Restoring and Enhancing the Value of Degraded Lands and Forest Ecosystems for Enhanced Climate Resilience in Benin (PIRVaTEFoD-Benin)

Part I: Project Information

GEF ID
10688

Project Type
FSP

Type of Trust Fund
MTF

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Restoring and Enhancing the Value of Degraded Lands and Forest Ecosystems for Enhanced Climate Resilience in Benin (PIRVaTEFoD-Benin)

Countries
Benin

Agency(ies)
UNDP

Other Executing Partner(s)
GENERAL DIRECTORY OF ENVIRONMENT AND CLIMATE (DGEC), UNDER THE MINISTRY OF THE LIVING ENVIRONMENT AND SUSTAINABLE DEVELOPMENT (MCVDD)

Executing Partner Type
Government

GEF Focal Area
Multi Focal Area

Sector
Mixed & Others

Taxonomy
Focal Areas, Land Degradation, Land Degradation Neutrality, Land Productivity, Carbon stocks above or below ground, Land Cover and Land cover change, Sustainable Land Management, Sustainable Forest, Sustainable Livelihoods, Improved Soil and Water Management Techniques, Income Generating Activities, Restoration and Rehabilitation of Degraded Lands, Sustainable Development Goals, Climate Change, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Enabling Activities, United Nations Framework Convention on Climate Change, Climate Change Adaptation, Least Developed Countries, Ecosystem-based Adaptation, Community-based adaptation, Climate resilience, Influencing models, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Stakeholders, Civil Society, Academia, Non-Governmental Organization, Community Based Organization, Indigenous Peoples, Local Communities, Beneficiaries, Private Sector, SMEs, Individuals/Entrepreneurs, Type of Engagement, Participation, Communications, Awareness Raising, Public Campaigns, Behavior change, Gender Equality, Gender results areas, Access and control over natural resources, Capacity Development, Participation and leadership, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Capacity, Knowledge and Research, Knowledge Generation, Knowledge Exchange, Learning, Indicators to measure change, Adaptive management, Theory of change

Rio Markers
Climate Change Mitigation
Significant Objective 1

Climate Change Adaptation
Principal Objective 2

Biodiversity
No Contribution 0

Land Degradation
Principal Objective 2

Submission Date
1/31/2022

Expected Implementation Start
11/1/2022

Expected Completion Date
10/31/2028

Duration

72In Months

Agency Fee($)

858,123.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
LD-2-5	Creating an enabling environment to support voluntary LDN target implementation	GET	1,060,250.00	5,000,000.00
LD-1-3	Food systems, land use and restoration	GET	3,506,417.00	20,000,000.00
CCA-1	Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	LDCF	4,466,210.00	23,272,615.00
		Total Project Cost($)	**9,032,877.00**	**48,272,615.00**

B. Project description summary

Project Objective

To support achievement of Benin?s Land Degradation Neutrality (LDN) targets through climate risk integrated sustainable land and forest management practices and strengthen the climate resilience of vulnerable populations in the Niger Valley, Alibori Sud-Borgou Nord-2KP and Zou-Couffo Agricultural Development Areas

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
1: Political, financial, institutional, and regulatory frameworks to achieve climate risk informed Land Degradation Neutrality (LDN) and advance integration of vulnerability assessments and adaptation options within land use decisions.	Technical Assistance	**Outcome 1**: Strengthened national policy, governance and financial frameworks and capacity to implement climate risk informed slm and sfm, and climate-proofed sustainable livelihoods contributes to achievement of LDN	Output 1.1 National LDN and restoration database established within the DGEC under MCVDD, bringing together national data sources, including related data on climate impacts, vulnerability, and adaptation needs, and linking to global systems for monitoring restoration and LDN Output 1.2 National monitoring and reporting system for tracking climate change vulnerability in the agricultural sector and changes in adaptive capacity, land cover change, degradation, restoration and forest ecosystems, and ecosystem services, is created. Output 1.3 The National Committee to Combat Desertification is strengthened for enhanced ownership and capacity of national authorities to address expected scenarios of climate change hazards and sensitivity. Output 1.4 The National Forestry Development Fund, National Environment and Climate Fund, and National Agricultural Development Fund have harmonized programs integrating CCA and LDN objectives, strengthened governance mechanisms and the capacity to mobilize resources. Output 1.5 Training and equipment provided to key agencies (Ministries of Environment, National Geographic Institute, National Agricultural Resource Institute) to improve implementation of climate risk	GET	360,250.00	2,500,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
1: Political, financial, institutional, and regulatory frameworks to achieve climate risk informed Land Degradation Neutrality (LDN) and advance integration of vulnerability assessments and adaptation options within land use decisions.	Technical Assistance	**Outcome 1**: Strengthened national policy, governance and financial frameworks and capacity to implement climate risk informed slm and sfm, and climate-proofed sustainable livelihoods contributes to achievement of LDN	Output 1.1 National LDN and restoration database established within the DGEC under MCVDD, bringing together national data sources, including related data on climate impacts, vulnerability, and adaptation needs, and linking to global systems for monitoring restoration and LDN Output 1.2 National monitoring and reporting system for tracking climate change vulnerability in the agricultural sector and changes in adaptive capacity, land cover change, degradation, restoration and forest ecosystems, and ecosystem services, is created. Output 1.3 The National Committee to Combat Desertification is strengthened for enhanced ownership and capacity of national authorities to address expected scenarios of climate change hazards and sensitivity. Output 1.4 The National Forestry Development Fund, National Environment and Climate Fund, and National Agricultural Development Fund have harmonized programs integrating CCA and LDN objectives, strengthened governance mechanisms and the capacity to mobilize resources. Output 1.5 Training and equipment provided to key agencies (Ministries of Environment, National Geographic Institute, National Agricultural Resource Institute) to improve implementation of climate risk informed, gender-	LDCF	288,750.00	1,844,615.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
2: Restoration of land and forest ecosystems for improved agricultural productivity, prevention of deforestation, and enhanced climate resilience of vulnerable communities	Technical Assistance	**Outcome 2**: Integrated climate risk informed gender-responsive management and restoration of target degraded lands, forests and ecosystems in selected PDAS 1, 2 and 5	Output 2.1 Integrated land use, landscape restoration, and forest management plans are developed, with climate change scenarios informing risks and selection of adaptation options, and operationalised at target sites, with capacity to implement. Output 2.2 Degraded lands amounting to at least 15,000 hectares, and at least 15,000 hectares of forest are under climate resilient restoration and functional and sustainable management regimes. Output 2.3 Awareness raising and training of 1,000 national and local government and administration officials (including ATDAs, DGEC under MCVDD and DGEFC), and representatives of private sector in climate resilient gender-responsive and degradation neutral planning and policies, with focus on agriculture, animal husbandry and forestry, targeting the mainstreaming of CCA and LDN in all policies and administrative decisions Output 2.4 Extension services in climate resilient, gender-responsive and degradation neutral agriculture, animal husbandry and agroforestry provided to 24,000 farmers and community leaders (50% women), including on climate resilient and degradation neutral cotton production. Output 2.5 Green Belt infrastructure against the advance of the desert in the north of Benin strengthened through development of manuals for climate change resilient restoration and forest	GET	3,201,400.00	10,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
2: Restoration of land and forest ecosystems for improved agricultural productivity, prevention of deforestation, and enhanced climate resilience of vulnerable communities	Technical Assistance	**Outcome 2**: Integrated climate risk informed gender-responsive management and restoration of target degraded lands, forests and ecosystems in selected PDAS 1, 2 and 5	Output 2.1 Integrated land use, landscape restoration, and forest management plans are developed, with climate change scenarios informing risks and selection of adaptation options, and operationalised at target sites, with capacity to implement. Output 2.2 Degraded lands amounting to at least 15,000 hectares, and at least 15,000 hectares of forest are under climate resilient restoration and functional and sustainable management regimes. Output 2.3 Awareness raising and training of 1,000 national and local government and administration officials (including ATDAs, DGEC under MCVDD and DGEFC), parliamentarians and representatives of private sector in climate resilient, gender-responsive and degradation neutral planning and policies, with focus on agriculture, animal husbandry and forestry, targeting the mainstreaming of CCA and LDN in all policies and administrative decisions. Output 2.4 Extension services in climate resilient, gender-responsive and degradation neutral agriculture, animal husbandry and agroforestry provided to 24,000 farmers and community leaders (50% women), including on climate resilient and degradation neutral cotton production. Output 2.5 Green Belt infrastructure against the advance of the desert in the north of Benin strengthened through development of manuals for climate change resilient restoration and forest	LDCF	1,207,600.00	9,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
3: Building diversified income-generating activities and value chains to strengthen community resilience to climate change	Technical Assistance	**Outcome 3:** Communities at pilot sites receive tangible benefits from engagement in diversified, climate resilient and gender-responsive income generating activities (with supporting value chains that promote LDN)	Output 3.1 Five agricultural value chains are identified and assessed according to their potential to deliver multiple local, national and global benefits, including income generation, LDN benefit and enhanced climate resilience within project PDAs. Output 3.2 Selected climate resilient and sustainable agricultural and agroforestry practices and market channels are strengthened through investments and extension support for climate resilient, degradation neutral and gender responsive agricultural practices, leading to triple-bottom-line benefits, strengthened adaptive capacity of vulnerable communities, job and SMME creation. Output 3.3 Local, national and regional partnerships established to support and promote ?forest-friendly? and climate resilient and gender-responsive income-generating opportunities. Output 3.4 Improved market access for farmers and communities practicing climate resilient, zero degradation agriculture and agroforestry[1], including NTFPs[2], through strengthened cooperatives and farmer organizations and negotiated partnerships with traders and processors.	GET	435,937.00	8,850,000.00

[1] Targeted agricultural value chains include: mango and citrus trees, cashew, organic cotton, and market garden produce. Forums (?platforms?) exist for the various sectors, including a

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
3: Building diversified income-generating activities and value chains to strengthen community resilience to climate change	Technical Assistance	**Outcome 3:** Communities at pilot sites receive tangible benefits from engagement in diversified, climate resilient and gender-responsive income generating activities (with supporting value chains that promote LDN)	Output 3.1 Five agricultural value chains are identified and assessed according to their potential to deliver multiple local, national and global benefits, including income generation, LDN benefit and enhanced climate resilience within project PDAs. Output 3.2 Selected climate resilient and sustainable agricultural and agroforestry practices and market channels are strengthened through investments and extension support for climate resilient, degradation neutral and gender responsive agricultural practices, leading to triple-bottom-line benefits, strengthened adaptive capacity of vulnerable communities, job and SMME creation. Output 3.3 Local, national and regional partnerships established to support and promote ?forest-friendly? and climate resilient and gender-responsive income-generating opportunities. Output 3.4 Improved market access for farmers and communities practicing climate resilient, zero degradation agriculture and agroforestry[1], including NTFPs[2], through strengthened cooperatives and farmer organizations and negotiated partnerships with traders and processors.	LDCF	2,435,900.00	8,851,000.00

[1] Targeted agricultural value chains include: mango and citrus trees, cashew, organic cotton, and market garden produce. Forums (?platforms?) exist for the various sectors, including a

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
4: Gender Empowerment, Knowledge Management, and M&E	Technical Assistance	**Outcome 4a:** Increased technical knowledge, awareness and communication of LDN and climate resilience challenges, and uptake of gender-based solutions, among stakeholders and partners at sub-national, national and international levels.	Output 4.1 Gender empowerment strategy is implemented and guides project implementation. Output 4.2 Participatory M&E and quantification of LDN and CCA implementation?including restoration, SFM and SLM actions?as a contribution to national reporting under the UNFCC and other international commitments. Output 4.3 A learning and dissemination network developed and implemented in each of the three PDAs. Output 4.4 National-level communications and public awareness program, incorporating lessons learned by the project, including through participatory monitoring and gender empowerment, is developed and implemented at national, regional and international levels. Output 4.5 Project activities and results monitored and evaluated	GET	351,620.00	2,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
4: Gender Empowerment, Knowledge Management, and M&E	Technical Assistance	Outcome 4a: Increased technical knowledge, awareness and communication of LDN and climate resilience challenges, and uptake of gender-based solutions, among stakeholders and partners at sub-national, national and international levels.	Output 4.1 Gender empowerment strategy is implemented and guides project implementation. Output 4.2 Participatory M&E and quantification of LDN and CCA implementation?including restoration, SFM and SLM actions?as a contribution to national reporting under the UNFCC and other international commitments. Output 4.3 A learning and dissemination network developed and implemented in each of the three PDAs. Output 4.4 National-level communications and public awareness program, incorporating lessons learned by the project, including through participatory monitoring and gender empowerment, is developed and implemented at national, regional and international levels. Output 4.5 Project activities and results monitored and evaluated	LDCF	321,283.00	2,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
				Sub Total ($)	**8,602,740.00**	**45,045,615.00**
Project Management Cost (PMC)						
				GET	217,460.00	1,650,000.00
				LDCF	212,677.00	1,577,000.00
				Sub Total($)	**430,137.00**	**3,227,000.00**
				Total Project Cost($)	**9,032,877.00**	**48,272,615.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Government of Benin	Grant	Investment mobilized	43,000,000.00
Recipient Country Government	Government of Benin	Grant	Investment mobilized	1,000,000.00
GEF Agency	UNDP	Grant	Investment mobilized	480,000.00
GEF Agency	UNDP	In-kind	Recurrent expenditures	800,000.00
Civil Society Organization	ALDIPE	Grant	Investment mobilized	234,913.00
Civil Society Organization	ALDIPE	In-kind	Recurrent expenditures	181,335.00
Civil Society Organization	Apiservices	In-kind	Recurrent expenditures	30,700.00
Civil Society Organization	CAPES	Grant	Investment mobilized	100,000.00
Civil Society Organization	CAPES	In-kind	Recurrent expenditures	93,750.00
Civil Society Organization	DEDRAS	Grant	Investment mobilized	330,000.00
Civil Society Organization	DEDRAS	In-kind	Recurrent expenditures	600,000.00
Civil Society Organization	APIC	In-kind	Recurrent expenditures	16,667.00
Recipient Country Government	Government of Benin	In-kind	Recurrent expenditures	1,400,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Civil Society Organization	Apiservices	Grant	Investment mobilized	5,250.00
			Total Co-Financing($)	**48,272,615.00**

Describe how any "Investment Mobilized" was identified

The following investments have been mobilized as co-financing for the GEF grant: ? The Government of Benin ($43 million in combined grants from donors) Several co-operation projects are providing parallel cash co-financing and thereby contributing in various ways to activities, achievements, innovation, good practices and lessons learned. The activities and results will be scaled up in the project intervention areas, giving added value to results and achievements as practices to be extended and scaled up. The lessons learned by these projects will serve inform the project strategy and activities. Finally, tools and documents developed by these projects for the management of technical knowledge and innovations will be capitalized upon in the implementation of project activities. The specific co-operating projects can be summarized as follows, with site overlaps identified in parentheses : ? APADT - WAP (UE-UEM OA): Strengthening the resilience of ecosystems and improve the living conditions of populations in the WAP complex in the face of climate change through the establishment of a multi-risk early warning system relating to droughts, floods and fires, and implementation of associated adaptation measures. (Karimama, Gogounou, and Kouand?) ? Project to support the development of the cashew sector and agricultural entrepreneurship in Benin (PADEFA-ENA) (FAD): Poverty reduction and improved food and nutritional security; agroforestry, including cashew nuts (Thematic overlap, including lesson and tool sharing, only) ? Support program for the sustainable management of communal forests in Benin (Phase II) FFEM: Promoting private communal forests, sustainable supply of energy wood and charcoal and promotion of alternative measures for sustainable management of classified forests (Thematic overlap, including lesson and tool sharing, only) ? Integrated Program for Development and Adaptation to Climate Change in the Niger Basin (PIDAC) (BOAD -BM): The project aims to improve the resilience of Niger River ecosystems and populations through sustainable management of natural resources, including water resource management. (Karimama) ? Project to improve the climate resilience of rural communities in central and northern Benin (Green Climate Fund): The project aims to protect communities from the harmful effects of climate change through adapting agricultural livelihoods and productivity, and investing in land management (Thematic overlap, including lesson and tool sharing, only) ? Intensive Reforestation Project (BN): The project aims to strengthen the country's forestry through intensive reforestation of land and forests in all of Benin's municipalities in order to make wood energy more available and to fight climate change (Gogounou, S?gbana, Kouand?, Karimama, Cov?, Za-Kpota, Kou?kanm? and Aplahou?) ? Project to support the development of market gardens (PADMAR): Za-Kpota, Cov? ? Pro-Agri3: Programme de Promotion de l'Agriculture (ProAgri): Agricultural support for cashewnut, rice, soybean and shea butter value chains. (Gogounou, S?gbana, Kouand?, Karimama, Cov?, Za-Kpota, Kou?kanm? and Aplahou?) ? Integrated Program for Development and Adaptation to Climate Change in the Niger Basin (Pidacc-Bn)

Benin Component: Sustainable agriculture, lowland development, restoration of degraded lands, reforestation Karimama, Malanville ? The Government of Benin ($1 million public finance) This is the government cash contribution of US $200,000 per year for five years. ? UNDP (US$480,000 grant) UNDP cash cofinancing is fully integrated with the GEF funding and is supporting all of the project?s components. The project budget, included in the UNDP project document, provides details at the level of components, outputs and budget lines. ? Non-governmental organizations (NGOs are providing $1,597,665 in combined grants) Investments by NGOs include: ? ALDIPE: Sustainable agriculture, lowland development, restoration of degraded lands, reforestation (Za-Kpota, Cov?) ? CAPES: Sustainable agriculture, lowland development, restoration of degraded lands, reforestation (Aplahou?, Klou?kamm?) ? API service Monde: Sustainable agriculture, lowland development, restoration of degraded lands, reforestation (Kouand?, S?gbana, Gogounou) ? DEDRAS: Sustainable agriculture, lowland development, restoration of degraded lands, reforestation (Karimama S?gbana, Gogounou) ? APIC: Sustainable agriculture, lowland development, restoration of degraded lands, reforestation (Karimama S?gbana, Gogounou)

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	Benin	Land Degradation	LD STAR Allocation	4,566,667	433,833	5,000,500.00
UNDP	LDCF	Benin	Climate Change	NA	4,466,210	424,290	4,890,500.00
				Total Grant Resources($)	**9,032,877.00**	**858,123.00**	**9,891,000.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

200,000

PPG Agency Fee ($)

19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	Benin	Land Degradation	LD STAR Allocation	100,000	9,500	**109,500.00**
UNDP	LDCF	Benin	Climate Change	NA	100,000	9,500	**109,500.00**
				Total Project Costs($)	**200,000.00**	**19,000.00**	**219,000.00**

Please provide justification

We kindly request exceptional approval of $250,000 for PPG for Benin GEF7/LDCF project. The additional $50,000 will enable the PPG team to a) facilitate strong in-country ownership, engage and sensitise newly appointed government representatives and authorities, local communities including ethnic and marginalised groups, and other stakeholders across multiple sites about the project and ensure their full and active participation in project development and implementation in the current COVID context; b) undertake detailed social and environmental safeguards analysis and put in place effective measures to address the anticipated risks. Potential project impacts, specifically physical, biological, socio-economic or cultural (ranging from human rights, gender and/or environmental sustainability), will be reviewed in detail in line with UNDP?s SES; and c) gather important baseline information and data that could not be gathered during PIF development due to COVID travel restrictions. The additional funds will support these processes.

Core Indicators

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15000.00	15000.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Select				

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15,000.00	15,000.00		

Indicator 3.3 Area of natural grass and woodland under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Select				

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15000.00	15000.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15,000.00	15,000.00		

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Select				

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	5233610	4471732	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	5,233,610	4,471,732		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting	2021	2022		
Duration of accounting	20	20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	12,000	12,000		
Male	12,000	12,000		
Total	24000	24000	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Meta Information - LDCF

LDCF true
SCCF-B (Window B) on technology transfer false
SCCF-A (Window-A) on climate Change adaptation false

Is this project LDCF SCCF challenge program?
false

This Project involves at least one small island developing State(SIDS). false

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This Project involves at least one fragile and conflict affected state. false

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This Project will provide direct adaptation benefits to the private sector. false

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This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). false

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This Project has an urban focus. false

This Project covers the following sector(s)[the total should be 100%]:*

Agriculture	**25.00%**
Natural resources management	**25.00%**
Climate information Services	**25.00%**
Costal zone management	**0.00%**
Water resources Management	**25.00%**

Disaster risk Management	**0.00%**
Other infrastructure	**0.00%**
Health	**0.00%**
Other (Please specify:)	**0.00%**
Total	**100%**

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise false

Change in mean temperature true

Increased Climatic Variability true

Natural hazards false

Land degradation true

Costal and/or Coral reef degradation false

GroundWater quality/quantity false

To calculate the core indicators, please refer to Results Guidance

Core Indicators - LDCF

CORE INDICATOR 1	**Total**	**Male**	**Female**	**% for Women**
Total number of direct beneficiaries	48,000	24,000	24,000	50.00%

CORE INDICATOR 2	
Area of land managed for climate resilience (ha)	30,000.00

CORE INDICATOR 3	
Total no. of policies/plans that will mainstream climate resilience	5

CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained	1,015	507	508	50.05%

OUTPUT 1.1.1

Physical and natural assets made more resilient to climate variability and change

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		Male	Female
Total number of direct beneficiaries from more resilient physical assets	**24,000**	**12,000**	**12,000**

Ha of agriculture land	Ha of urban landscape	Ha of rural landscape	No. of residential houses
15,000.00		**15,000.00**	**0**

No. of public buildings	No. of irrigation or water structures	No. of fishery or aquaculture ponds	No. of ports or landing sites
0	**0**	**0**	**0**

Km of road	Km of riverban	Km of coast	Km of storm water drainage

Other	Other(unit)	Comments

0

OUTPUT 1.1.2

Livelihoods and sources of income of vulnerable populations diversified and strengthened

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		Male	Female
Total number of direct beneficiaries with diversified and strengthened livelihoods and sources of income	**24,000**	**12,000**	**12,000**

Livelihoods and sources of incomes strengthened / introduced			
Agriculture	Agro-Processing	Pastoralism/diary	Enhanced access to markets
true	**true**	**true**	**true**
Fisheries /aquaculture	Tourism /ecotourism	Cottage industry	Reduced supply chain
false	**false**	**false**	**false**
Beekeeping	Enhanced opportunity to employment	Other	Comments
false	**false**	**false**	

OUTPUT 1.1.3

New/improved climate information systems deployed to reduce vulnerability to climatic hazards/variability

		Male	Female
Total number of direct beneficiaries from the new/improved climatic information systems	**0**	**0**	**0**

Climate hazards addressed

Flood	Storm	Heatwave	Drought
true	**false**	**false**	**true**

Other	Comments
false	

Climate information system developed/strengthened

Downscaled Climate model	Weather/Hydromet station	Early warning system	Other
false	**false**	**false**	**false**

Comments

Climate related information collected

Temperature	Rainfall	Crop pest or disease	Human disease vectors
true	**true**	**false**	**false**

Other	Comments
false	

Mode of climate information disemination

Mobile phone apps	Community radio	Extension services	Televisions
false	**false**	**false**	**false**

Leaflets	Other	Comments
false	**false**	

OUTPUT 1.1.4

Vulnerable natural ecosystems strengthened in response to climate change impacts

---

Types of natural ecosystem

Desert	Coastal	Mountainous	Grassland
false	**false**	**false**	**false**

Forest	Inland water	Other	Comments
false	**false**	**false**	

OUTPUT 1.2.1

Incubators and accelerators introduced

	Male	Female
Total no. of entrepreneurs supported	**0**	

	Comments
No. of incubators and accelerators supported	
No. of adaptation technologies supported	

OUTPUT 1.2.2

Financial instruments or models to enhance climate resilienced developed

Financial instruments or models			
PPP models **false**	Cooperatives **false**	Microfinance **false**	Risk insurance **false**
Equity **false**	Loan **false**	Other **false**	Comments

OUTPUT 2.1.1

Cross-sectoral policies and plans incorporate adaptation considerations

Will mainstream climate resilience	Of which no. of regional policies/plans	Of which no. of national policies/plan
0	**0**	**2**

Sectors

Agriculture	Fishery	Industry	Urban
false	**false**	**false**	**false**

Rural	Health	Water	Other
true	**false**	**false**	**false**

Comments

OUTPUT 2.1.2

Cross sectoral institutional partnerships established or expanded

No. of institutional partnerships established or strengthened	**1**

Comments

OUTPUT 2.1.3

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks	**1**
Comments	

OUTPUT 2.1.4

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks	**1**
Comments	

OUTPUT 2.2.1

No. of institutions with increased ability to access and/or manage climate finance

---

No. of institution(s)

Comments

OUTPUT 2.2.2

Institutional coordination mechanism created or strengthened to access and/or manage climate finance

---

No. of mechanism(s)

Comments

OUTPUT 2.2.3

Global/regional/national initiatives demonstrated and tested early concepts with high adaptation potential

---

No. of initiatives or technologies

Comments

OUTPUT 2.2.4
Public investment mobilized

Amount of investment (US$)

Comments

OUTPUT 2.2.5
Private investment mobilized

Amount of investment (US$)

Comments

OUTPUT 2.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

---

		Male	Female
Total no. of people trained	**15**	**7**	**8**
		Male	Female
Of which total no. of people at line ministries	**15**	**7**	**8**
		Male	Female
Of which total no. of community/association	**0**	**0**	**0**
		Male	Female
Of which total no. of extension service officers	**0**	**0**	**0**
		Male	Female
Of which total no. of hydromet and disaster risk management agency staff	**0**	**0**	**0**
		Male	Female
Of which total no. of small private business owners	**0**	**0**	**0**
		Male	Female

Of which total no. school children, university students or teachers	**0**	**0**	**0**

Other	Comments

OUTPUT 2.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

---

		Male	Female
No. of people with raised awareness	**0**	**0**	**0**

Please describe how their awareness was raised

OUTPUT 3.1.1

National climate policies and plans enabled including NAP processes by stronger climate information decision-support services

---

No. of national climate policies and plans

Comments

OUTPUT 3.1.2

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks

Comments

OUTPUT 3.1.3

Vulnerability assessments conducted

No. of assessments conducted

Comments

OUTPUT 3.2.1

No. of institutions with increased ability to access and/or manage climate finance

---

No. of institution(s)

Comments

OUTPUT 3.2.2

Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance

---

No. of mechanism(s)

Comments

OUTPUT 3.2.3

Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential

No. of initiative(s) or technology(ies)

Comments

OUTPUT 3.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

		Male	Female
Total no. of people trained	**1,000**	**500**	**500**
		Male	Female
Of which total no. of people at line ministries	**400**	**200**	**200**

		Male	Female
Of which total no. of community/association	**200**	**100**	**100**
Of which total no. of extension service officers	**100**	**50**	**50**
Of which total no. of hydromet and disaster risk management agency staff	**50**	**25**	**25**
Of which total no. of small private business owners	**100**	**50**	**50**
Of which total no. school children, university students or teachers	**150**	**75**	**75**

Other	Comments

OUTPUT 3.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

---

		Male	Female
No. of people with raised awareness	**24,000**	**12,000**	**12,000**

Please describe how their awareness was raised

Part II. Project Justification

1a. Project Description

1) The Global environmental and adaptation problems, root causes and barriers to address

1. Agriculture is the primary economic activity in Benin. In 2019, it accounted for 28% of gross domestic product (GDP) and employed 70% of the workforce, while also being highly exposed to climatic pressures. Agriculture in Benin is mainly practiced on smallholder farms, with over 70% of the population practicing subsistence agriculture for their livelihoods.

2. In recent years, degradation and loss of land, forest and natural habitats?in a context increasingly marked by a changing climate?has begun to seriously undermine human development in Benin. Land degradation has impacted negatively on the productivity of ecosystems in Benin, with reductions amounting to 19.1% for cultivated land, 18.7% for shrub savannah and 20.2% for forests[1]. It is estimated that about 2.2 million hectares of land, equal to 19% of the national territory, were degraded between 2000 and 2010.[2] During this period, observed climate variability and change, such as changes in seasonal distribution and precipitation patterns, more intense rains, higher temperatures and stronger wind storms, have increased and are beginning to have an increasingly significant impact on ecosystem services and agricultural outcomes.[3]

3. Benin is ranked 155 out of 181 in the ND-GAIN index of climate change vulnerability, indicating that it is highly vulnerable yet unready to adapt to climate change. In recent decades, both droughts and rainfall intensity have intensified in the country, resulting in increased drought stress during the dry seasons (one long dry season per year in the north, one long and one short dry season in the south), as well as flooding and soil erosion. These effects have been particularly notable in the south but have also affected the north of the country where rainfall can be locally very intense.

4. According to projections, the combination of drought and flooding could reduce national food production by 6% by 2025 (estimates range from -3% to -18% for agricultural production by 2025, and one study projected a loss of 5 to 25% of maize production ? a main staple ? for the north of the country over the same time period), thereby negatively affecting food security. It has also led to increased pressure on natural resources, with rising levels of damage to crop fields and increased conflicts between farmers and herders.

5. Women are particularly affected by climate change in Benin because, according to the socio-cultural standards in force in the project intervention area, women cultivate their husbands' fields before cultivating their own fields and therefore are more likely to be directly affected by weather-related disturbance of the agricultural schedule (sowing, harvesting, weeding, fertilizer application

(SAP Benin Project, 2014). Overall, climate change has become a significant contributing factor in a negative spiral of land use, degradation and depletion of natural capital, with significant impacts on livelihoods?both present and future.

6. As land has degraded, agricultural productivity has been affected, and poverty has increased. Thus, while land degradation in 2007 cost Benin?s economy an estimated US$ 490 million, or about 8% of GDP,[4] poor and vulnerable groups bore a large portion of this burden. Large areas of land are completely depleted and no longer suitable for cultivating the food crops commonly grown in Benin, such as cassava, yam, maize, cotton, rice, vegetable crops, pineapples, cashew nuts and oil palm trees. Land degradation has significant negative impacts on the resilience and adaptive capacity of local communities and amplifies the risks facing them, including those stemming from increasingly frequent climate events.

7. The above-described environmental and socio-economic impacts can be traced to a multi-level set of causes. These include:

(i) Root causes: These are defined as causes that are largely or entirely beyond the scope of the project to address, either due to their scale, their being determined exogenously, or both. They include:

? Demographic pressures caused by high population growth rates[5]

? Global climate change

? Economic drivers, including: (i) increasing demand for natural resources and agricultural products, (ii) poverty and economic inequality[6].

(ii) Underlying causes: These operate at an intermediate level of causality. They are determined in part by root causes and they, in turn, help to drive direct or proximate causes. They include:

? Market failures which are causing natural capital and resources to be inadequately valued and economic activities to be inadequately diversified,

? National and local land management systems, including land tenure systems that incentivize short-term profit over long-term investment, overlap and lack of congruence between traditional and modern land management systems and failure to resolve land use conflicts (e.g. between farmers and herdsmen),

? Conflicting, and / or environmentally damaging, policies, regulations, decisions and plans linked to sector-specific outlooks and politicization of natural resource decision making,

? Human resources, especially women and youth, who, due to a variety of factors, are not able to achieve their potential as sources and disseminators of innovation and adaptation in the face of changing environmental circumstances.

? Primary and secondary baseline data about traditional and modern land use systems collected during the PPG and analysis of complementary data, highlight that the land use system on the project sites remains marked by a dualism of modern and customary rights. This legal dualism generates

conflicts and does not facilitate the promotion of investments in sustainable agriculture or sustainable management of forest ecosystems. The traditional principles and practices of use remain carriers of symbolism and identity references[1]. This dualism can be identified also as dualism of formal and informal land use systems, that can coexist when the role of each is assessed and agreed by all the stakeholders involved.

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[1] Avohou?m?, B., and Mongbo, R., 2019

(iii) Direct / proximate causes: Direct, or proximate causes are actions taken by individuals, usually at local level, that are directly causes or enabling land degradation associated environmental damages. They include:

? *Inappropriate agricultural cultivation practices*: These include slash and burn, shortened fallow, poor rotation / diversification practices. Together, they contribute to increased degradation, reduced agricultural yields and incentives for extensification onto new lands.

? *Expansion of agricultural area*: Depending on the category of land, this may consist of encroachment into protected areas and classified forests and conversion of existing forest and/or cultivation of other fragile, less productive lands. In the former case, important ecosystem services and natural capital?including biodiversity?is lost, while in the latter case impacts include declining labour productivity, as more effort is required to reach the same level of yield.

? *Overgrazing, uncontrolled foraging and damage to fields by livestock associated with transhumant communities*: Conflicts between pastoralists practicing transhumance and agriculturalists occur when livestock enter field prior to harvest or damage crops, and when land is cleared of grass growth and tree cover through overgrazing or uncontrolled burning. Without grasses and native trees to protect the soil, erosion can become a major issue for agriculturalists. It should be mentioned that the controlled entry of livestock into agricultural fields during the fallow season is a traditional practice and can contribute to soil fertility regeneration through manure, and is therefore not in itself a source of conflict, whereas excess livestock densities combined with uncontrolled burning to stimulate grass regrowth as well as excessive lopping of trees for fodder lead to the degradation of soil and vegetation. Therefore, the objective is not to exclude cattle herders from agricultural lands but rather to reach (or re-instate) agreements that are beneficial for both sides

? *Uncontrolled burning (bush fires) by herders, farmers and hunters to stimulate grass regrowth*: It is common that herders may burn grasslands to generate new growth; while controlled burns can be useful for both farmers and herders, uncontrolled burns can destroy quality fields or planted fields threatening crops and clearing out native plants and tree cover. On the other hand, farmers may clear out grazing lands for crops, reducing grasslands for herders. Uncontrolled burns lead to erosion issues, water pollution, destruction of trees, and social conflicts between groups.[7]

? *Inappropriate and illegal use of certain fertilizers and pesticides*: Although Benin has legislation on the management and use of chemicals and chemical waste, these laws are often ignored and the national institutions that should monitor and enforce these laws are weak. Banned, expired, or simply

dangerous pesticides are often used without the proper protective equipment, leading to many deaths and illnesses per year.[8]

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CLIMATE RISK

8. Benin?s position in West Africa, between the Atlantic Ocean in the south and the Sahara in the north, and the seasonal movement of the Inner-tropical convergence zone (ITCZ) determine the country?s climate, with decreasing rainfall from the south to the north and a pronounced seasonal contrast in rainfall between the wet and dry seasons. The country?s northern regions in particular are its driest and hottest ones, characterized by a single rainy season and are among the most vulnerable to climate variability and change. Benin?s ND-GAIN index was 159 out of 181 in 2019, characterizing the country as having high vulnerability to, and low readiness for, climate change.[9] The dependence of the country on agriculture and livestock increases its vulnerability to climate shocks (droughts, flooding), especially in its northern provinces with its long dry season and very intensive rainfalls during the rainy season. Climate models project an increase in temperature for the entire country, with increasing temperatures and reduced precipitation affecting both subsistence and cash crops, such as cotton[10].

9. The project design considers a range of current and projected climate risks and impacts. The climate projections used to inform this project design for Benin are based on multi-model ensembles for three emissions scenarios (RCP 2.6, 4.5 and 8.5), for projections up until 2050 for planning purposes. Under a more optimistic emissions scenario (RCP 2.6), northern Benin is projected to experience a median temperature increase of 0.8 ?C by 2050 and 1.1?C for 2080 compared to reference levels by 2100. With RCP 4.5, projected median temperature increase in 2050 is almost 0.85 ?C and 1.75 ?C in 2080. Under a worst-case scenario, the medium temperature increase is 1.4 ?C in 2050, and 3.28 ?C in 2080. This pattern holds true for the whole of Benin (see **Figure 1** for projected temperature increases under these scenarios). As is evident from the figure, there is substantial overlap in the ranges of temperature anomaly up until mid-century for the three different emissions scenarios.

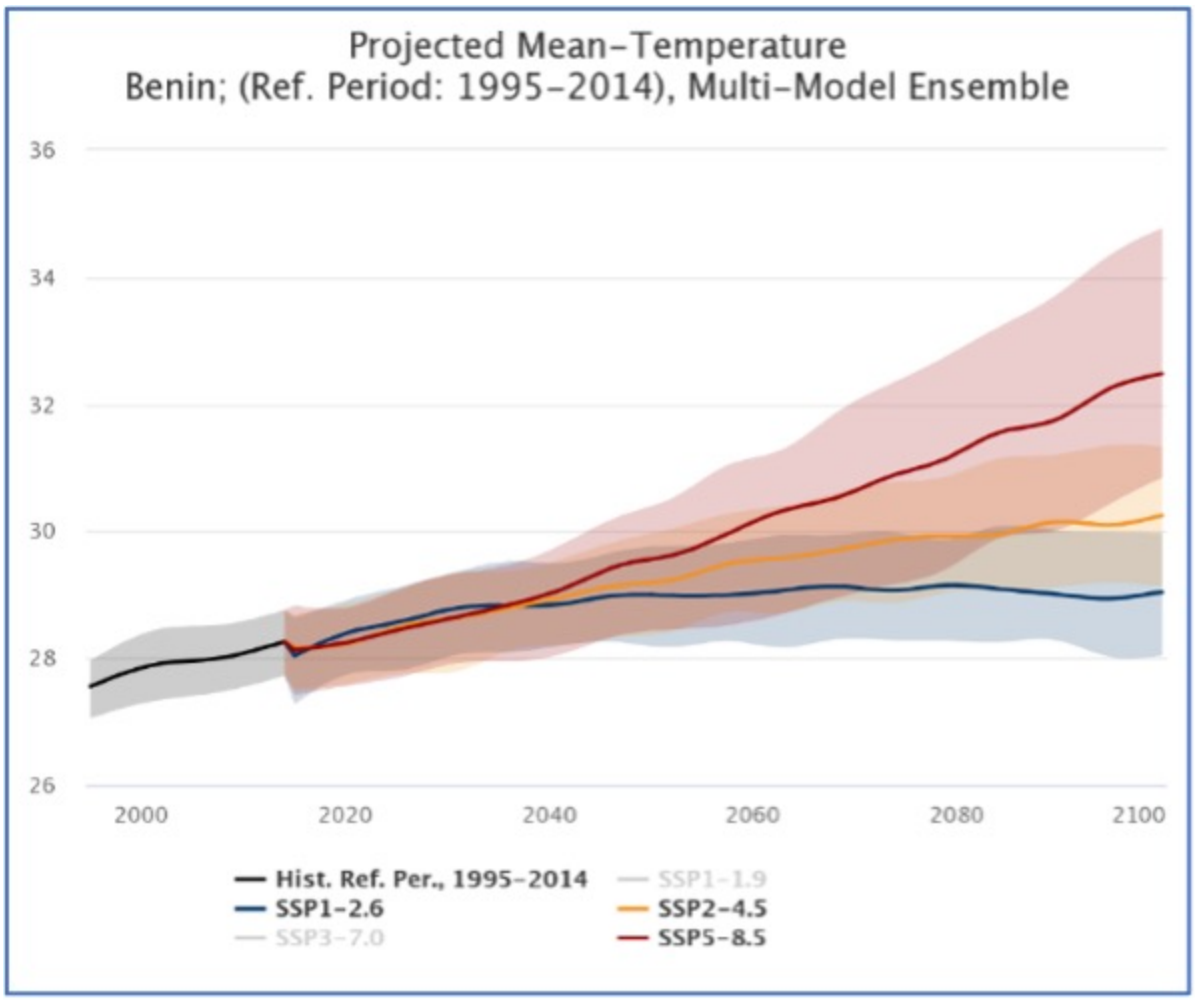

Figure 1: Projected mean temperature for whole of Benin based on ensemble models of three scenarios (RCP 2.6, 4.5 and 8.5)

10. Given the above, the project is designed to address not only impacts that are already observed but also to respond to the above range of anticipated temperature change, together with a corresponding range of potential impacts on the agricultural sector, on ecosystems, and on water resources through the planning horizon of 2050. Further description of a range of climate projections for Benin is available in the following embedded document (RCP 2.6, 7.0, 8.5) for the north (PDA 1 and 2) and the south (PDA 5):

Please see document uploaded and entitled: "Climate Scenarios Benin Dec6 2021"

11. In the Niger Valley (PDA 1), desertification is a serious threat, with lower rainfall, changes in seasonality, stronger windstorms and droughts, while in the south (PDA5), rainfall variability and floods caused by intensive rainfall are becoming more frequent. Lower and/or less predictable rainfall

impacts vulnerable smallholder farmers and small-scale livestock herders most severely, many of whom are also directly dependent upon the declining forest and savannah ecosystems for safety nets during times of climatic or economic shocks. For example, in northern Benin, delays and more erratic rainfall led to a decrease in cereal production by 5% in 2014 compared to yield in the previous year.[1] Climate impacts on farmers are most clearly seen in reports of damage to crops from water stress, high temperatures and stronger winds, disease and pests; unpredictability of rainfall and changes in the onset and length of the wet and dry seasons challenging the seasonal calendar and leading to a decline in staple food crop yields, increased pest and diseases affecting both livestock and agricultural production. As reviewed above, significant negative impacts of climate change on livestock herders and crop farmers have already been observed in Benin, including leading to increased conflicts among transhumant herders and local farmers, and major impacts on food security due to yield reductions for the main staple crops of the country (maize, cowpea, yam, etc) have been projected for the coming decades.

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[1] Men and women farmers in Benin are responding differently to climate change (theconversation.com)

12. Average temperatures in the country have increased by 1.1?C since the 1960s, with strongest increases in the north of the country. The average number of ?hot? days increased by 39 in between 1960-2003 and ?hot? nights by 73.[12] Heat waves have become common. The annual number of wet days and annual total maximum 30-day rainfall declined from the 1960s to 2000,[13] while intensity of rainfall has increased leading to more flash floods and soil erosion.

13. Projections for precipitation are variable and it is not clear whether average rainfall will increase or decrease; moreover, there has been a pronounced fluctuation of rainfall over the last decades, with high average rainfalls in the 1960, low rainfalls in the 1970s and 1980s, followed by increasing rainfalls in recent years. This fluctuation makes it difficult to distinguish climate change trends or to make projections for future climates, as is generally the case in West Africa due to its geographic position between the ocean and the desert. There is however an expectation that the percentage of rain that falls in high-intensity events is likely to increase.

14. Taken together, the above climate trends make Benin highly vulnerable to droughts, floods and wildfires. While rainfall trends are uncertain, the increasing temperatures especially in the north of the country will make drought events and dry season fires more likely, and rising rainfall intensities are likely further to increase the already prevalent risk of flooding throughout the country, especially if seen in combination with the wide-spread degradation of the vegetation cover due to the expansion of agriculture. Climate change is likely to negatively affect agriculture and livestock production through recurrent droughts, wildfires and flooding. It could also affect the quality and reliability of water resources (e.g., seasonal drying up of wells especially in the north and contamination of water courses through flash floods), and could lead to increase in certain human and livestock diseases. Climate change interacts with and compounds the problems caused by deteriorating ecosystem services,

landscape degradation, soil erosion and biodiversity loss, exacerbating livelihood risks and leading to displacement, emigration and food insecurity for many affected communities. Northwestern Benin (Atacora) has seen both in-migration from neighboring countries to the areas around Pendjari Biosphere Reserve and out migration/emigration due to food shortages, soil degradation, poverty and declining livelihoods.[14] In the southern plateau area, maize production during the short rainy season is no longer viable for many farmers because the soil is flooded due to excessive rains or river floods.[15] Based on climate projections recent studies have shown that current agricultural calendar could result in a reduction in yields of up to 20-50% by 2050 (Sarr, 2012).

15. The uncertainty of future climate change scenarios, particularly with respect to changes in precipitation, seasonality and intensity, which is typical for large parts of West Africa, suggests that land use interventions need to focus on increasing the resilience of populations and ecosystems to a range of climate change scenarios, including both drier and wetter future conditions. This general strategy also needs to take into account the interaction of climate with trends in land use and vegetation cover, such as increased risk of flooding due to the degradation of hill slopes and the occupation of lowlands by permanent agriculture. Moreover, it needs to consider the uncertainty even of current climate data, which in part results from the pronounced local variability of rainfall that is characteristic of the West African savanna regions.

16. Climate change is exacerbating the degradation of productive forest and agricultural lands in the target project PDAs in a number of ways. These effects have been documented in various reports and have been reported to the project development team in the course of multiple stakeholder consultation sessions that took place during their field visits.

17. For several decades, forest resources have been heavily degraded due to various anthropic pressures?anarchic/ lawless extension of agricultural and pastoral areas with occupancy of the beds of the rivers and other water bodies, impoverishment of soils and change of land use, etc. As far as major climate-related hazards having the greatest impacts on forest ecosystems and riparian communities, these are floods, heavy rains and drought. Livelihoods most affected by these factors include those of smallholder foresters and farmers.

18. Beyond these livelihoods, those of urban and rural wood craftsmen, transporters, hunters, traders in fuelwood and lumber and traders in non-timber forest products have also become more vulnerable due to dwindling access to basic resources. Likewise, nurserymen (p?pini?ristes) have faced increased vulnerability due to scarcity of seedlings.

19. Climate change is affecting the agriculture, livestock, fishing and aquaculture sectors within the project areas as follows:

? Increasingly long dry spells causing scarcity of grazing, increasingly pronounced soil degradation and corresponding declines in crop productivity;

? Violent rains which lead to a delay in the sowing periods of the main crops;

? Excessive heat and lengthening of the dry season responsible for the early and prolonged drying up of water resources needed for agricultural and transhumance activities;

? Disruption of the agricultural calendar, decline in agricultural yields, the disruption of fishing and aquaculture activities, the high mortality of livestock, etc. attributable to these climatic risks, with significant economic repercussions on the affected populations lives (poverty, food insecurity, low income, migration of the population, socio-professional group and ethnic conflicts, etc.).

20. Table 1below presents details of the above impacts, disaggregated according to the three target PDAs.

21. Among the impacts of the above on the forest ecosystems of Benin are the decline of gallery forests, physiological and ecological dysfunction of certain forest ecosystems, the loss of biodiversity, regression of the populations of characteristic ligneous species (*Dialium guineenses , Sclerocarya birrea , Afzelia africana, Diospyros mespiliformis , Daniellia oliveri*, etc.), the reduction in the size of fauna populations and modified population structures of certain plant and animal species.

Table 1: Ongoing impacts of climate change, by PDA

Climate risk	PDA1: Niger Valley		PDA2: Alibori Sud- Borgou Nord-2KP		PDA5: Zou-Couffo	
	Description	Impacts	Description	Impacts	Description	Impacts

Climate risk	PDA1: Niger Valley		PDA2: Alibori Sud- Borgou Nord-2KP		PDA5: Zou-Couffo	
	Description	**Impacts**	**Description**	**Impacts**	**Description**	**Impacts**
Floods	Overflow of rivers, mainly the Niger River, the Alibori, the Mekrou in the communes in August ? September, due to the concentration of rainwater over a short period of the year (July-August)	- Flooding of rice fields and developed perimeters - Flooding of the lowlands of the municipality - Decline in yield due to the rotting of the roots of the plants and their yellowing - Loss of agricultural production (mainly rice) - Proliferation of waterborne diseases - Loss of agricultural and fishing equipment, etc. - Loss of livestock Contribution of humus	Mainly due to the overflow of rivers	- Decline in yield due to rotting of the roots of the plants and their yellowing - Loss of agricultural production	Overflow of rivers	- Impacts on maize, yam, cowpea, groundnut - Slow growth, yellowing of leaves and loss of crops; - Food insecurity; - Destruction of road infrastructure (eg bridges); - Disruption of human mobility and transport of agricultural products; - Multiplication of mosquitoes; - Destruction of certain dwellings; - Development of waterborne diseases, - Damage to

Climate risk	PDA1: Niger Valley		PDA2: Alibori Sud- Borgou Nord-2KP		PDA5: Zou-Couffo	
	Description	**Impacts**	**Description**	**Impacts**	**Description**	**Impacts**
Drought and pockets of drought	Lengthening of the dry season; severe in May - June and September - October Pocket of drought in the middle of the rainy season (15 to 30 days) at the municipal level	- Withering of plants and loss of crops - Scarcity of water points and pastures for animals - Increase in vegetation fires - Lots of resows - Withering of plants and loss of crops - Scarcity of water points and pastures for animals - High mortality of plants (especially young ones)	Lengthening of the dry season Pocket of drought in the middle of the rainy season (15 to 30 days) scale communal	- Wilting of plants and loss of crops - Difficulty for animals to drink - Mortality raised young plants - Increase in bush fires	Includes late rains and sudden stoppages of rains	- Impacts on corn, rice, yam, cowpea, cashew, groundnut; groundwater and wells; animals and plantations - Impoverishment of agricultural land, decline in yield and impoverishment of producers; - Disruption of the agricultural calendar; - Drop in groundwater level and drying up of wells; - Scarcity of fodder; - Drying up of watercourses; - Food insecurity

Climate risk	PDA1: Niger Valley		PDA2: Alibori Sud- Borgou Nord-2KP		PDA5: Zou-Couffo	
	Description	**Impacts**	**Description**	**Impacts**	**Description**	**Impacts**
Late and violent rains	1 to 2 months behind the expected date of the first rains; delay that can go as far as June or even July	- Late sowing dates - Reduced germination rates - Lower yields - Disruption of agricultural activities - Destruction of infrastructure - Turns over crops	1 to 2 months behind the probable date of the first rains (delay that can go as far as June or even July)	- Late sowing dates - Reduced germination rates - Lower yields - Disruption of agricultural business	1 to 2 months behind the probable date of the first rains (delay that can go as far as June or even July)	- Late sowing dates - Reduced germination rates - Lower yields - Disruption of agricultural business
Strong winds	Blow very often during the rainy period; periodic sandstorms	- Turns over crops - Destruction of infrastructure - Falling trees - Causes fires	Blow very often during the rainy period throughout the town, sometimes accompanied by whistling These types of wind occur 2 to 3 times a year	- Pour crops. - Destruction of infrastructure - Falling trees - Diversion of animals from their route - Causes fires	Dry season and end of rainy season; tornadoes	- Impacts on people, fauna, flora, land, habitat - Destruction of homes, forests and crops; - Lodging (?) of certain crops and windfalls in forests

Climate risk	PDA1: Niger Valley		PDA2: Alibori Sud- Borgou Nord-2KP		PDA5: Zou-Couffo	
	Description	**Impacts**	**Description**	**Impacts**	**Description**	**Impacts**
Excessive heat	Rise in temperature compared to the ordinary throughout the municipality High heat during the dry season (heat wave)	- Drying out of crops - Drying up of watercourses - Low productivity of livestock and fishing - Negative impacts on humans	Rise in temperature compared to the ordinary throughout the municipality High heat throughout the dry season	- Drying up of crops and drying up of waterways - Weak livestock productivity - Negative impacts on humans	January - February	- Impacts on human and animal health; - Cashew and citrus plantations Falling water table and dehydration; - Decline in soil moisture and crop productivity; - Development of diseases (amoebiasis); - Burning of plantations and crops; - Decline in yield; - Producer debt

22. Local stakeholder consultations in Benin and neighboring Togo (which has a very similar climate) during two parallel GEF PPG phases have also shown that local people in several areas have begun to observe an increase in rainfall intensity and resulting flood risks during the rainy season, while drought remains a major threat to agricultural livelihoods during the dry season. This is compounded by shifts in rainfall seasonality, higher temperatures and variability in rainfall amounts. This project will therefore prioritize interventions that increase the resilience of natural and agricultural ecosystems to a range of climate hazards, and that are identified in consultation with the local population. This will include an emphasis on the restoration of tree cover (including of useful species such as n?r?, karit? (shea), baobab, as well as fuelwood species) especially on hill slopes and erosion-sensitive sites; the management of pasture areas and corridors (for seasonal migration) to conserve a sufficient vegetation cover and increase water infiltration, e.g. by reducing the use of fire; and the management of agricultural fields for increased water infiltration and storage, e.g. by maintaining soil cover, increasing soil organic matter content and improving soil structure through multiple cropping, the avoidance of fire and the strategic use of trees (agroforestry).

Barriers

23. In spite of a range of baseline efforts (see sub-section 2 below), a number of barriers are continuing to limit success in achieving solutions to the inter-connected challenges of land degradation and climate change adaptation in the agriculture and land management sectors. These have been grouped into four areas and are outlined below. Additional details are found in the UNDP project document.

Barrier type 1: Political, financial, institutional and regulatory barriers to operationalizing Land Degradation Neutrality and climate change adaptation

- Limited data management and analysis capacities related to LDN, climate risk and vulnerability assessments for specific crops, livestock and sub-regions, for adaptation planning and other management purposes;

- Policy and institutional barriers; Although land degradation and climate change vulnerability are recognized and are receiving political attention at highest government levels in Benin, including through the creation of an inter-ministerial committee on climate change, a key policy and institutional barrier remains the limited ability of developing, budgeting for and implementing integrated activities and work plans in the areas of land degradation and climate change. The discrepancy between policy goals and plans on the one hand, and the lack of actual implementation on the ground is recognized by the Government of Benin. It is in part caused by the difficulty of allocating operational budgets for inter-institutional and inter-ministerial tasks and also to gaps in capacities and responsibilities for inter-disciplinary tasks especially at local level. The result is that often plans (on LDN, CCA and their integration with agricultural policies) remain on paper and have limited impact on the ground.

- Insufficient financial flows to LDN and conservation, despite strong potential economic returns;

•Limited institutional and human capacities for: (i) agricultural and agro-forestry extension and monitoring, or for inter-ministerial coordination and (ii) implementation of national and international policies, plans and commitments, e.g., PSDSA, LDN targets, CCA, NDC, etc

Barrier type 2: Site-level barriers to land and forest conservation & restoration under climate change

? Overlapping, contradictory and non-strategic land use objectives and plans

? Few well managed, well studied examples of integrated management and restoration as part of ecosystem based approaches to adaptation incorporating direct and indirect climate change risks into spatial planning and prioritization.

? Lack of inter-sectoral coordination at landscape level, e.g. to align agricultural development plans with forest protection objectives integrating a range of relevant climate change scenarios

? Limited human skills and capacities for taking action in support of CCA and LDN, e.g. by adopting innovative practices, stimulating uptake and accessing new markets

Barrier type 3 - Barriers to sustainable, nature-based livelihoods

? Limited understanding of how various agricultural value chains could be transformed to be climate resilient, support LDN, conservation and sustainable income generation

? Limited knowledge of climate resilient agriculture value chains

? Income-generating support programs are failing to capitalize on partnership opportunities

? Climate-resilient, zero-degradation products lack adequate marketing opportunities

Barrier type 4 - Barriers to gender equality and diffusion of innovations and knowledge

? Women face multiple barriers and challenges to their effective participation and benefitting from sustainable and climate resilient development efforts. During stakeholder consultations women expressed concerns about their lack of participation in decision-making processes. The Gender Analysis conducted during identified the PPG identified a number of key challenges facing women (see Annex 10 of UNDP project document for details)

? Lessons of LDN & CC adaptation interventions & innovations are inadequately captured, learned and diffused within and beyond target landscapes

2) The baseline scenario and any associated baseline projects

-

24. A number of interventions have been developed by the Government and its partners in order to cope with the above set of challenges. These solutions have emerged at community, regional, national and international levels and range from policies and plans?themselves embracing specific detailed approaches and solutions?to specific techniques developed by communities. **Table 2** below presents the main relevant set of ongoing baseline efforts in this regard, all of which are contributing to the same broad effort as the GEF incremental support.

25. Despite these efforts and substantial policy changes made by Government in recent years (see UNDP project document for description), under the baseline scenario, it is expected that:

? National plans and programs are in place but lack of coordination and defined responsibilities between government actors hinders effective implementation of the LDN and CCA priorities/targets and SLM/SFM Framework which in turn affects agriculture and agroforestry (impacted by lack of appropriate SLM/SFM of the crop and forest lands at target sites).

? National funding through the government systems will continue to be available, but this does not meet the funding gap for LDN and CCA at local level where funding for additional, climate risk informed SLM/SFM, restoration, and forest conservation efforts are needed.

? Smallholder farmers will continue focusing on traditional cash-crops and production methods and remain unaware and untrained on alternative, climate resilient value chains, agricultural practices and SLM/SFM, agroforestry possibilities that are financially viable.

? The economic returns from traditional farming systems and local varieties/traditional crops will continue to decline in the local farming communities and remain highly vulnerable to shocks due to climate change and land degradation.

Table 2: Ongoing and planned baseline projects with which the GEF project will partner[16]

Project and Donor	Sector and location	Main anticipated results	Project period	Implementing Partner	Links to outputs ?
Projet APADT-WAP (UE-UEMOA)	Transfrontier project (Benin, Burkina Faso, Niger) on Integration of adaptation and mitigation measures to climate change in management of the WAP[17] cross-border parks complex. The project aims to strengthen the resilience of ecosystems and improve the living conditions of populations in the WAP complex in the face of climate change through the establishment of a multi-risk early warning system relating to droughts, floods and fires, and the implementation of adaptation measures to manage these emergencies Project Site overlap: **Karimama, Gogounou,** and **Kouand?**	- Integration of climate change aspects and the emergency plan (MREWS) in the management of the WAP Complex - Design and implementation of a multi-risk early warning system (drought, floods and fires) - Improving ecosystem resilience and human livelihoods through implementation of adaptation actions - Awareness, communication and capacity building for concerted, integrated and sustainable management of the WAP Complex	2019-2023	Sahara et Sahel Observatory (OSS)	1.2; 1.3; 1.4; 1.5; 2.1; 2.2; 2.5.

Project and Donor	Sector and location	Main anticipated results	Project period	Implementing Partner	Links to outputs ?
Project to support the development of the cashew sector and agricultural entrepreneurship in Benin (PADEFA-ENA)[18] (FAD)	The Project aims to reduce poverty and improve food and nutrition security in Benin. It also aims to develop the cashew sector and to promote agroforestry No project site overlap but complementary activities and collaboration and sharing of lessons learned	- Reshaping of rural roads - Construction of warehouses - Rehabilitation of old plantations - Creation of modern orchards - Creation of processing units - Jobs for youth	2019-2024	MAEP/ATDA 4	2.1; 2.2; 2.3, 2.4; 2.5; 3.2; 3.3.; 3.4; 3.5.
Support program for the sustainable management of communal forests in Benin (Phase II) FFEM	Sustainable management of communal forests in Benin No project site overlap but there are parallel project objectives	- Promoting private communal forests - Sustainable supply of energy wood and charcoal - Promotion of alternative measures for sustainable management of classified forests	2018-2023	COFORMO	2.1; 2.2; 2.3, 2.4; 2.5; 3.2; 3.3.

Project and Donor	**Sector and location**	**Main anticipated results**	**Project period**	**Implementing Partner**	**Links to outputs ?**
Integrated Program for Development and Adaptation to Climate Change in the Niger Basin (PIDAC)[19] (BOAD[20]-BM)	The project aims to improve the resilience of Niger River ecosystems and populations through sustainable management of natural resources Project site overlap: **Karimama**	- Water resource management and construction of water reservoir - Restoration of African fan palm - Rehabilitation of two hydroelectric dams - Dam construction for the promotion of rice growing	2019-2024	DGEau/MEM[21] DQIFE[22]/MAEP	2.2; 2.4; 2.5; 3.2;

Project and Donor	Sector and location	Main anticipated results	Project period	Implementing Partner	Links to outputs ?
Project to improve the climate resilience of rural communities in central and northern Benin (Green Climate Fund)	Management of forest and agricultural landscapes No project site overlap but important for coordination and collaboration on mechanisms and activities of mutual value	The project aims to protect communities from the harmful effects of climate change through adapting agricultural livelihoods and productivity, and investing in land management Climate-resilient agricultural interventions will be implemented in seven central municipalities and in the north of Benin in the municipalities of: Dassa, Tchaourou, Djougou, Ouak?, Cobly, Boukoumb? and Banikoara	2022	DGEFC	2.2; 2.3, 2.4; 2.5; 3.2; 3.3.

Project and Donor	**Sector and location**	**Main anticipated results**	**Project period**	**Implementing Partner**	**Links to outputs ?**
Intensive Reforestation Project (BN)	The project aims to strengthen the country's forestry through intensive reforestation of land and forests in all of Benin's municipalities in order to make wood energy more available and to fight climate change Project site overlap: **Gogounou, S?gbana, Kouand?, Karimama, Cov?, Za-Kpota, Kou?kanm?** and **Aplahou?**	- Develop industrial plantations for the sustainable supply of wood needs - Strengthen the sustainability of urban, peri-urban and rural areas to the harmful effects of climate change - Support the dissemination of sustainable land management practices to improve the resilience of populations to the harmful effects of climate change - Strengthen the institutional, technical and organizational capacities of the various actors	2017-2026	DGEFC	1.2; 1.3; 1.4; 1.5; 2.1; 2.2; 2.5.

Project and Donor	Sector and location	Main anticipated results	Project period	Implementing Partner	Links to outputs ?
Project to support the development of market gardens (PADMAR)	PADMAR will be limited to the southern regions of Benin and will intervene in 7 of the 12 departments of the country, namely Atlantic, Couffo, Littoral, Mono, Ou?m?, Plateau and Zou. In these departments, the Project will intervene in 27 communes out of a total of 44 communes Project site overlap: **Za-Kpota, Cov?**	Focused on the development of market gardens.	2017-2023	FIDA	2.2; 2.3, 2.4; 2.5; 3.2; 3.3.
Pro-Agri3: Programme de Promotion de l'Agriculture (ProAgri)	Atacora : Tangui?ta, K?rou, **Kouand?,** P?hunco Donga : Boukoumb?, Copargo, Djougou, Ouak? Borgou : Nikki, N?Dali, P?r?r?, Tchaourou Collines : Ou?ss?, Glazou?, Sav?, Dassa-Zoum?	Focused on agricultural support for cashewnut, rice, soybean and shea butter value chains.	2017 - 2020	BMZ/GIZ	2.1; 2.2; 2.3, 2.4; 2.5; 3.2; 3.3.; 3.4; 3.5.

Project and Donor	**Sector and location**	**Main anticipated results**	**Project period**	**Implementing Partner**	**Links to outputs ?**
Integrated Program for Development and Adaptation to Climate Change in the Niger Basin (Pidacc-Bn) Benin Component	Resilience To Climate Change Banikoara, Bembereke, Gogounou, Kalale, Kandi, **Karimama**, Kerou, Kouande, **Malanville**, Nikki, Pehunco, Segbana, Sinende	Sustainable agriculture lowland development restoration of degraded lands reforestation	2019-2025	FAD DCF UE BENIN	2.2; 2.3, 2.4; 2.5; 3.2; 3.4; 3.5.
ALDIPE -ONG	PDA 5 Zakpota, Cov?	Sustainable agriculture, lowland development, restoration of degraded lands, reforestation	permanent	UE ; GIZ ; BM	2.1; 2.2; 2.4; 3.1; 3.2; 3.3; 3.4; 4.2; 4.3; 4.4.
CAPES	Aplahou?, Klou?kamm?	Sustainable agriculture, lowland development, restoration of degraded lands, reforestation	permanent	CRDI ; IITA/AFRICA RICE	2.1; 2.2; 2.4; 3.1; 3.2; 3.3; 3.4; 4.2; 4.3; 4.4.
API Service Monde	Kouand?, S?gbana, Gogounou	Sustainable agriculture, lowland development, restoration of degraded lands, reforestation	permanent	UE, AFD	2.1; 2.2; 2.4; 3.1; 3.2; 3.3; 3.4; 4.2; 4.3; 4.4.
DEDRAS	Karimama S?gbana, Gogounou	Sustainable agriculture, lowland development, restoration of degraded lands, reforestation	permanent	GIZ, WOORD DAAD Pays-Bas	2.1; 2.2; 2.4; 3.1; 3.2; 3.3; 3.4; 4.2; 4.3; 4.4.

Project and Donor	Sector and location	Main anticipated results	Project period	Implementing Partner	Links to outputs ?
APIC	Karimama S?gbana, Gogounou	Sustainable agriculture, lowland development, restoration of degraded lands, reforestation			

3) The proposed alternative scenario with a brief description of expected outcomes and components of the project

24. **Figure 1** below presents the project?s theory of change, which may be summarized as follows:

? The project?s theory of change incorporates a brief summary of problems and barriers (Columns A and B respectively), which is essential to understanding the intervention logic.

? An interlinked set of environmental problems faces Benin as a whole and the target PDAs in particular (see ToC diagram, A.1), constituting a loss of natural capital. These problems are due to a set of *direct and proximate causes*, which themselves are resulting from *root / underlying causes* (neither shown in diagram; see discussion in UNDP project document).

? The above environmental problems are having a set of environmental and socio-economic impacts on local populations (see ToC diagram, A.2), associated with reduced flows of various environmental services.

? A project intervention designed to address this situation requires four interlinked solution areas, a.k.a. components. These are summarized in column C and represent the anchors for four solution pathways that together will deliver the project objective. These solution areas work synergistically to address environmental and socio-economic impacts in highly complex ways which cannot be captured in the simplified ToC diagram.

? Successful implementation of the solution areas requires addressing a number of barriers associated with each solution area. These barriers may be thought of as standing in the way of solutions. They are grouped by solution area and presented in column B of the diagram. Arrows pointing left from solution areas to barriers denote barrier removal processes.

? Column D presents the set of project outputs which together are designed directly to address / remove barriers associated with each solution area.

? Column E describes the outcomes that are expected to result from the implementation of the project outputs, under the conditions that related project assumptions (see box underneath the ToC figure) are met.

? Column F presents medium-term impacts beyond the lifetime of the project expected to result from achievement of the four project outcomes

? Taken together, columns C-F represent the project?s four solution pathways?each enclosed by rounded rectangles and tempered by corresponding assumptions.

? Achieving the four project outcomes will, subject to additional asumptions, deliver the project objective, or long-term development impact beyond the life of the project.

25. In substantive terms, the project will improve the information base for government decision making (LDN database), will strengthen multi-stakeholder processes such as the Committee to combat

desertification for greater coordination of programs and actions, will strengthen institutions including their access to funding tasked with the promotion of land uses that conserve or rehabilitate the fertility and ecosystem services of the land with special focus on forestry, agroforestry and sustainable, climate resilient agriculture practices, will strengthen extension services, will pilot forest rehabilitation and sustainable land management models, will strengthen value chains for climate resilient agriculture, promote learning, and empower women in decision making and as market actors. This set of outputs at institutional and field level will establish and reinforce capabilities within stakeholders that currently are weak, thereby reducing barriers to change. Specifically, government will be better able to analyse climate and land degradation risks and plan their interventions accordingly; the capabilities of government and non-government stakeholders to implement climate risk informed ecosystem restoration and climate resilient land use programs will be increased, and public and private actors will have increased capabilities to promote value chains that encourage sustainable production and land management. These increased capabilities of key actors and institutions, in turn, will lead to the short-term outcomes of strengthened policies and increased funding for climate resilient and sustainable land use planning; better informed programs for ecosystem restoration and conservation; and tangible benefits for communities from increased climate resilience, reduced soil degradation, and income streams from sustainable value chains.

26. Over the longer term, agriculture and land use generally in Benin (and beyond) will become more sustainable and climate resilient, land degradation will decrease and ecosystems will be restored. Building on the project experience, rural people will have greater ability to adapt to climate change impacts through increased and more reliable incomes. Women will play a stronger and more empowered role in rural societies. Learning from this project will be exchanged with stakeholders in Benin and beyond through knowledge transfer. These outcomes will enable the project development objective.

27. The long-term solution identified in the theory of change is to support achievement of Benin?s Land Degradation Neutrality (LDN) targets through climate risk informed sustainable land and forest management practices, and strengthen the climate resilience of vulnerable populations, in the Niger Valley (PDA 1), Alibori Sud-Borgou Nord-2KP (PDA 2) and Zou-Couffo (PDA 5) Agricultural Development Areas. The project intends to:

i) promote sustainable, resilient and climate smart production systems in degraded lands and deforestation hotspots in Benin;

ii) facilitate the development of green infrastructure, selected through integration of climate scenarios and resilience potential under current climatic stressors, to strengthen the Green Belt as a nature-based solution against desert advancement and support communities in climate change adaptation in the north of the country;

iii) strengthen the protection and preservation of forest ecosystems located in large agricultural production basins;

iv) identify and promote climate resilient value chains and increase productivity and competitiveness of the horticultural sectors, and;

v) facilitate the mobilization of innovative financing and the involvement of private sector for the scaling up and sustainability of climate smart agriculture, climate risk informed sustainable land and forest management.

28. The project will address the barrierand challenges outlined above and will be carried out at national, communal, and local site levels where degraded lands have been targeted for improved, climate risk-informed land management practices to support the achievement of Benin?s LDN goals and to help meet national NDC objectives for climate change adaptation.

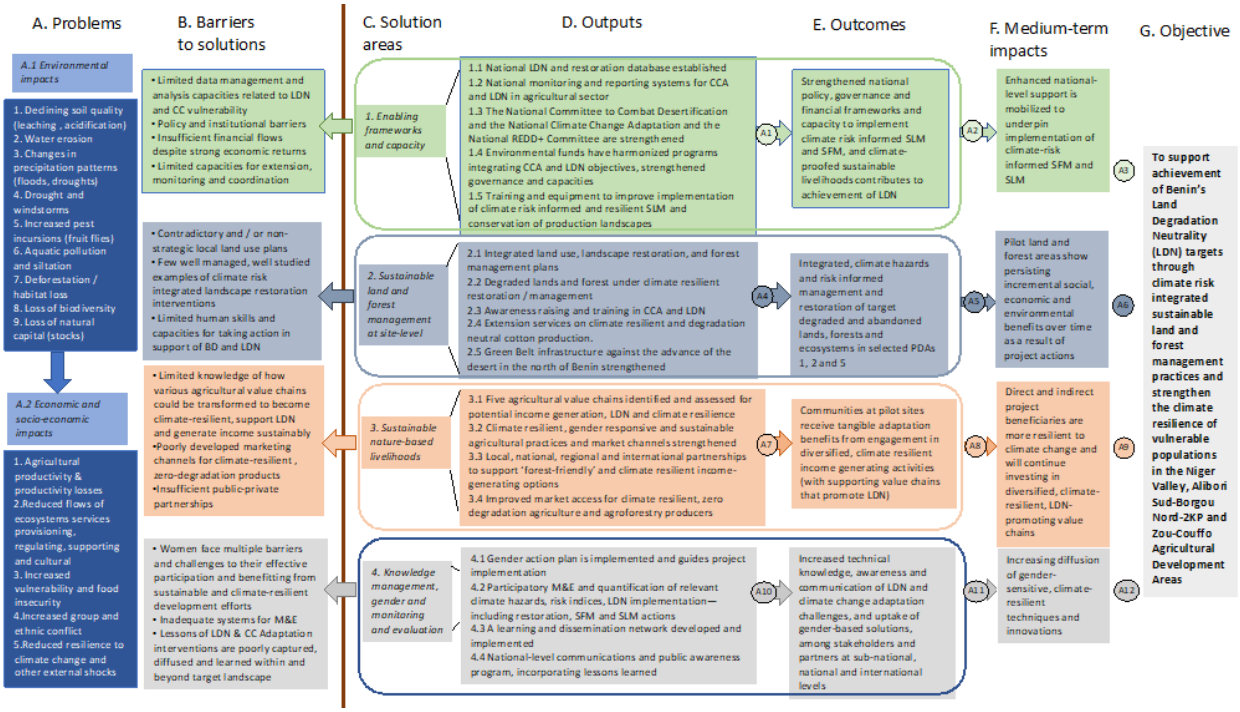
29. **At the national level**, the project will carry out activities to strengthen the capacity of the General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD) to meet the country?s LDN and climate change adaptation commitments, and the Ministry of Agriculture, Livestock and Fisheries (MAEP) to attain its national agricultural production goals in line with its objectives for adapting agricultural practices to withstand climate change as articulated in its NDC.

30. The project will also facilitate the development of guidelines for potential funding mechanisms to enable the National Forest and National Agricultural Development Funds to function effectively and sustainably into the future; this will ensure continuity in supporting individual producers, farmer associations, and producer unions to implement technologies for climate smart agriculture, and climate risk informed SLM and SFM.

31. **At the local level**, the project will provide support to generate land and forestry benefits, including critical ecosystem services, by improving the technical capacity of land planners and managers to integrate climate change into management plans, apply management plans, climate change vulnerability analysis and other tools for integrated landscape restoration and climate resilient agricultural planning. The project will create stakeholder awareness and build the capacity of agricultural land managers and national agency staff to support the scaling up of integrated, climate resilient and risk informed landscape management approaches in three targeted PDAs, and ensuring their alignment with national LDN targets, climate adaptation needs and objectives.

Figure 1: Project theory of change

Figure 1: Theory of change



Theory of change assumptions A1 - A12

A1: Policy and institutional tools and plans are effectively integrated to result in improved climate sensitive and risk informed landscape planning and decision-making for climate adaptation and LDN

A2: Climate resilient and degradation neutral landscape planning and decision-making methodologies are effectively absorbed into government at various levels and implemented beyond the duration of the project

A3: Climate resilient and degradation neutral landscape planning and governance remain mainstreamed into government practice over the long term in the target provinces

A4: The restoration of agricultural and forest ecosystems with appropriate methods, informed by climate risk assessments, and in strategic locations are integrated into management decisions and result in improved resilience of ecosystems in the target areas

A5: Sensibly improved ecosystem services delivery result in larger-scale adoption of ecosystem restoration across the region beyond the lifetime of the project

A6: Enhanced ecosystem integrity and LDN contribute to persistent and large-scale climate-resilient sustainable development in the target provinces

A7: Degradation-neutral and climate-resilient value chains and land use practices are successfully adopted by a significant percentage of the local population

A8: The adoption of nature-based and climate-resilient value chains and land use practices results is perceived as beneficial and maintained beyond the project end by local communities and businesses

A9: Degradation-neutral and climate-resilient value chains and land use practices are sufficiently profitable to be adopted at significant scale and mainstreamed into the local economies in the target provinces

A10: Learning, knowledge-sharing and gender sensitive approaches are effectively mainstreamed throughout the project

A11: Knowledge-sharing and gender sensitive development are adopted at a large scale and mainstreamed into government and non-government organizations across the region

A12: A learning and knowledge-sharing culture and gender mainstreaming contribute to long-term, degradation-neutral and climate-resilient sustainable development in the region.

32. The long-term solution is to support achievement of Benin?s Land Degradation Neutrality (LDN) and CCA targets through climate risk informed sustainable land and forest management practices, and strengthen the climate resilience of vulnerable populations, in the Niger Valley (PDA 1), Alibori Sud-Borgou Nord-2KP (PDA 2) and Zou-Couffo (PDA 5) Agricultural Development Areas. The project intends to:

i) promote sustainable and climate resilient production systems in degraded lands and deforestation hotspots in Benin;

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iii) strengthen the protection and preservation of forest ecosystems located in large agricultural production basins;

iv) identify and promote climate resilient value chains and increase productivity and competitiveness of the horticultural sectors, and

v) facilitate the mobilization of innovative financing and the involvement of private sector for the scaling up and sustainability of climate resilient agriculture, climate risk informed sustainable land and forest management.

33. The project will address the barriers and challenges outlined above and will be carried out at national, communal, and local site levels where degraded lands have been targeted for improved, climate risk-informed land management practices to support the achievement of Benin?s LDN goals and to help meet national NDC objectives for climate change adaptation. As noted in the climate risks section above, the project is designed to address not only impacts that are already observed but also to respond to a range of anticipated temperature change, together with a corresponding range of potential impacts on the agricultural sector, on ecosystems, and on water resources through the planning horizon of 2050.

34. **At the national level**, the project will carry out activities to strengthen the capacity of the General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD) to meet the country?s LDN and climate change adaptation commitments, and the Ministry of Agriculture, Livestock and Fisheries (MAEP) to attain its national agricultural production goals in line with its objectives for adapting agricultural practices to withstand climate change as articulated in its NDC.

35. The project will also facilitate the development of guidelines for potential funding mechanisms to enable the National Forest and National Agricultural Development Funds to function effectively and sustainably into the future; this will ensure continuity in supporting individual producers, farmer associations, and producer unions to implement technologies for climate resilient agriculture, and climate risk informed SLM and SFM.

36. **At the local level**, the project will provide support to generate land and forestry benefits, including critical ecosystem services, by improving the technical capacity of land planners and managers to

integrate climate change into management plans, apply management plans, climate change vulnerability analysis and other tools for integrated landscape restoration and climate resilient agricultural planning. The project will create stakeholder awareness and build the capacity of agricultural land managers and national agency staff to support the scaling up of integrated, climate resilient and risk informed landscape management approaches in three targeted PDAs, and ensuring their alignment with national LDN targets, climate adaptation needs and objectives.

37. The project will raise awareness and strengthen capacities of beneficiary communities at the local level in the development of climate resilient value chains in non-timber forest products (NTFP) such as the African locust bean (*N?r?*), *Parkia biglobosa*, the Shea tree (*Karit?*) *Vitellaria paradoxa*, baobab (*Adansonia digitata)*, fruit trees (citrus, mango, cashew), and food crops (maize, sorghum, rice, cassava, yam, sweet potatoes, groundnuts, cowpea etc). The local tree species n?r?, karit? and baobab are widespread savanna trees that are well known for their resistance to drought and even light fire, and are in common use among the local population. All three species are used in local culinary needs and have important local markets, while especially karit? butter is traded internationally for cosmetics and as a substitute for cocoa butter. The introduced, but very common, cashew trees are not only highly resistant to climate variability and change, but also particularly well adapted to infertile soils and have significant potential In export markets. For their part, improved varieties of mango and citrus are more demanding in terms of soil fertility and water needs and require careful assessment of site conditions prior to planting. The mentioned food crops are all staples of the region, with grains being more used in the north and tubers more in the south. With increased climate change impacts, there may be a gradual shift from maize to sorghum in the north and from yam to cassava in the center and south of the country. However, crop choices are to a large extent determined by local customs and preferences, which may delay local responses to climate pressures.

38. Alternative, diversified, income-generating activities such as livestock production, organic cultivation, climate resilient agroforestry and agriculture, transformation/processing of agricultural and fruit products, and small-scale market gardening of high-value crops (e.g. tomatoes, okra, chili pepper) will be promoted. Efforts will also be made to reduce the use of fire as a tool in land management, with the objective of reducing burning frequency and avoiding uncontrolled burns that lead to the degradation of soil and vegetation.

39. The project will adopt an integrated approach based on local vulnerability assessments and instigating site-specific solutions that include:

i) developing and applying sustainable community forest management tools, based on participatory planning approaches;

ii) implementing climate risk informed Sustainable Land Management (SLM), climate resilient agricultural practices and soil fertility improvement techniques;

iii) providing extension services and material resources for agroforestry with fruit and fodder trees as an alternative to annual crops, e.g., in Za-Kpota, Cov?, Klou?kanm? and Aplahou?; communes, and

iv) initiating large-scale, ecosystem appropriate restoration that factors in climate projections and contributes to the Green Belt initiative to counter the advancement of the desert in Karimama, Kouand?, S?gbana and Gogounou in northern Benin.

40. Beekeeping will also be promoted to enhance restoration at site level and to aid the development of fruit tree plantations, while providing diversification of livelihoods. The alternative scenario is centered on community-inclusive, multi-stakeholder collaborations at national and local scales that integrate climate change impacts and adaptation needs with addressing and reversing land degradation and deforestation. The value chain for beekeeping is already under development in municipalities across Benin. Key links across NGOs, microenterprises and individuals are in place and an organization exists between producers and buyers with bottling and packaging efforts. Local skills and competencies exist in terms of manufacturing services, hive repair, harvesting, packaging, marketing. Expertise also exists to train and organize community-level actors. The above actors will be targeted in the municipalities of intervention and will be reinforced with support for the strengthening of production and marketing capacities. In this way, the project will employ existing local expertise for the further development of the value chain already under construction.

41. Within the three PDAs, site-level activities under components 2 and 3 will take place within eight communes, which together cover 1.2 million ha. Analysis of satellite imagery and ground-level consultations during the PPG have further identified key hotspot areas of degradation, as shown in a set of district-level maps presented in Annex 14.6.

42. Project components, results / outcomes, outputs and indicative activities are described below.

Component 1: Political, financial, institutional, and regulatory frameworks to achieve climate risk informed Land Degradation Neutrality (LDN) and advance integration of vulnerability assessments and adaptation options within land use decisions.

43. This component is focused at the national level on strengthening the enabling environment, including capacities of key agencies, for implementation of climate-risk informed LDN, including actions related to SLM, SFM and associated livelihood issues. Establishing and building capacities to monitor and report on land degradation, land cover change, ecosystem services, as well as climate risks, vulnerability and adaptation metrics, will be central to assessing both the changing conditions and the impact of actions being taken. Effective field-level implementation will benefit from multi-sectoral consultations to review and harmonise relevant policies, sectoral strategies and programs in order to mainstream LDN targets, informed by climate change scenarios, and objectives. Engaging multiple government entities will be necessary and activities will include development of tools and measures to facilitate the adoption and operationalization of the principle of no degraded, bare, or abandoned land due to agricultural practices. Support, advice and awareness-raising will be provided to representatives at all levels of decision-making to enable the revision of national strategies, plans and sectoral indicators in accordance with the recommendations inherent and contained within updated regulatory texts.

44. Work under this component is centered on achievement of the following outcome:

OUTCOME 1.1: STRENGTHENED NATIONAL POLICY, GOVERNANCE AND FINANCIAL FRAMEWORKS AND CAPACITY TO IMPLEMENT CLIMATE RISK INFORMED SLM AND SFM, AND CLIMATE-PROOFED SUSTAINABLE LIVELIHOODS CONTRIBUTES TO ACHIEVEMENT OF LDN

45. The above outcome will be delivered through a set of five inter-connected outputs, as follows:

? Output 1.1 will establish a national LDN and restoration database at DGEC under MCVDD to serve as the hub for national monitoring and national reporting on LDN.

? Output 1.2 will build national reporting and monitoring systems for tracking LDN and various aspects of climate change vulnerability and adaptation.

? Output 1.3 will strengthen the National Committee on Desertification as a key tool for national-level coordination.

? Output 1.4 will raise the profile of LDN within national environmental funding mechanisms.

? Output 1.5 will build capacities of key agencies for climate risk informed and resilient SLM, SFM and restoration.

46. The above-mentioned outputs are described in further detail below.

Output 1.1: National LDN and restoration database established within the DGEC under MCVDD, bringing together national data sources including related data on climate impacts, vulnerability, and adaptation needs, and linking to global systems for monitoring restoration and LDN

47. Under this output, a national LDN database and information system will be established at the General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD). Experts from different sectors?including forestry, agriculture, climat change and land use planning?and from academia will work together to develop and agree on data gathering and data sharing protocols. The system will thus pull together various sectoral sources of data, e.g., forest cover and forest permanent estate, agricultural activities (agro-industrial and small farming around villages), general land allocation, tenure rights, protected areas and hotspots of biodiversity, land dynamics (productivity, land cover, carbon stocks, soil erosion linked to changes in precipitation), observed meteorological data, downscaled climate change scenarios, and livestock corridors, resulting in a more comprehensive overview, while providing actionable data and projections of climatic variables (e.g. precipitation and temperature) for managers on the ground. It will also underpin reporting under international conventions (see Output 1.2) and associated commitments, e.g. by linking to the IUCN-managed BC Barometer for restoration progress. While the database will be national in scope, it is expected that initial data sources and coverage will be more extensive and accurate in the case of the three project-supported PDAs (see Component 2).

48. Indicative activities include:

1.1.1. Building on work done during PPG, complete detailed assessment of relevant equipment specifications, GIS and spatial analyses and capacity building requirements and provide targeted support to ensure effective participation in the process, particularly within DGEC under MCVDD

1.1.2 Support and strengthen existing national networks for inter-sectoral data sharing on LDN, climate impacts, vulnerability and adaptation, e.g., REDD+ national coordination mechanism, National Committee for Climate Change, Technical Group for Land Degradation, land-use planning ministry and other sectoral ministries

1.1.3 Assess and strengthen existing cartographic databases of land use, particularly agricultural uses, and associated land degradation and ecosystem services

1.1.4 Support the development of improved national baseline maps indicating land and forest status, soil type and soil fertility, as tools for monitoring LDN (see also Activity 2.2.1)

1.1.5 Build capacities for effective use of enhanced databases and maps

Output 1.2: National monitoring and reporting systems for tracking climate change impacts on and vulnerability in the agricultural sector along with changes in adaptive capacity, land cover, land degradation, restoration, forest ecosystems and ecosystem services

49. Building on the establishment of the national LDN database, a system for dynamic monitoring of land use status and change will be established. The system will focus on the agricultural sector in particular and will be designed to support monitoring and indicators at the level of PDAs, among other levels of aggregation. It will include indicators on land use change,, climate hazards and vulnerability to climate change, and indicators of adaptive capacity. Relevant targets will also be agreed. Key national- and local level-stakeholders will be engaged, including both government and private sector representatives. The system will be pilot tested in the three project PDAs, where it will benefit from a pilot effort to establish a participatory M&E system (see Output 4.2), the latter also addressing issues such as governance, FPIC, etc. Finally, the system will be used to support production of a biannual national report on the impacts of climate change and production sectors on forest ecosystems and on the state of land degradation.

50. Indicative activities include:

1.2.1 Develop an observatory for monitoring agricultural dynamics, climate change impacts on agriculture and the vulnerability of forest ecosystems, including agreeing on indicators to be monitored

1.2.2 Pilot testing in three PDAs of an operational system for monitoring agricultural dynamics and the vulnerability of forest ecosystems, based on existing and upgraded cartographic information

1.2.3 Prepare two biennial national reports (2024 and 2026)

Output 1.3: The National Committee to Combat Desertification and the National Committee for Climate Change and the National REDD+ Committee are strengthened to improve the coordination, ownership and capacity of national authorities to address projected climate change risk and sensitivity scenarios.

51. The National Committee to Combat Desertification was created in 2008 and the National REDD+ Committee was created in 2017, but has met only rarely since. Its secretariat is provided by the DGEC under MCVDD. In addition, the National Committee for Climate Change was decreed in 2002,

with mandate for both adaptation and mitigation. However, there is little coordination among the three committees. The project will support the reactivation of these potentially important mechanisms as necessary tools to coordinate data sharing and action related to LDN. It will also support an integration of LDN and climate change policies by promoting joint meetings of the three committees and an expansion of the former committee?s mandates to include climate change adaptation, which is closely related to both LDN and REDD+.

52. Indicative activities include the following:

1.3.1 Analyze the structure, capabilities, and operating rules of the committees and propose any recommended changes, especially an explicit mandate to address climate change vulnerability and adaptation assessments and policies and to integrate them with LDN and REDD+ mechanisms.

1.3.2 Support annual meetings of the two Committees, expanded as needed to cover CCA, at which a set of common objectives and a work plan for data sharing and other joint actions in support of integrated LDN, REDD+ and CCA policies and actions will be adopted.

1.3.3 Strengthen the technical capacity of ministries and other government agencies through the development of strategy documents (e.g., REDD+ strategy, climate vulnerability assessments and adaptation action plans, regular review of land degradation policies and activities) to contribute to the objectives adopted by the Committees.

Output 1.4: National environmental funding mechanisms integrate CCA and LDN objectives, and have enhanced capacity to mobilize and manage relevant funding

53. The project will facilitate the development of guidelines for existing funding mechanisms?including the National Environment and Climate Fund, National Agricultural Development Fund and potentially others? to encourage and guide these funding mechanisms in efforts to support individual producers, farmer associations, and producer unions to implement technologies for gender responsive, climate-resilient agriculture, and climate risk informed SLM and SFM.

54. Indicative activities include the following:

1.4.1. Develop guidelines for Federal and local Government financing of climate-risk informed SLM, SFM and restoration efforts, and gender responsive climate resilient agriculture, including eligibility criteria for grant or loan financing

1.4.2 Develop a program of climate-risk informed SLM and SFM actions at national level with harmonized financing procedures and integration of environmental, economic and social aspects

1.4.3 Insert an SLM budget line within the mechanism for transferring financial resources to municipalities

Output 1.5: Training and equipment provided to key agencies DGEC under MCVDD, National Geographic Institute, Directorate of Remote Sensing and Ecological Monitoring, National Institute of Agricultural Resources) to improve implementation of climate risk informed, gender-responsive and resilient SLM technologies and conservation of production landscapes, with improved coordination

and monitoring of climate change impacts, land degradation trends, restoration, and sustainable forest management

55. Several government agencies have significant roles to play in supporting the project objective, including monitoring and coordination. This output will strengthen their capacity to do so, in line with existing policy mandates.

56. Indicative activities include the following:

1.5.1 Implement a training program for key organizations, including DGEC under MCVDD, Directorate of Remote Sensing and Ecological Monitoring, National Geographic Institute, National Institute of Agricultural Resources, etc.

1.5.2 Carry out multi-criteria climate change risk and SLM assessments, taking into account synergies and comparative advantages on the environment

1.5.3 Provide necessary equipment to the National Geographic Institute and the Directorate of Remote Sensing and Ecological Monitoring to support their forest cover monitoring functions

1.5.4 Provide capacity building support (equipment and training) to Ministries and research institutions to enable management of ?the databases?

1.5.5 Implement training programs to access, interpret and use climate scenarios and vulnerability assessments, and especially to adapt them to local conditions through downscaling and through locally collected data based on observations and interviews.

Component 2: Restoration of land and forest ecosystems for improved agricultural productivity, prevention of deforestation, and enhanced climate resilience of vulnerable communities

57. Under this component, the project will assist the Government of Benin to build on the enabling environment being supported under Component 1 and implement concrete actions within eight target districts of the project PDAs (see **Table 3**).[23] The project will implement an integrated, collaborative approach to delivering climate change adaptation actions, including climate-resilient SLM, to restore degraded lands, and climate resilient agricultural practices on farms to reduce further land and soil degradation, and enhance adoption of gender responsive, climate resilient agricultural value chains (through Component 3, in particular), and thereby improve food security for smallholders and farmer communities. Efforts will be focused on carefully defined target sites, but with mechanisms in place to ensure wider impact (the latter through Component 4, in particular).

Table 3: Project intervention zones within each PDA and indicative breakdown of GEF-supported SFM & SLM actions*

PDA	D?partment	Commune	Area (ha)	SFM area (ha)	SLM area (ha)
1	Alibori	Karimama	604 100	500	500

2	Atacora	Kouand?	450 000	2 000	1 000
	Alibori	S?gbana	470 000	5 000	6 500
	Alibori	Gogounou	491 000	7 000	2 000
5	Couffo	Klou?kanm?	39 400	50	100
	Couffo	Aplahou?	91 500	50	2 400
	Zou	Cov?	52 500	-	2 500
	Zou	Zakpota	40 900	400	-
		TOTAL	**2 239 400**	**15 000**	**15 000**

Note: The above breakdowns of SLM and SFM actions are approximate, based on total potential identified within each commune during the PPG.

58. Work under this component is centered on achievement of the following outcome:

OUTCOME 2: TARGET DEGRADED AND ABANDONED LANDS, FORESTS AND ECOSYSTEMS IN SELECTED PDAS 1, 2 AND 5 MANAGED AND RESTORED THROUGH CLIMATE RISK-INFORMED PLANNING AND ACTIONS

59. The above outcome will be delivered through a set of five inter-connected outputs, as follows:

? Output 2.1 will support the development of restoration and SLM / SFM components which incorporate locally relevant climate hazard data and risk mapping within management plans at various levels within the three PDAs.

? Output 2.2 will support restoration and sustainable land management at target sites.

? Output 2.3 will strengthen capacities of government extension services to provide extension services to farmers to strengthen agricultural resilience to climate impacts

? Output 2.4 will provide training and awareness raising support within the communities at the target sites.

? Output 2.5 will involve creating green infrastructure[24] resilient to projected climate impacts in four of the target communes (Karimama, Kouand?, S?gbana and Gogounou) to strengthen Benin?s Green Belt against desert encroachment from the north.

60. The above-mentioned outputs are described in further detail below.

Output 2.1: Integrated climate risk, land use, landscape restoration, and forest management plans, which incorporate climate scenario-based hazards and likely impacts, are developed and operationalized at target sites

61. Management plans currently exist for Parc W, the Pendjari Complex, and various classified forests in Benin. However, the capacity of responsible agencies to implement these management plans needs to be strengthened. In addition, few of the plans incorporate analyses of climate hazards and risks, well-developed strategies to restore lands and/or ensure SLM and SFM under climate change. Potential response of species used for restoration to future climate conditions is rarely considered in restoration or SFM plans but is an important consideration for long term resilience. Output 2.1 will firstly focus on the analyses of relevant range of climate change scenarios to identify hazards and potential risks at the landscape and farm scales for the two agro-climatological zones covered under this project. This output will produce climate risks assessments for ecosystem based adaptation using established approaches[25], and with participation of local representatives, as part of detailed spatially explicit planningto allow for an integrated approach to planning for LDN and CCA in the target communes. This work will be done in collaboration with national universities (see Annex 8, Stakeholder Plan for details).

62. Based on updated analysis of climate change scenarios and potential risks, , land use /land cover mapping, and in close cooperation with representatives of participating communes, local management authorities and communities, spatially explicit, participatory, local management plans will be created. These zoning and action plans?which will be closely aligned with any existing SDAC and PDC plans?will guide site-level implementation of climate risk informed restoration/SFM/SLM actions?including actions for direct support via GEF project funds as well as areas for eventual uptake and replication. In parallel, existing management plans will be reviewed and, where necessary, updated so that they cover climate change vulnerability and adaptation strategies, including soil and water conservation, LDN and other SLM / SFM related issues. This will include the preparation of hazard maps and risk models based on at least two climate scenarios.

63. Indicative activities under this output include the following:

2.1.1 Build capacity for data collection on multiple climatic, biophysical and agro-ecological variables and participatory, scenario-based analysis to support local level planning for both climate change adaptation and land degradation neutrality.

2.1.2 Field-level, participatory, survey-based data collection within the eight target communes to support climate risk and LDN analyses

2.1.3 Work with the cartographic division of DGERC to integrate readily available, regional downscaled climate scenarios to create a spatially explicit dataset on climate hazards and map potential

risks for land use and land cover change in the eight communes, where available use crop and plant habitat suitability models for common species, to inform SLM/SFM and land use planning, to inform the process for identifying climate resilient value chains with local participation (Component 3), and develop up to date and improved land use, land degradation, soil fertility, climate hazards and risks? informed zoning maps of the overall intervention area, i.e. eight target communes, together covering 2.2 million ha.

2.1.4 Conclude data sharing agreements amongst sectoral Ministries and national and local organisations

2.1.5 Develop LDN scenarios and LDN neutrality targets?based on a multi-criteria analysis of sustainable land management, restoration actions and climatic hazards and non-climate risk analyses?and mainstream into emerging PDA Master Plans, with additional details for the participating communes

2.1.6 Support the incorporation of LDN and climate change aspects eight commune-level integrated, spatially explicit planning documents??Sch?ma directeur d?am?nagement de la commune? (SDAC) and ?plan de d?veloppement communal? (PDC)

2.1.7 Build validated multi-dimensional local plans that are aligned with existing SDACs and PDCs, and that can be easily integrated within the SDACs and PDCs, supported by recognized local governance structure

2.1.8 Mainstream climate change hazards, risks and adaptation options inform SLM and SFM into eight commune-level Land Management Plans (PIGUS), including capacity-building strategies

2.1.9 Conduct climate risk assessments for ecosystem based adaptation[26] using the climate hazards dataset (2.1.1), integrate relevant modeled outputs from GEF-CI SPARC and participatory input from communities to identify cost effective and locally relevant adaptation measures in order to update management plans for the classified forests of Sota, M?krou and Kouand? , in line with commune-level plans, along with soil conservation and LDN plans for the classified forests of Alibori Superior and Trois Rivi?res

Output 2.2: Degraded lands amounting to at least 15,000 hectares, and at least 15,000 hectares of forest, are under climate risk informed and resilient restoration and functional and sustainable management regimes.

64. A key element of the planning processes described under Output 2.1 above will be to identify and prioritize natural ecosystems for restoration[27], including natural regeneration, based on criteria that include resilience to current climate change and future projections using downscaled climate scenarios and available climate suitability models, potential restoration of fallows in an ecosystem appropriate manner, development of community forests, and the promotion of private, communal and community restoration zones with valuable, climate resilient species for degraded lands and forests, informed through a multi-criteria analysis. This prioritization exercise will build on work completed during the PPG, which led to a series of commune-level degradation maps presented in Annex 3 below.

65. Improved land management at these sites will enable them to function as carbon sinks, and will include nature-based adaptation options to improve soil moisture, reduce soil erosion, regulate the microclimate, and provide a diversified source of NTFPs resilient to climate change (see Component 3

below). This will be achieved through the introduction of climate-smart agriculture and improved, climate resilient SLM and agricultural practices to reduce carbon release from soil, increase water infiltration, conserve topsoil, and thereby enhance water availability to crops.

66. Indicative activities include the following:

2.2.1 Identify exact locations for land and forest restoration and sustainable management, building on PPG site selection process and incorporating additional climate scenarios and risk mapping work undertaken under 2.1.1, and 2.1.8 as well as nature of restoration or SLM/SFM approach. Site selection will take into consideration climate risks (risk maps produced under 2.1.1) and opportunities to reduce them (e.g. by restoring erosion prone slopes and riparian forests), based on climate hazard maps and risk models.

2.2.2 Provide extension and material support (e.g., equipment, seedlings, compost, climate resilient agriculture (CRA) techniques and inputs) for conservation and improvement / restoration of cropland and conservation of soil fertility in identified priority locations (see 2.2.1) and in line with plans developed under activities 2.1.2 - 2.1.4 above.

2.2.3 Provide extension and material support (e.g. equipment, seedlings and materials for the plant nurseries) for conservation and improvement / restoration of forest areas and conservation of soil fertility in identified priority locations (see 2.2.1) and in line with plans developed under activities 2.1.5 and 2.1.6 above, including enriching and developing protection series / green belt in the classified forests of Alibori Superior, Trois Rivers, Sota, M?krou and Kouand? with versatile forest species with high tolerance to droughts and floods.

2.2.4 Protect the banks of the Ou?m?, Zou and Couffo river basins against erosion through reforestation of 1,000 hectares of riparian forest using native species with high tolerance to drought and floods, in line with plans developed under Activities 2.1.5 and 2.1.6

2.2.5 Establish multi-purpose water reservoirs to facilitate access to clean water (particularly for select water-saving crops and value chains), by, and avoid conflict among, agricultural producers, livestock breeders and migrant and other vulnerable populations

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*Output 2.3: Awareness raising and training of 1,000 government and administrative officials (including ATDAs, DGEC under MCVDD and DGEFC**[1]**) and representatives of private sector in climate resilient, gender-responsive and degradation neutral planning and policies, with focus on agriculture, animal husbandry and forestry, targeting the mainstreaming of CCA and LDN in all policies and administrative decisions.*

67. This output will begin with the development of capacity building (training) materials in a range of key areas. These will be carefully designed to address specific issues faced by officials and technical personnel involved in issues related to LDN, climate adaptation for the agricultural sector, etc. within the three target PDAs. Particular emphasis will be on agricultural extension personnel. It will be to a large extent through these agents of change that the project will expect to reach far and wide to agriculturalists and other land users.

68. Indicative activities include the following:

2.3.1 Development of capacity building modules and materials, based on international experience, with specific adaptations for conditions in Benin as well as further specifications by PDA, covering: (i) integration of SFM, SLM in projects, business plans, laws and sector strategies; (ii) soil fertilization technologies; (iii) technologies for restoring degraded lands; (iv) approaches to maintaining soil fertility and respecting degradation neutrality standards; (v) Climate vulnerability and risk assessments through a combination of use of climate scenarios and local experiences and observations to inform the selection of locally relevant adaptation measures including selection of crop and tree species and varieties, planting dates, soil management practices to increase water availability to crops (e.g. mulching), irrigation practices, crop diversification, provision of climate resilient crop varieties, etc. (vi) methods of soil water conservation, (vii) safeguarding farms against risks (infestations, flooding, bush and vegetation fires, etc.); (viii) protection of forests against brush fires; (ix) cultivation technologies and fodder storage; (x) approaches and standards for forest management and the establishment of carbon sinks and protective belts; (xi) techniques for collecting and processing agricultural and forestry seeds; (xii) approaches and production methods of agricultural and forestry plants in a context of climate change, etc.

2.3.2 Delivery of training modules and materials to at least 1,000 national and local government and administration officials (including *ATDAs, DGEC under MCVDD and DGEFC*), parliamentarians and private sector representatives

2.3.3 Awareness raising seminars, workshops and information materials provided to decision-makers and other officials

Output 2.4: Extension services in climate resilient, gender-responsive and degradation neutral agriculture, animal husbandry and agroforestry provided to 24,000 farmers and community leaders (50% women), including on climate resilient and degradation neutral cotton production.

69. Extension services, training and related capacity building measures will be delivered to farmers and other land users within each of the eight target communes. These efforts will support direct actions under Output 2.2, as well as laying the groundwork for uptake and replication across the eight communes. This work will be led by *ATDAs, DGEC under MCVDD and DGEFC* and supported by NGOs.

70. Indicative activities include the following:

2.4.1. Through a participatory process including stakeholder mapping, the participatory mapping of climate hazards and risks, and land degradation vulnerability as perceived locally in combination with available data, identify local priorities and action plans for the promotion of climate resilient and degradation neutral agricultural, livestock and agroforestry practices and organize user groups (including women and youth groups) for each identified activity.

2.4.2. Implement intensive training and extension programs in the pilot communities, led by local NGOs in partnership with community-based groups and under the guidance and supervision of government extension services. Considering the high number of illiterate people (especially women) in

the rural population especially in the north of the country, extension methods will rely on face-to-face meetings rather than printed communication tools or social media.

2.4.3. Develop radio programs on a range of climate change and land degradation topics, identified by a local advisory committee, and emit them in the most common local languages.

2.4.4. Provide local groups with the essential tools and inputs for climate resilient agriculture and land restoration, such as farm tools, supplies for village nurseries, seedlings, etc.

Output 2.5: Strengthened Green Belt infrastructure against the advance of the desert in the north of Benin

71. Under this output, the project will support the creation of green infrastructure resilient to projected climate impacts in two of the project?s target communes?Karimama and Kouand??in order to strengthen Benin?s Green Belt against further desert encroachment from the north. Activities will focus, *inter alia*, on improved soil management through active organic cultivation, development of tree nurseries for reforestation, improved manure techniques, and fire management. As a result, the project will contribute to improved, climate-smart agricultural management and forest protection practices for LDN and sustainability.

72. To fortify the Green Belt and provide guidance to climate-resilient agricultural development, targeted efforts will be required to develop nurseries for trees to replant in forest corridors where agricultural production occurs. Agriculturalists will receive training on sustainable land management techniques, climate risk informed landscape restoration and climate resilient agricultural techniques, including promotion of organic cultivation and increasing use of organic compost and integrated pest management techiques, reduced use of fire, controlled grazing of communal areas, diversification of cropping systems to reduce risk, and the integration of local, drought and fire resilient tree species such as n?r?, karit? and baobab. Natural regeneration potential under likely climate projections, for example, through downscaled prioritization maps, will help to identify sites where natural regeneration and other restoration practices can be supported.[28]

73. Indicative activities include the following:

2.5.1. Disseminate existing technical guidance materials developed by other initiatives (e.g. PROSOL) relating to ?Integrated management of soil fertility?, ?soil and water conservation?, ?conservation agriculture? and ?agroforestry and individual forests?

2.5.2. Establish at least 200 ha of commercial plantations (150 ha of forest species and 50 ha of forage species)

2.5.3. Support local communities to establish at least 100 ha of communal and individual fruit plantations

2.5.4 Promote arboriculture as well as the vegetated delineation based on palm trees (r?nier), n?r? and shea trees, which are all highly resilient to climate variability and drought and even support occasional fire, as a means of diversifying farming systems thereby reducing risks related to a largely unpredictable climate future.

2.5.5. Promote for the use of soil improving plants (e.g. mucuna, pigeon pea (*Cajanus cajan*); and *Vigna radiata* for the restoration of degraded agricultural sites (noting that pigeon pea has been used in the West African savanna for many years and is noteworthy for its positive influence on associated food crops (e.g. maize) as well as a producer of edible seeds and fodder.

Component 3: Building diversified income-generating activities and value chains to strengthen community resilience to climate change

74. Under this component, the project will engage at community level within the three PDAs?in particular within the above-described target areas?to support the development of income-generating activities and agricultural value chains. These efforts are being specifically designed to complement and synergize with the integrated climate change adaptation and LDN actions under Component 2, and to deliver lessons for dissemination under component 4, while promoting long-term resilience to climate change.

75. Work under this component is centered on achievement of the following outcome:

OUTCOME 3.1: COMMUNITIES AT PILOT SITES RECEIVE TANGIBLE BENEFITS FROM ENGAGEMENT IN DIVERSIFIED, CLIMATE RESILIENT INCOME GENERATING ACTIVITIES (WITH SUPPORTING VALUE CHAINS THAT PROMOTE LDN)

76. The above outcome will be delivered through a set of four inter-connected outputs, as follows:

? Output 3.1 will consist of in-depth analyses and selection of short-listed value chains from the perspective of their potential to generate income for local communities while delivering a variety of national and global environmental benefits, including enhanced climate change resilience for households and communities[29]

? Output 3.2 will strengthen selected climate resilient and gender responsive value chains through investment and extension support.

? Output 3.3 will deliver financial support and partnerships to forest-friendly and climate resilient income generating activities including, *inter alia*, products being supported under Output 3.1.

? Output 3.4 will help to increase market access for farmers and communities practicing climate-resilient, zero-degradation agriculture and agro-forestry, including NTFPs.

77. The above-mentioned outputs are described in further detail below.

Output 3.1: Five agricultural and agro-forestry value chains are identified and assessed according to their potential to be climate resilient and deliver multiple local, national and global benefits, including income generation, LDN benefit and enhanced adaptive capacity within project PDAs

78. Initial activities under this output will involve the selection of five climate-resilient agricultural and agroforestry value chains, from the short list presented in **Table 4**, which was developed based on analysis and consultations during the PPG.

Table 4: Short list of agricultural and agroforestry value chains for possible in-depth analysis and support

P?les de d?veloppement (PDA)	**Chaines de valeurs agricoles**	**Chaines de valeurs agroforesti?res**
PDA 1 : Valley Niger Karimama	Riz, cultures maraich?res, volailles, petits ruminants	Parkia biglobosa (n?r?), Vitellaria paradoxa (karit?), R?nier
PDA 2 : Alibori Sud-Borgou Nord-2KP : S?gbana, Gogounou, Kouand?,	Ma?s, riz, igname, soja, cultures maraich?res, caprin, volailles	Parkia biglobosa (n?r?) Vitellaria paradoxa (karit?), Adansonia digitata (baobab), manguier, anacardier, colas (garcinia, nitida), apiculture
PDA 5 : Cov? Zakpota-Aplahou? Klou?kanm?	Riz, ma?s, ni?b?, arachide, cultures maraich?res, pois d?angole, volailles, petits ruminants	Agrumes, palmier ? huile, baobab, n?r?, colas (garcinia, nitida), Xylopia, Tetrapleura apiculture

79. The above list also reflects the list of priority agricultural products identified at the time the PDAs were first identified and thus remain in line with Government priorities.

80. Once the final list of five value chains has been agreed, a detailed analysis will be made of the entire value chain for each potential product. This analysis?which will be undertaken in close consultation with local communities and will build on discussions held during the PPG ?will integrate climate change impacts and resilience as criteria, based on published toolkits[30]. It will include economic and financial analysis of climate-resilient value chains and adaptation options, including assessment of the vulnerability of smallholder farmers and small-scale cattle herders to climate change, based on application of analytical tools such as SHARP.[31] Farmer preferences for adopting more climate-resilient value chains and climate resilient agricultural practices will be carefully identified, in line with the project?s stakeholder participation plan (see **Annex 8)**. Finally, the value chain analysis will consider market demand at various levels, and the potential for investment and other partnerships (see Output 3.3 below). The tool to be deployed for this analysis is the UNDP -FAO Climate Resilient and Gender Responsive Value Chains tool.

81. Indicative activities, all of which will contribute to the final value chain assessment reports, will include the following:

3.1.1 Map the short-listed value chains

3.1.2 Undertake surveys within potential beneficiary communities to assess preferences among alternative value short-listed chains

3.1.3 Select five priority value chains, based on pre-determined selection criteria and with reference to PDAs

3.1.4 Prepare five value chain analyses, including priority measures needed to strengthen climate resilience. These should include, inter alia: (i) good practices and associated technologies for the storage / conservation and processing of various products (plants, animals, fisheries and forestry, etc.); (ii) the potential contribution of each product / value chain in terms of climate resilience, zero degradation or restorative production and gender-balanced income generation; (iii) specific barriers and opportunities associated with each value chain; (iv) climate change impact assessment across all priority value chains to identify the adaptation measures to reduce risks of climate related losses and damages

3.1.5 Develop an action plan for strengthening each value chain

Output 3.2: Selected climate resilient and sustainable agricultural and agroforestry practices and market channels are strengthened through investments and extension support for climate resilient, degradation neutral and gender responsive agricultural practices, leading to triple-bottom-line benefits, strengthened adaptive capacity of vulnerable communities, job and SMME creation

82. This output will support the implementation of value chain action plans developed under Output 3.1. These action plans will provide the specific details and locations of support, which will focus on removing key barriers and demonstrating short- and medium-term benefits and lessons. These will include a combination or training, technological and logistical support. Support to women and women?s groups will be prioritized wherever possible.

83. Indicative activities include the following:

3.2.1 Deliver training to strengthen agricultural skills related to the selected products, including: (i) techniques for managing soil fertility and (ii) climate-resilient agricultural practices

3.2.2 Improve access to information and to appropriate post-harvest processing and storage equipment and infrastructure, at different levels of the marketing chain, to help processors better respond to quantitative and qualitative aspects of market demand

3.2.3 Contribute to the sustainable intensification of production in the selected sectors by supporting the adoption of improved technologies adapted to the needs of farmers, in particular women, and enabling them to better respond to market signals

3.2.4 Support efforts by cooperatives to strengthen crop processing and storage

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Output 3.3: Local, national, regional and international partnerships developed to support and promote ?forest-friendly? and climate resilient and gender-responsive income-generating opportunities

84. Support under this output will go beyond the five priority value chains (see Outputs 3.1 and 3.2 above) to encourage investment in a wider range of sustainable and climate-resilient income-generating opportunities within the target project areas. A key criterion for identifying the activities to be supported will be their potential to contribute to the aims and objectives of the integrated, climate-resilient land use, land restoration and forest management plans being developed under Output 2.1 above. For each of the above areas, and others identified in the plans, implementation partnerships will be sought, with the goal of leveraging additional funding into activities that will combine climate-resilient income generation with LDN, SLM and SFM co-benefits. The PPG has clearly shown that farmers and local traders face significant barriers to obtaining loans from commercial banks owing to their difficulty of providing co-lateral (land is not usually individually owned in rural parts of Benin), that agricultural production is perceived as risky, and that loans needed by individual farmers or families are mostly relatively small.

85. Indicative activities include the following:

3.3.1 Develop partnership with micro-financing institutions to increase the flow of financial services (campaign credit, equipment credit, etc.) to encourage adoption of SLM and SFM practices. The project will work with commercial credit institutes and government on the possibility of designing standardized loan packages for communities and cooperatives engaged in climate-resilient and degradation neutral activities such as certain agroforestry value chains, small livestock production, etc. that would be accompanied by extension services to reduce the risks of default.

3.3.2 Establish partnerships with local communities, NGOs, forest department directorates, and ATDAs to train farmers and ranchers (particularly women), in climate resilient agriculture. This activity would focus on the creation and strengthening of land user, processor and trader groups and cooperatives that would work under the supervision and with the support of the responsible government agencies (e.g. forestry) and civil society organizations, thereby increasing their access to credit, technical support and markets, and reducing risks for individuals and families engaged in agricultural and forestry production, processing and trade. This would also include the organization of savings groups within communities to cover smaller investment needs or complement external loans.

3.3.3 Initiate a national dialogue (Government, financial sector, NGOs) on de-risking mechanisms to provide loan guarantees for micro-projects for land degradation neutral (or regenerative) and climate resilient income-generating opportunities. This would build on climate risk assessments of value chains to identify relatively low-risk land use options and would engage with national and local governments, the private sector and civil society organizations active in the area on the possibility of creating partial guarantees for loans and investments in degradation-neutral and climate-resilient land uses and value chains. This discussion is rather new in Benin and therefore the immediate objective of the project would be to create a discussion forum for de-risking needs and potential mechanisms and sensitize government and other actors for the issues involved.

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Output 3.4: Strengthened cooperatives and farmer organizations, and negotiated partnerships with traders and processors, for farmers and communities practicing climate-resilient, zero degradation agriculture and agroforestry

86. Support for enhanced cooperatives, farmer organizations and negotiated partnerships will be aimed at improved market access for farmers and communities practicing climate resilient, zero degradation agriculture and agroforestry, including NTFPs. This output will build on value chain analysis selection and support being undertaken under Outputs 3.1 and 3.2 in order to further strengthen the support mechanisms and marketing opportunities in key selected value chains.

87. Indicative activities include the following:

3.4.1 Develop market research and feasibility assessment for new products based on the ?Market Analysis and Development (ADM)? approach and in consultation with potential beneficiaries

3.4.2 Organize initial meetings between buyers and sellers, and trade shows and exchange trips in the West and Central African sub region and / or support the participation of local producer groups (including cooperatives) in such meetings

3.4.3 Support improve packaging and delivery of new products to market

3.4.4 Support identification of new business partners for SMEs

Component 4: Gender Empowerment, Knowledge Management, and M&E

88. The project is expected to generate a wealth of experience and lessons from the activities being implemented in Components 1-3. While component 1 activities are national in scope, on-the-ground and other actions under components 2 and 3 will be more limited, and often local (e.g. village and

commune level), in geographic scope, beginning with actions aimed at restoration, SLM and SFM of specific target areas within the PDAs. While such actions are critical in that they will support actual environmental change and restoration within 30,000 ha of degraded lands, the impact of such changes in terms of transforming broader areas and processes will depend on the *diffusion* and *replication* of the innovations and good practices being demonstrated. The extent and success of this process will depend in turn on a variety of behavioral and other factors. Component 4 offers an approach, based in part on learning and adaptation within defined replication areas (PDAs), designed to maximize the extent and impact of this transformational logic.

89. This component includes two sub-components: (4A) gender empowerment and knowledge management and (4B) monitoring and evaluation.

OUTCOME 4A: INCREASED TECHNICAL KNOWLEDGE AND DIFFUSION OF LDN AND CLIMATE CHANGE ADAPTATION STIMULATE UPTAKE OF EFFECTIVE, GENDER-BASED SOLUTIONS AT SUB-NATIONAL, NATIONAL AND INTERNATIONAL LEVELS

90. The above outcome will be delivered through a set of four inter-connected outputs, as follows:

? Output 4.1 will establish the gender-based parameters and goals of the project, and in particular its learning and replication efforts, by coordinating and monitoring a gender action plan that was developed during the PPG (see **Annex 8**). The action plan will ensure that both on-the-ground actions under Components 1-3, as well as learning, dissemination and replication efforts under the remainder of Component 4, are designed to leverage women?s strategic role in climate change adaptation and natural resource management in order to effect desired change, while simultaneously enhancing that role and ensuring that important project benefits accrue to women.

? Output 4.2 will focus on the important monitoring issues associated with delivering on climate change informed LDN commitments. It will do so based on a participatory approach which will also serve to verify achievement of the project?s own targets. Success in this area will offer an important stimulus to further LDN investments in the country.

? Output 4.3 will underpin and expand the project?s learning and replication ambitions by integrating LDN and climate change adaptation for agricultural resilience within overall PDA-level monitoring. As a result, changes both within and beyond the specific project target areas will be measured, and adaptive actions will be identified to enhance and quicken uptake across each of the three target PDAs.

? Finally, under Output 4.4, a national-level communications and awareness program will be developed and implemented. As a result, project results and lessons learned will continue to radiate outwards?from target areas (components 1 and 2) to demonstration PDAs (Output 4.3)?to remaining PDAs in Benin and to the wider region as a whole.

The above-mentioned outputs are described in further detail below.

Output 4.1: Gender action plan is implemented and guides project implementation

91. A gender analysis and action plan are presented in **Annex 8**. As noted in the gender analysis, research in rural Benin has shown that women have less access to land and lower levels of land tenure security than men. These factors reduce women?s willingness and ability to make longer-term investments, e.g. in the planting of valuable fruit trees, application of fertilizer and other investments in soil fertility, at a significant cost to society as a whole. In addition, women end up farming marginal plots of land due to lack of alternatives. These issues also make women and women headed households more vulnerable to climate change impacts. Strengthening skills and land tenure security of women would therefore help to increase both the long-term sustainability and productivity of land and the incomes of women and female-headed households[32] there by enhancing their adaptive capacity.

92. As outlined in the gender action plan, the project will aim to address specific disadvantages facing women in Benin?s rural society and to empower them to play a role equal to that of men in the sustainable development of the target areas and PDAs. This will include the following types of activities under the individual components:

? Supporting the roles and rights of women in policy and institutional work (Component 1).

? Involving women?s groups in all stages of forest restoration and reforestation activities and increasing women?s access to land through gender-sensitive land use plans and climate risk assessment, including the demarcation by local committees of fertile lands for use by women and women groups (Component 2).

? Strengthening the organization of women in informal groups, associations and cooperatives to increase their market access, position in climate-resilient value chains and control over revenues from agriculture, agroforestry and trade (Component 3).

93. Guidance documents that have been, and will continue being, used to guide the project?s gender work include the CGIAR-CCAFS program?s ?Gender and Inclusion Toolbox: Participatory Research in Climate Change and Agriculture?[33], as well as the UNDP/FAO ?Toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness?[34]. These tools are essential for assessing the specific role and problems of women and for harmonizing proposed activities with specific local needs, both during the PPG and during the full project implementation. These efforts are also drawing on experiences from other projects such as the GEF Resilient Food Systems Impact Program[35].

94. While most activities identified in the gender action plan have been distributed across the relevant components and outputs, indicative activities under Output 4.1 include the following:

4.1.1 Raise awareness among project stakeholders regarding the goals, activities and objectives of the gender action plan

4.1.2 Monitoring and adaptive management of implementation of the gender action plan to ensure that it is meeting its objectives

Output 4.2: Participatory monitoring and quantification of LDN and CCA implementation?including restoration, SFM and SLM actions?as a contribution to national reporting under the UNFCC and other international commitments

95. Under Output 4.2, a participatory system will be tested in the three project PDAs for generating and managing data on climate hazards and impacts, restoration, SFM and SLM. In addition to contributing to UNCCD and UNFCCC reporting, this data will also be useful for verifying that key quantitative project targets are being met. In parallel, changes in vulnerability and livelihood status will be monitored, thereby contributing to enhanced understanding of the relationship between degradation and livelihoods.

96. Indicative activities include the following:

4.2.1 Strengthen capacities, particularly among women and young people, to contribute to monitoring and evaluation of interventions for the sustainable and climate resilient management of land and forest ecosystems at the local, municipal and PDA levels (1, 2, and 5)

4.2.2 Pilot testing of a system of participatory monitoring, review and verification (MRV) of land and forest degradation, climate vulnerability and adaptation needs, potential risks and likely impacts.

4.2.3 Implement a system of monitoring changes in livelihood status and adaptive capacity for vulnerable people targeted

4.2.4 Obtain agreement between project stakeholders and sectoral decision makers at the national level on simple indicators, applicable to all sectors, linked to integrated, gender sensitive, sustainable responses to climate change

4.2.5 Produce reports estimating LDN implementation across the three PDAs, integrating data gathered by participatory and other means

Output 4.3: A learning and dissemination network developed and implemented in each of the three PDAs

97. On-the-ground actions and investments made by the project under Components 2 and 3 will be carefully monitored and periodically assessed from the point of impact, innovativeness, application of best practices and other factors in order to generate lessons that can be captured, learned and disseminated. An initial priority target for dissemination will be the remaining areas within the three project PDAs. PDA-level monitoring will assess the degree to which lessons / methods are being diffused and adopted throughout these wider landscapes. Awareness raising / training activities will be organized to disseminate technical aspects of the demonstrations. Behavioral and other barriers to diffusion of successful practices, and ways to overcome such barriers, will be identified as part of an iterative process aiming at stimulating broader PDA-wide transformations.

98. Indicative activities include the following:

4.3.1 Monitoring and assessment of project impacts and associated lessons emerging

4.3.2 Based on project results / demonstrations, develop and implement a training and dissemination plan aimed at women's groups and mixed farmers' organizations to support the further uptake of implementing technologies for the climate risk informed restoration of natural ecosystems, innovation in soil water conservation, etc.

4.3.3 Develop and disseminate technical guidance on adoption of climate resilient value chains integrating climate risks, to enhance productivity and climate resiliency of targeted value chains and agroforestry systems

4.3.4 Organize networking sessions to share experiences between the intervention municipalities on the one hand, and other municipalities within the three PDAs

4.3.5 Strengthen the capacities of women, young people and small producers in the management of digital tools (financial, digital education, e-commerce, etc.) for better climate resilience

4.3.6 Organize exchange trips / visits between PDAs and capacity building for the benefit of stakeholders on SLM/SFM

Output 4.4: National-level communications and public awareness program, incorporating lessons learned by the project, including through participatory monitoring and gender empowerment, is developed and implemented at national, regional and international levels

99. Learning developed under output 4.3 will contribute to the development of a national-level communications and public awareness program. This effort will reach well beyond the direct circle of project beneficiaries and landscapes to encompass a broad swath of Benin society. It will also include a series of exchanges with a parallel UNDP-GEF project being implemented in neighbouring Togo.

100. Indicative activities include the following:

4.4.1 Develop a national information, education and communication (IEC) plan targeting all relevant actors, including, *inter alia*: (i) educational materials in order to increase knowledge and awareness among educators and to encourage teaching sessions in secondary schools and universities on Land Degradation Neutrality and climate change adaptation; (ii) an inclusive dialogue platform between scholars, customary and religious authorities, vulnerable groups and representatives of sectoral ministries around the inclusive management of natural ecosystems for climate resilience and LDN

4.4.2 Produce gender-sensitive communications and public awareness materials, e.g. leaflets, posters, flyers, brochures, summaries, videos, local radio spots, phone app, etc.)

4.4.3 Conduct briefings with target groups on project experience, as well as best practices and lessons learned, on topics such as gender and LDN, climate change resilience, etc.

4.4.4 Organize a series of physical and virtual exchanges?e.g. visits, workshops, knowledge products?with counterpart project team and stakeholders in neighboring Togo

OUTCOME 4B: PROJECT LEVEL MONITORING AND EVALUATION

101. The above outcome will be delivered through the following output:

Output 4.5: Project monitoring and evaluation is ensured

102. This output will ensure that project results are properly monitored throughout implementation through a performance framework, regular monitoring activities and evaluations.

103. Indicative activities include the following:

Activity 4.5.1. Project Inception Workshop

Activity 4.5.2. Implementation of Monitoring and Evaluation Framework for the Project

Activity 4.5.3. Mid-term review

Activity 4.5.4. Terminal evaluation

4) Alignment with GEF focal area and/or impact program strategies

104. The project aligns with two GEFTF funding areas under Land Degradation, namely LD-1.3: Food systems, land use and restoration and LD-2.5: Creating an enabling environment to support voluntary LDN target implementation.

105. With respect to climate change adaptation, the project responds to two of the three LDCF programming objectives. In addition to supporting ?CCA-1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation,? it is also providing significant support related to ?CCA-2: ?Mainstream climate change adaptation and resilience for systemic impact.? This is particularly evident in light of the project?s Joint Programming approach, in which GEFTF funds and objectives for land degradation are being combined in a single project with LDCF funds and programming objectives.

106. The project?s multi-focal area alignment is perhaps best described in the LDCF Programming Strategy document, under LDCF Objective 2: ?Mainstream Climate Change Adaptation and Resilience for Systemic Impact,? which states:

> Under this objective, countries may strategically **jointly program** LDCF grants alongside GEF Trust Fund resources to develop robust projects or programs that generate GEBs as well as adaptation benefits. Such support will capitalize on the GEF?s unique mandate to serve multiple MEAs, draw upon its wide-ranging technical strengths, and respond to recent COP guidance to promote synergies across focal areas. This approach towards synergistic programming of adaptation and GEF Trust Fund resources can deliver multiple benefits in terms of sustainability, cost-effectiveness, delivery of holistic solutions, enhanced impacts, and an expanded array of beneficiaries.
>
> Alignment of joint programming will depend on national adaptation priorities as well as priorities for generating GEBs, and will be country-driven?given the high level of

alignment of LDC NAPA implementation projects to date in themes/areas of agriculture, land-based actions, sustainable rural livelihoods? [36]

107. The LDCF Programming Directions go on to describe the potential for integrated benefits, two of which are well captured in the present project. These are:

? Climate-resilient smallholder food systems that generate climate mitigation, sustainable land management and biodiversity benefits while addressing the root causes of degradation and vulnerability;

? Land-based solutions, such as the Green Wall Initiative, that address cross-cutting themes of adaptation, mitigation, land degradation, and sustainable development...

108. In recognition of the importance and relative novelty of this Joint Programming approach, careful attention has been paid to ensuring full integration and benefits associated with the mainstreaming approach. Several changes made in the wording of Output descriptions reflect this enhanced and integrative logic. Special attention has been paid to ensuring alignment with LDCF guidance, details of which are presented in **Table 5** below.

Table 5: Project alignment with LDCF objectives and outputs

LDCF Objective & outcome	**LDCF Output (as per CCA results framework)**	**Corresponding project outputs or activities (Note: * indicates change in wording from submitted version)**
OBJECTIVE 1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation *Outcome 1.1: Technologies and innovative solutions piloted or deployed to reduce climate-related risks and/or*	Output 1.1.1: Physical and natural assets made more resilient to climate variability and change	Output 2.2: Degraded lands amounting to at least 15,000 hectares, and at least 15,000 hectares of forest are under climate risk informed and resilient restoration and functional and sustainable management regimes
	Output 1.1.2: Livelihoods and sources of income of vulnerable populations diversified and strengthened	Output 3.1: Five agricultural value chains are identified and assessed according to their potential to be climate resilient and deliver multiple local, national and global benefits, including income generation, LDN benefit and enhanced adaptive capacity within project PDAs*
		Output 3.2: Selected climate resilient and sustainable agricultural and agroforestry practices and market channels are strengthened through investments and extension support for climate resilient agricultural practices, leading to triple-bottom-line benefits, strengthened adaptive capacity of vulnerable communities, job and SMME creation
		Output 3.3: Local, national and regional partnerships established to support and promote ?forest-friendly? and climate resilient income-generating opportunities

LDCF Objective & outcome	LDCF Output (as per CCA results framework)	Corresponding project outputs or activities (Note: * indicates change in wording from submitted version)
enhance resilience	Output 1.1.3: New /improved climate information systems deployed to reduce vulnerability to climatic hazards/variability	Output 1.1: National LDN and restoration database established within the DGEC under MCVDD, bringing together national data sources including related data on climate impacts, vulnerability, and adaptation needs, and linking to global systems for monitoring restoration and LDN
	Output 1.1.4: Vulnerable natural ecosystems strengthened in response to climate change impacts	Output 2.5: Green Belt infrastructure against the advance of the desert in the north of Benin strengthened through development of manuals for climate change resilient restoration and forest regeneration, community managed nurseries for drought resilient tree species of local preference, communal fire control measures, protection of watercourses, integration of tree fodder production to accommodate seasonal passage of pastoralists, and locally managed monitoring for landscape and forest restoration.
OBJECTIVE 2: Mainstream climate change adaptation and resilience for systemic impact *Outcome 2.1: Strengthened cross-sectoral mechanisms to mainstream climate adaptation and resilience*	Output 2.1.1: Cross-sectoral policies and plans incorporate adaptation considerations	Output 2.1: Integrated climate risk, land use, landscape restoration, and forest management plans, which incorporate climate scenario-based hazards and likely impacts, are developed, with climate change scenarios informing risks and selection of adaptation options, and developed and operationalised at target sites, with capacity to implement
	Output 2.1.2: Cross-sectoral institutional partnerships established or expanded	Output 3.4: Strengthened cooperatives and farmer organizations and negotiated partnerships with traders and processors for farmers and communities practicing climate resilient, zero degradation agriculture and agroforestry
	Output 2.1.3: Systems and frameworks established for continuous monitoring, reporting and review of adaptation	Output 1.2: National monitoring and reporting systems for tracking climate change vulnerability in the agricultural sector along with changes in adaptive capacity, land cover, land degradation, restoration, forest ecosystems and ecosystem services

LDCF Objective & outcome	LDCF Output (as per CCA results framework)	Corresponding project outputs or activities (Note: * indicates change in wording from submitted version)
	Output 2.1.4: Climate risk and vulnerability assessments conducted	Output 2.1: Integrated climate risk, land use, landscape restoration, and forest management plans are developed, with climate change scenarios informing risks and selection of adaptation options, and operationalised at target sites Output 4.2: Participatory M&E and quantification of LDN implementation?including restoration, SFM and SLM actions?as a contribution to national reporting under the UNFCC and other international commitments
Outcome 2.3: Institutional and human capacities strengthened to identify and implement adaptation measures	Output 2.3.1: Number of people trained regarding climate change impacts and appropriate adaptation responses	Output 2.3: Awareness raising and training of 1,000 national and local government and administration officials (including *ATDAs, DGEC under MCVDD and DGEFC* [1]), parliamentarians and representatives of private sector in climate resilient and degradation neutral planning and policies, with focus on agriculture, animal husbandry and forestry,[1] targeting the mainstreaming of CCA and LDN in all policies and administrative decisions
		Output 2.4: Extension services in climate resilient and degradation neutral agriculture, animal husbandry and agroforestry provided to 24,000 farmers and community leaders (50% women), including on climate resilient and degradation neutral cotton production.

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LCDF, SCCF and co-financing

109. **Table 6** below summarises the project?s incremental cost reasoning.

Table 6: Incremental cost reasoning

Baseline practices	Alternatives to be put in place	Global Environmental Benefits (GEBs) and Project impacts

Baseline practices	Alternatives to be put in place	Global Environmental Benefits (GEBs) and Project impacts
National plans and programs are in place but lack of coordination and defined responsibilities between government actors hinders effective implementation of the LDN priorities/targets and SLM Framework which in turn affects agriculture and agroforestry (impacted by lack of appropriate SLM of the crop and forest lands at target sites). National funding through the government systems will continue to be available, but this does not meet the funding gap at local level where funding for additional, climate risk informed SLM, restoration, and forest conservation efforts are needed. Smallholder farmers will continue focusing on traditional cash-crops and remain unaware and untrained on alternative, climate resilient value chains, agricultural practices and SLM, agroforestry possibilities that are financially viable. The economic returns from traditional farming systems and local varieties/traditional crops will continue to decline in the local farming communities.	Cross-sectoral Ministerial or Agency regulations (Decrees/Orders/Bills) for the LDN targets and the climate risk integrated SLM and SFM Framework will be developed where lacking, necessary, and appropriate, and signed into effect, ensuring effective coordination between the different sector entities within government, integration and mainstreaming of climate adaptation needs in efforts to achieve land degradation neutrality, as well as providing needed direction for effective implementation towards meeting underlying targets. New or revised policies will in turn influence how forestry and other land management and land-use plans in target areas will be coordinated and implemented. Guidelines on how to access the LDN Fund and other funding sources will be elaborated, to enable project development in support of climate resilient and risk informed SLM and forest conservation at local level. The training in land degradation and neutrality target achievements through development of management tools and climate change risk integrated, land-use options will build the technical expertise of agencies, project staff, and producers in management of landscapes in the target areas. Specific vulnerability of smallholder farmers and small-scale cattle herders will be assessed through the use of tools such as SHARP. [37] Together with analysis of climate resilient value chains and adaptation options, these assessments will provide a comprehensive understanding of varying vulnerability to climate change, existing adaptive capacity, and farmer preferences for adopting more climate resilient value chains and climate smart agricultural practices. Training in effective climate	Climate risk informed and resilient SFM, SLM and sustainable agricultural production approaches are adopted and implemented on **30,000 ha in three PDAs**, as follows: - 15,000 ha of forest ecosystem brought under restoration integrating consideration of climate change scenarios/risks and resilience criteria (e.g. using seed varieties and/or species resilient to current and future climate change) restored and under improved management (Core Indicator 3 - Area of **land restored;** CCA Core Indicator 2 ? area of land managed for climate resilience) - 15,000 ha of degraded land brought under restoration and under improved management (Core Indicator 4 and CCA Core Indicator 2 - Area of **landscapes under improved practices** [excluding protected areas]) - The co-benefits of the project in terms of GHG emissions avoided have been estimated to be **4,471,732 t CO2eq**. - 24,000 producers in 18 communities are provided with training and extension support for climate resilient, sustainable (climate-smart) agricultural and agroforestry production. (CCA core indicator 1 ? total number of direct beneficiaries), with indirect beneficiaries estimated at an additional 344,000 individuals in the three development poles The capacity for developing climate risk informed and resilient forest and agricultural landscape and land-use plans is built through the provision of training and extension services to national DGEC under MCVDD and MAEP staff, national agency staff involved in land use, land management, climate change adaptation and forest conservation at the targeted project sites Investment for SLM, climate smart agriculture and climate resilient value chains and sustainable agroforestry projects will increase as a result of the strengthened mechanism for funding through the National Forestry and National Agricultural Development Funds (this will be designed

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6) Global environmental benefits (GEFTF) and/or adaptation benefits

110. The environmental benefits generated by the adoption of climate smart agricultural practices, climate risk informed and resilient SLM and SFM under the project will contribute to land and ecosystem health, strengthen resilience of beneficiaries, and support community adaptation to the impacts of climate change. Through project activities, climate resilient value chains will be identified and promoted, agricultural practices and production at target sites will improve, integrating climate risk reduction strategies, with associated increases in revenue, and ecosystem integrity will be conserved. The project will carry out activities that will ensure reduced threats from unsustainable land and forest use practices, and, at the same time, limit land degradation and soil erosion, contributing to increased ecosystem services, build resilience in hydrological flows under climate change and strengthening adaptive capacity of the households in target sites. Through the project, Sustainable Land Management, and climate smart agricultural practices will be applied as an effective tool to limit soil and vegetation degradation and enhance water resource management. The project will additionally improve resilience to climate change through implementation of climate change risk informed Sustainable Forest Management practices that will conserve natural resources and reduce their unsustainable exploitation. Initiating and mainstreaming climate-smart agroforestry and carrying out training and agricultural extension services at ground level, including on adapting to climate change, will contribute to the uptake of SLM approaches and techniques that will increase community resilience to climatic hazards, restore degraded ecosystems, and increase agricultural supplies for subsistence and income generating purposes.

111. The project will **reduce vulnerability and increase resilience** through innovation and technology transfer for climate change adaptation. This will occur through transfer of technologies and innovative solutions that will be piloted or deployed to reduce climate-related risks and/or enhance resilience. More specifically:

- Technologies and innovative solutions will be piloted or deployed to reduce climate-related risks and/or enhance resilience, affecting production practices on 15,000 of agricultural land;
- Livelihoods and sources of income of vulnerable populations (est. 24,000 beneficiaries) will be diversified and strengthened in the areas of agriculture, agro-processing, dairy and enhanced access to markets, through the strengthening of climate resilient value chains;
- Improved climate information systems will reduce vulnerability to climatic hazards/variability, through improved collection and dissemination of climate-related information, benefitting an estimated 5,000;
- Vulnerable natural ecosystems, including grasslands and forests, will be strengthened in response to climate change impacts, resulting in hydrological flows and enhanced provisioning services due to reduced conversion of natural forests and savannahs into other forms of land use, as well as through increased reforestation.

112. In addition to the above, **climate change adaptation and resilience will be mainstreamed** for systemic impacts, including through:

- Strengthened cross-sectoral mechanisms (one each for three PDAs), covering the agricultural and water sectors, will mainstream climate adaptation and resilience, while enhancing inter-sectoral coordination of policies and planning, and water resource management;
- Institutional and human capacities (est. 1,000 trainees) to identify and implement adaptation measures will be strengthened;
- Local people will be made aware of climate change impacts and appropriate adaptation responses.

113. Quantitative indicators of global environmental benefits and adaptation benefits are listed in the last column of **Table 4** above. The following provides additional information on how these targets were determined:

? **Forest restoration targets:** Based on the forest map of Benin and the degradation areas around protected forests (sacred, community, classified and wildlife reserves), the national SFM indicator has been defined. The NDC has set itself the ambitious target of restoring 150,000 hectares of degraded forests. The project has committed to contributing 10% of the CDN's target and has initiated a process of identifying the most suitable sites in the project's intervention area, based on the prevalence of degraded forest in the zone. In line with the overall target, the project intends to restore approximately 10% of the degraded forests at each intervention site, while also stimulating further processes of uptake and replication both within and outside of the project areas.

? **Target of land under sustainable management:** We have estimated the proportion of degraded arable land in the project's sites from land use maps, and have applied the land degradation neutrality indicator which is ?10% of degraded land restored? according to the National SLM Action Plan (PAN/GDT). This resulted in a target of 15,000 ha of land to be brought under sustainable management.

? **Calculation of carbon gains:** The co-benefits of the project in terms of GHG emissions avoided have been estimated to be 4,471,732 t CO2eq. Of these, 2,887,338 t CO2eq of emissions reductions would result from the restoration of 15,000 ha of degraded areas into natural forest cover, focusing on sensitive areas such as slopes, riparian forests and wildlife corridors; and the remainder would result from the rehabilitation of 15,000 ha of degraded areas into a mix of agroforestry, productive crop and pasture land with interspersed tree cover. The details are provided in the included Ex-Act file. The difference to GHG emissions reductions estimated at PIF stage (1,006,450 t CO2eq) are due to a change in the methodology of calculation (for the PIF, the Winrock carbon calculator was used) and related assumptions (especially consideration of a 20-year time horizon in the Ex-Act tool as compared to a 6-year horizon in the Winrock tool) as well as minor adjustments in project design (i.e. the current design assumes that 15,000 ha of degraded lands would be rehabilitated into a mix of agroforestry, productive pasture and crop lands with interspersed trees rather than all into agroforestry as was the assumption in the PIF calculation).

? **Number of beneficiaries:** The project aims to directly benefit a total of 24,000 individuals, of which 7,000 adult men, 7,000 adult women and 10,000 youth, with indirect beneficiaries estimated at an additional 344,000 individuals in the three development poles. Estimations of population size are based on village populations and the proportion of active farmers in each village. At least 50% of direct beneficiaries, and approximately 50% of indirect beneficiaries, will be women.

7) Innovativeness, sustainabilty and potential for scaling up

Innovation: The project is innovative in a number of ways:

? It will bring together a number of different Government agencies, supported by their development partners, to design and implement climate-smart agriculture and agroforestry, participatory forest management, land restoration, and sustainable agricultural production, all of which will be integrated through the framework of **integrated land use planning**. Most importantly, the project will work with government agencies at national and local level as well as community-based organizations and SMEs to ensure that land use plans integrating LDN and CCA into agricultural and forestry development are effectively implemented on the ground. This need to build the **capacity and institutional structures to ensure the effective and timely implementation** of interdisciplinary, interagency and inter-ministerial development plans combining LDN, CCA, agriculture and small business development has been specifically pointed out by government stakeholders during the project design. It goes beyond the (already complex) tasks of participatory and integrated land use planning (integrating highly uncertain climate change scenarios) into the complexities of budgeting for and operationalizing workplans that fall across institutional responsibilities and requires close coordination at various levels for their effective implementation. The timing of the project is ideal, as Benin is adopting a new Integrated Land Use Planning Policy and has recently set up structures to increase Government capacity and civil society participation to undertake spatial planning for development across local, district and national levels, integrating climate change adaptation planning, and there is a clearly expressed demand for the effective implementation of existing and forthcoming plans. The project aims to develop innovative partnerships at district level for enhanced spatial management and strengthened natural resource management through implementation of various management tools, such as the Master Town Planning, Forest Management Plan, Land Sub-division Plan, etc.

? The project also takes an innovative approach to the challenge of agricultural input supply ? promoting a small business development approach to supplying farmers with critical inputs for enhancing productivity and enabling sustainable intensification, whilst simultaneously avoiding the spread of the agricultural footprint further into the forest, or even restoring forest cover at critical locations as an insurance against ecosystem service failure (e.g. soil erosion, flooding, or the seasonal drying out of wells and water courses as too much rain water is lost as runoff).

? GEF investment will provide hands-on technical assistance for the first three years of each income generating activity as it becomes established. Such businesses will be based on market analysis and will supply needed agroforestry / farming inputs, e.g., improved seeds, weeding tools, vermicompost start-up, compostable seedling bags.

? Specific innovation with regard to gender is the inclusion of targeted capacity development for women farmers and product developers such as Shea butter from Shea trees, baobab products, which will provide women farmers and female headed households with the ability to participate fully in agricultural extension support programmes for tree crop cultivation, as well as for livestock farming, agroforestry, and citrus, cashew and mango plantations. Participating farmer groups and small businesses will be sensitized to the need and approaches to analyze crops and related value chains according to their vulnerability to land degradation and climate change, thereby enabling the selection of less vulnerable approaches to farming and local business development. Tree and crop species that have shown high resilience to climate variability and change and that are well adapted to the often low fertility of savanna soils, while having well-developed local markets, such as shea, n?r? and baobab, will be given priority.

? Awareness raising and advocacy efforts through the project will use a wide range of available media and approaches ? including local radio, if necessary, in a range of languages and using techniques that are well-adapted to the local culture, such as dialogues and songs, as well as mobile phone applications and messaging services, and exploring use of indigenous folk media forms (eg theater).

? Decree No. 2018-125 of 17 April 2018, which approved the statutes of the Territorial Agricultural Development Agency of Borgou Sud-Donga-Collines, established an innovative institutional reform known as Territorial Agricultural Development Agencies (ATDA). The operation of ATDAs establishes new spaces and mechanisms involving the full range of agricultural stakeholders, including farmers' organizations (FOs), Non-Governmental Organizations (NGOs), private entities and others. Operating under the framework of ATDAs, these agencies are enabling the regulation, revitalization, coordination and financing of agricultural support services. ATDAs also represent structural mechanisms for promoting public-private partnership; they will thus facilitate the development of strategic partnership with farmers' organizations and their networks in project implementation. These provisions, combined with experiences in terms of State and civil society collaboration since 1990, constitute favorable factors for the development of a strategic partnership between the project and its implementing partners in the field, although the latter are NGOs. This includes traditional authorities, an integral part of Beninese civil society whose influence on the development of sustainable development projects/ programs is well established. Among the specific strategic partners on the ground (see also Annex 8, Stakeholder Engagement Plan, include:

- Grassroots Community Organizations (OCB)
- Communal Union of Producers (UCP)
- Municipal Union of Professional Organizations of Ruminant Breeders (UCOPER)
- Departmental Union of Professional Organizations of Ruminant Breeders (UDOPER)
- Communal Union of Market Gardeners (UCM)
- Communal Union of Producers (UCP)

- Communal Union of Women's Groups (UCGF)
- Women's and mixed groups for the processing of agricultural products
- Nurserymen (p?pini?ristes)
- Communal Union of Professional Organizations of Ruminant Breeders (UCOPER)
- Departmental Union of Professional Organizations of Ruminant Breeders (UDOPER)
- Village Associations for the Management of Wildlife Reserves (AVIGREF)
- National Federation of Mango Producers (FeNaProM)
- Forest Community of Moyen Ou?m? (COFoRMO)
- Interprofessional Cotton Association (AIC)
- Associations of kings and associations of dignitaries of traditional religions
- Non-governmental organizations involved in climate change adaptation.

? To date, there has not been much experience gained by important agricultural organizations like ATDAs or other local institutions on reversing land degradation while incorporating climate change considerations more broadly. The project will support these institutions to innovate their practices in order to address these interacting issues with the goal, *inter alia*, of strengthening resilience at the community level. This approach is closely linked to the project?s knowledge management strategy. Thus, delivery of technical knowledge and innovation needed to achieve the above objective will depend on a combination of strengthened information ?repositories??in the form of capacitated ATDAs, researchers, local government officials, village leaders, women?s groups, etc, acting as networking hubs?along with improved networking amongst these, and, critically, from them to members of local communities. In these ways, technical innovations in the project?s target themes will become more locally relevant, accessible, sustainable and, thus, more widely and effectively applied.

Sustainability: The Government of Benin aims to mainstream LDN across different sectors in order to achieve its ambitious LDN targets. Building on experience of previous UNDP-GEF projects in Benin, this project will maximize opportunities for sustaining the gains of the project in the long term while also integrating a climate change risk informed lens into the identification and selection of efforts to achieve LDN targets. This will be achieved by ensuring that there is thorough buy-in and adoption of the project by Government, stakeholders and beneficiaries in order to improve and strengthen ownership of the project. Means by which sustainability post-project can be achieved will be evaluated during the project development phase. The maintenance of infrastructure for newly established small income generating opportunities will be addressed through business planning efforts and the overall sustainability will be promoted through provision of support services, including carrying out value chain analyses and market studies, and providing technical training and business planning.

Scaling up: Scale-up will be achieved through a new approach to building partnerships for agricultural extension, working closely with the Territorial Agencies for Agricultural Development to integrate climate risk, vulnerability and adaptation options in decision-making, and the various producer Unions, to bring in private sector partnerships with an interest in investing to build climate resilience in their supply chains, especially in the specialty organic cotton, citrus, cashew and mango, and other tree crop sectors. Scale-up of adoption of climate resilient value chains and agricultural practices will occur through the existing platforms, integration of lessons with the Scale-up of climate risk informed participatory forest management activities as part of fulfilling the restoration objectives set out in the Forest Sector Development Plan, will be addressed through investigating the feasibility of various financial incentives. Scale-up of project learning to other regions of Benin will also be addressed through Component 4 of the project, which includes holding annual dialogue and information sharing events with beneficiaries and stakeholders operating not only in different sectors, but also in different Departments across Benin. Project learning will also be shared with other GEF-funded projects addressing farming and forestry practices, particularly the Project ID 9383 ?Sustainable Forest Management and Conservation Project in central and south Benin (Departments of Borgou and Donga)? being implemented by AfDB.

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[1] Note Politique NDT 2017.

[2] CENATEL 2017

[3] https://reliefweb.int/sites/reliefweb.int/files/resources/Benin.pdf

[4] UNCCD 2018

[5] Increasing population may also have countervailing benefits, e.g. to innovation.

[6] (In rural areas, the incidence of poverty is higher (42%) than in urban areas (32%). The population spending less than a dollar a day is 63.5%. Poverty appears much more as a rural phenomenon in Benin, in an economic context mainly characterized by the preponderance of the agricultural sector (EMICoV, 2015).),

[7] See https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjJ-9OttJfzAhXRmFwKHR_ODWAQFnoECAMQAQ&url=https%3A%2F%2Fwww.mdpi.com%2F2073-445X%2F10%2F4%2F425%2Fpdf&usg=AOvVaw0SqUxnHT7Be1pFkOI2Q-Vd

[8] See https://www.unep.org/news-and-stories/story/waste-no-more-benin-confronts-long-history-chemical-waste-mismanagement

[9] GAIN index summarizes a country?s vulnerability to climate change and other global challenges in combination with readiness to improve resilience. Benin profile: https://gain.nd.edu/our-work/country-index/rankings/

Methodology: https://gain.nd.edu/assets/254377/nd_gain_technical_document_2015.pdf

[10] https://climateknowledgeportal.worldbank.org/country/benin/climate-data-projections

[11] Men and women farmers in Benin are responding differently to climate change (theconversation.com)

[12] https://reliefweb.int/sites/reliefweb.int/files/resources/Benin.pdf

[13] https://reliefweb.int/sites/reliefweb.int/files/resources/Benin.pdf

[14] Sow, P. S. Adaawen and J. Scheffran. 2014. Migration, Social Demands and Environmental Changes Amongst the Frafra of Northern Ghana and Biali in Northern Benin. Sustainability , 6 (1): 375-398. *Sustainability*. 6. 375-398.

[15] Baudoin et. al. 2014. Small scale farmers? vulnerability to climatic changes in southern Benin: the importance of farmers? perceptions of existing institutions. *Mitg.Adapt.Glob.Change.*

[16] The present project has been developing partnerships with all of these projects, a portion of whose budgets are included in project cofinancing (see below, Partnerships).

[17] The WAP Complex (W-Arly-Pendjari Complex) is a transboundary Natural UNESCO World Heritage Site in Benin, Burkina Faso and Niger

[18] PADEFA-ENA - Programme d?Appui au D?veloppement de la fili?re Anarcade et de l?Entrepreneuriat Agricole au B?nin

[19] PIDAC : *Projet Integr? de D?veloppement et d?adaptation au Changement Climatique dans la Vall?e du Niger*

[20] BOAD - *Banque Ouest Africaine de D?veloppement*

[21] MEM : *Minist?re de l?Eau et des Mines*

[22] DQIFE - *Direction de la Qualit? de l?Innovation de la Formation Professionnelle et de l?Entrepreneuriat*

[23] Annex 14.6 presents additional information, including SFM and SLM potential in each district, along with more precise geographical details at the level of ?arrondissement? and village.

[24] Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation.

[25] Climate risk assessments to inform integration of climate change risks and impacts into planning for SLM, SFM and climate resilient agriculture will be developed using approaches such as the one produced by GIZ and UNU (2018): A guidebook for planners and practitioners. See here.

[26] Using, for example, the GIZ ? UNU guidance to practitioners (2018).

[27] Through, for example, working with partners to integrate current climatic stress and projections into models such as those produced by IIS-Rio and applied in Brazil, countries in South America and

the global scale. Also see: Strassburg, B. et al. 2020. Global priority areas for ecosystem restoration. Nature.

[28] See for example : Strassburg et al 2020. Global priority areas for ecosystem restoration. Nature

[29] The selection process will utilize the following methodology: *Toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness - Integrating agriculture in National Adaptation Plans (NAP-Ag) Programme*. 2020. FAO and UNDP.

[30] The selection process will utilize the following methodology: *Toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness - Integrating agriculture in National Adaptation Plans (NAP-Ag) Programme*. 2020. FAO and UNDP.

[31] Self evaluation and holistic assessment of climate resilience of farmers and pastoralists (SHARP). Accessed at : http://knowledgecentre.resilientfoodsystems.co/kc/resource_library

[32] Goldstein, Markus; Houngbedji, Kenneth; Kondylis, Florence; O'Sullivan, Michael; Selod, Harris. 2016. Securing Property Rights for Women and Men in Rural Benin. Gender Innovation Lab Policy Brief;No. 14. World Bank, Washington, DC. ? World Bank. https://openknowledge.worldbank.org/handle/10986/25453 License: CC BY 3.0 IGO.

[33] https://ccafs.cgiar.org/gender-and-inclusion-toolbox#.X4g2SNBKjIW

[34] https://reliefweb.int/sites/reliefweb.int/files/resources/nap-ag_toolkit_for_value_chain_analysis_.pdf

[35] http://www.resilientfoodsystems.co/news/for-women-in-benue-state-beekeeping-offers-an-avenue-for-income-and-independence

[36] LDCF - CCA Results Framework

[37] Self evaluation and holistic assessment of climate resilience of farmers and pastoralists (SHARP). Accessed at : http://knowledgecentre.resilientfoodsystems.co/kc/resource_library

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Geospatial coordinates of project landscapes are as follows:

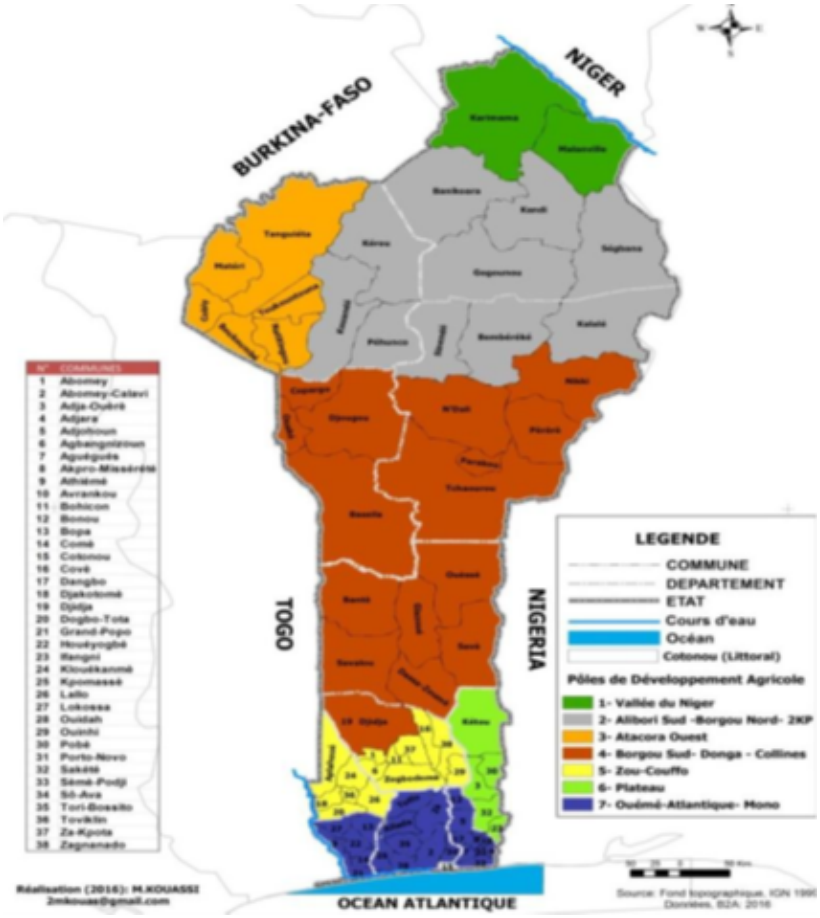
? PDA 1 (Karimama-malanville): Between 431724 E and 566045 E, 1263564 N and 1371738 N,

? PDA 2 (Alibori sud, Borgou Nord et 2KP): Between 349698 E and 586104 E, 1096826 N and 1263922 N,

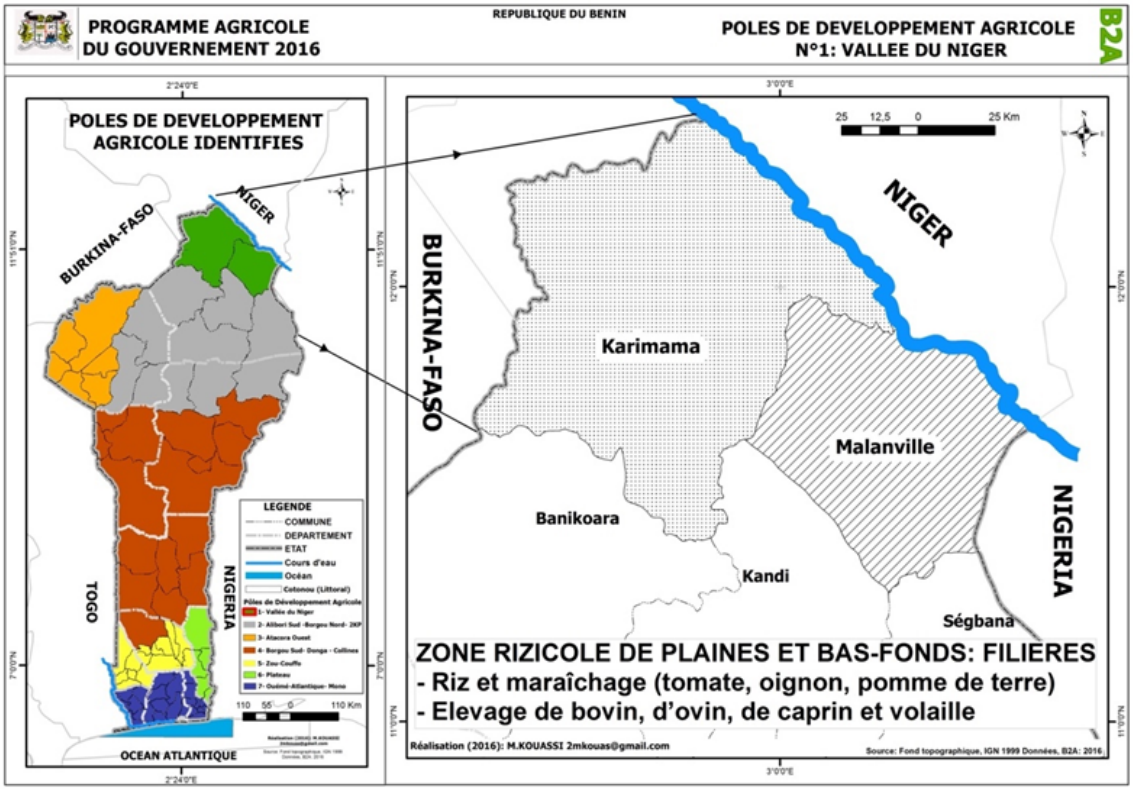
? PDA 5 (Zou COuffo): between 340743 E and 445156 E, 744007 N and 822451 N.

Map 1: The seven Agricultural Development Areas

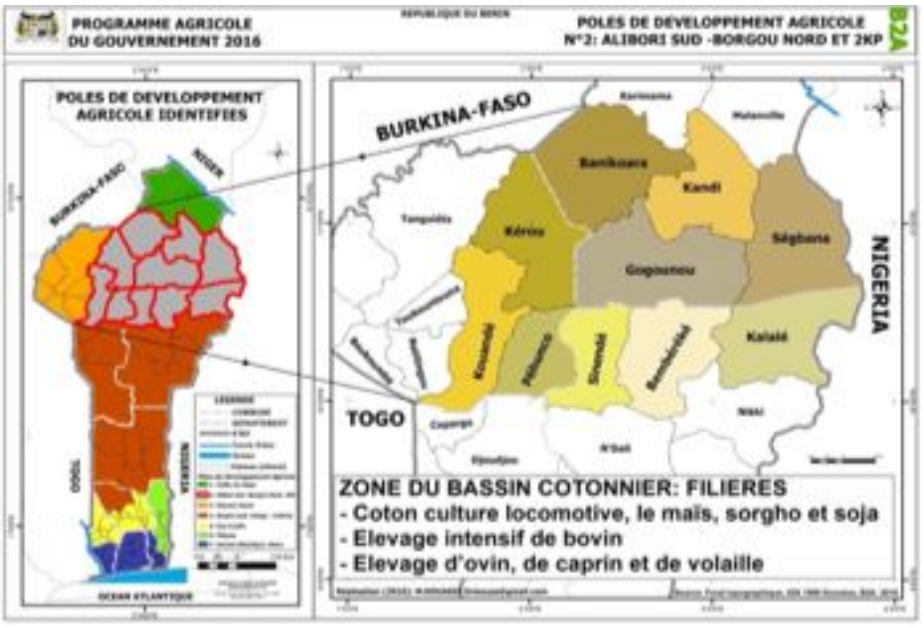
[Note - Project sites can be found at: a) Karimama is in the **Niger Valley** (green); b) Kouand?, Gogounou and S?gbana in **Alibori Sud-Borgou Nord-2KP** (grey); and c) Za-Kpota, Cov?, Klou?kanm? and Aplahou? in the north of **Zou-Couffo** (yellow)]



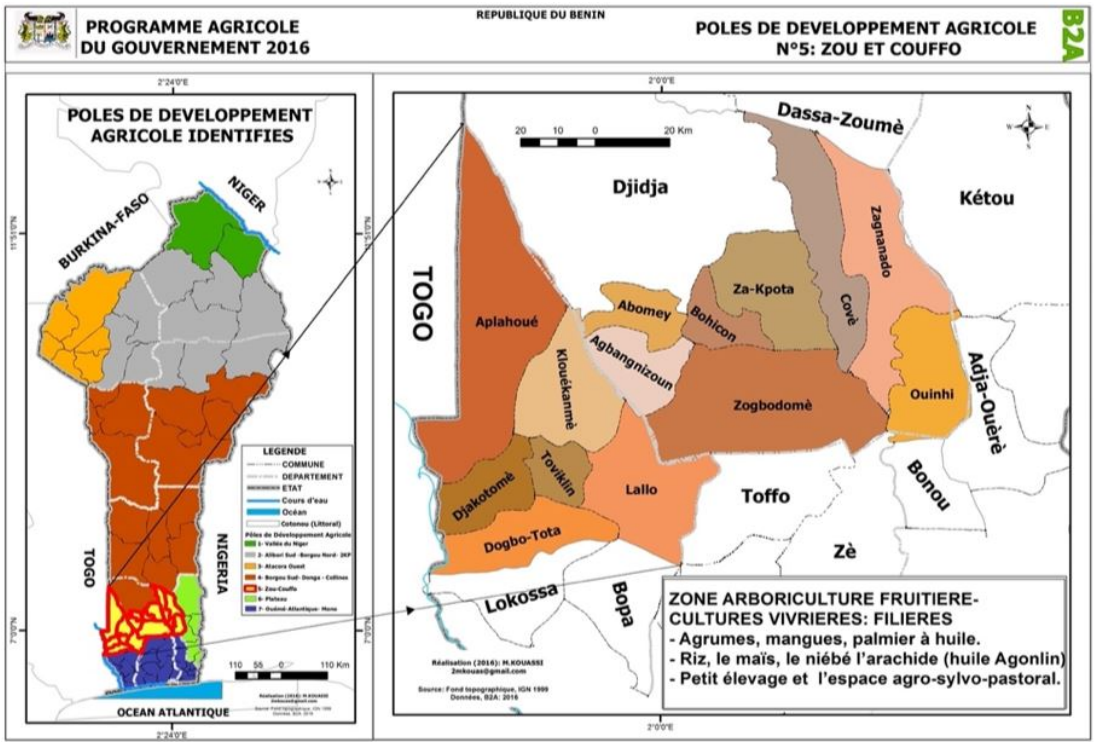
Map 2: Project sites in PDA 1 (Niger Valley: Karimama)



Map 3: Project sites at PDA 2 (Alibori Sud-Borgou Nord-2KP: Kouand?, Gogounou, S?gbana)



Map 4: Project sites in PDA5 (Zou-Couffo: Za-Kpota, Cov?, Klou?kanm?, Aplahou?)



1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities

If none of the above, please explain why:

The project put a strong focus on community and stakeholder engagement throughout project design, and this will continue throughout implementation.

Engagement with project stakeholders, including ethnic groups at project sites, commenced during the project development phase. In addition to consultations conducted with Cotonou-based stakeholders, meaningful, effective and informed consultations, following FPIC approach, were conducted in the project landscapes. These activities were led by a socio-economist with a deep understanding of local contexts and communities, to both gather views and concerns of stakeholders

and facilitate their full contribution to project design. The consultations carried out during the PPG enabled active local community engagement and participation in decision-making.

Communities were consulted during the PPG phase using a Free Prior and Informed Consent (FPIC) approach. Such meaningful engagement will continue during the implementation phase. The engagement process will take into consideration the rights of Ethnic Groups and the disadvantages faced by them, linked to vulnerabilities, such as limited access to education, low literacy levels, negative stereo-typing and inadequate understanding of national or site-specific policy and programming processes. Where necessary, civil society organizations representing and deemed acceptable by ethnic groups will also be engaged to provide additional support.

Based on the detailed stakeholder analyses that took place during project design, a comprehensive Stakeholder Engagement Plan (SEP) (see Annex 8) has been developed and will be implemented during the full project, aimed at actively involving all relevant groups through targeted communication and outreach efforts with the aim to increase awareness about the intended project outcomes and benefits, and to mobilize buy-in and support for project implementation. The SEP includes a Grievance Redress Mechanism (GRM) that will be activated in case any concerns are raised by partners or beneficiaries about human rights infringements, adverse socio-economic or environmental impacts directly or indirectly attributed to project implementation. All concerns will be assessed, documented, and followed up with appropriate responses in order to address the issue.

During the first year of the project, ESMPs Environmental and Social Management Plans (ESMPs) will be developed for each PDA, integrating findings from Environmental and Social Impact Assessments (ESIAs) that will also be developed for each PDA at this time. Each ESMP will include a detailed Stakeholder Engagement Plan for the PDA. These PDA-specific ESMPs will ensure that the knowledge and views of stakeholders involved in local land management will be taken into consideration in project implementation. Corresponding ESIAs will, *inter alia*, assess traditional and modern land management systems, identifying different roles and responsibilities associated with each of the systems. These assessments will help to inform and further specify roles and responsibilities associated with implementation of individual project activities in ways designed to best achieve the project?s objectives.

The following table indicates how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and associated resource requirements.

Table 7: Stakeholder plan summary

Stakeholder Group	Why included (interests)	Participation methods	Timeline	Cost est.	Method of information dissemination[1]

		Method	**Respons i-bility**			1	2	3	4	5
Farmers	Access to land	Individuals and groups consultation during project inception phase and along project implementation . Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project managemen t costs	X	X	X	X	
Livestock farmers	Access to land	Individuals and groups consultation during project inception phase and along project implementation . Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project managemen t costs	X	X	X	X	
Traders	Access to resources	Sharing Information with individuals and groups during project inception phase. Collection of feedback based on the M&E plan.	PMU	Inception phase + based on the M&E plan	Included in project managemen t costs			X	X	

Women/women groups	Limited access to land and resources	Individuals and groups consultation during project inception phase and during project implementation . Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + regular meetings to collect feedback	Included in project management costs	X	X	X	X	
Youths/Youths groups	Limited access to land and resources	Individuals and groups consultation during project inception phase and during project implementation . Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + regular meetings to collect feedback	Included in project management costs	X	X	X	X	
Men/head of Household	Decision making on land and resources use	Individuals and groups consultation during project inception phase and during project implementation . Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + regular meetings to collect feedback	Included in project management costs	X	X	X	X	

Migrants/Displaced peoples	Access to land and natural resources	Individuals and groups consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan	Included in project management costs	X	X	X	X	
Landowners	Decision making on land and resources use.	Individuals and groups consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan	Included in project management costs	X	X	X	X	
Livestock owners	Access to land and natural resources	Individuals and groups consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan	Included in project management costs	X	X	X	X	

Benin Government agencies	Influence on policies, decision making processes, possible role on conflict prevention and resolution	Individuals and groups consultation during project inception phase and during project implementation . Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + regular meetings to collect feedback	Included in project management costs	X	X	X	X	X
Benin local authorities	Influence on policies, decision making processes, possible role on conflict prevention and resolution	Individuals and groups consultation during project inception phase and during project implementation . Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + regular meetings to collect feedback	Included in project management costs	X	X	X	X	X
Other Government (bordering with Benin)	Possible conflicts for access to land between communities in Benin and migrants	Keeping them informed for any aspects that can affect borders areas	PMU	Ad hoc information	Included in project management costs	X		X		
Contractors and subcontractors	Involvement in project?s activities	Sharing Information with individuals and groups during project inception phase.	PMU	Inception phase	Included in project management costs	X		X		X

Private sector	Facilitating market and credit access for producers involved in the resilient development of livelihoods	Individuals and groups consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project management costs		X	X	X	
Consumers of goods (agricultural products, others)	Involvement on market	Individuals and groups consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project management costs		X	X	X	
Donors and international organizations, e.g. FAO, ITTO	Support to policy makers, investment on preventing climate change and climate change mitigation measures, Advocacy	Consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project management costs	X	X	X		X
UNDP	Facilitate the project implementation, support policy makers, support stakeholder engagement	Consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project management costs	X	X	X	X	X

Universities and Research Institutions	Support to policy makers, evidence-based research on impact of climate change, deforestation, land degradation, data driven advocacy	Consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project management costs	X		X		X
Agricultural extension agencies	Support to policy makers, decision making process	Consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project management costs		X	X		X
CSOs (Civil Society Organizations) and CBOs (Community Based Organizations)	Support to policy makers, support to advocacy on prevention of climate change and on possible alternative solutions to prevent deforestation and climate change	Consultation during project inception phase and during project implementation. Disclosure of assessment and management plans. Collection of feedback.	PMU	Inception phase + based on M&E plan + beginning of every project year	Included in project management costs		X	X	X	

[1] 1- Email/phone correspondence; 2 - Institutional virtual channels, live broadcasts and social networks; 3 - Communication via printed matter, newsletters, documents; 4 - Radio, TV, local newspapers, video; 5 - Technical documents

[1] 1- Email/phone correspondence; 2 - Institutional virtual channels, live broadcasts and social networks; 3 - Communication via printed matter, newsletters, documents; 4 - Radio, TV, local newspapers, video; 5 - Technical documents

The project?s stakeholder engagement plan is found in attachment.

Please provide the Stakeholder Engagement Plan or equivalent assessment.

The project?s stakeholder engagement plan is attached as Annex 8.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

1. The project takes into account that, despite improvementS in the political and strategic framework for mainstreaming gender-related issues into development decisions and actions in Benin, women's unequal access to land, inputs, equipment, and credit, economic and social opportunities remain limited compared to men. The project has been designed specifically to ensure that it maximises opportunities to contribute to gender equality, including through dedicated activities described under Component 4. In line with UNDP and GEF policies on mainstreaming gender into project design and implementation, a gender gap analysis has been conducted during project preparation, and a detailed action plan with associated indicators was developed to ensure that the design takes into full consideration gender-related dynamics and opportunities in the Benin context.

2. Key elements of the Gender Action plan are provided in the following table:

Actions	**Results areas ? Gender equality**	**Addressed barriers**

Actions	Results areas ? Gender equality	Addressed barriers
Component 1:		
Creation of a centralized national NDT database created within the MCVDD with a link to global monitoring of restoration and NDT by gender	Improving women participation in decision-making process. Closing gender gaps in access to land and natural resources.	Participation of women in decision-making bodies at national and local level Ability to react in risk situations
Creation of a national gender-integrated monitoring system to monitor vulnerability to climate change in the agricultural sector and changes in adaptive capacity, land cover change, degradation, restoration and forest ecosystems, and ecosystem services		
Creation of a national committee integrating women producers, young people and migrants from the target areas of the project to combat desertification with a view to better ownership and capacity of national authorities to face the expected scenarios of hazards and sensitivity to climate change		
Integrate gender into the harmonized programs of the National Forestry Development Fund, the National Environment and Climate Fund and the National Agricultural Development Fund integrating the objectives of ACC and NDT, strengthened governance mechanisms and resource mobilization capacity		
Component 2:		
Integrated gender-integrated land use, landscape restoration and forest management plans are developed, with climate change scenarios informing the risks and selection of adaptation options, and operationalized at target sites, with the implementation capacity	Closing gender gaps in access to land and natural resources Generating socio-economic benefits and/or services for women.	Access to land and natural resources
Identify and integrated degraded lands belonging to poor and socially excluded households headed by women in the 15,000 hectares of degraded land and 15,000 hectares of forest that will be subject to climate change resilient restoration practices and sustainable management		
Advocate with national and local government and administrative officials (including ATDAs, *DGEC under MCVDD* and DGEFC), parliamentarians and private sector representatives on climate-resilient and degradation-neutral planning and policies for gender mainstreaming to that half of the 1,000 participants in awareness-raising and training are women concerned		
Component 3:		

Actions	Results areas ? Gender equality	Addressed barriers
Integrate gender in the analysis of agricultural value chains according to their potential for climate resilience, land management without degradation, sustainable income generation for rural communities with a particular focus on women, and on this basis, these value chains to be strengthened through additional investments and extension support	Closing gender gaps in access to land and natural resources Generating socio-economic benefits and/or services for women.	Access to land and natural resources
Improve market access for women farmers, farmers and communities practicing climate-resistant and non-degradation agriculture and agroforestry, including NTFPs, through strengthening cooperatives and farmers' organizations and partnerships negotiated with traders, traders, processors		
Organize advocacy for gender mainstreaming in technical guidance on adopting resilient value chains to improve productivity and climate resilience of targeted value chains and agroforestry systems.		
Component 4:		
Design a women's empowerment strategy to guide the implementation of the project.	Improving women participation in decision-making process.	Participation of women in decision-making bodies at national and local level Ability to react in risk situations
Endow the project with a gender and women's empowerment unit		
Develop and implement a gender disaggregated participatory monitoring plan for land under improved management and restoration, and a framework for learning about project sites.		

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Private sector engagement will be key to the success and longer-term sustainability of this project, especially given the role of the sector in enabling investments in agricultural and agroforestry value chains, and upscaling of successful interventions. During project design, several value chains of climate resilient agricultural and agroforestry species that are adapted to Benin?s savanna conditions have been pre-identified for project interventions (see Table 3 above). During the early phase of the project, these value chains will be further screened for their economic growth potential and stakeholder interest in the three intervention areas, paying particular attention to climate resilience and vulnerabilities along the value chain, and a final list of value chains will be selected for each PDA. This analysis will also include the identification of potential private sector partners for each value chain and PDA (potential private sector partners for products derived from shea nuts and cashew nuts have already been identified), and further efforts will be made during the project development phase to identify partners for investments and potential PPP initiatives. In all cases, during project development, the UNDP Private Sector Risk Assessment Tool will be applied before partnerships are formalized to ensure due diligence in application of UNDPs Private Sector Partnerships Strategy.

Key private sector roles identified during the PPG included: (i) facilitating market and credit access for producers involved in the resilient development of livelihoods; (ii) providing services and products that will enhance the restoration and recovery of degraded lands and ecosystems for climate resilience; (iii) improving their own climate resilience. Both formal and informal setor enterprises will be involved at each of these levels.

The following private sector actors have been identified for further engagement and participation during the full project:

- DFS (Decentralized Financial Systems)
- ATEP (Association of processors and exporters of fishery products)
- GREXPOB (Group of exporters of oilseed and tropical products from Benin); GEA-BENIN (group of farmers in Benin);
- ANUB (National Association of Wood Users);
- ANECA (National Association of Construction Companies, Public Works and Related Activities);
- ASNIB (National Association of Industrialists of Benin);
- FENAB (National Federation of Craftsmen of Benin);
- ANOPRITOB (National Association of Private Tourism Operators in Benin);
- ATOV (Association of Travel Operators and Agencies);
- APB-Benin (Professional Association of Banks and Financial Institutions);
- FEFA (Federation of Women Entrepreneurs and Businesswomen of Benin)
- CNPB (National Council of Employers of Benin)
- CIPB (Council of Private Investors of Benin)

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

1. An effective strategy for risk management has been developed (see **Annex 6**). A total of 23 risks have been identified and rated in terms of impact and probability. They are presented in the project?s Risk Register (see Annex 6). These risks fall into three relatively distinct categories, as follows:

? *Social and environmental risks (#1-11 in risk register)*: 11 social and environmental risks have been identified and assessed through UNDP?s Social and Environmental Screening Procedure (SESP) (see Annex 5). The following risks have been rated as ?Substantial?:

o Risk #1 ? Local communities, especially farmers and vulnerable people, such as women or marginalized indigenous peoples, may not be adequately involved on integrated land use, landscape restoration, and forest management plans (outputs 2.1 and 2.2) and therefore not fully engaged in and not benefit fully from project activities

o Risk #2 - Access to economic resources and natural resources facilitated through interventions under outputs 2.4 and 3.2 could create or exacerbate conflicts between ethnic groups or could increase the risk of violence between project-affected communities and individuals.

o Risk #3 - New approaches to land management, as planned under output 2.1, could result in changes to current access to resources in each PDA and could potentially lead to economic displacement.

The above social and environmental risks, along with eight additional ?Moderate risks? have been assessed, with appropriate management measures designed and risk owner identified (see Annexes 5 and 6).

? *Miscellaneous risks associated with theory of change assumptions (#12-18 in risk register)*: Seven moderate risks to effective project implementation have been identified, deriving from assumptions presented in the project?s theory of change. Risk owners and management measures are indicated.

? *Risks associated with COVID-19 (#19-23 in risk register)*: Finally, five moderate risks associated with COVID-19 have been identified, together with management measures and risk owners.

Information on Risks 1-18 is presented in **Table 9** immediately below; risks related to COVID-19 are discussed in **Table 10** in the following section.

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
From SESP					

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
1	Local communities, especially farmers and vulnerable people, such as women or marginalized indigenous peoples, may not be adequately involved on integrated land use, landscape restoration, and forest management plans (outputs 2.1 and 2.2) and therefore not fully engaged in and not benefit fully from project activities.	Social and environ-mental	I = 4 L = 4 Sub-stantial	<u>Screening:</u> To assess and manage all the identified risks, when project locations and activities are finalized, they will be screened on **a site and activity specific basis using the SESP**. Based on the impacts identified, appropriate impact management measures will be integrated in the ESMP, that will be prepared by the first project year. This SESP will be revised as part of regular project monitoring and based on further assessments and on information/details gathered during project implementation. Revisions of the SESP will inform the ESIA and ESMP over the course of the project. <u>Assessment:</u> As the project is Substantial risk with potential downstream and upstream impacts, an **ESIA** is required at field-level activities and a **SESA** is required for the policy-level activities. The ESIA and SESA will take place during the first project year. No activities which might have adverse impacts on the rights, lands, resources and territories of marginalized Indigenous Peoples will commence until the ESIA/SESA is completed, impact management measures established, and broad community consent has been obtained. The SESA will be developed to ensure the impacts of upstream activities, included in project Component 1, are assessed and mitigation measures are identified in the Action Matrix. The **ESMF** will inform **further Stakeholder Engagement**, establish the ToR for ESIA/SESA, and strategies and plans to ensure the involvement of all project affected ethnic groups. Further assessments of the roles of individuals and groups, with a focus on women, farmers and on the participation to decision making process of the different ethnic groups, have been done during the PPG. The potential	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
				Management: During the PPG, a comprehensive Stakeholder Engagement Plan, Gender Action Plan and a Grievance Redress Mechanism have all been developed and will ensure local communities and vulnerable people such as women are involved in project implementation and can have access to a feedback mechanism ensuring their meaningful participation to project activities.Further **Stakeholder consultation** will be done all along the project: stakeholder consultation will be central to the methodology of the additional targeted studies which will, in all its aspects, pay particular attention to the needs of the poorest sections of society, and mitigation/management strategies will be developed specifically targeted towards the needs and concerns of poor and vulnerable groups. An **Ethnic Groups Plan** needs to be developed for each PDA (by the first project year), considering the presence of several ethnic groups, coming from Benin and from abroad. The Plans will be developed in line with the UNDP requirements of Indigenous Peoples Plan, with a focus on assessing and monitoring the relations between groups, to be able to avoid increasing any conflict already existing between the ethnic groups present in the project area. The Plans will ensure that the project will engage all ethnic groups and communities at project sites in the LDN dialogue and provide culturally sensitive training and learning events that consider ancestral practices and natural resource uses (land, forest, water), while promoting sustainable land and forest management mechanisms. Targeted training on human rights, stakeholder engagement and Accountability will be provided to the project team.	

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
2	Access to economic resources and natural resources facilitated through interventions under outputs 2.4 and 3.2 could create or exacerbate conflicts between ethnic groups or could increase the risk of violence between project-affected communities and individuals.	Social and environ-mental	I = 4 L = 3 Substantial	Assessment: Stakeholder identification and analysis and Stakeholder engagement plan developed during PPG will be updated and monitored during the implementation phase A SESA will be developed for upstream activities, for each policy targeted by the project. An**ESIA per each PDA** will be prepared by the first project year and will include **conflict analysis and assessment**. The ESIA and the SESA will have a focus on the current anthropological scenario, identifying the nature of the relations between different ethnic groups at all levels (national and local) and the impact the project?s outputs can have on these relations. Management: This risk will be managed through an **Ethnic Groups Plan** that will be prepared for each PDA by the first project year and through the implementation of the **Stakeholder Engagement Plan**, integrating the findings of the conflict assessment/ESIA/SESA. **A Grievance Redress mechanism**, that will take into consideration the local grievance mechanism already in place, will be implemented during the project?s implementation. Where necessary, inter-ethnic stakeholder consultations will be held to resolve ?territorial? disputes relating to resource use. An **ESMP** per each PDA will be prepared by the first project year and will include mitigation measures based on ESIA findings, including the ones identified through the conflict assessment	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
3	New approaches to land management, as planned under output 2.1, could result in changes to current access to resources in each PDA and could potentially lead to economic displacement.	Social and environ-mental	I = 4 L = 4 Substantial	Assessment: As indicated in the ESMF, the three **ESIA and the SESA** will be prepared by the first project year and will include the impacts of the activities included in output 2.1. Management: The risk will be managed through the ESIA/**ESMP**, SESA Action Matrix and **Stakeholder consultations,** in line with the Stakeholder Engagement Plan and the Ethnic Groups Plan, ensuring that livelihoods are not adversely impacted by the project. The impact assessment will identify any economic displacement, and strategies will be included to avoid, minimize or manage any such impacts. Where necessary, a **Livelihood Action Plan** will be produced to ensure that any such impacts are appropriately managed	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
4	Project activities, such as access to extension services, climate resilient and sustainable agricultural and agroforestry practices implementation and reinforcement of cooperatives and farmer organizations and approaches might not fully incorporate or adequately reflect views of women and girls and ensure equitable opportunities for their involvement and benefits.	Social and environ-mental	I = 3 L = 2 Moderate	Assessment: A full **Gender Analysis** has been developed to clarify relevant gender concerns and identify how the mainstreaming of gender into the project interventions can be achieved. In this regard during the project development phase specific consultations with relevant women?s groups/leaders have been conducted by the project?s development team, to better understand the role of women and men in project related sectors, such as land management, access to natural resources, income generating activities and participation to cooperatives and farmer organizations. Management: The **Ethnic Groups Plan** will include the Gender approach, considering the differences among ethnic groups. The consultation of women and girls will be ensured during project implementation, especially in planning, monitoring and reporting processes. Informed by the Gender Analysis, the **Gender Action Plan**, has been developed to actively promote the role of women and girls in the project and will be updated by the first six months of the project. The comprehensive **Stakeholder Engagement Plan** will also include women?s engagement in project related activities.	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
5	The operationalization of the Integrated land use, landscape restoration, and forest management (outputs 2.1 and 2.2) may have negative impacts on habitats, ecosystems, and/or livelihoods.	Social and environ-mental	I = 4 L = 2 Moderate	Assessment: During the project development phase focus has been placed on scoping appropriate SLM and climate resilient agriculture models and techniques that are included in the project activities. This will be followed up during implementation by further screening of models and techniques to ensure optimal suitability for the project localities. The project design ensure that the project developed solutions (including regulations, plans, trainings guidelines etc.) can be effectively included into the local planning processes as well as upscaled to other Agricultural Development Areas across Benin while ensuring that the management regimes of neighboring Protected Areas are respected. This risk will be assessed in the three **ESIA and in the SESA**, as indicated in the ESMF Management: During the PPG a subset of suitable models and techniques has been identified for SLM and climate-smart agriculture which will be used during project implementation. During the PPG, the alignment of agricultural development activities with management regimes of neighboring Pas has been ensured. The ESIA findings will be included in the **ESMP that will be developed for each PDA.**	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
6	Land and forest restoration (Output 2.2) and selected climate resilient and sustainable agricultural and agroforestry practices and market channels strengthening (output 3.2) could increase the vulnerabilities of populations to the effects of climate change.	Social and environ-mental	I = 3 L = 3 Moderate	<u>Assessment and Management:</u> Project?s implementation will fully integrate climate change mitigation and adaptation measures including through land restoration methodologies, livelihoods support, capacity building and awareness. Demonstrations on SLM and climate-resilient agricultural practices can be a key tool in addressing climate change. Despite these measures, there may be a residual risk that needs to be assessed and managed. Therefore, this risk will be further assessed and managed through **ESIA**, and through the **ESMP**, especially focusing on **monitoring and reporting climate change vulnerability system strengthening**.	DGEC under MCVDD
7	Poorly designed or executed project activities could damage critical or sensitive habitats, including through the introduction of invasive alien species during land and forest restoration.	Social and environ-mental	I = 3 L = 3 Moderate	<u>Assessment and Management</u>: Under outputs 2.1 and 2.2, land and forest restoration will be carried out in accordance with management plans developed using participatory planning processes and informed by **ESIA.** The project will ensure that only native species are used for reforestation and biodiversity conservation activities proposed in the project. This risk has been managed through the design of the project and will be further examined in the course of the ESIA, based on the ESMF, and included in the **ESMP** as determined necessary.	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
8	Selected climate resilient and sustainable agricultural and agroforestry practices poorly designed or executed (output 3.1 and 3.2) could negatively affect human health by the inappropriate use of pesticides and herbicides.	Social and environ-mental	I = 3 L = 2 Moderate	<u>Assessment:</u> The use of pesticides and herbicides in project target areas are to be reviewed, as in chemical management and handling to ensure the project design adequately addresses this risk. Only environmentally friendly pesticides and herbicides meeting internationally accepted standards will be used by the project. Their storage and application will be subject to the health and safety guidance and protocols developed to address Risk 8. The project will also focus on organic practices wherever feasible. As specific locations and activities are proposed they will be subject to **targeted studies** to ensure there are no public health risks resulting from chemical use, if any, or hazardous waste. The targeted studies will include assessment of the risk that the project will lead to an increase of exposure to hazards, and appropriate safeguard procedures will be employed. ESMF will include this risk in the **ESIA** ToR, that will address use of pesticides and herbicides related risks. <u>Management:</u> Site-specific **Pesticide and Herbicides Management Plans** will be developed for all relevant activities. The plans will be developed in accordance with good international practice, and will avoid supporting the manufacture, trade, and use of chemicals and hazardous materials subject to international bans, restrictions or phase-outs due to their high toxicity to living organisms, environmental persistence, or potential for bioaccumulation, unless for acceptable purposes as defined by the conventions or protocols. Based on the findings of ESIA, specific mitigation measures for this risk will be integrated into the **ESMP.**	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
9	Natural features with cultural significance, such as sacred forests, could be negatively impacted by outputs 2.2, 2.4, 3.1 and 3.2 .	Social and environ-mental	I = 3 L = 3 Moderate	<u>Assessment:</u> The **ESIA** will assess whether natural features with cultural significance will be impacted by the project, as locations are defined. Where they are found to be project-affected, FPIC consultations will be carried out with the objective of achieving initial consent from specific rights-holders, in line with Standard 6 requirements. Further **FPIC** consultations will be ongoing and followed during project implementation, following the measures summarized in the ESMF, in the Ethnic Groups Planning Framework (as IPPF) and in the Ethnic Groups Plan that will be prepared as part of the subsequent ESMP as required by ESIA assessment reports. ESIA and SESA will include a focus on natural features with cultural significance identification and analysis, with a strong participatory approach, to collect information from local communities about the meaning of the natural features, A **community mapping** will be included in the ESIA to ensure the communities? perception of the landscape and of the natural resources is taken into consideration and will inform the ESMP. <u>Management</u> The **Stakeholder Engagement Plan** - in which inputs from the **Ethnic Groups Plan** will be included - will include consultations with stakeholders involved in cultural heritage management, i.e. people in charge of conservation and management of sacred forest. The management of this risk will be included into the **ESMP,** based on ESIA findings, and in the Action Matrix, included in the SESA reports.	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
10	Field and policy level activities related to the agricultural value chains selected and assessed (outputs 3.1 and 3.2) could inadvertently support child labour, forced labour, and other violations of international labour standards.	Social and environ-mental	I = 4 L = 3 Moderate	<u>Assessment and Management:</u> The **SESA and ESIA** will include a review of labour standards in each PDAs where the activities will be implemented, and propose safeguards including monitoring arrangements which will be integrated into the **ESMP** The SESA ? and the related reports and Action Matrix - will also include study on how sustainable land and forest restoration might affect labour requirements, potentially increasing pressure to employ children, or use their labour on smallholdings.	DGEC under MCVDD
11	Informal farmers, or those without registered legal entitlement to the land they farm, may be excluded from project benefits.	Social and environ-mental	I = 3 L = 3 Moderate	<u>Assessment and Management:</u> The **ESIA** will identify the extent of this risk, and the level of impact it can have on the achievement of results. The findings will be incorporated in the **ESMP**, to ensure that lack of legal entitlement to land is not a barrier that restrict access to project benefits to only those with formalized land use rights. The risk will be managed also through the **Stakeholder Engagement Plan** and the **Ethnic Groups Plan**, where the attention will be focused on the most marginalized or at risk of marginalization groups.	DGEC under MCVDD
Implementation risks					
12	Risks associated with partnering with third parties	Organizational	I = 3 L = 3 **Moderate**	The SESA and ESIAs will conduct further assessment on risks associated with partnering with Third Parties and integrate specific procedures into the ESMPs, including specific requirements for such partners	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
13	Risk of project interventions being affected by natural disasters	Social and environ-mental	I = 3 L = 3 **Moderate**	The SLM/SFM activities could be subject to hazards such as severe winds, storms and floods, etc. These and other project interventions could also be impacted by disasters, with resulting negative social and environmental impacts. For this reason, the Project will integrate disaster risk reduction measures into the detailed design and implementation of all SLM/SFM interventions.	DGEC under MCVDD
14	Risk that livelihoods action plan could be subject to political pressures	Political	I = 3 L = 3 **Moderate**	The plan will include safeguards designed to minimize political influence related to selection of livelihood types, locations and beneficiaries	DGEC under MCVDD
15	Risk of unclear institutional roles (overlaps, gaps) impeding project implementation	Organizational	I = 3 L = 3 **Moderate**	Stakeholder analysis and engagement plan includes emphasis on understanding relevant institutional mandates and roles. Where needed, coordination mechanisms will be established to defuse potential institutional conflicts before they become problematic	DGEC under MCVDD
16	Low capacity of the IP in procurement, which may lead to delays in the implementation of project activities	Organizational	I = 3 L = 3 **Moderate**	Recruitment of an experienced procurement specialist Retraining of the members of the public procurement commission of the IP on the public procurement code to support the project procurement specialist	DGEC under MCVDD
17	Weak knowledge of GEF and UNDP project management procedures	Organizational	I = 3 L = 3 **Moderate**	Although the risk is low, it will be necessary to build the capacity of the project team that will be recruited to produce and disseminate reports to the various stakeholders, including the grassroots population.	DGEC under MCVDD
18	Weak knowledge of GEF and UNDP financial procedures in project management	Organizational	I = 3 L = 3 **Moderate**	Strengthen the partner's capacities in accounting procedures, particularly in the separation of tasks, and carry out controls (Spot checks) to ensure the proper application of the knowledge acquired during this training	DGEC under MCVDD

2. Project development has been informed through consultations with a broad cross section of national stakeholders and thorough analysis of national and local circumstances, both of which have contributed to its analysis of risk and of risk mitigating measures. Project developers have elaborated two action plans to manage and mitigate the cumulative nature of the risks and/or the complexity of assessing and managing the moderate risks identified in the SESP. These are: (1) Stakeholder Engagement Plan, and (2) Gender Action Plan. An Ethnic Groups Planning Framework (as IPPF) has been developed, as an Annex to the Environmental and Social Management Framework (ESMF), to inform the Ethnic Group Plans (as Indigenous People Plan- IPP) that will be developed within the first project year. The IPPF identify how key activities will be designed to obtain the FPIC of local communities during the project?s inception phase.

3. Planned assessments and plans, identified through UNDP?s SESP, are listed in the UNDP project document.

4. A Gender/ Safeguards Officer will be included in the PMU and an independent safeguards expert (consultant) will be hired to develop the planned assessments and the planned management plans. The SESP will be updated annually during the PIR.

5. Finally, the Project will develop a project-level Grievance Redress Mechanism (GRM) that is proportional, culturally appropriate, accessible, and transparent, and that ensures appropriate protection for claimants, and the Project also will inform the stakeholders about the existence of the mechanism and how to use it. The GRM will include an early warning system, helping to identify problems and close gaps in a timely and cost-effective manner, avoiding escalation into more entrenched or complex disputes. The GRM will be executed through the implementing partner. As needed or as requested, UNDP will be available to help the implementing partner to address project-related grievances as part of its oversight and assurance roles.

6. The project risk register is available in annex 6.

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COVID-19 risks and opportunities

1. According to the African Development Bank[1], despite its not being heavily impacted by COVID-19 infections, the pandemic had a significant effect on Benin?s formerly dynamic economic growth. From a real GDP growth rate of 6.0% in 2019, growth slowed to 2.3% in 2020. As in virtually all countries around the world, this decline in the rate of real GDP growth recorded in 2020 was attributed to the negative impact of Covid-19, which disrupted the implementation of the various projects and programs and reflected underperformance in the commerce, transport, agriculture, hotels and restaurant sectors. Real GDP economic growth rate is expected to rebound to 6.5% in 2022.

2. Despite the projected recovery in economic growth, COVID-19 continues to weigh as an element of the development challenge being targeted by the present project. Agricultural production, employment and investment have all been hindered by the pandemic. Several project risks associated with the pandemic have also been identified.

3. In Benin, although statistics are unavailable, the COVID-19 pandemic is likely to have led to increased deforestation and land degradation, as well as setbacks to climate change adaptation. Indeed, in rural areas, poor populations turn to forests and forest products for their subsistence, especially plants and wildlife for food, which can lead to overexploitation of natural resources. This is the case for the production of charcoal, the conversion of forests to agriculture lands and other informal and sometimes illegal economic activities. Forest sector recovery programs and projects have also been delayed by the pandemic.

4. COVID-19 weakened all sectors of the economy, especially those directly exposed to the response measures taken to curb the spread of the virus. To mitigate the socio-economic shock, the Government took a number of mitigation measures, including allocating resources to support economic activity and actors most affected by the health crisis. This included:[2]

? Support of CFAF 63.38 billion for enterprises,

? Support of CFAF 4.98 billion for artisans and small traders,

? CFAF 10 billion for the refinancing of the decentralized financial systems,

? CFAF 75 billion to facilitate access to credit by small-hold farmers and agricultural entrepreneurs from banks and decentralized financial systems,

? CFAF 50 billion in direct refinancing credit, made available to the National Agricultural Development Fund to enable banks and financial institutions to finance farmers more easily,

? Interest rate subsidies.

5. Emergent COVID-related risks affecting the project are summarized in **Table 8** below.[3]

Table 8: Management of COVID-related risks

#	***Description***	***Risk category***	***Impact and Probability (1-5)***	***Risk treatment / management measures***	***Risk owner***
COVID-19 related					

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
19	Continued or renewed efforts in COVID-19 containment are likely over the course of project development and possibly into implementation	Health and safety	Medium	The project development work plan and team will be built with this in mind, for example, maximizing experts in country. However, if the number of COVID19 cases increases beyond the currently low numbers and is not effectively contained, project start-up and implementation could be delayed. Methods for biosecure implementation will be needed, such as increased use of remote communication, use of PPE, etc.	DGEC under MCVDD
20	Limited capacity for remote work and interactions in Benin	Health and safety	Medium	The rural areas of Benin are not well equipped for remote work, in terms of wi-fi availability. The project will attempt to hold consultations in halls or open spaces, while observing government and UNDP safety protocols. Availability of international personnel on-site will depend on working in a post-pandemic scenario. However, if the pandemic persists, experience in Benin and elsewhere to date indicates that remote training and consultation methods can be developed and that planning work can be accommodated in this manner at halls and offices where Wi-Fi is available.	DGEC under MCVDD
21	Depending on the development of the pandemic in-country, it may be difficult to do community-level consultations	Health and safety	Medium	Local level consultation will comply with government guidelines and UNDP-CO guidelines. For example, it is likely that teams for field visits and consultations will be small, and they will likely meet and consult with small group sizes (under 50 people or per local guidelines). Additionally, COVID protocol will be developed and followed, such as testing, and supply of sanitizer and masks. In any case where either party is not comfortable to engage in discussions, it will not proceed. As much as possible, remote connections will be sought, for example via local government offices visiting communities.	DGEC under MCVDD

#	*Description*	*Risk category*	*Impact and Probability (1-5)*	*Risk treatment / management measures*	*Risk owner*
22	Government may be too occupied with COVID issues to deal with regular business	Health and safety	Low	At the national level, Government has its protocols in place for staff, and is requiring a full normal workload. Meetings are being conducted in small groups and via video. Unless there is a major increase in the pandemic, the risk is considered low.	DGEC under MCVDD
23	Impacts on co-financing could result	Health and safety	Medium	The availability of co-financing could be affected by changes in government fiscal priorities and exchange rates. Methods for safe implementation will be needed, such as increased use of remote communication, use of PPE, limited meetings. Government is, however, fully supportive of the project.	DGEC under MCVDD

6. Opportunities associated with the COVID-19 pandemic are described in **Table 9** below.

Table 9: COVID-related opportunities

Opportunity Category	**Potential**	**Project Plans**
Can the project do more to protect and restore natural systems and their ecological functionality?	High	The project has been designed to ensure the long-term integrity, conservation and sustainable use of its target landscape and its ecosystem functions. Reducing encroachment of human land uses and fragmentation of ecosystems will also contribute to reducing the risk of future zoonosis.
Can the project regulate the consumption and trade of wildlife?	High	Hunting is not a major activity in the area. However, the project will attempt to reduce unregulated hunting and trade of wildlife / wild meat in the target area by strengthening the management of protected areas and promoting alternatives to hunting, such as small livestock.

Can the project include a focus on production landscapes and land use practices within them to decrease the risk of human/nature conflicts?	High	The project focuses on the rural landscape of Benin as a mosaic of protected areas and the adjacent production landscape. Its objective is to ensure the sustainable management of both protected and agricultural areas. A key objective is to reduce or prevent the encroachment of human land uses (agriculture, pastoralism) into protected areas and remnant forests which results in their fragmentation and increased risk of human-wildlife conflicts with increased risk of disease exposure.
Can the project promote circular solutions to reduce unsustainable resource extraction and environmental degradation?	High	The project will ensure sustainable procurement, careful waste management, avoidance of contribution to POPs (eg by reducing the use of pesticides including unauthorized ones in cotton production) and GHG emissions (through forest conservation and restoration). Landscape planning will contribute to recovery of the natural vegetation and enhanced landscape connectivity and carbon storage in vegetation and soil.
Short-term opportunity to support Covid economic recovery	High	The promotion of sustainable agriculture, agroforestry and use of non-timber forest products in and around the target landscapes, as well as sustainable tourism in the protected areas, will all contribute to income generation and the recovery of the local economy. All alternative livelihoods activities are intended towards green growth models and a circular economy by focusing on business models and land uses that incorporate climate, biodiversity and sustainability.
Can the project innovate in climate change mitigation and engaging with the private sector?	High	A large part of the project involves working with local communities to mainstream climate mitigation and adaptation into their land uses. Under the agroforestry and forest regeneration aspects, increased carbon sequestration on formerly degraded lands will increase climate mitigation.

[1] https://www.afdb.org/en/countries-west-africa-benin/benin-economic-outlook#:~:text=Benin's%20real%20GDP%20growth%20was,most%20affected%20by%20the%20pandemic.

[2] https://sparc.africa/2021/09/covid-19-response-in-benin-lessons-learnt-from-control-measures-taken/

[3] Numbering is taken from the Annex 6 Risk register.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

General roles and responsibilities in the project?s governance mechanism

1. Implementing Partner: The implementing partner for this project is the General Directory of Environment and Climate (DGEC) under the Ministry of the Living Environment and Sustainable Development (MCVDD).

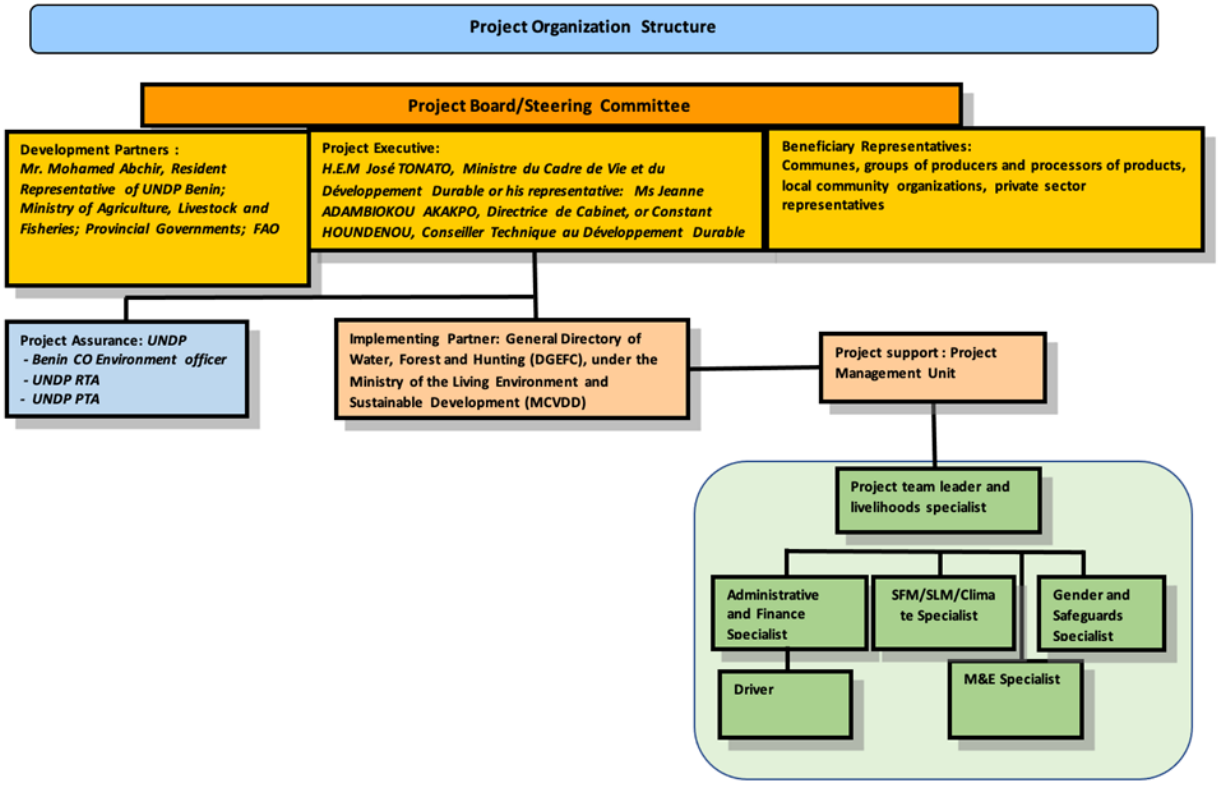
2. The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

3. UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project. UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

As the project?s Implementing Partner, DGEC will work with the Ministry of Agriculture and the ATDAs as well as the CTAFs and Forest Inspectorates in all the communes where it operates. Partnerships and service contracts will be established with NGOs, firms and consultants in the thematic areas covered for the implementation of activities for the benefit of the communities.

Figure 2: Project governance arrangements



The ATDAs of the MAEP (Ministry of Agriculture) will be most directly involved in the implementation of the project because they are responsible for the themes of organizing producers, and everything related to the MAEP in the project. Collaboration with other Ministries (including Ministry of Water and Mines, Ministry of Trade and Industries, Ministry of Planning and Development, Ministry of Economy and Finance, Ministry of Social Affairs and Microfinance) will be done through meetings and workshops organized for the preparation, development and validation of certain key documents. The technical departments of these other ministries will be involved in the implementation of activities according to their thematic responsibilities. Actions to secure farms and areas of infrastructure construction, as well as actions relating to the participation of socio-professional groups, will be carried out with the municipalities and local branches of the Ministry of Local Authorities.

Segregation of duties and firewalls vis-?-vis UNDP representation on the project board:

2. As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

3. In this case, UNDP is only performing an implementation oversight role in the project vis-?-vis our role in the project board and in the project assurance function and therefore a full separation of project implementation oversight and execution duties has been assured.

Roles and Responsiblities of the Project Organization Structure:

a) Project Board: All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

4. The two main (mandatory) roles of the project board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the ?Provide Oversight? section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.
2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the ?Manage Change? section of the POPP).

5. Additional details concerning the project board?including requirements to serve on the board and responsibilities and composition of the board?are available in the UNDP project document.

b) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP?s project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is Elisabeth TOSSOU.

c) **Project Management ? Execution of the Project:** The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The project is consistent with and contributes to a number of national policies, strategies, plans and reports focused on the integrated approaches to restoration of degraded land and achieving land degradation neutrality for improved agricultural productivity and forest management, including the following:

? The project is in line with various national legislation and legal texts to support implementation of the UNCCD in Benin, as well as with its political commitment to achieve LDN through its Nationally Determined Contributions. The project will contribute to implementation of the UNCCD 2018-2030 Strategic Framework, particularly Strategic Objective 1, to improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality.

? Benin aims to achieve LDN by 2030, and specifically to restore at least 50% of degraded lands (1.2 million ha) and limit the loss of non-degraded land to 5% (398,200 ha). The project will contribute to achieving these national targets through its facilitation of sustainable land management on 15,000 ha of degraded land and restoration of 15,000 ha of forest ecosystems.

? The project contributes to achieving the National Strategic Plan for Development of the Agricultural Sector, PSDSA, 2025, which aims to position Benin as a viable regional competitor as it strengthens its agricultural production. Through focusing project activities in 3 of Benin?s 7 agricutural areas, and working directly with the Territorial Agricultural Development Agencies (ATDAs) to improve sustainable management of land and forest ecosystems, the project is in line with national commitment to implement national agricultural reforms and provide for human development.

? The project is further consistent with the National Forestry Policy with a focus on forest protection; the National Environmental Action Plan that defines environmental policy and strategy for improved natural resource management; and the National Action Plan for the Fight against Desertification, which aims to identify factors contributing to desertification and measures needed to combat desertification and mitigate the effects of droughts.

? Benin?s National Plan for Agricultural Investments and Food and Nutritional Security (PNIASAN), addresses trade, nutrition, resilience, climate-smart agriculture, risk management, and cross-cutting issues such as gender and youth empowerment. The project is consistent with two of the PNIASAN objectives, namely: i) transformation of agriculture for sustainable growth; and (ii) strengthened systemic capacity. The climate risk mitigation mechanisms listed under Axis 3 of the PNIASAN will manage water access and availability, and limit the effects of climatic hazards.

? The project will also support Benin?s contribution towards achieving the following Sustainable Development Goals: 1 (No Poverty), 2 (Zero Hunger), 5 (Gender Equality), 6 (Clean Water & Sanitation), 8 (Decent Work & Economic Growth), 13 (Climate Action), and 15 (Terrestrial Ecosystems). In addition, Benin has ratified several international conventions and Multilateral Environmental Agreements including: Convention on Climatic Change, Desertification, CITES, Bonn (migratory species), UNESCO World Heritage, Ramsar Humid Zones, Convention on Biological Diversity, African Convention on the Conservation of Nature and Natural Resources (Organisation of African Unity), Hazardous Wastes, Law of the Sea, Ozone Layer Protection and Ship Pollution.

? The project is aligned with Benin?s National Adaptation Plan in addressing constraints in the areas of forestry, water, agriculture and energy (see Benin NAP, p. 59 and 63). It contributes to adaptation options in the following sectors:

Agriculture

- Prevention and management of agricultural risks
- Integrated management of agro - sylvo -pastoral resources
- Improving and developing the resilience of agricultural production and processing systems to climate change

Forestry

- Strengthening the resilience of actors (communities, private operators, administrations, civil society organizations, etc.) to the effects of climate change
- Promotion of sustainable management of forests and protected areas
- Improved conservation of biodiversity, forests, indigenous and community heritage areas and other fragile ecosystems

Water resources

- Mobilization and sustainable management of water resources
- Development of infrastructure resilient to climate change

Energy

- Promotion of the use of alternative energies to wood energy.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

1. Knowledge management will be an integral part of the project, promoting learning and continuous improvement, enabling institutional memory, and extracting lessons and good practices to enable replication and up-scaling. Specific knowledge management activities are incorporated under Component 4 and will be integrated in support of capacity enhancement and training actions throughout project implementation. Broader dissemination of knowledge generated by the project will be pursued by development and implementation of a targeted stakeholder engagement and communication strategy. The project will furthermore explore opportunities to benefit from South-South and triangular cooperation

mechanisms and build on existing national networks for agricultural research and regional initiatives such as WASCAL.

2. Key elements of the project?s KM strategy include the following:

? Under Output 4.2, a participatory system will be tested in the three project PDAs for generating and managing data on climate hazards and impacts, restoration, SFM and SLM. In addition to contributing to UNCCD and UNFCCC reporting, this participatory monitoring data will also help to assess changes in vulnerability and livelihood status of the beneficiary population, thereby contributing to enhanced understanding of the relationship between degradation and livelihoods. Activities will include the strengthening of local capacities for assessing LDN and climate resilient development interventions, including among women and youth; pilot testing a system of participatory monitoring of land and forest degradation, climate hazards, potential risks and likely impacts; and producing reports estimating LDN implementation across the three PDAs, integrating data gathered by participatory and other means.

? Under Output 4.3, a learning and dissemination network will be developed and implemented in each of the three PDAs. On-the-ground actions and investments made by the project under Components 2 and 3 will be periodically assessed from the point of impact, innovativeness, application of best practices and other factors. This will help to generate lessons that can be captured, learned and disseminated, with a view to assessing the degree to which lessons are being diffused and adopted throughout these wider landscapes. Awareness raising / training activities will be organized to disseminate technical aspects of the demonstrations. Behavioral and other barriers to diffusion of successful practices, and ways to overcome such barriers, will be identified as part of an iterative process aiming at stimulating broader PDA-wide transformations. This will also include the organization of exchange visits between PDAs and capacity building for the benefit of stakeholders on SLM/SFM.

? Under Output 4.4, learning developed under outputs 4.2 and 4.3 will contribute to the development of a national-level communications and public awareness program. This effort will reach well beyond the direct circle of project beneficiaries and landscapes to encompass a broad swath of Benin society. It will also include a series of exchanges with a parallel UNDP-GEF project being implemented in neighbouring Togo.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

1. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP (including guidance on GEF project revisions) and UNDP Evaluation Policy The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.

2. Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[1][1]. The M&E plan and budget included below will guide the GEF-specific M&E activities to be undertaken by this project.

3. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed ? including during the Project Inception Workshop - and will be detailed in the Inception Report.

4. Finally, the UNDP project document includes a Monitoring and Evaluation Plan (Section 5).

Minimum project monitoring and reporting requirements as required by the GEF:

Inception Workshop and Report: A project inception workshop will be held within 2 months from the First disbursement date, with the aim to:

1. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
2. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
3. Review the results framework and monitoring plan.
4. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
5. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework (where relevant) and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
6. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
7. Plan and schedule Project Board meetings and finalize the first-year annual work plan. Finalize the TOR of the Project Board.
8. Formally launch the Project.

GEF Project Implementation Report (PIR):

The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. UNDP will undertake quality assurance of the PIR before submission to the GEF. The PIR submitted to the GEF will be shared with the Project Board. UNDP will conduct a quality review of the PIR, and this quality review and feedback will be used to inform the preparation of the subsequent annual PIR.

GEF and LDCF Core Indicators:

The GEF and LDCF Core indicators included as Annex will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the indicator status. The updated monitoring data should be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground-truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF

website. The required Protected Area Management Effectiveness Tracking Tool (METTs) have been prepared and the scores included in the GEF Core Indicators.

Independent Mid-term Review (MTR): An Independent Mid-term Review (MTR) will be conducted no later than 01 November 2025 and no more than 36 months after CEO Endorsement. The terms of reference, the review process and the final MTR report will follow the standard UNDP templates and UNDP guidance for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC).

The evaluation will be ?independent, impartial and rigorous?. The evaluators that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the evaluation process. Additional quality assurance support is available from the BPPS/NCE-VF Directorate.

The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC by 01 November 2025 and no more than 36 months after CEO Endorsement. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report?s completion.

Terminal Evaluation (TE):

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center. TE should be completed 3 months before the estimated operational closure date, set from the signature of the ProDoc and according to the duration of the project. Provisions should be taken to complete the TE in due time to avoid delay in project closure. Therefore, TE must start no later than 6 months to the expected date of completion of the TE (or 9 months prior to the estimated operational closure date).

The evaluation will be ?independent, impartial and rigorous?. The evaluators that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the BPPS/NCE-VF Directorate.

The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by 01 June 2028. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report?s completion.

Final Report:

The project?s terminal GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Agreement on intellectual property rights and use of logo on the project?s deliverables and disclosure of information**:** To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be

disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[2][2] and the GEF policy on public involvement[3][3].

Monitoring and Evaluation Budget for project execution: *This M&E budget provides a breakdown of costs for M&E activities to be led by the Project Management Unit during project implementation. These costs are equivalent to those of the M&E Component of the Results Framework and TBWP.. The oversight and participation of the UNDP Country Office/Regional technical advisors/HQ Units in these M&E activities and in performing standard UNDP M&E requirements are not included as these are covered by the GEF Fee.*		
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	**Indicative costs (US$)**	**Time frame**
Inception Workshop and Report	$15,000	Inception Workshop within 2 months of the First Disbursement
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	Staff time	Annually and at mid-point and closure.
Preparation of the annual GEF Project Implementation Report (PIR)	Staff time	Annually typically between June-August
Monitoring of project safeguards, including SESP, ESMF, stakeholder participation plan, gender action plan[4][4]	$108,000	On-going.
Supervision missions	$30,000	Annually
Learning missions	$30,000	As needed
Independent Mid-term Review (MTR): ***costs associated with conducting the independent review/evaluation to be commissioned by UNDP not the Implementing Partner or PMU.***	$30,000	No later than 3 June 2025
Independent Terminal Evaluation (TE): ***costs associated with conducting the independent evaluation to be commissioned by UNDP not the Implementing Partner or the PMU.***	$50,000	No later than 31 March 2027

Monitoring and Evaluation Budget for project execution: *This M&E budget provides a breakdown of costs for M&E activities to be led by the Project Management Unit during project implementation. These costs are equivalent to those of the M&E Component of the Results Framework and TBWP.. The oversight and participation of the UNDP Country Office/Regional technical advisors/HQ Units in these M&E activities and in performing standard UNDP M&E requirements are not included as these are covered by the GEF Fee.*		
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	**Indicative costs (US$)**	**Time frame**
TOTAL indicative COST	$263,000	*Equivalent to TBWP component (M&E)*

[1] See https://www.thegef.org/gef/policies_guidelines

[2] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

[3] See https://www.thegef.org/gef/policies_guidelines

[4] The M&E for Safeguards plans is included in the ESMF (Annex 9).

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The project targets a minimum of 24,000 direct beneficiaries, of which 7,000 are women and 10,000 are youth, and an additional 344,000 indirect beneficiaries living in the target communities and benefiting from the land restoration and climate resilience building through increased ecosystem services and from the development of resilient value chains based on agriculture, agroforestry and forest products through increased and more shock resilient economic development in their wider communities. The development of private public partnerships and engagement with private sector partners in the promotion of climate resilient, degradation neutral value chains will impact positively on job creation and levels of income in those communities, and it is expected that those benefits will spread well beyond the direct beneficiary communities during and beyond the end of the project. The total number of indirect beneficiaries is therefore difficult to estimate but could be very significant.

The project will strengthen the capacities of the local populations on land restoration practices and the establishment of anti-erosion infrastructure, which will contribute to land restoration and increase the yield of agricultural production. It will directly support the restoration of 15,000 ha of forest cover focusing on areas where this will result in direct benefits to the population through reduced soil loss from erosion and reduced flood risks (especially slopes and gallery forests), and the rehabilitation of 15,000 ha of agricultural and pasture land where improved practices such as the minimization of fire use, soil cover and controlled pasture use will result in soil regeneration, increased yields and greater resilience to shocks such as drought years and variation in rainfall.

Likewise, the project will develop nature-based alternative livelihoods such as beekeeping, off-season crops, market gardening as well as the improvement of animal husbandry, while contributing to the diversification of income sources of the project area populations. It will train at least 20,000 local people in sustainable and climate resilient production methods and support local populations in the processing of their agricultural and non-timber forest products. These activities will result in not only higher incomes, but also more resilient livelihoods through greater reliance on climate change resilient products and value chains. Local trees and crops that are adapted to the often low soil fertility, the constant risk of fire and the naturally high uncertainty of weather patterns, compounded by climate change, will receive special consideration in the identification of climate resilient and LDN land use practices and value chains.

The above support will lead to an improvement in the income of the populations, with a reduction in poverty. The diversification of income sources as well as the improvement of yields will reduce the pressure on arable land and thus reduce conflicts related to access to agricultural land. Increased vegetation

cover will also help reduce flooding as well as loss of human life, loss of homes and loss of crops. Each of these factors will contribute to improving the living conditions of the populations of the target regions.

Finally, support to groups and / or cooperatives of women and young people will increase these groups? incomes as well as the standard of living of households, with a significant positive impact on education. The empowerment of women?s groups will particularly benefit local and national trade in agricultural and agroforestry products given the traditionally very prominent role of women in this area, while the focus on youth will ensure greater access of young people to jobs in production, processing and trade of climate resilient and degradation neutral agricultural, agroforestry and forestry products.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	High or Substantial		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Please see the attached:

- SESP (Social and Environmental Screening Plan)

- ESMF (Environmental and Social Management Framework)

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
6514 Benin - Annex 9 ESMF	CEO Endorsement ESS	
6514 Benin - Annex 5 Social and Environmental Screening Plan	CEO Endorsement ESS	
6514 Benin pre-SESP	Project PIF ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

This project will contribute to the following Sustainable Development Goal (s): SDGs 1, 2, 3, 5, 6, 7, 8, 11, 12, 13, 17				
This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD): **NATIONAL PRIORITY:** **UN MSDF Outcome 1:** D?ici ? 2023, les populations b?ninoises, en particulier les plus vuln?rables, sont plus r?silientes et ont une meilleure qualit? de vie par l'acc?s ? un emploi d?cent, ? la s?curit? alimentaire et nutritionnelle, ? une ?nergie propre, et par la gestion durable des ressources naturelles, des effets n?fastes des changements climatiques, des crises et des catastrophes UNDP CPD Outcome 1: D?ici ? 2023, les populations b?ninoises, en particulier les plus vuln?rables, sont plus r?silientes et ont une meilleure qualit? de vie par l'acc?s ? un emploi d?cent, ? la s?curit? alimentaire et nutritionnelle, ? une ?nergie propre, et par la gestion durable des ressources naturelles, des effets n?fastes des changements climatiques, des crises et des catastrophes				
	Objective and Outcome Indicators (no more than a total of 21 indicators)	**Baseline**	**Mid-term target**	**End of Project Target**
Project objective	To support achievement of Benin?s Land Degradation Neutrality[1] (LDN) targets through climate risk integrated sustainable land and forest management practices and strengthen the climate resilience of vulnerable populations in the Niger Valley, Alibori Sud-Borgou Nord-2KP and Zou-Couffo Agricultural Development Areas[2]			
	<u>Mandatory</u> <u>Indicator #1</u>: # direct project beneficiaries disaggregated by gender (individual people)	0	8,000 including: 2,000 men 2,000 women 4,000 youth	24,000[3], including: 7,000 men 7,000 women 10,000 youth

	Mandatory Indicator #2: Area of land restored (Hectares)	0	4,000 ha	15,000 ha
	Mandatory Indicator #3: Area of **landscapes under improved practices** (excluding protected areas) (Hectares)	0	4,000 ha	15,000 ha
	Mandatory Indicator #4: GHG emissions avoided (t CO_{2e})	0	1,000,000 t CO_{2e}	4,471,732 t CO_{2e}
Project Component 1	**Political, financial, institutional, and regulatory frameworks to achieve climate risk informed Land Degradation Neutrality (LDN) and advance integration of vulnerability assessments and adaptation options within land use decisions**			

Project Outcome 1: Strengthened national policy, governance and financial frameworks and capacity to implement climate risk informed SLM and SFM, and climate-proofed sustainable livelihoods contributes to achievement of LDN	Indicator #4: Use (i.e. measurement) of an agreed set of targets for the new national, country-led monitoring system, including indicators on land use change and resilience, vulnerability and adaptive capacity indicators contextualized to local climate change risks.	Little or no monitoring of most of the target indicators	Targets agreed and baseline measurements available	Agreed targets are being measured on an annual basis
	Indicator #5: Number of individuals (including government experts, NGO staff, academics, independent experts) trained in LDN and CCA analysis and planning and using acquired skills as part of their professional responsibilities	Less than 10 individuals	At least 20 individuals	At least 30 individuals

Outputs to achieve Outcome 1	1.1 National LDN and restoration database established within the DGEC under MCVDD, bringing together national data sources, including related data on climate impacts, vulnerability, and adaptation needs, and linking to global systems for monitoring restoration and LDN 1.2 National monitoring and reporting systems for tracking climate change vulnerability in the agricultural sector along with changes in adaptive capacity, land cover, land degradation, restoration, forest ecosystems and ecosystem services 1.3 The National Committee to Combat Desertification, the National Committee for Climate Change and the National REDD+ Committee are strengthened to improve coordination and the ownership and capacity of national authorities to deal with projected climate change risk and sensitivity scenarios. 1.4 National environmental funding mechanisms integrate CCA and LDN objectives, and have enhanced capacity to mobilize and manage relevant funding 1.5 Training and equipment provided to key agencies (DGEC under MCVDD, National Geographic Institute, Directorate of Remote Sensing and Ecological Monitoring, National Institute of Agricultural Resources) to improve implementation of climate risk informed and resilient SLM technologies and conservation of production landscapes, with improved coordination and monitoring of climate change impacts, land degradation trends, restoration, and sustainable forest management			
Project component 2	**Restoration of land and forest ecosystems for improved agricultural productivity, prevention of deforestation, and enhanced climate resilience of vulnerable communities**			
Outcome 2: Target degraded and abandoned lands, forests and ecosystems in selected PDAs 1, 2 and 5 managed and restored through climate risk-informed planning and actions	Indicator #6: Improved forest cover on 15,000 ha of forest ecosystem brought under climate change risk informed restoration and under improved management[4] (Core Indicator 3)	0	4,000 ha	15,000 ha

	Indicator #7: Improved soil fertility of 15,000 ha of degraded land brought under restoration and under improved management practices[5][5] (Core Indicator 4)	0	4,000 ha	15,000 ha
Outputs to achieve Outcome 2	2.1 Integrated climate risk, land use, landscape restoration, and forest management plans are developed, with climate change scenarios informing risks and selection of adaptation options, and operationalised at target sites 2.2 Degraded lands amounting to at least 15,000 hectares, and at least 15,000 hectares of forest, are under climate risk informed and resilient restoration and functional and sustainable management regimes 2.3 Awareness raising and training of 1,000 national and local government and administration officials (including ATDAs, DGEC under MCVDD and DGEFC), and representatives of private sector in climate resilient and degradation neutral planning and policies, with focus on agriculture, animal husbandry and forestry, targeting the mainstreaming of CCA and LDN in all policies and administrative decisions 2.4 Extension services in climate resilient and degradation neutral agriculture, animal husbandry and agroforestry provided to 24,000 farmers and community leaders (50% women), including on climate resilient and degradation neutral cotton production. 2.5 Strengthened Green Belt infrastructure against the advance of the desert in the north of Benin			
Project component 3	**Building diversified income-generating activities and value chains to strengthen community resilience to climate change**			

Outcome 3.1: **Communities at pilot sites receive tangible benefits from engagement in diversified, climate resilient income generating activities (with supporting value chains that promote LDN)**	Indicator #8: Number of LDN and climate resilient value chains with a 30% increase in investment and value aggregation as a result of the project.	0	3	5
	Indicator #9: Number of direct beneficiaries (disaggregated by gender) with at least 25% income gains from targeted climate risk informed value chains	To be determined based on survey of selected beneficiaries	1,500 including: 500 men 500 women 500 youth	4,000, including: 1,000 men 1,000 women 2,000 youth
Outputs to achieve Outcome 3.1	3.1 Five agricultural and agro-forestry value chains are identified and assessed according to their potential to be climate resilient and deliver multiple local, national and global benefits, including income generation, LDN benefit and enhanced adaptive capacity within project PDAs 3.2 Selected climate resilient and sustainable agricultural and agroforestry practices and market channels are strengthened through investments and extension support for climate resilient agricultural practices, leading to triple-bottom-line benefits, strengthened adaptive capacity of vulnerable communities, job and SMME creation 3.3 Local, national, regional and international partnerships developed to support and promote ?forest-friendly? and climate resilient income-generating opportunities 3.4 Strengthened cooperatives and farmer organizations, and negotiated partnerships with traders and processors, for farmers and communities practicing climate-resilient, zero degradation agriculture and agroforestry			
Project component 4	**Gender Empowerment, Knowledge Management, and M&E**			

Outcome 4: Increased technical knowledge, awareness and communication of LDN and climate resilience challenges, and uptake of gender-based solutions, among stakeholders and partners at sub-national, national and international levels	Indicator #10: Number of women from local communities using improved knowledge of LDN and CCA in their day-to-day work and /or reporting adoption of climate resilient, zero degradation farming practices	Some women will have knowledge of LDN and CCA practices already ? number and level to be determined during inception phase	100% increase over baseline	300% increase over baseline
	Indicator #11: Additional land areas showing uptake of innovative land use / production practices demonstrated or championed by project	Some innovative practices are likely being employed already	At least three innovative practices show 25% annual expansion/ uptake	At least five innovative practices show 25% annual expansion/ uptake
Outputs to achieve Outcome 4	4.1 Gender action plan is implemented and guides project implementation 4.2 Participatory M&E and quantification of LDN and CCA implementation?including restoration, SFM and SLM actions?as a contribution to national reporting under the UNFCC and other international commitments 4.3 A learning and dissemination network developed and implemented in each of the three PDAs 4.4 National-level communications and public awareness program, incorporating lessons learned by the project, including through participatory monitoring and gender empowerment, is developed and implemented at national, regional and international levels 4.5 Project monitoring and evaluation are ensured			

[1] In line with the recommendations of GEF STAP Guidelines for Land Degradation Neutrality, April 2020.

[2] Although Benin is not formally part of the Great Green Wall Initiative, this project will contribute significantly to the objective of the partnership to restore 100 million hectares of currently degraded land, sequester 250 million tonnes of carbon and create 10 million jobs in rural areas by 2030. Benin has already committed to bringing into restoration 0.5 million hectares of degraded and deforested lands under the Bonn Challenge.

[3] The number of indirect beneficiaries is estimated at an additional 344,000 individuals in the three development poles.

[4] Details of geographic breakdowns across PDAs and administrative units is provided in Section III above.

[5] See previous footnote.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

1. Response to GEFSec comments of 8 Feb 2022

#	Comment	UNDP Response	Reference
GEFSEC comments 08 Feb 2022			

#	Comment	UNDP Response	Reference
1	2. Is the project structure/design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document? A) What is the adaptation element of output 1.1? B) Is there any overlap between outputs 3.1 and 3.3? The first 3 outputs seem to have some overlaps. C) What is the adaptation element of output 4.2? This is being financed solely by the LDCF.	A) Output 1.1 will make data on land degradation and climate risks available at the level of key agencies, for the climate change-informed implementation of LDN strategy and for the harmonization of policies, sector strategies and relevant programs. It will disseminate reports of actions related to SLM, SFM and associated livelihood issues and the review of national sector strategies, plans and indicators. The wording of Output 1.1 and of Activity 1.1.2 have been revised to reflect the integration that will take place between LDN, vulnerability and climate change adaptation needs. B) These outputs may be distinguished from one another as follows: ●3.1 concerns the selection and detailed analysis of five agricultural value chains, including the identification of priority measures needed to strengthen these value chains while promoting climate resilience. ●3.2 builds on Output 3.1, by implementing concrete actions to support the targeted, priority value chains ●3.3 is focused on bringing in additional financing, via partnerships, de-risking, etc. It will focus to some extent on the five value chains being supported under 3.1 and 3.2, thus complementing these, while also potentially supporting other key sectors and activities. The project will ensure complementarity and synergy between 3.2 and 3.3 in the case of the five priority value chains C) Component 4 (excl. M&E) is funded 42% by GEFTF, 33% by LDCF and 25% by UNDP cash cofinancing. These proportions are roughly proportional across outputs 4.1- 4.4. The wording of Output 4.2 and Activity 4.2.2 have been revised to better reflect their support to both LD and climate change adaptation.	A) Prodoc, p. 52; CEO DOC, p. 38 B) Prodoc, p. 63; CEO ER, p. 48 C) Prodoc p. 70; CEO ER p. 54

#	Comment	UNDP Response	Reference
2	4. Are the confirmed expected amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized, and a description of any major changes from PIF, consistent with the requirements of the Co-Financing Policy and Guidelines?		
	A) The first amount is listed as 44m but the co-financing letter says 43m. Please correct.	A) This confusion is due to the fact that, as per the co-financing letter, government has assembled $43 million in co-financing from donors and, in addition, is providing $1 million in cash co-financing from its own sources, together totaling $44 million in investment mobilized. In order to make this clearer, these two sums have been separated in the Table.	CEO ER, p. 5, 7
	B) The section on baseline initiatives and co-financing is confusing and not easy to read. It is unclear which initiatives are providing co-financing and which are purely part of the baseline scenario. This makes it difficult to determine the additionality of the adaptation activities. Please clearly indicate the projects, relevant components, and amount of co-financing contributed in this section.	B) The table on baseline initiatives and co-financing has been revised so that the listed projects correspond exactly with the co-financing information provided.	Prodoc, p. 28-31; CEO ER, p. 25-29
	C) A number of the projects reflected in Table 1 (Assuming these are projects which are providing co-financing) do not seem to have compatible timelines with the proposed initiative, which is indicated to have an implementation period of 72 months, and which will likely not be approved until the third quarter of 2022. Quite a few initiatives listed will end in 2023, 2024, and 2025, which do not make them suitable as providing co-financing. Please clarify whether these are projects constitute the baseline scenario, or if they are co-financing initiatives.	C) As pointed out in the Government?s co-financing letter, the co-financing outlined represents approximately 25% of the total combined budgets of the projects listed. This represents a conservative estimate of the total funding that these projects will deliver both within the areas and themes covered by the GEF project and during the time frame covered by the GEF project. Thus, while temporal overlap is in many cases partial, the co-financing estimates are in line with GEF guidance on this matter.	CEO ER, P.6, Fn #4
	D) PAGEFCOM2 is included in the co-financing provided by the government. However, this project was already co-financing another GEF project (GEFID 9383 with AfBD). Moreover, the connection with the PAGEFCOM2 seems weak as it takes place in different landscapes than the proposed project.	D) The PAGEFCOM2 project has been removed from the table of baseline co-financing sources	Prodoc, p. 28-31; CEO ER p. 25-29
	E) Several co-financing initiatives do not share the same landscapes (Communal Forests II, PADEFA-ENA, GCF, and PADMAR) as highlighted in Table 4 of the prodoc. We may wonder the kind and modalities of collaboration	E) As revised, two of the projects listed as co-financing lack site-specific overlap with	Prodoc, p. 28-31; CEO ER p. 25-29

#	Comment	UNDP Response	Reference
3	6. Is the status and utilization of the PPG reported in Annex C in the document? Clarification requested: What is the status of the "committed" funds?	Committed funds represent payments to consultants not yet made pending final approval of the project, including responses to GEFSec and Council comments. Figures have been updated.	CEO ER, Annex C
4	Part II ? Project Justification 1. Is there a sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed? Clarification requested. There is not a strong connection linking the adaptation and the environmental problem aside from stating general climate trends and impacts from the degradation of land, which seem like they could apply to anywhere in Benin as well as the rest of Africa. A clearer articulation of the specific problems facing project's target areas and how is climate change exacerbating the degradation of productive lands in the target areas would be much appreciated.	An expanded discussion of the climate change adaptation problem and risk, including a table enumerating specific problems facing the project?s target areas, and in particular the ways in which climate change is exacerbating the degradation of its productive lands, has been added to the description of the project?s global environmental / adaptation problem.	Prodoc, p.18-21; CEO ER, p. 17-22

#	Comment	UNDP Response	Reference
5	2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived? No. Please see below. Comments B and C provided for the co-financing item are also relevant here, as there is some overlap between baseline initiatives and those which are providing co-financing. B) The section on baseline initiatives and co-financing is confusing and not easy to read. It is unclear which initiatives are providing co-financing and which are purely part of the baseline scenario. This makes it difficult to determine the additionality of the adaptation activities. Please clearly indicate the projects, relevant components, and amount of co-financing contributed in this section. C) A number of the projects reflected in Table 1 (Assuming these are projects which are providing co-financing) do not seem to have compatible timelines with the proposed initiative, which is indicated to have an implementation period of 72 months, and which will likely not be approved until the third quarter of 2022. Quite a few initiatives listed will end in 2023, 2024, and 2025, which do not make them suitable as providing co-financing. Please clarify whether these are projects constitute the baseline scenario, or if they are co-financing initiatives.	This has now been elaborated and included in the harmonized baseline table and co-financing descriptions B) Presentation of information on baseline initiatives (see Table 4 of Prodoc, p.24) and Section I.C. of the CEO ER are now fully harmonized and together provide complementary technical and financial details of cofinancing. C) As pointed out in the Government?s co-financing letter, and indicated in CEO ER, footnote 4, the co-financing outlined represents approximately 25% of the total combined budgets of the projects listed. This represents a conservative estimate of the total funding that these projects will deliver both within the areas and themes covered by the GEF project and during the time frame covered by the GEF project. Thus, while several of the cofinancing projects only partially overlap in geographic and temporal terms with GEF project, the cofinancing estimates are in line with GEF guidance on this matter. As noted above, Table 4 of prodoc provides additional technical details of these projects.	Prodoc, p. 28-31; CEO ER p. 6-7, 25-29 Prodoc, p. 28-31; CEO ER p. 6-7, 25-29 Prodoc, p. 28-31; CEO ER p. 6-7, 25-29

#	Comment	UNDP Response	Reference
6	3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on how the project is aiming to achieve them?		
	A) In the problem analysis, there is a reference to the overlap and lack of congruence between the traditional and ?modern? land management systems. However, these aspects are absent in the stakeholder engagement plan: would not it be an opportunity to involve traditional authorities, especially in remote areas where these traditional systems are still strong (Alibori).	A) The stakeholder engagement plan has been revised to better account for the overlap and lack of congruence between traditional and modern land management systems	Annex 8, Stakeholder engage-ment plan
	B) There are several intercommunal models in Benin. It is clear that the project will support the Agricultural Development Areas and their Territorial Agricultural Development Agency (ATDA), but how will these development areas be complementary and not duplication of other territorial divisions, as the intercommunal under the Ministry in charge of collectivities and the Land-use planning Master Plan (SDAT)?	B) The Territorial Agency for Agricultural Development (ATDA) include commune-level units that act as decentralized structures of the State under the supervision of the Ministry of Agriculture, Livestock and Fisheries. These units will support implementation of the project at the municipal level. They will also be strengthened to further ensure the sustainability of project achievements. In addition to ATDA, various other inter-municipal organizations have been included in the mapping of stakeholders / beneficiaries, namely the Association of Municipalities of Alibori (ACA and APIDA), Association of municipalities of Atacora and Donga (ACAD), Association of the municipalities of Zou and the unions of producers of Zou (UCPZ, ACZ, etc.), Association of the municipalities of Couffo and the Unions of producers of Couffo (ACC etc.). These entities will likewise be strengthened as beneficiaries of the project and will support project implementation. The local expertise that exists at the level of the ATDA and the communal cells will be used to support the beneficiaries, which include inter-municipal associations, producers' unions, and communities.	NA Prodoc, p. 49; CEO ER, p.37
	C) We take note of the promotion of beekeeping to enhance tree restoration and income diversification. However, several experiences in Benin have shown that this activity needs to be addressed as a value-chain, with long-term needs in terms of capacity building (manufacture, repair of hives, harvest, packaging, market?). Please, explain these sustainability aspects will be addressed.	C) The value chain for beekeeping is already under development in municipalities across Benin. Key links across NGOs, microenterprises and individuals are in place and an organization exists between producers and buyers with bottling and packaging efforts. Local skills and competencies exist in terms of manufacturing services, hive repair, harvesting, packaging, marketing. Expertise also exists to train and organize community-level actors. The above actors will be targeted in the municipalities of	
	D) This was indicated at PIF stage, but		

#	Comment	UNDP Response	Reference
7	4. Is there further elaboration on how the project is aligned with focal area/impact program strategies? Not clear. For LDCF, this is not very clearly articulated at all.	As noted above, the alignment section has been fully revised and a table showing output-level correspondences between the project structure and multiple objectives, outcomes and outputs in the LDCF Programming Directions has been added.	Prodoc p. 34-37; CEO ER p. 51-53
8	5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated? No, further clarification requested. Please refer to the items on co-financing and baseline initiatives. Due to the lack of clarity in those two sections, it is difficult to determine the additional reasoning of the project, at least for the LDCF portion of the activities. Additionally, although climate resilient activities are referred to in Table 4, any more detailed adaptation reasoning is largely absent.	As noted above, the information on cofinancing and baseline projects have now been harmonized. Further discussion of adaptation reasoning has also been added; in particular, the section on Focal Area alignment clearly lays out the adaptation-specific support being provided, in close alignment with the LDCF Programming Directions.	Prodoc p. 34-37; CEO ER p. 51-53
9	6. Is there further and better elaboration on the project?s expected contribution to global environmental benefits or adaptation benefits? More information requested. The contribution to adaptation benefits is not clear. Increased resilience is referred to without specificity. At this stage of project development, more specificity regarding the increased resilience of households and the greater intervention site would be appreciated.	Adaptation-related benefits are now further described in the relevant sections of the submission documents	Prodoc, p. 42; CEO doc, p. 61-62

#	Comment	UNDP Response	Reference
10	7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up? More information requested. The proposed approach to empower the government to mainstream LDN across different sectors is appreciated, however the reasoning should be further developed to further include strategic partnerships on the ground, including farmer organizations and their networks; as well as traditional authority structures, to ensure longer-term approaches and coherence between traditional and modern laws and regulations. Please revise and also list the strategic partners on the ground.	A discussion has been added regarding strategic partnerships on the ground, including farmer organizations and their networks, as well as traditional authority structures. A list of strategic partners on the ground has been added.	CEO doc, p. 64-65
11	Stakeholders Does the project include detailed report on stakeholders engaged during the design phase? Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information? Until recently (January 2021), associations of local stakeholders were constituted around the parks of Pendjari and W ? the AVIGREF for Associations Villageoises de Gestion des Reserves de Faune. We wonder if they should not be included in the participatory consultations. Please confirm.	Multiple representatives of AVIGREF were consulted during PPG field visits, particularly in the northern intervention areas. These are very active co-management structures. They are identified in the Stakeholder Engagement Plan and also in a new list of strategic partnerships	Prodoc Annex 8, Stakeholder Engage-ment Plan; CEO ER, p. 53
12	Private Sector Engagement If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder? More information requested. There seems to be quite a few mentions of the private sector, but there is no description nor or the box checked under private sector entities (stakeholders). Please clarify.	Key private sector roles as well as a list of private sector actors for further engagement and participation during the full project have been added.	CEO ER, p. 69

#	Comment	UNDP Response	Reference
13	Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation? More information requested. The information provided in this section is not adequate for this stage of project development. For example, certain risks are listed in general terms with no mitigation measures. Additionally, 5 risks have been identified as COVID-related risks, but they are not elaborated upon. The GEFSEC requires all CEO endorsement requests being submitted at this time to offer a thorough analysis of risks relating to COVID-19, as well as opportunities for proposed projects to support green recovery and resilience strategies. Please add. This information was provided at PIF stage, so building or updating on this would be appropriate for this stage of project development.	An expanded section on COVID risks and opportunities has been provided	CEO ER, p. 71-74

#	Comment	UNDP Response	Reference
14	Coordination Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area? More information requested. a. Please clarify or provide further details regarding the collaboration with other Ministries needs to be clarified (agriculture, collectivities), as well as on the field with key partners (farmer organizations). b. Other GEF projects (GEFID 3770, 4705, 5215, 9383) have contributed to the protection and sustainable management of various natural habitats in the targeted landscapes (Pendjari park, W Park, sacred forests, community forests?). We would like to see confirmation that the proposed project will not jeopardize these results and includes the inclusion of recommendations and lessons from these projects, as well as in the safeguards. Please, confirm.	a. The project will be implemented by the Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD) as the Implementing Partner. It will work with the Ministry of Agriculture and the ATDAs as well as the CTAFs and Forest Inspectorates in all the communes where it operates. Partnerships and service contracts will be established with NGOs, firms and consultants in the thematic areas covered for the implementation of activities for the benefit of the communities. The ATDAs of the MAEP (Ministry of Agriculture) will be most directly involved in the implementation of the project because they are responsible for the themes of organizing producers, and everything related to the MAEP in the project. Collaboration with other Ministries (including Ministry of Water and Mines, Ministry of Trade and Industries, Ministry of Planning and Development, Ministry of Economy and Finance, Ministry of Social Affairs and Microfinance) will be done through meetings and workshops organized for the preparation, development and validation of certain key documents. The technical departments of these other ministries will be involved in the implementation of activities according to their thematic responsibilities. Actions to secure farms and areas of infrastructure construction, as well as actions relating to the participation of socio-professional groups, will be carried out with the municipalities and local branches of the Ministry of Local Authorities. Field-level cooperation, including with non-governmental organizations, has been clarified, including a list of strategic partners list and a list of private sector actors identified for further engagement. b. This project will in no way jeopardize	NA NA

#	Comment	UNDP Response	Reference
15	Consistency with National Priorities Has the project described the alignment of the project with identified national strategies and plans or reports and assessments under the relevant conventions? No. Please provide the information for this section, focusing on relevant policies on land degradation and adaptation, to include UNCCD and UNFCC communications. Additionally, this project seems well aligned with the National Adaptation Plan process, but it's not indicated as such. How will the climate information and assessments undertaken under components 1 and 2 inform and reinforce the NAP?	This section was mistakenly left out of the CEO ER. It has now been included and incorporates a discussion of the issues raised in this comment.	CEO ER, p. 77-78
16	Knowledge Management Is the proposed ?Knowledge Management Approach? for the project adequately elaborated with a timeline and a set of deliverables? More information requested. Is there not a fully developed KM plan available now with indicative budget, timeline, and deliverables? The information provided here is appreciated, but a more coherent presentation of the KM strategy would be appreciated.	Experiences and knowledge in the development of smart, ecological agricultural value chains in resilient technology and sustainable management of land, water and forests will be capitalized and disseminated for better adoption and use at scale. The tools and approaches for developing databases for monitoring degradation and restoration on the SLM, GDF, LDN indicators, on the carbon stock in the 3 development poles covered by the project will be capitalized and used for the of the 7 agricultural development poles in Benin. The achievements in terms of practices and successful experiences in terms of activities and technologies of resilience, SLM, SFM, CES with the communities will be capitalized and shared with the other communities in the other villages of the targeted communes of the PDAs &, ? and 5 and also in the other poles of agricultural development. Technical data sheets, tools and knowledge management framework documents will be developed which will be disseminated for their use by stakeholders and communities. Visits for exchanges and sharing of experiences will be organized between the beneficiaries in the targeted PDAs.	NA

#	Comment	UNDP Response	Reference
17	Annexes Are all the required annexes attached and adequately responded to? No. Please provide the STAP and Council comments, if any, as well as responses in Annex B.	STAP comments have been added, together with responses. No Council comments were received	CEO doc, Annex B

#	Comment	UNDP Response	Reference
18	Project Results Framework Generally speaking, the results framework does not seem to be fully developed - please confirm? For example, for Indicator 4? Additionally, elsewhere in the document, the value chains are identified as mango, cashew, citrus but these are not indicated in the results framework - is there a reason for this? Additional component specific comments below:	The results framework is fully developed. Indicator 4, as per the baseline description, reflects the current situation in which little or no setting or monitoring of targets has taken place to date. The indicator itself is thus focused on the establishment of the monitoring system, with specific targets to emerge as part of that process. As far as value chains are concerned, mango, cashew and citrus are all expected to benefit from project support under Outputs 3.1 and/or 3.3. However, whether they will be included among the five priority value chains under 3.1 has not yet been determined; indeed, such determination is the purpose of Output 3.1. For this reason, they are not identified in Indicator #8	NA
	Component 2: - There is a long experience in Benin of participative approaches in planning and policy development. However, there is often a disconnect with implementation. We insist to keep a reasonable level of resources for planning exercises (focusing on the integration of climate risks to existing plans) and systematically complete the planning exercises with the implementation of climate risk related activities, including learning and coordination with other sources of funding.	Support to planning will be focused on integrating LDN and climate change adaptation issues into existing plans and will be directly linked to implementation / action, thereby ensuring practical results on-the-ground. This has been reflected as needed for added clarity (see, e.g. Activity 2.1.6)	Prodoc, p. 58; CEO ER p. 44
	- Output 2.1: we take note and can support the integration of climate risks in various existing plans ? management plans for Parc W and the Pendjari complex, various classified forests, and the need to reinforce capacities of existing agencies to implement these plans. In terms of activities, we however question the level of importance to give to data collection (2.1.1) and field surveys (2.2.2), as these activities show a problem of sustainability. Please, clarify.	The project team does consider it important to build capacity for data collection related to both climate change adaptation and land degradation neutrality, including as a support to local level planning efforts. It plans to incorporate elements designed to ensure sustainability, including using low-cost methodologies and building follow up measures, into local planning guidelines.	NA Prodoc, p. 58; CEO ER p. 44
	- Same comment as the above for municipal planning documents ? most of the SDAC already exist in the considered communes. There are also inter-communal plans in the considered landscapes (Karimama): OK to mainstream climate risks in the existing plans and reinforce capacities for implementation, but please, pay attention to maintain these activities to a reasonable level and focus on implementation of adaptation and SLM activities, especially targeting the farmer organizations and their network that are not that visible in the project.	- Activity 2.1.6, on support to SDACs, etc., has been revised to reflect the incremental nature of this activity. It now reads: ?Support the incorporation of LDN and climate change aspects eight commune-level integrated, spatially explicit planning documents??Sch?ma directeur d?am?nagement de la commune? (SDAC) and ?plan de d?veloppement communal? (PDC)	Prodoc, p., 60; CEO ER, p. 45

#	**Comment**	**UNDP Response**	**Reference**
20	Council comments No. Please advise.	No Council comments were received on the PIF	
21	STAP comments No. Please advise.	STAP comments and responses have been added	CEO doc, Annex B

#	Comment	UNDP Response	Reference
22	Budget There are several critical questions related to the GEF/LDCF budget: - There are 33 lines of budget of contractual services for local or international consultants and companies for a total amount of $7,745,4100, representing 86% of the project budget. We recommend making a rapid analysis of the amount to assess the share of consultants for planning, studies and the share of field interventions. This information is not readable in the GEF budget but readable on the first page of the excel file named ?TBWP?. We advise to revise the heavy reliance on international consultants. - At first sight, we are seeing some field interventions for a total of $2,190,000 (24%), with conservation and rehabilitation of soils ($600,000), conservation and restauration of forests ($500,000), reforestation of riverbanks ($340,000), multi-purpose reservoir ($300,000), green belt infrastructure ($450,000). There is one line of budget under the component 3 (see note 34) assigning $200,000 for materials to cooperatives for improved crop processing and storage within selected value chains. - Other interventions include the development of plans. We recommend looking at the proportion of consultants for studies and plans? it seems excessive, causing questions about the value for money and sustainability issues. The balance between studies, plans, capacity building, and field interventions should be carefully assessed to justify an optimal use of GEF and LDCF resources. - The development of studies, assessment, and plans makes sense however to install a LDN framework and a monitoring system of LDN targets (component 1, and partially 2). Other sources of financing exist for local and intercommunal plans ? and several of these plans already exist. No need to duplicate these plans. Several plans should be limited to the inclusion of climate risks.	Notes on response based on existing budget and potential for changes We have carefully analysed the budget as initially submitted and note the following: ●Total budgeted cost of international consultants is $322,000, or 3.4% of the total project budget. This includes $50,000 for evaluations. The largest component is for value chain specialists ($100,000). ●Total budgeted cost of local consultants is $333,000, or 3.5% of the total project budget. ●Total budgeted costs of contractual services - companies is $6,147,263. This includes $2,935,000, or 30.8% of the total project budget for field interventions under Component 2. (Note: This was the total amount in the submitted budget, not $2,190,000, based on support for field-level interventions in BN 16 and 22). ●Under Component 3, in addition to the $200,000 to cooperatives mentioned in the comment, several activities under Component 3 sub-contracts (see BN 27 and 3, and activities 3.2.2, 3.2.3, 3.2.4 and 3.4.3) include material support delivered at field level. The project team estimates this material support at 30% of the overall sub-contract totals, i.e. $627,000 of the total $2,090,000 under these budget lines. ●Given the above, total support to field interventions as submitted is estimated at $3,562,000, or 39.4% of the combined GEFTF and LDCF budgets. ●Altogether, the submitted budget included 11 travel lines totalling $359,311. In light of the above, we have reduced the following budget lines: ●International consultants? costs have been reduced from $322,000 to $297,000 ●National consultants? costs have been reduced from $333,000 to $300,000 ●Total travel allocations, including travel for supervision, have been reduced from $359,311 to $279,311. Savings from the above budget lines have been directed towards field-level interventions, as follows:	PRODOC budget

comments 03 June 2022			
1	Part II ? Project Justification 1. Is there a sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed? A) The further information provided on climate hazards and their impacts in Niger Valley, Alibori Sud-Borgou Nord-2KP and PDFA5 region is well noted. Please include explicit references in Table 1 to climate risks and impacts for the Zou-Couffo Agricultural Development Area". B) The reference to anticipated risks of increased climate hazards under a high emissions scenario RCP 8.5 is well noted. Please also include consideration of anticipated risks of increased climate hazards and their impacts under a more optimistic emissions scenario (ideally RCP 4.5, to 2050), and (importantly) articulate consideration of this range of impacts on the project areas in the design of the project interventions.	PDA5 is now correctly identified ass Zou-Couffo, with risks and impacts as shown. The section on climate risk has been expanded to reflect the wider range of current and projected climate change risks and impacts facing Benin. In addition, the emphasis on a range of potential emissions scenarios and impacts has been included in the overview of the alternative project scenario	CEO ER, p.20-21; Prodoc, p. 19-20 CEO ER p. 16-20, 37; Prodoc p. 15=19, 50
2	2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived? Is the Prodoc table being referred to in fact Table 5 on pages 28-31? Please clarify. Please also clarify the specific location of this corresponding information in the CEO ER.	Yes. With regards to Item 2B of Part II of the 8 Feb comments, the response in fact refers to Table 5 on pages 28-31 of the prodoc. This table is also presented as Table 2 on p. 26-29 of the CEO ER.	CEO ER, p. 28-31; Prodoc p. 26-29

3	3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?		
	A) We note additional information is added to the UNDP Prodoc. However, all relevant information also needs to be included in the GEF CEO ER, including with regards to how the project will account for the overlap and lack of congruence between traditional and modern land management systems.	The overlap and lack of congruence between traditional and modern land management systems has been added to the baseline descriptions as an underlying cause. The project?s strategy for handling this challenge has been clarified in the Stakeholder Engagement Plan, as well as in the Stakeholders section of the CEO ER. As explained there, during the first year of the project, ESMPs Environmental and Social Management Plans (ESMPs) will be developed for each PDA, integrating findings from Environmental and Social Impact Assessments (ESIAs) that will also be developed for each PDA at this time. Each ESMP will include a detailed Stakeholder Engagement Plan for the PDA. These PDA-specific ESMPs will ensure that the knowledge and views of stakeholders involved in local land management will be taken into consideration in project implementation. Corresponding ESIAs will, *inter alia*, assess traditional and modern land management systems, identifying different roles and responsibilities associated with each of the systems. These assessments will help to inform and further specify roles and responsibilities associated with implementation of individual project activities in ways designed to best achieve the project?s objectives.	CEO ER, p.15, 65-66; Prodoc p. 14 and Annex 8 (p.30) CEO ER, p. 2-4
	D) We note the improved integration of climate adaptation and resilience objectives and activities within paragraphs 46 to 95 of the CEO ER. However, it appears these changes have not been made to the Project Summary (section 1.B) at the top of the CEO ER. Please ensure full consistency with the Project Summary.	Section 1B of CEO ER has been updated to fully reflect changes made to Outputs in the project description.	
	E) Please ensure greater consideration of anticipated climate impacts, noting the comment above in the section on Project Justification (in regards to question 1, comment B) about RCP scenarios 8.5 and 4.5, and designing to adapt to climate impacts within a range of high and optimistic emissions scenarios).	Please see response to 1B above.	CEO ER, p. 68-71; Prodoc Annex 8, p. 21-24
	F) As requested in the GEF CEO ER, please ensure the Stakeholders section includes "a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to	Table 7 in the CEO ER summarizes this information. (This table is also included	

4	4. Is there further elaboration on how the project is aligned with focal area/impact program strategies? Please note the comments in other sections on climate rationale.	Please see responses provided above	
5	5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated? Please note the comments above on need for further information and reasoning on adapting to anticipated climate impacts based on a scenario range.	Please see responses provided above	
6	6. Is there further and better elaboration on the project?s expected contribution to global environmental benefits or adaptation benefits? The additions made are well noted. Please note and address the further comments above.	Please see responses provided above	
7	7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up? Please further strengthen the articulation on how the project is innovative and sustainable with consideration of how the project empower and support the action and leadership of the ATDAs and other types of strategic local partners listed in this section and detailed in the Stakeholder Engagement Plan, in advancing sustainable local action for climate adaptation and LDN.	Support for the role of ATDAs and other local institutions in generating and sustaining innovation and local knowledge has been clarified in the CEO ER section on innovativeness	CEO ER, p. 68

8	If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder? We note with interest the first of the three roles identified during project preparation in which project sector actors will be involved in the project, as follows: "facilitating market and credit access for producers involved in the resilient development of livelihoods". Please ensure this important role and contribution is fully conveyed in the project summary and project output descriptions, as well as in this project sector description section, and the stakeholder engagement section and plan.	This important private sector role has been highlighted in the Stakeholder Plan, Stakeholder Plan Summary and in the ?Brief project description? in the Prodoc	CEO ER, Table 7, p. 72, UNDP prodoc, p. 2 and Annex 8
9	Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation? The section on COVID risks and opportunities is well noted with appreciation. However, as indicated in the comment provided on 7 July 2022, a more elaborate analysis of risks and risk mitigation measure for each of them is required, beyond just Covid related risks and their corresponding mitigation measures.	Non-COVID risks and mitigation measures are now presented in Table 9 of the CEO doc and are also found in Annex 6 of the UNDP prodoc	CEO doc, Table 9, p. 76-83
10	Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area? Well noted. Please ensure this information is reflected in the CEO ER.	This information has been added to the CEO ER	CEO ER, p. 88-89

11	Is the proposed ?Knowledge Management Approach? for the project adequately elaborated with a timeline and a set of deliverables? Similar to other comments provided, please strengthen articulation of the direct relevance of the knowledge management strategy through this project to adapting and strengthening resilience to current and anticipated specific climate change impacts.	Support for the role of ATDAs and other local institutions in generating and sustaining innovation and local knowledge with respect to adapting to, and strengthening resilience to, climate change has been clarified in the CEO ER section on innovativeness	CEO ER, p. 68

12	Are all the required annexes attached and adequately responded to? A) Please note and provide responses to the comments provided by the following Council members: i. Chair (12/9/2020) ii. Japan (12/3/2020) iii. Germany - 2 comments (1/7/2021) iv. Canada - 3 comments (1/11/2021) B) Please clarify where the responses were provided to STAP comments. C) Annex E (Budget): Noting the Agencies response inserted in the box related to STAP comments with regards to GEFSEC comments made on the budget in the "recommendations" section: i. Please provide a breakdown of all equipment expenses. Please clarify if any vehicles are being proposed. ii. Please provide a breakdown and explanation of the following significant contractual services-company amounts: Component 2: "(3) Conservation and rehabilitation of priority cropland and conservation of soil fertility (Activity 2.2.2) = $640,000; (4) Conservation and restoration of priority forest areas, including classified forests (Activity 2.2.3) = $500,000. (5) Reforestation for riverbank protection (Activity 2.2.4) = $340,000; (6) Multi-purpose water reservoirs (Activity 2.2.5) = $300,000. (7) Provision of extension services to 24,000 farmers and community leaders (Output 2.4) = $355,000;(8) Development of green belt infrastructure (Output 2.5) = $450,000. Note: Additional funding for these sub-contracts is available under BN 22." Component 2: (2) Conservation and restoration of priority forest areas, including classified forests (Activity 2.2.3) = $200,000; (3) Reforestation for riverbank protection (Activity 2.2.4) = $185,000; (4) Multi-purpose water reservoirs (Activity 2.2.5) = $50,000; (5) Provision of extension services to 24,000 farmers and community leaders (Output 2.4) = $100,000. (6) Development of	A) Responses to Council Comments have been included B) Responses to STAP comments are included in the CEO document, Annex B, Response to Project Reviews, Section 2, p. 116-126 C) i. Additional details have been provided re. equipment expenses. Vehicles are funded by UNDP co-financing ii. Breakdowns of all sub-contracts have been provided in the Budget Notes, in the UNDP Prodoc.	CEO ER, Annex B, Response Matrix CEO ER, Annex B, Response Matrix UNDP Prodoc, p. 119-128

GEFSEC comments 02 August 2022			
1	Please change the implementation start date to a future date and adapt the expected completion date accordingly to meet the 72 months duration Please also upload the UNDP Audit Checklist.	The planned start date has been changed to 01 November 2022 and the dates for completion, MTR and TE have been adjusted accordingly. The audit checklist has been uploaded, apologies for this oversight	PRODOC cover page Portal
2	On the **co-financing** from Apiservices: it seems that there was a typo in the letter. $5,250 will be provided in the form of grants and $30,700 in-kind for a total of **$35,950.** The in-kind amount, in table C, should be corrected from $35,750 to $30,700. Please clarify.	A revised letter of cofinance has been obtained from Apiservices and the cofinance information has been updated in the CEO ER and PRODOC.	CEO ER Tables A, B, C PRODOC p. 2, TBWP
3	The project has mainstreamed gender perspectives in some of the project components. To be consistent with the accompanying Gender Action Plan and the spirit of gender mainstreaming, please ask the Agency to reflect the bolded text in section B. Project description summary (table on project components) the following: i) Output 2.5: development of **gender-responsive** manuals; ii) Output 3.3.: **gender-responsive** income-generating opportunities; Outcome 3: Building diversified and **gender-differentiated** income-generating activities and value chains to strengthen community resilience.	Gender-responsiveness has been included in Outcome and Output statements throughout Section B	CEO ER Section B

4	Please include reflection of the expected results indicated for core indicator 6 and its target in the results framework detailed in Annex A.	A 4th mandatory indicator on GHG emissions avoided has been added to the Results Framework	CEO ER Annex A PRODOC Results Framework

2. Responses to STAP comments on PIF, 23 May 2020

STAP comment	UNDP response

STAP comment	UNDP response
General comments	
STAP recommends strengthening the problem analysis. Currently, the climate change component of the project statement is retrospective ? there is no forward-looking statement of challenges in the PIF. As a result, it is not clear what climate-related challenges the project is meant to address going forward. Further, STAP recommends disaggregating the projected climate impacts across the three zones of implementation. The southern zone is the site of different agricultural practices and crops relative to the two northern sites and is subject to different climate trends and impacts.	A climate scenarios analysis has been prepared, looking at trends, challenges and likely scenarios to the 2050s and 2100. Climate impacts are disaggregated by PDA in a table included in the submission docs.
STAP acknowledges that the Project Team mentions the LDN Guidelines for project implementation and, in this regard, it encourages a full use of these guidelines and the LDN Conceptual framework for embedding LDN interventions into existing planning processes, rather than being an additional process. Additionally, STAP recommends paying attention to two assessments when designing and implementing the project: land potential assessment, and a resilience assessment. STAP also encourages the team to consider a variety of target trajectories for land restoration or rehabilitation, given that in some of the proposed project sites land rehabilitation may be more feasible and effective than land restoration. The LDN Conceptual Framework provides guidance on the latter. The project also does a good job at describing the enabling environment needed for LDN implementation at different scales. To support the enabling environment, STAP recommends including representatives of universities, research institutions and national associations in the Project Steering Committee.	The project will conduct these assessments as part of its integrated approach to climate change resilience and LDN. It will support both restoration (15,000 ha) and rehabilitation (also 15,000 ha), depending in specific cases on an assessment of feasibility and sustainability. The prodoc refers to inclusion of representatives of universities, research institutions and national associations in the Project Board.
Lastly, with almost 65% of Benin?s population under the age of 25, STAP strongly encourages the team to develop the PPG (and implement the project) proactively engaging with youth for co-design and implementation of activities that ?while fulfilling the project objectives? open opportunities of sustainable livelihoods for this sector of the society, to reduce their unemployment and forced migration. STAP has recent advice on multi-stakeholder dialogues, and insights on behavioral change; the latter needs to be embedded in selected interventions to achieve the vision set in the PIF Theory of Change.	The project design ensures that youth and women are fully involved in the engagement with communities and youth employment is an important objective of the project?s focus on value chains. (see ESMF and SEP annexes)

STAP comment	UNDP response
Project components Yes, the activities support the project objective. Because they present unique challenges for implementation and project outcomes, STAP recommends the project identify interventions that require changes of current behavior by the beneficiaries of this project and assess any challenges that might emerge from such behavior change, such as social stress, to ensure sustainability of the project outcomes. It also recommends multi-stake dialogue processes, not only to consult, but to co-design interventions with beneficiaries, and agents that can enable changes (e.g. private sector) STAP forthcoming guidelines on behavioral change are recommended to guide this process.	This aspect has been integrated in the project activities/log frame/theory of change. It is also included in the ESMF, and will be taken into consideration when the proposed ?*new SESP done as activity and site-specific process*? (*ESMF, p.20*) is prepared, including the challenges that might emerge from the behavior change, as a risk to be managed by Safeguards processes. The multi-stakeholder engagement process will be fully embedded in the project?s approach to engaging with communities.
Outcomes STAP recommends indicators and targets related to outcome 1.1 be revised; the current indicators are unlikely to be sufficient to monitor whether the claimed GEBs and adaptation benefits can be achieved	Outcome 1 targets and indicators have been updated
Outputs Yes, the outputs are likely to contribute to the outcomes. However, it will be important to define the assumptions that underlie the outcomes, and the barriers/enablers of change in the causal pathway. The risks identified in pg 32 need to be incorporated in the ToC, as external factors that may affect the delivery of outputs.	Assumptions have been identified and included in the theory of change

STAP comment	UNDP response
Project justification Yes, a draft Theory of Change is presented, which will be further refined during the PPG. See comments above in regard elements that need to be 4 included in the revised ToC: mention of external factors, discussion of assumptions and alternative scenarios that can be pursued to achieve the desired vision, anticipating external and internal factors that may affect project implementation. STAP recommends that the project carefully consider the answers to the following key questions: who should be involved in project design and implementation, and at what stage? (beneficiaries of the project and ?change agents?), why will a given intervention produce expected outcomes (assumptions)?; what other factors (COVID, political instability, migration and in-migration) will affect the project? Aiming for project efficiency, the ToC needs also to identify ?out of the climate resilient range of interventions mentioned? what is going to be invested, by whom and through what set of activities.	These questions have been considered in developing the updated theory of change

STAP comment	UNDP response
Project description	
The problem statement is well-defined for some aspects of the project. The PIF describes increasing threats to land management as a result of climate change; poor land management due to a variety of reasons, and lack of policies supporting appropriate land use planning. However, the climate change component of the project statement is completely retrospective ? there is no forward-looking statement of challenges in the PIF. As a result, it is not clear what climate-related challenges the project is meant to address going forward. In the project document, STAP recommends specifying the timeframe for the change in climate which is described under ?climate change impacts and adaptation challenges?. Further, STAP recommends disaggregating the projected climate impacts across the three zones of implementation. The southern zone is the site of different agricultural practices and crops relative to the two northern sites and is subject to different climate trends and impacts. Overall, to ensure the design and implementation of effective interventions, the project should carefully link projected climate impacts with agricultural and livelihoods impacts, as this connection is currently somewhat vague and notional. The barriers section of the PIF cites the multiplicity of projects and funding that exist in Benin for addressing climate change and land degradation, and the urgency for enhanced coordination across institutions to improve coherence in implementation and to address knowledge and action gaps at the national level. STAP recommends the project team to reach out to the leaders of the GEF project ?Participatory assessment of land degradation and sustainable land management in grasslands and pastoral systems? (FAO-IUCN). This project has generated important learning for multi-sectoral, multi-scale coordination of different national government agencies, national associations of producers, etc that this PIF project claims as ?innovative?. Furthermore, the STAP takes note of the challenges and barriers associated with transhumance, migration, and concurs with the view that an overarching long-term solution will be to improve the climate resilience of rural livelihoods (emphasis on women and youth) that are dependent on agricultural production by diversifying agricultural livelihood options. STAP notes that such diversification is not straightforward, as existing activities and crops are often closely linked to identities, roles and responsibilities at the community and household level, and therefore diversification initiatives should not rest on the assumption that increased productivity or incomes will be sufficient to incentivize changes. This highlights the importance of using knowledge from prior projects of Benin, as well as from other geographies with similar socio-ecological and cultural contexts.	Climate change challenges have been fully elaborated in the submission documents. The project will exchange experiences and lessons learned and, where possible, coordinate activities, with related projects in the region, in particular the GEF ID 10291 project ?Sustainable management of dryland landscapes in Burkina Faso?, implemented by IUCN and GEF ID 10688 project ?Land degradation and protecting forested ecosystems in Benin?, implemented by UNDP. Text referring to this exchange and coordination has been added. Previous projects in Benin have been analyzed and knowledge incorporated herein: GEF ID 3704 (2010-2015) : this project has generated valuable exp?riences on which the current project will build in terms of formation of local land user groups to implement activities ; distribution of seeds and plants for land restoration ; management of watersheds for increased water conservation and supply. GEF ID 5904 (2019-2023) : Currently generating valuable lessons in terms of watershed management including the use of green belts for runoff prevention and water conservation. GEF ID 5487 (2017-2021) : This regional project has generated valuable exp?riences in terms of creation of migration corridors for transhumant pastoralists, restoration of degraded forests, and measures of land vulnerability and hydro-climatic risks on which the current project will build.

STAP comment	UNDP response
Barriers and threats Yes, the barriers and threats are described, which focus on: gaps in policies and in efforts to adapt to climate change (i.e gaps in NDC implementation); limited capacity for restoring degraded land amidst climate change impacts; competing uses of land (herders and farmers); pests; and coping capacity challenges. STAP notes that these threats and barriers are not always evenly distributed across the three proposed implementation sites, and suggests that at the PPG stage the project carefully identify and link specific threats and barriers to each site to ensure that interventions address appropriate root causes. In the theory of change, STAP recommends identifying the assumptions behind the identified challenges, proposed solutions, and expected outcomes, which includes an analysis of the barriers, and the enablers of change. Doing so, will ensure the interventions are feasible and appropriate. STAP cautions to pay attention to the following root causes mentioned, which can negatively impact on the proposed activities: a) lack of enforcement of LUPS and b) insufficient rural extension.	Assumptions have been identified.
Baseline scenario and projects Yes, the PIF includes a narrative baseline describing several on-going projects on forest restoration and climate change, early warning systems and climate resilience, value chains and sustainable land management, among other efforts. It also describes current trends in land degradation and current climate change commitments, particularly those related to land degradation. However, the PIF does not extrapolate these current trends into the future to provide a baseline against which to compare project outcomes. Without trends in environmental conditions clearly demarcated in the baseline it is difficult to quantify project benefits. STAP appreciates the table that has been provided to list the various projects. It would be valuable to add a column to the table on the (emerging) lessons from each project, and how they are relevant to this LDCF project.	A climate scenarios analysis, looking at trends and likely scenarios to the 2050s and 2100, has been embedded in the UNDP Prodoc at p. 16

STAP comment	UNDP response
Basis for quantifying the project?s benefits No. While the PIF provides information on current conditions and activities, it does not extend its reporting on conditions into the future. As a result, it is difficult to quantify the environmental benefits of this project against the baseline of business as usual. STAP suggests that current environmental conditions and trends be extended into the future to create a robust baseline in the PPG phase. To achieve this, STAP suggests identifying environmental and social indicators beyond the GEF core indicators and LDCF results framework indicators to monitor sustainable land management, and climate resilient livelihoods. For the environmental indicators suggest focusing on the three UNCCD LDN indicators: land cover (physical land cover class), land productivity (net primary productivity, NPP) and carbon stocks (soil organic carbon (SOC) stocks). STAP also recommends the PPG identifies locally relevant indicators of LDN that can be used complementary to the global LDN, as suggested in the STAP LDN guidelines.	A climate scenarios analysis, looking at trends and likely scenarios to the 2050s and 2100, has been embedded in the UNDP Prodoc at p. 16
Is the baseline sufficiently robust? No, because the baseline does not allow for the measurement of environmental benefits from the project. STAP recommends extending baseline trends in land degradation and climate impacts into the future (ideally 2050) and identifying environmental and social indicators that complement the GEF?s and LDCF?s indicators, and which track progress towards achieving the project objective. Additionally, STAP recommends identifying what needs to be monitored in the theory of change, which includes identifying indicators for each outcome.	A climate scenarios analysis, looking at trends and likely scenarios to the 2050s and 2100, has been embedded in the UNDP Prodoc at p. 16
Lessons learned from similar interventions Partly. Ongoing initiatives are listed in the baseline and coordination sections, and some lessons are described. STAP suggests elaborating for each project the (emerging) lessons ? including lessons on scaling, and how they will contribute to this LDCF project. This information could be added in a new column to Table 1.	Specific relevant initiatives have been identified during the PPG, along with corresponding thematic and geographic overlaps. As active cooperation and exchange begins to take place during project implementation, latest emerging lessons will be gathered based on exchanges with project managers and beneficiaries and will be incorporated into project management strategies

STAP comment	UNDP response
See above. STAP recommends the project team reach out to other GEF projects that have been implemented in similar socio-economic, political, and ecological contexts to identify relevant lessons.	The project capitalizes on the results of previous natural resource and protected area management projects. Practices in terms of conservation, development and above all restoration of degraded forest lands and spaces will be capitalized on and extended within the framework of this project. Recommendations and lessons learned from these projects, including safeguards and restoration measures, will help to guide the establishment of the green belt and the implementation of restoration, enhancement and alternative income-generating activities for the benefit of local communities. The project team will establish contact with relevant ongoing GEF projects during the Inception Phase.
Theory of Change STAP notes with appreciation the inclusion of a preliminary theory of change in the PIF. This ToC can be described as follows: To achieve land degradation neutrality and increased climate resilience in rural Benin, the project will support ?climate risk informed sustainable land and forest management practices, and strengthen the climate resilience of vulnerable populations, in the Niger Valley, Alibori SudBorgou Nord-2KP, and Zou-Couffo Agricultural Development Areas.?	NA

STAP comment	UNDP response
The ToC suggests that increased climate resilience and the sustainability of forest and land use will result from i) the promotion of sustainable, resilient and climate smart production systems in degraded lands and deforestation hotspots in Benin, ii) the implementation of green infrastructure, selected through integration of climate scenarios and resilience potential under current climatic stressors, to strengthen the Green belt as a nature based solution against desert advancement and support communities? in climate change adaptation in the north of the country, iii) strengthening the protection and preservation of forest ecosystems located in large agricultural production basins, iv) identifying and promoting climate resilient value chains and increase productivity and competitiveness of the horticultural sectors, and v) facilitating the mobilization of innovative financing and the involvement of private sector for the scaling up and sustainability of climate smart agriculture, climate risk informed sustainable land and forest management. See earlier comments on deficiencies of the ToC and how to address them during the preparation of the PPG.	NA
The 4 components form a coherent package of planned interventions. STAP is pleased that a draft theory of change is provided in the PIF. During project design, STAP recommends describing the assumptions, barriers, and risks for each outcome in the theory of change narrative and diagram. Enablers of change also can be identified. Refer to STAP?s theory of change primer for guidance: https://www.stapgef.org/theory-change-primer	Assumptions, barriers and risks have been outlined
The project team will elaborate further the theory of change during the project design. STAP recommends identifying the assumptions for each outcome in the theory of change. Doing so, will ensure the project interventions are feasible.	Theory of change has been elaborated, including assumptions

STAP comment	UNDP response
What adaptations may be required during implementation No. STAP recommends for the project team to think about the drivers of change, including longterm drivers (e.g. market changes, effects of climate change), and what response measures may be needed. This process entails having stakeholders think through one, or two simple scenarios for possible futures that focus on different change trajectories based on key shocks, stresses, and risks to the project. Droughts and floods are already becoming more severe in Benin; What alternative pathways may be required for the outcomes to endure impacts from long-lasting change, such as climate? Other external drivers may also be important, such as market and population changes. Refer to STAP?s theory of change primer (table 2) and RAPTA for guidance on developing pathways, and more than one scenario: https://www.stapgef.org/theory-change-primer https://www.stapgef.org/rapta-guidelines	The theory of change has been carefully developed with participation of the full project team. Further in-depth discussions and analysis of adaptation trajectories will take place during project implementation, particularly in association with vulnerability analysis being undertaken under Component 1.
STAP recommends component #3 could include locally appropriate Payment for Ecosystem Services initiatives as an alternative livelihood that could be developed through PPPs.	This option was considered but rejected by the project team due to difficulties implementing in a sustainable way since there are no obvious ?buyers? for ecosystem services. If payments are unreliable or not sustainable, the impact can be negative.

STAP comment	UNDP response
Global Environmental Benefits Yes, the benefits are listed, and they are measurable. As noted above, STAP recommends complementing as needed these indicators with other environmental and social indicators. In addition, recommend identifying success indicators for each outcome in the theory of change. Additionally, STAP recommends addressing the following issues related to the different components: For component 1, to develop and support an enabling environment, it will be important to establish governance structures that are conducive to collaboration and trust between stakeholders. Therefore, suggest relying on stakeholder engagement strategies and developing a plan that maps out different social characteristics (e.g. power, political and cultural dimensions, gender) required to implement an effective and equitable governance. In component 2, STAP recommends applying an assessment of land potential and other preparatory assessments to inform land use planning, and reverse land degradation. A land assessment will account in a holistic manner the properties that will influence the capacity to resist and recover from land degradation. These properties include the biophysical characteristics of the land, such as vegetation, soil properties, and climate. Pursuing a land assessment will inform the potential of the land to be restored, or whether rehabilitation measures, are needed to reversing land degradation. STAP recommends for the project team to apply the guidance from its LDN guidelines, and from UNCCD?s Scientific Conceptual Framework on LDN, which covers land potential assessment as well as other assessments (e.g. resilience of current, and proposed land uses, and socio-economic context of land users) that inform land use planning interventions : https://www.stapgef.org/guidelinesland-degradation-neutrality https://www.unccd.int/sites/default/files/documents /2019-06/LDN_CF_report_web-english.pdf. STAP also recommends to appraise whether land rehabilitation may be a viable alternative to land restoration in some of the project areas. For component 3, STAP recommends developing a ?mini? theory of change to assess the various assumptions, barriers, and risks affiliated with reaching the outcome of improved climate resilient livelihoods resulting from diversified value chains. Developing a separate theory of change will help analyze the causal pathways more carefully and, monitor changes and learning resulting from this component (e.g. what changes are value chains contributing, or hindering). These should be tailored to the different socio-ecological contexts of the three implementation areas in the project, as each will present different opportunities and challenges. Refer to the following resources for developing the theory of change: https://www.stapgef.org/theory-change-primer https://www.tandfonline.com/doi/full/10.1080/09614524.2019.1641182	These comments have been taken into account when developing a completed results framework and Stakeholder Engagement Plan. Regarding component 2: the project will support an integrated assessment of land potential and climate change vulnerability, as mentioned previously. As noted above, the project will support both land restoration and rehabilitation, at 15,000 ha each. The idea of developing a mini-TOR for each site as part of the local feasibility and sustainability analysis is welcome and this will be done together with local stakeholders at each of the project sites during project inception.

STAP comment	UNDP response
Scale of project benefits Possibly. To make the assessment of benefits clearer, STAP recommends extending the baseline into the future to facilitate the quantification of social and environmental benefits. STAP also recommends elaborating further the theory of change, and consider developing various causal pathways to encourage adaptability to change, including to address long-term drivers, such as in-migration and out-migration into the project areas. Additionally, parts of the project areas will experience more frequent and intense droughts, putting greater stress on water resources and on agricultural productivity. Considering one, or two, alternative trajectories will assist the project team plan for adaptation, and possibly for transformational change. Refer to the World Bank?s Climate Change Knowledge Portal for 13 climate change trends in Benin, and at STAP?s theory of change primer for the development of alternative pathways: https://climateknowledgeportal.worldbank.org/country/lesotho/vulnerability https://www.stapgef.org/theory-change-primer	A climate scenarios analysis, looking at trends, challenges and likely scenarios to the 2050s and 2100, has been embedded in the UNDP Prodoc at p. 16.
Indicators and methodologies Yes, indicators are provided to measure progress. Suggest also describing the methodologies that will be used to measure and monitor the indicators.	The submission documents include a description of the project?s M&E plan.
Activities to increase the project?s resilience to climate change The PIF does not outline any such activities. The project will focus on LDN interventions that encompass climate resilient measures (See component 2). As part of the land use planning activities, STAP recommends applying a resilience assessment of the targeted socio-ecological systems. STAP?s LDN guidelines along with RAPTA are two resources that can assist the project team with a resilience assessment: https://stapgef.org/guidelines-land-degradationneutrality https://www.stapgef.org/rapta-guidelines	The project logic involves integrating climate change resilience and LDN in order to increase resilience of land use systems and livelihoods to climate change and degradation risks and pressures. This will include use of the resilience assessment mentioned in the comment. Specific contributions by the project to the LDCF results framework are identified in Table __ of the CEO doc.

STAP comment	UNDP response
Innovation The project demonstrates some degree of innovation, through proposed multi-sectoral governmental participation, and the focus on integrated land use planning, via LDN. The project also aims to bring together stakeholders across spatial scales (policymakers to land users) and sectors to achieve climate resilient LDN and livelihoods. Careful attention should be paid to identifying stakeholders that are essential for achieving long-term impacts and scaling. In terms of scaling, it is suggested lessons from the paper of Buttler et al 2020 (how feasible is the scaling out of livelihoods 14 and food system adaptation in Asia Pacific Islands). STAP suggest spatial land use planning and spatial prioritization be included in the planning of interventions. Examples from GEF projects such as Costa Rica and Uganda are leading the way, along with additional pilots in Colombia, Kazakhstan, and Peru, to use spatial data to map essential life support areas (ELSAs) and other good practices mentioned in the STAP paper https://stapgef.org/sites/default/files/publications/GEF%20EO%20Mainstreaming%20March2020%20Final%2020200331-v3.0.pdf	A detailed stakeholder analysis has been prepared, which identifies key actors at multiple levels. In addition, the project includes resources dedicated to identifying and optimizing uptake and diffusion of innovations and best practices throughout each of the target areas and between them. This activity will depend in part on identifying landscape-level innovators, opinion leaders and change agents, among others.
Scaling up innovation Partially. The project needs to address the assumption that LDN, other integrated approaches, and value chains will induce innovation for climate resilient landscape management. STAP recommends identifying the assumptions in the theory of change (including behavioral change assumptions) required to achieve component 1 and 2. See earlier comments. Additionally, STAP recommends relying on the theory of change, and its monitoring, to identify opportunities for scaling and transformative change. The theory of change also should be used to address barriers, and enablers, of scaling. Refer to STAP?s primer on theory of change: https://www.stapgef.org/theory-change-primer	The project?s theory of change includes assumptions by component

STAP comment	UNDP response
Sustainability It is likely that incremental adaptation, and, or, transformational change may be needed due to climate stressors (e.g. increased frequency and intensity of drought in parts of the project areas), other long term changes (e.g. out and in-migration as a result of food insecurity and conflict in neighboring countries), and from shocks, such as COVID-19. As previously mentioned, we suggest developing several pathways to reach the project 15 goal, testing the assumptions, and asking which pathway will be necessary and sufficient to address long-term changes resulting from climate change, COVID-19 and other long-term changes. Refer to STAP?s primer theory of change, and RAPTA: https://www.stapgef.org/theory-change-primer https://www.stapgef.org/rapta-guidelines	The project?s theory of change offers various pathways (broken down into components) to contribute to the final project goal. The relative contribution of those various pathways will be carefully monitored and adaptive management will be used to ensure adjust activities as and when needed to ensure the project goal is reached.
Maps Geo-referenced information was provided, along with maps. STAP recommends following its guidance on maps in its Earth Observation document ? see page A1: https://www.stapgef.org/earth-observation-and-gef	NA
Stakeholders The key stakeholders have been identified. Suggest reflecting whether there are other stakeholders that need to be involved during the project development, implementation, and monitoring. The stakeholders need to be mapped in the Theory of Change, to anticipate their role in the phases of project implementation, and to anticipate whether barriers could exist for their engagement (e.g. levels of literacy, cultural barriers). STAP reiterates the need to engage with youth beyond merely ?consulting? and awareness raising. (pg 31 ?ensuring that gender and youth-focused NGOs and CBOs are invited to participate at meetings, seminars, workshops and discussion groups that address agricultural and sustainable land management issues at the macro-level). We trust the PPG will have clearly thought processes to involve gender and youth-focused NGOs and CBOs in project implementation and capacity development at national and local levels.	These elements have been included in the ESMF, Stakeholder engagement plan and main text of prodoc.

STAP comment	UNDP response
STAP is pleased that a stakeholder plan will be developed during the project design. STAP suggests elaborating further on stakeholders? roles, particularly at the outcome level. As suggested 16 above, assessing whether all the key stakeholders have been identified during the PPG stage, and amend stakeholder plans as needed. Additionally, recommend using STAP?s guidance on Multistakeholder engagement for transformational change?, which is focused on establishing stakeholder engagement processes to achieve longterm drivers thru scaling and transformative change: https://www.stapgef.org/multi-stakeholderdialogue	These elements have been included in the Stakeholder engagement plan.
Gender No. In the gender plan, STAP suggests assessing whether a gender consideration hinders the participation of an important stakeholder group (or groups). If so, describe how will these obstacles be addressed.	Gender action includes, inter alia, actions to enhance women?s participation.
Risks The PIF describes a series of risks to the project, including: weak implementation capacity on landscape management, low community participation, climate change risks, COVID-19 risks, and risks due to trade-offs between environmental and social benefits. STAP recommends for these risks to be defined in the theory of change so they are explicitly dealt with and managed. Not acknowledging the risks will undermine the causal logic of the interventions. For climate change, STAP recommends taking into account the questions to the left, and relying on its climate risk screening guidance: https://www.stapgef.org/stap-guidance-climaterisk-screening	Risks have been included in the theory of change
Learning Yes, the project will build on the knowledge of other GEF, LDCF and non-GEF projects. STAP recommends reaching out the GEF project PRAGA (FAO-IUCN) that has experience in multi-sectoral multi-stakeholder coordination, including national associations.	The PRAGA project was closed some time ago. However, the project team has taken note of the experiences of this project in finalizing its own design and strategy
It is unclear how learning from previous projects was imbedded in ROLL-GEF. Suggest describing this learning process.	See previous responses for integration of lessons learned from previous projects
Additionally, the theory of change should be linked to the monitoring system.	This has been done and the M&E plan will ensure that the different pathways identified in the TOC will be monitored.

STAP comment	UNDP response
Knowledge management The PIF identifies several knowledge management efforts and approaches the project will rely on. As the project stakeholders develop the knowledge management plan, consider indicators for knowledge management. Additionally, suggest linking the theory of change to component 3 as both will be needed to manage knowledge and learning.	The project results framework includes an indicator (#11) related to knowledge uptake
The PIF states that knowledge will be generated as a result of its monitoring, evaluation and knowledge component. Dissemination of results will be made through IFAD?s partnerships on landscape management, and will include other efforts. Cross learning between Kenya and South Africa (countries involved in the ROLL project) will also take place.	NA

2. Council comments and responses

#	Comment	UNDP Response	Reference
omments 12 September 2020			

#	Comment	UNDP Response	Reference
1	*Comment by Yoshitomo Kondo, Director for Development Issues, International Bureau, Ministry of Finance of Japan, Council, Japan made on 12/3/2020* We welcome these important tropical-forest-related programs, especially as they relate to productive forest supply chains and landscape restoration, which are issues that require urgent global attention. We support a rigorous data-driven approach to this field, and wonder whether the focal agency on forest-related supply chain/ trade matters within the CPF and the main data provider for tropical forests to the FAO is involved i.e., the International Tropical Timber Organization (we only see the TFA mentioned). To better align with an inclusive multi-stakeholder approach, we request the involvement of specialist organizations/platforms as these with the relevant global data, expertise and networks to ensure efficient and effective approaches to relevant stakeholders and to reduce duplication of effort in the global arena. The organization also has relevant indicators and guidelines on legal and sustainable supply chains and forest landscape restoration related to tropical forests, which can help assess and measure impact of relevant projects.	Reference to coordination with international organizations, including ITTO, has been included.	CEO ER, Table 7, p. 73; Prodoc Annex 8

#	Comment	UNDP Response	Reference
	Comment by Kordula Mehlhart, GEF Council Member, Head of Division on Climate Finance, BMZ? , Council, Germany made on 1/7/2021 Germany acknowledges, that the proposal provides useful content to the land degradation neutrality (LDN) process, which Benin initiated. In this regard, the project may provide options to strengthen synergies between the sectors land and forestry and contributes to improved framework conditions for climate adaptation and sustainable land management. - <u>Germany requests that the following requirements are taken into account during the design of the final project proposal:</u> ? Germany requests a final theory of change and a final work plan with budget overview. In particular, Germany requests to develop a more detailed planning of activities to make use of synergies with other related projects identified. In this regard, the project may contribute to an upscaling of climate adaptation and sustainable land management activities of the GIZ Project ?Soil protection and rehabilitation for food security, Benin? ? Germany recommends taking into account the security situation in project areas close to the northern and northeastern border, when it comes to estimate potential losses of impact on project areas due to the conflictual situation between agriculturalists and pastoralists. Regarding the calculations on carbon gains, Germany recommends including permanence and additionality	Final theory of change, workplan, budget and budget notes have been provided. The referenced GIZ project, known as ?ProSol?, has worked with implementing partner NGOs and communities in certain intervention municipalities and has developed technical sheets on land and soil restoration, improvement of soil fertility and soil water conservation and digitized methods of agricultural production. The sheets will be used to train communities in the present project?s intervention communes as part of a scaling up approach. The NGOs ALDIPE, APIC, CAPES and other project partners have been involved with the ProSol project?experience that will be capitalized upon here. The security situation has been noted and is acknowledged as a risk in the relevant sections of the documents. Actions to manage and reduce conflicts between farmers and herders are planned in all PDAs 1, 2 and 5. Expected carbon gains of the project have been calculated with the Ex-Act tool of FAO, as is common practice in GEF projects. The estimates are conservative and take into consideration permanence and additionality, to the extent that this is possible in site level calculations.	

#	Comment	UNDP Response	Reference
	Comment by Tom Bui, Director, Environment, Global Issues and Development Branch (MFM), Global Affairs Canada, Council, Canada made on 1/11/2021 ? It is important to take into account short-term issues (COVID-19) and long-term concerns (adaptation to climate change) and with a view to improving the economic and environmental resilience of the most vulnerable populations in these projects. ? If designed and executed effectively, Canada believes that this project will enable Benin, one of the most vulnerable countries to climate change, to develop more climate-smart production systems and infrastructure as well as strengthen ecosystem and biodiversity protection. These outcomes will be important to help the country overcome projected climate impacts and threats related to drought, desertification, and floods, which are significantly affecting the availability and productivity of agricultural lands. This is problematic as a significant proportion of Benin?s population is dependent upon agriculture, most of which is rain fed and small scale. This project will therefore not only help to reverse land degradation and enhance Benin?s climate resilience, but also improve livelihoods for communities in the target areas. Capacity building activities will also generate stakeholder awareness and support agricultural land managers in scaling up climate risk-informed land management approaches in the agricultural development areas. ? Canada notes that STAP has welcomed this proposal and highlights minor issues to be considered during the project design. Assuming the appropriate steps are taken to ameliorate the components of the project that are currently lacking, Canada supports this proposal and the recommendation of the Secretariat.	These issues have been taken care of throughout the submission documents. Agreed The project design includes changes made in response to both STAP and GEFSec comments.	

[1] These are (with material support element underlined): 3.2.2 Improve access to information and to appropriate post-harvest processing and storage equipment and infrastructure, at different levels of the marketing chain, to help processors better respond to quantitative and qualitative aspects of market demand; 3.2.3 Contribute to the sustainable intensification of production in the selected sectors by supporting the adoption of improved technologies adapted to the needs of farmers, in particular women, and enabling them to better respond to market signals; 3.2.4 Support efforts by cooperatives to strengthen crop processing and storage; 3.4.3 Support improved packaging and delivery of new products to market

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: 200,000

Source of Funds	*Project Preparation Activities Implemented*	*GETF/LDCF/SCCF Amount ($)*		
		Budgeted Amount	*Amount Spent to date*	*Amount Committed*
GEF	Preparatory Technical Studies and Reviews	18 750	17 451	1 299
	Formulate of the UNDP-GEF project document	44 000	42 441	1 559
	Workshop validation of the Project Document	37 250	14 982	22 268
LDCF	Preparatory Technical Studies and Reviews	18 750	10 317	8 433
	Formulate of the UNDP-GEF project document	44 000	42 441	1 559
	Workshop validation of the Project Document	37 250	16 051	21 199
	Total	200 000	143 683	56 317

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

Geospatial coordinates of project landscapes are as follows:

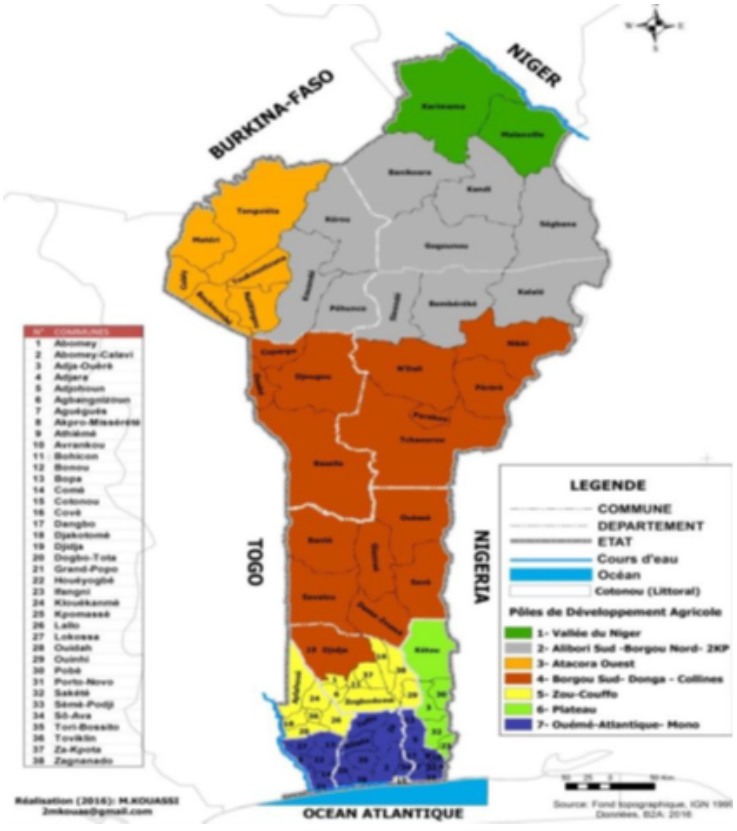
? PDA 1 (Karimama-malanville): Between 431724 E and 566045 E, 1263564 N and 1371738 N,

? PDA 2 (Alibori sud, Borgou Nord et 2KP): Between 349698 E and 586104 E, 1096826 N and 1263922 N,

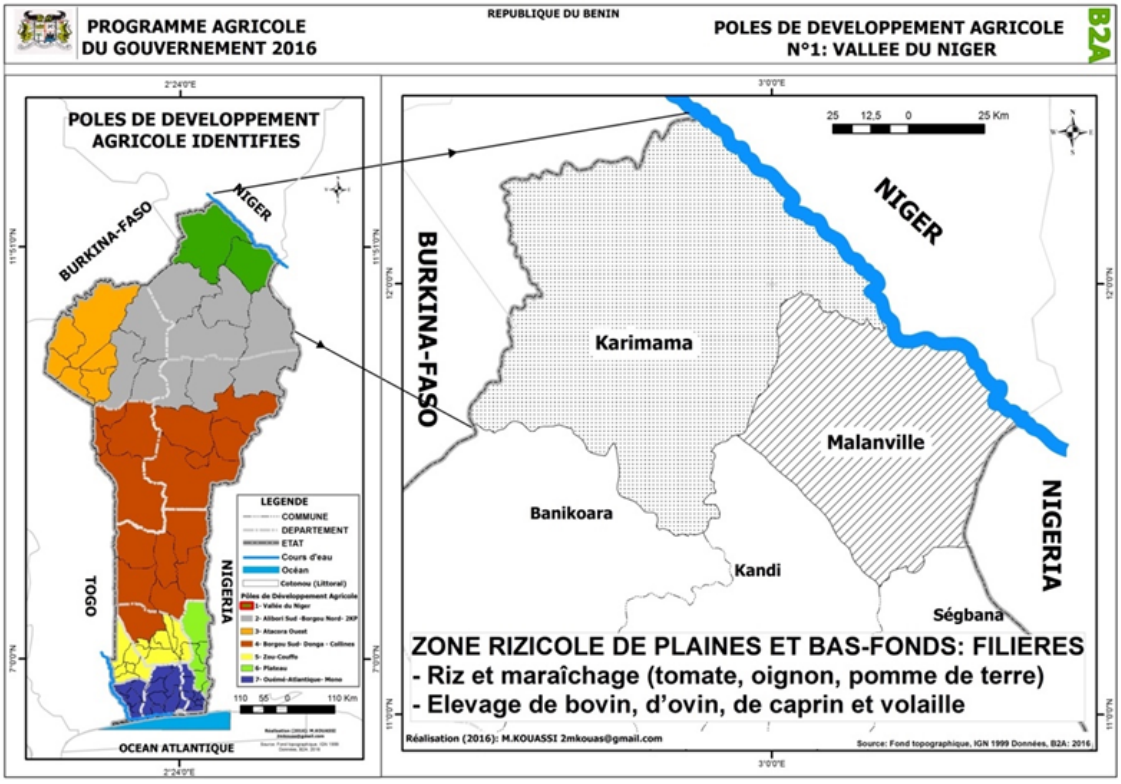
? PDA 5 (Zou COuffo): between 340743 E and 445156 E, 744007 N and 822451 N.

Map 1: The seven Agricultural Development Areas

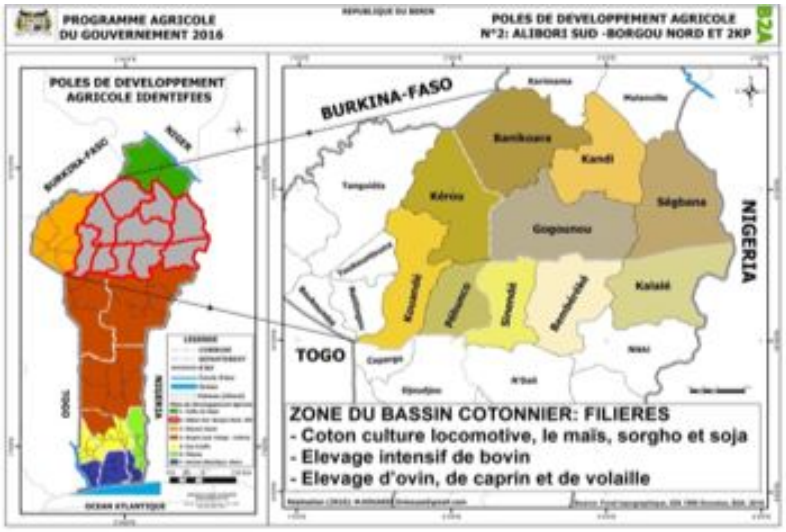
[Note - Project sites can be found at: a) Karimama is in the **Niger Valley** (green); b) Kouand?, Gogounou and S?gbana in **Alibori Sud-Borgou Nord-2KP** (grey); and c) Za-Kpota, Cov?, Klou?kanm? and Aplahou? in the north of **Zou-Couffo** (yellow)]



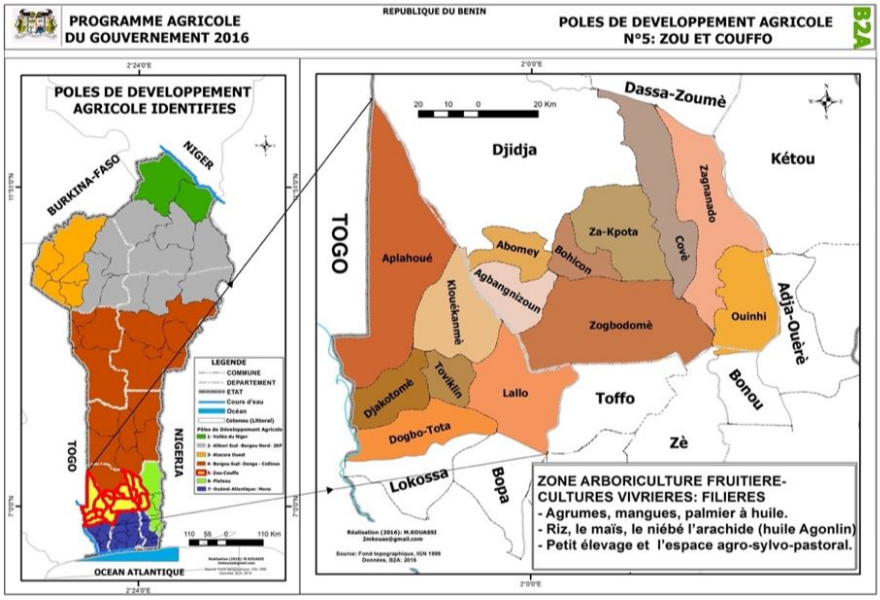
Map 2: Project sites in PDA 1 (Niger Valley: Karimama)



Map 3: Project sites at PDA 2 (Alibori Sud-Borgou Nord-2KP: Kouand?, Gogounou, S?gbana)



Map 4: Project sites in PDA5 (Zou-Couffo: Za-Kpota, Cov?, Klou?kanm?, Aplahou?)



ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity	Agency
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]	

Equipment	Equipment and furniture: Material support for key agencies (Ministry of Environment, National Geographic Institute, National Agricultural Resource Institute), consisting of:? 6 computers with capacity to process large data sets ? 6 large monitors ? 6 printers ? Three sets of improved internet installations	75 000,00				75 000,00			75 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Equipment	Equipment and furniture: Material support for key agencies (Ministry of Environment, National Geographic Institute, National Agricultural Resource Institute), consisting of:? 6 computers with capacity to process large data sets ? 6 large monitors ? 6 printers ? Three sets of improved internet installations	75 000,00				75 000,00			75 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Equipment	Equipment and furniture: Material support to cooperatives for improved crop processing and storage within selected value chains (3.2 & 3.4), including: construction of simple buildings, machinery for cleaning, sorting and packaging of produce			500 000,00		500 000 ,00			500 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
Equipment	Equipment and furniture: Office equipment and furnishings for PMU, consisting of:? Office furniture? 3 computers ? 3 large monitors ? 2 printers ? Internet installation					-		20 000 ,00	20 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Equipment	Equipment and furniture: Office equipment and furnishings for PMU, consisting of:? Office furniture? 3 computers ? 3 large monitors ? 2 printers ? Internet installation							20 000 ,00	20 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LD CF

Contractual services-Individual	Component 1 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of: (1) PMU1 - Gender & safeguards specialist - 6 months @ $3,000 / month. The work will focus on technical aspects of implementation of gender and other safeguards associated with implementation of Component 1. Annex 7 (p. 183) provides additional details at activity level.Note: This position is also funded under BN 7, 11, 15, 21, 25, 26, 30, 38 and 49	18 000,00				18 000 ,00			18 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LD CF

Contractual services-Individual	Component 1 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of: (1) PMU1 - Gender & safeguards specialist - 6 months @ $3,000 / month. The work will focus on technical aspects of implementation of gender and other safeguards associated with implementation of Component 1 including implementation of the following: (i) SESA action matrix, (ii) Engagement Plan, (iii) Ethnic Groups Plan; (iv) Environmental and Social Impact Management Plan (ESMP). Annex 7 (p. 183) provides additional details at activity level. Note: This position is also funded under BN 7, 11, 15, 21, 25, 26, 30, 38 and 49	18 000,00				18 000,00			18 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Contractual services-Individual	Component 2 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of: (1) PMU1 - Gender & safeguards specialist - 6 months @ $3,000 / month. The work will focus on technical aspects of implementation of gender and other safeguards associated with implementation of Component 2 including implementation of the following: (i) SESA action matrix, (ii) Engagement Plan, (iii) Ethnic Groups Plan; (iv) Environmental and Social Impact Management Plan (ESMP). Annex 7 (p. 183) provides additional details at activity level.Note: This position is also funded under BN 7, 11, 15, 21, 25, 26, 30, 38 and 49 (2) PMU2 - SLM /SFM and climate expert - 36 months @ $3,000 / month = $108,000. The		126 000,00				126 000,00			126 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Contractual services-Individual	Component 2 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of: (1) PMU1 - Gender & safeguards specialist - 6 months @ $3,000 / month. The work will focus on technical aspects of implementation of gender and other safeguards associated with implementation of Component 2 including implementation of the following: (i) SESA action matrix, (ii) Engagement Plan, (iii) Ethnic Groups Plan; (iv) Environmental and Social Impact Management Plan (ESMP). Annex 7 (p. 184-5) provides additional details at activity level.Note: This position is also funded under BN 7, 11, 15, 21, 25, 26, 30, 38 and 49 (2) PMU2 - SLM /SFM and climate expert - 36 months @ $3,000 / month =		126 000,00				126 000,00			126 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Contractual services-Individual	Component 3 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of:((1) PMU1 - Gender & safeguards specialist - 6 months @ $3,000 / month. The work will focus on technical aspects of implementation of gender and other safeguards associated with implementation of Component 2. Annex 7 (p. 184-5) provides additional details at activity level.Note: This position is also funded under BN 7, 11, 15, 21, 25, 26, 30, 38 and 49 (2) PMU3 - Livelihoods specialist / team leader - 18 months @ $3,500 per month = $63,000. The work will focus on technical implementation of Component 3, especially outputs 3.1 and 3.2. Annex 7 (p. 188-89) provides additional details at			81 000,00		81 000 ,00			81 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LD CF

Contractual services-Individual	Component 3 Contractual services individual: This budget is reserved to cover the cost of contractual appointments of:(1) PMU1 - Gender & safeguards specialist - 6 months @ $3,000 / month. The work will focus on technical aspects of implementation of gender and other safeguards associated with implementation of Component 2. Annex 7 (p. 184-5) provides additional details at activity level.Note: This position is also funded under BN 7, 11, 15, 21, 25, 26, 30, 38 and 49 (2) PMU3 - Livelihoods specialist / team leader - 18 months @ $3,500 per month = $63,000. The work will focus on technical implementation of Component 3, especially outputs 3.1 and 3.2. Annex 7 (p. 188-89) provides additional details at			81 000,00		81 000 ,00			81 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Contractual services-Individual	Component 4 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of: (1) PMU4: Knowledge management / M&E specialist - 18 months @ $3,000. The work will focus on implementation of monitoring and evaluation aspects of the project. Annex 7 (p. 203-204) provides additional details.Note: M&E related work done by this specialist is also funded under BN 54, while an additional 30 months of this individual?s time, covering Knowledge management activities, are funded under Component 4A (BN 38, 44).					-	54 000 ,00		54 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Contractual services-Individual	Component 4 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of: (1) PMU4: Knowledge management / M&E specialist - 18 months @ $3,000. The work will focus on implementation of monitoring and evaluation aspects of the project. Annex 7 (p. 203-204) provides additional details.Note: M&E related work done by this specialist is also funded under BN 59, while an additional 30 months of this individual?s time, covering Knowledge management activities, are funded under Component 4A (BN 38, 44).					-	54 000 ,00		54 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Contractual services-Individual	Component 4 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of:(1) PMU1 - Gender & safeguards specialist - 6 months @ $3,000 / month. The work will focus on technical aspects of implementation of gender and other safeguards associated with implementation of Component 2. Annex 7 (p. 184-5) provides additional details at activity level.Note: This position is also funded under BN 7, 11, 15, 21, 25, 26, 30, 38 and 49 (2) PMU4: Knowledge management / M&E specialist - 18 months @ $3,000. The work will focus on technical aspects of implementation of knowledge- and awareness-related elements of Component 4, particularly Outputs 4.3 and 4.4				54 000,00	54 000,00			54 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Contractual services-Individual	Component 4 Contractual services individual: This budget is reserved to cover the cost of contractual appointment of:PMU4: Knowledge management / M&E specialist - 18 months @ $4,000. The work will focus on technical aspects of implementation of knowledge- and awareness-related elements of Component 4, particularly Outputs 4.3 and 4.4. Annex 7 (p. 203-204) provides additional details at activity level.Note: Knowledge management work done by this specialist is also funded under BN 38, while an additional 30 months of this individual?s time, covering M&E activities, are funded under Component 4b (BN 54, 59).				54 000,00	54 000 ,00			54 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Contractual services-Individual	PMC: Contractual services individuals: This budget is reserved to cover the cost of contractual appointment of:(1) Finance & procurement specialist - 36 months @ 2,000 / month = 72,000. The work will focus on financial and procurement aspects of project management. Annex 7 (p. 180-81) describes specific duties and responsibilities of the position. (2) Admin & finance assistant - 36 months @ 1,200 / month = 43,200. The work will support administrative and financial project management. Annex 7 (p. 181) describes specific duties and responsibilities of the position.(3) PMU3 - Team leader - 18 months @ 3,500/month = 63,000. The work will focus on overall project management. Annex 7 (p. 179) describes specific duties and					-		178 200 ,00	178 200,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Contractual services-Individual	PMC: Contractual services individuals: This budget is reserved to cover the cost of contractual appointment of:(1) Finance & procurement specialist - 36 months @ 2,000 / month = 72,000. The work will focus on financial and procurement aspects of project management. Annex 7 (p. 180-81) describes specific duties and responsibilities of the position. (2) Admin & finance assistant - 36 months @ 1,200 / month = 43,200. The work will support administrative and financial project management. Annex 7 (p. 181) describes specific duties and responsibilities of the position.(3) PMU3 - Team leader / livelihoods specialist - 18 months @ 3,500/month = 63,000. The work will focus on overall project management. Annex 7 (p. 179) describes						-		178 200 ,00	178 200,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Contractual services-Company	Component 1 Contractual services companies: This budget is reserved to cover the cost of contractual appointment of: (1) SC1 - Development of GIS and remote-sensing based monitoring system and associated activities, including training, pilot testing in PDAs. The work will focus on technical aspects of implementation of portions of Outputs 1.1, 1.2 and 1.5. Annex 7 (p. 183) provides additional details at activity level. Note: Additional funding for this sub-contract is located under BN 3 and 12.	135 750,00				135 750 ,00			135 750,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LD CF

Contractual services-Company	Component 1 Contractual services companies: This budget is reserved to cover the cost of contractual appointment of: (1) SC1 - Development of GIS and remote-sensing based monitoring system and associated activities, including training, pilot testing in PDAs. The work will focus on technical aspects of implementation of portions of Outputs 1.1, 1.2 and 1.5. Annex 7 (p. 183) provides additional details at activity level. Note: Additional funding for this sub-contract is located under BN 8 and 12.	161 250,00				161 250 ,00			161 250,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GE F

Contractual services-Company	Component 2 Contractual services companies: This budget is reserved to cover the cost of contractual appointment for technical implementation of activities under Outputs 2.1, 2.2, 2.4 and 2.5, as follows:(1) Collection / compilation of necessary data and incorporation into a data management tool covering project PDAs, with associated training for local officials and other stakeholders (Activities 2.1.1 - 2.1.3) = $125,000(2) Support to participatory planning processes, including: i) LDN and climate components of three PDA Master Plans and ii) eight commune-level plans (Activities 2.1.4 - 2.1.8) = $175,000 (3) Conservation and rehabilitation of priority cropland and conservation of soil fertility (Activity 2.2.2) = $640,000; Approximate breakdown of		2 885 000,00			2 885 000,00			2 885 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Contractual services-Company	Component 2 Contractual services companies: This budget is reserved to cover the cost of contractual appointment for technical implementation of activities under Outputs 2.2, 2.4 and 2.5, as follows:(1) Conservation and rehabilitation of priority cropland and conservation of soil fertility (Activity 2.2.2) = $200,000Approximate breakdown of costsData collection and analysis, site surveys and mapping to support detailed site and strategy selection - $15,000Stakeholder consultations re. sites and strategies - $20,000 Soil and vegetation sampling and analysis - $20,000Labor inputs - $30,000Material (plant) inputs - $55,000Management and consulting - $20,000Meetings / trainings - $15,000Monitoring - $15,000Operating costs (fuel, etc.) - $10,000		885 000,00				885 000 ,00			885 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LD CF

Contractual services-Company	Component 3 Contractual services companies: This budget is reserved to cover the cost of a contractual appointment for:(1) Strengthening of selected value chains (Output 3.2) ($354,937). The work will focus on implementation of Output 3.2. Annex 7 (p. 192) provides additional details at activity level.Approximate breakdown of costsData collection and analysis, site surveys and mapping to support detailed site and strategy selection - $10,000Stakeholder consultations re. sites and strategies - $15,000Post-harvest equipment and infrastructure - $104,937 Labor inputs - $40,000Material inputs (improved seed varieties) - $65,000Management and consulting - $35,000Meetings / trainings - $60,000Monitoring - $5,000Operati			354 937,00		354 937 ,00			354 937,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GE F

Contractual services-Company	Component 3 Contractual services companies: This budget is reserved to cover the cost of contractual appointments for:(1) Strengthening of selected value chains ($853,063). The work will focus on technical implementation of Output 3.2. Annex 7 (p. 216-217) provides additional details at activity level.Approximate breakdown of costsData collection and analysis, site surveys and mapping to support detailed site and strategy selection - $20,000Stakeholder consultations re. sites and strategies - $23,063Post-harvest equipment and infrastructure - $200,000 Labor inputs - $80,000Material inputs (improved seed varieties) - $300,000Management and consulting - $60,000Meetings / trainings - $120,000Monitoring - $10,000Operating costs			1 493 063,00		1 493 063,00			1 493 063,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

International Consultants	Component 2 International consultants: (1) Short-term consultants for effective implementation of project safeguards, including preparation of ESIA and related management plans (20 days @ 500 / day = 10,000); (2) Restoration specialist for support to plan development (40 days @ 500 / day = 20,000)		30 000,00			30 000,00			30 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
International Consultants	Component 2 International consultants: (1) Short-term consultants for effective implementation of project safeguards, including preparation of ESIA and related management plans (30 days @ 500 / day = 15,000); (2) Restoration specialist for support to plan development (30 days @ 500 / day = 15,000)		30 000,00			30 000,00			30 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

International Consultants	Component 3 International consultants: This budget is reserved to cover the cost of contractual appointments of: (1) Safeguards specialists - Short-term consultants for effective implementation of safeguards related to Component 3 (32 days @ 500 / day = 16,000). The work will focus on implementation of all Component 3 outputs. Annex 7 (p. 189) provides additional details at activity level.(2) Value chain specialists (Outputs 3.1 & 3.2)- Mapping and analysis of value chains, development of action plans and support to implementation (200 days @ 500 / day = 100,000). The work will focus on implementation of all Outputs 3.1 and 3.2. Annex 7 (p. 189-90) provides additional details at activity level.(3) Partnerships specialist			166 000,00		166 000 ,00			166 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

International Consultants	Component 4 International consultants: (1) Expert in behavioral change, diffusion of agricultural innovations and climate change - 19 days @ 500 / day = 9,500.				9 500,00	9 500 ,00			9 500,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
International Consultants	Component 4 International consultants: (1) Project evaluation specialists for mid-term review and final evaluation (50 days @ 500/ day = 25,000);					-	25 000 ,00		25 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

International Consultants	Component 4 International consultants: (1) Project evaluation specialists for mid-term review and final evaluation (50 days @ 500/ day = 25,000);						25 000 ,00		25 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
International Consultants	Component 4 International consultants: This budget is reserved to cover the cost of contractual appointment of: (1) Expert in behavioral change, diffusion of agricultural innovations and climate change - 15 days @ 500 / day = 7,500.Annex 7 (p. 196) provides additional details at activity level.				7 500,00	7 500 ,00			7 500,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Local Consultants	Component 1 Local consultants: This budget is reserved to cover the cost of contractual appointment of: (1) LC1 - Sustainable land use management: policy and planning specialist(s), 80 days @ 200 / day. The work will focus technically on implementation of Outputs 1.1 -1.5. Annex 7 (p. 182) provides additional details at activity level.	16 000,00				16 000,00			16 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Local Consultants	Component 2 Local consultants: (1) Short-term consultants for effective implementation of project safeguards, including preparation of ESIA and related management plans (75 days @ 200 / day = 15,000); (2) Short-term technical support to individual restoration actions under Output 2.2 (100 days @ 200 / day = 20,000)		35 000,00			35 000,00			35 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Local Consultants	Component 2 Local consultants: (1) Short-term consultants for effective implementation of project safeguards, including preparation of ESIA and related management plans (75 days @ 200 / day = 15,000); (2) Short-term technical support to individual restoration actions under Output 2.2 (100 days @ 200 / day = 20,000). Annex 7 (p. 184) provides additional details at activity level		35 000,00			35 000,00			35 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Local Consultants	Component 3 Local consultants: (1) Safeguards specialists (All outputs) - Short-term consultants for effective implementation of safeguards related to Component 3 (150 days @ 200 / day = 30,000); (2) Value chain specialists (Outputs 3.1)- Mapping and analysis of value chains, development of action plans (155 days @ 200 / day = 31,000); (3) Partnerships specialist (Output 3.4) - Development of partnerships (100 days @ 200 / day = 20,000) LDCF			81 000,00		81 000 ,00			81 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LD CF

Local Consultants	Component 4 Local consultants: (1) Local consultant support for tracking and monitoring of diffusion and related M&E surveys (Output 4.3) - 200 days @ 200 / day = 40,000;				40 000,00	40 000,00			40 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Local Consultants	Component 4 Local consultants: (1) Local consultant support for tracking and monitoring of diffusion and related M&E surveys (Output 4.3) (110 days @ 200 / day = 22,000)				22 000,00	22 000,00			22 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Local Consultants	Component 4 Local consultants: (1) Project evaluation specialists for mid-term review and final evaluation (75 days at 200 / day = 15,000)					-	15 000 ,00		15 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Local Consultants	Component 4 Local consultants: (1) Project evaluation specialists for mid-term review and final evaluation (75 days at 200 / day = 15,000)						15 000 ,00		15 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Training, Workshops, Meetings	Component 1 workshops: This budget is reserved for hiring trainers and convening training and awareness workshops as follows:(1) Workshops for training / capacity building, safeguards, meetings of NCCD and stakeholder consultation, latter related to implementation of SESA, engagement plan, ethnic groups plan and ESMP.	60 000,00				60 000,00			60 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Training, Workshops, Meetings	Component 1 workshops: Workshops for training / capacity building, safeguards, meetings of NCCD and stakeholder consultation	60 000,00				60 000,00			60 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Training, Workshops, Meetings	Component 2 workshops: (1) Workshops for awareness raising and training of 1,000 national and local government and administration officials (including ATDAs, DGEC under MCVDD and DGEFC), parliamentarians and representatives of private sector in climate resilient and degradation neutral planning and policies, with focus on agriculture, animal husbandry and forestry (2) Workshops and meetings to develop plans, including implementation of safeguard protocols		100 000,00			100 000,00			100 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Training, Workshops, Meetings	Component 2 workshops: (1) Workshops for awareness raising and training of 1,000 national and local government and administration officials (including ATDAs, DGEC under MCVDD and DGEFC), parliamentarians and representatives of private sector in climate resilient and degradation neutral planning and policies, with focus on agriculture, animal husbandry and forestry = $50,000(2) Workshops and meetings to develop plans, including implementation of safeguard protocols = $50,000		100 000,00			100 000 ,00			100 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Training, Workshops, Meetings	Component 3 workshops: (1) Workshops for prioritization and selection of value chains and co-design of action plans; (2) Workshops to develop partnerships; (3) Workshops and meetings to implement safeguard protocols			85 000,00		85 000,00			85 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
Training, Workshops, Meetings	Component 4 workshops: Workshops on gender, replication and learning				60 000,00	60 000,00			60 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Training, Workshops, Meetings	Component 4 workshops: Workshops on gender, replication and learning				30 000,00	30 000,00			30 000,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
Training, Workshops, Meetings	Workshops: Inception workshop					-	7 500,00		7 500,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Training, Workshops, Meetings	Workshops: Project inception workshop					-	7 500 ,00		7 500,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Travel	Travel: Component 3 related mission travel by project staff and short-term technical experts to and from PMU, project sites and Cotonou			29 837,00		29 837 ,00			29 837,00	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Travel	Travel: Component 4-related mission travel by project staff and short-term technical experts to and from PMU, project sites and Cotonou				15 000,00	15 000 ,00			15 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Travel	Travel: Component 4-related mission travel by project staff and short-term technical experts to and from PMU, project sites and Cotonou				30 000,00	30 000 ,00			30 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Travel	Travel: Mission travel by project staff and short-term technical experts to and from PMU, project sites and Cotonou		25 400,00			25 400 ,00			25 400,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Travel	Travel: Mission travel by project staff and short-term technical experts to and from PMU, project sites and Cotonou under Component 2		31 600,00			31 600 ,00			31 600,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF

Travel	Travel: Mission travel by project staff and short-term technical experts to and from PMU, project sites and Cotonou under Outcome 1	30 000,00				30 000 ,00			30 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF
Travel	Travel: Project management-related travel by project staff and short-term technical experts between project sites and Cotonou					-		19 260 ,00	19 260,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Travel	Travel: Project management-related travel by project staff and short-term technical experts between project sites and Cotonou							5 477 ,00	5 477,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
Travel	Travel: Supervision missions and learning missions					-	22 500 ,00		22 500,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GEF

Travel	Travel: Supervision missions and learning missions						37 500 ,00		37 500,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LD CF
Other Operating Costs	Audio-visual and print production costs: Printing and distribution of learning materials and publications				49 120,00	49 120 ,00			49 120,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	GE F

Other Operating Costs	Audio-visual and print production costs: Printing and distribution of learning materials and publications				38 783,00	38 783 ,00			38 783,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
Other Operating Costs	Communications and audio equip.: Audio-visual and communications equipment for PMU staff					-		9 000 ,00	9 000,0 0	General Directory of Environment and Climate (DGEC), under the Ministry of the Living Environment and Sustainable Development (MCVDD)	LDCF
		649 000,00	**4 409 000,00**	**2 871 837,00**	**409 903,00**	**8 339 740 ,00**	**263 000 ,00**	**430 137 ,00**	**9 032 877,0 0**		

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template

provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).