

Simplified Approval Process Funding Proposal

Project/Programme title: Enhanced climate resilience of rural communities in central and north Benin through the implementation of ecosystem-based adaptation (EbA) in forest and agricultural landscapes

Country(ies): Benin

National Designated Authority(ies): Martin Pepin AÏNA, Direction Générale de l'Environnement et du Climat (DGEC), (Directorate General of Climate and Environment), Ministère du Cadre de Vie et du Développement Durable (Ministry of Livelihood and Sustainable Development)

Accredited Entity: UN Environment

Date of first submission: [YYYY/MM/DD]

Date of current submission/
version number: [YYYY/MM/DD] [V.000]

If available, indicate GCF code: *This code is assigned to each project upon first submission of a Concept Note or Funding Proposal and remains the same throughout the proposal review process. If you have submitted this project/programme previously please indicate the GCF code here.*



GREEN
CLIMATE
FUND

Contents

Section A **PROJECT / PROGRAMME SUMMARY**

This section highlights some of the project's or programme's information for ease of access and concise explanation of the funding proposal.

Section B **PROJECT / PROGRAMME DETAILS**

This section focuses on describing the context of the project/programme, providing details of the project/programme including components, outputs and activities, and implementation arrangements.

Section C **FINANCING INFORMATION**

This section explains the financial instrument(s) and amount of funding requested from the GCF as well as co-financing leveraged for the project/programme. It also includes justification for requesting GCF funding and exit strategy.

Section D **LOGIC FRAMEWORK, AND MONITORING, REPORTING AND EVALUATION**

This section includes the logic framework for the project/programme in accordance with the GCF Results Management Framework and Performance Measurement Framework, and gives an overview of the monitoring, reporting and evaluation arrangements for the proposed project/programme.

Section E **EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA**

This section provides an overview of the expected alignment of the projects/programme with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

Section F **ANNEXES**

This section provides a list of mandatory documents that should be submitted with the funding proposal as well as optional documents and references as deemed necessary to supplement the information provided in the funding proposal.

Note to accredited entities on the use of the SAP funding proposal template

- The Simplified Approval Process Pilot Scheme (SAP) supports projects and programmes with a GCF contribution of up to USD 10 million with minimal to no environmental and social risks. Projects and programmes are eligible for SAP if they are ready for scaling up and have the potential for transformation, promoting a paradigm shift to low-emission and climate-resilient development.
- This template is for the SAP funding proposals and is different from the funding proposal template under the standard project and programme cycle. Distinctive features of the SAP funding proposal template are:
 - *Simpler documents*: key documents have been simplified, and presented in a single, up-front list;
 - *Fewer pages*: A shorter form with significantly fewer pages. The total length of funding proposals should **not exceed 20 pages**;
 - *Easier form-filling*: fewer questions and clearer guidance allows more concise and succinct responses for each sub-section, avoiding duplication of information.
- Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other funding proposal documents such as project appraisal document, pre-feasibility studies, term sheet, legal due diligence report, etc.
- Submitted SAP Pilot Scheme funding proposals will be disclosed simultaneously with submission to the Board, subject to the redaction of any information which may not be disclosed pursuant to the [GCF Information Disclosure Policy](#).

Please submit the completed form to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“SAP-FP-[Accredited Entity Short Name]-[yyymmdd]”

A. PROJECT/PROGRAMME SUMMARY			
A.1. Has this FP been submitted as a SAP CN before?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
A.2. Is the Environmental and Social Safeguards Category C or I-3?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
A.3. Project or programme	<i>Indicate whether this FP refers to a combination of several projects (programme) or one project.</i> <input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	A.4. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
A.5. Result area(s)	<i>Indicate the result areas for the project/programme.</i> Mitigation: Reduced emissions from: <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use Adaptation: Increased resilience of: <input checked="" type="checkbox"/> Most vulnerable people and communities, including women and girls <input checked="" type="checkbox"/> Health and well-being, and food and water security <input type="checkbox"/> Infrastructure and built environment <input checked="" type="checkbox"/> Ecosystem and ecosystem services		
A.6. Total investment (GCF + co-finance)	<u>10</u> (million USD)	A.7. Total GCF funding requested	<u>9</u> (million USD)
A.8. Type of financial instrument requested for the GCF funding	<i>Mark all that apply.</i> <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan ¹ <input type="checkbox"/> Equity <input type="checkbox"/> Guarantees <input type="checkbox"/> Others:		
A.9. Division of GCF funding by thematic funding window (if applicable)	_____ USD or _____ % Mitigation _____ USD or ___100___ % Adaptation		
A.10. Implementation period	5 years Start: <u>01/12/2018</u> ; End: <u>01/12/2023</u>		
A.11. Total project/ programme lifespan	5 years 0 months	A.12. Expected date of internal approval	<u>1/6/2018</u>
A.13. Executing Entity information	Executing Entities: Direction Generale des Eaux, Forêts et Chasse (General Directorate for Water, Forest and Hunting – DG EFC) within Ministere du Cadre de Vie et du Developpement Durable (Ministry of Livelihood and Sustainable Development – MCVDD)		
A.14. Scalability and potential for transformation (Eligibility for SAP, max. 50 words)			
The proposed project will implement an integrated approach to enhancing climate change resilience, bringing together on-the-ground implementation of adaptation, capacity-building, strengthening of the relevant policies, and sharing adaptation knowledge. This will effect a paradigm shift towards the climate-resilient management of forests and agricultural lands in Benin. Furthermore, the project's scalability will be enhanced by collaborating with ongoing initiatives on agricultural development and sustainable forest management.			
A.15. Project/Programme rationale, objectives and approach (max. 250 words)			
In the rural areas of central and north Benin, climate change, combined with extreme environmental degradation, threaten the livelihoods of ~2,661,000 people ² depending primarily on crop agriculture and forest products. The project objective is to buffer communities against the effects of climate change by adapting agricultural livelihoods and investing			

¹ Senior loans and subordinated loans.

² This number is the combined rural populations of the central and northern departments, namely Atacora, Alibori, Borgou, Donga and Collines, according to INSAE (2013), Principaux indicateurs socio-demographiques et economiques des departements, Republique du Benin.

in land stewardship. To increase the resilience of rural communities in central and north Benin, the proposed project will implement ecosystem-based adaptation (EbA) and climate-resilient agriculture interventions in forest areas and the adjacent agricultural landscapes. These interventions will increase crop yields and enhance the supply of goods from natural forest ecosystems despite climate change impacts. The environmental and socio-economic benefits of the interventions will be monitored and used to inform future natural resource planning in Benin. In addition, enhanced knowledge of the environmental and socio-economic benefits of EbA and climate-resilient agriculture will be used in revisions of existing forest management plans and agricultural policies.

Without grant financing, the government of Benin and vulnerable rural communities will not have the technical or financial capacity to make the investments required to reduce the impacts of climate change. The government prioritises other pressing development needs; and as a result, resources to invest in climate change adaptation are not readily available. A GCF grant is therefore critical to enable the desired paradigm shift by addressing several barriers to EbA faced by the GoB and its most vulnerable communities.

Benin is one of the partner countries involved in a GCF Readiness Programme, supported by the German Government³, UN Environment, United Nations Development Programme (UNDP) and the World Resources Institute (WRI). The proposed GCF project was developed in the context of Benin's GCF Readiness Programme and in collaboration with UN Environment. A total of three concept notes have been submitted to GCF in addition to the proposed project's Funding Proposal. These GCF proposed projects complement each other – and the proposed project – , without overlapping with the proposed project.

³ Through the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)

B. PROJECT/PROGRAMME DETAILS

B.1. Context and baseline (max. 500 words)

Benin is a Least Developed Country in West Africa. It is among the poorest countries in the world, ranking 150th out of 175 countries in terms of Gross Domestic Product per capita⁴. The majority of the rapidly growing population of ~11 million people live in rural areas⁵. The country's economy is underpinned by agriculture, which provides ~80% of export income and supports the livelihoods of ~70% of the population⁶. Despite the considerable economic importance of forests and agricultural lands, they are being degraded rapidly as a result of unsustainable management practices. As a result, agricultural productivity across Benin declined by 10% between 1983 and 2008 and remains low⁷: approximately 15% of rural households in Benin suffer from severe food insecurity⁸. For more information about the geographic, climatic and socio-economic context in Benin, see Section C.2 and the Pre-feasibility Study (Annex 2).

Benin is found in the inter-tropical convergence zone between the Sudalian climate zone which has unimodal rainfall and a vegetative growth period of 145 days, and the Guinean climate zone, which has bimodal rainfall and a vegetative growth period of 240 days. The climate alternates between two sets of powerful winds: the monsoon from the ocean and the Hamattan wind from the Sahara.

The baseline problems described above are being exacerbated by climate change. Increased temperatures, shifts in the rainfall seasons and increased frequency of droughts and floods are impacting negatively on agriculture and forests in central and north Benin, considering that the area is the transitional zone between Sudan's savannah and the forest area in the south of Benin. The livelihoods of rural people, who depend strongly on farming and forest products, are severely threatened. According to climate change projections⁹, mean annual temperatures in the country will increase by 3.3°C by 2100, with the highest rate of increase expected in the north. This will result in further desiccation of soils, damage to forest ecosystems and reduced groundwater resources¹⁰. Water availability will also in all likelihood be negatively affected by changes in rainfall patterns. Seasonal precipitation analysis indicates further shifts in the onset of the rainfall seasons in the south of Benin, and further reduction of the length of the rainfall season in the north. More extreme rainfall events and floods can be expected across the country in the future. These climate change impacts will further reduce productivity in agricultural landscapes and forest ecosystems. Figure 1 below shows the causes of climate change vulnerability among rural communities of central and north Benin.

⁴ Gross Domestic Product, Purchasing Power Parity. World Bank, 2016. Available online at: <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?view=chart>.

⁵ Over 60% of Beninese live in rural areas. Benin Country Profile, World Statistics Pocketbook. United Nations Statistics Division. 2017. Available online at: <http://data.un.org/CountryProfile.aspx?crName=BENIN>. Accessed on 10 April 2017.

⁶ Gain Report (2014), Benin: Agricultural situation. USDA Foreign Agricultural Service. Available at: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Situation_Lagos_Benin_3-20-2014.pdf

⁷ Agricultural productivity measured as Total Factor Productivity (TFP), the ratio between total output (crop and livestock products) and total production inputs (land, labour, capital, and materials). Data from Engel et al. (2017). Benin: Towards Inclusive and Sustainable Rural Transformation. Centre for Rural Development (SLE), Berlin.

⁸ World Food Programme (2014) Analyse globale de la vulnerabilite et de la securite alimentaire (AGVSA), Republique du Benin.

⁹ Government of Benin, 2011. Second National Communication on Climate Change.

¹⁰ Government of Benin, 2008. National Adaptation Programmes of Action (NAPA).

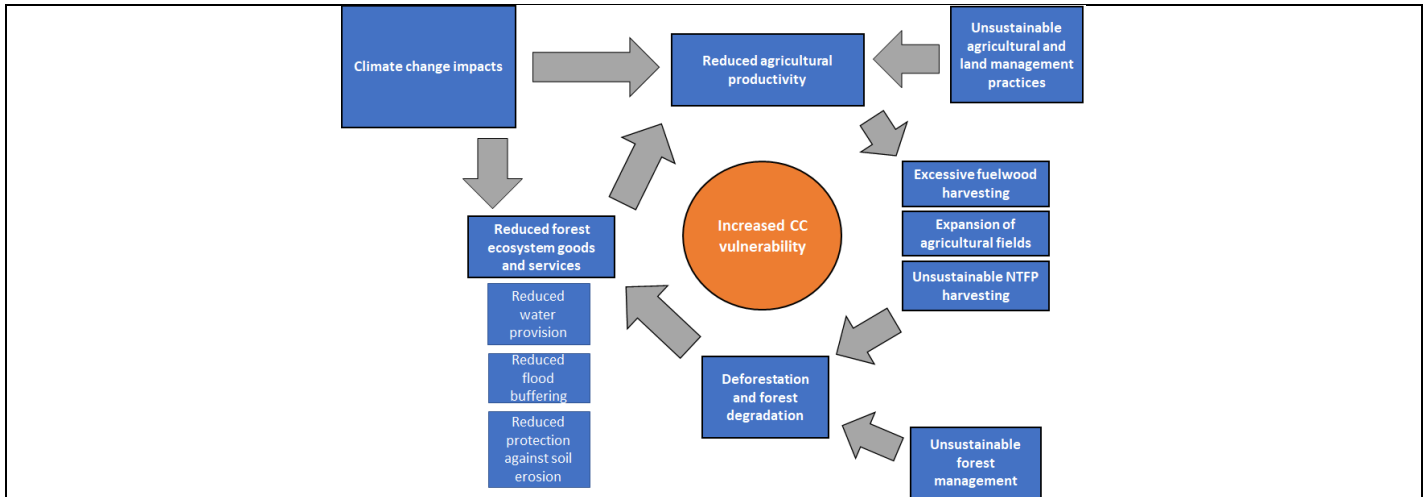


Figure 1. Vicious cycle showing the causes of climate change vulnerability among rural communities of central and north Benin.

The adaptation alternative to this baseline problem is to implement sustainable management practices in forests and agricultural landscapes to develop natural resource-based livelihoods that are climate-proof. There are three main barriers to implementing EbA and climate-resilient agriculture in rural areas in Benin. These barriers will be addressed in the project strategy¹¹.

- Limited information and knowledge about climate change risks on agricultural and forest landscapes and adaptation interventions to address the risks;
- Limited technical capacity in the Government and local communities to implement an ecosystem-based agricultural approach;
- Limited investments in community forest management and climate-resilient agriculture.

Annex 2 has more details information on the climate rationale, the baseline development dynamics and the barriers to adaptation in the agricultural and forest sectors. .

B.2. Project/programme description (max. 1,000 words)

The **project objective** is to buffer communities against the effects of climate change by adapting agricultural livelihoods and investing in land stewardship. EbA and climate-resilient agricultural interventions will be implemented in the following seven municipalities of central and north Benin: *Dassa, Tchaourou, Djougou, Ouaké, Coby, Boukoumbé and Banikoara*. The objective will be achieved through three Outcomes.

Outcome 1. 3,600 hectares of land restored for multi-use energy and livelihood benefits

This will be delivered in 5 outputs.

Output 1.1. will develop or strengthen forest management plans. The forest plans will include: i) areas with protected forests – in particular along river banks; ii) woodlots for climate-resilient production of fuelwood; iii) designated grazing areas for livestock; iv) fire breaks; and iv) climate-resilient agricultural plots – including orchards. Fire management strategies will be integrated in the management plans. To ensure the long-term enforcement of these plans, a permit sale system will be established, through which local forest wardens or forest committee members will sell permits to individuals or companies who want to use forest resources. The permit system will also ensure fair access to forest resources for women and men. Benefits from the sale of permits will be shared between local and national stakeholders. Forest wardens will receive specific training on how to implement the revised forest management plans and to provide long-term technical support to the CFMCs established under Output 1.2.

Output 1.2 will see the **seven Community Forest Management Committees (CFMCs)** – which will include at least 30% women – established and/or strengthened through training on EbA and sustainable forest management techniques. They will support local forest wardens to ensure forest management plans are enforced at the local level.

¹¹ The full range of relevant policies, laws and barriers to adaptation are discussed in the Pre-feasibility Study (Annex 2).

Output 1.3 will restore **3,600 hectares of degraded forests** restored using selected tree 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 (NTFPs) such as fruits, medicines, nuts and fibre. Detailed inventories of existing tree species in each site – including their uses by men and women – and ecological surveys will be conducted to develop site-specific EbA protocols to support effective reforestation and forest enrichment interventions and to promote better resilience to climate change, for example by planting tree species that are drought-tolerant and bind soils well to stabilise river banks against floods.

Output 1.4 will establish at least 7 climate-resilient communal **woodlots** established for the production of fuelwood following the forest management plans developed under Output 1.1. Appropriate climate-resilient tree species will be selected based on detailed site surveys (Activity 1.4.1.). Indigenous species will be planted as far as possible, while exotic species may only be planted if they are known to not be invasive both locally and in Benin in general.

Output 1.5. will establish seven **orchards** using climate-resilient tree species to supply nuts and seeds such as shea, cashew and néré as well as fruits and other NTFPs [see the market analysis in Annex IIa&b of the Pre-feasibility Study (Annex 2)].

Outcome 2: Higher agricultural productivity agricultural livelihoods secured in the face of climate change

This outcome will be delivered in six outputs.

Output 2.1. will establish automatic weather stations in strategic areas nearby project sites. These weather stations will support the production of seasonal and short to medium-range forecasts¹². In addition, 10 meteorological staff will be trained to produce department-level forecasts at a seasonal and short to medium ranges. Finally, **agricultural response strategies to short- and medium-range forecasts** will be co-developed with communities, taking into account gender-specific agricultural practices.

Output 2.2. will see 22,000 individuals across 7 project sites **trained on EbA agricultural techniques** suited to drier and wetter extremes. Gender-responsive trainings will be organized on each project site and demonstration fields will be set up to show how climate-resilient agricultural techniques could be implemented. The main agricultural techniques appropriate for the conditions in central and north Benin are identified in the Feasibility Study. Farmers will be trained on a menu of techniques specifically suited to the context of each project site.

Output 2.3 will deliver **climate-resilient agriculture interventions** which increase agricultural yields under climate change conditions, implemented on 3,000 hectares. The selection of specific interventions for each project site will be based on expert knowledge and informed by consultations with community members on what techniques, crops and varieties are the most appropriate locally. Community members will be provided with improved climate-resilient seeds by Institut National des Recherches Agricoles du Bénin (Benin National Institute for Agricultural Research – INRAB).

Output 2.4 will build capacities for **post-harvest storage interventions** in the seven communities to preserve and protect crop harvests from pests and climate change impacts such as floods and extreme heat. Post-harvest storage interventions such as hermetically sealed bags and metal silos (see Annex 2 - Pre-FS for details) will be provided to communities to protect their harvests from climate change impacts and pests. Community members will be trained to maintain the post-harvest storage infrastructure.

Output 2.5 will train several cooperatives located in project sites on basic **business and financial management** and connected to local and national wholesale traders. Members of cooperatives will receive processing equipment and be trained on processing techniques, equipment maintenance and marketing techniques as well as to develop business plans. The project will focus on training women's cooperatives, in particular, to support their production and sale of popular NTFPs such as shea. Sale agreements will be signed between cooperatives and local and national wholesale traders.

Output 2.6 will contribute information and experience for the finalization and implementation of the **EBAFOSA standards and innovations for the agricultural production value chain that can promote adaptation**. The project will connect to and strengthen the EBAFOSA policy network that brings together actors across the agricultural value chain, in order to scale up the production of climate resilience cash crops. This process will be conducted with the Benin Bureau of Standards (named Agence Béninoise de Normalisation, ABENOR) under the Ministry of Industry and Trade (MIC). Dialogue on the harmonization of intervention policies, concerned with agri-processing that can advance climate change adaptation and agricultural production, will take place at regular intervals between the ministries through the Benin EBAFOSA Inter-Agency Policy Task Force on climate resilience and food security. Information and

¹² Seasonal outlooks indicate how climate parameters such as rainfall will deviate from the long-term seasonal average; short-range forecasts cover periods of 12 hours to 3 days in the future; medium-range forecasts cover periods of from 3 to 10 days in the future. For further details, see WMO definitions: <http://www.wmo.int/pages/prog/www/DPS/GDPS-Supplement5-App1-4.html>

Communication Technologies (ICT) will be explored to create mutual partnerships between complementary actors along the targeted value chains.

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

Outcome 3 will deliver technical capacity, knowledge and awareness of EbA and climate-resilient agriculture in 4 outputs.

Output 3.1. will establish a **national knowledge hub** to disseminate lessons learned, cost effectiveness and benefits information on gender-sensitive EbA and climate-resilient agriculture interventions.

Output 3.2. will organize **awareness-raising campaigns**. The campaigns will also target decision-makers within relevant ministries and the private sector – for example, farmers' cooperatives and wholesale traders. To achieve this, policy and information briefs will be developed and shared with decision-makers. This Output will increase support for EbA and climate-resilient agriculture interventions and foster project ownership at the local and national level.

Output 3.3. will **strengthen national policies and strategies** to support an integrated EbA and climate-resilient agriculture approach for sustainable management in forests and adjacent lands. The Forest Law and PSDSA will be reviewed, synergies between these two regulations identified, and policy or regulatory mechanisms that will need to be amended underlined (Activity 2.4.1.). A participative consultation with stakeholders from MCVDD and MAEP will be organised to present and discuss the reviews' results and to develop guidelines to revise the Forest Law and PSDSA in synergy (Activity 2.4.2.). in addition, national- and local-level decision-makers will receive training on mainstreaming approaches for EbA into planning tools, processes and budgets.

Annex 2 contains information on the best practices and lessons learned from experience that underpins the project strategy and the Theory of Change.

B.3. Implementation / institutional arrangements (max. 750 words)

UN Environment will be the Accredited Entity (AE) designated by the Government of Benin. The AE will be responsible for overseeing the project implementation, evaluation, reporting and closure.

The Ministère du Cadre de Vie et du Développement Durable (MCVDD), who will be the Executing Authority (EA); the Direction Générale des Eaux, Forêts et Chasse (DG EFC) along with Direction de la Qualité, de l'Information et de la formation entrepreneuriale (DQIFE) under the Ministère de l'Agriculture, de l'Élevage et des Pêches (MAEP) will be the delegated EAs. The EA will assume overall responsibility for the effective delivery of required inputs in order to achieve the expected project outputs. UN Environment will work with the EA to build their capacity to undertake execution of this project.

UN Environment shall enter into an appropriate agreement (Project Cooperation Agreement) with the EA for the execution of the project. The Project Cooperation Agreement will establish clear roles and responsibilities for both parties for the delivery of the proposed activities, the schedule and conditions for installments, the determination of the prevailing fiduciary standards and terms and conditions for arbitrations and termination of contract.

Execution of project activities will be undertaken by DG EFC and DQIFE, which will conclude agreements respectively with the district- and municipality-level Forest and Agriculture Departments. The national institutions – DG EFC and DQIFE – will be responsible for delivering particular project outcomes – Outcome 1 for DG EFC and Outcome 2 for DQIFE – and they will coordinate the implementation of Outcome 3.

Roles and responsibilities

UN Environment, as the Accredited Entity, will manage the funds for the implementation of the project. UN Environment will be a co-chair of the National Project Steering Committee to ensure that appropriate project management milestones are managed and completed. As an Accredited Entity to the GCF, UN Environment is required to deliver GCF-specific oversight and quality assurance services including: (i) Day-to-day project oversight and supervision, (ii) Oversight of project completion, (iii) Oversight of project reporting.

The MCVDD, as the lead ministry on climate change in Benin, houses the NDA for the GCF and will be the EA for the project. Day-to-day execution of the project will be under MCVDD, whilst overall coordination with other GCF projects and climate change initiatives will be undertaken by the NDA for the GCF.

National Project Steering Committee (NPSC): The MCVDD will convene and chair the National Project Steering Committee (NPSC); MAEP will assume the role of vice-chair of the NPSC. The EA and the AE will form part of the NPSC, along with the NPC, one representative from FNEC (Fonds National pour l'Environnement et le Climat) and one

representative from CNCC (Comité National sur les Changements Climatiques/ National Climate Change Committee) and the GCF NDA. Other members of the NPSC include: i) one representative of Météo Bénin, ii) one representative of Ministry of Planning and Development (Ministère du Plan et du Développement – MPD); iii) one representative of Ministry of Water and Mine (Ministère de l’Elevage et des Mines – MEM); iv) one representative of all selected municipalities; v) one representative of EBAFOSA Benin and vi) national experts on forestry, ecosystem restoration, climate change and agriculture. An gender balance will be ensured. The mandate of the NPSC will include: i) overseeing project implementation; and ii) reviewing annual workplans and project reports. The NPSC will meet at least twice a year – with *ad hoc* meetings held as and when necessary – to discuss the project's main performance indicators and provide strategic guidance.

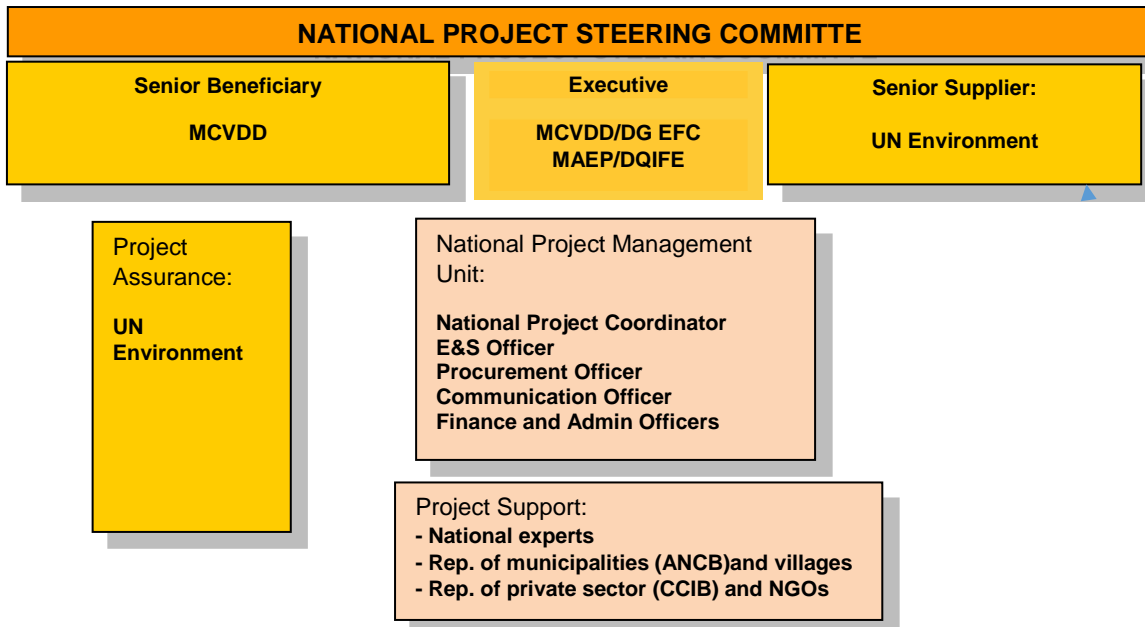


Figure 2. Implementation arrangement

National Project Management Unit (NPMU): The NPSC will be supported by the Project Management Unit (PMU), who will be based within the Ministry of Livelihood and Sustainable Development (MCVDD). It will be led by a National Project Coordinator (NPC), a Financial Officer, an Administrative Officer, a Communication Officer, a Procurement Officer and an Environmental and Social Officer (see role and responsibilities in Annex 10). The PMU will coordinate activities between the project’s Accredited Entity, Executing Authority (MCVDD) and various partners to oversee the implementation of the project’s activities. The NPC will: a) lead and direct the PMU; b) provide administrative and technical expertise; c) be responsible for the day-to-day implementation and management of the project, and d) serve as the focal point for interactions between the project stakeholders and partner organisations (e.g. government departments, NGOs, civil society groups).

The field activities will be implemented by MCVDD, delegating responsibilities to DG EFC (for Outcome 1) and DQIFE (for Outcome 2) and the respective line departments of forestry and agriculture at district and municipal levels, with the involvement of NGOs and representatives of selected communities under the overall guidance and supervision of the state and district level coordination mechanism as above. DG EFC and DQIFE will collaborate to implement project Outcome 3.

FNEC is in the process of acquiring GCF accreditation and will benefit from capacity development in the project both from participating in the Steering Committee and from inclusion in activities in Component 3.

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C. FINANCING INFORMATION

C.1. Total financing

(a) Requested GCF funding (i + ii + iii + iv + v + vi)	9	million USD (\$)
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GCF Financial Instrument		Amount	Currency	Tenor	Pricing	
(i)	Senior loans	Enter amount	Options	Enter years	Enter %	
(ii)	Subordinated loans	Enter amount	Options	Enter years	Enter %	
(iii)	Equity	Enter amount	Options		Enter % equity return	
(iv)	Guarantees	Enter amount	Options	Enter years	Enter %	
(v)	Reimbursable grants	Enter amount	Options			
(vi)	Grants	9	million USD (\$)			
(b) Co-financing information		Total amount		Currency		
		1		million USD (\$)		
Name of institution	Financial instrument	Amount	Currency	Tenor	Pricing	Seniority
Government of Benin	Grant	1	million USD (\$)	Enter years	Enter%	Options
(c) Total investment (c) = (a)+(b)		Amount		Currency		
		10		million USD (\$)		
(d) Co-financing ratio (d) = (b)/(a)		1/10				
(e) Other financing arrangements for the project/programme (max ½ page)		<i>Please explain if any of the financing parties including the AE would benefit from any type of guarantee e.g. sovereign guarantee, MIGA guarantee, etc.</i>				

C.2. Financing by component

Outcome	Output	Title	Total Financing (US\$)	GCF financing (US\$)	Co-financing (US\$)
3600 hectares of land restored for multi-use energy and livelihood benefits	1.1	Seven forest management plans revised or developed to include EbA and climate-resilient sustainable forest management practices	394 385	270 265	124 120
	1.2	Seven Community Forest Management Committees (CFMC) established/strengthened and trained in the selected sites to implement forest management plans that focus on EbA interventions	58 450	23 100	35 350
	1.3	3,600 hectares of degraded forests in the project sites restored using selected tree 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 (NTFPs) such as fruits, medicines, nuts and fibre	5 319 339	4 953 400	365 939
	1.4	At least 7 climate-resilient communal woodlots established for the production of fuelwood	148 120	132 300	15 820
	1.5	Seven orchards established in the selected communities, using climate-resilient tree species	441 480	396 900	44 580
Higher productivity from agricultural livelihoods secured in the face of climate change	2.1	Agricultural response strategies to short- and medium-term range forecasts co-developed with communities	178 538	171 678	6 860
	2.2	22,000 individuals across the 7 targeted villages trained on EbA techniques and agricultural techniques suited to drier and wetter extremes	440 300	421 000	19 300
	2.3	Climate-resilient agriculture interventions, which increase agricultural yields under climate change conditions, implemented on 3000 hectares	1 464 573	1 299 597	164 976

	2.4	Post-harvest storage interventions implemented in 7 communities, to preserve and protect crop harvests from pests and climate change impacts such as floods and extreme heat	23 800	19 600	4 200
	2.5	Seven cooperatives trained on basic business and financial management and connected to local and national wholesale traders for climate resilient crop production.	117 305	104 850	12 455
	2.6	Establish an enabling, government-wide policy for upscaling the shea butter, cashew nut and Nere seed enterprises			
Strengthened technical and institutional capacity of the government and communities for implementing EbA and climate-resilient agriculture and enhanced awareness of the adaptation benefits	3.1	Best practices and lessons learned on ecosystem restoration and climate-resilient agriculture compiled and shared	142 910	130 510	12 400
	3.2	Local, regional and national awareness-raising campaigns implemented, which raise awareness of climate change impacts and the services provided by forest ecosystems among civil society and decision-makers	56 700	36 700	20 000
	3.3	A set of guidelines produced to support the integration of EbA and climate-resilient practices into relevant sectoral policies	449 100	345 100	104 000
Sub-total activities (US\$)			9 235 000	8 305 000	930 000
PMC (US\$)			765 000	695 000	70 000
Total (US\$)			10 000 000	9 000 000	1 000 000

C.3. Justification for GCF funding request (max. 500 words)

A US\$ 9 million grant from GCF is sought by the Government of Benin (GoB) to invest in the additional costs of climate change adaptation and to enable a paradigm shift in the management of forests and adjacent agricultural land in central and north Benin. The targeted communities in these areas are among the poorest households in the country and are extremely vulnerable to climate change impacts (see Section 4 of Annex 2: Pre-feasibility Study). Deforestation and unsustainable management practices have contributed to severe land degradation, leading to increased soil erosion and flooding which negatively impact livelihoods. Future climate change in Benin is expected to intensify these negative impacts, and neither the targeted communities nor the government have the required capacity to invest in climate-resilient agriculture and an EbA approach to forest restoration and management. GCF investment is therefore critical to ensure the successful implementation of the proposed project. The grant – combined with US\$ 1 million co-financed by the GoB – will enable the desired paradigm shift by addressing several barriers to EbA faced by the GoB and its most vulnerable communities.

Benin faces multiple development challenges including poverty, lack of infrastructure and limited access to healthcare and other public services. The government prioritises these pressing development needs; and as a result, resources to invest in climate change adaptation are not readily available. Moreover, scientific knowledge about climate change risks and impacts for Benin is limited, as is information about suitable adaptation techniques relevant to Benin's agricultural and forest landscapes. As a result, most policies and development programmes do not mainstream climate change adaptation, and rural communities remain vulnerable to the impacts of climate variability and change, including floods, droughts and shifts in rainfall patterns. In addition, communities are often not trained on sustainable, climate-resilient land management practices, despite the considerable benefits these methods offer.

Under a business-as-usual scenario, these rural communities will continue to have inadequate technical and financial capacity to adapt their livelihoods to the impacts of climate change. In contrast, using GCF resources to implement EbA in forests and climate-resilient agriculture will not only benefit the targeted communities by enhancing their adaptive capacity, but will also benefit downstream rural populations and urban centres. The Ouémé river, the largest river of Benin, for example, flows from Atacora (north of Benin) to Atlantique (south of Benin). Restoration of the banks in the Upper Ouémé catchment will reduce soil erosion and impacts of floods in downstream regions. Finally, raising awareness of the benefits of combining EbA with climate-resilient agriculture will sustain virtuous environmental and

economic cycles in which agricultural yields increase and the supply of goods and services from forest ecosystems increase despite the predicted changes in Benin's climate.

C.4. Exit strategy and sustainability (max. 250 words)

Extensive stakeholder engagement during the design and initial phases of the project will ensure that all stakeholders support the project interventions. The climate-resilient forests established through the project will be co-anaged by the communities and the Forest Department through the forest management plans developed through a participatory process. The Community Forest Management Committees (CFMCs) that will be established/strengthened through the project will co-manage the natural resources of their forest areas and receive income through a benefit-sharing system. This will help to ensure their continued involvement in the sustainable management of the forest areas, and ensure the maintenance of the equipment they received through the project. Along with the CFMCs, the communities at large will continue to conserve the restored forests because they will benefit from the increased, sustainable supply of crops and NTFPs.

The project will prioritise capacity building for local communities, cooperatives, CFMCs and government employees and institutions. This will ensure that these stakeholders are able to continue implementing EbA and climate-resilient agriculture once the project's funding ceases. In addition, cooperatives will gain an increased understanding of financial management techniques in order to sustain their marketing activities.

Finally, on a national level, the mainstreaming of EbA and climate-resilient agriculture into the Forest Law and the national agricultural policy will create a shift in the way forests and adjacent farmlands are managed across Benin. The socio-economic benefits of EbA and climate-resilient agriculture will also be shared on a knowledge hub to upscale and replicate these approaches.

Annex 2 contains the theory of change for the project and Annex 7 contain the risk management for the project.

C.5. Financial management/procurement (max. 300 words)

The financial management and procurement of the proposed project will be guided by UN financial rules and regulations and UN Environment's programme manual. The financial rules of UN Environment are promulgated pursuant to the Financial Regulations and Rules of the United Nations. Within this context, funding allocation mechanisms are managed as per UN rules and procedures, including eligibility criteria, proposal evaluation processes, quality assurance and control, project monitoring and supervision. UN Environment is annually audited by the UN Board of Auditors. The project will appoint a Financial Officer within the PMU who will be responsible for monitoring, reporting on and approving requests for finance on at least a quarterly basis.

The UN Environment accountability framework includes details on the segregation of duties, and safeguards to ensure compliance with UN financial rules and regulations. In addition, an appointed Fund Management Officer will be appointed to assist the UN Environment's Programme Officer with all financial arrangements. Funds will be transferred in tranches to the EA under the conditions that are defined under the legal instrument (Project Cooperation Agreement) to be signed between UN Environment and the EA. The project's investments in equipment will be undertaken through a transparent and best practices procedure applying to procurement. Finally, the EA will be requested to provide an annual compliance audit covering all aspects of the project execution.

Annex 8 contains the procurement plan for the project.

D. LOGIC FRAMEWORK AND MONITORING, REPORTING AND EVALUATION

This section refers to the project/programme's logic framework in accordance with the GCF's [Performance Measurement Framework](#) under the [Results Management Framework](#) to which the project/programme contributes as a whole, including in respect of any co-financing. This is different from the project/programme-level log frame (as there may be other impact measures for example that go beyond those defined by the GCF).

A project-level logical framework, with specific indicators, baselines and targets, means of verification and assumptions should be provided as part of Annex 2.

D.1. Paradigm shift objectives

Increased climate-resilient sustainable development

The proposed GCF project will break the current model of degradation and vulnerability by promoting ecosystem-based adaptation (EbA) and climate-resilient agriculture and creating support systems for EbA. Supporting processes will be the creation of a benefit-sharing system from forest resources, knowledge building and sharing, regulatory development and linking cash crops to markets, through the Ebafofa network. The proposed interventions will reduce soil erosion and protect communities from floods as well as maintain/enhance agricultural productivity

under climate change conditions (see Annex 2: Pre-feasibility Study, Section 10). An extensive knowledge-building and knowledge sharing campaign, as well as regulatory development, will facilitate upscaling and replication of the project's interventions. In addition, a benefit-sharing system – in which permits to collect forest resources such as NTFPs and wood are sold and the benefits shared among local and national stakeholders – will be set up. This will ensure wider and sustainable enforcement of forest and land-use plans. Lastly, the project will connect to and strengthen the EBAFOSA policy network that brings together actors across the agricultural value chain, in order to scale up the production of climate resilience cash crops. The proposed GCF project will directly benefit ~22,000 people in seven municipalities of Benin's five central and northern departments. The direct benefits will be protection against climate-related risks, increased supply of agricultural and forest goods, and increased household income. Approximately 1,073,000 people will benefit indirectly from the project, accounting for ~26% of the total population of central and north Benin.

D.2. Impacts measured by GCF indicators

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	
Fund-level impacts						
Project Outcome 1:						
3,600 hectares of land restored for multi-use energy and livelihood benefits						
<i>A4.0 Improved resilience of ecosystems and ecosystem services</i>	A4.1 Area (ha) of forest ecosystems restored in response to climate variability and change	Interviews with forest wardens GIS mapping of project intervention sites Field surveys	No new protection or restoration efforts with climate change risks incorporated for forest ecosystems in the target landscapes	1,200 ha of degraded forests restored through EbA interventions	3,600 ha of degraded forests restored through EbA interventions	Improved agricultural techniques and enhanced income reduce resource extraction from forest ecosystems. Favourable climate conditions support EbA interventions; and limited impact from extreme events during the initial intervention implementation phase. Ecosystems are not in a state of degradation that is beyond restoration.
Project Outcome 2:						
Higher productivity from agricultural livelihoods secured in the face of climate change						
<i>A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions</i>	A1.1 Area (ha) of agricultural lands where sustainable, climate-resilient agriculture is implemented, increasing yields under climate change conditions.	Interviews with local communities GIS mapping of project intervention sites	0	2500 ha of agricultural lands where climate-resilient agriculture is implemented 8,000 people (5,300)	6000 ha of agricultural lands where climate-resilient agriculture is implemented	Successful uptake of climate-resilient agricultural techniques.

	A.1.2 Number of people (men and women) implementing climate-resilient agricultural interventions.	Field surveys		women and 2,700 men) belong to households practising climate-resilient livelihoods. The income of 50% of the target population of 22,000 households increased by 20% through the project interventions.	22,000 people (7,400 women and 14,600 men) belong to households practising climate-resilient livelihoods	
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D.3. Outcomes measured by GCF indicators

Expected Result	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term (if applicable)	Final	

Fund outcomes	Outcomes that contribute to Fund-level impacts
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Project 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

A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development	Number of forest management plans revised/developed that integrate EbA into land-use planning	Number of forest management plans established/ revised Review of forest management plans from targeted municipalities	0	n/a	7 forest management plans revised or developed promoting EbA practice – including reforestation using indigenous tree species – to restore forest areas	Integration of climate change adaptation, including EbA, into forest management plans will lead to strengthened institutional and regulatory systems for sustainable, climate-responsive planning in forest ecosystems.
	Degree of integration of climate change into the Forest Law and agricultural policy (PSDSA)	Number of guideline reports produced to integrate adaptation into the Forest Law	0	n/a	2 guideline reports are available for policymakers to	Policymakers are willing to integrate climate change adaptation into the Forest Law and PSDSA.

		and agricultural policy			revise the Forest Law and agricultural policy and integrate EbA and climate-resilient practices	
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	Number of people in the seven targeted communities and public-sector services using Fund-supported tools, instruments, strategies and activities to respond to climate change and variability	Household surveys Project reports Interviews with forest wardens and extension officers in targeted municipalities/districts	Communities do not currently implement EbA and climate-resilient agricultural interventions Forest wardens and extension officers do not train communities on climate-resilient techniques and do not implement these techniques	n/a	22,000 people in 7 communities implementing adaptation interventions in forest and agricultural landscapes	Communities implement interventions that do lead to enhanced adaptive capacity.
A8.0 Strengthened awareness of climate threats and risk-reduction processes	Number of women and men made aware of climate threats and related appropriate responses (linked to Fund Outcome indicator 8.0)	Household surveys and reports Climate change awareness index conducted during baseline and terminal evaluation Reports from climate change awareness events Participant registers from climate change	Communities and decision-makers have limited awareness of climate change and appropriate adaptation responses	40,000 people (20,000 women and 20,000 men) made aware of climate threats and related appropriate responses	120,000 people (60,000 women and 60,000 men) made aware of climate threats and related appropriate responses	Communities and decision-makers are willing to participate in awareness raising workshops.

		awareness events				
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D.4. Arrangements for Monitoring, Reporting and Evaluation (max. 300 words)

UN Environment will be responsible for managing the Mid-Term Review (MTR) and the Terminal Evaluation (TE). A MTR will be undertaken, which will provide an independent assessment of project performance at mid-term. This will include analysing whether the project is on track, what problems and challenges the project is encountering, and which corrective actions are required so that the project can achieve its intended outcomes by project completion in the most efficient and sustainable way. The PSC will participate in the MTR and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UN Environment Task Manager to monitor whether the agreed recommendations are being implemented.

An independent Terminal Evaluation (TE) will take place at the end of project implementation. The Evaluation Office (EO) of UN Environment will be responsible for the TE and liaise with the UN Environment Task Manager throughout the process. An independent assessment of project performance (in terms of relevance, effectiveness and efficiency) will be carried out to determine the likelihood of impact and sustainability.

The TE report will be sent to project stakeholders for comments. Formal comments on the report will be shared by the EO in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. A final determination of project ratings will be made by the EO when the report is finalised. This evaluation report will be publicly disclosed and will be followed by a recommendation compliance process.

E. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

E.1. Impact potential (max. 300 words)

E.1.2. Expected total number of direct and indirect beneficiaries, disaggregated by gender	Direct	22232 50% of female
	Indirect	1073989 50% of female
	<i>*For both, Specify the % of female against the total number.</i>	
E.1.3. Number of beneficiaries relative to total population	Direct	0,2 (Expressed as %)
	Indirect	10 (Expressed as %)

The proposed project will restore 3,600ha of degraded forest areas and increase yields over 3,000ha of agricultural lands. These interventions will directly benefit ~22,000 people and indirectly benefit ~1,073,000 people in central and north Benin. Direct beneficiaries are people living in the communities where EbA and climate-resilient agriculture will be implemented on the ground. In addition to the direct beneficiaries, the project will indirectly benefit ~1 million of people who are living in the seven target municipalities with i) reforestation activities, which will reduce the occurrence and impacts of floods in the target areas and ii) awareness raising campaigns on climate change and adaptation

The proposed project has a dedicated outcome for capacity development and awareness raising (Outcome 3). This includes: i) training for 20 national government representatives, 140 local forest wardens and agricultural extension officers (20 per project site), and 10 members of MétéoBénin; ii) field visits to project sites for 100 members of local communities per site; iii) awareness raising campaigns at national and local level for local communities and decision-makers; and vi) a knowledge hub to share best practices and lessons learned. These outputs will support immediate-term capacity building. The combination of activities in Components 1 and 2 will enhance awareness of the benefits of EbA in forests and climate-resilient agriculture in adjacent lands for addressing climate change impacts, and will increase the uptake of such interventions in the target areas. The provision of guidelines to integrate EbA and climate-resilient agriculture into the Forest Law and PSDSA, and the development of sustainable forest management plans will improve the technical capacity of decision-makers, resulting in more resilient and sustainable development outcomes for Benin.

Twenty national-level representatives from MCVDD and MAEP, and 140 local-level representatives of these institutions will receive training on the use of EbA and climate-resilient agriculture for forest and land management. This training will increase the capacity of the government of Benin to implement EbA and climate-resilient agricultural interventions and will be supported by the establishment of a national knowledge hub in the MCVDD. This knowledge management process will allow for upscaling to take place beyond the seven target project sites.

Annex 2 contains the Theory of Change for this project.

E.2. Paradigm shift potential (max. 300 words)

The proposed GCF project will break the current model of degradation and vulnerability by promoting ecosystem-based adaptation (EbA) and climate-resilient agriculture and creating support systems that improve agricultural yields and establish sustainable NR stewardship models. Supporting processes will be the creation of a benefit-sharing system from forest resources, knowledge building and sharing, regulatory development and linking cash crops to markets, through the Ebafofa network. The project will 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 interventions¹³. These interventions are expected to improve agricultural productivity in a changing climate and promote natural resource-based, climate-resilient livelihoods in central and north Benin, leading to a virtuous environmental and economic cycle in which agricultural yields improve and the supply of goods and services from forest ecosystems increase despite the predicted changes in Benin's climate. This virtuous cycle will be sustained and replicated across Benin as local communities, government technical staff and decision-makers will be informed of these benefits and trained to use this EbA and climate-resilient agriculture approach in practice and policy making. Moreover, a benefit-sharing system in which permits are sold to forest users and benefits shared among local and national stakeholders will ensure the long-term implementation of sustainable forest management plans. Finally, by raising the productivity from cash crops and NTFPs for which there are growing market demand, the project will shift producers to more productive agriculture which generates greater income, and which feeds a virtuous cycle of increasing production and adaptation.

The project will include numerous activities for establishing pathways to replication and scale.

- The autonomous uptake of EbA and sustainable forest management interventions will be promoted among non-beneficiary communities around project sites, by implementing: i) demonstration plots; ii) training events; and iii) informative radio programmes.
- Upscaling and replication of the project's interventions across districts will be facilitated through the capacity building and training at all levels of government as well as policy mainstreaming.
- Since the project sites will be located in all four of the agroecological zones of central and north Benin, the project's agricultural interventions can be replicated across this whole region. Likewise, there are numerous forest areas in Benin that face similar challenges as the target areas in terms of climate change and environmental degradation.

By raising the productivity from selected crops and NTFPs, the project could attract investments from the private sector in sustainable agriculture and agroforestry. This would contribute to replicate and upscale the project's interventions across Benin. The proposed project will: i) train farmers on sustainable, climate-resilient agricultural and post-harvest storage techniques; ii) provide access to processing equipment; iii) provide training on marketing and processing techniques; and iv) connect farmers to traders and buyers of processed agricultural products. This investment and capacity building supported by the GCF can upscale sustainable, climate-resilient agriculture. Lastly, the project will connect to and strengthen the EBAFOSA policy network that brings together actors across the agricultural value chain, in order to scale up the production of climate resilience cash crops.

Annex 2 contains market overview information and the financial analysis on the production of these cash crops.

E.3. Sustainable development (max. 300 words)

Environmental co-benefits

- An EbA approach to restore forest ecosystems will reduce soil erosion, increase groundwater availability for domestic and agricultural use and reduce damages from floods.
- The restored forest ecosystems will contain many indigenous plant species and provide habitat for animal species.
- Climate-resilient agriculture interventions will ensure soil conservation and reduced erosion.
- The project is expected to generate carbon sequestration co-benefits. This will be measured using the EX-ACT tool, which is a land-based accounting system, estimating carbon stock changes (i.e. emissions or sinks of CO₂) as well as GHG emissions per unit of land, expressed in equivalent tonnes of CO₂ per hectare and year.

Social co-benefits

- Project's interventions will yield considerable benefits for vulnerable communities, including: i) improved agricultural production; ii) reduced poverty; iii) reduced exposure to environmental and climate-related hazards such as floods; and iv) improved awareness and knowledge of climate change and sustainable forest management practices.
- Conflicts between farmers and herders will be reduced as forest management plans that include transhumance corridors will be designed in a participatory way and enforced by local forest wardens and CFMCs.

Economic co-benefits

¹³ See definitions of EbA and climate-resilient agriculture in Section C.2.

- The implementation of forest management plans will lead to benefit-sharing opportunities through the development of a robust and transparent permit system.
- The enhanced production of crops and NTFPs will increase direct consumption – reducing food insecurity in rural areas – and increase sales as farmers and farmers’ cooperatives will be linked with supply chains.
- Training on basic marketing techniques for individual farmers and cooperatives will allow beneficiaries to optimise their financial resources.

Gender-sensitive development impacts

Beninese women comprise ~38% of the agricultural labour force¹⁴ and are responsible for ~60-80% of agricultural work. Despite this, women are largely under-represented in agricultural decision-making bodies at the community level. Women’s access to land and credit is also limited, which reduces their ability to invest in the necessary agricultural inputs and equipment. The proposed GCF project will support women’s cooperatives to access relevant agricultural inputs and equipment for post-harvest storage and processing of crops and NTFPs. Moreover, training will be provided to women’s cooperatives on marketing techniques and to develop business plans. An EbA approach to forest restoration will boost the production of NTFPs, thereby greatly benefiting rural Beninese women. Gender disaggregated targets will be developed and used to monitor indicators.

Annex 4 contains the gender assessment and action plan and Annex 7 contains the risk management plan.

E.4. Needs of recipient (max. 300 words)

Benin is extremely vulnerable to the impacts of climate change and communities in the central and northern departments of Benin are particularly vulnerable (see Annex 2: Pre-feasibility Study, Section 4). Increased air temperatures and extreme rainfall events are major threats to livelihoods in central and north Benin. For the past three decades, these regions have been affected by several floods. Infrastructure and crops were severely damaged by the floods, with agricultural losses of ~70% in some cases¹⁵. In addition to floods, crops are also negatively affected by increased air temperatures¹⁶. As a result of this, the yields of maize¹⁷ and sorghum¹⁸ – two staple crops in Benin – have already decreased in the central and northern parts of the country (see Section 3.4.3 of the Pre-FS, Annex 2). Climate change impacts will further reduce productivity in agricultural landscapes and forest ecosystems.

The proposed project will enhance the climate-resilience of these vulnerable rural communities in central and north Benin. This will be achieved by using GCF resources to catalyse a shift to EbA and climate-resilient agriculture, thereby directly addressing the threats climate change poses to the livelihoods of these communities.

Annex 4 contains the gender assessment and action plan and Annex 10 contains the stakeholder engagement plan.

E.5. Country ownership (max. 500 words)

The proposed project is closely aligned with the NAPA’s adaptation priorities for agriculture and water in Benin. The proposed project is also aligned with Benin’s Nationally Determined Contributions (Contributions Prévues Déterminées au niveau National, NDC-Benin). The following priorities identified in this document are well-aligned with this proposed project: i) sustainable forest management; ii) sustainable agriculture; and iii) improved institutional framework and regulations to support climate-resilient development. The NDC’s adaptation strategy aims to reduce the vulnerability of communities and ecosystems to climate change by mainstreaming adaptation into existing policies and implementing appropriate adaptation measures. To implement the NDC, the Government of Benin has identified three requirements:

- **Technology transfer.** Aims to promote North-South and South-South technology transfer to enhance mitigation and adaptation in the following sectors: i) energy; ii) agriculture/forest; iii) waste; and iv) transport.
- **Capacity building.** Aims to strengthen: i) climate monitoring systems; ii) institutional capacity to mainstream adaptation and mitigation into development plans; and iii) adaptation and mitigation plans for agriculture, energy, water resources, biodiversity, human development, health and waste.

¹⁴ International Labour Organization, Key Indicators of the Labour Market database. Available online at: <http://donnees.banquemondiale.org/indicateur/SL.AGR.EMPL.FE.ZS?locations=BJ&view=chart>

¹⁵ *Ibid.*

¹⁶ Jalloh A., Thomas TS, Zougmore R & Roy-Macauley, H. 2013. West African agriculture and climate change: A comprehensive analysis. IFPRI Research Monograph. Washington, D.C. International Food Policy Research Institute.

¹⁷ Akossou, AY, Attakpa, EY, Fonton, NH, Sinsin, B & Bosma, RH, 2016. Spatial and temporal analysis of maize (*Zea mays*) crop yields in Benin from 1987 to 2007. *Agricultural and Forest Meteorology*. 220: 177-189.

¹⁸ Sultan B, Roudier P, Quirion P, Alhassane A, Muller B, Dingkuhn M, Ciaï P, Guimberteau M, Traore, S. & Baron, C, 2013. Assessing climate change impacts on sorghum and millet yields in the Sudanian and Sahelian savannas of West Africa. *Environmental Research Letters*. 8: 014040.

- **Mobilising finance.** Aims to mobilise domestic and additional funds from developed countries to implement the above mitigation and adaptation actions.

In addition, the proposed project supports the NAP process, launched in Benin in 2013. As part of this process, several stakeholder consultations were organised by UNDP and trainings were offered in 2014. An inception workshop to advance the NAP process was also held in Benin in April 2017. The next steps will serve to consolidate a draft roadmap for initiating the NAP process in Benin, and this will be done with support from the GIZ and UNDP. The NAP process aims to integrate climate change into relevant sectoral policies, which is well-aligned with the proposed project promoting the use of EbA and climate-resilient agriculture for forest and land management.

The proposed GCF project was developed in the context of Benin's GCF Readiness Programme and in collaboration with UN Environment. The project idea was identified in the course of 2016, through consultations with the NDA and several governmental departments. A Concept Note was presented to, and validated by, the CNCC (Comité National sur les Changements Climatiques/ National Climate Change Committee) during its bi-annual meetings held in June 2017. The CNCC confirmed that the proposed GCF project responds to Benin's needs and priorities for climate change adaptation. This project proposal was then developed in close collaboration with: i) the NDA within the Ministry of Livelihood and Sustainable Development (MCVDD); ii) the Forest Department and its extension services in several districts of the following Departments: Alibori, Collines, Borgou, Donga, Atacora; iii) the Head of Centre de Recherche Forestier (CERF); iv) a member of the Ministry of Agriculture, Water and Fishery (MAEP); and v) a member of the EBAFOSA platform and researcher/ professor at the National University of Agronomy, in Porto Novo. Two field missions – in March and August 2017 – were undertaken in the districts and villages of central and north Benin that were selected for this proposed GCF project (see Annex 10 for further details on stakeholder consultations).

E.6. Efficiency and effectiveness (max. 1 page)

GCF financing will overcome the existing barrier of insufficient funding for sustainable, climate-resilient forest and land management in central and north Benin in two ways. Firstly, this will be achieved by leveraging co-financing of US\$1 million from the government of Benin. Secondly, the project will catalyse further public and private investments in EbA and climate-resilient agriculture by creating an enabling institutional and regulatory environment, showing the benefits of these interventions in central and north Benin, and improving access to data on crop and NTFP productivity. GCF financing will therefore promote both public and private investments in EbA and climate-resilient agriculture to meet Benin's climate change adaptation needs.

The benefits of the project will comprise a mix of public goods (e.g. reduced soil erosion, reduced flood damage) and private goods (increased yields of crops and NTFPs). Economic efficiency will be achieved by: i) using proven EbA and climate-resilient agriculture solutions that are cost-effective; ii) building the capacity of the government and other stakeholders to plan and implement EbA; and iii) increasing efficiency through ongoing learning. The proposed project budgets for a five-year period and will impact ~22,000 direct and ~1,073,000 indirect beneficiaries. Project activities will enhance the production of economically-valuable crops and NTFPs, which have been shown to have net positive economic impacts [see Market Analysis, Annex IIb of the Pre-feasibility Study (Annex 2)]; in addition, it will increase understanding of financial management techniques among local cooperatives selling these NTFPs. The social and ecological co-benefits generated by EbA and climate-resilient agriculture interventions also increase the economic efficiency of project activities compared to hard infrastructure measures. The policy guidelines developed for the Forest Law and PSDSA will build the capacity of government stakeholders to implement further interventions. This will support and promote sustainable development in the face of climate change for forest areas and adjacent lands in Benin. The further support this approach, a knowledge hub on EbA and climate-resilient agriculture will be established, under Output 2.2., and data on increasing crop productivity and cost-benefits analysis of EbA and climate-resilient agriculture interventions will be shared.

The cost-effectiveness of climate-resilient agriculture and an EbA approach to forest management has been well documented in the scientific literature¹⁹. Such an approach provides an effective framework for building the climate-resilience of communities who are reliant on ecosystem goods and services. Furthermore, EbA requires small investments compared to the long-term environmental and socio-economic benefits it provides^{20,21}. Finally, past

¹⁹ Munang, R. et al. 2013. Climate change and Ecosystem-based Adaptation: a new pragmatic approach to buffering climate change impacts. *Environmental Sustainability*, 5: 67-71; Colls, A. et al. Ecosystem-based Adaptation: a natural response to climate change. International Union for Conservation of Natural Resources (IUCN), Gland, Switzerland.

²⁰ Jones, H.P., Hole, D.G. & Zavaleta, E.S. 2012. Harnessing nature to help people adapt to climate change. *Nature Climate Change* 2, 504-509.

²¹ Reid, H. 2015. Ecosystem- and community-based adaptation: learning from community-based natural resource management. *Climate and Development*, DOI: 10.1080/17565529.2015.1034233

initiatives²² have proven that the integration of EbA into land management interventions can facilitate the continuity and upscaling of these initiatives. This is because observed impacts of EbA in terms of increased climate-resilience of communities, lead to its continued use locally and uptake by neighbouring communities.

The integration of lessons learned is also expected to increase project effectiveness. Lesson learned from projects in Benin have been integrated into the project design [see Section 8 of the Pre-feasibility Study (Annex 2)]. In addition, a report on best practices and lessons learned for EbA and climate resilient agriculture (Output 2.1.), and a knowledge hub development (Output 2.2) have all been integrated into the project design.

Given the dependence of smallholder farmers on forests and agricultural landscapes, it is recommended that an EbA approach combined with climate-resilient agriculture is implemented to reduce the climate change vulnerability of rural communities in central and north Benin. Both EbA in forest areas and climate-resilient agriculture have been implemented with success across Benin, for instance in the projects ProCGRN and PANA Agriculture (see Section 8.2. of Annex 2: Pre-feasibility Study). Lessons learned from these past projects indicate that combining both approaches will improve forest and land management and promote climate-resilient livelihoods in the rural areas of central and north Benin (see Section 10 of Annex 2: Pre-feasibility Study).

The project will be executed through a partnership between MCVDD – through DG EFC – and MAEP – through DFIQE. This will ensure collaboration and synergies while implementing EbA and climate-resilient agricultural interventions and while revising the Forest Law and PSDSA. In order to avoid duplication of efforts and maximise resources (thereby increasing efficiency), several coordination mechanisms at the local and national level will be established (see Section C.7 on institutional arrangements for more details).

Annex 2 contains market overview information and the financial analysis on the production of these cash crops.

²² See for example in Ghana: CARE Adaptive Learning Programme for Africa (ALP). Available at: <http://careclimatechange.org/our-work/alp/>

List of acronyms

ABENOR	Agence Béninoise de Normalisation / Benin Bureau of Standards
AE	Accredited Entity
ANCB	Alliance Nationale des Communes du Bénin/ Benin National Union of Municipalities
CCIB	Chambre du Commerce et de l'Industrie du Benin/ Benin Chamber of Trade and Industry
CERF	Centre de Recherche Forestier/ Forest Research Center
CFMC	Community Forest Management Committee
CNCC	Comité National sur les Changements Climatiques/ National Climate Change Committee
DGEC	Direction Générale de l'Environnement et du Climat/ General Directorate for Environment and Climate
DG EFC	Direction Generale des Eaux, Forêts et Chasse/ General Directorate for Water, Forest and Hunting
DQIFE	Direction de la Qualité, de l'Information et de la formation entrepreneuriale/ Department for Quality, Information and Entrepreneurship
EA	Executing Authority
EbA	Ecosystem-based Adaptation
EBAFOSA	Ecosystem-based Adaptation for Food Security in Africa Assembly
EO	Evaluation Office
FNEC	Fonds National pour l'Environnement et le Climat/ National Fund for Environment and Climate
GoB	Government of Benin
INRAB	Institut National des Recherches Agricoles du Bénin/ Benin National Institute for Agricultural Research
LOAs	Letters of Agreement
MAEP	Ministère de l'Agriculture, de l'Élevage et des Pêches/ Ministry of Agriculture, Water and Fishery
MCVDD	Ministère du Cadre de Vie et du Développement Durable/ Ministry of Livelihood and Sustainable Development
MEM	Ministère de l'Eau et des Mines/ Ministry of Water and Mine
MIC	Ministère de l'Industrie et du Commerce/ Ministry of Industry and Trade
MPD	Ministère du Plan et du Développement/ Ministry of Planning and Development
MTR	Mid-Term Review
NAPA	National Adaptation Programmes of Action

NDA	National Designated Authority
NDC	Nationally Determined Contributions
NPC	National Project Coordinator
NPSC	National Project Steering Committee
NTFPs	Non-timber forest products
PMU	Project Management Unit
PSDSA	Plan Stratégique de Développement du Secteur Agricole/ Benin's Strategic Plan for the Development of the Agricultural Sector
TE	Terminal Evaluation

F. ANNEXES

F.1. Mandatory annexes

- Annex 1 NDA No-objection Letter(s)
- Annex 2 Pre-feasibility study (including Theory of Change, project/programme-level log frame, timetable, map, and summary of stakeholder consultation and engagement plan)
- Annex 3 Budget plan that provides breakdown by type of expense (Template in excel sheet)
- Annex 4 Gender assessment and action plan (Template)
- Annex 5 Co-financing commitment letter
- Annex 6 Term sheet and evidence of internal approval
- Annex 7 Risk assessment and management (Template)
- Annex 8 Procurement plan (Template)

F.2. Other annexes to be submitted when applicable/requested

- Annex 9 Economic and/or financial analysis
(mandatory for private-sector proposals)
- Annex 10 Legal due diligence (regulation, taxation and insurance)
- Annex 11 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- Annex 12 Environmental and Social Action Plan (ESAP) and Environmental and Social Safeguards risk screening if changed from Part A and B of the concept note submitted.
- Annex xx Other references

** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.*