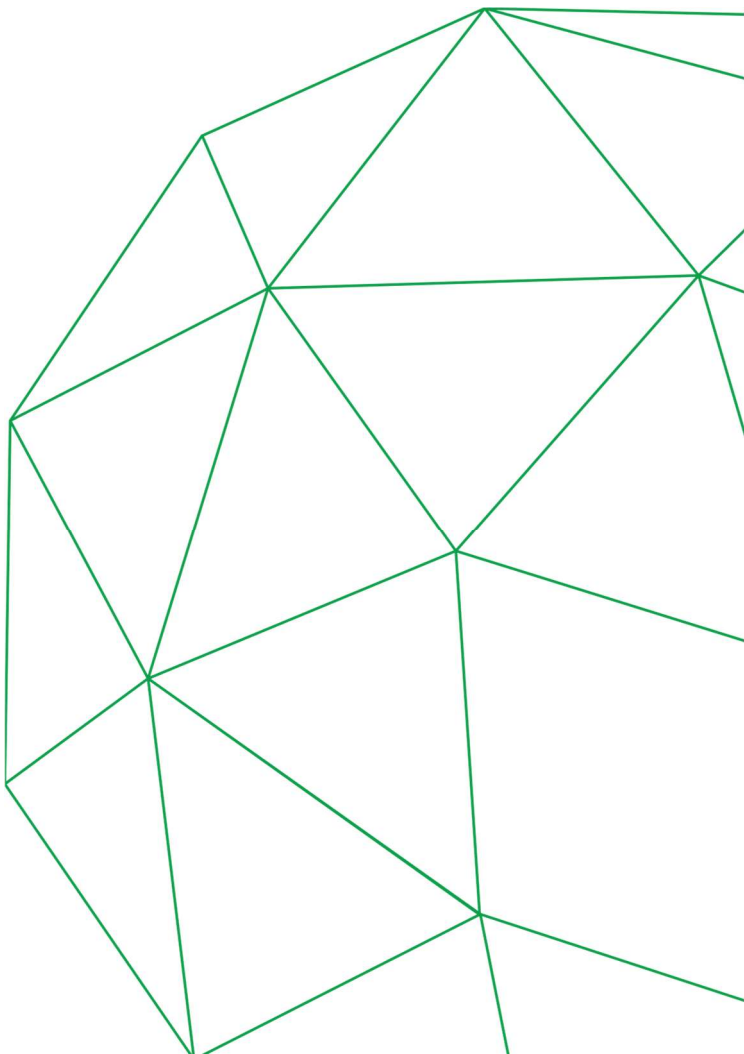
SAP005

Enhanced climate resilience of rural communities in central and north Benin through the implementation of ecosystem-based adaptation in forest and agricultural landscapes

Benin

November 2023

Interim Evaluation Report



This report presents the Interim Evaluation of the Green Climate Fund (GCF)-funded project “Enhanced climate resilience of rural communities in central and north Benin through the implementation of ecosystem-based adaptation in forest and agricultural landscapes”. The evaluation was independently commissioned by the Accredited Entity (AE), UNEP, and submitted to GCF. GCF assumes no responsibility for the accuracy of the information in this report.

This report has been prepared by an external consultant as part of a Mid-Term Evaluation, which is a management-led process to assess performance at the project's mid-point. The UNEP Evaluation Office provides templates and tools to support the Evaluation process. The findings and conclusions expressed herein do not necessarily reflect the views of Member States or the UN Environment Programme Senior Management.

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Alexander Forbes, the UNEP task manager, managed the mid-term evaluation and provided the broader context of the project. He was also a valuable direct line for the evaluator whenever documentation or additional information was needed or questions arose, and thus provided good guidance and logistical support to the evaluation team during the evaluation process.
The national project management unit, headed by the Project Coordinator, Mr. Pascal Lahamy, and supervised by Prof. Martin Aina, Director for the Directorate for Environment and Climate of the Ministry, and National Project Director were good in supporting the evaluation team, sharing their experiences and insights. The Project Technical Advisor, Ms. Lowine Hill, was valuable in sharing her experience with the project and being supportive in providing the necessary documentation. All technical experts engaged in the mid-term evaluation provided valuable input into each of their areas of expertise, roles, and responsibilities in the project. All members of the Project Steering Committee consulted shared their views and experiences with the project as well as its importance and relevance to the overall national goals and objectives of the country.
The evaluation team was able to visit project sites in Djougou, Ouaké, Tchaourou and Banikoara municipalities, accompanied by the Project Coordinator and the Project Monitoring and Evaluation specialist, which offered detailed insight into the implementation of activities on the ground. At municipality level, the evaluation team wish to thank all members of the project Commune Monitoring Units.
The MTE team benefited from the Results Verification Mission report conducted in June and July 2023.
All stakeholders, including local communities, farmers, cooperatives, and women's groups are thanked for sharing their views and opinions on the progress, achievements and challenges of the project and their recommendations for the remaining implementation period. The evaluation team hope that the findings of this mid-term evaluation will support the project team and all key stakeholders in successfully achieving the set targets and provides actionable recommendations to enhance lasting impact.

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ABOUT THE EVALUATION TEAM

Olivier Beucher is a designer, monitor and evaluator of international development projects and programmes. Olivier is a Results-Based Management, Monitoring & Evaluation and Logical Framework Analysis specialist with expertise in these areas with many bilateral agencies and international institutions. He is also an agriculture and environment specialist, with particular expertise in rural development, sustainable land management, conservation agriculture/organic farming, food security, climate change (adaptation, mitigation, climate finance), biodiversity conservation, multilateral environmental conventions and sustainable energy.

Manon Bastin-Héline is a biological engineer specialized in conservation and management of natural and forest ecosystems in international contexts. Within Le Groupe Conseil Baastel, she dedicates herself to consultancy missions on environmental topics in developing and emerging countries. Her expertise focuses on design, monitoring and evaluation of projects and programmes in the areas of nature conservation, sustainable resource management, ecosystem-based adaptation and nature-based solutions for international and bilateral institutions as well as for NGOs.

Paul Onibon is an agronomist engineer having more than 25 years of experience in supporting agricultural and rural development programs, in conjunction with local communities, inter-communities and public services, under funding from various technical and financial partners; in particular in the areas of agricultural and livestock sectors, studies of livestock systems, agropastoral developments and management of agropastoral resources, association of agriculture and livestock, national and cross-border transhumance, training in animal health, biosafety.

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ACRONYMS

AE	Accredited Entity
APMF	Adaptation Performance Measures Framework
APR	Annual Performance Report
ATDA	Territorial Agricultural Development Agency
AWP	Annual Work Plans
CCeC	Chef Cellule Communale
CCIB	Benin Chamber of Trade and Industry
CCeC	Chef Cellule Communale of the Territorial Agricultural Development Agency
CCS	Commune Monitoring Units
CFMC	Community Forest Management Committees
CMU	Commune Monitoring Units
CNCC	National Climate Change Committee
CSA	Climate-Smart Agriculture
CTA	Chief Technical Advisor
CTAF	Cellule Technique d'Aménagement Forestier
DGEC	Direction Générale de l'Environnement et du Climat
DG EFC	Direction Générale des Eaux, Forêts et Chasse
DPV	Direction Production Végétale
DQIFE	Direction de la Qualité, de l'Information et de la formation entrepreneuriale
EbA	Ecosystem-based Adaptation
EBAFOSA	Ecosystem Based Adaptation for Food Security Assembly
EE	Executing Entity
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Impact Management Plan
ESSGS	Environmental and Social Safeguards and Gender Specialist
FNEC	Fonds National pour l'Environnement et le Climat
FP	Funding Proposal
GAP	Gender Action Plan
GCF	Green Climate Fund
ICRAF	International Center for Research in Agroforesty
INRAB	National Institute for Agricultural Research in Benin
LORTA	Learning-Oriented Real-Time Impact Assessment
M&E	Monitoring & Evaluation
MAEP	Ministère de l'Agriculture, de l'Elevage et des Peches
MCVT	Ministère du Cadre de Vie et des Transports
MEM	Ministère de l'Elevage et des Mines

Meteo Benin	Benin's National Meteorological Agency
MPD	Ministère du Plan et du Développement
MTE	Mid-Term Evaluation
MTS	Medium-Term Strategy
NAPA	National Adaptation Programme of Action
NAP	National Adaptation Plan
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NPC	National Project Coordinator
NPD	National Project Director
NPMU	National Project Management Unit
NPSC	National Project Steering Committee
NTFP	Non-Timber Forest Product
OSN	Ouémé Superieur N'Dali classified forest
PABE	Projet d'Adaptation Basée sur les Ecosystèmes
PFS	Pre-feasibility study
PNOPPA	Plateforme Nationale des Organisations Paysannes et de Producteurs Agricoles du Bénin - National Platform of Farmers' and Agricultural Producers' Organizations of Benin
PoW	Program of Work
RF	Results Frameworks
RSE	Monitoring & Evaluation specialist
RVE	Results Verification Exercise
SDG	Sustainable Development Goals
SEAP	Social and Environmental Action Plan
SEP	Stakeholder Engagement Plan
SFP	Sustainable Forestry Practices
SLCGF	Structure Locale de Co-Gestion Forestière - Community Forest Management Committee
SO	Strategic objectives
ToR	Terms of Reference
ToC	Theory of Change
UNEP	United Nations Environment Programme

PROJECT SUMMARY TABLE

UNEP PIMS/SMA[1] ID:	SAP005		
Donor ID:	GCF		
Implementing Partners:	Direction Générale de l'Environnement et du Climat (DGEC), Ministère du Cadre de Vie et des transports (MCVTT) (Directorate General for Environment and Climate of the Ministry of Livelihoods and Sustainable Development)		
SDG(s) and indicator(s):	13, a.1 and b.1; 15, 1.1, 2.1, 3.1; contribute #2, 4.1		
Sub-Programme:	Climate Action	**Expected Accomplishment(s):**	Outcomes 1 and 2
UNEP approval date:		**Programme of Work Output(s):**	Climate Action Subprogramme : Indicators (i) and (ii)
Expected start date:	27 Aug 2019	**Actual start date:**	25 Nov 2019
Planned operational completion date:	24/05/2024	**Actual operational completion date:**	To be determined
Planned total project budget at approval (show breakdown of individual sources/grants):	US$ 9,000,000	**Actual total expenditures reported as of 31 Dec 2022:**	US$ 2,237,256
Expected co-financing:	US$ 1,000,000	**Secured co-financing[2]:**	277,037
First disbursement:	20/01/2020 (request)	**Planned date of financial closure:**	24/11/2024
No. of project revisions:	1	**Date of last approved project revision:**	June 2023
No. of Steering Committee meetings:	7	**Date of last/next Steering Committee meeting:**	Last: Nov 2023 / Next: Jan 2024
Mid-term Review/Evaluation *(planned date)*[3]:	July / Aug 2022	**Mid-term Review/Evaluation (actual date):**	July/Aug 2023
Terminal Evaluation/Review *(planned date):*	July/Aug 2024	**Terminal Evaluation/Review (actual date):**	To be determined
Coverage - Country(ies):	Benin	**Coverage - Region(s):**	-
Dates of previous project phases:	N/A	**Status of future project phases:**	To be determined

[1] Acronym for ID assigned by the Integrated Planning, Monitoring and Reporting (IPMR) system.
[2] State whether co-financing amounts are cash or in-kind.
[3] UNEP policies require projects with planned implementation periods of 4 or more years to have a mid-point assessment of performance. For projects under 4 years, this should be marked as N/A.

EXECUTIVE SUMMARY

Project overview

1. The project "Enhanced climate resilience of rural communities in Central and North Benin through the implementation of ecosystem-based adaptation (EbA) in forest and agricultural landscapes" is funded by the Green Climate Fund through a USD 9 million grant as well as USD 1 million from the Government of Benin in co-financing. The Funded Activity Agreement became effective for five years on 25th November 2019 and actual project launch took place on 21st September 2020 with an expected completion in August 2024.
2. The project seeks to break the destructive cycle of climate change, declining agricultural yields, and natural resource degradation. It aims to enhance local community climate resilience through an Ecosystem-based Adaptation approach, combining climate-resilient agriculture and the restoration of degraded forest ecosystems. The project consists of three components:
    - Component 1: Forest restoration to provide ecosystem goods and services for climate change adaptation;
    - Component 2: Increased agricultural productivity to secure livelihoods in the face of climate change:
    - Component 3: Strengthened capacity and awareness to implement EbA and climate-resilient agriculture
3. The project is implemented by the United Nations Environment Programme (AE) and executed by Benin's Ministry for Livelihoods and Transport. It is implemented in seven municipalities of Central and North Benin: Bakou (Djougou), Beterou (Tchaourou),

Salangawa (Ouaké), Katenga (Boukoumbe), Didani (Cobly), Deroubou (Banikoara), Betecoucou (Dassa).

Review objectives and scope

4. The midterm evaluation (MTE) was conducted from August to October 2023 with the objective to provide evidence of results to meet accountability requirements, and to promote operational improvement, learning and knowledge sharing through results and lessons learned among United Nations Environment Programme and implementing partners.
5. Following the validation of the final version of the present report, UNEP (AE) will share it with the project team, the Ministry for Livelihoods and Transport and member of the project steering committee. A management response to the report's recommendations will be prepared by the Ministry and UNEP and the actions contained in the response will be integrated into the project's intervention strategy (Results framework, staffing and organisation, workplan and budget, monitoring system) with an aim of overcoming project shortcomings, maximizing those aspects performing well, and ensuring successful achievement of the project's intended outcomes. Any revisions to the implementation strategy will be subject to approval by the project steering committee, the Ministry and UNEP. UNEP (AE) will submit the revisions captured in proposed revisions to the Funded Activity Agreement (FAA) for approval by the GCF.
6. The MTE assessed the project performance from implementation start until September 2023.The MTE assessed the project's performance along the following evaluation criteria: (i) strategic relevance; (ii) quality and revision of the project design; (iii) effectiveness; (iv) financial management; (v) efficiency; (vi) monitoring and reporting; (vi) sustainability; and (vii) factors affecting project performance.A field mission was conducted on September 11th – 17th, 2023 and included on-site visits in four municipalities where the project is being implemented: Tchaourou, Djougou, Ouaké and Banikoara. After the field mission, data collection was completed with remote interviews. The MTE was preceded by a Results Verification Exercise (RVE) in June and July 2023 which undertook an extensive results verification assessment including consultations with project beneficiaries and stakeholders in all project sites. The scheduling of the MTE in September 2023 enabled the evaluators to draw on the MTE information and engage with the beneficiaries and stakeholders. The scheduling of the MTE soon after the RVE was positively commented on by the project team and some stakeholders. Overall, the sample of persons met in person or virtually interviewed by the MTE and the sites visited provides a good overview of the project's interventions and a representation of stakeholders' opinion of the project.

Key findings

Strategic relevance

7. The PABE project exhibits a robust alignment with UNEP's strategic frameworks, specifically the Program of Work for 2018-2019 and 2022-2023, as well as the Medium-Term Strategy for 2018-2021 and 2022-2025. Developed between 2017 and 2019, the project has consistently contributed to UNEP's objectives in the areas of climate change and nature conservation. Moreover, the PABE project is in line with the Green Climate Fund's strategic priorities for the 2020-2023 programming period, aiming to promote low-emission and climate-resilient development pathways. The project document also aims to fulfill GCF's strategic priorities and aligns with GCF performance criteria. Contribution to the Sustainable Development Goals is highlighted, with potential impacts on poverty reduction, food security, climate action, and the sustainable use of terrestrial ecosystems.
8. At national and sub-national levels, PABE is well-integrated into Benin's policies, laws and strategies for development and environmental management. It aligns with key documents such as the Forest Law n°93-009 of 1993 or Benin's National Adaptation Plan, Nationally Determined Contribution, as well as the Strategic Plan for the Development of the Agricultural Sector.
9. The project's response to local needs is comprehensive, addressing issues such as decreased agricultural productivity, deforestation and climate variability. It emphasizes gender considerations, aligning with women's needs and promoting income-generating activities. The communication component underlines the importance of raising awareness about climate change and ecosystem-based adaptation (EbA) at the local level.
10. With respect to coordination with other initiatives, the project established some successful collaborations with various projects and organizations, such as the World Bank's Classified Forests Project. However, overall, the coordination efforts are seen as mixed. In fact, there is a recognized need for improvement in the formal coordination mechanisms initiated by the PABE project itself. At the national level, existing mechanisms, such as the National Project Director's role as the GCF National Designated Authority and the bi-annual National Project Steering Committee (NPSC) meetings, theoretically provide opportunities for coordination and synergy creation. However, there is limited concrete evidence of significant synergies being realized through these channels so far.

Quality of the project design

11. The main strengths of the project design are: a well-organized funding proposal and detailed annexes; a comprehensive strategy including policy, governance, scientific capacity building, and climate change delivery through Ecosystem-based Adaptation ; the promotion of a community and gender-sensitive approach; a clear description of institutional arrangements, financial management and procurement plan.

12. The main weaknesses of the project are: the underestimation of the deforestation pressure in the Oueme N'dali Classified Forest; the lack of an initial assessment of the national institutional capacities to implement this kind of integrated project; the absence of local representation of the project at the commune level in the project implementation arrangements; the unavailability of a French version of the project document that is faithful to the English version.
13. Major changes which occurred on the project design are: the project steering committee composition, the reforestation technique used, the setup of additional project monitoring units at commune level.

Effectiveness

14. The project's Theory of Change remained relevant throughout the project implementation, as it has not been revised since the start of the project. In fact, the diagram is adequate but lacks identifiable causal pathways guiding to a paradigm shift. The strategy aligns with UNEP, GCF, and national priorities but may have overestimated the national capacities to implement this kind of ambitious, integrated and multi-scalar approach.
15. Despite delays caused by the COVID-19 pandemic and disbursement issues in 2022, the project has made progress on various outputs, in particular on Component 1 – Output 1.1 (development of forest management plans and establishment of community forest management committees); Output 1.2 (Land reforested to buffer against the impacts of climate change); and Component 2 - Output 2.1 (agricultural productivity); and Outputs 2.2 (Market access created). Notable achievements under those two components include the preparation of 7 community management plans, the establishment or support to 7local forest committees, the reforestation of 536 ha of land, the installation of 80 soya demonstration plots and the support to 15 women-led processing cooperatives. Main challenges identified by the MTE under Component 1 consist in the completeness, including cartographic data, and implementation of community management plans; the capacity of local forest committees to ensure their mission; the low survival rate of planted seedlings (estimated between 44% and 100%) and the use of monoculture and exotic species for reforestation, raising questions on its alignment with EbA principles. Under Component 2, the EbA character of the agriculture activities implemented within the framework of PABE is also questionable as very few climate-smart agriculture practices were explored and the project focused on inoculated soya as its central adaptation strategy.
16. Activities under Component 3 only started in 2023. While mid-term targets have not been met, progress has been noted in strengthening national and sub-national capacities around ecosystem-based adaptation, Climate-Smart Agriculture, and

Sustainable Forest Practices. In the remainder of the project, communication efforts will be bolstered through the hiring of a communication officer.

Fund level Impacts

17. Indicator A7: The project has progressed to Level 2 in mainstreaming Ecosystem-based Adaptation at national and sub-national levels. Gaps in national laws and policies are now recognized. Before the end, the project, supported by ICRAF, aims to reach Level 5, though achieving this by the project's end is questioned. The absence of a planned weather early warning system impedes a full assessment of agricultural practices' uptake based on climate information advisories.
18. Indicator A1.2: As of September 2023, the data indicates that 11,930 individuals, with 46.5% being women, have benefitted from the adoption of diversified, climate-resilient livelihood options. The mid-term target seems to be achieved quantitatively. However, a more qualitative assessment questions the actual "adoption" of climate-resilient livelihood options as well as the Ecosystem-based Adaptation character of the promoted crop and related agricultural technique.
19. Indicator A4.1: The latest data from the Mid-Term Evaluation indicates that 536 hectares of forest have been restored, falling short of the 1,200-hectare target. The project shifted from the planned "enrichment" to the more expensive "open field" reforestation technique, contributing to the incomplete target achievement. In this framework, the chosen monoculture of exotic teak trees in the two classified forests, covering 488 hectares brings less adaptation and ecosystem benefits in comparison to mixed-species reforestation. In addition, the survival rate of planted seedlings is currently insufficient, strongly limiting the related potential for improvement of ecosystem resilience and services.
20. *Impact*: The proposed adaptation solutions based on agriculture and forestry are designed to enhance adaptation capacities and ecosystem resilience. However, the project has faced delays in its workplan and delivery of outputs, and not all physical achievements align with the intended EbA interventions. In addition, the evaluator raises concerns about the coordination and links between the project's three components. To address this, the project is supported by the International Center for Agroforestry in assessing the project's impact on the ground using the Learning-Oriented Real-Time Impact Assessment methodology. In this context, while acknowledging that the project may have positively impacted numerous beneficiaries, the evaluator suggests that the current resilience increase for ecosystems and local populations may be lower than intended.
21. *Paradigm shift*: The project's potential for a paradigm shift lies in introducing and implementing Ecosystem-based Adaptation (EbA) concepts across stakeholders and governance levels in Benin. However, the project's success in popularizing and implementing EbA approaches is moderate, and the uptake of ecosystem-based

adaptation and climate-resilient agriculture practices in managing forests and agricultural landscapes is limited. Satisfactory results were observed assessing the Sustainable Development; Needs of the recipient; and Country Ownership investment criteria.

22. The project management team demonstrated adaptive management including implementing part of the National Project Steering Committee recommendations. However, some members expressed concern that the NPMU inadequately considered and monitored some of their advice.

Financial management

23. As of July 2023, three GCF disbursements to UNEP have occurred and the project executed approximately 27% of the total grant. Budget execution has been slow, with a total spending equivalent to two years of the original schedule as of September 2023. Financial management issues, such as COVID-related delays, disbursement delays in 2022, and procurement challenges affected the project execution. Regarding co-financing, the government of Benin committed funds, but actual disbursements lag behind the plan.

Efficiency

24. The project's cost-effectiveness is considered acceptable although major delays in implementation resulted in a disconnect between the planned and actual implementation costs.
25. Project team members remained mostly unchanged since the project launch, with efficient collaboration within the team. However, concerns were raised about the project coordinator's performance, leading his dismissal in September 2023. On the other hand, at commune level, monitoring units lack engagement and empowerment.
26. The project faced challenges with the cost effectiveness of external consultants due to the poor quality of work done by national experts. Missed cost-saving opportunities were identified during the MTE, including outsourcing some tasks that could have been supported by in-house institutions. INRAB's failure to supply soya seeds in 2023, doubts about drought sensitivity of INRAB-provided seedlings and the cost of ICRAF's contracts raised concerns about the overall cost-effectiveness of the project's partnership approach and expertise management. In this context, reevaluation of strategies, particularly for implementing the EbA approach, may be necessary.
27. Overall, the performance of the service providers engaged by the project for field activities is low. First, as they operated from various locations, the chosen implementation structure was deemed inadequate and the lack of local presence resulted in challenges, including travel costs and limited engagement with local communities. Moreover, their responsibility for low output performance, particularly in tree survival rates, was acknowledged by project stakeholders. Possible reasons include poor seedling quality and inadequate field preparation. Finally, the absence

of a clear mention to EbA principles in their contracts highlighted the insufficient consideration given to ecological and adaptation benefits of their intervention.

28. Stakeholder engagement in the project is unequal. Whereas municipalities participated in project design, final beneficiaries had inconsistent involvement with some cooperatives engaged early and others receiving support without prior engagement. Overall, community resistance and a lack of ownership in reforestation activities seems to indicate an insufficient community participation and buy in.
29. Strategies implemented to enhance cost- and time-effectiveness include the hiring of a Chief Technical Advisor, making payments to service providers conditional on tree survival rates and increasing monitoring and planning efforts for procurements and activities.

Monitoring and reporting

30. The results framework includes fund-level outcomes, project outputs, indicators, and targets. While most indicators are SMART, challenges arise in informing some of them, such as measuring the extent of beneficiaries' adoption of climate-resilient livelihood options. The project team sought ICRAF's support for a baseline study using the GCF Learning-Oriented Real-Time Impact Assessment (LORTA) methodology, assessing various criteria related to the project's impact. This report, although of good quality, was finalized late in project implementation. Completed in March 2023, it proposes a revised results framework and monitoring plan, that will be submitted for validation to GCF and UNEP.
31. Following the project monitoring and evaluation manual developed in the early stages of the implementation, the implementation partners meet regularly and the project reports to UNEP, NPSC, and GCF, following standardized templates. Complying with a recommendation of the NPSC, the monitoring system at commune level was revised in 2023 to introduce the Kobocollect tool which will allow a real-time monitoring of the project's progress.
32. In terms of reporting, the annual performance reports are generally satisfactory. However, the national steering committee expressed concerns about the quality and timeliness of some of project reports, acknowledging some improvements since notification however. In addition, inconsistencies were noted between commune monitoring reports and actual results, requiring regular field visits by the project team for verification.

Sustainability

33. The funding proposal included an exit strategy that identifies the main elements of the project sustainability. However, the roles and responsibilities of key stakeholders are not clearly defined. Similarly, although some opportunities for replication are listed, risk probabilities are underestimated, and mitigation measures are incomplete. The exit strategy will be updated in the remainder of the project.

34. The project is facing challenges in achieving its sustainability goals, particularly in managing identified risks and implementing effective mitigation measures as prescribed in the Risk Assessment and Management plan developed at project design. Key concerns include inadequate Ecosystem-based Adaptation implementation and insufficient involvement of local stakeholders, including women, in all activities related to forestry.
35. Under Outcome 1, the development of forest management plans contributes to sustainability, but challenges include inadequate involvement of external contractors, significant seedling mortality rate, insufficient operationality of local forest management committees, lack of community ownership of reforestation activities. The sustainability is further endangered by the uncertain securing of land tenure due to limited available land and legal complexities of formalizing community usufruct over the planted orchards.
36. Outcome 2 shows progress in soya productivity, but the lack of understanding of climate-smart agriculture and EbA approaches puts farmers resilience to climate change at risk. Other challenges include farmers not fully reinvesting benefits in climate-resilient crops, insufficient equipment provision, and the need for additional trainings for women in processing raw agricultural products.
37. Outcome 3 plans the establishment of a Knowledge Hub, which seems promising in terms of sustainable knowledge sharing of the project results, but the current unavailability of the ministry of Livelihoods and Transport's website and the limited development of knowledge sharing products to date are important challenges that will need to be overcome in the next months.
38. The project's replication and scalability relies on effective risk management. While some mitigation measures are incomplete, there are noteworthy practices supporting replication, such as soya demonstration plots and knowledge-sharing among cooperatives. Replicability potential also exists in reforestation activities and the adoption of the Early Warning System for agriculture, but sustained efforts are required to effectively implement these components of the strategy before the project phases out.

Conclusions

Overall, the project's rate and quality of delivery of activities to achieve outputs and outcomes is deemed Moderately Satisfactory. Whilst the NPMU, UNEP and part of the implementation stakeholders were found to be committed and motivated, the project experienced several external and internal challenges that strongly impacted the performance of the project and led to failure to achieve most of the mid-term targets. The midterm evaluation has come to the following key conclusions:

Likelihood of impact and paradigm shift

Conclusion 1: The project's mid-term target of total beneficiaries is met; however the sustainable adoption of climate-resilient livelihood options is not yet demonstrated (A1).
Conclusion 2: Reforestation is challenged by many issues that require careful planning and target may not be reached (A4).
Conclusion 3: The ongoing deforestation pressure impacting the project intervention areas was underestimated at project design and imposed significant changes in the project reforestation strategy (A4).
Conclusion 4: The project experiences significant challenges securing land for reforestation (A4).
Conclusion 5: Cashew and Gmelinea seedlings provided by INRAB under the recommendation of the MEAP were described as being more sensitive to local drought conditions than native ones (A4).
Conclusion 6: The low survival rate of the tree seedlings is a major concern for the project current effectiveness but also long-term sustainability (A4).
Conclusion 7: The mainstreaming of the EbA concept in key policies and sector planning and the uptake of agricultural practices based on climate information advisories by households have made headways but efforts need to be sustained to ensure that end-of-project results are reached before the project phases out (A7).
Conclusion 8: The Knowledge hub has a great potential to promote paradigm shift but activities related to setting up the platform have made little progress to date (A7).
Project main strengths
Conclusion 9: At project design, the principles and related approaches of the proposed strategy successfully responded to GCF, UNEP, national priorities and local needs.
Conclusion 10: Despite the difficulties encountered during implementation, PABE has made some progress on several outputs and outcomes.
Conclusion 11: The project achievements can be mainly attributed to the serious commitment of the NPMU and UNEP supporting staff.
Conclusion 12: Some of the project's results already support its long-term sustainability but efforts will have to be maintained to ensure the development and implementation of a proper sustainability strategy.
Project main weaknesses
Conclusion 13: The coordination and connectivity between the three components of the project is insufficiently demonstrated.
Conclusion 14: The implementation phase did not address shortcomings in national, sub-national and community capacities which negatively affected the project implementation and successful delivery of outputs and outcomes.
Conclusion 15: The EbA options and principles proposed in the FP have not been adequately implemented on the ground, either in restoration measures or in agricultural activities. Under these conditions, adaptation benefits and resilience potential are not sufficiently secured.
Conclusion 16: Gender considerations were included both at project design and during implementation. Looking at the pool of total beneficiaries, the gender balance objective is almost reached, but it is not the case at output level.
Conclusion 17: As many activities of the project logical framework have only just begun or have not even started yet, and the sustainability of the project results beyond its

lifespan has not been sufficiently secured at the operational mid-stage, the project would need more time than currently allocated to deliver the expected results.

Recommendations

Based on the discussions in the different sections, the mid-term evaluation has the following recommendations:

Recommendations
Recommendation 1: Revise the project implementation structure to enhance implementation, monitoring efficiency and ownership at the commune level.
Recommendation 2: Intensify efforts in training, awareness and capacity development on the EbA approach in Benin.
Recommendation 3: Considering the difficulties reported by the MTE for achieving component 1, clarify the project's strategy for land restoration and reforestation.
Recommendation 4: Optimize the mobilization and management of the expertise made available to the project.
Recommendation 5: Update and revise the project logical and M&E frameworks.
Recommendation 6: Promote EbA as a sustainable livelihoods approach and ensure that all activities are initiated/completed in accordance with the overall project strategy.
Recommendation 7: Enhance risk management.
Recommendation 8: Consider moving forward with a no-cost extension of at least 22 months (from August 2024 to June 2026, operational end by March 2026).

pROJECT OVERVIEw

39. The project "Enhanced climate resilience of rural communities in Central and North Benin through the implementation of ecosystem-based adaptation (EbA) in forest and agricultural landscapes" (SAP005), also called "PABE[4]" was approved by the Green Climate Fund (GCF) for a planned period of five years in February 2019. The funded activity agreement was signed in August 2019. The actual project launch was in November 2019 and the National Project Management Unit (NPMU) staff was recruited in March 2020. The project is funded through a 9,000,000 USD grant from the GCF and complemented with 1,000,000 USD co-financing from the Government of Benin. The Accredited Entity (AE) is the United Nations Environment Programme (UNEP). The Government of Benin, through the General Directorate for Environment and Climate (Direction Générale Environnement et Climat, DGEC[5]) of the Ministry of Livelihoods and Sustainable Development (Ministère du Cadre de Vie et des Transports, MCVT) is the Executing Entity (EE).

Context

40. Benin is one of the least developed countries in the world[6]. Ranking 166th out of the 191 countries in terms of Human development Index[7], most of the rapidly growing population lives in rural areas, from rainfed agriculture. Benin's climate is influenced by three climate zones characterized by respectively negative and positive temperature and precipitation gradients from North to South. While the South of the country experiences two rainy seasons per year, Central and North Benin only have one.
41. Against this backdrop, Benin is facing changes in temperature and rainfall patterns: i) an increase in mean annual temperature; ii) a reduced number of days per year with precipitation; and iii) an increased frequency and intensity of extreme weather events such as droughts and floods. Furthermore, climate projections in the country indicate that these trends are expected to further continue and escalate in the coming decades leading to increased occurrence and intensity of extreme events (drought, floods) and intensified inter-annual precipitation variability. These climate hazards are projected to result in *inter alia* desiccation of soils, damage to forest ecosystems and reduced groundwater resources, entailing reduced agricultural productivity and

[4] Project d'Adaptation Basée sur les Ecosystèmes
[5] Letters of acronyms from Beninese organizations will be kept in their French order.
[6] Anon., 2023. List of LDCs | Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States [online].Available from: https://www.un.org/ohrlls/content/list-ldcs [Accessed 8 Aug 2023].
[7] UNDP, 2021. Human Development Insights - Benin [online]. Human Development Reports. United Nations. Available from: https://hdr.undp.org/data-center/country-insights [Accessed 3 Aug 2023].

decreased forest capacities in providing essential ecosystem services, thereby increasing food insecurity and climate vulnerability.

42. Although the government of Benin has a long history of commitment and dedication in addressing climate change (policy revisions, investments in climate-related research areas, implementation of initiatives that focus on promoting climate-resilient and sustainable natural resource practices), in practice, the national response struggles in implementing an integrated, coordinated and cross-cutting adaptation approach. In fact, limited information about nature-based adaptation solutions - such as Climate-Smart Agriculture (CSA) and Sustainable Forestry Practices (SFP) is available to inform policies and plans. In this context, Ecosystem-based Adaptation (EbA) is an innovative concept within Beninese authorities at national and decentralized level.
43. At commune level, forest management is hampered by a lack of financial, technical and human capacity to develop management plans, enforce forest laws and support communities to achieve sustainable forest management.
44. Finally, despite an increasing recognition of climate change impacts at community level, local populations lack capacities in terms of resource and knowledge to implement efficient and sustainable adaptation solutions. In addition, according to the funding proposal, they increasingly use natural resources including forest resources to tackle soil productivity reduction as well as intensifying poverty. Although forest management plans are increasingly recognized as being an effective tool for managing forest resources in Benin, many communities – including the seven target municipalities – either do not have forest management plans or the existing plans are not neither sufficiently enforced nor comprehensive enough to address climate change. On top of that, the environmental role and socio-economic benefits of healthy ecosystems and productive landscapes to buffer and mitigate the damaging effects of climate change are not sufficiently recognised. Pushed by basic needs, widespread poverty and a general lack of economic opportunities, communities pursue harmful practices on their environment: clearing forests for agriculture, using chemicals and unsustainably consuming forest resources.
45. The issues raised in the funding proposal (FP) and projected to be addressed by the project are still applicable to the context of the Mid-Term Evaluation (MTE) including:
    - Climate change hazards as described in paragraph 3 and related impacts on water resources, agriculture and forest ecosystems;
    - Barriers:
        - Limited knowledge about climate change impacts on agricultural and forest landscapes and effective adaptation interventions;
        - Limited capacity in the government and local communities to implement EbA and climate-resilient agriculture;

    - Limited investments in community forest management and climate-resilient agriculture
- Threats to ecosystems that are necessary to adaptation: intense deforestation, unsustainable natural resources and land management, harmful agricultural practices;
- Root causes: widespread poverty, lack of economic opportunities, demographic growth.

Project description

46. This GCF-funded project aims to halt the vicious negative cycle of climate change, agricultural yield depletion and natural resource degradation in Central and Northern Benin and in so doing build the climate resilience of local communities. This is planned to be achieved using an Ecosystem-based Adaptation approach integrating climate-resilient agricultural practices with the tailored restoration of degraded forest ecosystems. This objective will be carried out through the following three components:
    - Component 1: Forest restoration to provide ecosystem goods and services for climate change adaptation;
    - Component 2: Increased agricultural productivity to secure livelihoods in the face of climate change:
    - Component 3: Strengthened capacity and awareness to implement EbA and climate-resilient agriculture
47. As presented in Figure 1-left, the project is implemented in seven municipalities of Central and North Benin including:
    - Ouémé Superieur N'Dali (OSN) classified forest, 2 management units
        - Bakou in Djougou commune and Donga department;
        - Beterou in Tchaourou commune and Borgou department;
    - Protected forests:
        - Salangawa community forest (Ouaké municipality, Donga);
        - Katenga community forest (Boukoumbe, Atacora);
        - Didani community forest (Cobly municipality, Atacora);
        - Deroubou community forest (Banikoara municipality, Alibori)
        - Betecoucou community forest (Dassa municipality, Collines);

    Figure 1-right shows the degree of vulnerability of the chosen municipalities along the climate vulnerability index set at project design, based on national and global datasets.

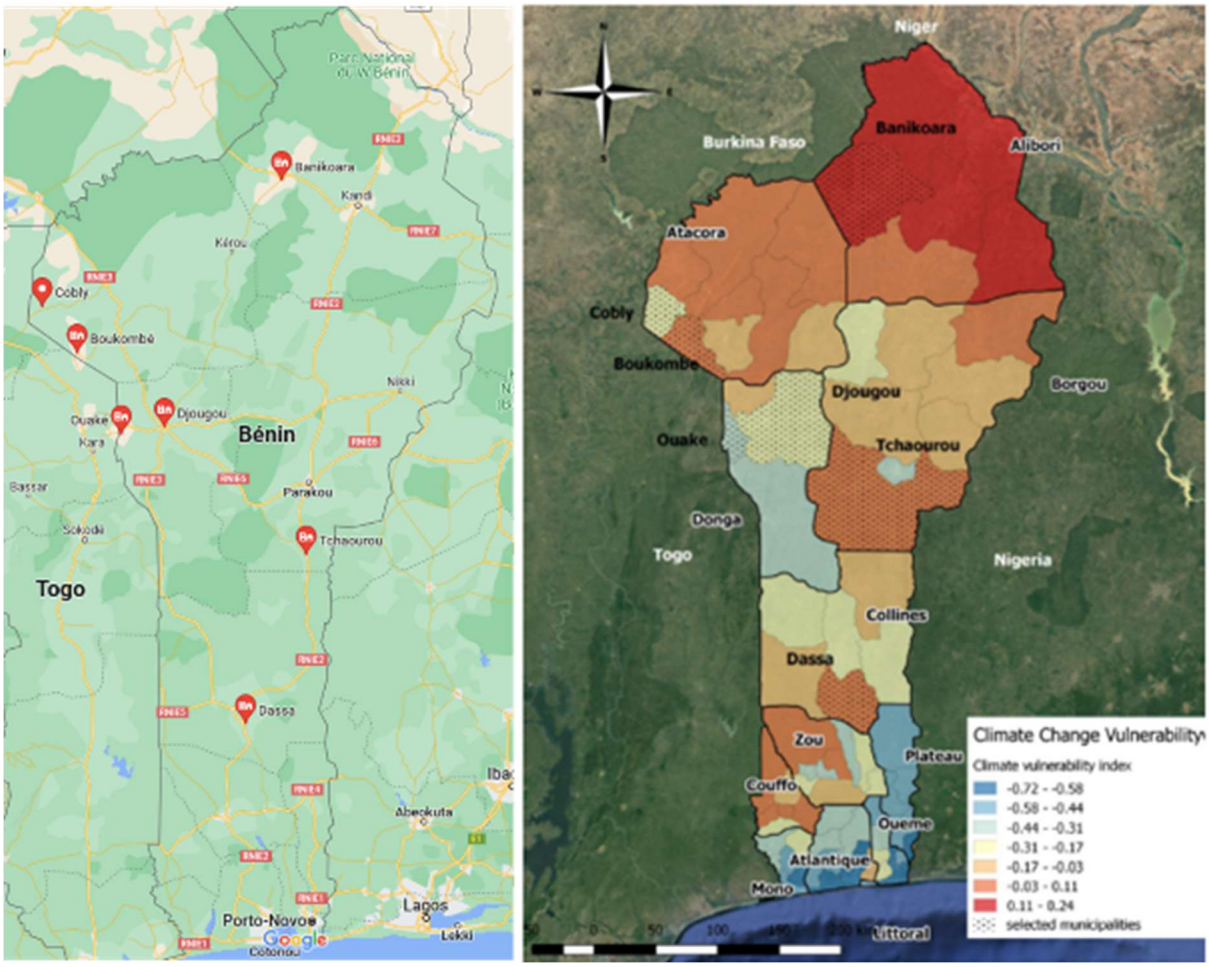


Figure 1: Map of Benin, i) showing locations of PABE-EbA pilot sites (left, source: Google Maps) and ii) the degree of vulnerability of the chosen municipalities (right, source: Funding proposal)

48. The project theory of change developed in the Pre-Feasibility Study (PFS) annexed to the funding proposal was not modified during project implementation. The diagram is available in Annex 1: Theory of change. This strategic element will be further described and commented in section 0.
49. The detailed project's results framework is presented in Annex 2: Results framework. The RF presents outcomes, outputs, indicators, mid-term and end-of-term targets as well as the related means of verifications. In 2023, supported by ICRAF, PABE finalized a draft updated version of the RF (that is not implemented yet in the project monitoring and evaluation (M&E) framework. If the RF indicators and targets need to be updated, this will require approval from the GCF and an updated Legal agreement between GCF and UNEP. These elements will be further analysed in section 0.

Institutional context and implementation structure

50. UNEP is the Accredited Entity responsible for project implementation. The Climate Change Adaptation Unit of the Nature for Climate Branch of the Ecosystems Division is the responsible UNEP entity. Within the team, the project is supervised by the Task

Manager and supported by the Adaptation Portfolio Manager, a programme administrative officer, a procurement specialist and a finance management officer.

51. UNEP Corporate Services Division, more specifically, the GCF Coordination Office of the Resource Mobilisation and Partnerships Branch oversees the coordination with the GCF.
52. Within the GCF, a designated task manager is responsible for the project M&E.
53. As per the funding proposal, the GCF accredited entity, UNEP is in charge of overseeing and monitoring the management and implementation of the project. UNEP is also responsible for the financial management, evaluation, reporting, fiduciary and closure of the project. In addition, UNEP is delegated the responsibility to deliver GCF-specific oversight and quality assurance.
54. The project is executed by the Government of Benin, acting through the General Directorate for Environment and Climate, a directorate under the Ministry for the Livelihoods and Transports. The entity has the overall responsibility for the day-to-day execution for the project activities as well as the delivery of the expected results of the project. In practice, for the implementation of Component 1, DGEC collaborates closely with the MCVT's General Directorate for Water, Forestry and Hunting (Direction Générale des Eaux, des Forêts et de la Chasse, DGEFC). For the implementation of Component 2, the project is supported by the Ministry of Agriculture, Livestock and Fisheries (Ministère de l'Agriculture, de l'Elevage et des Pêches, MAEP), through two main departments: the Quality, Information and Entrepreneurial Training Department (Direction du Conseil Agricole, des Innovations et de la Formation Entrepreunariale, DCAIFE) and the Plant Production Department (Direction Production Végétale, DPV).
55. As presented in Figure 2, the project management structure involves various entities and partners.

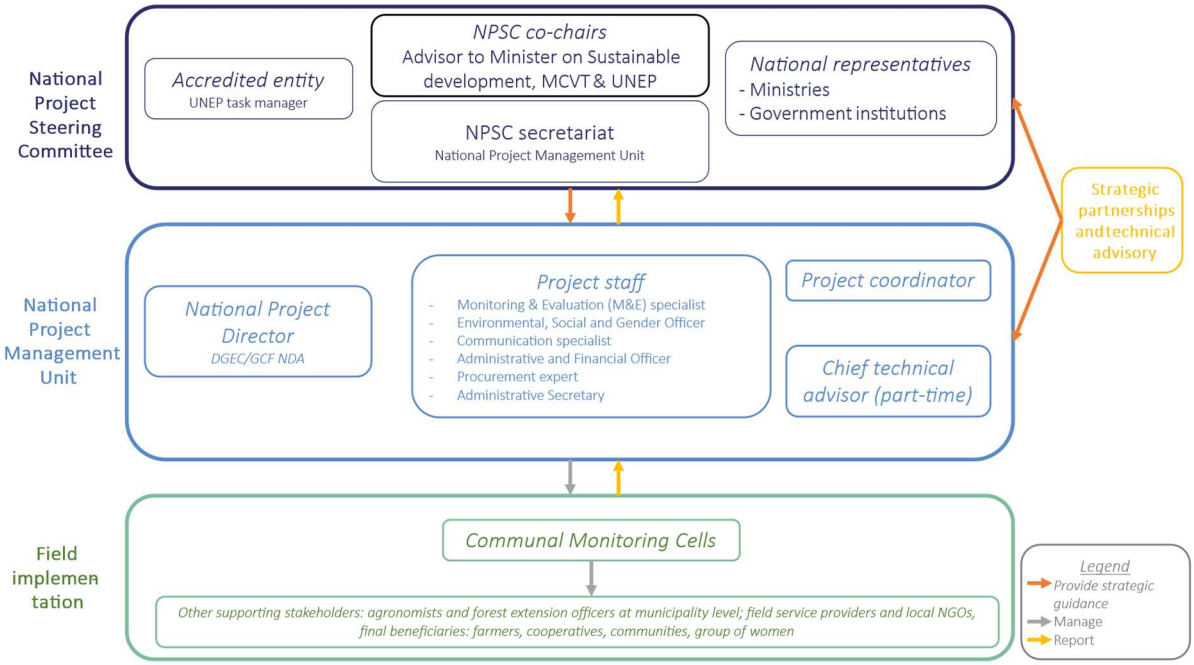


Figure 2: PABE project's implementation structure

56. As agreed at project design, the **National Project Steering Committee (NPSC)** is responsible for undertaking management-related and technical decisions for the project and providing guidance and direction on a regular basis. According to the FP, the NPSC reviews and approves the Annual Work Plans (AWPs), budget and other strategic documentation as well as assesses the project performance against the monitoring and evaluation plan. For this purpose, it is planned that the NPSC meets twice a year - with *ad hoc* meetings held as and when necessary. It is co-chaired by the representative of the Minister, who is the Advisor for Sustainable Development in the Minister's Cabinet Office and UNEP, via the Task Manager. The DNP under the DGEC serves as the Secretariat, with support from the Project Coordinator and PABE team.
57. The full composition of the NPSC comprises: the Executing Entity; the Accredited Entity; one representative from the DGEFC; one representative from the DPV and one from the DCAIFE of the MAEP. Other members of the committee include: one representative from Benin National Institute for Agricultural Research (INRAB); one representative of the Ecosystem Based Adaptation for Food Security Assembly[8] (EBAFOSA) Benin; one representative from an NGO; one representative of the Faculty of Agricultural Sciences; one representative of the Société Nationale du Bois (SONAB); one representative of the Benin Environment Agency under the MCVT; one representative of the Financial Planning and Administration Department (DPAF) and

[8] EBAFOSA Benin is the Beninese representation of the Ecosystem Based Adaptation for Food Security Assembly (EBAFOSA) which is a policy framework that promotes ecosystem-based approaches to adaptation for food security, ecological productivity, job creation, poverty reduction, value-added creation and sustainable industrial development in Africa.

a representative of the Climate Change Management Department) of the MCVT. From project start up in March 2020 to September 2023, eleven meetings have been held, including three extraordinary ones. The next PCS is scheduled for 31 October 2023.

58. The **National Project Management Unit** is hosted within the MCVT in Cotonou. The team is led by the NPC and reports to the NPD, who is also the GCF National Designated Authority (NDA) appointed by the Ministry. The team also includes a Monitoring & Evaluation specialist (RSE); an Environmental, Social Safeguards and Gender Specialist (ESSGS); a Communication specialist; an Administrative and Financial Officer (RAF); a Procurement officer and an Administrative Secretary. According to the funding proposal, the NPMU coordinates activities between the Accredited Entity, the Executing Entity and various partners to oversee the planification, implementation, monitoring and reporting of the project.
59. Since April 2022, the NPMU is supported by a part-time[9] bilingual **Chief Technical Advisor (CTA)** who provides quality assurance and assistance for the development of the project documentation, technical documents and deliverables. The CTA also provides technical guidance and support to the planning, implementation, reporting of the project activities, integrating all three components.
60. In support of the Cotonou-based NPMU, the project established **Commune Monitoring Units (Cellules Communales de Suivi, CCS)** within every municipality where it is implemented. The CCS consists of three members:
    - One representative of the mayor which is also the project focal point at the municipality level;
    - One communal representative (Chef Cellule Communale, CCeC) of the Territorial Agricultural Development Agency (ATDA);
    - One communal representative of the Water, Forestry and Hunting Section.

    The CCS's role is to oversee, facilitate and monitor the implementation of the project's activities in the field as well as ensuring the continuous dialogue and communication with project beneficiaries.
61. In terms of strategic collaboration, the project builds on the expertise of technical stakeholders with which **partnership agreements** were established.

    DGEFC supports the implementation of Component 1, providing advisory support and staff and participating to progress reviews and monitoring missions. The entity supervises the project implementation through its decentralized structures:

    - at department level, the forestry inspections;
    - in classified forests, through forest management technical cell (Cellule Technique d'Aménagement Forestier, CTAF);

[9] 3 days per month plus 20 days for 2 in-country missions per year.

- at municipality level, with the Communal Water, Forestry and Hunting Section.

EBAFOSA Benin, according to the agreement, established in January 2023 shall support the NPMU in the finalization and dissemination of the compliance standards of EBAFOSA in Benin as well as promotes fair partnerships between farmers, processors, traders, suppliers of technology, and microfinance institutions for the development of cashew, shea, nere, soybean and sorghum value chains.

INRAB has agreed to bring technical support for the identification and supply of performant climate-resilient crops and agricultural strategies in collaboration and in line with MAEP's priorities. According to the partnership agreement, INRAB is responsible for the training of local communities on how to harvest and multiply crops.

Benin's National Meteorological Agency (Meteo Benin), as agreed in the partnership agreement, is responsible for the establishment of an inventory of Beninese's weather stations and the installation, commissioning and maintenance of four additional ones provided by the project. It is also in charge of organizing capacity building events as well strengthening Climate Information and Early Warning Systems for farmers based on the supplementary climate information provided by the expanded weather station network.

None of these entities manages its own budget. All activities implemented under the partnership agreements with each institution are budgeted based on the initial project document. The NPMU is responsible for the payment of all related costs.

62. For the daily implementation of the activities, the project relies on:

- International Technical Assistance through the Beninese branch of the Center for International Forestry Research (ICRAF)[10] which is involved in the project M&E (baseline and impact studies), leads/guide the development of EbA protocols and supports the implementation of all components of the project;
- Field service providers and local NGOs, for the supervision of nurseries, supply, installation and maintenance of forest and agricultural seeds;
- Other supporting stakeholders for the project are beneficiaries (farmers, cooperatives).

Description of targeted stakeholders

63. Main project stakeholders are presented in Table 1.

Table 1: Key project stakeholders

Main stakeholders	Relationship to the project
Implementing Partners	

[10] Since signing a host country agreement in 2017, ICRAF has been working to support the government of Benin in the fields of forestry, agroforestry, land restoration and climate change.

MCVT - DGEC	NPSC secretariat and Executing Entity
NPMU and CTA	Project implementation
NPSC members	Project supervision
UNEP	GCF Accredited Entity: Project supervision and management
Experts/ consultants to be recruited	Contribution to project outputs
Government stakeholders	
MCVT - DGEFC	NPSC member, regional coordination and collaboration on activities under component 1
MAEP – DCAIFE and DPV	NPSC member, regional coordination and collaboration on activities under component 2
INRAB	NPSC member and collaboration on activities under component 1 and 2
Société Nationale du Bois (SONAB)	NPSC member and beneficiary of project activities
MCVT - Benin Environment Agency	NPSC member
Direction de la Planification, de l'Administration et des Finances (DPAF)	NPSC member
Direction de la Gestion des Changements Climatiques (DGCC)	NPSC member
Météo Benin	Design, technical advisory and implementation of activities related to expanding the meteo station network and establish a weather early warning system targeting farmers in the central and northern regions.
Regional/local authorities	
Communes : Tchaourou, Djougou, Ouaké, Boukoumbe, Cobly, Banikoara, Dassa	Direct and indirect beneficiaries
Commune Monitoring Units, one Cellule Communale de Suivi (CCS) per Commune	Project monitoring at local level
Others	
EBAFOSA	NPSC member and collaboration on activities, involved in project design

ICRAF	International technical assistance on EbA
PNOPPA	Implementation partner: ensured the supply of soya seeds in 2023, set up demonstration plots and provided support to farmers.
Field service providers and local NGOs	Supervision of nurseries, supply, installation and maintenance of forest and agricultural seeds including the following activities: - Capacity building - Preparation of reforestation sites - Planting of seedlings - Maintenance and securing of reforestation sites - Opening of firewalls - Setting up and monitoring of demonstration units - Supervision of growers - Data collection In addition to these field service providers are also materials and equipment providers.
Communities (small hold farmers, cooperatives women etc.)	Direct and indirect beneficiaries. Implementation of project activities.

Major changes from project design

64. The project has undergone several key changes since implementation commenced in March 2020.
    a) Change in members of the National Project Steering Committee: As presented in Table 2, the composition of the NPSC has changed from the initial composition proposed at project preparation stage.

Table 2: NPSC composition planned at design phase compared to the actual NPSC

Planned NPSC at preparation stage	NPSC during project implementation	Changes
Executing Entity, Accredited Entity, the NPC, representatives from the National Environment and Climate Fund, the GCF's National Designated Authority, one representative of Météo Bénin, one representative	Executing Entity; Accredited Entity; one representative from the DGEFC; one representative from the DPV and one from the DQAIFE of the MAEP, one representative from INRAB; one representative of EBAFOSA Benin; one	Removed: - NPD and PNC, as they rather act as the NPSC secretariat - Representatives from the National Environment and Climate Fund - The GCF's National Designated Authority

of Ministry of Planning and Development, one representative of Ministry of Water and Mining, one representative from each of the target municipalities; one representative of EBAFOSA Benin and national experts on forestry, ecosystem restoration, climate change and agriculture	representative from an NGO; one representative of the Faculty of Agricultural Sciences; one representative from SONAB; one representative of the Benin Environment Agency under the MCVT; one representative of the Financial Planning and Administration Department (DPAF) and a representative of the Climate Change Management Department) of the MCVT	- One representative of Ministry of Planning and Development - One representative of Ministry of Water and Mining - One representative from each of the target municipalities <u>Added</u>: - One representative from the DGEFC - One representative from the DPV and one from the DQAIFE of the MAEP - One representative from INRAB - One representative from an NGO - One representative of the Faculty of Agricultural Sciences - One representative from SONAB - One representative of the Benin Environment Agency under the MCVT - One representative of the Financial Planning and Administration Department (DPAF) - Representative of the Climate Change Management Department) of the MCVT

b) <u>Change in project staff</u>:

i) UNEP task manager: The first TM was involved in the design, inception and implementation of the project until end of August 2022. The TM moved to another Branch of the UNEP Ecosystem Division. The second TM assumed the role from 1 September 2022 and had undertaken two missions to Benin

(January 2023 and September 2023). Both TM function in both English and French.

ii) The project team recruited a translator (French-English) to i) cope with the need to translate French documents (e.g. Workplans, technical reports, reports of meetings) into English to meet the requirements of UNEP and GCF and ii) to overcome the language barrier which sometimes prevented the NPMU staff from communicating effectively with non-French speaking UNEP staff. A part-time translator was therefore solicited in 2020 for 10 months. However, he resigned in 2021. Although some of the project monitoring documents indicate a recruitment process ongoing in 2020 and 2021, the position was not filled since then.

c) Change in reforestation technique: Before the project reforestation activities started, the DGEFC conducted an evaluation to assess the level of degradation of the Ouémé Superieur N'Dali (OSN) classified forest, hosting two of the seven project sites, that were targeted for the first year of implementation of the plantation activities. The assessment revealed that the level of degradation in the classified forest was much higher than described in the funding proposal. Instead of having scattered holes in a dense forest, extensive areas were completely deforested. As a consequence, from the forestry institution's perspective, the restoration technique initially prescribed ("enrichment", i.e. 400 trees/hectare) was not appropriate anymore. The DGEFC therefore recommended to carry out an "open field" restoration (i.e. 1666 trees/ha); a recommendation that was followed by the NPMU. However, the initial budget was planned for the enrichment restoration technique, so this decision results in a drastic division of the potential area for reforestation. Despite being geared with updated management plans including various EbA options since October 2021, as of September 2023, PABE only conducted "open field" restoration techniques using monospecific teak plantations in the two management units of the OSN classified forest.

d) Additional supervision of the monitoring at municipality level: Beyond the Cotonou-based NPMU, there was no monitoring structure foreseen at local level in the project document. As the implementation started, the NPMU needed locally anchored relays for the monitoring of the project activities. In this context, the NPMU decided to establish Commune Monitoring Units (CCS[11], more details in paragraph60) involving mayor representatives and staff from the territorial agricultural development agency and the communal water and forestry section in each of the seven implementation sites. These structures were also created with the aim to ensure local and community buy-in of the project and strengthen collaboration with local government bodies and other relevant stakeholders

[11] Cellule Communale de Suivi

(ICRAF, service providers) who are directly involved in the implementation of the project activities. The establishment of the CCS was enacted through a memorandum and their 21 members (19 men and 2 women) were trained on monitoring, evaluation, reporting and learning mechanisms for field activities in August 2022 and October 2023 by ICRAF. The entities were fully operational from July 2021 onwards.

External challenges faced by the project

65. The project faced several external challenges during implementation.

a) Covid-19 Pandemic: Like the rest of the World, Benin was deeply affected by the Covid-19 pandemic, resulting in nationwide lock-down, including strict travel restrictions across regions and a border shutdown. Indeed, at the start of the pandemic in March 2022, the government imposed the isolation of the capital Cotonou from the rest of the country until end of May. In parallel, originally planned in March 2020, the inception workshop had to be postponed until end of September 2020. The team was only able to visit project sites by the end of the year 2020 when restrictions on internal travels were lifted. COVID pandemic and related restrictions thus happened when the project was gearing up to move to the field. All the field activities planned for this period were therefore postponed to 2021. The pandemic hence effectively delayed implementation progress, which set the project back by approximately 6 to 12 months.

b) Territorial administration reform in 2021: Presented as one of the key reforms of the second five-year term of the current president Patrice Talon, the structural reform of the territorial administration led to a complete reorganization of municipalities which implied turn-over at key positions and resulted in delays in project implementation and monitoring.

c) Frequent turn-over in forestry administration: Outside the national level, it is established in Benin that DGEFC staff are transferred from one department/municipality/commune to another every two years. This has indeed an impact on the project implementation and memory as this staff is fully involved in the project activities.

d) Presidential and legislative elections in 2021: According to the 2021 Annual Performance Report (APR), the elections held in 2021 slowed down activities on the ground. Indeed, during the election preparation and after the event, most of the administration and population was busy with the election campaigns and therefore less available for the project.

e) Lower cashew nut global demand and prices. Some of the cashew nut cooperatives supported by the project complained about recent difficulties in selling their stock. This can be linked to the global demand which has plummeted in 2023.

Project financing

66. The total budget for this project is USD 10,000,000, including USD 9,000,000 from the GCF and 1,000,000 of co-financing by the Government of Benin. The planned budget and co-financing per component are presented in Table 3.

Table 3: PABE planned financing and co-financing per component

	GCF financing (USD)	Co-financing (USD)
Component 1	5,846,507	589,609
Component 2	2,042,383	234,491
Component 3	699,810	125,900
Project Management Cost (PMC)	427,500	50,000

67. The total project expenditure as of 31 December 2022 is US$ 2,466,756 including US$ 2,237,256 from the GCF and US$ 126,588 from the Government of Benin. The cumulative GCF and co-financing expenditures as of 31 December 2022 is presented in Table 4.

Table 4: PABE cumulative expenditure per component as of November 2023 (source NPMU)

	GCF budget expenditure (USD)	Co-financing budget expenditure (USD)
Component 1	1,174,800	131,191
Component 2	630,354	48,427
Component 3	191,470	0
PMC	240,632	96,699

Evaluation methods

68. The purpose of this assignment is to conduct the Mid-Term Evaluation of the above-mentioned project. As indicated in the Terms of Reference (ToR), in line with GCF and UNEP evaluation policies, the review will analyse whether the project is on track, identify potential problems and challenges and propose corrective actions if needed. It will seek to understand if the implementation of activities has proceeded as planned and if progress in delivering outputs will lead to achievements of outcomes and secure long-term impacts. Based on its findings and considering new developments and contextual changes relevant for the project since its inception, the MTE also provides recommendations for project direction and focus, as well as for enhanced implementation and adaptive management that will need to be adopted in the final half of the project's term.
69. Following the validation of the final version of the MTE report, UNEP (AE) will share it with the project team, the Ministry for Livelihoods and Transport and member of the project steering committee. A management response to the report's recommendations will be prepared by the Ministry and UNEP and the actions contained in the response will be integrated into the project's intervention strategy (Results framework, staffing and organisation, workplan and budget, monitoring system) with an aim of overcoming project shortcomings, maximizing those aspects performing well, and ensuring successful achievement of the project's intended outcomes. Any revisions to the implementation strategy will be subject to approval by the project steering committee, the Ministry and UNEP. UNEP (AE) will submit the revisions captured in proposed revisions to the Funded Activity Agreement (FAA) for approval by the GCF.

70. This MTE was carried out from August to October 2023. The team for this MTE was composed of a team leader, an evaluator, a national consultant and a quality assurance person. During the evaluation process, the responsibilities were shared as presented in Table 5.

Table 5: Roles and responsibilities during the evaluation process

Roles	Frame the evaluation, collect data, write the report, present findings, elaborate conclusions and recommendations respond to comments	Review the report: edit and comment	Inform the data collection	Validate conclusions and recommendations
Baastel evaluation team	x			
Baastel quality assurance person		x		

UNEP task manager and head of UNEP Climate Change Adaptation Unit		x	x	
Accredited Entity		x	x	x
National Project Director and NPSC			x	x
Local stakeholders			x	

Overall, the quality of the evaluation was ensured through the use of Baastel Evaluation Quality Assurance (QA) System which is based on the following elements:

- Staffing:
    - The Baastel team leader was responsible for overseeing the team's work and deliverables and ensured that the work adhered to planned approaches and methodologies;
    - In addition to the team leader, a carefully selected team of Basstel consultants was assigned to the MTE;
    - A Quality Assurance (QA) Advisor was assigned to the evaluation team. The QA Advisor is a senior consultant with expertise relevant to the mandate who offered support and review services to the team. The QA Advisor reviewed all major project documents prior to publication or submission to the Accredited Entity and ensured that the most recent and relevant methodologies and approaches were integrated into the planning and implementation of the mandate, ensuring that deliverables are not only of the highest quality, but also vis-à-vis international benchmarks and standards including inter alia the OECD-DAC evaluation criteria or specific requirements of UNEP and the GCF.
- Review of the methodology and written deliverables: the QA Advisor ensured that deliverables met 1) the objectives agreed during the inception phase and 2) the evaluation standards and requirements. When reviewing written deliverables, the QA Advisor looked, in addition at issues of accessibility of the report, in-depth of the analysis, clarity and robustness of the results or relevance of the recommendations;
- Editorial reviews: In-depth and comprehensive editorial reviews were provided by both the team leader and the QA Advisor for all written deliverables to ensure that their content and expression are of the highest quality.

71. The team managed with evaluation bias through the independent, impartial and rigorous collection of data, always ensuring to cross-check information between relevant stakeholders. Information was thereafter triangulated mixing recent and past available, objective, reliable and valid information into a data collection matrix used as the basis of the evaluation report writing. The evaluators also drew on the separate and independent Results Verification Exercise conducted in June and July 2023 by an independent team commissioned by UNEP that produced information and findings

that the Evaluators used to inform and triangulate the MTE work. While attributing performance ratings, the evaluators provided structured argumentation leading to nuanced ratings, highlighting equally the project's successes and weaknesses.

72. The evaluators ensured their independence as they conducted their tasks without undue influence by any party. In this framework, they undertook the data collection with free access to information; and achieved report writing impartially, having the ability to freely express their assessments throughout the entire process.

Inception

73. The MTE started with an inception phase, including email exchanges, an initial call with the Project Coordinator and the UNEP task manager, and a preliminary documentation review. This phase closed with the validation of the inception report that included a description of the project, a preliminary analysis of the project results framework and project design, a stakeholder analysis, a description of the evaluation methods and schedule, and the structural framework of the review in the form of a detailed review matrix. For each evaluation criteria, the matrix identifies evaluation questions, indicators, means of verification and sources of information. This matrix is presented in Annex 3: Evaluation matrix and serves as the backbone of the MTE.

Literature review

74. Prior and after the field mission, the evaluator systematically reviewed all project-related documentation. Relevant literature included background documentation, project design documents, annual work plans and budgets or equivalent, revisions to the project or budget, project reports (including quarterly financial reports and annual progress reports), strategic partnerships, contracts, meeting minutes, as well as relevant scientific studies and other deliverables produced by the project. The Results Verification Exercise (RVE) conducted in June and July 2023 by an independent team commissioned by UNEP was also useful to inform the Effectiveness section of the MTE report. The data collected through the literature review was compiled in a data collection matrix following the structure of the evaluation matrix. The list of documentation reviewed during the evaluation is presented in Annex 4: List of documentation reviewed.

Field mission and interviews

75. The evaluation team conducted a field mission during September 11th – 17th, 2023. First, the team spent time with the NPMU in Cotonou to collect information and understand key challenges of the project implementation. Then, the team had a meeting with the NPSC aimed at presenting and discussing the MTE process including its objectives, criteria, mission agenda, main deliverables and schedule.

76. A selection of the project intervention sites was visited by the evaluation team. Based on the information collected in the Annual Progress Reports and NPSC recommendations, it was agreed during the inception phase to carry out the sampling of localities according to the following criteria: i) visit interventions sites targeting a broad range of agricultural products supported by the project; ii) include a diversity of ecosystems; iii) witness different implementation status; iv) balance visits between activities related to agriculture and forestry; v) avoid project sites that are classified as red and orange (security wise) for Manon Bastin-Héline (see Figure 3-right), and as red for Paul Onibon. As a result of this sampling process, the districts selected were therefore Tchaourou, Djougou, Ouaké and Banikoara.

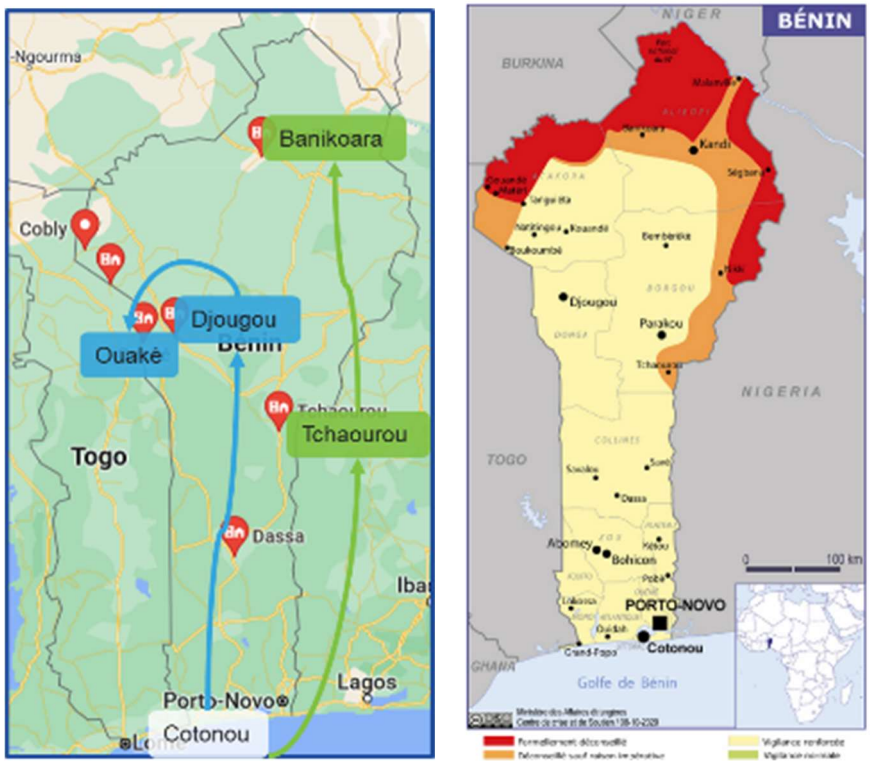
77. 

Figure 3 : MTE field mission itinerary, followed by Manon Bastin-Héline (blue) and Paul Onibon (green) – left; safety recommendations (source: website of the French Ministry of Foreign Affairs) - right

78. From September 13th-16th, the evaluator travelled to Djougou and Ouaké to visit project sites and engage with local beneficiaries. During the same period, the national consultant visited project sites in Tchaourou and Banikoara (see Figure 3-left). During the site visits, meetings were held with municipality representatives, decentralized authorities, deconcentrated representations of DGEFC and MAEP, women-led cooperatives (shea and cashew processing), community forest management committees, service providers, farmers, village leaders and final beneficiaries. The evaluators also had the opportunity to visit reforestation sites, soya demonstration plots, cashew orchards, acacia woodlots and community forests.

79. After the field mission, the evaluator completed the data collection with virtual interviews. People met included the National Project Director, UNEP task and procurement managers and the head of UNEP Climate Change Adaptation Unit. Since they are also closely involved in project implementation, the CTA and all members of the NPMU, except the Administrative Secretary, were also interviewed. Additionally, bilateral interviews were carried out with relevant government ministries and their related departments and agencies, including the members of the NPSC as well as with implementing partners. The exhaustive list or stakeholder interviewed during the evaluation process is presented in Annex 5.
80. The evaluators adopted a gender-sensitive approach, making sure the situation and point of view of women was duly heard and taken into consideration. Group discussions were organised with pre-defined target groups, and some of them were conducted with men and women separately to obtain sex-disaggregated information. Meetings were as far as possible planned, organized and announced in advance to ensure that women were available to participate to mixed and women-only focus groups.
81. In total, 2 meetings were held, one with the NPMU and one with the NPSC. 18 bilateral interviews were virtually or physically conducted including 13 men and 5 women. 13 focus groups were carried out, five of which were women only. The protocols used to perform the interviews are presented in Annex 6: Interview protocols. All the information collected during the field mission and interviews was compiled in a data collection matrix.
82. Throughout this Evaluation process and in the compilation of the Final Evaluation Report efforts have been made to represent the views of both mainstream and more marginalised groups. Data were collected with respect for ethics and human rights issues. All pictures were taken, and other information gathered after prior informed consent from people, all discussions remained anonymous, and all information was collected according to the UN Standards of Conduct. Overall, the sample of persons met in person or virtually interviewed and the sites visited provides a good overview of the project's interventions and a representation of stakeholders' opinion of the project.

Preliminary findings

83. Following the field mission, the evaluation team organized an online working session to present and discuss preliminary findings with UNEP, the NPMU and the NPSC, based on the information collected during the field mission and documentation review. This allowed to ensure that the evaluators had a correct understanding of the situation. It also gave a chance to UNEP, the NPMU and the NPSC to provide feedback, clarifications and additional information as necessary.

Analysis and reporting

84. The MTE used a mix of quantitative and qualitative methods and both secondary and primary data, which were systematically triangulated, to come up with an evidence-based assessment[12]. The analysis aims to not only use information on the progress of implementation of each of the project outputs, but also on the context, on the role of the implementing partners, and on the institutional and political changes brought about by the project. While an MTE cannot measure final impacts, the evaluator sought to draw a picture as to whether all the ingredients required to bring lasting change are in place, and whether any risks should be addressed, or any opportunities should be seized. In this sense, the evaluator intends to go beyond the assessment of "what" the project performance is to provide a deeper understanding of "why" the performance is as it is, and what can be done to improve the achievement of the expected project objectives and their sustainability.

Review Ratings

85. The review uses the UNEP standard rating guidelines and provides individual ratings for the evaluation criteria described in Annex 7: UNEP review rating.

Review limitations

86. The organisation of the field mission has proved challenging, as some of the individual meetings in Cotonou requested by the evaluation team had not been properly planned at mission start. In addition, a few contacts requested were not made available to the evaluators. During field visits, mayors were difficult to reach, and only one was actually met for an interview. Overall, the information collected is however sufficient: the sample of sites visited provides a good overview of different situations met in the field and complementary interviews were conducted remotely after the field mission.
87. Due to numerous turn-over at key positions in the project (GCF task manager, UNEP task manager and staff of the GCF Coordination Office), some information was difficult to gather, in particular with respect to the financial breakdown that occurred in 2022. This event will be further described in section 0.

[12] To ensure data reliability, the key information collected was systematically cross-checked with a secondary source of information. Type of data triangulated: documentation review (primary and secondary data, see Annex 4), consultations (bilateral interviews, focus group, meetings) and on-site observations (four municipalities visited), undertaken by three different evaluators. The RVE, conducted in June and July 2023, was also a method of triangulation as it verified what was reported against what was reported in APRs at the seven sites. The RVE report served as information source for triangulation by the MTE

EVALUATION FINDINGS

Strategic relevance

Alignment with UNEP's priorities

88. Though UNEP's strategies have changed and evolved over the years, the project continues to be aligned with UNEP's Program of Work (PoW) 2018-2019 and 2022-2023 and Medium-Term Strategy (MTS) 2018-2021 and 2022-2025.
89. The project was anchored in several of the strategic focuses for the UNEP MTS 2018-2021 that was in application when the project was designed. The PABE project contributes directly to the objectives of priority areas of the MTS 2018-2021 which are identical to the PoW 2018-2019 expected accomplishments.
90. PABE funding proposal was developed between 2017 and 2019. The UNEP PoW for the period was the biennial Programme of Work and budget 2018-2019. The PABE project supported UNEP's PoW for 2018-2019, which stated, under the "Climate Change" subprogramme, that UNEP targets as an organization objective that "countries increasingly make the transition to low-emission economic development and enhance their adaptation and resilience to climate change". In this framework, PABE also contributes to two of the three related expected accomplishments: a) "Countries increasingly advance their national adaptation plans which integrate ecosystem-based adaptation"; and c) Countries increasingly adopt and implement forest-friendly policies and measures that deliver quantifiable emissions reductions as well as social and environmental benefits".
91. The project also continues to align with UNEP PoW for 2022-2023 by supporting two out of the three strategic objectives ("climate stability" and "living in harmony with nature") under several of their outcomes as presented in Table 6.

Table 6 : PABE project alignment with UNEP PoW for 2022-23

UNEP PoW 2022-2023 thematic subprogramme	UNEP PoW 2022-2023 outcomes (selected)	PABE project's contribution
Climate stability	1.1 Policymaking and decision making for climate action are informed by the latest science-based analysis and data generation.	All components
	1.2 Carbon neutrality and resilience are integrated into climate planning and policy and regulatory frameworks regulatory frameworks at all levels.	Components 1 and 3

	1.4 Sector partnerships and access to technologies for decarbonisation, dematerialisation and resilience are strengthened.	All components
	1.6 The private sector and financial markets apply sustainability and climate-friendly standards and norms as core values of the economy	Component 2
	1.7 Public support and political engagement for climate action are catalyzed.	All components
Living in harmony with nature	2.3 Productive landscapes, seascapes and fresh waters are managed sustainably	Components 1 and 2
	2.7 Natural assets are assessed, monitored and managed sustainably	Components 1 and 3
	2.9 Institutional capacities to make and implement national and international commitments and accountability frameworks are strengthened	All components
	2.10 Sustainable value chains are adopted, product comparability is enhanced, and circularity is maximized.	Component 2
	2.12 Food systems support biodiversity and environmental sustainability	Component 2
	2.13 Commitments and actions to prevent, halt and reverse the degradation of ecosystems are enhanced.	All components
	2.14 Fair and equitable access and benefit-sharing frameworks are advanced.	Components 2 and 3
	2.15 Consumer awareness and behaviours have shifted towards products and services with lower environmental and nature footprints through digital nudging, green filtering, product labelling, certification schemes and value-chain indices.	Components 2 and 3

92. As with the PoW, the project also continues to align with two of the key MTS 2022-2025[13] areas of action: 'Climate Action' and 'Nature Action', which are supported by seven sub-programmes [14]. Across these sub-programmes, the PABE project contributes to several 2025 outcomes as listed in Table 7.

[13] UNEP, 2021. Medium-Term Strategy 2022-2025. [online]. Available from: https://wedocs.unep.org/bitstream/handle/20.500.11822/35875/K2100501-e.pdf.

[14] These sub-programmes include: (1) Thematic Subprogrammes: a. Climate change, b. Biodiversity and nature loss, and c. Pollution and waste; (2) Enabling sub programmes: a. Digital transformations and b. Finance and economic transformation; (3) Foundational subprogrammes: a. Environmental Governance and b. Science/policy.

Table 7: UNEP Medium-Term Strategy 2022-2025 supported by PABE

MTS Sub-programme category	MTS Subprogrammes	MTS 2025 Outcomes
Thematic	Climate action	Outcome 1: Decision makers at all levels adopt decarbonization, dematerialization and resilience pathways
		Outcome 2: Countries and stakeholders have increased capacity, finance and access to technologies to deliver on the adaptation and mitigation goals
	Nature action	Outcome 1: An economically and socially sustainable pathway for halting and reversing the loss of biodiversity and ecosystem integrity is established
		Outcome 2: Sustainable management of nature is adopted and implemented in development frameworks
		Outcome 3: Nature conservation and restoration are enhanced
Foundational	Science-policy, Environmental governance	

Alignment with GCF's priorities

93. The Board's long-term strategic vision for the GCF is to: i) Promote the paradigm shift towards low-emission and climate-resilient development pathways in the context of sustainable development; and ii) Support developing countries in the implementation of the Paris Agreement and the United Nations Framework Convention on Climate Change within the evolving climate finance landscape. PABE project is aligned with the GCF strategic priorities over the 2020-2023 programming period (Strategic Plan 2020-2023). Indeed, the project ambitions to foster a paradigm shift within Benin as well as promote country ownership through its activities and thereby aligns the two GCF strategic priorities to: (1) Strengthen country ownership of programming, and (2) Foster a paradigm shifting portfolio. In its design, the project is expected to deliver performance against GCF performance criteria, with clear justifications presented in the funding proposal. In practice, interviews carried out for the MTE with national and regional officials confirmed the paradigm shift potential that the project represents for Benin, mostly using Ecosystem-based Adaptation (EbA) which was a new policy concept at project commencement. Behind the introduction of this new concept across project level and stakeholders, the strategy

targets to demonstrate the considerable environmental and socio-economic benefits of sustainable, climate-resilient forest and land management, through on-the-ground implementation of EbA and climate-resilient agriculture interventions. The project is also in line with the sustainable development investment criteria as the EbA approaches are designed to deliver environmental, social and economic co-benefits, restoring forest ecosystems and productive landscapes while providing considerable benefits for vulnerable communities. Indeed, the increased and improved agricultural production and process are expected to lead to better working conditions, reduced poverty and decreased food insecurity (see section 0). Ecosystems restoration, increased awareness and knowledge of climate change and sustainable forest management plan to reduce exposure to environmental and climate-related hazards and thus climate vulnerability. The project also meets the country recipient needs as the Government of Benin has limited financial capacity for the investments required to enhance the adaptive capacity of rural communities, the latter being highly vulnerable to climate change (70% of Beninese livelihoods are supported by rainfed agriculture). Country ownership started with the initial request for the project made by the government within the framework of a GCF Readiness Project launched in 2016[15]. For this reason, the government through the MCVT is the project owner and is fully responsible for its implementation. PABE is also considered an important project to support the implementation of the National Adaptation Plan (NAP). Within this framework, PABE has involved communities in project design and implementation. However, some of the communities interviewed as part of this evaluation expressed that they had not been part of the project design stakeholder workshops or public meetings at commune level. Country ownership is also assured through the development and implementation of the project Stakeholder Engagement Plan (SEP). Indeed, a first version of the SEP was developed at project design and then updated and completed throughout the project implementation. An international consultant is currently in the process of developing a GCF-compliant version of this document where all stakeholders are mapped, partnerships developed, and the roles and responsibilities of every stakeholder category determined and agreed. Finally, economic efficiency is projected to be achieved by the implementation of cost-effective EbA and climate-resilient agricultural interventions but also through the enhanced capacities of government and other stakeholders to plan and implement EbA as well as the promotion of the project results via the knowledge hub planned under component 3. The effectiveness of the interventions is planned to be ensured by using cutting-edge science and international best practices to inform the forest

[15] This Readiness project helped the government identifying key adaptation planning solutions as well as budgeting strategies.

restoration and climate-resilient agriculture on the ground, as well as the capacity building, policy and legislative improvement and public awareness raising.

Contributions to the Sustainable Development Goals (SDGs)

94. The project also has the potential to contribute to transformational impacts including global environmental and adaptation benefits supporting the achievement of SDGs and 2030 Agenda for Sustainable Development targets:
    - Goal 1. End poverty in all its forms everywhere
        - 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day
        - 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters
    - Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture;
        - 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
        - 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
        - 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
        - 2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed
    - Goal 13. Take urgent action to combat climate change and its impacts;
        - All targets of the 2030 Agenda for Sustainable Development
    - Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
- 15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
- 15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.

Alignment with national and sub-national priorities

95. PABE project is well aligned with Benin policies and strategies on development and environmental management, with clear justifications presented in the pre-feasibility study. This included:
    - Benin's Environmental Action Plan, 1993;
    - Benin's National Strategy to implement the UNFCCC, 1999 ;
    - Benin ALAFIA 2025 – Benin's Long-term Development Strategy, 2000;
    - Benin's National Plan to Fight Desertification, 2005;
    - Benin's National Adaptation Programme of Action (NAPA), 2008, which is structured around five priority projects: i) Agriculture and Food Security; ii) Energy; iii) Water; iv) Health and v) Coastal Development of which PABE contributes mostly to the first one;
    - Benin's National Biodiversity Strategy and Action Plan 2011-2020;
    - Benin's Strategy for Low Carbon Development and Climate Change Resilience 2016–2025;
    - MCVT Strategic Plan 2018-2022;
    - Gender and Climate policy, 2021;
    - Nationally Determined Contribution, 2022;
    - National Adaptation Plan, 2022.
96. In 2022, Benin updated its Nationally Determined Contribution (NDC). With respect to adaptation objectives, the project supports three priority sectors and related targets:
    - General

- Master vulnerability assessment and decision-making tools to integrate climate change adaptation into the planning and management instruments of national and regional institutions;

- Agriculture
  - Improve the performance of Benin's agriculture, to enable sustainable food and nutritional sovereignty, contribute to the economic and social development of Benin's men and women and achieve the SDGs, in particular SDGs 1, 2, 12 and 13;
- Forestry
  - Reduce the vulnerability of communities to the degradation of forest ecosystems;
  - Promote agroforestry.

In addition, although it is not the primary objective of the project, PABE is expected to generate notable mitigation co-benefits, therefore contributing to the NDC's mitigation objectives. Indeed, the project has the potential to maintain and increase the country carbon stocks through i) the restoration and protection of forests over 3,600 ha; ii) the planting of woodlots for fuelwood; iii) the establishment of orchards; and iv) the increased soil carbon through climate-resilient agricultural practices.

97. The same year, the country, led by the DGEC, adopted the National Adaptation Plan (NAP). The document is structured around three strategic objectives broken down by sectors, with which PABE shows a strong alignment as presented in Table 8.

Table 8: NAP's strategic objectives and priority adaptation options supported by PABE

Strategic objectives (SO)	Priority adaptation options for agriculture	Priority adaptation options for forestry
Promote resilient governance of development sectors (SO 1)	➢ Improving and developing the resilience of agricultural production and processing systems to climate change ➢ Strengthening access to training for women and women's associations on the effects of climate change on agriculture and assessing their needs ➢ Training women in the use of improved seeds or varieties resistant to climate change (heat, drought) in agriculture	➢ Promoting agroforestry and large-scale forest plantations
Promote resilient management and use of natural resources and	➢ Integrated management of agro-sylvopastoral resources	➢ Ensuring equity in the distribution of and access to natural resources

ecosystems (SO 2)	➢ Training women trainers in good farming practices to curb ecological degradation. ➢ Guaranteeing access to technical information and training women farmers for the transition to new income-generating activities that are not dependent on climatic hazards (e.g. as part of the national e-Agriculture strategy)	➢ Continuing reforestation and riverbank protection campaigns
Develop sustainable and inclusive socio-economic mechanisms for managing climate risks (SO 3)	➢ Agricultural risk prevention and management ➢ Facilitating equitable access to agricultural credit and improving women's access to rural infrastructure	➢ Capacity building of stakeholders (communities, private operators, administrations, civil society organizations, etc.) on the effects of climate change ➢ Promotion of sustainable management of forests and protected areas ➢ Improved conservation of biodiversity, forests, indigenous and community heritage areas and other fragile ecosystems ➢ Improved forest governance

98. The project is also in alignment with the Government Action Plan 2021-2026 which Agriculture priority puts a focus *inter alia* on cashew nuts development and rural micro-businesses support; and the Living Environment priority emphasizes the importance of biodiversity conservation and sustainable management of classified and communal forests.
99. PABE's strategy is aligned with Benin's Strategic Plan for the Development of the Agricultural Sector which was adopted in 2017 and defines the sector's strategic policy objectives for 2025. The plan includes the improvement of agricultural productivity, the promotion of climate-resilient agriculture and the development of value chains. The Strategic Plan contains the National Plan for Agricultural Investments and Food and Nutritional Security for the period 2017–2021 which was

valid during the first three years of the project implementation. The investment sectors both supported by the plan and promoted in the project document are: cashew nuts and maize. In addition, PABE also supports the National Soybean Sector Development Program 2019-2021 through the implementation of inoculated soya demonstration plots in every municipality of the project.

100. Supported by INRAB, the project also follows the National Regulatory Guidelines to Improve Seed Quality of the Plant Certification Department of the MAEP using certified seeds and grafted seedlings for agriculture activities and orchard plantations respectively, thus maximizing agricultural yields and minimizing sensitivity to extreme climate events.

101. With regards to forest laws and policies, Benin relies on the Forest Law n°93-009 of 1993 which was adopted to regulate the use of natural resources in forest areas and to promote sustainable forest management practices. Under this legislation, forests are categorized as: i) classified forest areas (forêts classées) which are owned and protected by the government; and ii) protected forest areas (forêts protégées) which despite their name are not formally protected by law. Recently, the country updated its forestry policy for the coming period 2023-2032. PABE has the potential to significantly contribute all three strategic orientations of the policy:

- To establish a culture of sustainable management and preservation of forest areas;
- To strengthen the resilience of the forestry sector and communities;
- To improve forest surveillance and security.

102. It deserves mentioning though that, although most of these laws and policies now integrate climate concerns and related priority actions, none of them refer to the concept of Ecosystem based Adaptation or Nature-based Solutions. This observation further justifies the strategic relevance of the PABE project.

103. At the municipality level, authorities interviewed within the framework of the evaluation declared that PABE was perfectly aligned with communal commitments to strengthen the resilience of local communities against the adverse effects of climate change and to promote sustainable agricultural practices. The authorities appropriately linked the project's objectives to the communal development and environmental priorities and strategic planning, including Commune Development Master Plan (Schéma Directeur d'Aménagement de la Commune) and Communal Development Plan. Similarly, the project fits into agricultural sector development plans which focus on soy, cashew nuts and cassava in the localities visited. PABE also contributes to reforestation plans of the communal Water, Forestry and Hunting Section.

104. For all these arguments, PABE is considered at the central level as a flagship project with respect to innovative and integrated adaptation solutions both for the DGEC and the MCVT. In this framework, the project was presented to the President

during a government seminar and is closely followed by all government entities involved in the NPSC.

Response to local needs

105. The main issues raised by final beneficiaries when questioned about their daily concerns are of different categories. The decreased agricultural productivity due to reduced soil fertility and increased climate variability is one of the most prominent one. The second one - which is partly a consequence of the first - is the progressive clearing of forest for agriculture purposes leading to the scarcity of firewood and the depletion of forest biodiversity, including non-timber forest products and bushmeat. Compounded by demographic growth and regional migrations from neighboring countries and departments, a competition for fertile lands is at stake in most of the localities visited, opposing local farmers, migrants and Peul herders. Local populations also mentioned extreme and hardly understood weather events such as floods, violent winds or drought episodes occurring during the traditional planting season. Some of them also complained about new crop pests. No recent famine was reported in any of the localities visited. However, communities mentioned food insecurity pockets that are most likely linked to local drought episodes. In addition, local stakeholders also described water streams that were permanent in the past and now are seasonal, leading to a local decreased water availability and access.

106. Small-holders and farmer cooperatives supported by the project described their experience of climate change as poorly understood. As an example, some of them reported that in the past, the rainy season lasted traditionally from April to October. What is henceforth observed is an early arrival of a first rainy season from February to April. From their perception, April, May and June are now characterized by dry weather conditions followed from June to November approximately by a second rainy season. While the observation of climate change is shared among stakeholders, these were not able to explain why. Nevertheless, some of them are already endogenously or supported by state agriculture extension services, implementing adaptation solutions, in particular using short-cycle seed varieties. In this perspective, they are in demand of support both in terms of seeds and agricultural techniques.

107. Gender considerations were included during the project's design phase and more specifically targeting women's needs as the main beneficiary group. At project design and during the early stages of the project implementation, studies were conducted and ensured to specifically integrate women's perspective and needs. At the beginning of project implementation, the gender baseline was established by analysing gender-based roles and related stakeholders, including minority groups (socio-vulnerable groups and Peulh minorities). Therefore, by understanding women's roles in local communities, the project gave an important focus on income generating activities benefiting women, such as agricultural products processing,

thereby ensuring women's participation in and benefiting directly from some of the project activities. This is confirmed during project implementation as all members of the processing cooperatives – mostly women - interviewed during the MTE expressed the great relevance of the support they received through PABE. In fact, before the intervention, most of them lacked small personal protective material, processing equipment and means of transport. Working conditions were thus mostly manual, tedious, unattractive and sometimes dangerous. As an example, cashew shells contain highly corrosive substances but are mostly manipulated without gloves or glasses. Among the panel of cooperatives selected by PABE, some cooperatives were composed of members with low education levels. As a result, most of them feel unarmed in their daily negotiations for buying raw materials and selling processed products. Moreover, they also lack operating funds and capacities to contract loans in micro-finance institutions. As a result, they struggle to buy and often run out of raw materials (i.e. cashew and shea nuts for those visited).

108. At the local level, the forestry administration conveyed the lack of human, financial and material means to implement forest management plans in particular with respect to forest surveillance and reforestation. Local forest officers willingly recognize the involvement of local community as key in the safeguard of forests. However, they lack capacities (staff, transport and surveillance material) to engage dialogue, raise awareness and efficiently involve communities in forest resource management.

109. Through its Component 1, the project meets local needs as it foresees the restauration of 3600ha of forested lands[16] and the plantation of 70ha[17] of woodlots distributed over the 7 municipalities of the project. In the long run, reforestation efforts are expected to restore ecosystem services and reduce pressure on classified and community forests. This restauration is planned to be supported through an increased control over the forest resource via the design of a permit sale systems aimed at regulating the collection of forest resources or the provision of material and trainings to operate drone surveillance. Protection should be further strengthened by i) the progressive involvement of forest surrounding communities in the management of natural resources and ii) the raised awareness about the value of healthy ecosystems.

110. Under the Component 2, the project strategy also greatly aligns with the final beneficiaries' needs as it proposes to codevelop with communities locally relevant agricultural strategies to tackle climate change and soil fertility loss. In this respect, activities directed towards improved soy seeds and the related cultural practices are

[16] Under the GCF impact indicator A4.0 "Improved resilience of ecosystems and ecosystem services", the final target is "3,600 ha of degraded forests protected and strengthened in response to climate variability and change"
[17] Under the Output 1.2 "Land reforested to buffer against the impacts of climate change such as floods and soil erosion, and to enhance the provision of non-timber forest products (NTFPs) such as fruits, medicines, nuts, fuelwood and fibre.

also relevant to local needs. Indeed, the culture is well established in the localities targeted by the project and recognized as beneficial for soil fertility (as the plant fixes nitrogen), nutritional qualities and commercial interest. The project also wisely takes over the post-harvesting storage and processing challenges experienced by farmers and cooperatives through the building of storage infrastructures, the provision of processing material and capacity building trainings. In theory, activities related to market-access with the support of EBAFOSA are likely to also help cooperatives in the field of market integration. Following the establishment of the agreement in January 2023, steps were taken as follows: working group and roadmaps were created and the TOR for recruiting a consultant team were published (details in chapter 0).

111. Communication activities under Component 3 are also relevant to local needs as they are aimed to communicate about climate change, the environmental and socio-economic roles of healthy ecosystems as well as to popularize ecosystem-based adaptation solutions. Nevertheless, only part of this component of the strategy is implemented so far including the recruitment of a communication officer, the revision of the project communication plan and the EbA policy review and related action plan developed by ICRAF.

Rating for Alignment to UNEP's, Donors and Country (global, regional, sub-regional and national) strategic priorities: Highly Satisfactory.

Complementarity with relevant existing interventions

112. In the preliminary phase of the project, the NPSC recommended establishing a project mapping of all initiatives with which PABE could establish synergies based on thematic or geographic complementarities. This analysis was prepared by the NPMU and presented during an NPSC semester meeting. However, the team recognized that this document has never been concretely operationalized throughout the project implementation so far. In addition, the evaluator was not able to access the document during the evaluation process.

113. Overall, the general assessment of the coordination effort is mixed among the project stakeholders and between the different project level[18].

114. On the one hand, PABE successfully managed to establish fruitful synergies with the below projects and initiatives implemented at both national and sub-national levels.

a) World Bank (WB)-financed "Benin Classified Forests Project" (PFC-B). Started in 2019, the project aims to support the update and implementation of the management plans of Benin fourteen classified forests including the Ouémé Superieur N'Dali (OSN) classified forest also included in the scope of PABE. First,

[18] By level, the MTE means: local, commune, national.

the ongoing revision of the management plan of the entire Ouémé Supérieur produced within PFC-B's framework will be useful for PABE to identify the limits of the two management units (Bakou and Beterou). Moreover, to complement the PFC-B intervention, PABE prepared two participatory management plans containing a list of relevant EbA interventions that could be implemented in the two management units which will be finalized when the related cartographic date will be released by the PFC-B. These lists will be attached to the updated OSN management plan and used as and when necessary for potential future investments or partnerships in the area. The PFC-B is executed by the DGEFC, and the coordination is ensured through PABE-DGEFC's focal point.

b) GEF and African Development Bank-financed "Community Forest Management Support Project - Phase II" (PAGEFCOM-II). The project's objective is to help improve food and nutritional security and reduce poverty through the development and rational management of natural resources in the Atlantique, Zou, Collines, Borgou and Donga Départements. PABE has been establishing technical exchanges with the PAGEFCOM-II to discuss reforestation techniques. It is also planned to further maintain the collaboration as PABE could capitalize on PAGEFCOM-II fire Early Warning System (EWS) to develop its own climate EWS directed towards farmers and local communities.

c) United States Foundation for African Development (USDAF)-funded project. In 2022, before PABE's intervention, one of the cashew cooperatives (Sessèwa Tchènem in Djougou) was supported by the USDAF project to build a processing unit. The organization was also provided with the necessary equipment including one oven and the small starting materials. Through the coordination of the communal representation of the ATDA, PABE complemented the support by providing additional material such as work clothes, a sizing machine and a tricycle.

d) GCF-funded "Ouémé Basin Climate-Resilience Initiative (OCRI)" 2022-2028. The coordination will be ensured through the NPD which is involved in both PABE and OCRI NPSC (see paragraph 116).

e) European Union-funded "Capacity Building for Energy Sector Actors in Benin" (RECASEB). PABE directly builds on the technical assistance received by the government and is aimed at assessing the current forestry tax system. One of the outcomes of the study was a list of potential reforms to the current system that would be compatible with optimal forest management in Benin. Through its Component 1, PABE is projecting to operationalize and pilot one of the proposed options.

f) "Du Pont" project in Banikoara. The Du Pont project brough complementary help to the PABE-supported cooperative in Banikoara, providing shea seedlings to every member of the organization.

g) The ASV non-governmental organization (NGO). Based in Banikoara, the NGO complements PABE's support disseminating best practices for collecting and processing shea nuts.

115. Communes project reviews are organized in some of the municipalities involved in the project which thus fosters coordination at communal level. The evaluation revealed that communes project reviews tend to be more dynamic and help strengthen collaboration between initiatives at sub-national level. On the other hand, according to several stakeholders close to the project, the coordination effort between other relevant initiatives and PABE could be improved. In fact, to the evaluator's knowledge, there exists no formal coordination mechanism (i.e regular meetings with other projects' focal points or frequent knowledge sharing sessions between project coordinators) initiated by the project itself. As examples, other projects with which PABE could have established or strengthened collaboration are the following:

- Global Environment Facility (GEF)-funded "Restoring and Enhancing the Value of Degraded Lands and Forest Ecosystems for Enhanced Climate Resilience in Benin", 2022-2028 (PIRVaTEFoD-Benin) working on sustainable forest management for climate adaptation and executed by the DGEFC;
- WB-funded "Agricultural competitiveness and export diversification project" (PACOFIDE) 2020-2026, supporting the cashew nut value chain, executed by the Investment and Exportations Promotion Agency under the Ministry of Economy and Finance;
- French Development Agency (AFD)-funded "Support for the Development of the Protein Sectors" (PADEFIP), helping the development of the soy sector, executed by the MAEP.

116. At national and sub-national levels, initiatives and mechanisms are in place and allow in theory coordination and synergy creation between existing projects, initiatives and programs. As an example, the National Project Director (NPD) is also the GCF NDA and the president of the NDA committee, which is responsible for preparing UNFCCC national communications, supported by resource persons from various national institutions. From this position, the NPD is involved in every GCF project developed and implemented and is in contact with various climate-related stakeholders in Benin. This shall allow efficient coordination, as and when necessary, between GCF-funded project and other relevant initiatives and stakeholders. Another event of coordination for the project is the bi-annual NPSC which gathers the project focal points in relevant ministries and national institutions. Indeed, the NPSC involves discussion on project coordination with DGEFC, Meteo Benin and INRAB among other members. These meetings allow the dissemination of the project's activities and progresses within the respective organizations. In addition, on a regular basis, the MCVT organizes a project review which is chaired by the national GEF operational

focal point. The meeting involves all relevant stakeholders linked to the ministry's projects. Besides, to date, there exists very few evidence that synergies were created through these channels.

Rating for complementarity/coherence with relevant existing interventions: Moderately Satisfactory.

Rating for Strategic Relevance: Satisfactory

Overall, the project is well aligned with UNEP and GCF's priorities. The alignment with national priorities and the country needs is demonstrated whilst coordination efforts with existing relevant initiatives could be strengthened.

Quality and revision of the project design

Strengths

117. The project's design is organized around several structuring documents:

- A Funding Proposal (FP) which uses the GCF Simplified Approval Process template. This document summarizes in a brief and straightforward manner the main elements related to the project design.
- The following annexes:
  - Annex 1: Letter of no-objection;
  - Annex 2: Pre-feasibility study (PFS) (including Theory of Change, project/programme-level log frame, timetable, map, and summary of stakeholder consultation and engagement plan);
  - Annex 3: Budget;
  - Annex 4: Gender assessment and action plan;
  - Annex 5: Co-financing commitment letter;
  - Annex 6: Term sheet;
  - Annex 7: Risk assessment and management;
  - Annex 8: Procurement plan;
  - Annex 9: Environmental and Social Action Plan (ESAP) and Environmental and Social Safeguards risk screening;
  - Annex 10: Stakeholder Engagement Plan (SEP).

118. The review of the FP shows a clear and succinct overview of the problem statement. Additional descriptions of these elements are exposed in the PFS annexed to the FP. The PFS first extensively presents the country's climate profile, topography, phyto-geography and agro-ecological zones. Then, the rationale focuses on socio-economic information at country level, but also on general agricultural practices as well as forest and land tenure in Benin. The document presents climate change trends - which are significantly outdated though[19] - future projections and potential impacts mostly centred on the ecosystems targeted by the project. All these elements are then compiled to produce climate vulnerability scores in several municipalities of Benin. This rating is used to justify the choice of target sites for the project. Overall, the situation analysis appears concise and straightforward, highlighting the climate risks faced by communities in Central and North Benin. The evaluator confirms that the project climate rationale is solid and adequately justifies the project intervention. In addition, it is widely supported by the description of the current barriers to adaptation as well as the compounding non-climate drivers of vulnerability (anthropogenic threats to ecosystems that are key to adaptation; and root causes).

[19] Rainfall and temperature trends date from 2008 although the project was developed in 2017. However, to the evaluator knowledge, there is no evidence that more updated data were available at the time.

119. The approach proposed to address the problem is comprehensive and can be qualified as "integrated" since climate change adaptation interventions focus in a balanced way on the following:
   - Policy and Governance actions through the development and strengthening of forest management plans, the establishment of Community Forest Management Committees (CFMC) and the revision of national policies and strategies to mainstream EbA and climate-resilient agriculture approaches;
   - Scientific, Technical and Societal Capacity Building through the generation of up-to-date meteorological data, the development of agricultural response strategies based on short- and medium-range forecasts and the capacity building of vulnerable farmers on post-harvest storage;
   - Climate change delivery through forest restoration and the implementation of climate-resilient agriculture interventions.

120. The achievement of the project's main goal lies on the implementation of Ecosystem-based adaptation solutions. The EbA concept is well presented and exemplified both in the field of climate-smart agriculture and sustainable forest practices (as presented in Table 9). The associated intended environmental and socio-economic benefits are also described and appear relevant to the issues raised in the problem statement.

Table 9: EbA interventions and related supporting activities proposed at project design

Forestry EbAs	Agriculture EbAs
Reforestation activities in forest areas and along rivers Forest enrichment Focus on the adaptation needs of local communities Using only local indigenous species that are specifically adapted to future climate change conditions, e.g., drought-tolerant trees Using fast-growing species that provide quick benefits, as well as slow-growing species that provide long-term benefits Using as many tree species as possible as diversity enhances resilience (at least eight indigenous tree species will be used at each site): multi-use tree species, valuable timber species, species that are particularly appropriate for riverine forest Combining forest restoration with climate-resilient agriculture through detailed land-use planning Improved fire management practices include i) reducing human-caused ignitions; ii) creating and maintaining firebreaks; iii) promoting controlled burns; and iv) creating volunteer firefighting teams	Development of a menu of locally appropriate agriculture interventions for each site. Indicative adaptation interventions: i) crop rotation, intercropping, cover cropping and agroforestry (use of multi-purpose trees on farmlands, beekeeping, woodlots, bush fallow, fodder banks, live fences, farmer-managed natural regeneration); ii) slash and mulching, organic composting and planting zaï; iii) contour bunding and vegetative barriers; and iv) ridging. Establishment of demonstration sites, provision of trainings Distribution of climate-resilient crop varieties and traditional varieties/landraces
Forestry supporting activities	**Agriculture supporting activities**

Revision/development of forest management plans, including beekeeping development Establishment of Community Forest Management Committees Planting of woodlots for fuelwood to reduce pressure on forest areas Transhumance management	Planting orchards of valuable nut and fruit trees such as cashew and shea Support to processing cooperatives Development of beekeeping activities to increase resilience

121. The strategy is planned to be implemented using a strong community approach aimed at involving local communities in the design and implementation of the activities for their benefits, long-term well-being and adaptation to climate variability. In this respect, the project design was informed through several consultations with national and local stakeholders that are thoroughly described in a Stakeholder Engagement Plan (SEP) annexed to the FP. To prepare the concept note and the final FP, four missions were conducted in Benin, two of which included field visits and community consultations in five departments of Central and North Benin. The SEP indicates what kind of stakeholders were consulted during project design and what project design areas they contributed to. The document also provides a great analytical overview of the stakeholders' interest and influence on project decisions and design as well as the related engagement strategy.

122. The project design integrates clear descriptions of (i) the institutional and implementation arrangements; and (ii) financial management and procurement. It also includes a clear risk analysis with concise suggested mitigation measures, a stakeholder engagement plan and a Social and Environmental action plan. The FP does not include a cost effectiveness analysis to promote EbA as a cost-effective measure compared to hard infrastructures. However, the PFS displays an extensive list of past and ongoing adaptation and non-adaptation projects which demonstrates a willingness to build on existing initiatives and identified best practices.

123. The project design considers gender equity. This is clear through the FP and in the annexed Gender Analysis and costed Gender Action Plan (GAP). In the GAP, the project has adopted gender-disaggregated targets and the design recognizes the importance of having both women's and men's equal participation in the project activities. The project design is overall gender sensitive[20], both in terms of maintaining a gender balance in project guidance as well as through its focus on enhancing the livelihoods of women and promoting enterprises managed and run by women.

[20] Definition of "gender-sensitivity, according to the European Institute for Gender Equality (EIGE),": "Policies that take into account the particularities pertaining to the lives of both women and men, while aiming at eliminating inequalities and promoting an equal distribution of resources, addressing and taking into account the gender dimension." Source: European Institute for Gender Equality, 2023. Gender mainstreaming glossary [online]. European Institute for Gender Equality. Available from: https://eige.europa.eu/gender-mainstreaming/glossary [Accessed 27 Oct 2023].

Weaknesses

124. Although the overall situation analysis and proposed strategy were relevant and coherent to the situation at stake at project design, some shortcomings might be noted in the initial architecture of the project.

125. As mentioned in section 0, the intensity of the deforestation pressure might have been underestimated at project design. Indeed, in 2021, when the project's physical activities started, the areas where gaps in forest cover were described in the FP had turned into complete bare lands, fully deprived from natural forests and trees and used for agricultural purposes. Advised by the DGEFC, this new situation led the NPMU to change the reforestation technique used to restore part of the two management units assigned to PABE in the OSN classified forest.

126. In general, the description of the rationale behind the outcomes, the outputs and the activities are well articulated. However, the ToC and description of the overall project strategy in the funding proposal could have benefited from providing more identifiable adaptation pathways, linking the three outcomes more closely and on a broader scale, and underpinning the overall proposed intervention. Transformation/adaptation pathways help explaining how the project will lower the barriers to adaptation by describing the relationship between outputs, outcomes, Medium-Term Outcomes, and ultimately Long-term Impacts. Complementary adaptation pathways for PABE project could be:

a) By transferring the management of forest resources to local communities, while simultaneously building capacity to monitor forests and results from EbA activities, the project builds ownership of the sustainable management of ecosystems, which in turns contributes to behavioral change towards sustained protection of key ecosystems providing adaptation benefits, and ultimately helps secure livelihoods and protect lives in forested areas, or;

b) Capacity-building on climate-smart agriculture, post-harvesting storage and processing at the local level leads to increased uptake of adaptation strategies;

c) Proposition of relevant and adapted alternative activities and source of revenue such as beekeeping and the plantation of non-timber forest trees to foster behavioral change of local populations towards ecosystem-based management while increasing their resilience to natural hazards;

d) By conducting policy reviews and promote the mainstreaming of EbA and climate-resilient agriculture into the existing legal frameworks, the project contributes to a harmonized policy environment, which can lead to the mobilization of additional adaptation finance, and scaling of adaptation action.

127. The project design would have gained from assessing more precisely the national institutional capacities to implement this kind of ambitious, multi-scalar and integrated project.

128. In addition, the proposed implementation structure foreseeing a full NPMU based in Cotonou, without local representations, might be another big weakness of the project initial design. This shortcoming was partially overcome during project implementation with the establishment of the Commune Monitoring Units. The efficiency of those structures will be further discussed in section 0.

129. Regarding budget, several people interviewed during the evaluation regretted the low amounts dedicated to operating costs, in particular the low staff salaries However, it should be noted that the NPD unilaterally increased NPMU staff salaries by 15% in March 2023 when contracts were renewed for one year.

130. Regarding the integration of a gender perspective into the project design, activities targeting women mainly focus on income generating activities. However, the inherent nature of certain activities somewhat hinders their involvement due to the prevailing traditional gender roles in the targeted communities. While the project design considers women for other activities such as reforestation and decision-making management, it does not sufficiently address the essential groundwork required to effectively integrate women into roles and activities traditionally associated with men. As for the Gender Action Plan at project design, it lacks numerical targets to define the project's objectives in terms of women participation and benefits. Moreover, one aspect missing is an analysis of the time implications that the additional work the natural resource-based enterprises may have for women in the communities. Even if the activities are designed to be aligned with roles that women already carry out, a stronger explanation is needed of how project activities and the subsequent natural resource-based enterprises will not be an additional time-burden on women or how this time burden will be mitigated. The project gender action plan was updated during the project implementation, by a national consultant in 2022 and an international consultant in 2023.

131. In practice, the fact that the FP was developed in English and that the NPMU staff do not master English might have been another structural weakness of the project. In this respect, the French versions of the FP and its annexes might not have sufficiently captured the strategy's nuances and technical terminologies. Furthermore, despite French being an official UN language, GCF only functions in English, which is limiting the understanding between entities. This issue is not specific to PABE.

Amendments and revisions

132. Apart from the changes described in section 0, all the elements foreseen in the project design have been initiated or are planned to be initiated in the near future. To the evaluator's knowledge, there is no evidence that the changes detailed in section 0 were agreed following UNEP/GCF policies for revisions.

133. Regarding the budget, the project conducted one project budget revision in 2023 which main objective was to increase budget lines for the construction of storage

warehouses and the purchase of four instead of three automatic weather stations. The revision was endorsed by the Task Manager and cleared by the UNEP Finance Management Officer. The changes within the project component were within 10% threshold and therefore did not require approval by GCF.

134. Regarding gender equality, a situational analysis of the gender issues was carried out in project targeted areas in 2021. Among other key aspects, the analysis revealed that women had unequal access to land and that less than 30% of women were involved in the management of classified project area. In light of the main barriers faced by women in their communities and which would impact the activities targeting the participation of women, the recruitment of an international gender advisor was undertaken in 2023 to work with the NPMU's Environmental and Social Safeguards and Gender Specialist (ESSGS) to implement the Gender Action Plan. An update of the Gender Action Plan was developed in 2023 and should be implemented soon in order to address more adequately these identified challenges.

Rating for Quality & Revision of Project Design: Moderately Satisfactory

The project design is integrated and ambitious in the concepts and approaches promoted. However, at project start, the identifiable adaptation pathways linking the three components of the theory of change missed and the strategy lacked an initial assessment of national and local capacities to implement this kind of ambitious, multi-scalar and integrated project. Furthermore, the structure and means of implementation foreseen in the funding proposal proved to be insufficient in practice at the commune level.

Effectiveness

Theory of change

135. The project's Theory of Change (ToC), as presented in the funding proposal, was considered appropriate and relevant throughout the project implementation, as it has not been revised since the start of the project. In particular, it was conserved after the development of the project baseline. The proposed diagram considers a baseline situation, the potential barriers and assumptions. As it stands, it is sufficient to draw a line from outputs to targets. However, as discussed in section 0126, the diagram lacks identifiable causal pathways from problem statement to GCF-level desired impact framed to show the potential paradigm shift that can be realized from project implementation. In addition, although the identified barriers were important and relevant to include in the TOC, the assumptions could be refined. Indeed, underlying the ToC, assumptions must be based on variables that are external to the project's sphere of control. These elements must be fulfilled for the project to successfully achieve its objective. Refined assumptions for the project could be:

- Implementation partners are active, willing, and able to take the lead in project implementation;
- Communities are willing and able to partake in the project activities;
- Restoration efforts are not threatened/undermined by local conflicts or climate change impacts (e.g., droughts), and are supported by significant local buy-in from all local actors through the community-based approach;
- Climate-resilient value chains and business initiatives developed respond to local, national and global market's needs.

136. Overall, the proposed strategy is appropriate and coherent with UNEP, the GCF and Benin's national priorities and local needs when it comes to tackle climate risks and provide solutions to socio-economic issues. However, as expressed earlier, the scale of the integrated approach promoted might have been overestimated given national and local capacities to understand and master the concepts and practices related to climate change adaptation and EbA. The strategy was even more ambitious that the funding proposal only planned for a NPMU based in Cotonou. From the implementation structure proposed in the project document, local implementation should have been ensured by local service providers and monitored through the deconcentrated services of the DGEFC and the MAEP. In this configuration, despite being highly reliant on sectoral ministries and institutions' extension services, no project costs were foreseen for the management of the project at the municipality level. Furthermore, there is no mention of the involvement of the municipalities in the implementation and monitoring of the project in the FP which later proved limiting the potential for local buy-in, the project knowledge about the localities and communication capacities about the activities of the project.

Rating for Theory of Change: Moderately satisfactory.

Availability of outputs

137. Despite delays since implementation start, caused by the Covid-19 pandemic and a significant delay in getting the second disbursement in 2022, the project has made progress on several outputs. These progresses are detailed based on the MTE data collection in Table 10. A summary of the last APR validated in 2022 and the MTE is presented in Annex 8: Recap of the PABE's outputs implementation status and level of achievement.

138. Under Component 1, output 1.1 aimed at developing forest management plans and establishing community forest management committees is approaching completion. Although the two community management plans of Bakou and Beterou still lack appropriate cartographic data, the other five strategic documents are considered satisfactory, as is the community approach to their preparation. Forest management plans, which include gender considerations and EbA mainstreaming,

outline relevant activities at each site that allow for the reconciliation of maintaining healthy ecosystem functions and meeting human needs while promoting adapted livelihoods. Before that, the existing plans (Bakou and Beterou) were focused on forest exploitation and logging, with limited consideration of reforestation and natural regeneration. Based on the EbA approach, the new management plans proposed for each site include EbA options, which, if carefully implemented, should lead to the continued provisions of ecosystem services. The biggest challenge now resides in the effective adoption and implementation of these plans by the forest extension officers, supported by the SLCGFs. For this purpose, forestry officers will be trained to the use of drones (which should be funded by the government as a co-financing of the project). Furthermore, the collecting system for forest fees will be piloted in the remaining time of the project.

139. With respect to SLCGFs, two of them were already up and running since several decades in the classified forest (Djougou and Tchaourou) when the project started. PABE established the remaining five ones and experienced certain difficulties in doing so. For example, for Banikoara community forest, local populations were resistant to the project as they feared to be denied access to the forest or expropriated from their lands. This situation was overcome by extensive discussions, explanation and awareness raising with local communities. From now on, an important component in the capacity support to these SLCGFs will be efforts to ensure that the EbA provisions are fully understood and implemented, beyond the simple role of forest patrols. In this regard, several community stakeholders reported that the tools and resources initially intended to the SLCGFs have been given to the municipalities. This issue must be clarified to ensure that these committees indeed have sufficient resources to perform their duties.

140. As explained in Table 10, significant areas of land have been reforested and planted by the project under Output 1.2. However, as such the reforestation technique using mostly monoculture and exotic species cannot be considered as EbA. In addition, the survival rate of the seedlings planted doesn't fully meet the mid-term 75% target as prescribed in the results framework. As of September 2023, the survival rate is estimated to reach between 44% and 70%% for the reforestation activities in the two management units of the OSN and between 71% and 100% in community forests, between 63% and 90%% in woodlots and between 80% and 99% in orchards. These rates were calculated by the DGEFC. These are reforestation areas completed in 2021, replanted in 2022 and 2023, and new areas replanted in 2023. Potential explanations for this shortfall are presented in Table 10. Finally, the municipalities sometimes also encountered difficulties to find available lands for the restoration and plantations activities as most of the forest riverine lands (despite being state-owned) were already occupied by farmers. In this context, it was agreed with municipalities that some reforestation and planting would not take place in the

nearby surroundings of the community forests. As an example, the village of Deroubou, also hosting a community gallery forest which will be restored through PABE, could not accommodate an orchard due to the lack of available land. After months of negotiation and awareness raising, the orchard was redirected to another area called Tokey (2 km from the centre of Banikoara on the road to Burkina Faso).

141. As observed for reforestation interventions, the delivery of all outputs under Component 2 has been delayed. Overall activities under the Output 2.1 are on track: weather stations are ordered, and numerous agriculture demonstration plots have been installed leading to increased agricultural productivity. Although there is an acceptable ownership among farmers on the proposed approach, similarly to Output 1.2, the EbA character of the agriculture activities implemented within the framework of PABE is questionable as very few CSA practices were explored. Soya is the only climate-resilient crop chosen among all the possibilities identified through a preparatory survey. In this framework, PABE established 80 demonstration units for the training of 1,237 heads of farming households, including 406 women. The project distributed 170 thousand kilos of certified soybean seeds and 11,400 bags of inoculum. Moreover, PABE supported farmers with small planting material (700 seeders and ploughs) but the evaluation revealed that it was not completely adapted to their needs. In particular, the project provided ploughs without oxens. As most of the farmers don't own draught animals, this equipment was not used by almost any of the beneficiaries. The provision of this material was based on a community consultation conducted by PABE in February 2021 in the 7 municipalities. These consultations led to the choice of ploughs and seeders. As the project couldn't provide oxen, the solution proposed was to mutualize the oxen available in each village. However, this solution was rarely implemented in practice. Further analysis of the type of equipment supporting EbA and climate-smart agricultural practices needs to be conducted to respond to farmer's needs, capacities, and EbA principles. Under Output 2.2, progress has been made as fifteen cooperatives were supported by the project, two per municipality except in Dassa where the project supported three. From their point of view, the assistance was useful and mostly appropriate. Nevertheless, to be fully effective, the support provided now needs to be complemented by further equipment and trainings, based on a case-by-case requirement needs-assessment to be carried out by the project or its partners.

142. With respect to the mid-term target, none of the cooperatives has been supported in establishing a business plan so far. The recruitment of the consultant mandated to do so was ongoing as ToRs were available in October 2023. Activities planned with EBAFOSA are also delayed and haven't started yet. Similarly, the procurement for the consultant associated with these activities was launched but returned unsuccessful. As of October 2023, the relaunch process was underway.

143. Progress has been slower under Output 3.1, partly because most of the efforts have been concentrated on the first two components during the first years of implementation. As a consequence, none of the mid-term targets are met. Nevertheless, significant progress has been made since the assessment of the last APR22. ICRAF conducted several workshops to strengthen national and sub-national capacities around EbA, CSA and SFP. In parallel, a communication officer has been hired to accelerate the implementation of the project's communication strategy including the establishment of the webpage dedicated to EbA lessons learnt and best practices on the MCVT website and the strengthening of the awareness raising directed towards local communities.

144. Prior to the MTE, a Results Verification Exercise was commissioned by UNEP and conducted by the consulting firm Timesis in June-July 2023. The related report was validated by UNEP and used as an input to this MTE. Table 10 compiles the conclusion of the RVE (identified in the grey boxes) and the MTE's inputs. The MTE's authors are not responsible for the statements and formulations proposed in the RVE.

Table 10: PABE project progress on outputs

<table>
<tr><th>Outputs</th><th>Activities recommended</th><th>Indicator and mid-term target, and Means of Verification</th><th>Activities implemented and status of achievement</th></tr>
<tr><td>Output 1.1: Seven forest management plans revised or developed and put into practice by Community Forest Management Committees, to include EbA and climate-resilient sustainable forest management practices.</td><td>1.1.1. Develop or strengthen forest management plans.
1.1.2. Establish and/or strengthen seven Community Forest Management Committees.</td><td>Number and Level of effectiveness[21] of CFMCs: 7 CFMCs at Level = 2

MoV: Key informant interviews; household surveys.</td><td>1.1 Seven forest management plans revised or developed and put into practice by Community Forest Management Committees, to include EbA and climate-resilient sustainable forest management practices

From the RVE: “4 SLCGF level 2, 3 SLCGF level 1

In general, all SLCGF members have been trained by the project and are supported by local DGEFC staff. In the case of Dassa, Cobly and Banikoara, the SLCGFs have been set up but have not yet reached a level of operationalization that enables them to hold regular meetings. In the case of the other four SLCGFs, members organize regular meetings, albeit not with the same frequency. The cases of Djougou, Boukombé and Tchaourou are worth mentioning; the committees are operational. They cannot yet be considered to be at level 3, as they have not yet received the equipment they were supposed to receive from the PABE. At the time of purchase, the SLCGFs were not yet in a position to assume responsibility for these assets, so the motorcycles, PCs and GPSs were handed over to the town hall and DGEFC staff.”

<table><tr><th></th><th>Level 1</th><th>Level 2</th></tr><tr><td>Djougou</td><td>Reached</td><td>Reached</td></tr><tr><td>Ouaké</td><td>Reached</td><td>Reached</td></tr><tr><td>Boukombé</td><td>Reached</td><td>Reached</td></tr><tr><td>Cobly</td><td>Reached</td><td>No</td></tr><tr><td>Dassa</td><td>Reached</td><td>No</td></tr><tr><td>Tchaourou</td><td>Reached</td><td>Reached</td></tr><tr><td>Banikoara</td><td>Reached</td><td>No</td></tr></table></td></tr>
</table>

[21] Level 1= CFMC established; Level 2 = CFMC in place, meeting regularly with appropriate representation (gender and decision-making authorities); Level 3 = CFMC in place, meeting regularly, with appropriate representation, with appropriate information flows and monitoring of action items/issues raised. Level 4 = CFMC NR permit system working effectively to enforce sustainable natural resource extraction.

			Status and achievement with respect to mid-term targets as per MTE* (Sept 2023): Partially achieved. 1.1.1 Develop or strengthen forest management plans From the RVE: "7 management plans The seven forest management plans were drawn up in a participatory manner with the beneficiary communities and DGEFC staff and handed over to the respective SLCGFs. These are good documents that can serve as a tool for the proper management of the forest areas in question. At the time of the verification, all plans for the following areas had been completed: Baku, Beterou, Derou-bou, Didani , Katenga, Salangawa, Bétécoucou. Of the seven project plans, the Baku and Beterou plans were drawn up in 2021, while the others were completed in 2022. All plans appear to be in place and operational. The forest management plans implemented as part of the project have a dual purpose: - Bring direct benefits to forest and land management and affected communities; - Dealing with the additional impacts of climate change on forest ecosystems. The forest management plans are very detailed, with an impressive description of the methodology applied and the analysis of the spatial and social context. The data collection methodology is adapted to the objective, and the planning approach is adequately described. Many of the tables adequately describe how the planned areas will be managed; similarly, the minimum objectives are correctly stated, to some extent, those responsible for actions and plan implementation. Regarding the second objective, it should be noted that operational feasibility and potential effectiveness have been measured for each EbA option. The documents therefore appear to be well structured, but this mass of material lacks, according to the authors, adequate supporting cartographic documentation to facilitate batch management and the monitoring and verification of results. The lack of a suitable cartographic database was an objective problem for the results verification process, and limited remote sensing analysis and correct geolocation of plots. Collaboration between implementing stakeholders appears to

			be effective, but it remains to be seen whether this effectiveness will also be reflected in the involvement of local populations in the years to come. It should not be forgotten that close collaboration between forest administration staff and SLCGFs will always be necessary to be truly effective; these documents can be difficult to access and apply without adequate training geared towards natural resource users." MTE's inputs: The development/update of the management plans was based on solid socio-economic and environmental assessments which aimed at establishing the vital and complex relationships that exist between the people and the forests in this part of the country. The assessment should have been conducted by the DGEFC and was finally externalized to a consulting firm (Golf-Expertise). The development/update of the forest management plans were conducted by ICRAF using a participatory approach. In order to ensure community ownership, these documents were subsequently presented and validated to government stakeholders and communities in each commune. Some cartographic information still lacks to finalize the 2 management units of the OSN. Indeed, ICRAF needs map data (geographical coordinates of management plots) and zoning shapefiles for the two management units in order to propose EbA options that are consistent with the different management series already identified in the overarching OSN management plan. This information could be provided by the Cartography and Remote Sensing Unit of the Classified Forest project. However, to date, it is not available yet as the revision of the OSN global management plan is still underway. The mapping work has therefore not yet been finalized. On the other hand, this has had no impact on the quality of the other 5 management plans already finalized and currently undergoing technical validation with the DGEFC. Within the framework of the partnership agreement with DGEFC, the project provided seven motorcycles, seven computers, seven GPS and seven drones to local forest extension services for patrols and monitoring of forest landscapes. The government was supposed to finance the training for this staff in the use of drones. However, this has not yet taken place. In addition, following the RECASEB project (see paragraph 114) a review of the existing Forest Department permits and fee systems regulating the collection and trade in forest products was carried out. The result of the analysis is a technical proposal that is aimed at piloting one of the options proposed by RECASEB project. Within this framework, the proposition designed by PABE was presented to government stakeholders in December 2022. The full development of this tool is expected by the end of the project. 1.1.2 Establish and/or strengthen seven Community Forest Management Committees

<table>
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<td>From the RVE: “7 SLCGF established and/or strengthened
The SLCGFs have been trained and are active. However, they do not have all the tools and resources they need to function properly. These include the motorcycle, computers and GPS that were donated to the municipality, but which were intended for the SLCGF.”

<table>
<tr><th>Communes</th><th>Number of members SLCGF</th><th>Men</th><th>Women</th><th>Number of SLCGF members trained</th><th>Men</th><th>Women</th></tr>
<tr><td>Djougou</td><td>5</td><td>4</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>Ouaké</td><td>9</td><td>5</td><td>4</td><td>3</td><td>1</td><td>2</td></tr>
<tr><td>Boukoumbé</td><td>11</td><td>10</td><td>1</td><td>3</td><td>2</td><td>1</td></tr>
<tr><td>Cobly</td><td>11</td><td>6</td><td>5</td><td>3</td><td>2</td><td>1</td></tr>
<tr><td>Dassa-Zoumé</td><td>11</td><td>9</td><td>2</td><td>3</td><td>2</td><td>1</td></tr>
<tr><td>Tchaourou</td><td>5</td><td>4</td><td>1</td><td>2</td><td>2</td><td>0</td></tr>
<tr><td>Banikoara</td><td>5</td><td>4</td><td>1</td><td>3</td><td>3</td><td>0</td></tr>
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MTE’s inputs:
At mid-term, the target of having 7 SLCGF “in place, meeting regularly, with appropriate representation, with appropriate information flows and monitoring of action items/issues raised” is not met. All SLCGF reached Level 1 while only four reached Level 2. Nonetheless, the evaluator estimates that the project activities and outputs - once fully delivered - have the potential to contribute significantly to the achievement of this target. Indeed, SLCGFs received training and support to develop forest management plans and annual workplans for the protection and valuing of the forests. The capacity building provided to integrate and understand i) the role of healthy forest ecosystems and the ii) needs of the forestry administration to maintain it, is expected to further consolidate their commitment and willing to disseminate sustainable forestry and EbA best practices across communities. This involvement will be conditioned though by a close collaboration and communication with forestry local authorities and the provision of sufficient means to ensure their duties such as the motos, GPS and camera promised by the project.
From a gender perspective, with the exception of Cobly, there is no gender balance between men and women in the SLGCFs.
ICRAF also organized a capacity building event in Dassa with members of the CCS (municipal and district forest wardens and CCeC officers) where these were trained on how to provide technical support for the implementation of EbA and climate-resilient agriculture.</td>
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<tr>
<td>Output 1.2: Land reforested to</td>
<td>1.2.1. Plant trees using selected</td>
<td>Percentage survivorship of planted trees: 75%</td>
<td>1.2 Land reforested to buffer against the impacts of climate change such as floods and soil erosion, and to enhance the provision of non-timber forest products (NTFPs) such as fruits, medicines, nuts, fuelwood and fibre</td>
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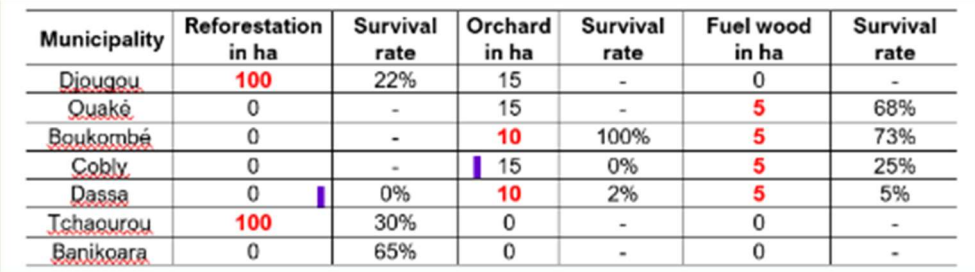
</table>

buffer against the impacts of climate change such as floods and soil erosion, and to enhance the provision of non-timber forest products (NTFPs) such as fruits, medicines, nuts, fuelwood and fibre.	species to buffer against the impacts of climate change such as floods and soil erosion, and to enhance the provision of non-timber forest products. 1.2.2. Establish at least seven climate-resilient communal woodlots for the production of fuelwood. 1.2.3. Establish seven orchards using climate-resilient tree species to	MoV: Field survey (by localecologist and/or Forestry Department staff) collecting survivorship data from transects of 50m by 2m	From the RVE: "The results presented in the table below show data referring to the plots visited, with the addition of plots for which a survival rate of 0% was reported. The data refer to the survival rates of first- and second-year reforested plants, according to which a first year (2021) or second year (2022) plant is considered to be a living, surviving plant. Very low survival rates were observed in the first year. The reported rate is positively influenced by the replanting activities carried out in 2022."  MTE's inputs: The project document recommended the establishment of project nurseries, based near the areas targeted for restoration and planting activities, involving and training local communities. However, this recommendation was not followed during the implementation. Because of COVID, and the disbursement delays, the focus was instead on using already established nurseries. Indeed, the NPMU felt that starting from scratch in the communities would have taken too long not only to obtain viable plants, but also in the quantity required for the reforestation activities. This happened to be problematic in some cases as the chosen nurseries were sometimes several dozens of kilometers away from the remote intervention area which imposed hours of transportation to the seedlings once ready to be planted. As per the funding proposal, supported in the recruitment by the DGEFC, the NPMU mandated community-based service providers to conduct the restoration, planting and replanting (to replace dead plants) activities in every municipality. They were tasked with the preparation, community recruitment, implementation and maintenance of the reforestation and plantation areas. According to the last APR, survival rates of plantings undertaken in 2021 were deemed insufficient as of the evaluation conducted in 2022. Service providers were therefore required to undertake replanting in 2022, at their cost, to achieve the intended 80% survival rates by the end of the three-year contract. Their payment is now dependent on survival rates. The service providers' contract also includes the establishment of firebreaks which were not installed yet as of the MTE field mission.

Municipality	Reforestation in ha	Survival rate	Orchard in ha	Survival rate	Fuel wood in ha	Survival rate
Djougou	100	22%	15	-	0	-
Ouaké	0	-	15	-	5	68%
Boukombé	0	-	10	100%	5	73%
Cobly	0	-	15	0%	5	25%
Dassa	0	0%	10	2%	5	5%
Tchaourou	100	30%	0	-	0	-
Banikoara	0	65%	0	-	0	-

	supply nuts and seeds.		Overall, the survival rates for the planted trees (restoration, woodlots and orchards) were low and heterogenous between municipalities both for 2021 and 2022's plantations. The evaluation identified several potential causes: - Quality of the seedlings. It was pointed out to the evaluator that seedlings used for the plantations could be of low quality. Furthermore, depending on the localities, seedlings were transported from nurseries established far away from their remote final destinations. As a result, when the seedlings arrived, they were already fragilized and stressed which thereafter affected their survival capacities. - Quality of the soil. The Environmental and Social Impact Assessment (ESIA) mentioned the quality of the land given to the project (i.e. areas that are easily flooded, etc.) as also affecting the survival rate of the seedling. - Insufficient community awareness raising. Most of the zones targeted by the project activities were illegally occupied by local farmers who were not chased by the project. Seedlings were thus planted in agriculture fields with one condition: the farmers have been notified that they can continue cultivating the land (especially if they grow soil enriching crops such as soya) as long as they don't uproot seedlings or use pesticides and chemical fertilizers. Communities were also informed that they will have to stop cultivating in these areas within 3 to 4 years, when the trees will be taller. Based on the MTE field visit, there seems to have a low buy-in about these requests by local communities since seedlings have been extensively damaged and intentionally or unintentionally uprooted in almost all localities throughout the project implementation. Awareness raising efforts shall be maintained in this regard in the future. The support provided by the project to SLCGFs, which is tasked with communicating with local communities and raising awareness about the long-term benefits of the project activities, shall also help reach the expected results. - Livestock trampling. Reforested and planted areas are crossed by either herders or roaming cattle, damaging the newly planted seedlings. As this element was already identified at project design, some activities are thus planned in the project strategy to overcome the issue. In this framework, when the MTE was conducted, PABE supported by ICRAF was in the process of consulting relevant stakeholders to build transhumance corridors. - Insufficient maintenance and surveillance. Many of the sites visited during the MTE lacked efficient maintenance i.e weeding around the seedlings. Moreover, as reforestation and planting areas are often surrounded by agricultural fields and non-cooperating farmers, these zones would require better monitoring and control to limit vandalism. To increase survival rates, the service providers were contractually tasked with hiring community guards to patrol in the reforested areas. However, at the time these zones were visited by the evaluation team, the guards were not present. The heterogeneity of the survival rate between localities can be explained by several factors including the different climatic, ecological and soil (some are rockier than others) conditions.

			Status and achievement with respect to mid-term targets as per MTE* (Sept 2023): Partially achieved. 1.2.1 Plant trees using selected species to buffer against the impacts of climate change such as floods and soil erosion, and to enhance the provision of non-timber forest products From the RVE: "200ha The project has reforested 400 hectares of degraded forest, of which 100 hectares where the seedling survival rate was zero after one year.. The remaining 300 hectares have survival rates of between 22% and 65%." MTE's inputs: Restoration activities were conducted in priority in the Ouémé Superieur N'Dali classified forest i.e Djougou and Tchaourou municipalities. Some community forests also benefited from restoration activities at the project mid-term. Total area of forest restored in hectares reported by the NPMU during the MTE field mission is 536ha. Survival rates for these updated figures are estimated to reach between 44% and 70% for the reforestation activities in the two management units of the OSN and between 71% and 100% in community forests. Although the funding proposal extensively promoted forest restoration activities using EbA techniques i.e almost exclusively indigenous and diversified tree species, most of the reforestation conducted used monoculture of Tectona grandis (Teak). Khaya senegalensis, an indigenous species, was also planted in Banikoara, Cobly, Boukombé and Ouaké community forest, but still using the monoculture technique which drastically limits the resilience potential of such forests. The establishment of transhumance corridors in reforested areas is planned in the project logical framework. When the MTE was conducted, the recruitment of the consultant mandated to address this issue was ongoing. It would have made more sense to actually establish such corridors prior to reforestation activities though, to limit destruction of replanted forests. 1.2.2 Establish at least seven climate-resilient communal woodlots for the production of fuelwood From the RVE: "20ha reported (updated at MTE stage) The project resulted in the creation of ~~four 5-hectare plots~~ in the communes of Ouaké, Boukombé, Cobly and Dassa. The species used were acacia, in most cases, and to a lesser extent gmelina and neem. Survival rates ranged from 5% in Dassa to 73% in Boukombé." MTE's inputs:

The project objective is to establish 7 woodlots i.e at least one planted area per commune comprising at least 10ha. According to the latest data collected during the evaluation mission, this target has been reached with 70ha of woodlots planted in 14 localities of the 7 communes targeted by the project. Survival rates for these updated figures are between 63% and 90%. Species used were mostly *Acacia auriculiformis*, neem, *Gmélina*.

Training for charcoal producers on sustainable charcoal production is also planned in charcoal producing areas, near urban centers in the future. These trainings have not started yet.

1.2.3 Establish seven orchards using climate-resilient tree species to supply nuts and seeds

From the RVE: "75ha reported (updated at MTE stage)

Five orchard plots were created using mainly cashew and shea trees, with a total area of 65 hectares. The 10-hectare plots in Boukombé, where a 100% survival rate was observed, and the plot in Dassa, where a 2% survival rate was observed, were visited. The Cobly plot had a survival rate of 0%."

Municipality	Orchard in ha	Survival rate
Djougou	15	-
Ouaké	15	-
Boukombé	10	100%
Cobly	15	0%
Dassa	10	2%
Tchaourou	0	-
Banikoara	0	-

MTE's inputs:

The project objective is to establish 7 monoculture cashew orchards of at least 30-ha orchard in each commune. Total area of orchards reported by the NPMU during the MTE field mission: 175ha in 13 localities. Survival rates for these updated figures are between 80% and 99% in orchards.

At project design, the project provided for the plantation of orchards hosting a diversified mix of tree crop such as shea, cashew, néré as well as fruits and other non-timber forest products. However, so far, the NPMU has decided to focus only on cashew trees.

Cashew seedlings used for the planting are all grafted and sometimes polyclonal. These seedlings were used based on recommendations from the MAEP and supported by INRAB and ICRAF. In this respect, the last APR indicates that, it was observed that whilst the improved seedlings could potentially yield more fruits and were recommended by ICRAF as

			"climate-resilient", it appears that they might be more fragile to local drought conditions than the native seedlings. This statement has to be further confirmed. The issue is planned to be addressed through the expertise and guidance of ICRAF and INRAB on improved seedlings suitability.
Output 2.1: Climate-resilient agriculture interventions, which increase agricultural yields under climate change conditions, implemented on 3,000 hectares.	2.1.1. Develop agricultural response strategies to short- and medium-range forecasts. 2.1.2. Implement climate-resilient agriculture interventions which increase agricultural yields under climate change conditions. 2.1.3. Build the technical capacity of vulnerable farmers for post-harvest storage interventions	Area (ha) of agricultural lands where sustainable, climate-resilient agriculture is implemented: 1,000 ha of agricultural lands where climate-resilient agriculture is implemented Change in agricultural yields: Yields increase for 20% of the target population of 22,000 households by 20% through the project interventions. MoV: Randomized sampling; project level field surveys comprising interviews with local communities GIS mapping of project intervention sites Randomized sampling; project level field surveys comprising interviews with local communities	2.1 Climate-resilient agriculture interventions, which increase agricultural yields under climate change conditions, implemented on 3,000 hectares From the RVE: "830ha of agricultural lands RVE was unable to directly verify the size of the demonstration plots where growers put into practice the concepts learned at the training workshops organized by the national NGO Dedras. Nevertheless, all the growers interviewed confirmed that they had cultivated demonstration plots using the knowledge acquired and the tools made available to them by PABE. Although the growers were unable to specify the areas cultivated, the data provided by the project must be considered reliable based on the findings of the focus group interviews. Farmers have also put ancestral knowledge into practice, sometimes through agroforestry (Bakou Teak/Cotton and Cobly Acacia/Cotton). However, knowledge of EbA is not yet sufficient to guarantee that the adoption of practices linked to resilient agriculture will be sustainable over time. It has not been possible to obtain clear and real quantitative data on the evolution of agricultural yields. In Bakou, one grower indicated that his production had risen from 75 tonnes in 2021 to 125 tonnes in 2022, but without specifying the area cultivated. In Bagapodi, one grower reported that his production per hectare had risen from 6 to 14 bags of soya; each bag of soya weighs an average of 130 kg, according to the growers. Production per hectare has therefore risen from 780 kg to 1,820 kg. The producers interviewed are often organized into cooperatives, but sales are not always made as a group of producers. This means that production or sales registers rarely exist. In the only case where producers claimed to have a sales register (in the village of Komdé), it was not available. According to statements by producers, who are the main beneficiaries of production tools compared to women, production in plots cultivated with PABE assistance has increased by up to 50% (this is the case in the villages of

	in the seven communities .		Bagapodi, Bakou and Komdé). However, these are unreliable figures, based more on perception and memory than on real information." MTE's inputs: Since the RVE, the number of soya demonstration plots has risen to 80 and for the training to 1,237 farming households including 406 women headed households. The project distributed to trainees a total of 170,000 kilos of improved certified soya seeds and 11,400 bags of inoculum. However, as explained in paragraph 141, the EbA character of the agriculture intervention deployed is not sufficiently demonstrated as only one climate resilient crop was tested and very few CSA practices were associated with it. **Status and achievement with respect to mid-term targets as per MTE* (Sept 2023): Partially achieved.** 2.1.1 Develop agricultural response strategies to short- and medium-range forecasts "From the RVE: A memorandum of understanding between the project and Météo Bénin was finalized and promulgated, and an international consultant was hired to survey existing weather stations in the project areas. This study led to the conclusion that four meteorological stations were to be set up in Banikoara, Coby, Boukombé and Dassa-Zoumé to reinforce the national network and provide better coverage of the territory. In addition, all preparatory activities for the award of contracts (site security and station acquisition) have been completed." MTE's inputs: Before the recruitment of the international consultant, a national consultant was hired by the project team to conduct the evaluation of the existing national network of weather stations. However, the quality of the report produced by the contractor was deemed highly insufficient by UNEP which rejected the document and refused to submit it as a condition for the GCF second disbursement request. Afterwards, it was decided by UNEP that the analysis had to be consolidated with the support of an international consultant which generated delays to the project implementation. This is further described in section 0. When the evaluation was conducted, all four weather stations were in the process of being received. However, once received, it will not be possible to install them right away as the site preparation and securing - which should have been undertaken by the government as a co-financing – is still pending.

			Two consulting firms have been identified for the implementation of the developed Training and Capacity Development Plan to *inter alia* train Meteo Benin and relevant stakeholders to the use and maintenance of the weather stations once they will be received and installed. A report synthetizing the assessment and identification of suitable indigenous climate-resilient crop cultivars and agricultural best practices has been developed for every commune of the project. These reports should more firmly serve as a guiding element to underpin the choice of the most suitable cropping technique at each site of the project in the future of the implementation. These reports were validated in December 2022. The proposed crop cultivars are soya, corn, sorghum, millet and fonio. 2.1.2 Implement climate-resilient agriculture interventions which increase agricultural yields under climate change conditions From the RVE: "The project has signed a memorandum of understanding with the Institut National des Recherches Agricoles du Bénin (INRAB). The socio-economic survey carried out confirmed that this list of crops was appropriate and drought-resistant, and soya was selected from it. The project started promoting soybeans by supplying 350 selected growers with improved seed varieties. Forty-three demonstration fields were set up, and the national NGO Dedras also organized capacity-building activities for producers in terms of production equipment (plough, seed drill, certified soybean seeds and inoculum)." MTE's inputs: Although the funding proposal put forward a wide range of climate-resilient crops[22] and techniques, soya was the only climate-resilient option that was explored during implementation. The benefits identified by the project team and confirmed by the beneficiaries are the following: commercial value on global and local markets, nutritional quality, improved agricultural yield, fertilization of the soils. However, the extent to which this option is an EbA appears questionable. In fact, without being associated with locally appropriate adaptation techniques (such as crop rotation, intercropping, slash and mulching or organic composting), the effective ecosystem and adaptation benefits associated to the culture are not demonstrated. Within the framework of the partnership agreement established with INRAB, the institution was supposed to supply the certified soybean seeds. It supplied seeds and inoculum in 2021, and established demonstration plots. However, INRAB

[22] In the pre-feasibility report, soybean, cashew,"nere", Shea and sorghum were proposed.

			did not honor its commitment in 2023 due to the delays in the disbursement incurred in 2022. PNOPPA therefore ensured the supply of soya seeds, also set up demonstration plots and provided support to farmers. As most farmers don't precisely weigh their productions, it is not possible for the project to assess the extent to which the agricultural productivity has increased as a result of the project support. Nevertheless, farmers consensually recognized the improved yield and related increased income. In addition, CCeC officers at the local level are tasked with following the demonstration plots, implementing protocols to monitor and assess the growth of the planted soya. One important shortcoming of the support provided by the project to farmers is the provision of ploughs without oxens. In fact, all farmers and cooperatives supported appreciated the support provided in terms of seedlings, trainings and material, except the ploughs which was almost unanimously deemed useless as most farmers don't have oxen. Though the RVE though revealed that some of them managed the situation sourcing neighbours with oxens and mutualizing their assets, this situation appeared marginal throughout the evaluation field mission. Some of them also expressed the need to renew the trainings on inoculated soya cultivation and the use of planting material so that the new knowledge is consolidated and mastered and/or more people can benefit from it. They also raised the need for additional storage facilities to be built as post-harvest losses remain one of the most prominent issues for most cooperatives and small holders. 2.1.3 Build the technical capacity of vulnerable farmers for post-harvest storage interventions in the seven communities From the RVE: "During the mission, we visited the five stores currently under construction, all of which are at the same stage of completion. These are the Ouaké, Boukombé, Cobly, Dassa and Banikoara stores. The team on site has confirmed that they will be completed by September 2023. The cooperatives have also been strengthened by the equipment supplied to them (7 cashew graders, 7 cashew hullers, 2 cowpea hullers, 2 cowpea mills, 2 cowpea cookers, 5 shea hullers, 5 shea mills, 5 shea roasters and 7 tricycles)." MTE's inputs: Supported by the CCeC, the project chose cooperatives that were the most in need of storage and processing facilities. Overall, the cooperatives met during the MTE field mission expressed their satisfaction about the infrastructures that will be delivered by PABE by the end of year 2023.
in	2.2.1. Train several cooperatives located in	The economic value of trade agreements facilitating sales from the value chain, which	2.2 Market access created for climate-resilient crops to support EbA

	project sites on basic business and financial management and connected to local and national wholesale traders. 2.2.2. Finalise and implement the EBAFOSA (Ecosystem Based Adaptation for Food Security Assembly) standards and innovations for the agricultural production value chain that can promote adaptation.	post- harvest facilities are expected to increase/improve: 7-14 cooperatives formed and business strategies developed. Economic value created by the project = 0 as work is carried out to strengthen cooperatives and implement Output 2.1 MoV: Independent evaluation report	From the RVE: "~~14~~ cooperatives trained All the cooperatives exist and are active, although there are obvious differences. There is a consensus on the benefits of the PABE in terms of end-product improvement, although there are still differences between the cooperatives in terms of product quality. Clustering would best help in this case, for example, the Agbara Olouwa Dassa-Zoumé cooperative is much more advanced in terms of good practices and in terms of equipment and installation. In fact, only six cooperatives have an accounts book, with varying degrees of accuracy. None of the cooperatives has a business plan, and one of the most frequent observations is the request for help to improve market access." MTE's inputs: Most of the cooperatives supported by the project were grateful about the processing material received through PABE. Overall, they received: equipment (shellers, graders of cashew nuts, decorticators, sliders and mills, shea roasters and tricycles for transportation) and trainings. However, part of the equipment provided was not exactly adapted to their use, received broken and had to be fixed/adapted to their activity at receipt. Due to either low quality of the initial procurement or to excessive or wrong use and maintenance, part of the processing equipment was already out-of-order when the MTE field mission was conducted. Other equipment was provisioned without anticipating the need to store it, in particular for large equipment that are thus currently stored outside without any protection from rain or thief. **Status and achievement with respect to mid-term targets as per MTE* (Sept 2023): Partially achieved.** 2.2.1 Train several cooperatives located in project sites on basic business and financial management and connected to local and national wholesale traders

From the RVE:

"Training activities have been carried out, but the results in terms of financial management capacity-building are weak and uneven. On the other hand, with regard to commercial management and market access, results were insufficient, with one of the recurring requests from all cooperatives being for help in finding new customers. Activities for this session are scheduled for the second half of 2023.

Communes	Village	Cooperative name	Number of members	Number of co-op members trained					
				Atelier 2021	Men	Women	Atelier 2022	Men	Women
Djougou	Sassirou	Suru-tcheka	10	11	1	10	0	0	0
	Soubroukou	Sessewa-Tchérimé	21	13	2	11	13	0	13
Ouaké	Yarmala	Sourou	45	17	17	0	0	0	0
	Alayemde	Doubolo lolo	100	28	24	4	18	14	4
Boukoumbé	Koudogou	Koutinita	18	21	0	21	0	0	0
	Koukoua	Batitona	20	21	1	20	9	0	9
Cobly	Nouengou	Pirilahgou	35	13	0	13	28	0	28
	Bagapodi	Tipanna	23	22	1	21	17	1	16
Dassa-Zoumé	Dassa center	Agbara Otcuwa	12	7	3	4	10	1	9
	Tre	Egbalayo	10	9	0	9	18	0	18
Tchaourou	Banigri	Sudérana	25	17	10	7	16	5	11
	Tchella	Ile Doum	12	27	5	22	10	2	8
Bantkoara	Deroubou	Deroubou	9	0	0	0	45	3	42
	Nikkido	Nikkido	35	33	32	1	25	1	24
		Total	375	239	96	143	209	27	182

November 2021: training on associative life within cooperatives and training on the use and maintenance of processing equipment.

September 2022 Training in processing, packaging, clustering and marketing of shea and cashew nut products."

MTE's inputs:

Supported by CeCC, the project identified and selected fifteen cooperatives (2 per municipality, except in Dassa where the project supported three) located in the project area. They received processing equipment and trainings according to their specific needs (see the above box for content). As a result, some of them have increased their production by more than 60% in some cases while improving the quality of the final product as well. Cooperative members also expressed their gratitude as the project has made their daily work less tedious, more attractive as their working conditions improved. While all cooperative acknowledged the benefits of the support received through PABE, most of them would like to be

			further helped, replacing or provisioning additional equipment, receiving more trainings and support, to consolidate their new knowledge or to increase their access to micro-finance institutions. Some of the project's stakeholders interviewed during the MTE criticized the fact that part of the equipment provisioned by the project uses fossil energies which is considered as not being in line with the overall approach and related objectives of the project. Following PABE's trainings, two cooperatives, the Suru-Tcheka cooperative in Djougou and the Union Commune des Producteurs d'anacarde of Tchaourou, strengthened their collaboration by members informally exchanging know-how and good practices. This collaboration has been extremely beneficial for both cooperatives as they exchanged on cashew nut processing techniques, market requirements and commercialisation. When the MTE field mission was conducted, Tchaourou's cooperative was planning to visit AGBARA's cooperative in Dassa on their own resources. Finally, worries were expressed regarding the falling prices of cashew nuts on global markets in 2023, thus negatively affecting the selling opportunities and prices of some of the cooperatives supported by the project. This may negatively impact the indicator related to the economic value of the selling products under this output. 2.2.2 Finalise and implement the EBAFOSA (Ecosystem Based Adaptation for Food Security Assembly) standards and innovations for the agricultural production value chain that can promote adaptation MTE's inputs: In 2021, the project initiated discussions with the private sector entities, especially the Global Shea Alliance (GSA) and the National Federation of Almond and Shea Butter Producers (FBPK-Benin) to look at the shea value chains in the project From the RVE: "Activities with no observable effects in the field, only preparatory activities were carried out. Has been finalized with EBAFOSA (Ecosystem Based Adaptation for Food Security Assembly) through a Memorandum of Understanding and has identified key activities to be carried out to define transformation standards and EbA innovations for the agricultural production value chain. In addition, an action plan has been drawn up and the terms of reference for the consultant who will carry out the analysis are currently being published." municipalities with the view of improving access to market and potentially attracting private sector investments. This activity is planned to be further continued by the consultant that will be hired by the project.
Output 3.1: Tools, instruments and	3.1.1. Establish a national knowledge	Degree of integration of climate change and/or EbA into the Forest Law and	3.1 Tools, instruments and strategies developed to enable communities, businesses and the public sector to respond to climate change and variability

strategies developed to enable communities, businesses and the public sector to respond to climate change and variability.	hub to disseminate lessons learned, cost effectiveness and benefits information on gender-sensitive EbA and climate-resilient agriculture interventions. 3.1.2. Organise awareness-raising campaigns for local communities on climate change and the services provided by forest ecosystems.	agricultural policy (PSDSA): Level = 2[23] Extent of quality of climate advisories and applicability by farmers: Level = 2[24] MoV: Independent evaluation report. Baseline survey and Scorecard.	From the RVE: "Level 0 The activity has already started, and an initial analysis of Benin's agricultural policy frameworks has been completed." MTE's inputs: A communication plan was submitted as part of the initial project proposal. During the first phase of the project implementation, the first communication officer revised the plan. Following the arrival of a new communication officer, another revision took place. The updated version of this document is now in the process of being validated by the NPMU and the CTA. Recently the newly hired communication officer created Facebook and LinkedIn pages for the project. **Status and achievement with respect to mid-term targets as per MTE* (Sept 2023): Partially achieved.** 3.1.1 Establish a national knowledge hub to disseminate lessons learned, cost effectiveness and benefits information on gender-sensitive EbA and climate-resilient agriculture interventions From the RVE: "Activities with no observable effects in the field, only preparatory activities were carried out. The national knowledge centre has not yet been established. The project has developed terms of reference for establishing a national knowledge centre. A communications manager has also been hired." MTE's inputs: It was established by the NPMU, supported by ICRAF, that the knowledge hub would take the form of a webpage hosted by the MCVT's website. The idea is to create a platform where the results, lessons learnt and best practices of every project and initiative related to gender-sensitive EbA, CSA and SFP would be published and available. When the MTE was conducted, the ToR for the webpage development were in the process of being finalised. Before it is implemented, the webpage project will have to comply with national digitization standards. The recruitment of the new communication

[23] **Level 0:** Climate change not mainstreamed meaningfully into the forest law and agricultural policy; **Level 1:** Climate change narrative woven through the draft forest law and agricultural policy; **Level 2:** Action plan and toolkit for implementation of the forest law and agricultural policy with climate change adaptation fully mainstreamed have been developed; Level 3: Budgets allocated to implement the forest law and revised agricultural policy.
[24] **Level 0:** Climate advisories not used among smallholder farmers to adapt farming practices; **Level 1:** Responses to the range of climate hazards codified by focus groups of smallholder farmers; **Level 2:** Climate advisory dissemination pilot tested among a lead farmer group; **Level 3:** Farmer to farmer dissemination of climate advisories tested over an agricultural season; **Level 4:** Targeted smallholder farmers reporting more stable yield or reduced loss of crops

	3.1.3. Strengthen national policies and strategies to support an integrated EbA and climate-resilient agriculture approach for sustainable management in forests and adjacent lands.		officer in July 2023 should help highlighting the project success stories, lessons learned and good practices, that will inform the knowledge hub. The evaluation revealed that UNDP recently assessed all EbA initiatives implemented in Benin. PABE was part of the consultation but didn't receive any feedback on the study since then. 3.1.2 Organise awareness-raising campaigns for local communities on climate change and the services provided by forest ecosystems From the RVE: "An awareness campaign was implemented in 2021. It was carried out at the time of the in-depth consultations with local communities to draw up the forest management plan, and also involved the beneficiaries. However, the reality observed in the field confirms that beneficiaries are not yet fully aware of the scope of the project." MTE's inputs: The MTE consultation confirmed what was observed during the RVE. Only part of the interviewees were aware about the whole scope of the project. For instance, at local level, the CCeC directly contacted soya and processing cooperatives to propose the project's support but most of these beneficiaries did not participate to the project awareness raising events. 3.1.3 Strengthen national policies and strategies to support an integrated EbA and climate-resilient agriculture approach for sustainable management in forests and adjacent lands From the RVE: "Activities without observable effects in the field, only preparatory activities were carried out. The project drew up the terms of reference for setting up national awareness campaigns through a contracted activity with ICRAF." MTE's inputs: ICRAF organized a capacity building workshop on climate change and EbA in Dassa in 2021. This event targeted decentralized authorities and forest and agricultural extension services at commune level, more specifically the CCS members. Another similar event targeting institutional stakeholders (members of the national climate committee and relevant ministries executives) at national level was organized in Cotonou in 2021. The aim was to present adaptation solutions and ways to integrate and improve national policies. In this perspective, another goal was to identify the laws and policies where CSA, SFP and EbA concepts could be integrated. According to the project team, the stakeholders involved received

			the workshop with a high level of enthusiasm. Local journalism and the project communication covered the event that was advertised on the project Facebook and LinkedIn pages. Following the event, ICRAF developed a report pinpointing all the gaps identified in the national and subnational policies and laws focusing on agriculture, climate adaptation and resilience building among rural communities. The organization supported the establishment and training of an EbA integration monitoring committee including the MCVT and the Ministry of Finance aimed at supporting and advocating the integration of the concepts in relevant policies and laws. In July 2023, ICRAF presented the results of the gap analysis report to this committee in Parakou.

* based on assessment of progress realised during 2023

Rating for Availability of Outputs: Moderately Unsatisfactory

Overall, at project mid-term, all outputs have made headways. However the status of implementation of all outputs lags behind what was intended at mid-term. Moreover, the RVE and evaluation revealed that some of the project outputs did not live up to the expected quality of results, especially concerning the low survival rate of the planted trees, the insufficient use of EbA principles both for forestry and agriculture activities; and also with regards to the support provided to farmers and cooperatives which will have to be completed to become fully efficient.

Progress towards project outcomes measured by GCF indicators

145. The project logical framework provides for three outcomes related to the project components:

- Outcome 1: 3,600 hectares of land restored for multi-use energy and livelihood benefits;
- Outcome 2: Higher productivity from agricultural livelihoods secured in the face of climate change;
- Outcome 3: Strengthened technical and institutional capacity of the government and communities for implementing EbA and climate-resilient agriculture and enhanced awareness of the adaptation benefits.

However, in practice, these project outcomes are not associated to indicators, means of verification or to targets in the project results framework.

146. At GCF level, the evaluation of the project's progress is based on one outcome indicator and three impact indicators. The outcome's mean of verification and mid-term targets are presented below:

A7.0 Strengthened adaptive capacity and reduced exposure to climate risks		
Indicator	Mean of verification	Mid-term target
A7.1 Use by vulnerable households, communities, businesses and public-sector services of Fund-supported tools, instruments, strategies and activities to respond to climate change and variability	Scorecard approach targeting beneficiary communities and technical officers in districts, municipalities and central government	Level of incorporation of EbA in investments[25] = 3
		10% households' uptake/ application of targeted agricultural practices based on climate information advisories received

147. As described under activity 3.1.3, the project has made progress in mainstreaming the EbA concept at national and sub-national levels. Although, the trainings and workshops were targeted to a restricted number of relevant stakeholders, the evaluator estimates that the indicator measuring the level of incorporation of EbA in investments reached the level 2: "Initial EbA approaches are integrated through regular issuance of climate advisories; EbA mainstreaming guidelines and policy and information briefs are available". Now that gaps in national

[25] Level 1 = EbA approaches are not mainstreamed in policy, legislation or guidelines; Level 2= Initial EbA approaches are integrated through regular issuance of climate advisories; EbA mainstreaming guidelines and policy and information briefs are available; Level 3 = Revisions to national agriculture policy and forest law are developed and proposed for adoption; Level 4 = EbA adapted Agricultural Policy and Forest Law Adopted; Level 5 = Ministry of Livelihoods and Transport (MCVT) and Ministry of Agriculture, water and Fisheries (MAEP) develop annual and multi-annual sector planning and budgets that incorporate EBA methods for at least two relevant sectors.

laws and policies have been identified and the EbA integration monitoring committee is in place, the project, supported by ICRAF, will need to sustain the efforts to further progress in this direction and succeed in reaching Level 5 by the end of the project. Considering the current level of achievement of this output, the realism of targeting Level 5 by the end of the project is questionable though and may require further consideration by the NMPU.

148. Regarding the "uptake/application of targeted agricultural practices based on climate information advisories received", it is not possible to fully assess this criterion at this stage. Indeed, the weather early warning system planned under output 2.1 is not yet in place. With respect to the adoption of the agricultural practices promoted by the project, the uptake percentage is not established either. Nevertheless, most of the farmers interviewed during the MTE consultation indicated that they were convinced by the use of inoculated soya and the related agricultural practices promoted[26] as they unanimously observed an increase in productivity. Furthermore, the associated technique was described as easy to handle and disseminate. One of the major drawbacks that has been raised during the consultations is the price of such inoculated and short-cycle seeds. On average, they tend to be two to three times more expensive than the regular ones. As a result, farmers who received the inoculated seeds and increased their productivity did not reinvest 100% in inoculated soybean seeds for the following planting season. However, the uptake seems to be at stake, indicating that i) farmers are open to new techniques and in demand for innovative climate-resilient support and trainings; and ii) the training methodology was appropriate and allowed for an effective uptake at the local level. Another important enabling condition that was observed and part of the RVE conclusions, is the farmers' awareness of the existence of climate change and of the existence of effective tools to mitigate the negative effects of this problem.

Rating for Availability of Outcomes: Moderately Satisfactory

Likelihood of impacts measured by GCF fund level indicators

149. At fund level, the project's potential impacts are measured through the assessment of the two following indicators: A1.2 and A4.1.

A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions[27]		
Indicator	Mean of verification	Mid-term target

[26] Which, as a reminder, insufficiently integrate EbA practices and principles.
[27] Referenced as Adaptation Core Indicator 1 - Direct Beneficiaries of GCF funded project/programme in APRs

A1.2 Number of males and females benefitting from the adoption of diversified, climate-resilient livelihood options (including fisheries, agriculture, tourism, etc.)	Random sampling; project-level field surveys comprising interviews with local communities	4,000 women and 4,000 men benefit from climate-resilient livelihoods

150. According to the latest data made available for the MTE, the number of males and females benefitting from the adoption of diversified, climate-resilient livelihood options as of September 2023 is 11,930, including 46.5% of women. This count sums up the number of farmers having benefited from the training and distribution of improved soya seeds and the cooperatives members. Basically, looking at figures, the 4,000 women and 4,000 men mid-term target is reached. Having a more qualitative approach, the 6,390 figure is also questionable as the effective "adoption" of climate-resilient livelihood options is not proven yet (see paragraph 148) and the EbA character of the promoted crop and related agricultural technique is not evident neither.

151. In terms of direct beneficiaries, the RVE states that, as of July 2023, the number of project beneficiaries was 6,390 including 49.5% of women. This figure was calculated by adding members of soybean grower households and members of cooperative households. The evaluator considers this figure not 100% accurate as this figure excludes the SLCGF members and local communities involved in restoration and planting activities. As a result, the project's total number of beneficiaries might be underestimated.

A4.0 Improved resilience of ecosystems and ecosystem services		
Indicator	Mean of verification	Mid-term target
A4.1 Coverage/scale of ecosystems protected and strengthened in response to climate variability and change	Project-level field surveys including GIS mapping of project intervention sites showing forest coverage and density	1,200 ha of degraded forests protected and strengthened in response to climate variability and change

152. According to the latest data gathered from the NPMU during the MTE field mission, the total area of forest restored in hectares is 536ha, distributed between Bakou and Beterou districts of the OSN classified forest and Banikoara, Cobly, Boukombé and Ouaké community forests. Numerically speaking, the 1,200ha target is not reached. In this respect, it is important to mention that, based on DGEFC's recommendations, the project decided to switch from the originally planned and budgeted "enrichment"

technique (400 seedlings/ha) to the "open field" reforestation technique (1666 seedlings/ha), which is *de facto* more costly for the project. This can partially explain the incomplete achievement of the mid-term target. Then, from a qualitative perspective, as explained in Table 10, the restoration technique and seedlings used to produce this figure can undermine achieving diverse forest ecosystems and EbA solutions. Indeed, the reforestation technique used in the two management units of the OSN classified forest, representing 488ha of land, is monoculture of exotic teak tree. Teak was chosen based on DGEFC's rationale: it responds to the climatic conditions of the OSN; it is not palatable to animals (cattle); it is resistant to drought and fire; and it is the leading wood export from Benin. While from this perspective teak does present a number of advantages, monoculture forestry practices inhibit biodiversity and increase vulnerability to disease and climate shocks. In addition, the current survival rate of the planted seedlings is insufficient. As such, the effective improvement of the resilience of forest ecosystems and ecosystem services might be limited.

Rating for Likelihood of Impact: Moderately Unsatisfactory

Performance against GCF Investment criteria

Impact potential

153. The project theory of change provides for the following final impact "Improved, climate-resilient livelihoods in Central and North Benin". As explained, in its design, the project has the potential to create such impact in the targeted localities as the strategy is integrated, the approach promotes strong community engagement and the proposed adaptation solutions (EbA, CSA and SFP) are acknowledged to increase adaptation capacities and resilience of ecosystems and local populations. In addition to the adaptation benefits, the project offers significant climate mitigation opportunities which have been estimated at some 855,000 tons of carbon dioxide equivalent over a 15-year lifespan. In practice, besides lagging behind the original workplan and related timeline, most of the project's physical outputs cannot fully be characterized as EbA interventions.

154. In addition, the evaluator estimates that the efficient and needed coordination between the two components of the project (forest and agriculture) is questionable. In fact, some evidences of intersection were observed on the ground: planting service providers recruited a cashew nut cooperative member supported by the project to participate to the cashew orchard planting in Ouaké; seedlings of trees with good calorific capacities were planted surrounding the storage infrastructure built by the project for the cooperatives. However, this connectivity does not appear to be the rule and is not sufficiently evaluated and thus demonstrated by the project. As a result, the increased resilience produced by the project is difficult to confirm. In this respect,

ICRAF was mandated to support the team in evaluating the project's impact on the ground beyond the indicators set in the results framework. The methodology used to establish the baseline and capture the project's impact over time is the Learning-Oriented Real-Time Impact Assessment (LORTA).

155. Therefore, although the project might have positively affected many more people than assessed by the project team (see paragraph 151151), in the current situation, the resilience increase for ecosystems and local populations might be much lower than intended.

Paradigm shift potential

156. The paradigm shift potential of this project resides in the introduction, mainstreaming and implementation of the EbA concept across stakeholders and governance levels in Benin. However, to date, the project's success in popularizing, mainstreaming and implementing ecosystem-based adaptation approaches and techniques is moderate and the adoption of EbA and climate-resilient agriculture practices in the management of forests and adjacent agricultural landscapes is limited.

157. In fact, one important limit of the project implementation is the absence of an initial assessment at project start aimed at evaluating all the project stakeholders' level of knowledge and understanding of EbA, climate-smart agriculture and sustainable forest practices, including the executing agency, NPMU, the NPSC members, the service providers etc. The project design included an assessment of the EbA capacities of the targeted local communities as part of the baseline study planned at the beginning of the project. However, this EbA assessment, although an important source of information, was not addressed to all project stakeholders. Furthermore, as it was not completed until 2023, hence the results of the analysis will only inform the project from 2023 onwards. As a result, after three years of implementation and despite being respectively the final objective and the backbone of the project, the evaluation reveals that the average level of understanding and familiarity with both adaptation and the EbA concepts remains low across project stakeholders. During the MTE consultations, confusions were often made between climate change adaptation and mitigation, even for senior officers engaged with the project while EbA ecosystems' co-benefits targeted by the project were overall unclear in discussions.

Sustainable development

158. So far, the investment criterion relating to sustainable development is the one on which PABE has made the most significant progress since implementation began. Indeed, reforestation and planting activities created jobs for local communities while having the potential to generate insufficient but still existing environmental co-

benefits (i.e at least carbon sequestration). In parallel, orchards planting is expected to increase the production of cashew nuts for direct consumption and trade as links between cooperatives and supply chains will also be strengthened. The promotion of improved soya seeds is expected to increase soil fertility, while building local capacities around innovative agricultural techniques and bringing additional revenues through increased productivity. Another example of the project's performance against this criterion is the support provided to cooperatives which has also led to improved well-being through enhanced working conditions, increased productivity and revenues for their members.

Needs of the recipient and country ownership

159. Addressed in sections 0 and 0.

Efficiency and effectiveness

160. Addressed in chapters 0 and b).

Unintended or unexpected results

161. No major unintended effect was reported to the evaluator. One example of unexpected co-benefit of the project is the use of the tricycles provided to the cooperatives as taxis when they are not used to transport raw materials. This can be considered as positive as the taxi service brings additional revenues to the cooperative members. However, it also exposes the vehicles to additional risks of accident while increasing their normal wear.

162. It was reported during the RVE that some farmers managed to overcome the lack of oxen by collaborating with community herders. One provided the ploughs, the other the oxen, both were thus able to work in their respective fields and for their mutual advantage.

Adaptative management

163. Since the project launch, the NPSC has been strongly involved in the project supervision, receiving monitoring reports as well as providing guidance and expertise. Among the NPSC recommendations that have been implemented by the NPMU so far are:

- Develop a report establishing all synergies that the project could built with other interventions concurrently operating on a similar geographical or thematic scope;
- The development of the updated digital monitoring tool (Kobocollect) aimed at following in real-time the project's progress (see section 0213);

- The revision of the project RF to better capture the transformational impact generated by the project on the ground (discussion about the updated RF available in section 0)
- Increase efforts for securing the tenure on commune's lands that have been planted for the benefits of local communities 226;

164. Although many recommendations were implemented, some members of the NPSC indicated during the MTE that the NPMU was insufficiently taking into account and monitoring the implementation of the NPSC advice and guidance. Among the recommendations which have been given little considerations by the NPMU so far are: the collaboration with MAEP for transhumance corridors management; the elaboration of a dedicated strategy aimed at catching up delays; the increased effort in demonstrating the EbA character of the activities proposed. This later element also demonstrates that, regarding the insufficient implementation of EbA, the project is neither being consistent with the intentions of the funding proposal nor with what the main relevant institutions want at national level.

165. In parallel, the NPMU has proven its ability to apply adaptive management principles by implementing several adaptative actions that successfully allowed to circumvent the difficulties encountered by the project including:

- Imposing a survival rate criterion for the payment in the SP's contracts;
- Increasing the surveillance of the reforested lands in order to avoid community degradations and cattle trampling;
- Establishing the CCSs to allow closer monitoring of the project activities involving the municipalities as well as the relevant forest and agriculture extension officers.

Rating for Adaptative Management: Moderately Satisfactory

Rating for Effectiveness: Moderately Satisfactory

Overall, the level of achievement of the project's outputs against the planned workplan is moderately satisfactory. In fact, despite having observed a certain degree of satisfaction across project beneficiaries and short-term benefits, the approach adopted insufficiently mobilizes EbA principles. Furthermore, the poor level of connectivity between the project activities and the high rate of tree mortality within reforestation interventions do not allow to confirm the increased resilience of ecosystems and communities.

Financial Management

166. The project Funded Activity Agreement was signed in August 2019 and effective in November 2019. The English and French versions of the Project Cooperation Agreement between UNEP and MCVT were finalised in January 2020.

167. Before the project team was recruited, financial capacity assessment was carried out on the executing entity i.e., DGEF based on an in-country mission conducted by UNEP staff, including the Task Manager, and Fund Management Officer. The assessment considered the entity's financial capacity, particularly by reviewing elements of governance and public accountability. Also in 2019, a procurement capacity assessment was performed by UNEP.

168. In terms of financial flow, the funds transfer from the GCF to UNEP subject to project results and disbursement rate[28]. Based on the workplan and needs, the project formulates cash advance requirements to UNEP which credits the project's national bank account on a three-month basis. The NPMU is responsible for the procurement of all goods and services necessary for the achievement of all project's activities, even when implemented by external stakeholders. All project expenditures are validated by the mandatory signatures of both the NPD and the NPC.

169. As presented in Table 11, as of July 2023, three disbursements have been realized by the GCF to UNEP. Five instalments have been made from UNEP to the project account amounting to USD 3,828,905 of the planned USD 9,000,000 (see

170. Table 12). When this MTR report was written the financial audit for year 2022 was in the process to be finalized.

Table 11: GCF date and amount of disbursements to UNEP

Date of receipt of GCF disbursement	11-Feb-2020	31-May-2022	26-Jul-2023
Amount received by UNEP (USD)	1,065,605	3,039,038	2,091,177

Table 12: PABE instalments and disbursement per year

Date of UNEP instalments to PABE	2020	2021	28-Jun-2021	6-Dec-2022	5-Jul-2023	Total
Instalment amount provided by UNEP (USD)*	400,000	665,605	949,640	1,023,660	790,000	3,828,905

[28] 70% of the previous call for funds must have been used before a new call can be formulated.

PABE expenditures (USD)	204,542**	-	860,877**	1,171,837**	444,145***	2,681,401

* based on project cash advances
** as per the year-Q4 quarterly expenditure report
*** as per the Q2-2023 quarterly expenditure report

171. In terms of co-financing, the government of Benin committed to fund the project components and management costs as presented in Table 13. In 2021, the government appointed a manager or "Régisseur des Dépenses" to oversee the management of the counterpart funding. As part of this co-financing, the NPMU is hosted on premises provided by the Ministry in Cotonou. However, as per the latest data obtained from the NPMU, the total amount of the co-financing disbursed and applied to the project implementation lags behind what was planned at project design.

Table 13: PABE planned and executed co-financing per component

	Planned co-financing (USD)	Co-financing budget expenditure (USD)*
Component 1	589,609	131,191
Component 2	234,491	48,427
Component 3	125,900	0
Project Management Cost (PMC)	50,000	96,699

* as of November 2023

172. Agreed co-financings that are incompletely honored by the government so far:
- Trainings to the use of drones for the forestry administration;
- Site preparation and securing for the weather stations;
- CCS reimbursement of costs incurred for the monitoring of the project's activities at commune level.

Budget execution

173. As presented in Table 14, a review of the latest financial data available reveals considerable underspending compared with the overall expenditure rate planned at project design. Budget execution has been very slow particularly during the first year of the project implementation. Overall, burn rates against the original budget are much lower than planned for all year since the project started. As a result, as of September 2023, despite being in the fourth year of implementation, the total budget spending amounts to two years of the original expenditure schedule. The results for 2022 seem to indicate an improving trend in the disbursement rate which must be confirmed in the future.

Table 14: Planned and effective budget execution per component and rate of spent, all amounts are expressed in USD

	2020**		2021**		2022**		2023***	
	Planned	Spent	Planned	Spent	Planned	Spent	Planned	Spent
Component 1	690,030	74,790	1,632,819	612,780	1,541,753	487,021	1,557,749	292,437
Component 2	202,155	0	1,189,022	115,108	327,317	515,247	231,940	91,690
Component 3	81,920	54,290	133,195	46,531	138,105	90,649	118,345	16,441
PMC	91,500	75,462	84,000	86,249	84,000	78,921	84,000	43,576
Total	1,065,605	204,542	3,039,036	860,668	2,091,175	1,171,838	1,992,034	444,144
Rate of spent per year (spent/planned)	19,2%		28,3%		56,0%		22,3%	
Total rate of spent	26,8%							

174. Since project started, the team carried out one budget revision. The main purpose was to increase two budget lines: for the construction of the storage infrastructure for cooperatives and the purchase of weather stations. Three automatic weather stations were originally planned and budgeted as per the approved financing proposal. However, the assessment conducted within the framework of the project identified the need for four, located in Banikoara, Coby, Boukombé and Dassa-Zoumè. As a consequence, the two budget lines were increased.

Financial reporting

175. The project prepares financial reports to UNEP and the MCVT on a three months-basis. The project is also accountable to the NPSC to which financial reports are presented every semester. The project can be submitted to financial audits conducted by the ministry's inspection bodies as well.

176. Overall, the quarterly expenditure reports were of good quality and provided in a timely manner. The review has evidence of regular and updated quarterly financial reports.

Procurement

177. Prior the recruitment of the project teams, UNEP conducted a procurement capacity assessment within the DGEC. Following the assessment, the threshold for the procurement of goods, works and services was fixed at US$25,000. In 2019, the government entity received a procurement training from UNEP's procurement manager prior to the establishment of the NPMU.

178. The project's procurement officer started in March 2020. At the time, UNEP had planned to conduct a specific in-country capacity building training for the project team. Unfortunately, this training was not possible due to the COVID outbreak. Finally, as the project experienced numerous procurement challenges, this training

was rescheduled and held virtually in May 2023. After the MTE field mission, all project members received the in-country visit of the UNEP procurement office and task manager which provided a four-day capacity building training.

179. As agreed in the funding agreement, the project is submitted to UNEP procurement rules with which the NPMU was not familiar at the beginning of the project. Their capacities were built up throughout the project implementation using a learning-by-doing method, led by UNEP task and procurement managers. In this respect, it should be mentioned that UNEP procurement manager is not French-speaking while the NPMU procurement officer does not master English which has led to some communication difficulties throughout implementation. All national stakeholders recognized that UNEP has shown great commitment and commendable flexibility in ensuring that procurements meet UNEP's requirements, while guaranteeing the timely delivery of the project's activities and related services and material.

Financial management issues

180. The timely execution the project budget has been delayed for several reasons:

a) The COVID outbreak which imposed national lockdowns and restrictions on people's gathering as well as limiting domestic and international travels.

b) Delay in UNEP disbursement in 2022. GCF instalments are conditioned by the project performance over time. In 2022, the project experienced significant delays in receiving GCF disbursement from UNEP as one of the conditions for the second instalment was not met to unlock it. In fact, UNEP was supposed to deliver to the GCF a "detailed dissemination and capacity building plan to deliver information services to the targeted communities in coordination with Meteo Benin, ensuring its capacity to incorporate the three (3) meteorological stations in a robust system which is able to deliver accurate and relevant climate change information to communities". For this purpose, the NPMU tasked a national consultant with developing the said deliverable. However, getting the package ready for 2nd disbursement to meet the UNEP and GCF quality standards took longer than expected. This resulted in additional costs and significant delays to the project implementation as during this time, the project ran out of funds.

c) Procurement challenges. Procurement challenges were reported, due to i) low procurement capacities at project start, ii) insufficient anticipation, and iii) difficulties in finding good bidders have led to significant delays in the implementation. Resolving these issues was further complicated by the language barrier between the UNEP procurement manager and the NPMU. Moreover, some of the services and equipment purchased by the project were reported to be unsuitable for their intended use and of low quality, however, it is difficult for the evaluator to determine whether the quality was not good or if it wasn't used and

maintained correctly. In addition, delays have been reported in validating non-objection once submitted to UNEP. More precisely, the length of time to obtain UNEP non-objection exceeded the two-week period on a few occasions owning to the need to re-submit a non-objection award request in conformity with UNEP Procurement Unit requirements and for internal UNEP meetings.

Rating for Financial Management: Satisfactory

The project has experienced significant disbursement delays due to several factors that have been addressed and which risks are likely to be managed in the future, relying on a serious and committed implementation team. From the available evidence it seems unlikely that the project will spend all of its resources by the current end date though.

Efficiency

Cost efficiency

181. The budget was developed according to the planned activities. That is, Component 1 constitutes 64 percent of the USD 10,000,000 that makes up the project cost, while component 2 makes up 23 percent, component 3 accounts for only 8 percent while project management costs amount 5 percent. Whether this budget weighting against activities is adequate, can be better assessed at project closure.

182. Given the major delays, the planned and actual implementation costs are not aligned. One of the major challenges of the project with regards to cost effectiveness has its roots in the project design, which aimed to spend about 41 percent of total project funds during the first two years of project implementation. Essentially, the funding proposal set out to achieve too much in these two first years, which significantly impacted cost-effectiveness. The project had budgeted to commence nursery support and trainings during the first year, but focus was mainly on setting up shop and addressing project structures, roles, and responsibilities within the project management and on the ground. This groundwork was achieved in the backdrop of the COVID outbreak which drastically reduced the project's possibilities on the ground.

Table 15: Implementation progress against burn rate by component

Component	Percentage of total budget	Output implementation progress as per the last APR 2022	Overall burn rate against component budget
Component 1	64%	1.1.1: 90%; 1.1.2: 66%; 1.2.1: 10%; 1.2.2: 50%; 1.2.3: 30%	23.7%

Component 2	23%	2.1.1: 10%; 2.1.2: 40%; 2.1.3: 15%; 2.2.1: 90%; 2.2.2: 5%	29.2%
Component 3	8%	3.1.1: 0%; 3.1.2: 0%; 3.1.3: 0%	34.8%
PMC	5%	-	53,0%

183. Despite the delays, the project cost effectiveness looks acceptable based on the last APR output performance ratings (see Table 15). As explained above, the project has made headways in every project output despite failing in reaching many of its midterm targets. With the project being through 77 percent of its life cycle, component 1 progress reaches 50 percent on average with major achievements on outputs 1.1.1 (forest management plans) and 1.1.2 (establish SLCGFs). Component 2's actual progress is much higher (on average 32 percent) than the corresponding burn rate. Finally, Component 3 is relatively matched with its low burn rate in terms of progress.

184. That being said, the evaluation stresses the importance to not only look at the project physical achievement in a quantitative perspective but also to the quality of the outputs delivered so far. In this respect, many issues have been raised in Chapter 0. The efficiency aspects of it are further discussed below.

Project management

185. All members of the NPMU were recruited at project launch in March 2020. Apart from the communication officer which resigned in September 2020 and replace in June 2023, all staff remained unchanged from project launch to the MTE field mission. Within the Cotonou-based team, the communication and collaboration between members were described as efficient. External project stakeholders depicted the project's staff as motivated, open to remarks and willing to improve throughout implementation despite heterogenous capacities within members. This point should be emphasised particularly in the view that the team wasn't paid during several months financial breakdown experienced in 2022.

186. While the communication within the team was deemed sufficient on average by the members, several stakeholders closely associated to the project implementation regretted the lack of communication outside the Cotonou-based team.

187. Some project stakeholders expressed their concerns about the project coordinator's ability to manage the project and promote an integrated EbA approach. The evaluation revealed that, earlier in 2023, the NPC was personally requested by the MCVT to draw up an action plan aimed at demonstrating how he was planning to put the project back on track and enhance its cost- and time- effectiveness in order to catch up delays. As the response was deemed insufficient, the project coordinator's contract was not renewed at the end of September 2023, after the MTE field mission. At the moment this report was written, the NPD appointed the project safeguards specialist as the coordinator by interim and the recruitment process for a

new NPC was ongoing. Despite the NPD and UNEP's commitment to find a good candidate for the position as soon as possible, this change might have strong impacts on the timely delivery of the project outputs and outcomes as the recruitment will take time and turn-overs in key project positions are known to generate information and time losses.

188. Project management costs covering the team's salary are less than 5% of the total budget, which is not high. This highlights that despite some heterogeneity between stakeholders' performance at their position, the project management team has been cost-effective as the team was mostly described as motivated and committed and were able to make the most of the budget at their disposal in terms of project management.

189. Designed without any local representations in the communes, the NPMU established Communes Monitoring Units which membership and mandates are described in section 0. In every municipality, CCS members have been trained to execute the project annual action plans developed by the NPMU and validated at commune level and to manipulate the reporting template. They also received monitoring equipment (motorcycle, GPS, computer, camera). However, during MTE consultations, most of them expressed their frustration about being insufficiently engaged and empowered in the implementation of the project (lack of time and resource to undertake their tasks). Indeed, these structures are not involved in the implementation of the project physical activities such as the development, management and monitoring of service providers' ToRs and contracts. Similarly, they often feel insufficiently consulted by the NPMU when procurements are made at central level. This is reported to have led to inconsistencies between local needs and the material and services received. In fact, CCSs are mobilized only for monitoring tasks, i.e witnessing and reporting to the NPMU the project's progresses on a three-month basis. Furthermore, of the three entities involved, the DGEFC is the only organization that is linked to the project through a partnership agreement. While the municipalities and MAEP's local representations are not. In this framework, CCSs don't have dedicated budgets. The costs incurred by the project monitoring are supposed to be covered by the government co-financing – which frequency happens to be irregular. As such, CCSs lack legitimacy, means and thus motivation to oversee the fieldwork conducted in the localities they are responsible for.

190. The project experienced several other turnovers in supporting positions since the project's start-up: GCF task manager, UNEP task manager and staff of UNEP GCF Coordination Office.

Implementation partners

National and international expertise

191. In terms of contracting external consultancies, the project might have lacked cost-efficiency at two occasions where national expertise was mobilized but their deliverables didn't meet sufficient quality levels. As a result, the work had to be redone by international consultants.
   - First, when contracting the national expert in charge of conducting the assessment of the national network of weather stations;
   - Second, when mandating a national consulting firm to develop the first versions of the Environmental and Social Assessment and the Gender Assessment which didn't meet GCF requirements and had to be updated by an international consultant in 2023.

192. Other examples of lost cost-saving opportunities were noted as some tasks were or will be achieved by external consultancies while they could have been more strongly supported and advised through the mobilization of in-house government expertise or related institutions. As an example, the project is planning to hire an external consultant to conduct the activities related to cooperatives market development although EBAFOSA is part of the NPSC, linked to the project through a partnership agreement and would be available to participate in this component of the strategy. Likewise, the project prepared ToR for the recruitment of an external consultant to conduct the activities related to management of transhumance corridors and water supplies for livestock to which the MAEP could have been also more closely associated to as well.

193. Two other organizations were also associated to the project implementation:
   - INRAB was tasked with providing expertise, supplying the improved soya seeds and grafted cashew seedlings. While they were fully involved in the supply of soya seeds during the 2021 planting campaign, it was reported to the evaluation that they didn't ensure this responsibility for the year 2023, leaving the project with no other choice than contracting last-minute another supplier. Indeed, on May 2023 (start of the planting season), INRAB informed PABE that it would not supply soya seeds for the 2023 season. Owing to the short deadline for ensuring a supply of certified seeds before the onset of the 2023 planting season, the project established an agreement with the project partner, PNOPPA. Furthermore, several stakeholders described mixed results using the recommended grafted seedlings. In practice, these were defined as being more sensitive to local droughts and thus more fragile than the native seedlings from the project area, questioning INRAB's recommendations. While the technical support provided by INRAB does not incur additional costs to PABE, the unexpected contractualization of the soya seed provider as well as the loss of part of the cashew seedlings is another evidence of the lack of cost-efficiency of the approach adopted.

- ICRAF has an international expertise on Forestry Research. For PABE, the organization is responsible for mainstreaming and implementing the EbA approach across the project activities. For this purpose, the project contractualized the organization through 2 contracts amounting to USD 249,400 which is a considerable amount of money. Considering the current low level of understanding and ownership of the EbA concept, the efficiency of the strategy adopted might need to be revisited in the future in order to boost the project cost-efficiency in this aspect.

Service providers

194. The project mandated service providers to conduct the forest restoration, the orchards and woodlots planting (PNOPPA, JAE, AERAMER, IMPACT PLUS et APECDI) and the soya demonstration plots (DEDRAS et PNOPPA). These companies were selected through the project procurement process. Some of them were based in Cotonou while others were set up locally (Dedras in Parakou, Impact Plus and Earamer in Dassa, APECDI in Kandi and Bembèrèkè). All of them were contractually asked to involve local nursery-owners and populations in the interventions sites they were sent. They carried out the activities in communes, based on an intervention program and schedule agreed with the NPMU. SPs supported local nurseries in producing as many seedlings as required for each project site. They also hired local communities to support the plantation of trees and the installation of soya demonstration plots. CCSs assessed their work for the NPMU on a three-months basis, using the trees' survival rates as a priority performance indicator. However, it was pinpointed by the NPSC that, although CCSs conducted regular field visits throughout project implementation, the frequency of the assessment did not allow to efficiently follow the evolution of the activities with the perspective to plan and undertake corrective actions if needed.

195. Indeed, the efficiency of the implementation structure chosen to carry out the reforestation and planting activities is questionable in several aspects. First, as some of these organizations were not based in the communes targeted by the project, SPs might have spent a lot of time, money and energy travelling between the headquarters or their local representations and the field. In addition, they may be less familiar with the local context and biogeography than local stakeholders. Finally, the unfortunate corollary of contracting a service provider not necessarily locally based, is the reduced involvement and ownership of local actors including authorities and local populations. In fact, within this framework, there is no evidence that these communities were involved in the design or the planification of project operations. As a results, local actors cannot exhaustively capture and experience the potential benefit that the project could bring to their communities and are thus poorly committed to enhance and sustain the results of the project.

196. Being the main entity in charge of the operational implementation of the project physical activities, their responsibility in the low performance of the related outputs and outcomes is legitimate. In particular, in view of the low survival rate of the trees planted which could be attributed – on their hand - to: the low quality of the seedlings and the insufficient preparation, maintenance and surveillance of the reforested fields (see Table 10). The MTE's observations confirmed the comments collected during the RVE about the SP "lack of involvement, delays in planting periods, poorly planned and executed maintenance activities and the use of seedlings at an inappropriate level of development". The low survival rate has to be weighed though against the fact that i) climate conditions are harsh and unpredictable in northern Benin; ii) the planting schedule is tight in the region and the project experienced procurement challenges which postponed the activities against the optimum planting schedule ; iii) the implementation structure does not foster strong community involvement and respect for the project achievements which has led *inter alia* to tree damaging and uprooting.

197. Regarding the insufficient implementation of EbA principles in the project's physical activities, the evaluator noted that the concept is not defined or mentioned in the service providers' contracts. In this context, there is no evidence that the EbA, CSA or SFP's capacities of such structures were neither assessed nor strengthened at project start or later during the project implementation.

198. Service providers' contracts are one of the project's biggest expenditure items[29], covering all the field activities, that will largely determine the project's success in the long run. In this framework, so far, the project demonstrates poor cost-efficiency as both the implementation structure and the service provider performances are limited, impacting the project's achievement both quantitatively (surface area targets) and qualitatively (EbA principles insufficiently applied).

Final beneficiaries

199. Results regarding stakeholders' participation and cooperation are mixed so far. While all municipalities were involved in the project design and choice of implementation sites, the situation is more uneven among final beneficiaries. For example, some cooperatives indicated during the MTE consultation that they have been invited to information meetings at project start while other were directly contacted by the CCeC once the project was launched and just received the support.

200. Community resistance and lack of ownership in reforestation activities seems to indicate that local stakeholders were insufficiently involved in the design, planning and implementation of the project reforestation activities. Indeed, it was reported

[29] FCFA 1,596,686,780.00 as of October 2023, i.e. approximately USD 2,571,783.4 (with USD 1 = 620.9 FCFA)

that communities were consulted to develop the forest management plans and to take part to the SLCGF. However, the people involved in these activities were not necessarily the same people who cultivate in the areas selected by the project to carry out reforestation activities or to participate in SLCGFs. In addition, these SLCGFs are young structures (composed of approximately 5 to 11 people) that are not fully operational to carry out their duties including raising awareness and building community ownership of project achievements. As an example, as of September 2023, some of them did not receive the equipment needed to conduct their forestry management duties. Their involvement in the committee was voluntary and thus at the expense of their presence in their own fields. The project team was planning to provide them with motos in the coming weeks after the MTE field mission.

201. Another example of their insufficient involvement in the project management, can be seen as they were not invited to be part of the CCSs established at commune levels.

Timeliness and sequencing

202. The timeliness of the project has been impacted by the outbreak of COVID in 2020, the disbursement delays (both from UNEP and the government) and several procurement challenges, which resulted in a missed planting season in 2022 or, for the supply of soya seeds that should have been ensured by the INRAB in 2023 and was finally provided by PNOPPA, several months late in the planting season. The project experienced further difficulties in some municipalities were local authorities struggled in finding available lands surrounding community forests as most of them were occupied by agriculture fields and farmers reluctant to engage in the project's activities. The impact of all these issues is further compounded by the fact that northern Benin only experiences one planting season per year. As a result, once the optimal planting period is passed, then the agricultural yield and survival rate rapidly decrease. In some cases, this has pushed the project to basically postpone some activities by one full year in some cases.

Strategies to enhance cost- and time-effectiveness

203. Strategies that have been implemented to boost the cost- and time-effectiveness of the project are the following:

- Hire a Chief Technical Advisor (2022) which is tasked with supporting the work stream, formulating technical recommendations to the project as well as ensuring the quality of the project's deliverables over time;
- Make payment to service providers conditional on trees survival rates. The NPMU contractually imposes an 80% survival rate to the SPs. Below this threshold, they will be paid proportionally to the tree survival rate obtained at the end of their contracts;

- Achieve all physical activities by the end of 2024 in order to be able to realize only implementation of management tools and the maintenance of the planted seedlings during the remainder of the project;
- Overall, the enlarged project implementation team is committed to do its utmost to increase the delivery of the project deliverables, outputs and outcomes through an increased monitoring of the project activities and more efforts dedicated to the anticipation and planification of the project procurements and activities.

Rating for Efficiency: Moderately Unsatisfactory

Looking at the last APR output performance ratings, the project's cost effectiveness is acceptable. However, the in-depth assessment achieved in the Effectiveness chapter revealed that the quality of some of the outputs delivered since project start doesn't meet what was planned at project design, directly affecting the overall efficiency of the project. In general, the delivery of outputs lags behind the initial workplan despite some positive elements to catch up accumulated shortcomings and delays.

Monitoring and reporting

Monitoring design

Results framework and baseline

204. The project is built on an overarching objective that is expected to be reached by achieving three outcomes related to three components by the end of the five-year project period. The current project Results Frameworks (RF) - included in the Project Cooperation Agreement and used in the APR presents GCF-fund level, GCF-outcomes, project-outputs, indicators, mid-term and end-of-term targets as well as the related means of verifications. A quick analysis confirms that the expected results/outcomes defined in the GCF Adaptation Performance Measures Framework have been used in the development of the current RF or in its later modifications.

205. The project indicators developed in the RF are mostly SMART. In general, they allow to measure both the project's effective implementation and its impacts on the ground. Indeed, most of the indicators are combining means-oriented and results-oriented indicators as exemplified for the output 2.1" Area (ha) of agricultural land where sustainable, climate-resilient agriculture is implemented, increasing yields under climate change conditions".

206. In practice, the RVE as well as the MTE revealed that some of the RF indicators are difficult to inform. For instance, the assessment of the degree to which beneficiaries "benefit from the adoption of diversified, climate resilient livelihood options" is done

using the proxy of the number of persons participating to the soya demonstration plots and the cooperatives members supported by the project. Similarly, at output level, the RVE found out that the evaluation of the percentage of change in agricultural yields was complex as most farmers don't track and monitor precisely neither their productivity nor their sales. The same observation can be done for cooperatives which support is planned to be measured based on the "economic value created by the project". Depending on the level of formalization of the cooperatives, it can be challenging to inform this indicator as well.

207. Most importantly, at the time of the MTE, the NPMU was questioning the feasibility of the indicator "A4.1 Coverage/scale of ecosystems protected and strengthened in response to climate variability and change" which final target is "3,600 ha of degraded forests protected and strengthened in response to climate variability and change". Indeed, following the recommendations of the DGEFC in 2021, the project switched from the "enrichment" restoration technique promoted in the FP to an "open field" technique (see section 0) in the two management units of the OSN classified forest. As the second method uses four times more trees than the first, it is calculated that the project will not be able to reach the end-of-project target if continuing to apply the open field method given the available budget.

208. Finally, the project team solicited ICRAF's technical support to carry out the baseline study aimed at establishing the reference situation and develop an updated monitoring and evaluation plan to track and assess the results and impacts of the project on the ground, beyond the indicators set in the results framework. The study followed the LORTA methodology, which is an experimental impact assessment methodology that is based on counterfactual analysis. LORTA is an innovative approach to determining attribution of project results to the project. In this case – it is based on data collected in 666 households including 495 within intervention sites and 171 in control sites. The thematic scope of the baseline assessment is the following:

- Socioeconomic characteristics of the respondents;
- Sources of food and income and common agricultural and related processing practices;
- Local perception of climate change;
- Knowledge and practice about adaptation options, including EbA but also national adaptation policies and action plan;
- Tree planting initiatives;
- Access to inputs and credits;
- Social capital for adaptation and climate related risks and exposure.

209. All criteria were assessed using gender disaggregated indicator and targets. ICRAF conducted the baseline study in 2022 and finalized the report in March 2023 which is late with regard to the project launching the first physical activities in 2021. However, the study remains highly relevant considering the difficulties experienced in informing

the RF and the lack of clarity about the effective EbA character of the project's interventions on the ground. One of the outcomes of the study is a proposed revised results framework (RF) and a revised monitoring and evaluation plan which were not implemented at the moment the MTE was carried out. Prior to its adoption, this proposed revised RF has to be validated by both the GCF and UNEP. The legal agreement between UNEP and GCF will have to be amended accordingly.

Monitoring and Evaluation plan

210. At project design, apart from the RF and a succinct paragraph included in the FP, information about the Monitoring, Reporting and Evaluation modalities of the project were scarce. In fact, the related paragraph only focused on UNEP's responsibility to undertake the MTE and the Terminal Evaluation of the project. Apart from this, there was no mention either about the responsibility, the frequency, the format of the project monitoring and reporting products nor of the associated budget.

211. During the early stages of the project implementation, the NPMU developed a Monitoring and Evaluation Manual detailing: the project results framework, the M&E system (role, objectives, stakeholders involved), the related procedures (planning modalities; monitoring tools; evaluation; performance indicators; data collection and analysis); reporting and results dissemination modalities; environmental and social safeguards and M&E plan budget. As part of this plan, a Results Verification Exercise was undertaken in July 2023. The main results of this assessment are integrated in this report (see section 0).

212. In its daily run, at the NPMU level, the team meets every Monday to communicate about the past week's results and to plan the following one. Except for emergencies, at the end of every month, the team holds a monthly meeting with UNEP and the CTA to monitor the project-related achievements and potential challenges encountered. The project also holds *ad hoc* meetings depending on the implementation needs. The NPMU qualitatively and financially reports to i) UNEP task manager every three months; ii) to the NPSC two times a year and iii) to the GCF at the end of every year through APRs. APRs are elaborated following a GCF standardized template where progress is assessed at outcome, output and activity levels.

213. Regarding the CCS, the committees elaborate annual workplans. Members meet once a month and submit their reports to the NPMU on a three month-basis. Templates used were agreed by all stakeholders involved when the project established the CCSs. According to the CCSs, the communication is fluid with the RSE, and the daily monitoring is achieved through calls and WhatsApp groups as needed. However, according to the baseline assessment and following a NPSC recommendation, this system needed to be revised in order to have a better real-time monitoring of the project indicators and results over time. For this reason, the NPMU, supported by ICRAF, developed an updated monitoring template that was integrated

into a digital data tool. From now on, the project will collect and analyse the data produced using the software KoboCollect, to which the 21 CCS members were trained by ICRAF in October 2023.

214. Some implementation partners also have reporting obligations to the NPMU, mostly on a three month-basis: SPs, DGEFC, ICRAF while others don't: EBAFOSA, INRAB, Meteo Benin.

Rating for Monitoring of Project Implementation: Satisfactory

Project reporting

215. Overall, the description of the level and quality of project progress' in the APR are deemed satisfying by the evaluator as well as UNEP. These reports were mainly developed by the NPC and UNEP and delivered on time. Gender aspects of the project were reported on in APRs with gender disaggregated data and including the description of the gender challenges faced by the project as well as the mitigation measures planned to tackle them.

216. As outlined earlier, although the project baseline study is of good quality, the data collection was carried out in 2022 and the report was produced in 2023 which is late in the project lifecycle considering that the first physical activities took place in 2021.

217. Throughout the implementation of the project, the NPSC formulated several remarks regarding the quality and the timely delivery of the reports prepared for this committee (i.e quarterly, semi-annual, annual and other project-specific reports that have to be submitted to the NPSC as per the project M&E manual). In their view, the content and narrative of these reports were not sufficiently in-depth and of coherence to enable the NPSC to effectively provide strategic guidance and oversight of the project. During the MTE consultation, members of the NPSC recognized that efforts have since been made to improve the quality of the reporting. Nevertheless, from their views, efforts have to be sustained to increase the drafting effort and respect reporting deadlines.

218. Joint visits to the intervention sites bringing together CCS members and sometimes representatives of INRAB and the central DGEFC were also organized on a regular basis to monitor the progress of operations, as well as in emergency situations. According to many stakeholders of the project, the NPMU's monitoring of the activities on the ground was insufficient despite CCSs' establishments. In fact, before the implementation of the Kobocollect tool, there was no daily monitoring of the project's activities on the ground by the NPMU. In addition, some inconsistencies were observed between CCSs reports and the results on the ground. As a consequence, the NPMU has to conduct field visits on a regular basis to challenge and verify the information provided in the CCSs monitoring reports.

219. During the MTE, the evaluator was able to witness the existence and consistency of PNOPPA and ICRAF monitoring reports while there is no evidence that DGEFC submitted any.

Rating for Project Reporting: Moderately Satisfactory

Rating for Monitoring and Evaluation: Moderately Satisfactory

The NPMU encountered some difficulties in setting up and diligently implementing the monitoring and evaluation plan. Over the course of the implementation, this plan had to be reviewed and updated. However, the recent improvement of the quality of the reporting as well as the numerous updates to the M&E tools are likely to significantly enhance the overall M&E outputs that will thus be available to influence the project management in a dynamic and adaptative manner.

Sustainability

Exit strategy and sustainability of project results

220. The FP includes an exit strategy although the exit and sustainability strategy section in the document is mainly based on assumptions derived from the achievement of project results and does not clearly state the project's approach to ensure sustainability. Indeed, the FP's section provides a list of general key elements for project sustainability such as stakeholder engagement; the establishment of SLCGFs; the different capacity building provided; the creation of the knowledge hub; and the updating of the relevant laws and policy but it does not describe the means and concrete development and implementation actions for the project to ensure the sustainability of project results. In addition, there are no clearly designated roles and responsibilities of the project stakeholders to ensure the sustainability of project results, except for the maintenance of facilities and equipment provided by the project. Robust and convincing elements for replication and/or scaling up of the project results, including the long-term sustainability of the results are however presented in the annexe 7 of the PFS. Moreover, even if, Annex 7 of the FP also provides the list of the risks to the sustainability of project results, which were adequately identified, and related mitigation measures envisioned to address these risks, the risks probability was generally underestimated and the envisioned mitigation measures not all adequately or at all implemented. Table 16 provides an overview of the current risks to the exit strategy and the foreseen mitigation measures.

221. The exit strategy will be updated before the end of the project to include the realities and issues that occurred during the implementation of the activities. In addition, the final version of the exit strategy will be review during the final evaluation.

Table 16 : Risks to project sustainability and related mitigation measures (Source: Annex 7 : Risk Assessment and Management. FP. 2018)

No.	Risk to project sustainability	Risk probability	Exit strategy measures
1.	Improvements in agricultural yield from climate-resilient practices may not be sustained after the project ends	**Low**	• Training and capacity building of local stakeholders • Economic viability of climate-resilient practices • Knowledge and best practices dissemination • Institutional and local stakeholders' engagement • Updates of current laws and regulations and integration of climate-resilient practices into national policy
2.	Restored forests may not be conserved by local communities beyond the project period.	**Low**	• Establishment and strengthening of community forest management committees • Forest management plans • Awareness raising campaigns • Forest trees providing economic benefits such as valuable NTFPs • Designated woodlots charcoal production • updating of the Forest Law to secure land tenure and access to resources
3.	Women may not have fair access to benefits resulting from project interventions.	**Low**	• Specific support provided to women's groups • Training on processing and marketing of crops and NTFPs, and financial management skills • Indicators disaggregated to ensure 50% of project beneficiaries to be women • Specific consideration given to women's voices during stakeholder consultations
4.	Demand for certain crops and NTFPs on local markets may not be strong enough to absorb the increased supply.	**Low**	• Implementation of improved post-harvest technologies will allow storage of excess production beyond harvest season until market prices improve • Agreements between farmers cooperatives and local, and national shea and cashew companies will be established to ensure that increased supply can be sold on local and regional markets.
5.	Invasive alien species that have detrimental effects on	**Low**	• Careful selection of local appropriate species to be used

	ecosystem services and biodiversity may be introduced or promoted.		• Priority given to replanting of indigenous tree species complemented by appropriate useful exotic species that are not invasive or detrimental to local ecosystems
6.	Surrounding communities who are not project beneficiaries may cut down restored forests for charcoal.	**Low**	• Improved monitoring of forests by the CFMCs which will be established and strengthened • Awareness raising campaigns regarding restored forests value and sustainable harvesting benefits • Increased law enforcement by local forest wardens trained and equipped • Participatory forest management plans to ensure community buy-in.
7.	Conflicting land-uses and uncertainties around land tenure and forest ownership may limit investments in agriculture and forest protection by local communities.	**Low**	• Selection of reforestation plots through local communities' consultation • Engagement of local communities for the revision and establishment of forest management plans • Update of the Forest law to clarify community forest ownership and usage rights

222. Based on the data collected during the data collection phase, the risk probability which was considered low for all risks was generally underestimated as the project is currently facing most of the identified risks and which are therefore impacting the potential sustainability of project results. More specifically, risks no. 2, no. 6 and no. 7 are of particular concern for project sustainability.

223. At the time of the MTE process, certain measures and strategies aiming at minimizing risks to the sustainability of project outcomes were being implemented. However, significant shortcomings persist, particularly regarding the implementation of an adequate EbA strategy, as well as the involvement of local stakeholders and the strengthening of their capacity to ensure sustainable project results.

224. Firstly, regarding Outcome 1, the revision and development of forest management plans has been contributing to sustain project results by ensuring reconciliation between maintaining healthy ecosystem functions and responding to human and adapted livelihood needs. But the limit beyond the project's end lies in the adoption and effective implementation of the forest management plans for which further training of forestry officers and advocacy activities, among others, are still needed.

225. As for the sustainability of the other expected project results of Outcome 1, the quality of the implementation of the exit strategy is mixed as mitigation measures were not all implemented and/or the quality of their implementation was limited. Indeed, interviews and direct observation during the field mission have revealed that

external contractors were not as involved or present as initially anticipated to guarantee the lasting success of the reforested zones. Notably, there has been a significant seedling mortality rate due to insufficient maintenance of new seedlings and destruction either deliberate or resulting from inadequate surveillance and awareness efforts to reduce pressure on reforested zones. Furthermore, the approach of entrusting external contractors with the management of reforestation sites poses a challenge to the sense of ownership and engagement held by local stakeholders. In addition, an important part of the success of community reforested zones also lies in the good operationalization of the SLCGFs who will later on be taking care of and benefit from the community forests. Congruently, it is important to note that the strengthening of local stakeholders' capacities is still limited as the project did not plan local facilitators to accompany local structures on an on-going basis. Interviews have also revealed that the EbA concept is still not fully assimilated. Hence, up to now, there is still the need for local community forest structures to be reinforced and sensitized regarding the upkeep of reforested zones through an EbA approach, ensuring they can derive lasting benefits from them in a sustainable manner and have sufficient means to disseminate the knowledge in their communities. As for institutional stakeholders, such as the DGEFC, who will bear the co-responsibility with the SLCGFs, for maintaining the reforested areas once the project ends, they also expressed that they were still lacking the requisite level of information, training, and involvement in the activities conducted by the SPs to secure ownership and lasting results of the project.

226. As for securing land tenure, the areas for reforestation activities envisioned during the project design phase are currently limited and not secured, due to the extensive allocation of land to cotton fields and the limited ability of the municipality to provide additional land plots. While reforestation plots should have been conducted on lands surrounding community forests under municipal jurisdiction, these activities have sometimes had to be shifted several kilometers away due to the customary occupation of the land for agricultural purposes. In addition, in the case where cashew orchards were successfully planted on municipal lands, it was reported that the communes are now struggling to obtain legally binding agreements to formalize that local communities will benefit from the usufruct of land planted by the project. Indeed, the legal process is tedious and expensive to carry out. This is problematic as this is hindering the assurance that the benefits of plantation utilization will ultimately benefit the local communities as well as potentially jeopardizing the assurance that these lands will be sustained and taken care of under the co-management process put in place.

227. Finally, the project management targets to complete all physical activities by 2024, in order to ensure their maintenance in 2025, and guarantee that the seedlings have grown sufficiently by the project's conclusion. However, if the seedling mortality

rate remains unchanged, the areas that have been effectively reforested will not meet the envisioned goals, and the targets set at the beginning of the project will not be realized or maintained after the project's end. It is also worth noting that uncertainties remain regarding the types of seedlings supplied and their ability to withstand changing climatic conditions (see Table 10). For instance, concerns have been raised about the drought sensitivity of the cashew seedlings provided by INRAB, and similar questions have arisen regarding Gmelinea seedlings. For the remainder of the project, it is essential to promptly address and resolve this uncertainty so that reforested actions remain relevant regarding climate adaptation objectives.

228. Regarding Outcome 2, the project has already put in place some strategies to ensure the sustainable results of agricultural climate-resilient practices: farmers have been trained to apply new farming techniques and demonstration plots have been implemented for farmers to practice together and exchange good practices. Capacities of local cooperatives have been enhanced through training in improved storage and processing techniques as well as for better financial management, and equipment maintenance among others. Direct observation and interviews with beneficiary farmers have shown that they are already partly adopting these practices and are aware and convinced of the benefits from adopting them. Short-term results include increased productivity and farmers' income such as from the production of inoculated soybean seeds, which have contributed to a shift in practices and attitudes towards the adoption of more climate-resilient practices. Nevertheless, these changes take time. Indeed, interviews have shown that farmers do not yet reinvest 100% but rather 25% of their benefits into improved seeds and inoculate, while still using the regular seeds they are used to (less expensive), although they stated to be convinced of the benefits.

229. As for the processing of raw agricultural products, women have quickly adopted new techniques taught, and equipment provided through trainings. Moreover, women have been provided with adequate equipment, such as for cashew nuts, facilitating smoother and more efficient processing. Nevertheless, direct observation has shown that further sensitization and training are still needed regarding the use and maintenance of the equipment and material provided to guarantee their functionality beyond the project's end. Efforts also need to be maintained in the provision of training aimed at strengthening their associative capacities commercial skills to ensure their sustained and fair inclusion in markets.

230. Nevertheless, some factors are still hindering the sustainability of intended results for Outcome 2. Farmers and cooperatives have not all been provided with sufficient material and equipment to implement these new practices. For example, while ploughs have been provided, the necessary pulling equipment such as an ox or tractor were not provided, jeopardizing the use of these equipment.

231. Regarding Outcome 3, the establishment of the Knowledge Hub, which is going to be a permanent entity under the MCVT's website with regular budget allocated for its management and operation including for the payment of salary of the IT consultant and other needed staff, is paving the way for sustainable knowledge sharing of EbA, CSA and SFP best practices and lessons learned. In this perspective, this platform can contribute to paradigm shift by promoting EbA approaches in the country and potentially supporting the upscaling and replication of project interventions. In addition, ICRAF, as an international technical partner of the MCVT will continue supporting the Ministry as well as the platform, so that it becomes a reference tool for EbA knowledge sharing. However, it is worth noting that the MCVT website is currently under maintenance owing to the need to update it to reflect new ministry structure, and it is not clear when it will be operational again. According to the latest information collected, the point has been raised with DGEC and they assured it is being worked on and will be re-established soonest. Furthermore, at this stage, the project did not develop any knowledge products and very few communication contents, which is thus partially compromising the effective paradigm shift potential of the project. In this perspective, the project communication officer will liaise with the Ministry information and communication technology department to ensure that the revamped site has the ability to host documents.

232. Finally, regarding gender consideration and mitigation measures to counter gender inequality sustainably, income-generating activities have already contributed to multiple advantages for women in a sustainable manner. These include the enhancement of their production and technical skills through training, fostering network-based learning, increasing their direct income by boosting productivity and expanding market opportunities. Furthermore, these activities have played a role in improving women's working conditions and enhancing the recognition of their work. Overall, women reported that they were able to keep the money they earned, but reinvested it entirely in household expenses (education, health, food).

233. However, it's important to note that other project activities such as reforestation and co-management decision-making did not lead to a significant increase in women's representation and active involvement. Hence, the project has not yet succeeded in implementing a fully integrated strategy effectively addressing the barriers related to gender-based roles. It is worth noting that altering these aspects necessitates time, along with the allocation of adequate financial and technical resources, to appropriately tackle these sensitive matters at the community level. Furthermore, as the project developed a new Gender Action Plan in August 2023, these challenges should be better addressed in the future of the implementation.

Replicability of the results

234. Replication and scalability, and the movement towards a wider paradigm shift is at present mostly dependent on whether risks preventing achievement of expected outcomes are adequately managed.

235. As described in paragraph 221220, not all mitigation measures have been implemented and some of the ones implemented are of limited quality. There is still work needed for local appropriation and capacities to integrate project results and adequately implement the EbA approach in the long term, and at national level. Nevertheless, some good sustaining practices contributing to the replication of project results can be highlighted. For example, soya demonstration plots have been a good practice for replication of climate-resilient agriculture practices for soybeans on their own plots. Even if some additional training is still needed to consolidate their knowledge and further spread these new agricultural practices. Furthermore, facilitating knowledge sharing among cooperatives serves as an effective approach for replication. Training sessions have been organized between these cooperatives, allowing members to observe and exchange experiences, thereby enhancing their capacities and knowledge.

236. Another replicability potential lies in the achievement of reforestation activities and seedlings survival rate therefore securing the collecting system for forest fees, but important efforts are still needed to achieve this target. Nevertheless, if reforested plots are sufficiently taken care of during the remaining project timeline and proves to be a financially sustainable solution at local pilot scale, it could then be replicated across the country.

237. Finally, another replicability potential lies with the widespread adoption of the Early Warning System for agriculture across the country. However, this requires continued efforts to ensure the system to be fully established and operational which is not achieved yet.

Rating for Sustainability: Moderately Unsatisfactory

Despite having anticipated part of the risks to project sustainability and the related mitigation measures at project design, as of the MTE field mission, sustainability issues are insufficiently addressed in the implementation. In particular, the project urgently needs to progress on the empowerment of the SLCGFs as well as on the survival rate of the seedlings planted under the first component of the project. As a second priority, efforts have to be maintained to ensure the sustainability of the equipment and knowledge provided to cooperatives and soya growers.

Factors affecting performance

Project Inception

238. As for the inception, the project overcame three major difficulties:

- The insufficient representation of the NPMU at commune level was tackled establishing the CCSs;
- The unexpected acceleration of deforestation in the OSN was addressed switching from the enrichment to the open field reforestation technique;
- All project progress and technical reports have to be produced in English and French to meet UNEP and GCF requirement. In addition, apart from the TM which have bilingual capacities, some of UNEP supporting staff don't speak French and the NPMU do no master English. In this context, at project inception, the project coped with the language barrier by recruiting a translator. In fact, the consultant was hired mostly to translate documents (consultant reports, progress reports). However, the translator left the position in 2021 and was not replaced since then. This situation is currently managed using an online translation software. Furthermore, CTA incorporated in 2022 is also bilingual.

Quality of Project Management and Supervision and Quality of project implementation and execution

239. As extensively discussed in chapter 0, numerous factors affecting performance were identified, such as for example:

- Positively:
    - The seriousness and the commitment of the NPMU and UNEP supporting staff illustrated by:
        - the NPMU holding regular weekly meetings including with the CTA, and at least monthly with the UNEP TM;
        - the UNEP TM undertaking one mission in 2021 (COVID restrictions), one in 2022 and two missions in 2023;
        - UNEP managing the attempts to transparent project management. These events were reported during the evaluation process: i) at national level, for key positions related to the project, which UNEP did manage effectively, and ii) at municipal level to prioritize certain localities or farmers, which the NPMU also managed.
        - the supervision provided by the NPD and;
        - the engagement of the NPSC in providing technical expertise and strategic guidance.
- Negatively:
    - The lack of representation of the NPMU for the supervision of implementation of the project in the seven project sites;

- The insufficient mobilization and use of in-house government and international expertise to provide guidance and advice;
- The limited involvement and performance of the service providers mandated to conduct project physical activities.

Stakeholder participation and cooperation

240. As described in section 0, results regarding stakeholders' participation and cooperation are mixed so far. While municipalities have been involved in the project design, the choice of localities and the monitoring of the project, there is significant evidence that the project unevenly involved local communities. As an example, cooperatives indicated that they have been sufficiently informed and involved in the project activities. On the opposite, the level of local buy-in within communities surrounding community forest seems to indicate that the project's stakeholder engagement strategy failed in sustainably embarking these populations in the planning, implementation and maintenance of the project reforestation activities.

Responsiveness to human rights and gender equity

241. The project design includes an emphasis on human rights through its engagement on the participation of local community members. However, MTE interviews with stakeholders don't fully confirm the active participation of beneficiary communities in decision-making and implementation of activities as explained above. In any case, human rights are being observed as the evaluation didn't identify any examples of human rights violations or ignored/repressed complaints among project stakeholders.

242. The project design includes an analysis of women's needs but it does not sufficiently focus on gender-based roles which are major barriers to women's participation in some of the project activities. Hence, up to now, only income-generating activities, with a primary focus on women, have achieved some progress in reducing gender inequality. Women's involvement in activities traditionally associated with men and in decision-making remain notably restricted. However, further analysis enabled to identify important gaps in the first version of the Gender Action Plan, which has been updated in August 2023. At the moment this MTE was conducted, the GAP was not implemented yet as the validation of the document by the NPMU was ongoing. In this context, if mitigation measures are adequately implemented to address social barriers to women, the project could further progress towards enhanced gender equity.

Environmental & Social Safeguards, risk assessment

243. With respect to risk management, at project design, the FP provides for a risk management matrix concerning risks to project sustainability and related mitigation

measures (see paragraph 220). Annexed to the FP were also a risk management plan, a Social and Environmental Action Plan and a gender assessment and action plan. The Social and Environmental Action Plan (SEAP) and the Environmental and Social Safeguards Risk Screening prepared for the Funding Proposal list six UNEP Safeguard Standards relevant to the project. These include SS1 on biodiversity conservation, natural habitats, and sustainable management of living resources; SS4 on Involuntary resettlement; SS5 on Indigenous peoples; SS6 on Labour and working conditions; SS8 on Gender equality; and SS9 on Economic sustainability. Overall, except for COVID which was impossible to anticipate, the potential social and environmental impacts of EbA and climate-resilient agriculture interventions were well identified but their significance was underestimated at project design as most of the risks have been verified during implementation.

244. As explained earlier, at project start, a national consultant was mandated to develop the environmental and social management framework as well as to refine the project gender analysis and action plan. The analysis confirmed the 6 potential environmental and social risks of the project activities on water quality and availability, soil, air, biodiversity, income generating activities and the overall wellbeing of the population but failed to characterize these risks in terms of probability of occurrence, their impacts or magnitude and significance. In fact, the deliverables did not meet GCF Environmental and social Policy standards as well as UNEP's revised Environmental and Social Sustainability Framework and Environmental and Social Impact Assessment guidance note. Hence, the Environmental and Social Impact Assessment (ESIA) as well as the Project Environmental and Social Management Plan (ESMP) were updated in 2023 with the support of an international consultant who also developed the project Grievance Mechanism and upgraded the Stakeholder Engagement Plan (SEP). These documents were developed in the perspective to meet national standards established by the Benin Environmental Agency. This work was conducted under the supervision of the NPMU Environmental and Social Safeguards and Gender Specialist.

245. From the monitoring point of view, in the daily run, risks were followed by the ESSGS which intervened in the development of all ToRs of the project as well as monitored the risks at local level through a dedicated section in the CCSs monitoring templates. On an annual basis, information about the project challenges and mitigation strategies are described in the APR.

246. Overall, the project strategy has been moderately efficient in addressing the identified risks. As an example, despite having been identified in at project design, the issue "Communities in and around forest areas continue clearing trees – including in restored forest areas – for charcoal production or agriculture" is not solved yet. Moreover, the evaluator stresses the importance to seriously consider the risk "New farming practices could encourage conversion of restored/protected forests into

agricultural lands" as some beneficiaries expressed their intention to expand their cultivation perimeter once proper pulling equipment will be provided by the project. Finally, on a broader perspective (not only related to the environmental and social safeguards), the NPMU did not add to its framework the risks related to the main factors that have been affecting the project performance so far: COVID, tree mortality, procurement challenges, disbursement delays, turnover among key positions in the project, elections or major reforms at national level.

Country ownership and driven-ness

Addressed in section 0.

Communication and public awareness

247. The project has gone through lengths to establish public awareness of the project, but it is generally moderately recognized from the local levels to the national level as a great benefit to the country. Awareness on climate change adaptation and protection of ecosystem-based services seems insufficient, as the level of recognition of healthy ecosystems as necessary for survival is heterogenous among stakeholders and beneficiaries and reforestation areas continue to be degraded. Perception about impact in the field seems to indicate that there is a disconnect in communication between the central level and the regions.

248. In the coming months, communication efforts are expected to step up as the NPMU welcomed a new communication officer mid-2023 which updated the project communication strategy and is tasked with its implementation for the remainder of the project. This strategy plans *inter alia* to: update the project graphic charter and logo, organize a filmed capitalization tour to capture what has been done in the field, produce communication material targeted to the final beneficiaries, print and display kakemonos in town halls and cooperatives.

Rating for Factors Affecting Performance: Moderately Satisfactory

As exposed in Table 17, this rating is an average of the following ratings: Project Inception (MS), Quality of Project management and supervision (MU), Stakeholders Participation (MU), Responsiveness to Human Rights and Gender Equity (S), Environmental and Social Safeguards (MS), country Ownership (HS), Communication and public Awareness (MU).

Conclusions

Project likelihood of impact and paradigm shift

249. As per the project RF, the project's performance is assessed based on three GCF indicators related to i) impact and ii) paradigm shift.

i) Impact: GCF indicator A1.2, Number of males and females benefitting from the adoption of diversified, climate- resilient livelihood options (including fisheries, agriculture, tourism, etc.)and GCF indicator A4.1, Coverage/scale of ecosystems protected and strengthened in response to climate variability and change.

ii) Paradigm shift: GCF indicator A7.1, Use by vulnerable households, communities, businesses and public-sector services of Fund- supported tools, instruments, strategies and activities to respond to climate change and variability assessed through two qualitative means of verification: 1. Level of incorporation of the EbA in investments and 2. Households uptake/application of targeted agricultural practices based on climate information advisories received.

Impact

Conclusion 1: The project's mid-term target of total beneficiaries is met; however the sustainable adoption of climate-resilient livelihood options is not yet demonstrated (A1.2).

250. The latest monitoring data of the project shows that the mid-term target of the number of direct beneficiaries for the project is reached: 11,930 people, including 46.5% of women, participated in project activities. However, on a qualitative perspective, as explained in section 4.3.3 and 4.3.4, the MTE cannot confirm that these beneficiaries have effectively and sustainably adopted climate-resilient livelihood options. For example, some of the soya farmers have not fully converted their cropping practices to the technique promoted by PABE. However, as described in paragraph 228, capacities have been improved and awareness of the benefits of such climate-smart agriculture practices has been raised, which is likely to positively impact the sustainability of project results. On the cooperative side, PABE's support has led to both short- and long-term benefits for the women involved, both in terms of equipment and trainings.

Conclusion 2: Reforestation is challenged by many issues that require careful planning and target may not be reached (A4.1).

251. The MTE also highlights that the EbA character of the agriculture and reforestation techniques implemented so far is not proven yet. In this context, although the M&E system of the project indicates that 536ha of land are "protected and strengthened in response to climate variability and change", this assessment is questionable. In fact, most of the restoration technique and seedlings used to perform the reforestation activities can hardly be qualified as EbAs. This has been observed in the two management units of the OSN and the community forests where monoculture of exotic and indigenous species were carried out. Moreover, as the DGEFC

recommended to increase the planting density in the OSN classified forest, major revisions to the reforestation activities budget and indicators will have to be considered. Similarly, contrary to what was proposed in the funding proposal, the orchards planted focus on cashew trees only.

Conclusion 3: The ongoing deforestation pressure impacting the project intervention areas was underestimated at project design and imposed significant changes in the project reforestation strategy (A4.1).

252. Despite having identified the deforestation pressure as one of the main threats to forest ecosystems across Benin, the situational analysis underestimated the intensity of the phenomenon. In response to this evolution, the project decided to change the reforestation approach. Despite relevant for delivering project expected results, this decision has major implications on the project budget, since it will not be possible to cover the planned 3600 ha of reforested areas with the initially planned budget. This needs to be addressed by the NPMU and PSC.

Conclusion 4: The project experiences significant challenges securing land for reforestation (A4.1).

253. The areas for reforestation activities envisioned during the project design phase are currently limited and not secured, due to the extensive allocation of land to cotton fields and the limited ability of the municipality to provide additional land plots. Furthermore, in the case where cashew orchards were successfully planted on municipal lands, it was reported that, due to tedious and expensive procedures, the communes are now struggling to obtain legally binding agreements to formalize that local communities will benefit from the usufruct of land planted by the project.

Conclusion 5: Cashew and Gmelinea seedlings provided by INRAB under the recommendation of the MEAP were described as being more sensitive to local drought conditions than native ones (A4.1).

254. Some of the project's stakeholders expressed their concerns about the drought sensitivity of the grafted cashew seedlings that have been provided by INRAB as they were described as more fragile to local drought conditions than the native seedlings. Similar questions have arisen regarding Gmelinea seedlings used for the plantation of woodlots.

Conclusion 6: The low survival rate of the tree seedlings is a major concern for the project current effectiveness but also long-term sustainability (A4.1).

255. As detailed in this MTE report, a large share of the trees planted to reforest degraded areas in the project sites have died, resulting in overall low survival rates. The main reasons for this situation have been identified as follows: quality of seedlings, quality of the soil, insufficient community awareness raising, livestock trampling, insufficient maintenance and surveillance (see Table 10, output 1.2). This

should be mitigated in the near future by the contracts established with service providers that indicate payments will be based on survival rates above 80%. In addition, the established SLCGFs should help manage this problem. However, so far, these structures still lack capacities and means to exercise their duties. For this reason, the project will have to put a strong emphasis on building the capacities of community forest committees to effectively implement and monitor forest management plans, including restoration and reforestation, issuing permits and benefit sharing.

Paradigm shift

Conclusion 7: The mainstreaming of the EbA concept in key policies and sector planning and the uptake of agricultural practices based on climate information advisories by households have made headways but efforts need to be sustained to ensure that end-of-project results are reached before the project phases out (A7.1).

256. The project has made good progress in mainstreaming the EbA concept mostly at national level through the identification of gaps in EbA integration in national laws and policies and the establishment of an EbA integration monitoring committee, supported by ICRAF. At project mid-term however, there is still insufficient ownership of the EbA approach and principles at sub-national and local levels, and among all project stakeholders (NPMU, NPSC, implementing partners and technical advisors). Regarding the uptake of agricultural practices based on climate information advisories, this criterion cannot be assessed yet as the weather stations are not installed, and the climate early-warning system has not been developed yet.

Conclusion 8: The Knowledge hub has a great potential to promote paradigm shift but activities related to setting up the platform have made little progress to date (A7.1).

257. As per the funding proposal, part of the replication and upscaling potential of the project across departments and at the national level relies on the knowledge sharing of best practices and lessons learned via the national knowledge hub. At the MTE stage, the NPMU has decided to host the platform of MCVT's website and the ToR for the webpage development were in the process of being finalized. However, the platform was not yet set up and no knowledge products were developed yet. Achieving this output is therefore crucial to sustaining the paradigm shift of the project. In this respect, particular attention should be given to the fact that the MCVT website is currently under maintenance, leaving the project with no opportunity to move forward once the webpage development consultant will be onboard.

Project main strengths

Conclusion 9: At project design, the principles and related approaches of the proposed strategy successfully responded to GCF, UNEP, national priorities and local needs.

258. One of the main strengths of this project is its strategic relevance to the GCF, UNEP, national priorities and local needs, lying on the appropriateness of the proposed strategy with regards to the intervention proposed. Indeed, at project design, the proposed action plan was justified by a solid situational analysis of the geographical, environmental, socio-economic context and related dynamics. The proposed strategy is integrated, and it promotes ecosystem-based adaptation adopting a strong community-based and gender sensitive approach.

Conclusion 10: Despite the difficulties encountered during implementation, PABE has made some progress on several outputs and outcomes.

259. In terms of achievements, the project has made significant progresses on several aspects of the strategy. Despite some difficulties mostly related to COVID-19 restrictions, procurement challenges, and delayed disbursement of funds, SLCGFs have been established and forest management plans have been validated by both the forest administration and the communities concerned. Soya demonstrations plots have been established and inoculated soya seeds distributed during the 2021 and 2023 planting seasons, for the capacity building and personal benefits of men and women farmers. While ownership regarding the technique is not complete, farmers have shown that they are already partly adopting these practices. Moreover, they indicated being aware and convinced of the benefits from adopting innovative techniques which is also proving that overall, they are open to learning and changing their cultural habits. The same observation can be made for women-led cooperatives where the support has been much appreciated and generated short-term (improved working conditions and productivity), medium-term (increased revenues and improved livelihoods) and long-term (strengthened processing capacities) benefits. Similarly, the ICRAF-supported project has made progress in mainstreaming the EbA approach among a limited number of national-level stakeholders. As a result, the project has partially achieved its intended mid-term targets yielding to impacts that can more easily be linked to sustainable development than climate change adaptation.

Conclusion 11: The project achievements can be mainly attributed to the serious commitment of the NPMU and UNEP supporting staff.

260. These major achievements can be mainly attributed to the serious commitment of the NPMU and UNEP supporting staff. Indeed, the NPMU has been open to remarks and willing to learn and improve, resulting in enhanced management capacities. In this context, while budget execution and outputs delivery have been lower than

expected in the first phase of the project, it is now likely that the project management will be more efficient in the future. Similarly, the M&E system encountered some difficulties in producing substantial reporting material informing the RF's indicators. These difficulties were overcome increasing the drafting effort while, with ICRAF's support, the RF was also revised based on a solid baseline assessment and new monitoring tools were developed.

Conclusion 12: Some of the project's results already support its long-term sustainability but efforts will have to be maintained to ensure the development and implementation of a proper sustainability strategy.

261. Although additional efforts need to be made, the project realized some interesting achievements related to the sustainability of its interventions. In particular, the revision and development of forest management plans is expected to contribute to sustain the project's results beyond the project's lifespan. Similarly, the established/supported SLCGFs are now tasked with taking care of the community forests, supporting the implementation of the forest management plans as well as communicating about the benefits of healthy natural and productive ecosystems within local communities.

Project main weaknesses

Conclusion 13: The coordination and connectivity between the three components of the project is insufficiently demonstrated.

262. The MTE found some examples of synergies and complementarities between the project's activities and components on the ground. As an example, there is the logical link between Component 3 focussing on institutional and technical capacities of government and communities on EbA and components 2 and 3 dedicated to field interventions on forest and agriculture, forest being directly impacted by agricultural activities and expansion. Nevertheless, the coordination and connectivity between the three components of the project is insufficiently demonstrated. As a result, efforts to demonstrate the linkages between the project's impacts across stakeholders and to demonstrate the related increased climate resilience of north and central Benin communities and ecosystems to climate change will have to step up in the remainder of the project. This can be partially explained by the fact that adaptation pathways were insufficiently clear and identifiable in the project's theory of change and related strategy description. In this context, the achievement of outcomes is currently off-track and the likelihood of impact of the project at mid-term is limited, as is its capacity to promote a paradigm shift towards climate-resilient development pathways.

Conclusion 14: The implementation phase did not address shortcomings in national, sub-national and community capacities which negatively affected the project implementation and successful delivery of outputs and outcomes.

263. Given the current level of ownership about the EbA concept across project levels and stakeholders and the budget execution rate, the project might have been over-ambitious with regards to national, communal and local capacities to implement such a multi-level, integrated, community-led adaptation project within the planned five years of implementation.

264. In addition to this, as described in the Efficiency section, the project did not successfully use and manage the knowledge and expertise available within partner institutions in its implementation. Also detailed in this section, the implementation structure proposed at project design for the management of the project at commune level was inappropriate and led to the establishment of Commune Monitoring Units. Their role is limited to the monitoring of the project's activity. In practice, the MTE revealed that they lack legitimacy and means to operate.

265. One explanation for the low degree of implementation and ownership of the EbA approach, despite the significant international technical expertise provided, is the initial national and sub-national insufficient capacities among project stakeholders about climate change and adaptation-related concepts. Another explanation would be the fact that the FP was developed in English, that UNEP is predominantly English-speaking and that the NPMU doesn't master English may have hindered a full and thorough understanding of the project strategy and related concepts and principles by the national team.

266. There is room for improvement regarding community involvement and awareness raising which will need to be strengthened in the remainder of the project. In this respect, the project could strengthen the collaboration with other national initiatives in order to replicate successful implementation structures or achievements in similar community-led forest restoration and climate-smart initiatives.

Conclusion 15: The EbA options and principles proposed in the FP have not been adequately implemented on the ground, either in restoration measures or in agricultural activities. Under these conditions, adaptation benefits and resilience potential are not sufficiently secured.

267. Some of the project activities have not been consistent with the intentions of the funding proposal. For example, reforestation activities currently mainly focus on teak, cashew and acacia, and largely in monocultures which are known to bring less adaptation benefits in comparison to mixed species in the context of EbA. As described in paragraph 152, the choice of the teak specie is based on DGEFC's recommendations. The same observation can be done on the agriculture component of the project which currently concentrates on open field inoculated soya plantations, and not on the dissemination of climate-smart agriculture approaches. While the

agricultural demonstration plots have shown a significant increase in productivity over the two years of plantation, the adoption of inoculated soya doesn't protect farmers from future climate shocks on this crop. Reversely, climate-smart agricultural approaches as promoted in the FP – if adopted - have the potential to significantly mitigate future impacts of climate change.

Conclusion 16: Gender considerations were included both at project design and during implementation. Looking at the pool of total beneficiaries, the gender balance objective is almost reached, but it is not the case at output level.

268. Gender situational analysis and related action plans were included both at project design and during the daily implementation of the project. In this respect, the project can be qualified as gender sensitive as the strategy and M&E framework were developed with the intention to integrate women's perspective and needs as well as to secure their participation in all project activities. Throughout implementation, the gender analysis and action plan were updated to further ensure equal participation of men and women among the total pool of targeted beneficiaries as well as to meet national, UNEP and GCF gender guidelines and requirements. In practice, at mid-term, women represent 46.5% of the total beneficiaries which is encouraging with respect to the overall 50% gender-balance objective. By focusing on processing activities, the project successfully managed to support and bring numerous benefits and an overall increased well-being to women as reported during the MTE consultations.

269. Although the strategy was targeting gender-equity across project activities, in practice, the gender balance is currently not respected in all project components. In fact, the inherent nature of certain activities still hampers the participation of women. As an example, forestry activities are traditionally carried out by men, which limit the willingness and capacity of women to participate to planting activities as well as to take part in SLCGFs. This situation is expected to be addressed with the validation and implementation of the updated gender action plan finalized in August 2023.

Conclusion 17: As many activities of the project logical framework have only just begun or have not even started yet, and the sustainability of the project results beyond its lifespan has not been sufficiently secured at the operational mid-stage, the project would need more time than currently allocated to deliver the expected results.

270. Although some elements indicate a promising groundwork for further support and climate-resilient activities implementation, the sustainability of the project results beyond its lifespan has not been sufficiently secured at the operational mid-stage of the project.

271. In addition, as many of the project activities have only just begun, or have not even started yet, it is difficult to draw conclusions on the other expected results of the

project. Despite a certain level of satisfaction by the final beneficiaries, the degree of achievement at both outcome and output levels remains limited at the operational mid-point. Therefore, efforts will have to step up to successfully manage the implementation of the full project theory of change. Considering the project end is currently planned for August 2024, the MTE concludes that based on the project achievements to date and the recognition by the NPMU, DGEC and UNEP of the need to refocus and intensify project activities, there is a strong justification for a no-cost time extension of the project for two more growing seasons (additional planting in 2024 and maintenance in 2025), pushing the project closing by 22 months (from August 2024 to June 2026, operational end by March 2026).

Rating table

272. Table 17 provides a summary of the MTE ratings and findings discussed above. Overall, the project's rate and quality of delivery of activities to achieve outputs and outcomes is deemed **Moderately Satisfactory.** Whilst the NPMU, UNEP and part of the implementation stakeholders were found to be committed and motivated, the project experienced several external and internal challenges that strongly impacted the performance of the project and led to failure to achieve most of the mid-term targets.

Table 17: PABE project performance ratings table

Criterion	Summary Assessment	Rating[30]
A. Strategic Relevance	**See chapter 4.1**	**S**
1. Alignment to UNEP's, Donors and Country (global, regional, sub-regional and national) strategic priorities	See sections 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5	HS
2. Coherence with relevant existing interventions	See section 4.1.6	MS
B. Quality & Revision of Project Design	**See chapter 4.2**	**MS**
C. Effectiveness	**See chapter 4.3**	**MS**
1. Theory of change	See section 4.3.1	MS
2. Availability of outputs	See section 4.3.2	MU
3. Progress towards project outcomes, including towards indicators	See section 4.3.3	MS
4. Likelihood of impact, includes innovativeness and replication and scalability	See section 4.3.4	MU
5. Adaptive management	See section 4.3.5	MS
D. Financial Management	**See chapter 4.4**	**S**

[30] Most criteria are rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); and Highly Unsatisfactory (HU). Sustainability and Likelihood of Impact are rated from Highly Likely (HL) down to Highly Unlikely (HU).

Criterion	Summary Assessment	Rating[30]
E. Efficiency	**See chapter 4.5**	**MU**
F. Monitoring and Reporting	**See chapter 4.6**	**MS**
1. Monitoring of project implementation	See section 4.6.1	S
2.Project reporting	See section 4.6.2	MS
G. Exit Strategy & Sustainability	**See chapter 4.7**	**MU**
H. Factors Affecting Performance and Cross-Cutting Issues	**See chapter 4.8**	**MS**
1. Project Inception	See section 4.8.1	MS
2. Quality of project management and supervision	See chapter 4.5	MU
3. Stakeholders participation and cooperation	See section 4.5.1.2	MU
4. Responsiveness to human rights and gender equity	See section 4.8.4	S
5. Environmental and social safeguards	See section 4.8.5	MS
6. Country ownership and driven-ness	See section 4.1.4	HS
7. Communication and public awareness	See section 4.8.7	MU
Overall Project Rating	**-**	**MS**

Lessons learned

Lessons learned 1: It is important to internalise the EbA approach within the project team at the beginning, including mapping out the planned EbA interventions and their interlinkages, and to sustain the internationalisation during the course of the project implementation.

273. As highlighted in this report, the EbA concept is not well understood by the main project stakeholders, including the project team. This directly affects the quality of project implementation, some of the interventions not following EbA principles, even when they were properly designed in the project document. When implementing EbA projects, it is therefore important to ensure capacities of the project team are sufficiently raised on EbA concept, approaches, and tools as well as across project implementation partners and collaborators. This helps ensure the building of the capacities of other project stakeholders on EbA and the more likely delivery of climate change adaptation benefits based on ecosystem services.

Lessons learned 2: An accurate assessment of the capacity of key national stakeholders to manage an integrated and multi-scalar donor-funded project involving complex concepts such as ecosystem-based adaptation, climate-smart agriculture and sustainable forest management, can help to formulate an adapted strategy that resonates with and is supported by national capacity on the ground.

274. This MTE confirmed the lack of clarity about the EbA concept among project stakeholders at mid-term. This can be explained by a low level of ownership and a lack of understanding about the EbA concept prior the implementation that the project did not manage to overcome so far. This could have been better anticipated and mitigated by assessing the main project stakeholders' abilities to manage such an integrated and multi-scalar project including complex concepts such as ecosystem-based adaptation, climate smart agriculture and sustainable forest management, before the project start. With regards to project management capacities, lessons must be learned from the project too as national staff may find UNEP and GCF procedures complex and cumbersome. In this respect, a procurement capacity and a fiduciary risk assessment were conducted before the project team was hired. Following the assessment, UNEP provided capacity building trainings to the executing entity which could have been also useful to also organize for the project team once recruited. Another shortcoming of the support provided by UNEP and the GCF is the language barrier between these two English-speaking organizations' staff (except UNEP task manager) and the French-speaking recipient country. Capacity building training on both sides could have been helpful to ensure

the exhaustive transfer of information and knowledge between project stakeholders throughout implementation.

Lessons learned 3: Community approach and commune ownership are key to support EbA implementation and ensure the sustainability of the interventions.

275. As explained in this report, although municipalities were involved in the project design, insufficient local engagement and consultations during project implementation has led to limited local commitment to implement the project interventions. This can jeopardise the sustainability of project interventions beyond the project's life. The inefficient implementation of the project interventions on the ground can also be attributed to the insufficient supervision delegated to district authorities which, through the CCSs, couldn't provide enough staff, time and resources to the project.

Lessons learned 4: Demonstration plots support the progressive change in cultural practices which is known to be difficult and slow-moving.

276. The improved productivity yielded from the inoculated soya demonstration plots succeed in convincing most of project soya growers, that the inoculated seeds and associated techniques could bring them more benefits than the conventional ones, leading to - at least – a partial conversion of their next production using the innovative technique learnt. Although, the EbA character of the intervention is not yet demonstrated, it is worth noting the success in the approach adopted to sustainably build local agricultural capacities. It is of particular interest as cultural changes are known to come with a significant degree of inertia whatever the context.

Lessons learned 5: Pooling beneficiaries to provide trainings help building both capacities and networks.

277. Another unexpected success of the project is the knowledge and best practices exchange visits that were organized between cooperatives following PABE's training. As a lesson learnt, it is also good to remember that, beyond top-down training formats, establishing links and strengthening professional networks also help horizontally building capacities.

Recommendations

This MTE was informed by the RVE carried out in June-July 2023. As the RVE also resulted in a list of recommendations, the common recommendations between the MTE and the RVE are highlighted in **green (ex: RVE-R...)** in the table below.

Recommendations	Timing	Responsibility
Recommendation 1: Revise the project implementation structure to enhance implementation, monitoring efficiency and ownership at the commune level. The MTE highlights several management issues and inefficiencies in the implementation of activities in the seven communes. Therefore, the MTE recommends to revise the implementation structure of the project, adopting a community-based approach as is done by the project "Forêts Classées" funded by the World Bank. The following sub-recommendations should be considered: R1a- Facilitate the timely and regular involvement of CCSs **(RVE-R1)** by: ○ Providing adequate incentives and resources to perform their tasks, which requires the MCVT to ensure timely disbursement of funds to the CCS members (Government counterpart funds); ○ Strengthening their participation in awareness raising activities and reminding the communities of the laws in force. R1b- Consider hiring up to seven project facilitators, one per commune[31] whose role would be to support greater integration and participation of local stakeholders and oversee the daily implementation of the project gender-sensitive activities, especially those conducted by service providers, and ensure effective coordination and reporting with CCSs. R1c- Ensure greater integration and participation of local stakeholders (nurseries and local communities) in the design, planning, implementation and monitoring of gender-sensitive activities. As an example, consider the possibility to integrate a community representative in every CCS or at least incorporate them when the NPMU submits the annual workplan to the CCSs once a year.	As soon as possible	NPMU, UNEP, CTA, MCVT

[31] Depending on logistical and budgetary considerations, Ouaké and Djougou as well as Cobly and Boukoumbé might be managed jointly.

R1d- Based on the updated Communication Plan, strengthen efficient coordination and communication channels within the NPMU, and between NPMU, DGEC, UNEP and the decentralized representations of the project. R1e- Ensure that NPMU and DGEC are aware of and meet i) GCF conditionalities to enable timely disbursement of funds from GCF to UNEP and ii) UNEP conditionalities to enable disbursement of funds from UNEP to the project account **(RVE-R2)**. R1f- For the project success, it is an urgent matter that the MCVT honors the co-financing commitments made at project design and as per annual workplans and budgets.		
Recommendation 2: Intensify efforts in training, awareness and capacity development on the EbA approach in Benin. R2a- Strengthen the community ownership related to the proposed EbA interventions through: - A community validation of the interventions; - A negotiation about the conditions under which they will be involved in the project (working hours, salaries etc); - An increased awareness raising effort mobilizing both the communes and the SLCGFs. If they are to be active and present in the region, SLCGFs need to be given the equipment they need to carry out their functions **(RVE-R6)**. R2b- Put EbA solutions into practice: - *Component 1:* Use the Social and Environmental Assessments and implement the related forest management plans to ensure the needs of forest users are met; design the permit system in order to make sure that it provides long-term benefits that can be reinvested in reforestation/forest restoration activities, as well as used to ensure forest management plans remain enforced (e.g. covering running costs for SLCGFs); Ensure reforestation activities i) focus on multi-species indigenous trees based on local needs and ii) increase the effort to strengthen the community involvement and ownership; make sure orchards contain more than one specie, i.e cashew and a mix of other NTFPs including shea, nere, etc;	Starting next planting season	NPMU, ICRAF, service providers

- *Component 2:* use the stock take of existing indigenous climate-resilient crop cultivars and agricultural practices to inform the development of trainings on a diversity of locally-relevant climate-resilient agricultural techniques and crops depending on the locality; establish a climate early-warning system communicating weather forecasts on local radios; organize community knowledge-sharing events to learn from beneficiary community members; organize trainings session to inform communities on why and how to store crops under climate change conditions; finalize the EBAFOSA compliance standards for Benin. - *Component 3*: increase the frequency of the awareness raising modules on climate change and ecosystem services provided by forest; sustain efforts to effectively conduct the law and policy revisions identified in the groundwork conducted by ICRAF. R2c- Set-up and inform the knowledge hub. Carry out a study to assess what hosting arrangement is the most suited to promote replication and paradigm shift. Establish the platform including developing a business plan detailing MCVT's planned budget allocation and associated staff. Conduct an analysis of successful adaptation interventions to inform the knowledge hub platform; set up the knowledge platform and efficiently communicate about the usefulness and sustainability of the tool. If the platform is to be hosted on MCVT's website, coordinate with MCVT to ensure that the website is available within a reasonable time. R2d- Assess, strengthen and raise the capacities of the main implementing partners related to the EbA concept, principles and techniques, especially the NPMU and the service providers mandated for the project physical activities. In practice, test and follow up the SP's increased capacities and ability to conduct and implement EbA on the ground in order to ensure the effective delivery of climate change adaptation benefits. R2e- As ICRAF is the main technical advisor responsible for the promotion, mainstreaming and implementation of the EbA concept, the MTE invites the organization and PABE to take stock of the current situation, considering progress achieved so far and gaps to address. On this basis, the presentation and implementation of an accelerated EbA mainstreaming strategy and action plan as well as implementation monitoring plan to the NPMU for the remainder of the project is recommended. To		

make the most of this collaboration, PABE must intensify the supervision and management of ICRAF's work.		
Recommendation 3: Considering the difficulties reported by the MTE for achieving component 1, clarify the project's strategy for land restoration and reforestation (RVE-R5 and 14). R3a- Organize a technical working session with all relevant stakeholders including the NPMU, ICRAF, INRAB and the DGEFC with the objective of establishing an action plan to address all the issues raised in section 0 (tree mortality, choice between enrichment planting based on a budget of 400 plants/ha versus monoculture plantation planting at 1600/ha). Efforts need to step up in the remainder of the project to implement more forestry EbA solutions as prescribed in the funding proposal and presented in Table 9. Revise the budget and M&E indicators accordingly. Present the updated strategy for validation to the NPSC and to each of the communes involved in the project. R3b- Supervise and support the DGEFC and SLCGFs in planning and implementing the forest management plans developed under component 1 of the project. R3c- Given the tight window for tree planting in the areas targeted by the project, ensure planting activities are well anticipated, prepared and planned **(RVE-R3)**. R3d- Investigate and implement mitigation solutions for all the technical factors that have been identified as potentially negatively impacting the survival of the seedlings.	Within 3 months	NPMU, DGEFC, ICRAF, INRAB
Recommendation 4: Optimize the mobilization and management of the expertise made available to the project. R4a- Ensure existing deliverables and outputs (baseline, socio-economic studies for every municipality, climate vulnerability assessments, Environmental and Social Impact Assessment and SEP, updated GAP **(RVE-R13)**, ESIA, ESMP, SEP) are more strongly harnessed and operationalized to inform project activity design, implementation and monitoring. R4b- Strengthen cooperation with INRAB, ensuring that it fulfils the tasks agreed in the Partnership Agreement: timely supplying the climate-resilient crops and providing expertise to solve the issue of drought-sensitive cashew and gmelina seedlings for the next planting season in 2024. R4c- Establish stronger coordination with the MAEP, in particular regarding the transhumance corridor issue.	From now on	NPMU, DGEFC, INRAB, MAEP, EBAFOSA, Meteo Benin

Formalize the collaboration through a partnership agreement detailing the terms of the interaction between the ministry (or relevant department) and the project. The same type of partnership agreement could also be imagined with the municipalities as they have valuable expertise of the localities and play a significant role in the project through the CCSs. R4d- Exploit all partnership agreements established by PABE and ensure they are honored from both sides to the full extent of their potential contribution to the project's performance, while respecting and trusting each other's expertise.		
Recommendation 5: Update and revise the project logical and M&E frameworks, to: R5a- Revise the RF based on the revisions (updated RF) associated with the baseline assessment. R5b- In line with R3b, also consider the newly established reforestation action plan when updating the RF. R5c- Develop a monitoring approach for indicators related to the increase in agricultural yield or processing productivity **(RVE-R9)**. R5d- Step up the effort to prove the connectivity between the three components of the project in order to demonstrate the increased resilience of ecosystems and communities. R5e- Implement the KoboCollect tool, monitor the benefits and capitalize on this innovative tool. R5f- Considering the high rate of turnover among the implementation team and supporting stakeholders, sustain the reporting and drafting effort to make sure that knowledge, and ideas are secured and easily disseminated over time.	After the MTE	NPMU, ICRAF, UNEP
Recommendation 6: Promote EbA as a sustainable livelihoods approach and ensure that all activities are initiated/completed in accordance with the overall project strategy. R6a- Put continuous emphasis on activities that strengthen community ownership including beekeeping in community forests. R6b- Reinforce all the committees and tools established so far to ensure they fulfil their duty in the remainder of the project and in the long run. R6c- Depending on the final beneficiary category, complete the support already provided to farmers (plough issue), cooperatives (strengthen the training process, deepening and improving skills in financial management, marketing and	Starting in 2024	NPMU, ICRAF, MAEP and DGEFC extension officers

market access, providing material), SLGCFs, CCSs to ensure the final significance and impact of PABE's assistance (**RVE-R7 and 11).** R6d- Empower and raise awareness among all stakeholders who can play a role in sustaining the project's results, including the communes which will sign partnership agreement after the project completion but could also incorporate the long-term and sustainability objectives of the project in their development plans ; R6e- Promote the creation of clusters of related cooperatives and encourage the exchange of experience between cooperatives **(RVE-R8)**. R6f- Increase the knowledge exchange effort in the view of having handy and multi-target communication and knowledge products based on the project results. R6g- Develop a project exit and sustainability strategy ensuring that EbA experiences from the project and knowledge produced serve to catalyze wider EbA adoption in Benin.		
Recommendation 7: Enhance risk management. R7a- Make sure the updated ESIA, SEP and ESMP are implemented. R7b- Update the table on Risks to project sustainability and related mitigation measures. R7c- Implement the related mitigation measures. Particular attention should be given to: - the agricultural expansion risks (see paragraph 246246); - the risk related to land tenure, i.e support the municipalities in the legal formalization of the community ownership of orchard usufruct.	Q1 2024	NPMU
Recommendation 8: Consider moving forward with a no-cost extension of at least 22 months (from August 2024 to June 2026, operational end by March 2026). Whilst project performance has been moderately satisfactory, there are grounds that the project will achieve its objectives, outcomes and outputs if activities are extended to cover two additional growing seasons (additional planting in 2024 and maintenance in 2025) and other MTE recommendations are put in place by DGEC and UNEP. R8a- Priority efforts must be dedicated to the recruitment and rapid integration of a new project coordinator.	As soon as possible	NPMU and UNEP

R8b- In parallel, an expedited implementation plan should be made with a long-term perspective for the remainder of the project. In this context, a budget revision should be conducted as soon as possible to ensure that the no-cost extension will not result in budget overrun and that operational costs will remain acceptable.		

Annexes

Annex 1: Theory of change

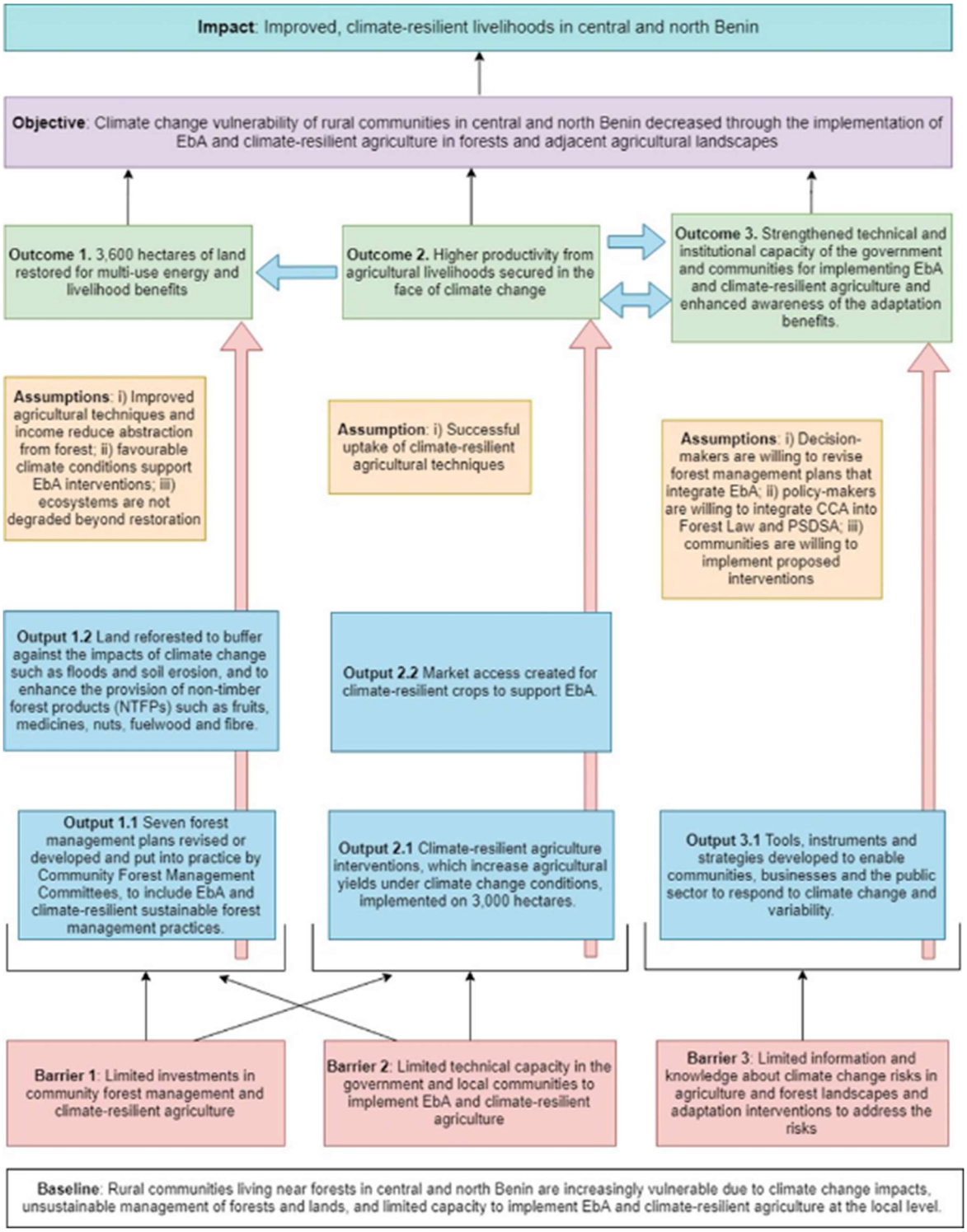


Figure 4 : PABE project's theory of change (source: Pre-feasibility study annexed to the FP)

Annex 2: Results framework

278. The Results Framework (RF) currently used to monitor and assess the project progresses against its goals, objectives and targets is presented in the table below Table 18.

Table 18 : PABE's results frameworks

Impacts measured by GCF indicators						
Expected Result	**Indicator**	**Means of Verification**	**Baseline**	**Target**		**Assumptions**
				Mid-Term	**Final**	
Fund level Impacts						
A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	A1.2 Number of males and females benefitting from the adoption of diversified, climate-resilient livelihood options (including fisheries, agriculture, tourism, etc.)	Random sampling; project-level field surveys comprising interviews with local communities	TBC during start-up assessment	4,000 women and 4,000 men benefit from climate-resilient livelihoods	11,000 women and 11,000 men benefit from climate-resilient livelihoods	Climate resilient agricultural strategies will improve the resilience of ecosystems and ecosystem services
A4.0 Improved resilience of ecosystems and ecosystem services	A4.1 Coverage/scale of ecosystems protected and strengthened in response to climate variability and change	Project-level field surveys including GIS mapping of project intervention sites showing forest coverage and density	3,600 ha of land; the extent of degradation will be established in the start-up phase of the project	1,200 ha of degraded forests protected and strengthened in response to climate variability and change	3,600 ha of degraded forests protected and strengthened in response to climate variability and change	The EbA measures implemented are effective in increasing resilience and improving the livelihoods of vulnerable people
D.2 Outcomes measured by GCF indicators						
Expected Result	**Indicator**	**Means of Verification**	**Baseline**	**Target**		**Assumptions**
				Mid-Term	**Final**	

A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	A7.1 Use by vulnerable households, communities, businesses and public-sector services of Fund-supported tools, instruments, strategies and activities to respond to climate change and variability	Scorecard approach targeting beneficiary communities and technical officers in districts, municipalities and central government	Level of incorporation of EbA in investments[32] = 1	Level = 3	Level = 5	Government and communities absorb and understand the information made available to them.
			0% households uptake/application of targeted agricultural practices based on climate information advisories received	10% households uptake/ application of targeted agricultural practices based on climate information advisories received	30% households uptake/ application of targeted agricultural practices based on climate information advisories received	
Project Logframe						
Project Objective: To buffer communities against the effects of climate change by adapting agricultural livelihoods and investing in land stewardship						
Expected Result	**Indicator**	**Means of Verification**	**Baseline**	**Target**		**Assumptions**
				Mid-Term	**Final**	
Outcome 1: 3,600 hectares of land restored for multi-use energy and livelihood benefits						

[32] **Level 1** = EbA approaches are not mainstreamed in policy, legislation or guidelines; **Level 2**= Initial EbA approaches are integrated through regular issuance of climate advisories; EbA mainstreaming guidelines and policy and information briefs are available; **Level 3 =** Revisions to national agriculture policy and forest law are developed and proposed for adoption; **Level 4** = EbA adapted Agricultural Policy and Forest Law Adopted; **Level 5** = Ministry of Livelihoods and Sustainable Development (MCVT) and Ministry of Agriculture, water and Fisheries (MAEP) develop annual and multi-annual sector planning and budgets that incorporate EBA methods for at least two relevant sectors.

Output 1.1 Seven forest management plans revised or developed and put into practice by Community Forest Management Committees, to include EbA and climate-resilient sustainable forest management practices.	Number and Level[33] of effectiveness of CFMCs	Key informant interviews; household surveys.	Baseline: TBC during start-up assessments in Year 1.	7 CFMCs at Level = 2	7 CFMCs at Level = 4	CFMCs are able to command authority in the development and implementation of the forest management plans.
Output 1.2 Land reforested to buffer against the impacts of climate change such as floods and soil erosion, and to enhance the provision of non-timber forest products (NTFPs) such as fruits, medicines, nuts, fuelwood and fibre.	Percentage survivorship of planted trees.	Field survey (by local ecologist and/or Forestry Department staff) collecting survivorship data from transects of 50m by 2m	Baseline (at time of planting): 100%	75%	60%	Community members correctly implement planting of seedlings to ensure survivorship.
Outcome 2: Higher productivity from agricultural livelihoods secured in the face of climate change						
Output 2.1 Climate-resilient agriculture interventions, which increase agricultural yields under climate change conditions, implemented on 3,000 hectares.	Area (ha) of agricultural lands where sustainable, climate-resilient agriculture is implemented.	Randomized sampling; project-level field surveys comprising interviews with local communities GIS mapping of project intervention sites	Baseline: TBC during start-up assessments in Year 1.	1,000 ha of agricultural lands where climate-resilient agriculture is implemented	3,000 ha of agricultural lands where climate-resilient agriculture is implemented.	Communities are open to learning and implementation of the climate resilient agricultural measures.

[33] **Level 1=** CFMC established; **Level 2** = CFMC in place, meeting regularly with appropriate representation (gender and decision-making authorities); **Level 3** = CFMC in place, meeting regularly, with appropriate representation, with appropriate information flows and monitoring of action items/issues raised; **Level 4** = CFMC NR permit system working effectively to enforce sustainable natural resource extraction.

	Change in agricultural yields	Randomized sampling; project-level field surveys comprising interviews with local communities	Baseline: TBC during start-up assessments in Year 1.	Yields increase for 20% of the target population of 22,000 households by 20% through the project interventions.	Yields increase for 50% of the target population of 22,000 households by 20% through the project interventions.	Climate resilient measures are effective in counteracting the effects of weather extremes on agriculture.
Output 2.2 Market access created for climate resilient crop to support EbA.	The economic value of trade agreements (number and value of trade agreements) facilitating sales from the value chain, which post-harvest facilities are expected to increase/improve.	Independent evaluation report	0 Cooperatives Economic Value to be established during baseline assessments in Year 1.	7-14 cooperatives formed and business strategies developed Economic value created by the project = 0 as work is carried out to strengthen cooperatives and implement Output 2.1	7-14 new trade agreements (1 per cooperative) Economic value created by the project to be established during baseline assessment in Year 1.	Cooperatives fulfil desired production levels.
Outcome 3: Strengthened technical and institutional capacity of the government and communities for implementing EbA and climate-resilient agriculture and enhanced awareness of the adaptation benefits.						
Output 3.1 Tools, instruments and strategies developed to enable communities, businesses and the public sector to respond	Degree of integration of climate change and/or EbA into the Forest Law and agricultural policy (PSDSA)	Independent evaluation report	Level = 0[34]	Level = 2	Level = 4	Policy makers understand the messages and arguments for EbA and agricultural and are willing to effect legal and policy change.

[34] **Level 0**: Climate change not mainstreamed meaningfully into the forest law and agricultural policy; **Level 1**: Climate change narrative woven through the draft forest law and agricultural policy; **Level 2:** Action plan and toolkit for implementation of the forest law and agricultural policy with climate change adaptation fully mainstreamed have been developed; **Level 3:** Budgets allocated to implement the forest law and revised agricultural policy.

to climate change and variability.	Extent of quality of climate advisories and applicability by farmers	Baseline survey and scorecard	Level = 0[35]	Level = 2	Level = 4	Smallholder farmers trust the climate advisories and are willing to adapt their farming strategies.

The French version of the updated version of the project's results framework (dRF) following the finalization of the baseline report developed by ICRAF is attached below.

Cadre%20logique%20actualisé%20+Donn

[35] **Level 0:** Climate advisories not used among smallholder farmers to adapt farming practices; **Level 1:** Responses to the range of climate hazards codified by focus groups of smallholder farmers; **Level 2:** Climate advisory dissemination pilot tested among a lead farmer group; **Level 3**: Farmer to farmer dissemination of climate advisories tested over an agricultural season; **Level 4: Targeted smallholder farmers reporting more stable yield or reduced loss of crops**

Annex 3: Evaluation matrix

Evaluation questions	Indicators	Information source	Data collection method
A. Strategic Relevance			
A.1. *Alignment to UNEP's priorities*: To what extent is the project aligned to the UNEP Medium Term Strategy (MTS), Programme of Work (POW), to Bali Strategic Plan for Technology Support and Capacity Building and to UNEP's Strategy for South-South and Triangular Cooperation ?	• Level of alignment between the project and UNEP strategic priorities	• FP and project planning documents • UNEP MTS, POWs 2018-2019 (design) and 2022-23 (implementation), Bali Strategic Plan for Technology Support and Capacity Building, UNEP's Strategy for South-South and Triangular Cooperation UNEP staff	• Desk review • Interviews
A.2. *Alignment to GCF's priorities*: To what extent is the project aligned to the GCF Strategic Plan (2020-2023) and Strategic Priorities 2023 ? To what extent is the project aligned with the GCF's investment criteria: Paradigm shift, country ownership, need of the client, sustainable development potential and impact potential?	• Level of alignment between the project and GCF strategic priorities	• FP and project planning documents • GCF Strategic Plan (2020-2023) and Strategic Priorities 2023 • GCF investment criterias • UNEP staff	• Desk review • Interviews
A.3. *Alignment to global priorities*: To what extent is the project contributing to the SDGs and the Agenda 2030 ?	• Level of alignment between the project and the SDGs and the Agenda 2030	• FP and project planning documents • SDGs and the Agenda 2030 • UNEP staff	• Desk review • Interviews

Evaluation questions	Indicators	Information source	Data collection method
A.4. *Alignment to the country priorities*: To what extent is the project responding to the national priorities?	• Level of alignment between the project and national or sub-national development plans, poverty reduction strategies, Nationally Adaptation Plans of Action (NAPA) or National Adaptation Plans (NAP) or National Determined Contributions (NDCs) or national climate change policies or regional agreements	• FP and project planning documents • National and sub-national development plans, poverty reduction strategies, climate change strategies, other environmental agreements • Government partners, regional authorities • UNEP staff • NPMU •	• Desk review • Interviews
A.5. *Alignment to the country needs*: To what extent is the project responding to national needs ?	• Level of alignment with needs expressed by local communities and groups	• Government partners, regional authorities • UNEP staff • NPMU • Communities	• Desk review • Interviews
A.6.*Complementarity/Coherence with Relevant Existing Interventions*: To what extent the project is taking account of ongoing and planned initiatives that address similar needs of the same target groups ? To what extent the project is fulfilling its commitments made at project design to collaborate and	• Proof of establishment of mechanism to coordinate the project with other completed, ongoing, and upcoming activities. • Level of complementarity between the project and other existing initiatives. • Number and type of co-financing partners and amount of co-financing provided.	• UNEP staff • NPMU • Other implementing agency in the country • Government partners, regional authorities	• Desk review • Interviews

Evaluation questions	Indicators	Information source	Data collection method
ensure its complementariness with other initiatives ? To what extent this GCF-project is coherent with other multilateral entities in terms of climate finance delivery ?	• Level of complementarity between the project and other multilateral entities' program of work/projects		
B. Quality and revision of project design			
B.1. *Quality of the project design:* What are the main strengths and weaknesses of the project design ?	• Quality of the situation analysis • Extent to which the proposed approach is clearly answering to climate risks and local needs • Readability of adaptation pathways • Paradigm shift potential • Prove of cost effectiveness • Presence of formal or elements of an exit strategy • Clarity and precision of institutional and implementation arrangements	• Funding proposal • Annexes	• Desk review • Interviews
B.2. *Appropriateness of the proposed approach*: Are all the elements planned at project design initiated or planned to ? What are the main amendments that have been conducted so far ? Did the revision process followed UNEP/GCF policies for revisions ?	• Number and extent of activities/results revisions/amendment	• Formal notifications of project activities/budget revisions • UNEP/GCF policies for revisions	• Desk review • Interviews

Evaluation questions	Indicators	Information source	Data collection method
C. Effectiveness			
C.1. *Theory of change:* Is the Project Theory of Change and intervention logic appropriate, coherent, and realistic? Are causal pathways effectively shown/articulated and supported by a full set of contributing conditions ? Is it reflecting UNEP's commitment to increasing equality in line with the UN's commitment to human rights ?	• Evidence of clear linkage between the problem statement, inputs, outputs, outcomes and impact • Readability and significance of causal pathways suggested or described • Number of influencing drivers/assumptions suggested or described	• Project theory of change • UN's commitment to human rights • Monitoring and reporting documents (quarterly and annual work plans) • NPMU, UNEP manager, and/or CTA	• Desk review
C.2. *Availability of outputs*: Is the project successfully delivering the planned outputs and achieving targets and milestones as per the FP or any formal revisions ?	• Quality and quantity of outputs delivered against the log frame's midterm and/or final targets • Ownership and usefulness of outputs delivered • Perceived level of success of on the ground intervention so far and potential gaps • Type and extent of assets strengthened or better managed to withstand climate change: o Number of ha (and type) of EbA implemented o Ha of degraded lands rehabilitated	• Project Log frame • Project planning documents (annual work plans) • Progress reports and monitoring reports • UNEP staff • NPMU • Local stakeholders • Direct observation	• Desk review • Interviews • Field visit

Evaluation questions	Indicators	Information source	Data collection method
	○ Number and area of woodlots established • Number of cooperative based on a climate-resilient natural resource base supported (incl. number managed by Village Women's Committees) • Number of direct jobs created through the project activities		
C.3. Progress towards Project outcomes: How much progress has been made and are the outputs contributing to the achievement of project outcomes?	• Evidence of contribution of the project activities and outputs to direct outcomes • Number and extent of achievement of milestones towards meeting direct outcome indicators • Level of consideration of assumptions and drivers that need to be in place to support the uptake of outputs • Evidence of adaptive capacity increased and reduced exposure to climate change: ○ Number of EbA protocols integrated in local management plans of targeted communities ○ Status of implementation of EbA protocols ○ Number of business plans, forums and financial mechanisms based on	• Monitoring and reporting documents (annual work plans, monitoring and progress reports) • NPMU, UNEP task manager, and/or CTA • Local stakeholders • Government stakeholders, technical staff • Direct observation • NPSC minutes • Environmental and Social impact assessment (original and updated versions)	• Desk review • Interviews • Field visit

Evaluation questions	Indicators	Information source	Data collection method
	climate-resilient natural resource-based products o Number of policies, strategies, plans and processes related to EbA and climate-smart agriculture modified		
C.4. *Likelihood of Impact*: What is the likelihood of emerging positive impacts becoming reality ? To what extent the project is playing a catalytic role or is promoting longer-term scaling up and/or replication as part of its Theory of Change ?	• Evidence and extent of barriers or enabling conditions toward achievement of impact indicators. • Evidence of potential scaling up and/or replication of the project intervention		•
C.5. *Likelihood of Fund-level impacts (where appropriate and feasible):* Is the project progressing toward achievement of Fund-level (GCF) intended impacts ?	• Achievement of results towards GCF investment criteria: Impact potential, Paradigm shift potential, Sustainable development potential, Needs of the recipient, Country Owership, Efficiency and effectiveness • Extent of achievement of milestones towards meeting Fund-level impact indicators: o Number of males and females benefitting from the adoption of diversified, climate- resilient livelihood options (including fisheries, agriculture, tourism, etc.)		• Desk review • Interviews • Field visit

Evaluation questions	Indicators	Information source	Data collection method
	○ Coverage/scale of ecosystems protected and strengthened in response to climate variability and change		
C.6. *Adaptive Management*: What has been the project's ability to adapt and evolve to meet the outcomes, based on continuous lessons learned and the changing development landscape ? What is the likelihood of any non/late delivery of the project's workplan ? What are the factors undermining the endurance of project achievements ?	• Evidence and number of lessons learned integrated in project design to adapt to the changing environment and lessons learned. • Evidence of adaptative management both for the AE and the EE based on lessons learned.		• Desk review • Interviews • Field visit
C.7. Can any unintended or unexpected positive or negative effects be observed as a consequence of the project interventions? What are the contributing factors ?	• Evidence of unintended (negative or positive) consequences or co-benefits • Identified adverse impacts in the social and environmental assessments and program document • Nature and likelihood of adverse environmental, social, and economic effects from the project activities		• Desk review • Interviews • Field visit
C.8. *Innovativeness*: To what extent the project results are likely to lead	• Emerging evidence of paradigm shift towards climate-resilient development pathways		• Interviews • Field visit

Evaluation questions	Indicators	Information source	Data collection method
to paradigm shift towards climate-resilient development pathways ?			
D. Financial Management			
D.1. *Rate of spent*: Is the rate of disbursement consistent with the work plan, the length of implementation to date and the outputs delivered?	• Budget execution per year, component, and output, against total and planned budget	• Monitoring and reporting documents (quarterly financial reports, annual reports) • UNEP Task manager, PMU Financial Officer and CTA • GCF/UNEP reporting requirements	• Interviews • Desk review
D.2. *Financial reporting:* Does the project comply with financial reporting and/or auditing requirements/ schedule, including quality and timeliness of reports?	• Proportion and types of financial reporting and/or auditing materials submitted a) correctly and b) on time • Quality of financial reporting/auditing materials	• Financial reporting/ auditing documents (quarterly financial reports, annual audits reports) • UNEP task manager, Financial Officer and CTA • GCF/UNEP reporting requirements	• Interviews • Desk review
D.3. *Financial management issues*: Was there any financial management issue affecting the timely delivery of the project or the quality of its performance ?	• Budget effective execution against planned budget • Budget effective execution against planned results	• Monitoring and reporting documents (quarterly financial reports, annual reports) • UNEP Task manager, PMU Financial Officer and CTA	• Interviews • Desk review
E. Efficiency			

Evaluation questions	Indicators	Information source	Data collection method
E.1. *Cost-effectiveness*: To what extent are the outputs being achieved in a cost-effective manner?	• Level of alignment between planned and incurred implementation costs and nature of divergences • Evidence of use of financially sound practices/adaptative management for project execution and implementation	• Financial reporting/ auditing documents (quarterly, annual reports) • UNEP task manager and CTA	• Desk review • Interviews
E.2. Timeliness: Were the planned activities delivered according to expected timeframes ?	• Timeliness of output delivery against the work plan • Evidence of the reasons for delays in progress, audit, and monitoring reports.	• Monitoring and reporting documents (annual work plans, monitoring and progress reports) • NPMU, UNEP task manager, and/or CTA • Local stakeholders • Government stakeholders, technical staff • Direct observation • NPSC minutes	• Desk review • Interviews • Field visit
E.3. *Sequencing*: Are the timing and sequence of activities i) aligned to the planned workplan ?; ii) contributing to or hindering efficiency?	• Timing and sequence of outputs against work plan • Observed delays against workplan	• Project planning and reporting documents • Financial reporting/ auditing documents (quarterly, annual reports) for this project and for other similar projects • UNEP task manager and CTA	• Desk review • Interviews
E.4. How is the project enhancing its cost- and time-effectiveness?	• Number and nature of measures implemented to enhance cost- and time-effectiveness	• Project planning and reporting documents • UNEP task manager and CTA	• Desk review • Interviews

Evaluation questions	Indicators	Information source	Data collection method
	• Likelihood and effect of factors likely to enhance or hinder efficiency • Evidence of efforts being made by the project teams to make use of/build upon past, ongoing and upcoming initiatives • Number and nature of measures implemented to avoid project extensions		
E.5. Was the project implemented in the most efficient way in comparison with other initiatives ?	• Evidence of cost- and time-effectiveness of the project management in comparison with other initiatives	• UNEP staff • NPMU • Other implementing agency in the country • Other initiatives project implementation reports	• Desk review • Interviews
F. Monitoring and Reporting			
F.1. Monitoring design and implementation: Is the monitoring plan well-conceived, and sufficient to monitor results and track progress toward achieving project outputs and direct outcomes?	• Use of SMART indicators including at a level disaggregated by gender, marginalisation or vulnerability, including those living with disabilities • Relevance and appropriateness of the project indicators • Quality of methods for tracking progress: o Baseline assessment; o Performance measurement framework/ logframe; o Methodology; o Roles and responsibilities;	• Planning documents • Baseline assessment report • Monitoring and reporting documents • NPMU, UNEP task manager and CTA	• Desk review • Interviews

Evaluation questions	Indicators	Information source	Data collection method
	○ Budget ○ Timeframe / work plan • Existence, quality and use of an ecological, social and economic monitoring of EbA interventions		
F.2. Monitoring design and implementation: Is the monitoring plan operational and effective to track results and progress towards objectives?	• Proportion of executed monitoring budget against planned monitoring budget • Degree of alignment with timeline and work plan, and (if any) evidence of external factors affecting them • Evidence of collection of monitoring data • Coherence between types of reported results (activities, outputs) and actual activities and outputs on the ground • Difference between types of progress and activities reported by local stakeholders and the indicators used to assess results	• Planning documents • Planning meeting minutes/review procedures • Monitoring and reporting documents (quarterly financial reports, annual reports) • NPMU, UNEP task manager, and/or CTA • Direct observation • Technical staff	• Interviews • Desk review • Field Visit
F.3. Project reporting: Does the project comply with the progress documentation and monitoring reporting requirements/ schedule, including quality and timeliness of reports?	• Types, number and quality of reporting materials submitted a) correctly and b) on time Numbers of project meetings addressing M&E issues	• Monitoring and reporting documents (Monitoring reports, HYPRs, quarterly financial reports, PIRs, Tracking Tool, relevant CEO Endorsement sections) • UNEP task manager and CTA • GCF/UNEP reporting requirements	• Interviews • Desk review

Evaluation questions	Indicators	Information source	Data collection method
F.4. Project reporting: What (if any) corrective actions were taken in response to monitoring reports (such as APRs)?	• Evidence of management response/changes in project strategy/approach as a direct result of information in PIRs	• PIRs • Workshops/Meeting minutes from technical group, steering committee, staff, stakeholders, including NPSC • NPMU, UNEP task manager, CTA	• Interviews • Desk review
G. Exit Strategy & Sustainability			
G.1. Has the project designed and implemented an appropriate exit strategy and measures to mitigate risks to sustainability?	• Existence and quality of a plan to manage financial, socio-economic, institutional, governance and environmental risks • Existence and quality of exit strategy • Level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards • Dependence of project results on issues relating to i) institutional frameworks and governance; ii) future funding	• Project planning documents • NPMU, UNEP task manager, and/or CTA • Project monitoring and reporting docs/data (quarterly and annual reports) • Government stakeholders, technical staff	• Interviews • Desk review • Field visit
G.2. What are the key conditions or factors that are likely to undermine or contribute to the endurance of benefits at the outcome level?	• Number and type of organizational arrangements that support or hinder the continuation of project activities or results (private or public sector) • Types and intensity of bio-physical conditions affecting the sustainability of direct outcomes	• Project planning documents • PMU, UNEP task manager, and/or CTA • Local stakeholders (workshop participants, community members, etc.)	• Interviews • Desk review • Field visit

Evaluation questions	Indicators	Information source	Data collection method
	• Type of political and social conditions affecting the sustainability of direct outcomes • Level of declared willingness among stakeholders to take the project achievements forward • Level of dependence of achievements on future funding for their sustainability and likely availability of such resources • Existence and amount of funding opportunities to pursue/ support project results in the long term	• Project monitoring and reporting docs/data (quarterly and annual reports) • Government stakeholders, technical staff	
H. Factors and Processes Affecting Project Performance and Cross-Cutting Issues			
H.1. Project Inception: Did the project appropriately address any weaknesses in project design, fill information gaps or consider any changes in the context or needs identified during the inception/ mobilization stage of the project?	• Nature and extent of weaknesses, change or needs identified during the inception/ mobilization, with regards to: ○ Institutional, socio-economic, environmental or political context ○ Nature and quality of engagement with stakeholders ○ Capacity or partners ○ Development of partnership arrangements ○ Staffing and financing arrangements	• Local implementing partners • Government stakeholders • PMU, task UNEP task manager, and/or CTA • Workshop/planning meeting minutes and action items, including NPSC	• Desk review • Interviews • Field visit

Evaluation questions	Indicators	Information source	Data collection method
	• Number, quality and timeliness of adjustments made • Extent of beneficiary needs integrated into project design (appropriateness of strategies chosen, site selection, degree of vulnerability of targeted HHs, etc.) • Nature and quality of engagement with stakeholder groups • Level of assessment and degree of consideration of partner capacity		
H.2 Quality of Project Management and Supervision: Have the AE and EE, respectively, placed sufficient focus on: a. Achieving project outcomes? b. Supervision and coordination?	• Relevance of the planned/effective implementation structure • Use of RBM tools, evidence of regular reporting by EA • Perceptions of quality/performance of supervision of IA, EA, NPMU, NPSC • Difference in actual and planned timetable for project execution of activities	• Local implementing partners • Government stakeholders • Project team members • NPMU, UNEP task manager, and CTA • Reporting documents • NPSC and minutes • Funding proposal	• Desk review • Interviews • Field Visit
H.3. Quality of project implementation and execution: Have the IA management team and EA project team respectively provided quality and timely project management and backstopping?	• Perceived leadership of IA and EA towards achieving project outcomes • Perceived effectiveness of IA and EA in managing team structures and maintaining productive partner relationships, communication, and collaboration	• Local implementing partners • Government stakeholders • Project team members • NPMU, UNEP task manager, and CTA • Reporting documents • NPSC and minutes	• Desk Review • Interviews • Field Visit

Evaluation questions	Indicators	Information source	Data collection method
	• Extent of use of risk management tools by IA and EA, respectively • Perceived effectiveness of problem-solving methods • Perceived timeliness and quality of IA management response to EA project team members' inquiries, needs • NPSC and other stakeholder perceptions of quality of PMU and oversight by IA • EA and other stakeholder perceptions of technical inputs and feedback from IA and CTA • Evidence of re-adjustment of project strategy in response to internal reviews or management findings • Evidence of adequate capacity of the PMU to perform activities related to the project (adequate staffing, numbers, technical expertise, roles and responsibilities)		
H.4. Stakeholder participation and cooperation: How are stakeholders engaged in the projects? a. Are the stakeholder communication and consultation mechanisms	• Number and type of stakeholder engagement activities at each stage of the project • Evidence of participation from a representative range of stakeholder groups, including differentiated groups	• Workshop/planning meeting minutes and action items, including NPSC • Local implementing partners • Community members, groups	• Desk review • Interviews • Field Visit

Evaluation questions	Indicators	Information source	Data collection method
effective and inclusive of differentiated groups? b. Is the project dedicating sufficient efforts to maximize collaboration and coherence between various stakeholders ? c. Is there a Grievance Mechanism in place and how are stakeholders made aware of it?	• Proportion of male/female implementing partners, and participants of workshops, trainings or knowledge exchange • Evidence that issues and feedback provided by stakeholders, including through a grievance mechanism, were taken into consideration in project implementation	• Government stakeholders, technical staff • Other local stakeholder groups (non-government) • NPMU, UNEP task manager, and/or CTA	
H.5. Stakeholder participation and cooperation: To what extent were effective partnerships arrangements established for implementation of the project with relevant stakeholders involved in the country/region?	• Number and types of partnerships developed between project and local bodies/organizations • Extent and quality of interaction/ exchange between project implementers and local partners	• Meetings/workshop minutes (steering committee) • Government partners and technical staff • Local implementing partners • Communities/ potential beneficiaries • NPMU, UNEP task manager, and/or CTA • NPSC and minutes	• Desk review • Interviews • Field Visit
H.6. Responsiveness to human rights and gender equity: To what extent has the project applied the UN Human rights-based approach, the UN Declaration on the rights of	• Level of alignment between project design and implementation and the UN HRBA, the UN DRIP and UNEP Policy and Strategy for gender Equality and the Environment	• Planning documents • Monitoring and reporting documents	• Desk review

Evaluation questions	Indicators	Information source	Data collection method
Indigenous People and UNEP's Policy and Strategy for gender Equality and the Environment?			

H.7. Responsiveness to human rights and gender equity: To what extent have the project design, implementation and monitoring considered gender inequalities and differentiation?	• Number and quality of measures in project design, implementation, and monitoring, respectively, that address:
	  ○ Possible gender inequalities in access to and control over natural resources.
	  ○ Specific inequalities in access to and control over natural resources.
	  ○ The role of women in mitigating or adapting to environmental changes, and engaging in environmental protection and rehabilitation
	• Level of perceived consideration of gender inequalities in the project design, implementation, and monitoring
	• Number of the policies, plans frameworks and processes supported by the project that incorporate gender dimensions
		• Planning documents
		• Monitoring and reporting documents
		• NPMU, UNEP task manager and/or CTA
		• Local communities
		• Local implementing partners
			• Desk review
			• Interviews
			• Field Visit

H.8. Environmental and Social Safeguards: To what extent have the project design, implementation and monitoring considered potential environmental and social risks and	• Evidence of Environmental and Social (E&S) management tools • Level of consideration among project stakeholders about E&S issues	• Funding proposal • Gender assessment and action plan • Planning documents	• Desk review • Interviews

Evaluation questions	Indicators	Information source	Data collection method
impacts associated with project and programme activities ? Were UNEP requirements[36] met in terms of environmental and social safeguards ? To what extent the project is minimizing UNEP's environmental footprint ?		• Environmental and social screening tools • Risk assessment and management tools • Monitoring and reporting documents	
H.9. Country ownership and drivenness: Is the level of involvement of government/ public sector officials sufficient to ensure ownership over project outputs and outcomes and representation of all gender and marginalized groups?	• Number and types of representatives from government and public sector agencies present at workshops and involved in implementation (including NPSC) • Number and types of regulations, policies, or other government initiatives (existing, newly enacted, or changed) that support project outputs and outcomes • Declared willingness, and or initiatives from national stakeholders to take forward and capitalize on project results while considering the needs and interests of gender and marginalized groups.	• Government partners • Local implementing partners • Project monitoring and reporting information (workshop summaries, attendance lists, action items etc.) • NPMU and NPSC	• Desk review • Interviews • Field visit

[36] Including to screen proposed projects for any safeguarding issues; conduct sound environmental and social risk assessments; identify and avoid, or where avoidance is not possible, mitigate, environmental, social and economic risks; apply appropriate environmental and social measures to minimize any potential risks and harm to intended beneficiaries and report on the implementation of safeguard management measures taken.

Evaluation questions	Indicators	Information source	Data collection method
	• Perceived level of climate change adaptation and EbA mainstreaming into policy and potential gaps • Perceived level of relevance of a TWGCC and suggestions for effective establishment and/or alternatives		
H.10. Communication and public awareness: Do the project effectively communicate lessons and experience with project partners and interested groups?	• Number and quality of knowledge sharing mechanisms with project partners and interested groups • Perceived climate change awareness by partners and interested groups about project lessons, including by gender and marginalized groups • Evidence of existence and use of feedback channels by partners and interested groups	• Government partners • Local implementing partners • Project monitoring and reporting information (workshop summaries, attendance lists, action items etc.) • NPMU and NPSC	• Desk review • Interviews • Field visit
H.11. Communication and public awareness: Have the project implemented appropriate outreach and public awareness campaigns? In the case of the knowledge hub established by the project, is there any plan to sustain, handover or decommission the communication channel at the end of the project ?	• Number and quality of public awareness activities undertaken • Number and type of public reached • Changes in public awareness because of outreach/ communication by project • Use of existing communication channels and networks • Establishment of feedback channels	• Local implementing partners • Community members, groups • Government stakeholders, technical staff • Other local stakeholder groups (non-government) • NPMU, UNEP task manager, and/or CTA	• Desk review • Interviews • Field visit

Evaluation questions	Indicators	Information source	Data collection method
	• Existence and quality of the strategy to sustain the knowledge hub	• Workshop/planning meeting minutes and action items, including NPSC	

Annex 4: List of documentation reviewed

Project design

- Funding proposal and all annexes, 2019
- Members of the NPSC

SDG

- Sustainable development goals, 2015
- 2030 agenda, 2015

GCF policies

- Board's long-term strategic vision
- GCF investment criteria indicators
- GCF strategic plan 2020-2023
- GCF evaluation policy, 2021

UNEP policies

- UNEP's Medium-Term Strategy 2018-2021 and 2022-2025
- UNEP Program of Work 2018-2019 and 2022-2023
- UNEP evaluation policy, 2022

National policies

- Benin Nationally Determined Contribution (2022) and National Adaptation Plan (2022)
- Government Action Plan 2021-2026
- Benin's Strategic Plan for the Development of the Agricultural Sector
- National Regulatory Guidelines to Improve Seed Quality of the Plant Certification Department of the MAEP
- Benin's updated forest law, 2023

Contractual

- Partnership agreements: DGEFC (2021), EBAFOSA (2023), INRAB (2021), Meteo Benin (2021, 2023)
- Contract: PNOPPA (2021), ICRAF (2022, 2023)
- ToRs: Market Development (2022); EbA mainstreaming (2022); environmental, social and gender international consultant; forest revenues consultant (2022); knowledge hub consultant (2022)

Project outputs

- Groundwork studies: baseline (2023), socio-economic studies for every municipalities (2021), climate vulnerability assessments (2021), Environmental and Social Impact Assessment and Stakeholders Engagement Plan (2022)
- Deliverables by components:
    - Component 1: digitalization report (2023), trainings for CCS, forest management plans(2023), trainings for SLCGF (2023)

- Component 2: Meteo Benin training proposal, assessment of suitable indigenous climate-resilient crops for each commune (2022), trainings for cooperatives (2022)
- Component 3: draft communication strategy (2023), EbA mainstreaming workshop minutes

Monitoring and reporting

- Project monitoring tools: excel monitoring file, kobocollect training support, M&E manual, CCS reporting templates
- Reporting:
  - Chief technical advisor reports 2022, 2023
  - Annual Performance reports: 2019, 2020, 2021, 2022
  - ICRAF minutes and reports: 2022, 2023
  - PNOPPA report: 2021
  - PSC minutes: 2020, 2021, 2022

Financial

- Audits : 2020, 2021
- Credit advices : June and December 2022
- Budgets: initial and 2023 revision
- Cash advance statements: from the first to the fifth
- Funding activity (2019) and project cooperation agreements (2019)
- Procurements: markets, 2022 plans and stocktake
- Quaterly expenditure reports: 2020_Q3, 2020_Q4, 2021_Q1, 2021_Q2, 2021_Q3, 2021_Q4, 2022_Q1, 2022_Q2, 2022_Q3, 2022_Q4, 2023_Q1, 2023_Q2
- Financial capacities assessment 2019
- GCF disbursements information and project's conditions for 2nd disbursement

Environmental, social and gender safeguards

- National consultant: Environmental and Social Assessments in communes; Gender diagnosis and Action Plan (2023)
- International consultant: Environmental and Social Impact Assessment, Stakeholder Engagement Plan, Gender Action Plan

Results Verification Exercise report (September 2023)

Annex 5: List of the interviewees during the evaluation process

Date	Consultation modality/Place	Name	Position/Role	Gender
12.09.23	Meeting/Cotonou	All members	NPMU	Mix

12.09.23	Meeting/Cotonou	AINA Martin Pépin DJIHINTO Angelo HOUNGBO Emile	**NPSC** DGEC - NPD INRAB -director EBAFOSA Benin – chairman	Men
13.09.23	Bilateral interview/Cotonou	BAOUROU Almoustapha	NPMU - Administrative and financial officer	Man
13.09.23	Bilateral interview/Cotonou	AWOKOU Simon	DGEFC - Director of reforestation and forest management	Man
13.09.23	Bilateral interview/Cotonou	LAHAMY Pascal	NPMU – NPC	Man
14.09.23	Bilateral interview/Djougou	THONGODO Bernard	DGECF - Forestry inspector	Man
14.09.23	Focus group/Djougou	9 members over the 21	Cashew cooperative Sessèwa Tchènem	Women
14.09.23	Focus group/Tchaourou	14 members	Cashew cooperative Ife-Doun	Women
14.09.23	Focus group/Djougou	GBLETO Gilbert NASSAILA Germain	**DGECF – OSN forest management technical cell** Coordinator Head of Bakou Management Unit	Men
14.09.23	Focus group/Djougou	ZAKARI Halima WOROU Gi Awali	**Bakou community Forest Management Committee** Chairman Member	Men
14.09.23	Focus group/Djougou	LOKONON Junias TCHEDE Ibrahim ADJAHOUINOU Luc Toussaint BANI YAYA Alain	**Djougou Commune Monitoring Unit** CCeC Soya technician DGEFC – communal representative Mayor representative, CCS focal point	Men
14.09.23	Focus group/Tchaourou	BIAOU Gilbert IBRAHIM Sidic ADIM Sylvie	**Tchaourou Commune Monitoring Unit** CCeC DGEFC – communal representative Mayor representative, CCS focal point	Mix
15.09.23	Bilateral interview/Djougou	SAGBO Antoinette	NPMU – Communication officer	Woman

15.09.23	Focus group/Ouaké	MEHOBA Hermas HOUECADHDE Gilles BAMISSO Ibrahim SIDI DRAMANE Abdou Rassadi ISSOTINA Zakariyao	**Ouaké Commune Monitoring Unit** CCeC Soya technician Municipality head of legal unit DGEFC – communal representative Mayor representative, CCS focal point	Men
15.09.23	Focus group/Banikoara	AGOLIAGBO Wilfried AYOSSO Antoine ABOUBAKAR ADDA Adboudraman KAKPO Nicolas Edmond	**Banikoara Commune Monitoring Unit** Executive Secretary of Banikoara municipality Head of Planning Department of Banikoara municipality Mayor representative, CCS focal point DGEFC – communal representative	Men
15.09.23	Bilateral interview/Ouaké	ILAGNIMA Abibou	President of soya producers' local cooperative	Man
15.09.23	Focus group/Ouaké	3 women	Soya producers	Women
15.09.23	Bilateral interview/Ouaké	DRAMANE Kabirou	Soya producer	Man
15.09.23	Focus group/Banikoara	16 members	Nikido Shee cooperative	Women
15.09.23	Focus group/Banikoara	17 members including MONSROGUI Simon BIO MOUNOU Zakari	**Deroubou community Forest Management Committee** Secretary Village delegate	Mix
15.09.23	Bilateral interview/Ouaké	ALAYOUM Abasse	Member of Salangawa cashew cooperative	Man
18.09.23	Online bilateral interview	FORBES Alexander	UNEP - Task Manager	Man
19.09.23	Online bilateral interview	AINA Martin Pépin	DGEC - NPD	Man
21.09.23	Online bilateral interview	AMEDEGNAN René	NPMU – M&E officer	Man
21.09.23	Online bilateral interview	AYOLA Evodie	NPMU – Procurement officer	Woman
21.09.23	Online bilateral interview	HILL Lowine	NPMU – CTA	Woman
22.09.23	Online bilateral interview	ADJAHATODE Flora	NPMU – Environmental, Social and Gender officer	Woman

26.09.23	Online focus group	ADEMONLA ARINLOYE Djalal AKPOVO Abel	**ICRAF** Benin coordinator M&E specialist	Men
27.09.23	Online focus group	Bosibori Nelly Ngugi Joyce Maina Joanne	**UNEP - GCF Coordination Office** Programme Management Officer Finance and budget assistant Programmatic monitoring officer	Women
27.09.23	Online bilateral interview	HOUNGBO Emile	EBAFOSA Benin – chairman	Man
27.09.23	Online bilateral interview	DJIHINTO Cocou Angelo	INRAB - Head of Scientific Animation	Man
04.10.23	Online bilateral interview	TRONI Jessica	UNEP - Head of Climate Change Adaptation Unit	Woman
12.09.23	Online bilateral interview	OOSTERHOFF John Peter	UNEP – procurement officer	Man

Annex 6: Interview protocols

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
General									
How long have you been involved in the project and what is the nature of your involvement (specific activities)?	X	X	X	X	X	X	X	X	X
Strategic Relevance									
To what extent is the project aligned to UNEP Medium Term Strategy, Programme of Work, to Bali Strategic Plan for Technology Support and Capacity Building and to UNEP's Strategy for South-South and Triangular Cooperation? (Give examples of how)		X							
To what extend is the project aligned with the GCF Strategic Plan (2020-2023) and Strategic Priorities 2023? (Give examples of how)		X							X
To what extend is the project contributing to the SDGs and the Agenda 2030 ?		X							X
How does the project align with the GCF's investment criteria: Paradigm shift, country ownership, need of the client, sustainable development potential and impact potential?	X	X	X						X
What national strategies/policies is the project aligned with? To what extent?	X		X	X	X	X	X		
To what extent was the project aligned to your needs and priorities?				X	X		X	X	
To what extent the project is taking account of ongoing and planned initiatives that address similar needs of the same target groups ? To what extent the project is fulfilling its commitments made at project design to collaborate and ensure its	X	X	X	X	X	X			X

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
complementariness with other initiatives ? To what extent this GCF-project is coherent with other multilateral entities in terms of climate finance delivery ?									
How is the project aligned with, and/or complimentary to, other/similar initiatives you know of on the ground (National/sub-nations/local)?	X	X	X	X	X	X	X	X	X
Who are the project partners, what is their involvement in the project, what amount are they providing to the project and through which channels?	X	X				X			
Has A Project Steering Committee (NPSC) been established by the project? Who are its members? How often do they meet? Does it enable effective coordination between initiatives ?	X	X							
Quality and revision of project design									
What is the main strength of the project design ? The main weakness ?	X	X	X						X
To what extent do all the activities planned are relevant to the current context ?	X	X	X						X
Are all the elements planned at project design initiated or planned to ? If not, why ? What were the main amendments to the initial strategy so far ?	X	X	X						X
Did the revision process followed UNEP/GCF policies for revisions ?	X	X	X						X
Effectiveness									
To what extent do you consider the project intervention logic appropriate, coherent and realistic ? It is effectively guiding the implementation of the project ?	x	x	x						x
Is the project strategy reflecting UNEP's commitment to increasing equality in line with the UN's commitment to human rights ?		x							

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
To what extent do you consider that the project is successfully delivering its outputs and achieving its targets as initially planned?	X	X	X			X	X	X	X
To what extent do you consider that on-the-ground intervention so far have been successful? Do you see any potential gaps or ways of improving these interventions?	X	X	X	X	X		X	X	X
To what extent do you consider that the project is effectively promoting participatory and community based natural resource management? Do you have examples of this approach? What gaps have you identified and potential ways of improvement?	X	X			X		X	X	X
How many ha of degraded lands have been rehabilitated, number and area of woodlots established and ha of trees planted?	X				X	X	X	X	
How many cooperative based on climate-resilient agriculture have been established/strengthened? How many cooperative are still being planned? What is their timeline?	X	X			X	X	X	X	
Have you received any training from the project? On what topic? Did you find this training relevant and effective?	X			X	X		X	X	
Have you participated in awareness raising activities conducted by the projects? Which ones? To what extent did you find them relevant?				X	X		X	X	
To what extent are the projects achievements/realization to date contributing the expected outcome to strengthen adaptive capacity and reduce exposure to climate change?	X	X	X		X	X	X	X	X

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
How many Community Forest Management Committees have been trained to implement forest management plans ?	X	X	X	X	X				
How many EbA and sustainable forest management practices have been integrated in forest management plans ? How many of these protocols have been executed after the integration in local mgt plans?	X	X	X	X			X	X	
How many policies, strategies, plans and processes at the national level have been or are the process of being developed regarding sustainable forest management and climate-smart agriculture? Do you support these policies? What is the estimated timeplan for the finalization and implementation of these?	X	X	X	X	X				
Are EbA criteria being mainstreamed/integrated in wider national social and development plans, policies, strategies? (climate change, forestry, agriculture, social development, economic etc.)	X	X	X	X					
To what extent have you/beneficiaries benefitted from the project so far? Have you perceived any changes?	X	X			X		X	X	
What have you/beneficiaries learned from the project activities regarding climate change and EbA so far? What is EbA for you and how is it useful to reduce climate change impacts and risks?	X	X		X	X		X	X	
How do you foresee that you will or can use the EbA measures implemented or that you have been trained in to better adapt to climate change?							X	X	
Do you feel that the adaptive capacity of your area has been strengthened and will be able to better withstand future climate change impacts?							X	X	

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
What are, in your opinion and if any, the indications that the project has contributed to, or enabled progress towards its intended impacts ?	X	X	X				X	X	
What is the likelihood of emerging positive impacts becoming reality ?	x	x	x			x	x	x	
To what extent the project results are likely to lead to paradigm shift towards climate-resilient development pathways ?	x	x	x						x
What are the main drivers and assumptions supporting the uptake of outputs ?	x	x	x						
Would you qualify the project management as “adaptative” ? Give examples.	x	x	x	x	x	x	x	x	x
What is the likelihood of any non/late delivery of the project’s workplan ? What are the factors undermining the endurance of project achievements ?									
Have there been any unintended results (environmental, social, economic - positive or negative) and what were they?	X	X	X	X	X		X	X	
Have any barriers/enablers that could hinder/facilitate the achievement of project impacts emerged so far?	X	X	X	X	X	X	X	X	
Do you see any possibility for scaling up and/or replication of the project intervention ?	x	x	x	x	x	x	x	x	x
What do others say about the project in general?				X	X	X	X	X	
Financial Management									
To what extent have funds been disbursed according to the initial work plan (disbursement rate, timeliness of funds availability, etc.)	X	X	X	X		X	X		X

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
To what extent was the overall financial management of the project satisfactory (disbursement rate, financial reporting, timeliness, quality, etc.)?	X	X	X						X
To what extent procurement processes were conducted on time and following the rules? Were consultants and service providers paid on time and based on delivery?	X	X	X	X		X			X
Was there any financial management issue affecting the timely delivery of the project or the quality of its performance ?	x	x	x						x
Efficiency									
Do you think the project has used its resources wisely? Are there areas that could have used more or less support - human or financial or technical – than they did?	X	X	X	X	X	X			X
Did the project implementation face any significant delays, and why?	X	X	X			X			X
Have any measures been put in place to ensure/ enhance cost and time effectiveness, and to what extent are they likely to enhance efficiency?	X	X	X						X
Is the GCF financing additional and able to amplify other investments or de-risk and crowd in other climate investments? How so?	X	X	X						X
Is the project efficiently making use/building upon past, ongoing and upcoming initiatives ?	X	X	X						X
Monitoring and Reporting									
Were there clear baseline indicators and/or benchmarks used for performance measurements? How have they been used in project management?	X	X	X						

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Can you describe the M&E processes in the Project? Who is in charge of the project M&E? In your opinion, was M&E effectively and efficiently implemented? What aspects could be improved? Do you think the M&E process helped move the process towards expected results?	X	X	X						
To what extent has an ecological, social and economic monitoring strategy been developed? How will it be implemented? Do you foresee any gap or implementation issues? How will the implementation of this strategy be linked to the overall project M&E system?	X	X							
To what extent do you consider that the technical and financial reporting of the project was satisfactory? What aspects could be improved?	X	X	X						X
In your opinion was the oversight by the Project Steering Committee effective? Has any corrective actions been taken in response to monitoring reports?	X	X	X						
To what extend have lessons learned been gathered and shared? Have lessons learned been integrated in the project design? Which ones?									
Are there new emerging lessons learned that should be considered, which have not yet been integrated?	X	X	X						
Exit Strategy & Sustainability									
What conditions have been put in place by the project to ensure the sustainability of its results after project end (funding opportunities, institutional and organizational arrangement, political and social conditions, willingness to take forward project	X	X	X	X	X				

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
achievements, etc.)? Do you believe they are sufficient? And if not, what condition should be put in place before the end of the project?									
Will you continue to rely on and apply the training and lessons you have learned through the project?							X	X	
In your opinion, to what extent are the activities and outputs from the project likely to continue after the end of the project and/or be replicated? Why?	X	X	X	X	X	X	X	X	
In your opinion, what are the lessons learned and good practices from the Project which should be shared with other communities and stakeholders in the region or the country, if any? How are they collected and disseminated?	X	X	X	X	X	X	X	X	X
In your opinion are there any lost opportunities with the project to date that should be shared?	X	X	X				X	X	
In your opinion, what new approaches and technologies are promoted by the project? How have they been disseminated (dissemination activities, demo sites, etc.) and to who? Do you know of any other project activities/approaches/ techniques replicated or likely to be replicated by other initiatives?	X	X	X	X	X	X			X
What are the key factors in the project that will require attention in order to improve prospects of sustainability, scalability and replication of project outcomes?	X	X	X	X					
What you know of, have any similar initiatives been replicated outside the project scope?	X	X	X	X			X	X	X

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
Do you know if the project activities have helped unlock any additional climate finance? Co-finance for this project? Or financing for similar initiatives? How much and what are the sources?	X	X	X	X					
Factors and Processes Affecting Project Performance and Cross-Cutting Issues									
Were all risks identified at project design? have new risks emerge? What are they? How were they managed by the project?	X	X	X						
Were you involved in the project design? Who else was involved in the design/ implementation of the project? How were they selected? (probe to see if gender/ marginalized group analysis was conducted)? To what extent were the beneficiary needs integrated into project design, implementation and monitoring (gender consideration, appropriateness of strategies chosen, site selection, degree of vulnerability of targeted HHs, etc.)	X	X	X	X	X	X	X	X	
Since project start did you notice any change in context, or change in needs initially identified (Institutional, socio-economic, environmental or political context, engagement with stakeholders, capacity or partners, partnership arrangements, staffing and financing arrangements, etc.)? If yes, to what extend and how was the project able to address and adapt to these changes?	X	X	X	X	X		X	X	
In your opinion, what have been the challenges that have negatively affected project performance? Do you foresee any other challenges for the second half of the project? Have any local conditions affected achievement of results?	X	X	X						

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
Overall, would you consider that the Project Document and its expected deliverables were realistic within the time-frame and funding?	X	X	X						
To what extent did the Accredited Entity (UNEP), the Executing Agency, the NPMU, and NPSC provide effective leadership and management? (use of RBM tools, reporting, supervision, risk management, communication, partnership, etc.)?	X	X	X	X	X	X			
Do you consider that roles and responsibilities were clearly defined within your team?	X	X							
How would you qualify your involvement in the project? To what extent do you consider that stakeholder participation and consultation mechanisms were effective and inclusive (in particular regarding communities, beneficiaries and vulnerable groups)? How could they be improved (i.e. has there been sufficient dialogue with stakeholders? Has there been sufficient transparency? Any lessons learned? Feedback channel ?)?	X	X	X	X	X	X	X	X	
Do you consider that the collaboration/communication was easy and fluent between project stakeholders ?									
To your knowledge, what type of outreach and public awareness activities were implemented by the project? To what extend do you consider them effective? How could they be improved?	X	X	X	X	X	X	X		
How many and what type of partnership were developed for the implementation of the project? What was the quality of exchanges and interaction between the project team and local partners?	X	X	X	X	X		X		

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
To what extent do you consider that climate change adaptation and EbA has been mainstreamed into policy so far? Have you identified any barriers or potential gaps for this mainstreaming?	X	X	X	X		X			
According to you, did the beneficiaries take real ownership of the project results? Do you have example of this ownership? What was the level of political commitment? What about the communities at local level?	X	X	X	X	X	X	X		
Can you identify any gaps or lessons learned that should be captured for the rest of the projects and future initiatives?	X	X	X	X	X	X	X		
Did you feel free to express disagreement as and when necessary ? Have you ever felt violated in your human rights ? If applicable, how/to who would you complain about it ?									
Gender Equity									
Do you feel like the project has enabled women/you to benefit from project interventions? How? Give examples?	X	X	X				X	X	
How do the project activities affect you? Have the project activities resulted in additional impacts on women/you outside the project implementation (i.e. at home? Work? Etc.)	X	X	X				X	X	
What are the gender dynamics that have been considered in the project design and during implementation? Were there any surprises?	X	X	X						
Do you feel that women/you are satisfied with the results of the project? Is there anything women/you are not satisfied with?	X	X	X				X	X	

	NPMU / CTA	UNEP	NPSC	Key National institutions	Regional and Local authorities	Partner organizations	Communities	Women beneficiaries	GCF
How has the project ensured that women know their rights and/or benefits from the project activities?	X	X	X				X	X	
Do you feel like you have been included in the decision-making process? How so?								X	

Annex 7: UNEP review rating table

Most criteria are rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); and Highly Unsatisfactory (HU). Sustainability and Likelihood of Impact are rated from Highly Likely (HL) down to Highly Unlikely (HU). In the conclusions section of the report, ratings are presented together in a table, with a brief justification for each rating, cross-referenced to findings in the main body of the report.

Table 19: UNEP standard ratings for evaluation criteria

Criterion	Summary Assessment	Rating
A. Strategic Relevance		**HS → HU**
1. Alignment to UNEP's, Donors and Country (global, regional, sub-regional and national) strategic priorities		HS → HU
2. Coherence with relevant existing interventions		HS → HU
B. Quality & Revision of Project Design		**HS → HU**
C. Effectiveness		**HS → HU**
1. Theory of change		
2. Availability of outputs		HS → HU
3. Progress towards project outcomes, including towards indicators		HS → HU
4. Likelihood of impact, includes innovativeness[37] and replication and scalability		HL→ HU
5. Adaptive management		HS → HU
D. Financial Management		**HS → HU**
E. Efficiency		**HS → HU**
F. Monitoring and Reporting		**HS → HU**
1. Monitoring of project implementation		HS → HU
2.Project reporting		
G. Exit Strategy & Sustainability		**HL → HU**
H. Factors Affecting Performance and Cross-Cutting Issues		**HS → HU**
1. Project Inception		HS → HU
2. Quality of project management and supervision		HS → HU
2.1 UNEP/Implementing Agency:		*HS → HU*
2.2 Partners/Executing Agency:		*HS → HU*
3. Stakeholders participation and cooperation		HS → HU
4. Responsiveness to human rights and gender equity		HS → HU
5. Environmental and social safeguards		HS → HU
6. Country ownership and driven-ness		HS → HU

[37] For GCF innovativeness includes the extent to which interventions may lead to paradigm shift towards low-emission and climate-resilient development pathways;

Criterion	Summary Assessment	Rating
7. Communication and public awareness		HS → HU
Overall Project Rating		**HS → HU**

Annex 8: Recap of the PABE's outputs implementation status and level of achievement

Output	Activities implementation as of the last APR submitted to the GCF for the year 2022	Status and achievement with respect to mid-term targets as per MTE* (Sept 2023)
Output 1.1 Seven forest management plans revised or developed and put into practice by Community Forest Management Committees, to include EbA and climate-resilient sustainable forest management practices.	1.1.1: 90% 1.1.2: 66%	Partially achieved.
Output 1.2 Land reforested to buffer against the impacts of climate change such as floods and soil erosion, and to enhance the provision of non-timber forest products (NTFPs) such as fruits, medicines, nuts, fuelwood and fibre.	1.2.1: 10% 1.2.2: 50% 1.2.3: 30%	Partially achieved.
Output 2.1 Climate-resilient agriculture interventions, which increase agricultural yields under climate change conditions, implemented on 3,000 hectares.	2.1.1: 10% 2.1.2: 40% 2.1.3: 15%	Partially achieved.
Output 2.2 Market access created for climate resilient crop to support EbA.	2.2.1: 90% 2.2.2: 5%	Partially achieved.
Output 3.1 Tools, instruments and strategies developed to enable communities, businesses and the public sector to respond to climate change and variability.	3.1.1: 0% 3.1.2: 0% 3.1.3: 0%	Partially achieved.

* based on assessment of progress realised during 2023

Annex 9: Mid Term Evaluation TORs

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Annex 10: Evaluation itinerary

Municipality	Djougou	Ouaké	Tchaourou	Banikoara
Sites visited	Women cashew nut processing cooperative - Djougou Forest management unit – Bakou (OSN) Forest co-management structure (established since 1999) - Bakou Reforestation sites in natural forest (implemented 2021 and 2023) - Bakou	Soy producers cooperative (men and women) - Alayombe School plot of inoculated soybeans and beneficiaries - Komdè Cashew orchard - Salangawa Acacia woodlots - Salangawa	Women cashew nut processing cooperative - Tchaourou Cashew orchard - Kpassa Acacia woodlots – Kpassa	Women shea processing cooperative – Nikkido Forest co-management structure (established in 2023) – Derou-Bou Soy producers cooperative (men and women) – Derou-bou Women shea processing cooperative – Derou-bou Cashew orchard - Tokey

Annex 11: Preliminary findings powerpoint presentation

Annex 12: Photographs taken during the field visits

Figure 5: Members of the cooperative Sessèwa Tchènem (Djougou). Source: Baastel.

Figure 6: Teck tree surrounded by soya culture in Bakou management unit, OSN (Djougou). Source: Baastel.

Figure 7: Improved soya demonstration plot (Ouaké). Source: Baastel.

Figure 8: Acacia woodlot (Ouaké). Source: Baastel.

Figure 9: Cashew tree surrounded by pepper crop (Ouaké). Source: Baastel.

Figure 10: Cashew grounding and final product in Nikkido shee cooperative (Banikoara). Source: Baastel.

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