projects based on their causal pathways and output-outcome linkages. Using the GEF ToC as a reference, complex contextual

conditions and dynamic feedback loops can be better teased for project specific ToC design, and during implementation.

101. **The current monitoring and evaluation framework for GEF biodiversity projects does not appear to focus sufficiently on quantitative measures and on outcomes and impacts.** Conventional project monitoring practices are generally limited in scope to measure changes in habitat quality, forest cover, vegetation productivity, land use, species richness and evenness, or other indicators that offer insight on the state of biodiversity. Longer-term effects are even more difficult to track unless capacities exist at the country level, one technical activities are finished and the budget is closed (usually up to one year after technical closure to capture late expenditures). Final project evaluations are scheduled in advance of technical closure to have access to the executing team. As a result, the mechanisms for tracking the impact – and mainstreaming – of biodiversity conservation efforts over time and space are lacking. Although considerable effort has been invested in the design of M&E frameworks and SMART indicators, project indicators tend to remain qualitative instead of quantitative – with inconsistent baselines that often rely on secondary data or are drawn from sources that apply different criteria and timelines, undermining a reliable tracking of changes over time.

102. **The GEF-7 core indicators[22] and sub-indicators are a move in the right direction but not adequate.** While these hierarchical indicators are more efficient and relevant in line with earlier IEO recommendations (IEO PA Impact Evaluation 2016; OPS-6; LDFA evaluation, 2017), they are not adequate to capture the socio-economic benefits, financial flow, policy and regulatory reforms influenced by GEF interventions. The GEF-7 results framework does not include indicators on financial resources mobilized for biodiversity management, the degree to which sector policies and regulatory frameworks incorporate biodiversity considerations and implement regulations, and the degree to which biodiversity values and ecosystem service values are internalized in development, fiscal policy, land use planning and decision making. The biodiversity mainstreaming indicators heavily rely on qualitative measurements and area estimates. There is also an ambiguity about the requirement on collection of spatially explicit boundary information. In addition, there is a need to measure socio-economic benefits influenced by GEF interventions along with biodiversity-based indicators since the success of mainstreaming projects depend on balancing the trade-offs between socio-economic benefits and environmental impacts.

Recommendations

(1) **Design mainstreaming interventions with a longer-term perspective and a resource envelope to ensure sustainability.** Sustainability of biodiversity mainstreaming depends on programming for multiple phases and accompanied financing as standard project durations are often insufficient to enable ecological change, build baseline capacity, influence institutional mind sets, and change behavior. Mainstreaming interventions, including the most straightforward activities such as spatial and land-use planning, depend on the presence of suitable pre-conditions, and involve iterative processes. While GEF's ToC and the GEF 7- strategy reflects this understanding, agencies should design projects with a

[22] https://www.thegef.org/council-meeting-documents/updated-results-architecture-gef-7-0

longer-term perspective and systematically apply the ToC. Countries should explore sources of innovative financing including private and public sector contributions to support long-term transformation processes that biodiversity mainstreaming interventions require.

(2) **Improve and Strengthen M&E design and implementation.** Indicators at the project and portfolio level should capture environmental, socio-economic, financial and policy and regulatory outcomes to assess performance and for assessing benefits and trade-offs, and for adaptive management. Quantitative measurements of bio-physical and socio-economic impacts are required to complement existing qualitative assessments. Measuring changes in biophysical attributes requires knowledge of the spatially explicit delineated boundaries. IT based solutions can be used to accomplish this based on GEF experience supporting similar initiatives. Biodiversity mainstreaming projects are time-intensive and assessing their outcomes and contributions in terms of incremental transformations presents a major challenge during project lifetime. To some extent, this can be overcome by in-depth assessments at post completion for groups of projects that address common issues and apply comparable approaches, or in countries that have a series of mainstreaming interventions over time.

(3) **The GEF should continue to leverage its convening power to improve policy design and process and strengthen inter-ministerial and inter-sectoral collaboration.** In the context of countries allocating more resources to biodiversity mainstreaming and their evolving priorities, GEF should continue to leverage its convening power to bring together different actors within governments, council members, funders, policy leaders and partners to strengthen the policy process and build capacity. The GEF should work with countries and implementing partners to actively strengthen collaboration across relevant ministries and sectors. While such collaborations enable engagement with a broad range of stakeholders, these partnerships also help address externalities such as market shocks, land tenure insecurity, political discontinuity, conflict, natural disasters and climate change risks.

(4) **Include a systematic analysis of associated benefits and trade-offs in project design.** Project designs should include provisions for systematic analysis of benefits and trade-offs of socio- economic and ecological outcomes, both ex-ante and ex-post, associated with biodiversity mainstreaming interventions. Due consideration should be given to transitional costs and short term socioeconomic trade-offs that may precede benefits.