



GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title:	Sustainable Forest Management and Conservation Project in central and south Benin (Departments of Borgou and Donga)		
Country(ies):	Benin	GEF Project ID: ¹	9383
GEF Agency(ies):	AfDB (select) (select)	GEF Agency Project ID:	
Other Executing Partner(s):	Ministry of Environment, Department of Climate Change Management, Reforestation, and Natural Resource and Forest Protection	Submission Date:	23.03.2016
GEF Focal Area(s):	Multi-focal Areas	Project Duration (Months)	48
Integrated Approach Pilot	IAP-Cities IAP-Commodities IAP-Food Security	Corporate Program: SGP	
Name of parent program:	[if applicable]	Agency Fee (\$)	249,587

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
BD-1 Program 1 (select) (select)	GEFTF	863,242	5,420,000
LD-2 Program 3 (select) (select)	GEFTF	459,018	2,600,000
(select) CCM-2 Program 4 (select)	GEFTF	429,224	2,655,000
(select) (select) SFM-1	GEFTF	437,871	2,600,000
(select) (Select) SFM-2	GEFTF	437,871	2,655,000
Total Project Cost		2,627,226	15,930,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To promote socially and environmentally sustainable forest management in central and south Benin by improving forest and land management to preserve forest cover, prevent biodiversity loss, and monitor carbon stocks and emissions.						
Project Components	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
Component 1: Enhancing conservation of forest ecosystems and wildlife in classified forests	Inv	1.1 Improvement in Benin's forest ecosystems in targeted departments, with an increase in total area protected and reduced pressure on high value forests	1.1.1 150,000 ha of communal forests included in protected areas 1.1.2 Implementation of the management plans for 2 PAs (Monts Kouffé and Wari Maro forest reserves) (building on previous AfDB and WB projects)	GEFTF	883,828	4,800,000

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

³ Financing type can be either investment or technical assistance.

		<p>1.2 Improved management of protected areas in Benin's targeted regions, with concurrent reduction in encroachment and poaching rates of elephants, wild cats, and other threatened species</p> <p>1.3 Capacity enhanced for sustainable forest management (SFM) within local communities</p>	<p>1.1.3 Assessment of a financing plan to sustain protected area management (Monts Kouffé and Wari Maro)</p> <p>1.2.1 Three (3) new wildlife ranches (communal) set up (Zogbodomey, Djidja and Savalou), with improved protected area management effectiveness scores for total 8,000 ha</p> <p>1.2.2 Two (2) protected areas (Monts Kouffé, Wari Maro) up-scaled to involve communities in the management process</p> <p>1.2.3 # of households (TBD) benefiting from the promotion of alternative livelihood activities to poaching and deforestation, including via the introduction of new seeds</p> <p>1.2.4 Endangered species protected in 2 PAs - endemic species (details in section B)</p> <p>1.3.1 Capacity development for SFM within districts: # of trainings held in target departments to enhance community awareness and knowledge on forestry issues</p> <p>1.3.2 Community groups formed and trained to oversee community forestry activities</p>			
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Component 2: Improving sustainability and functioning of forest ecosystems	TA	<p>2.1 Improved forest management and restoration, with consequent conservation and enhancement of carbon stock</p> <p>2.2 Increased contribution of agro- and forest landscapes and their ecosystem services to local livelihoods and economic development</p>	<p>2.1.1 Rehabilitation of 20,000-25,000 ha of forest plantations</p> <p>2.1.2 Benin National Forestry Code updated</p> <p>2.1.3 Forestry Resources Inventories completed for targeted reserves</p> <p>2.1.4 Early Warning System (EWS) to prevent bushfires installed</p> <p>2.2.1 Agro-forestry promoted on 5,500 ha, including the introduction of Teak and <i>Gmelina</i> plants</p> <p>2.2.2 Enhanced area under community forestry: 300 ha of nurseries to raise seedlings; 5,500 trees in forest plantations and woodlots; 30,000 trees planted in fruit orchards</p> <p>2.2.3 At least 5 alternative income generating activities identified and implemented with local communities, based on climate smart agro-practices</p>	GEFTF	783,828	4,700,000
Component 3: Greenhouse Gas Emissions Inventory	TA	3.1 Technical and institutional capacity strengthened to identify degraded forest landscapes and monitor forest restoration, carbon stocks, and other data	<p>3.1.1 Integrated landscape restoration plans with participatory forestry monitoring, reporting, and verification systems established</p> <p>3.1.2 Mapping of degraded areas with GIS, and training in targeted departments on forest monitoring</p>	GEFTF	522,070	4,165,000

		3.2 Accelerated adoption of monitoring practices to support GHG emission reduction and carbon sequestration and to improve the conservation and enhancement of carbon stocks in targeted forests	to better identify, manage and monitor forest resources and loss 3.2.1 GHG emissions baseline established for communal forests 3.2.2 Robust new GHG accounting methodologies applied for monitoring regional forests 3.2.3 One (1) data collection system relevant to GHG accounting established			
Component 4: Project coordination and knowledge management	TA	4.1 Enhanced coordination, monitoring and evaluation 4.2 Project knowledge management aspect enhanced to capture project results	4.1.1 Participatory implementation and coordination mechanism established to monitor the project 4.1.2 M&E plan formulated and implemented 4.2.1 A knowledge management platform operational 4.2.2 Database for project data established	GEFTF	300,000	1,470,000
Subtotal					2,489,726	14,500,000
Project Management Cost (PMC) ⁴					137,500	795,000
Total Project Cost					2,627,226	15,930,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ()

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
GEF Agency	African Development Bank	Loans	14,720,000
Recipient Government	Government of Benin	Cash	1,000,000
Beneficiaries	Local communities	In-kind	210,000
Total Co-financing			15,930,000

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS ^{A)}

GEF Agency	Trust Fund	Country / Regional / Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
AfDB	GEFTF	Benin	Biodiversity	N/A	863,242	82,008	945,250
AfDB	GEFTF	Benin	Climate Change	N/A	429,224	40,776	470,000
AfDB	GEFTF	Benin	Land Degradation	N/A	459,018	43,607	502,625
AfDB	GEFTF	Benin	Multi-focal Areas	N/A	875,742	83,196	958,938
Total GEF Resources					2,627,226	249,587	2,876,813

a) Refer to the [Fee Policy for GEF Partner Agencies](#).

E. PROJECT PREPARATION GRANT (PPG)⁵

Is Project Preparation Grant requested? Yes No If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

Project Preparation Grant amount requested: \$100,000					PPG Agency Fee: \$9,500		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁶ (b)	Total c = a + b
AfDB	GEFTF	Benin	Biodiversity	N/A	50,000	4,750	54,750
AfDB	GEFTF	Benin	Multi-focal Areas		25,000	2,375	27,375
AfDB	GEFTF	Benin	Land Degradation		25,000	2,375	27,375
Total PPG Amount					100,000	9,500	109,500

⁵ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$2m (for MSP); up to \$100k for PF up to \$3m; \$150k for PF up to \$6m; \$200k for PF up to \$10m; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁶ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁷

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	150,000 Hectares
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	41,000 Hectares ⁸
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	Number of freshwater basins
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	Percent of fisheries, by volume
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	8,510,623 metric tons
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	metric tons
	Reduction of 1000 tons of Mercury	metric tons
	Phase-out of 303.44 tons of ODP (HCFC)	ODP tons
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	Number of Countries:
	Functional environmental information systems are established to support decision-making in at least 10 countries	Number of Countries:

PART II: PROJECT JUSTIFICATION

1. Project Description. Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area⁹ strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling up.

1.1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

Benin is situated in West Africa, on the northern coast of the Gulf of Guinea, between Togo and Nigeria, and covers an area of 112,622 square km. Agriculture is the primary economic activity, contributing 33.2% to the national GDP in 2009 and employing 70% of the workforce. According to the World Bank, forests, which comprise State, private

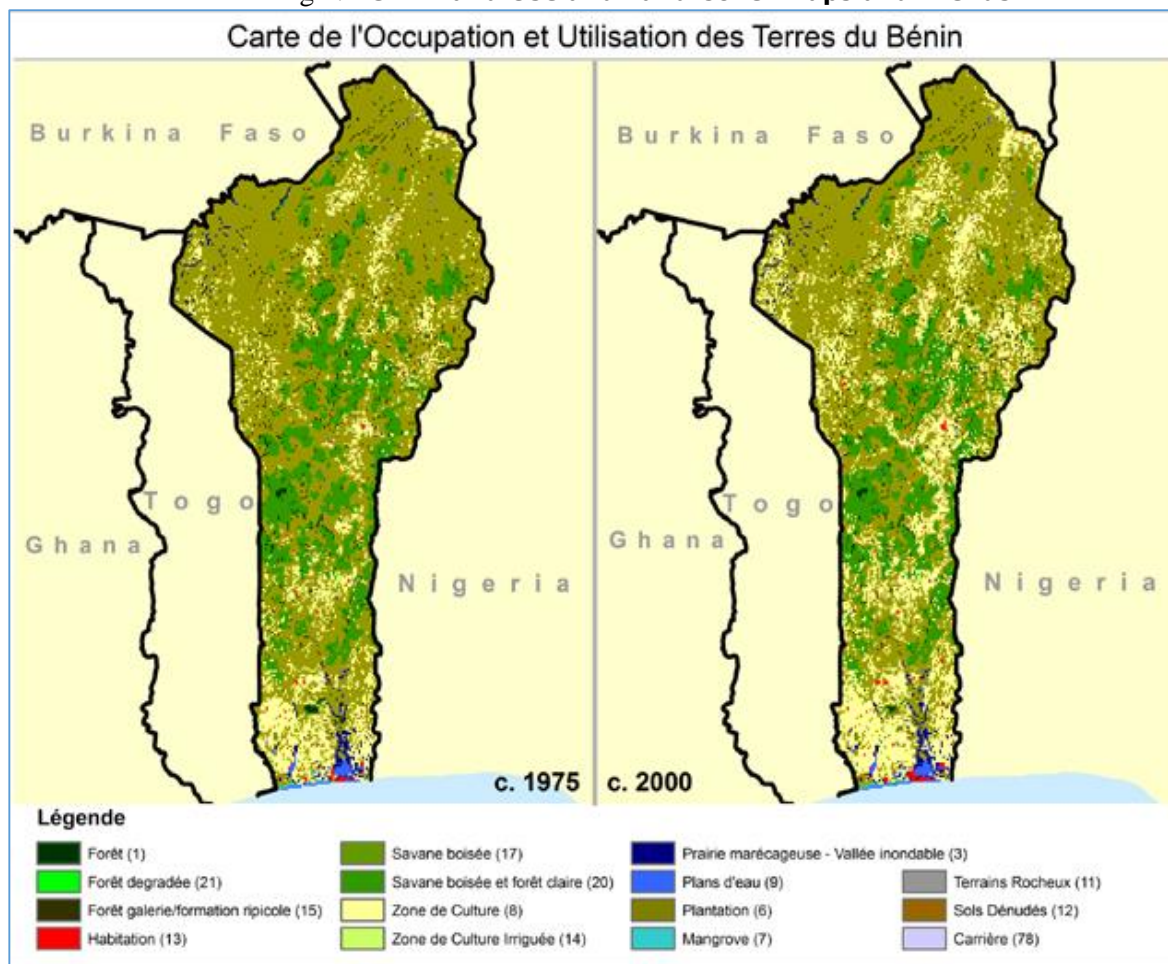
⁷ Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

⁸ 41,000 ha indicates the sum of project outputs including new forest plantation 20,000 ha; wildlife ranches 8,000 ha; new forestry resources inventories 2,200 ha; agroforestry 5,500 ha; enhanced community forestry, forest plantations and woodlots and fruit orchards 5,300 ha.

⁹ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

and protected forests, cover 38.2% of Benin's total surface area, with the most densely forested areas found in the center of the country. Since the 1940s, the State has established 58 forest reserves covering an overall surface area of 27,000 km² (19% of the national territory) as well as Ramsar sites covering a surface area of 1,974,005 ha. This area comprises classified forests (1,292,543 ha), reforestation zones (4,162 ha) and national parks and hunting areas (777,050 ha). Unprotected forests include all unclassified State forests whereas individual forests include all private forests (natural or planted) including sacred forests, most of which are located in Zou, Collines and other Departments in southern Benin. However, according to FAO figures and despite the measures mentioned above, the country has lost 29 percent of its forest cover since 1990. At 2.5 percent, Benin has one of the highest annual deforestation rates in the world¹⁰.

Fig 1. Benin Land Use and Land Cover Maps and Trends



Source: West Africa Land Use and Land Cover Trends Project, <http://lca.usgs.gov/lca/africalulc/results.php>

There are over 3,000 sacred (relic) forests concentrated in the south, covering 18,360 hectares (0.16% of the country). In Benin, a forest is often considered sacred in terms of the cultural services it provides to the riparian populations based on locally held beliefs which, ultimately, contributes to their spiritual enrichment. Aside from the “chief” priest, access to these forests is forbidden, which implies that it is strictly prohibited to cut down these trees, even though harvesting of medicinal plants can sometimes be allowed in certain sacred forests. These cultural practices and the indigenous rules that govern them have protected a number of forests up to the 1980s. Thereafter, gradually changing beliefs and the appearance of sects in increasing numbers weakened traditional forest uses, thus triggering deforestation processes at various scales.

¹⁰ <http://rainforests.mongabay.com/20benin.htm>

It is estimated that about 70,000 hectares of forests were destroyed between 1990 and 2000 as a result of agriculture, animal husbandry, excessive logging and bushfires. In addition, internal migrations, transhumance, poor soils and overgrazing may have exacerbated forest degradation. The main constraints behind the unsustainable tapping of forest resources are: (i) poor knowledge and uneven distribution of forest resources over the territory; (ii) weak intervention capacity of the Forestry and Natural Resources Directorate (lack of human, material and financial resources) and lack of coordination in development and environmental policy making; and (iii) pauperization and weak ability of the rural population to sustainably manage natural resources.

Biodiversity and forest degradation

While agriculture is the primary form of economic activity, it is also the main force behind the degradation of forest cover. A study conducted in 2009 estimated that the forestry sector contributed 6.64% to Benin's GDP and the firewood industry employs 200,000 people. In parallel, hundreds of acres are cleared by farmers each year. In addition, it was reported that a number of insect species suffer greatly from the excessive usage of pesticides. . Aside from being the primary source of fuel for households, forest resources also provide food, medicine, wood, and hunting products. A number of critical non-timber products also originate from forests, including fruits, resin, mushrooms, oils and vegetables. The harvest of those products supports Beninese livelihoods but simultaneously contribute to the degradation of targeted forests and loss of biodiversity. Areas of dense formations are diminishing and giving way to open formations, fallow areas, or cultivated lands.

There is a lack of appropriate indicators and benchmarks to evaluate the changing state of protected areas and their improvement.

Key Biodiversity Area – the Benin central natural forests – Monts Kouffé and Wari Maro forests

Benin is characterized by a diverse agro-ecological system. The North is covered by Sudano-Sahelian savanna woodland vegetation with scattered species such as *Parkia biglobosa*, *Vitellaria paradoxa*, *Daniella oliveri*, *Azizelia africana*, etc. Gallery forests which cut across the savanna woodlands harbour several rare species such as: *Khaya senegalensis*, *Khaya grandifoliola*, *Milicia excelsa*, *Azizelia africana*, *Isobrinia*, etc. which, unfortunately, are being overlogged. In the Centre, the Wari-Marou and Monts Kouffé reserves are a real ecological complex, and one of the country's most important areas in terms of species abundance and diversity.

The South is covered by residual forests alternating with islands of deciduous and semi-deciduous forests and oil palms which occupy the entire sedimentary basin, virtually up to the coastal region where they give way to coconut trees which are today threatened and where there is little primary vegetation left.

Forests in Benin are governed by Law No. 93-9 of 2 July 1993 and implementation Decree No. 96-271 of 2 July 1996 which lays down conditions for the implementation of the said law. These instruments categorize State forests as classified forests and protected forests, and lay down classification and declassification conditions, customary rights and management and tapping conditions of State forests.

In order to protect forests from excessive use, preserve Benin's biodiversity, and ensure ecological balance, the State has created a number of protected areas, including 58 forest reserves (see table 1 for classification) covering an overall surface area of 27,000 km², representing 19% of the national territory.

Forest reserves are categorized in 3 ways by type of authorized activities¹¹:

Table 1: Categorization of forests in Benin by authorized activity

Forest reserves categories	Forest reserves wherein hunting for fauna is forbidden but where forest or mining exploitation can be done	Forest reserves in which not only forest and mining exploitation but also hunting is authorized using traditional means of hunting	Forest reserves of especially small size

¹¹ https://www.uni-frankfurt.de/47671003/BJ_08.pdf

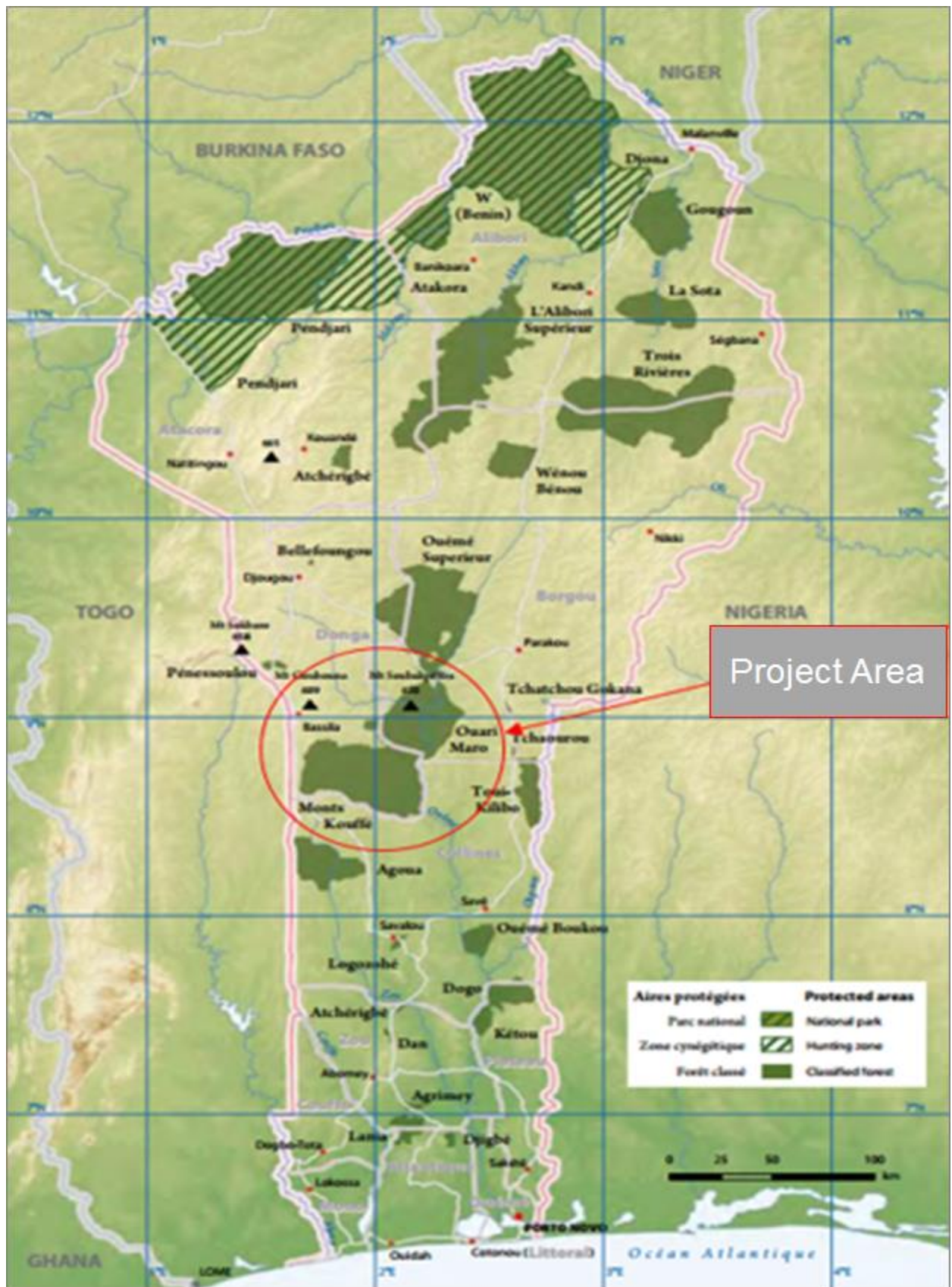
Current forests	Trois Rivières (259 500 ha), Ouémé Supérieur (177 542 ha), Wari-Maró (107 500 ha) , Goun-Goun (80 668 ha), Sota (53 000 ha), Wénou-Bénou (30 000 ha), Lama (16 250 ha), Tanéka (1 090 ha), Tchaourou (1 192 ha), Sérou (498 ha), and Tchatchou (200 ha).	Monts Kouffé (186 203 ha) , Alibori Supérieur (256 000 ha), Atchérigbé (3150 ha), Bassila (2 500 ha), Bellefoungou (1 300 ha), Birni (3 200 ha), Dan (1 237 ha), Dogo (31 850 ha), Guéné (1 300 ha), Kandi (250 ha), Collines de Kouandé (4 560 ha), Logozohé (1 200 ha), Savalou (1 159 ha), Agoua (63 182 ha), Atlantique (900 ha), Dassa –Zoumè (2 078 ha), Djigbé (3 594 ha), Agrimey (2497 ha), Setto (1 013 ha), Mékrou (9 390 ha), N'Dali (4 721 ha), Ouèdo (586 ha), Pénéssoulou (5 470 ha), Toui (29 030 ha), and Bonou (645 ha).	Boko (300 ha), Ichédé (191 ha), Natitingou dam (142 ha), Soubroukou (84 ha), Touzoun (66 ha), Saké- té (60 ha), and Kilir (50 ha)
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The total surface area covered by forests has declined considerably in Benin over the past decades due to agricultural extension, population growth and long-standing obsolete farming methods. The depletion of natural forests is especially severe in the southern region of the country where population density is highest. Natural forests continue to be depleted due to overlogging, bushfires and clearing of forests. Internal migration, transhumance, poor soils and the ensuing depletion and overgrazing have worsened the depletion of forests.

The proposed project intervention sites are the 2 forest reserves of Monts Kouffe and Wari Maro localized in the centre of Benin (see map 1). Given their localization in the country and their high concentration of fauna and flora, these 2 forest reserves are called Benin's *Noyau Central écologique*¹² by the Ministry of Environment and represent since 2010 a forestry complex called "*Réserve de Faune du Complexe forestier Monts Kouffé et Wari Maro*".

¹²http://www.bj.undp.org/content/dam/benin/docs/environnement/pape/Rapport%20Final%20sur%20la%20Categorisation%20des%20AP%20Consultant%20ACDD_version%20D%C3%A9cembre.pdf

Map 1: Illustration from **Network of protected areas of Benin** - https://www.uni-frankfurt.de/47671003/BJ_08.pdf



With interventions in the 2 forests and additional activities in the forestry sector, the project aims to contribute to the following Aichi Targets:

Aichi Biodiversity Objective	Aichi Targets Indicator	Project Outputs
Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society	Target 1 : By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably	✓ #5,000 (TBC) of households benefiting from the promotion of alternative livelihood activities to poaching and deforestation, including via the introduction of new seeds
	Target 2 By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	✓ Forestry Resources Inventories completed ✓ Benin National Forester Code updated
	Target 4 By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	✓ Agro-forestry promoted on 5,500 ha, including the introduction of teak and gmelina ✓ Enhanced area under community forestry: 300 ha of nurseries to raise seedlings; 5,500 trees in forest plantations and woodlots; 30,000 trees planted in fruit orchards
Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use	Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	✓ 150,000 ha of communal forests included in protected areas ✓ Three (3) new wildlife ranches (communal) set up (Zogbodomey, Djidja and Savalou), with improved protected area management effectiveness scores for total 8,000 ha ✓ 150,000 ha of existing forest under improved management
Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity	Target 12 By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	✓ Protection of endangered species - endemic monkey (<i>Cercopithecus erythrogaster</i>), Roan Antelope (<i>Hippotragus equinus</i>) in the 2 protected areas

Challenges and drivers

Land Degradation

A substantial portion of the Beninese territory is experiencing land degradation due primarily to unsustainable agricultural practices. According to Benin's National Action Plan to the United Nations Convention to Combat Desertification (UNCCD), 100,000 ha of land have been cleared for agricultural purposes. Other land degradation factors include land overuse, soil erosion and salinization.

Northern Benin is particularly under threat from soil depletion and encroaching desertification. Accelerated land degradation is also occurring in the "Middle Belt" area of the country, affecting also the 2 targeted forest reserves. Another severely affected area is the Dahomey Gap in the center-south of Benin which has also seen reduced vegetative cover over the years. Surrounded by degraded forests/lands, plantations of teak, tree-less bush and farmlands, the ecological island of central Benin, encompassing also Mont Kouffe and Wari Maro, acts as an important buffer zone between the dryer northern Sudano-Sahelian agro-ecological zone and the tropical climate to the South, which exhibits environmental conditions more favorable to agriculture. The protection and sound management of both Benin's central forest ecosystem and its arable lands in the center-south may stabilize and reverse prevailing degradation rates and counter-act these ongoing trends.

Climate Change

According to the University of Notre-Dame Global Adaptation Country Index (ND-GAIN), which quantitatively describes a country's vulnerability and readiness in the face of climate change-related impacts, Benin is ranked at the 151st place out of 180 countries. This rank indicates that Benin is quite highly vulnerable and relatively unprepared to address potential climatic hazards that could drastically affect its population and livelihoods. According to another study spearheaded by the Netherlands Commission for Environmental Assessment in July 2015, mean average temperatures have increased by 1.1°C, while the annual amplitude of rains has decreased by 180 mm, and the annual count of wet days has dwindled from 1960 to 2000. Droughts have intensified during the same period, as have the occurrence of torrential rains.

Climate records indicate an increase in the mean average temperature has increased by 1.1°C between 1960 and 2003.

Drivers of land and forest degradation

A number of drivers have been identified as contributors to biodiversity loss, land degradation, and climate change, including: poaching, unsustainable agricultural practices/expansion, the use of prohibited fishing practices, overexploitation of terrestrial and aquatic resources, destruction of mangroves, extraction of lagoon sands, transhumance (climate change and changes in land use cover are causing herders to move increasingly towards the coast which has resulted in the overexploitation of pastoral resources in the course of their movements). Other drivers are population growth, non-compliance with forestry laws, ineffective agricultural policies, land tenure, urbanization, and pollution.

Barriers

Given the above challenges, the most significant barriers to sustainable forestry management and biodiversity conservation in Benin are identified as:

- Lack of appropriate regulations and local communities' empowerment: the weak enforcement of existing land-use regulations has contributed to the degradation of forest resources in the targeted regions. Despite the interventions under PAGEFCOM1, the forest resources of Atlantique, Collines, Borgou and Zou Departments are under enormous pressure, leading to accelerated erosion, deforestation, poor soil fertility and poverty. By combining improved forest management actions with decentralization support, the Project intends to better empower the local elected representatives and the population in ensuring the sustainability of the Project achievements (PAGEFCOM1 and 2).
- Poor coordination between national structures in charge of forestry in Benin: Benin's forestry services encounter difficulties such as lack of coordination between the management structures of the forestry sector, poor management of financial and material resources and the limited knowledge of forestry workers leading to the poor implementation of instruments. The consequences of the uncontrolled tapping of forest resources include: (i) acceleration of the phenomenon of erosion due to the clearing of forests and the absence of soil conservation methods; (ii) loss of soil fertility exacerbating forest degradation; (iii) drying up of rivers and loss of water quality; (iv) disappearance of natural habitats of numerous species leading to loss of biodiversity; and (v) loss of plant biomass, the major energy source, and pasture land.
- Lack of knowledge coupled with low technical and financial capacities at national and community levels to implement and monitor sustainable forestry activities. Poor knowledge of the forestry potential and the absence of reliable data do not allow for proper planning of activities in the forestry sub-sector. There is no inventory of forests, species, accretion and logging potential. All existing data is based on estimates. The only reliable background document published by FAO in 1980 is based on interpretations of Landsat images obtained in 1975 and 1976 and air and land reconnaissance conducted in 1978. Within the framework of the PAGEFCOM1, the first-ever National Forest Inventory in Benin has been conducted at open rural fuelwood markets around major consumer centres. The project helped to put in place a permanent timber information and evaluation system (SIEP).

- Poor statistical data: Statistical data on the forestry sector is unreliable and cannot help plan and organize the monitoring and tapping of forest resources. Despite reforestation activities, there is no doubt that the degradation of forest resources is linked to population growth which leads to increased demand for fuelwood.
- Local community behavior: At the institutional and district level, there is an inadequate understanding and little experience in integrated landscape planning that enhances socio-economic benefits while restoring ecosystem functionality. There is also a severe lack of knowledge and capacity in communities on practices that improve livelihoods while at the same time conserve the natural resources upon which they are so dependent.

Transhumance

Migratory livestock farming is another factor which has a highly negative impact on soils and forests, particularly those within the project area. Classified forest zones in the Zou and Atlantique Departments are a main reception zone for migrating cattle rearers and herds, where the repeated passing of herds creates vast corridors in these forest areas, severely degrading land, vegetative and tree cover due to trampling and grazing. The instance of an increased presence of migratory cattle rearers in these areas has also given rise to conflict situations between farmers and cattle rearers.

Bush fires and Slash and Burn practices

Bush fires have clear seasonal patterns, and recurring bush fires and use of slash and burn practices impede vegetation growth. Fire is commonly used to clear lands and also as a hunting technique. Fires transform organic matter into ash, and ash is carried by wind and rain, depleting the soil. Repeated use of fire on agricultural lands and soils degrades the cover and nutrient composition of soils, encourages the growth of pyro-resistant plant species, and clears existing vegetation, eventually creating the conditions that result in pockets of arid lands, which are not conducive to reforestation or afforestation or cropping. It is noted in the UNCCD NAP for Benin that bush fires are present throughout the country, but particularly in the central departments, which include the target areas of this proposed project.

1.2) The baseline scenario or any associated baseline projects

Benin's forest resources consist primarily of dense forests and gallery forests forming corridors along rivers and wetlands which project into otherwise sparsely treed landscapes, such as savannas and grasslands. The Beninese government has attempted to address severe deforestation, at the rate of 150,000 ha per year over several decades between 1960 and 1980, caused by unsustainable forestry and agricultural practices. Forest cover in the targeted central departments had dwindled to a mere 5% prior to the first phase of the AfDB financed Support to Communal Forest Management project (PAGEFCOM I). Benin's remaining natural forests are threatened by a combination of increased population pressure, inefficient and unsustainable agricultural practices, and poverty. According to the CBD, predictive vegetation modeling, conducted in 2012, based on the assumption that current exploitation practices will be maintained, suggests that in 2020 the mosaic of fields and fallow land will occupy about 60% of the territorial collectivities (communes), followed by woody and shrub savannah at 30%.

The project addresses two broad sector issues concerned with (a) the continuing degradation of Benin's forest resources; and, (b) the direct negative impact that this will have on the livelihoods of forest dependent populations.

The African Development Bank (AfDB) is financing the second phase of the PAGEFCOM project in 5 Benin departments of Atlantique, Collines, Zou, Borgou and Danga. The project's main objective is to support local authorities in implementing effective forest management strategies and practices, and the second phase will build on the work implemented during the first phase, one result of which was the reforestation and/or afforestation of 150,000 hectares. Through more effective forest management practices, the project aims to improve the standard of living of local communities, many of which depend on forest ecosystems for their livelihoods. By preserving forest ecosystems and biodiversity assets, the project hopes to also reduce local poverty levels through the maintenance of ecosystem services and encourage the development of more sustainable value chains in the project areas based on forest enrichment.

The Benin forestry sector has benefitted from previous interventions funded by international organizations and MDBs, including the AfDB (PAMF, PAGEFCOM1) and the World Bank.

The table below shows the past and current intervention of donors in the forestry area in Benin (2016-2020):

Project	Outputs / Activities	Donor	Region
Fuelwood Plantations Project in Southern Benin (PBF)	(i) Training of some 2,800 independent farmers who cultivate about 4,801 ha of private plantations, (ii) Replanting of 5 severely de-graded State forests (5,374 ha planted) and (iii) Preparation of participatory management plans for the 5 forests.	OPEC	Southern Benin
The Agoua, Kouffé and Wari-Marô Mountains Forest Reserves Management Project (PAMF)	Integrated management of the three forests (370,000 ha) – Agoua, Wari Marô et Mont Kouffé	AfDB, BADEA	Agoua, Kouffé and Wari-Marô Mountains Forest Reserves
PAGEFCOM 1 – Communal Forest Management Project Support	(i) Support to develop communal forest management plans, (ii) Enrichment of forests and plantations of rapid growth species (70,000 enriched with local species), (iii) Sensitization/literacy education / training of the population concerned and the Communal Councils, (iv) Intensification of techniques for the integrated management of soil fertility	AfDB	Agoua, Kouffé and Wari-Marô Mountains Forest Reserves
GGW: Forests and Adjacent Lands Management Project	(i) Increase in land area with Sustainable Land and Water Management in targeted areas measured by the number of additional hectares of forests or degraded forests brought under sustainable management; (ii) Number of forests reserves with management plans effectively implemented; (iii) Increase in the capacity of the National Forests institutions to implement forests management plans	WB	Agoua, Kouffé and Wari-Marô Mountains Forest Reserves

Building on previous interventions, the AfDB seeks to fund a second phase of the PAGEFCOM with the aim to continue implementation of the management plans prepared under the first phase, i.e. for 2 forests (Monts Kouffé and Wari Marô). The following activities will support a full implementation of the plans: (i) implement the remaining activities of the 2 forest management plans (Monts Kouffé and Wari Marô) that have not been completed under PAGEFCOM1 and the WB project (GEFID5215), (ii) create three (3) new wildlife ranches (communal) called Zogbodomey, Djidja and Savalou for a total of 8,000 ha, (iii) promote alternative livelihood activities, including via the introduction of new seeds, which will reduce poaching and deforestation.

The table below shows the complementarity and continuity of proposed activities with past interventions (PAMF, PAGEFCOM1 and WB GEFID5215 projects) in the 2 forests:

Table 2: Complementarity between projects in targeted areas:

Project	PAMF	PAGEFCOM1	WB GEFID5215
Sites	Mont Kouffé, Agoua and Wari Marô	23 communes of Atlantique, Zou and Collines	
Outputs	Forest Management plan (FMP) implemented of Agoua (full or almost complete), Wari-Marô (partly) and Mont Kouffé (partly)	Preparation of Simplified Participatory Communal Forests Management Plans (SPCFMP) SFM activities involving communities (Enrichment of forests and plantations of rapid growth species) Creation of council plantations Support for the decentralization process	Three Forest Management plans updated (Kouffé, Wari-Marô and Angoua) Forest boundaries demarcated (19 sites) Nurseries operationalized

		Support to sacred forests	7,700 ha under SFM - 1000 ha of degraded areas restored
		Wildlife conservation plan setup	
Period	2001 - 2008	2005 - 2012	2013-2018
Activities remaining still needing implementation	Agoua forest reserve partly completed	SPCFMP to be implemented Implementation of wildlife conservation component	Implementation of updated Forest Management Plans
PAGEFCOM2/GEF (see table B for more details) (see section 1.4 for incremental reasoning proposed Baseline/GEF funding)	<p>I- Enhancing conservation of forest ecosystems and wildlife in classified forests (Wari-Maró and Mont Koufée)</p> <ul style="list-style-type: none"> ✓ Increased area of communal forests ecosystems included in the 2 protected areas – Monts Kouffe and Wari-Maró (150,000ha) ✓ Increased protected area management effectiveness (full implementation of FMP of Mont Koufée and Wari-Maró) – 200,000ha ✓ Reduced rates of poaching of high value threatened and endangered species in 2 protected areas ✓ Three (3) new wildlife ranches established (Zogbodomey, Djidja and Savalou) – 8,000ha ✓ New agroforestry activities promoted ✓ Endangered species protected in 2 PA - endemic monkey (<i>Cercopithecus erythrogaster</i>), Roan Antelope (<i>Hippotragus equinus</i>), the red flanked duiker, the yellow-back duiker, warthog, waterbuck, bushbuck, antelopes, including bohor reedbuck, buffalo, potamochoerus, Kob, oribi, and damaliscus. <p>II- Improving sustainability and functioning of targeted forest ecosystems</p> <ul style="list-style-type: none"> ✓ Rehabilitation of 20,000-25,000 ha of forest plantations ✓ Benin National Forestry Code updated ✓ Forestry Resources Inventories completed ✓ EWS to prevent bushfires installed ✓ Agro-forestry promoted on 5,500 ha, including the introduction of Teak and <i>Gmelina</i> plants <p>III- Greenhouse Gas Emissions Inventory for forest sector</p>		

Main results and lessons learnt from PAGEFCOM1 and PAMF

The first phase of PAGEFCOM was completed in December 2014 and the Bank has conducted a project completion report (PCR) in April 2015 with an assessment of results (see attached PCR for more details in Annex A) and lessons learnt.

The table below shows some lessons learnt to be considered during PAGEFCOM2 implementation:

Lessons learnt	Details
Implementation Unit	<p>Given the success of PAGEFCOM1 implementation (98% disbursement arte at the end of project) and building on capacity of existing project implementation unit, PAGEFCOM2 will be under the same PIU.</p> <p>The financial management (FM) arrangements for the PAGEFCOM2 will be based on the existing arrangements of PAGEFCOM1. The project financial, accounting and administrative manual will be revised in order to improve existing specific procedures to take into account lessons learnt from the previous experience.</p>
Fiduciary risk	The PAMF implementation has shown some issues related to delays and misuse of funds. The AfDB project completion report did not raise any issue related to misuse of funds (AFDB window). However, there were some

	<p>corruption allegations related to BADEA funded components.</p> <p>The second AfDB project (PAGEFCOM1) has been completed without any fiduciary issues.</p> <p>To prevent any future fiduciary risk or issue, it is proposed to strengthen the M&E component of the proposed project. The Bank will supervise the project 3 times minimum a year compare to standard AfDB 2 supervision missions. In addition, the steering committee will meet a minimum of 4 times a year compared to 2 previously.</p>
Scaling-up	<p>The GEF project will provide technical skills in SFM and other farming/forestry practices that promote both sustainability and increased agricultural productivity in the project area. The activities will be closely monitored and evaluated with successful initiatives replicated and up-scaled. Effective alternative livelihood options will be demonstrated and greater emphasis will be given to upscaling successful practices. This proposed project is meant to scale up achievements and strong forest management practices implemented under the PAGEFCOM I project. This project will implement plans which were designed under the first phase of the baseline while addressing integrated environmental issues to maximize global environmental benefits. Lessons from the outcomes of this project can be applied in other protected areas throughout Benin and in forest landscapes throughout the region which suffer from similar root problems.</p>

The PAGEFCOM2 aims to achieve its objectives in the region through the implementation of three components:

Component 1: Natural resources management (USD \$9.76 million)

This component aims to support biodiversity protection through conservation, afforestation (funded by the baseline), reforestation, sustainable forest management practices and the preparation and implementation of simpler Forest Management Plans for Participatory Forestry Management, which will be accomplished through the executing of the following sub-components:

Subcomponent A. Natural Resources Management: (i) Identification and placing under concession of three sites for the establishment of three wildlife conservation parks in Zogbodomey, Djidja, and Savalou; and (ii) conservation of biodiversity in the Monts Kouffe and Wari Maro forests.

Subcomponent B. Communal forest management and reforestation: (i) Establishment of community Forest Management Plans for communal forest plantations; (ii) The creation of Teak and Gmelina forestry plantations on 2,198 ha of land; (iii) The organization of participatory monitoring and evaluation processes.

Component 2: Technical and Institutional Support (USD \$4.7 million)

Subcomponent A. Infrastructure rehabilitation: (i) Rehabilitation and development of infrastructure (ii) institutional support to Forest management administration within PAMF, at the local level (Wari Maro, Gbassa and Manigri); (iii) Social infrastructure including the provision of training at the local level (Manigri)

Subcomponent B. Institutional Support: (i) Development of forest management policies and updating legal frameworks to include wildlife parks and communal forests; (ii) A study on early warning systems to prevent wildfires and other

emergencies, as climate information systems; (iii) Capacity building activities provided to the Directorate General for Forestry.

Subcomponent C. Community level technical assistance: Support for the development of green value chains and ecosystem services for forest products (both timber and non-timber), fishery products, etc.; and (iii) Agroforestry promotion.

Component 3: Project management and coordination (USD \$1.47 million)

Activities under this component include: (i) Project coordination; (ii) Administrative and financial management; (iii) Procurement of works and services; (iv) Design and implementation of a communications plan; (iv) Monitoring and Evaluation activities

1.3) The proposed alternative scenario

Component 1: Enhancing conservation of forest ecosystems and wildlife in classified forests

This component aims to support PAGEFCOM's efforts to create and upscale national protected areas in Benin, with improved management effectiveness, which will offer sanctuary to wildlife and plant species in the central and south regions of Benin. The component will result in increased area of terrestrial forest cover in Benin's central and south regions (Departments of Borgou and Donga) and increased areas under protection.

The 5 targeted departments are home to a number of wildlife species and activities implemented under this component aim to reduce poaching rates in the region and increase awareness and capacity of local communities to undertake forest management, protect high value biodiversity assets, and eventually generate incomes from alternative activities, which concurrently reduces pressures on ecosystems. Under PAGEFCOMI, designated areas were set aside for the establishment of wildlife sanctuaries and lodges in three sites: Savalou, Djidja, and Zogbodomey. GEF financing will ensure improved management effectiveness of these protected areas, develop local capacities for sustainable forest management, and support alternative livelihoods away from traditional agricultural practices to generate incomes from ecosystem based services in the area. The aim is to create a conducive environment which will support the growth of alternative income activities in the area for the observation of wildlife in the three protected zones.

Outputs

Outcome 1.1: Improvement in Benin's forest ecosystems in targeted departments, with an increase in total area protected and reduced pressure on high value forests

1.1.1 150,000 ha of communal forests included in protected areas

1.1.2 Implementation of the management plans for 2 PAs (Monts Kouffé and Wari Maro forest reserves) (building on previous AfDB and WB projects)

1.1.3 Assessment of a financing plan to sustain protected area management (Monts Kouffé and Wari Maro)

Outcome 1.2: Improved management of protected areas in Benin's targeted regions, with concurrent reduction in encroachment and poaching rates of elephants, wild cats, and other threatened specie

1.2.1 Three (3) new wildlife ranches (communal) set up (Zogbodomey, Djidja and Savalou), with improved protected area management effectiveness scores for total 8,000 ha

1.2.2 Two (2) protected areas (Monts Kouffé, Wari Maro) up-scaled to involve communities in the management process

1.2.3 # of households (TBD) benefiting from the promotion of alternative livelihood activities to poaching and deforestation, including via the introduction of new seeds

1.2.4 Endangered species protected in 2 PAs - endemic species (details in section B)

Outcome 1.3: Capacity enhanced for sustainable forest management (SFM) within local communities

1.3.1 Capacity development for SFM within districts: # of trainings held in target departments to enhance community awareness and knowledge on forestry issues

1.3.2 Community groups formed and trained to oversee community forestry activities

Component 2: Improving sustainability and functioning of forest ecosystems

Activities under this component will support the implementation of sustainable forest management plans which were formulated under PAGEFCOMI for the three Departments which were included under the first phase. For the Donga and Borgou departments, sustainable forest management plans will be designed. The plans will also identify revenue generation activities so as to ensure a sustainable funding source for this endeavor, while improving the management of forest areas in the targeted departments. They will also identify high conservation value forests in Donga and Borgou for the development of forest management and restoration plans.

Outputs

Outcome 2.1: Improved forest management and restoration, with consequent conservation and enhancement of carbon stock

2.1.1 Rehabilitation of 20,000-25,000 ha of forest plantations

2.1.2 Benin National Forestry Code updated

2.1.3 Forestry Resources Inventories completed for targeted reserves

2.1.4 Early Warning System (EWS) to prevent bushfires installed

Outcome 2.2: Increased contribution of agro- and forest landscapes and their ecosystem services to local livelihoods and economic development

2.2.1 Agro-forestry promoted on 5,500 ha, including the introduction of Teak and *Gmelina* plants

2.2.2 Enhanced area under community forestry: 300 ha of nurseries to raise seedlings; 5,500 trees in forest plantations and woodlots; 30,000 trees planted in fruit orchards

2.2.3 At least 5 alternative income generating activities identified and implemented with local communities, based on climate smart agro-practices

Component 3: Greenhouse Gas Emissions Inventory

This component will build technical and institutional capacity of local and national authorities to identify degraded forest landscapes and monitor forest restoration, carbon stocks, land use change and other data in the targeted departments. The aim is to support the accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration to promote the conservation and enhancement of carbon stocks in Benin central and south forests and forests throughout the central region of Benin.

Outputs

Outcome 3.1: Technical and institutional capacity strengthened to identify degraded forest landscapes and monitor forest restoration, carbon stocks, and other data

3.1.1 Integrated landscape restoration plans with participatory forestry monitoring, reporting, and verification systems established

3.1.2 Mapping of degraded areas with GIS, and training in targeted departments on forest monitoring to better identify, manage and monitor forest resources and loss

Outcome 3.2: Accelerated adoption of monitoring practices to support GHG emission reduction and carbon sequestration and to improve the conservation and enhancement of carbon stocks in targeted forests

3.2.1 GHG emissions baseline established for communal forests

3.2.2 Robust new GHG accounting methodologies applied for monitoring regional forests

3.2.3 One (1) data collection system relevant to GHG accounting established

Component 4: Project Coordination and Knowledge Management

This component will enable comprehensive project management and coordination of activities as well as the implementation of a knowledge management system to most effectively capturing project results. A project

coordination mechanism will be developed to ensure proper coordination with ongoing GEF initiatives as well as other relevant projects, in order to avoid duplication and build on experience. A monitoring and evaluation plan will be submitted at the CEO Endorsement phase, and a knowledge management plan will capture project results and disseminate achievements. A dedicated Web platform will contain databases which will showcase data collected from the project on forests in central Benin, to allow development partners to easily access and utilize existing information to formulate relevant follow up investments.

Outputs

Outcome 4.1: Enhanced coordination, monitoring and evaluation

4.1.1 Participatory implementation and coordination mechanism established to monitor the project

4.1.2 M&E plan formulated and implemented

Outcome 4.2: Project knowledge management aspect enhanced to capture project results

4.2.1 A knowledge management platform operational

4.2.2 Database for project data established

1.4) [Incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#)

Component 1

The first component of the baseline investment focuses on enhancing sustainable natural resources management of the central and south region's forest resources, including wildlife assets. The first phase of PAGEFCOM financed the identification and zoning of three wildlife conservation parks in Zogbodomey, Djidja, and Savalou. The second phase of the baseline investment will finance the construction of infrastructure in these areas, while the GEF financing will be used toward a number of supporting activities, including improving protected area management effectiveness and capacity building activities among local communities.

This component will improve wildlife conservation with the help of local communities and leaders by increasing ownership and management of forest resources and simultaneously preventing and decreasing the rates of illegal wildlife poaching and encroachment in these areas. The idea is that sustainable management of wildlife biodiversity for local forests' health with the participation of local communities will generate local engagement to act against illegal poaching's impacts on local ecosystems. Conservation will go beyond the physical infrastructure investment of the baseline by rehabilitating and protecting the natural habitat, which will facilitate the repopulation of Beninese forests with mammals which have migrated to other regions due to habitat destruction resulting from unsustainable human practices, climate change, deforestation, and other factors. Animals which are targeted under this project include: the red flanked duiker, yellow-back duiker, warthog, waterbuck, bushbuck, antelopes, including bohor reedbuck, buffalo, potamochoerus, Kob, oribi, and damaliscus.

In addition to improved sustainability and capacity building activities, the project will support the development of green activities in the protected areas, centered on biodiversity-friendly timber and non-timber forest products, fish farming, agroforestry, etc.

The project aims at rehabilitating a natural habitat with the support of local communities which will thereafter re-attract species which have migrated north or into Benin's national parks. Activities are designed with the aim of supporting alternatives to deforestation and poaching in the area, so local communities will be trained and sensitized on income-generating activities from forest, wood, and non-wood products as the result of agroforestry and agro-cultural intensification, and the importance of wildlife and plant resources to the local economy and ecosystems.

The baseline investment's second component will provide capacity building to local populations for them to develop green value chains and ecosystem services such as forest products (both timber and non-timber) and fishery products. On top of those activities, the GEF investment will provide support specifically to interventions that are environmentally-friendly and ensure that production methods such as agroforestry and fish farming are sustainable.

Component 2

The baseline investment's second component is centered on infrastructure rehabilitation and development. The investment will finance ecological and social infrastructure in the region as well as the development of forest management plans and policies around the wildlife parks, protected areas around the communal forests, and the surrounding forest areas. The baseline investment will also finance an early warning system to prevent wildfires and other emergencies. On top of those activities, GEF's incremental activities seek to capitalize on the restoration and conservation of forest ecosystems for the benefit of local communities' livelihoods which shall simultaneously decrease their vulnerability to and increase their adaptive capacity in the face of both natural and human induced external shocks.

Component 3

The baseline investment is a forest management project and includes relevant activities related to maintaining forest resources and supporting forest communities in utilizing those resources while supporting rural development. However, no forest management strategy is complete without the implementation of a robust system to monitor, report, verify, and evaluate carbon emissions and stocks. Without GEF financing, there would be no linkage of the baseline project's conservation and forest management activities with climate change activities. All activities aimed at mitigating the impact of land degradation, biodiversity loss, and deforestation are directly impacted and linked to climate change and GHG emissions. Scalable mitigation activities can complement and enhance activities across these other focal areas, however, it is imperative that strong and reliable data is collected, including a baseline on existing carbon stocks. This requires the establishment of a proper system to measure the carbon benefits of activities under this project that will lead to increased carbon stocks in the region due to afforestation, reforestation and plant biodiversity conservation. This project addresses root causes of forest degradation and forest land use CO2 emissions, but from an integrated SFM approach.

Benin has weak technical and institutional capacity to collect and report on GHG emissions estimates, and there currently does not exist any such mechanism to monitor the forests across the center of the country, which is considered the green core and main continuous forest cover in the country. GEF financing for climate change mitigation will enable local institutions to improve their capacities to collect accurate emissions data from this region, and to collect an accurate baseline data, as well as to develop an estimation of existing carbon stocks and any increase of carbon stock in regional forests resulting from the implementation of this project. This will allow Benin to build a credible carbon inventory for the forestry and LULUCF sectors.

Component 4

The financing under this component will improve the coordination, management, and M&E of and between the GEF project and the PAGEFCOM II baseline investment.

The baseline project scenario and the added value of the GEF activities are presented as follows.

AfDB Baseline scenario	GEF alternative scenario
<p>The overall objective of the baseline project is to contribute to the improvement of living conditions of populations in the preservation of forest ecosystems and their biodiversity and the reduction of poverty. Improved conservation at the core will ensure the stability of forest cover and climate regulation, which in turn provide capital for production and agricultural productivity and well-being of populations in the country.</p> <p>Component 1: Natural Resources Management</p> <p>1.1 Facilities management of wildlife ranches and conservation of biological diversity</p> <p>1.2 Implementation of 2 PA (Koufée, Wari Maro)</p> <p>Management of communal forests and reforestation</p>	<p>In the GEF alternative scenario, the focus is on social and environmentally sustainable forest management by strengthening and improving the capacity of forest preservation.</p> <p>Component 1: Enhancing conservation of forest ecosystems and wildlife in classified forests</p> <p>The GEF project will ensure improved management effectiveness of these protected areas, develop local capacities for sustainable forest management, and support alternative livelihoods away from traditional agricultural practices to generate incomes from ecosystem based services in the area. The aim is to create a conducive environment which will support the growth of alternatives income</p>

<p>The baseline investment focuses on natural resources management of the central and south region's forest resources, including wildlife assets. It will finance the construction of infrastructure in these areas and support biodiversity protection through conservation, reforestation, and sustainable forest management practices.</p> <p>Construction of social infrastructures (school, hospital, etc)</p> <p>Training of rangers and hunters</p> <p>Component 2: Technical and Institutional Support</p> <p>2.1 Rehabilitation of infrastructure around the central forested and ecological area</p> <p>2.2 Strengthening capabilities (Support for the development / updating of policies and forestry and to the study of the early warning system for wildfires)</p> <p>2.3 Improving the welfare of populations through community level technical assistance</p> <p>The baseline investment is centered on infrastructure rehabilitation and development. It will finance ecological and social infrastructure in the region as well as the development of forest management plans and policies around the wildlife parks, protected areas around the communal forests, and the surrounding forest areas.</p> <p>Component 3: Project Management and Coordination</p> <p>Activities under this component include: (i) Project coordination; (ii) Administrative and financial management; (iii) Procurement of works and services; (iv) Design and implementation of a communications plan; (iv) Monitoring and Evaluation activities.</p>	<p>activities in the area for the observation of wildlife in the three protected zones.</p> <p>The GEF financing will be used toward a number of supporting and improving protected area and capacity building activities among local communities. The project will implement activities to support the development of green activities in the protected areas and conserve biodiversity while ensure that production methods are sustainable, such as agroforestry and fish farming.</p> <p>Component 2: Improving sustainability and functioning of forest ecosystems</p> <p>The GEF financing will support the implementation of sustainable forest management plans which were formulated under the PAGEFCOM I for the three Departments which were included under the first phase. It will identify revenue generation activities so as to ensure a sustainable funding source for this endeavor, while improving the management effectiveness of forest areas in the targeted departments.</p> <p>Component 3: Greenhouse Gas Emissions Inventory</p> <p>The GEF financing will build technical and institutional capacity of local and national authorities to identify degraded forest landscapes and monitor forest restoration, carbon stocks, and other data in the targeted departments. The aim is to support the accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration to promote the conservation and enhancement of carbon stocks in Benin central and south forests and forests throughout the central region of Benin.</p> <p>The GEF financing for climate change mitigation, will enable local institutions to improve their capacities to collect accurate emissions data from this region, and to collect and accurate baseline, as well as to develop estimation of existing carbon stocks, as well as any increase of carbon stock in regional forests resulting from the implementation of this integrated sustainable forest management project.</p> <p>Component 4: Project Coordination and Knowledge Management</p> <p>The GEF financing will enable comprehensive project management and coordination activities as well as the implementation of a knowledge management system to most effectively capture project results.</p>
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1.5) [Global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF)

As a result of this project, it is expected that 150,000 hectares of forests in 2 forests (Monts Koufée and Wari-Maró) in the departments of Borgou and Donga in central Benin, will see reduced deforestation per year and that the forest

cover will be increased by roughly 20% within the next decade. It is expected that three wildlife parks and protected areas will be established to protect biodiversity of plants and animals covering an area of 150,000.

Climate change mitigation impacts cannot be measured at this stage, but in adherence to CCM-2, Program 4, this project aims to address the drivers of deforestation, and, de facto, emissions linked to deforestation and land use changes, and to support Beninese institutions to increase their capacity to improve the accuracy of GHG emissions estimates from LULUCF and forestry.

In the medium and long term, based on the proposed activities, the following quantitative GEBs are proposed (to be confirmed during project preparation): (i) rehabilitation of 150,000 hectares of forests in the two departments of Borgou and Donga in Benin; (ii) establishment of three wildlife parks and protected areas (8,000 ha) and (iii) 8,510,623 tons of CO₂ mitigated over 10 years of project life through avoided deforestation, restoration and SFM (direct emission reduction). The estimation is made with a total of 150,000 hectares of forest to be protected or restored.

1.6) Innovation, sustainability and potential for scaling up

Well-managed forests contribute to sustainable development and provide livelihood opportunities for local communities and indigenous peoples. Forests are critical resources for communities which live in food insecure areas because they are one of the most accessible productive resources available. This being said, integrated sustainable forest management projects are still innovative in the region due to a lack of capacity for comprehensive long-term planning. The integrated nature of this project is innovative for the region, particularly because it approaches the root institutional and market problems from a forest perspective, while integrating biodiversity conservation, reforestation, sustainable forest management, and climate change mitigation into a holistic strategy aimed at strengthening communities and ecosystems.

Sustainability is ensured through the provision of technical and institutional support and the execution of training programs for key stakeholders aimed to create capacity and ensure institutional memory. Additionally, financing mechanisms will be established within regional forest management plans, to ensure that sufficient funding will be available to continue the measures initiated under this project.

Scaling up: The GEF project will provide technical skills in SFM and other farming/forestry practices that promote both sustainability and increased agricultural productivity in the project area. The activities will be closely monitored and evaluated with successful initiatives replicated and up-scaled. Effective alternative livelihood options will be demonstrated and greater emphasis will be given to upscaling successful practices. The project achievements under PAGEFCOM1 will be scaled up under this phase. This proposed project is meant to scale up strong forest management practices implemented under the PAGEFCOM I project. This project will implement plans which were designed under the first phase of the baseline while addressing integrated environmental issues to maximize global environmental benefits. Lessons from the outcomes of this project can be applied in other protected areas throughout Benin and in forest landscapes throughout the region which suffer from similar root problems.

Innovation: The integrated approach that will be implemented through the project coordinated between government institutions and communities will provide an innovative example that is expected to generate important lessons at the national and local level particularly among the targeted regions. While LD and SFM strategies themselves are not innovative, projects integrating these with CCM and BD activities with an alternative livelihood approach are not widely practiced. The proposed project will work at the government, community, and individual levels to generate capacity and incentives for improved SFM. The GEF project will also enhance innovation and the scaling up of interventions through the participatory and replicable nature of its approach on the ground. Moreover, it will facilitate exchange of knowledge across the 5 targeted departments, thus facilitating up-scaling amongst them in order to promote green economy.

2. Stakeholders. Will project design include the participation of relevant stakeholders from [civil society organizations](#) (yes /no) and [indigenous peoples](#) (yes ☐ /no)? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.

Key stakeholders to be engaged will be identified during preparation. The project will establish oversight committees at the beneficiary level, and will include local farmers, livestock breeders, and forest communities. An inclusive and participatory stakeholder engagement strategy will be formulated at the PPG phase, as stakeholder engagement is a key part of this project's outreach and awareness raising activities. The project is designed to create and increase awareness of stakeholders that will be included in participatory and systematic consultations, which will increase ownership of forests, as well as knowledge of the importance of forest resources to both the local ecosystem, as well as to households, of stakeholders and communities, which will decrease instances of wildlife poaching, harmful and/or illegal farming practices, and ease conflicts between farmers and migratory livestock breeders.

As for PAGEFCOM1, the empowerment and effective participation of village communities will be the basis of the ownership process necessary to sustainably take responsibility for the management and maintenance of forest plantations. In fact, the Project will involve these communities throughout the process of creation of plantations: choice and demarcation of plantation sites, classification of plantations in council areas, participation in the planting of seedling trees and signature of a contract with the Council defining the responsibility of the various parties in the management, maintenance and tapping of plantations. To enable the communities to play an active role, which guarantees the sustainability of Project outcomes, different trainings and capacity building activities will be provided to various social groups on the basis of a process of progressive transfer of skills thanks to technical assistance and training. In addition, owing to additional revenue derived from the Project, the Communes will be able to bear part of the maintenance costs of the investments.

In term of involvement of stakeholders in the project implementation, the PAGEFCOM1 steering committee will be maintained and used to monitor the second phase. The PAGEFCOM1 steering committee (COS) is chaired by the MAEP (Ministry of Agriculture, Livestock and Fisheries) or his representative and comprise a representative of each of the Ministries of (i) Environment, Housing and Town Planning (MEHU/DE); (ii) Finance and Economy (MFE/CAA); (iii) Planning and Development (MECDP/DCRE); (iv) Interior, Security and Decentralization (MISD/Chairperson of the Decentralization Mission); and (v) Family, Social Protection and Solidarity (MFPSS/DPF). Local NGO and civil society organizations (CSO) will seat as observers and provide guidance and inputs. The COS will meet at least once a year in ordinary session.

Village communities: implementation of local community infrastructure in villages will be carried out by local groups with shared interests in forest management and professional agricultural organizations grouped together within Village Committees. These Committees will act as delegated contracting authorities of Communes on the basis of agreements. They will intervene at all stages of planning and programming in accordance with the participatory approach which will be adopted by the Project. The possibility of using the existing Villagers' Association for the Management of Wildlife reserves (Association villageoise de gestion des ressources de la faune or AVIGREF) will be considered and assessed during the PPG. To this end, the project will assist Village Communities in the adoption of their legal status.

3. Gender Equality and Women's Empowerment. Are issues on [gender equality](#) and women's empowerment taken into account? (yes ☒ /no). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

Women are key target beneficiaries of both the GEF project as well as the baseline investment. All project activities are designed with the aim of having a positive impact in empowering women. Key project outcomes include: (i) Reduction of time and labor intensiveness of household chores by ensuring the availability of harvested forest resources in close proximity to households; (ii) Increased capacity for training and educating women on activities related to sustainable forest management and conservation; (iii) Improved overall health due to healthcare centers and other social infrastructure (schools, primary care centers, roads and paths) built under the baseline investment. Additionally, forest management activities will create opportunities for generating alternative incomes from the production and sale of processed forestry products such as shea butter, fruits, and vegetables, which will subsequently improve standards of living as a whole.

4. *Risks*. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable).

Potential Risk	Rating	Mitigation Measures
Lack of ownership of local communities and populations and to address illegal logging activities	Medium	The project will establish a permanent participatory management and monitoring system comprised also of local members of the communities and forest officers
Poaching, wildfires, and chronic transhumance in the project area can jeopardize the gains	High	The project is designed to set up oversight committees at the beneficiary level, which will ensure awareness, surveillance and coordination of all stakeholders
Delayed buy-in of stakeholders may delay the implementation of forest management plans	Medium	The project is designed to create and increase awareness of stakeholders, who will be included in participatory and systematic consultations, which will increase the likelihood of gradual adoption by all stakeholders. Extensive consultations with local stakeholders and beneficiaries were undertaken during PAGEFCOM1 and will continue during implementation of the second phase
Lack of commitment, prioritization, or ownership of executing agency to support the coordination team could result in delays in project implementation	Low	This project has been identified as a top priority as a result of numerous stakeholder consultations, in which relevant local and national government officials and policy makers participated, and which provided the basis on which the project was design.
Environmental degradation and climate impacts	Medium	The project will promote sustainable management of land and forests, and implement climate-smart practices such as conservation agriculture. An adaptive management approach will be implemented to adapt to possible risks or changes as needed. Promotion of integrated tools and approaches that mainstream adaptation to climate change at local and national level. Appropriate measures for mitigating negative impacts specific to the various sites have already been identified and others will be defined during specific implementation studies and incorporated into the different Project components (see EISA). The Project Management Unit (PMU) will, through appropriate structures, be responsible for environmental surveillance operations that will ensure the proper implementation of environmental measures. Environmental monitoring will be carried out by the Benin Environment Agency (ABE) which will ensure that the effective implementation of measures produces the expected results on the basis of pre-defined monitoring indicators.
Poor sustainability of infrastructure	Medium	The empowerment and effective participation of village communities will be the basis of the ownership process necessary to sustainably take responsibility for the management and maintenance of forest plantations. The Project also envisages a supervision and training program for local communities, including management and maintenance groups, to enable them to play an active role throughout this process. The participation of the beneficiary populations in plantation works, social infrastructure and soil restoration works will enable them to own the investment and hence guarantee its sustainability.
Climate change impacts at higher than anticipated levels	Low	The project will promote adapted farming methods to be used depending on the forest species, the nature of soil, the type of planting (plantation or natural forest) and civil-cultural characteristics (height of stump). The development of firebreaks will help limit damage by late fires to the regeneration and productivity of natural forests. Buffer zones will be envisaged between fellings. Clear felling should be avoided (leave a sufficient number of seed trees standing to foster natural regeneration either by germination or by stump-shooting; replant if necessary). The management plans will include forest fire management programs.

Poor M&E	Low	A strong M&E system coupled with quality baseline data is imperative for better monitoring of program implementation, better performance evaluation and impact assessment.
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5. Coordination. Outline the coordination with other relevant GEF-financed and other initiatives.

Partnership support for PAGEFCOM was developed within the context of annual reviews for priorities in Benin's Growth and Poverty Reduction Strategy (GPRS), led by the Committee for Investments and Development Financing (DGIFD) in the Prime Minister's office, which oversees all economic development issues.

Government partners are engaged in addressing key themes in the GPRS, which include: (i) monitoring and evaluation; and (ii) macroeconomics and management of public finance. This is done through a coordination framework which includes 12 sectoral groups to ensure complementarity and participatory exchange. A joint annual review with technical and financial government partners is conducted biannually. At the sectoral level, coordination of development initiatives is overseen by the Ministry of Climate Change Management, Reforestation and the Protection of Natural and Forest Resources.

The Bank's Benin field office actively participates in the above meetings and exchanges with development partners, including the UNDP, the World Bank, IFAD, BOAD, GIZ, BTC, the government of the Netherlands, the EU and the FAO. Other members of the Environment Working Group involved in this project act as advisors, and provide a strong knowledge network for which this proposed GEF project can draw from and build on.

A robust coordination mechanism will be developed during the PPG phase to ensure that all ongoing initiatives will be informed and liaised with as this project enters preparation and implementation. Additionally, the GEF has financed a number of relevant initiatives in Benin with climate change, land degradation, and biodiversity resources. Some of the most relevant currently under implementation are listed below.

SPWA-BD: Support to Protected Areas Management

This project, currently under implementation by the World Bank aims to strengthen sustainable management of the Northern Benin Savannah Ecosystems through enhanced management capacity and the establishment and operation of a conservation trust fund. The project has three components which will (i) strengthen capacity to manage savannah ecosystems in northern Benin; (ii) create an effective and operational trust fund for sustainable management of savannah ecosystems in northern Benin; (iv) capitalize and endow this trust fund to create long-term funding for savannah ecosystems in northern Benin. This project has no geographic overlap with the proposed project, but it can offer important lessons learned and insight for the establishment of financing mechanisms as well as the identification of long-term financing for conservation and sustainable land management activities.

Benin Forest and Adjacent Lands Management (AF-FALM)

The objective of this WB project is to assist the government of Benin to establish a foundation for a collective integrated ecosystem management system for forests and adjacent lands. Expected outcomes are: (i) Increase in land area with sustainable land and water management in targeted areas measured by the number of additional hectares of forests or degraded forests. This project is has received CEO Endorsement for implementation by the World Bank and can offer important insight on project design and preparation relating to improved forest management in drylands, integrated community landscape management practices, and identifying diversified revenue streams for biodiversity conservation. This is a follow on investment of the World Bank's Program for the Management of Forests and Adjacent Lands (FALMP), which closed in May 2013. The FALMP project aimed to promote socially, technical, and economically viable management of forests and adjacent lands resources within a strengthened institutional framework in order to improve land management, increase carbon sequestration, prevent biodiversity loss, and promote activities that ensure alternative sources of income for communities. This project has many of the same objectives as the proposed project, and lessons and experiences will be drawn from this closed project to guide the development of the proposed project.

Capacity Building for Improving Greenhouse Gas Inventories (West and Francophone Central Africa)

This is a regional program currently being implemented by the United Nations Development Programme (UNDP) as an enabling activity focusing on improving GHG inventories in the land-use change and forestry sector (LUCF). This project can inform the proposed project with baseline information on GHG emissions from LUCF, to provide a strong foundation on which this project can create real assumptions and targets. Additionally, any activities executed under this proposed initiative will be communicated to for inclusion into existing inventories.

SIP Program: Strategic Investment Program for SLM in Sub-Saharan Africa (SIP)

This program has received Council Approval for implementation by the World Bank. The SIP project aims to optimize natural resource management at the landscape level in a number of sub-Saharan African countries through the integration and implementation of SLM across multiple sectors. The SIP project has created a strategic programmatic funding partnership between the World Bank and the GEF, which will oversee program implementation and ensure that it is executed efficiently. The proposed project can draw upon the SIP's regional platform and tap into any lessons learned and experiences.

The African Development Bank has two relevant GEF-financed projects in Benin: Flood Control and Climate Resilience of Agriculture Infrastructures in the Oueme Valley and Integrated Development for Increased Rural Climate Resilience in the Niger Basin. The first is an adaptation project in the agricultural sector in the southern Oueme Valley, and the second is a regional natural resources management project in the Niger Basin. The AfDB has a liaison office in Cotonou, which coordinates closely with the Bank's West Africa Regional Operations Department, providing a strong base from which the AfDB can share resources and knowledge, and coordinate ongoing efforts.

6. Consistency with National Priorities. Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes /no). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.

This project is fully in line with priorities defined in the strategic action plans of the three relevant environmental conventions: the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Framework Convention on Climate Change (UNFCCC).

National Biodiversity Strategy and Action Plan (NBSAP): Benin adopted its NBSAP in 2002, and the country has drafted a revised and updated NBSAP for the 2011-2020 period, containing 5 strategic directions, 20 strategic objectives and 73 envisioned outcomes. The main objectives of the NBSAP are to: (i) restore natural biological resources and their components to a level that exceeds the needs of the population and that can contribute significantly to economic development; (ii) modernize agriculture in an ecologically sustainable manner by 2015; (iii) consider biodiversity in all actions related to socioeconomic development and education; (iv) value biodiversity and its genetic resources with consideration given to opportunities for fair and equitable sharing of benefits derived from the use of genetic resources; and (v) create a viable framework for consultation, monitoring, coordination and guidance in relation to national actions for managing biodiversity. This project corresponds directly to objectives 1, 3, and 5. The project will restore forest landscapes in the region and aims to meet the needs of local populations in that region and contribute significantly to economic development. The project integrates biodiversity into planning actions in the region and will support the development of agroforestry activities and alternative activities to deforestation which will ultimately support socioeconomic development, and lastly, the project will support the establishment of proper frameworks for the monitoring and evaluation of forest stocks and sinks and carbon emissions from forests and forestry activities in the central and south Benin region.

National Action Plan (NAP):

The UNCCD NAP has identified the conservation and protection of natural resources, capacity building, and soil management as priority spheres of activity in Benin's national action plan to control desertification. The protection of natural resources is defined in part as by conducting outreach to local communities and institutions in order to increase awareness of the value of trees, forests, and soils and reinforcing the need to sustainably manage them.

Nationally Appropriate Mitigation Actions (NAMA): Benin's NAMA has highlighted the sustainable development of natural forests and forest planting to strengthen carbon sinks as a key mitigation action.

7. *Knowledge Management.* Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

This project includes a dedicated component for knowledge management and project coordination and a detailed KM plan will be developed at CEO endorsement phase. KM will be centered on a Web platform onto which relevant M&E data and project results will be made available, following an Open Data policy. This is meant to encourage interaction and input from development partners and increase awareness of the project in the case that any relevant initiatives are being developed in the region

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

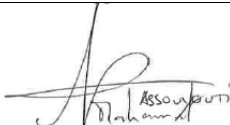
A. RECORD OF ENDORSEMENT¹³ OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(PLEASE ATTACH THE [OPERATIONAL FOCAL POINT ENDORSEMENT LETTER](#)(S) WITH THIS TEMPLATE. FOR SGP, USE THIS [SGP OFP ENDORSEMENT LETTER](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Clement EDAH	Minister of Environment	Ministry Of The Environment, Climate Change Management, Reforestation, And Environmental Protection	12/04/2015

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies¹⁴ and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Mahamat ASSOUYOUTI, African Development Bank		26.06.2016	Leandre GBELI	+225 2026 3646	L.GBELI@adfb.org

¹³ For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

¹⁴ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF