



Part I: Project Information

GEF ID

10508

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Integrated transboundary water resources management in the Corubal basin between Guinea and Guinea-Bissau

Countries

Regional, Guinea, Guinea-Bissau

Agency(ies)

IUCN

Other Executing Partner(s)

OMVG (Organisation de Mise en Valeur du Fleuve Gambie); Ministry of Environment, Water and Forestry (Guinea); Ministry of Energy and Natural Resources and the Ministry of environment and Biodiversity (Guinea-Bissau)

Executing Partner Type

Others

GEF Focal Area

International Waters

Sector

Taxonomy

International Waters, Focal Areas, Freshwater, River Basin, Learning, Pollution, Plastics, Nutrient pollution from all sectors except wastewater, Nutrient pollution from Wastewater, Persistent toxic substances, SIDS : Small Island Dev States, Food Systems, Land Use and Restoration, Integrated Programs, Comprehensive Land Use Planning, Smallholder Farming, Sustainable Food Systems, Sustainable Commodity Production, Landscape Restoration, Food Value Chains, Commodity Supply Chains, Smallholder Farmers, Adaptive Management, Food Security in Sub-Sahara Africa, Multi-stakeholder Platforms, Sustainable Production Systems, Integrated Land and Water Management, Gender Dimensions, Agroecosystems, Biomes, Influencing models, Type of Engagement, Stakeholders, Gender Equality, Gender results areas, Capacity, Knowledge and Research, Fisheries, Constructed Wetlands, Mangrove, Areas Beyond National Jurisdiction, Strategic Action Plan Implementation, Land Degradation, Land Degradation Neutrality, Land Cover and Land cover change, Carbon stocks above or below ground, Land Productivity, Sustainable Land Management, Sustainable Pasture Management, Sustainable Agriculture, Sustainable Livelihoods, Income Generating Activities, Biodiversity, Wetlands, Mangroves, Lakes, Rivers, Mainstreaming, Agriculture and agrobiodiversity, Infrastructure, Species, Threatened Species, Invasive Alien Species, Protected Areas and Landscapes, Terrestrial Protected Areas, Productive Landscapes, Financial and Accounting, Payment for Ecosystem Services, Forest, Forest and Landscape Restoration, Deploy innovative financial instruments, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Private Sector, Beneficiaries, Indigenous Peoples, Communications, Education, Behavior change, Public Campaigns, Awareness Raising, Local Communities, Consultation, Information Dissemination, Participation, Civil Society, Non-Governmental Organization, Community Based Organization, Academia, Access to benefits and services, Knowledge Generation and Exchange, Gender Mainstreaming, Sex-disaggregated indicators, Women groups, Theory of change, Indicators to measure change, Knowledge Exchange, Innovation, Knowledge Generation

Rio Markers

Climate Change Mitigation

Significant Objective 1

Climate Change Adaptation

Principal Objective 2

Biodiversity

Significant Objective 1

Land Degradation

Significant Objective 1

Submission Date

3/31/2022

Expected Implementation Start

6/1/2023

Expected Completion Date

5/31/2027

Duration

48in Months

Agency Fee(\$)

567,000.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
IW-3-5	Advance information exchange and early warning	GET	1,000,000.00	8,000,000.00
IW-3-6	Enhance regional and national cooperation on shared freshwater and groundwater basins	GET	2,000,000.00	2,000,000.00
IW-3-7	Investments in water, food, energy and environmental security	GET	3,300,000.00	8,000,000.00
Total Project Cost(\$)			6,300,000.00	18,000,000.00

B. Project description summary

Project Objective

Contribute to the integrated and sustainable governance of natural and water resources in the Koliba-Corubal basin through enhanced transboundary cooperation and governance.

Project Component	Financin g Type	Expected Outcome s	Expected Outputs	Tru st Fun d	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Evaluation and planning of the development of the Koliba-Corubal River Basin and strengthening of its Governance.	Technical Assistance	<p>Outcome 1.1: Threats and development potential of the Koliba-Corubal River Basin (KCRB) are assessed and planned.</p> <p>Outcome 1.2: The governance and cooperation framework for the KCRB are improved.</p> <p>Outcome 1.3: Funds required to implement the Strategic Action Plan (SAP) are mobilized.</p>	<p><u>Output 1.1.1 A</u> Transboundary Diagnosis Analysis (TDA) of the basin approved by both countries.</p> <p><u>Output 1.1.2 A</u> SAP approved and signed by at least one Minister from each country.</p> <p><u>Output 1.2.1</u> Approval at the ministerial level of an updated and revised version of the agreement between the two countries on the management of the KCRB signed in 1978.</p> <p><u>Output 1.2.2</u> Establishment of a KCRB Management Commission between the two countries.</p> <p><u>Output 1.3.1 A</u> successful resources mobilization strategy (developed and carried out) for the</p>	GET	2,000,000.00	8,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
			<p>implementation of the SAP covering various sectors relevant to the basin.</p> <p><u>Output 1.3.2</u> An innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin.</p>			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Implementation of demonstration projects (at the country and basin levels) for the management of natural and water resources and the improvement of beneficiaries' incomes.	Investment	Outcome 2.1: Integrated water resource management and sustainable land use promoted by improving practices in the use of 667,000 hectares of land, including protected areas, and promoting the restoration of 26,562 hectares of land.	<p><u>Output 2.1.2</u> Protection and recovery of at least 20,000 hectares of sensitive and/or degraded areas of the basin.</p> <p><u>Output 2.1.3</u> Demonstration of sustainable management practices for grazing land and agroforestry.</p> <p><u>Output 2.1.4</u> Demonstration of sustainable fisheries management practices.</p> <p><u>Output.2.1.5</u> I mplementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes.</p>	GET	3,200,000.00	8,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Knowledge Management, Monitoring and Evaluation, and Communication	Technical Assistance	<p>Outcome 3.1: Project results are known and disseminated at regional, national, and basin levels.</p> <p>Outcome 3.2: Lessons learned and good practices from the project are disseminated for replication and scaling up.</p>	<p><u>Output 3.1.1</u> Development and implementation of a project monitoring and evaluation system.</p> <p><u>Output 3.2.1</u> Development and implementation of a Communications and knowledge management strategy, including information sharing.</p> <p><u>Output 3.2.2</u> Project contribution to the GEF IW-Learn platform (1% of the project).</p> <p><u>Output 3.2.3</u> Knowledge production, capitalisation, valorisation and sharing for strengthening national and local capacities for natural and water resources management.</p> <p><u>Output 3.2.4</u> Guidelines on</p>	GET	800,000.00	1,160,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
			good IWRM practices, including guidelines for water flow management, erosion control, pollution reduction and protection of essential flora and fauna.			
Sub Total (\$)					6,000,000.00	17,160,000.00

Project Management Cost (PMC)

	GET		300,000.00			840,000.00
			Sub Total(\$)	300,000.00		840,000.00
			Total Project Cost(\$)	6,300,000.00		18,000,000.00

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(\$)
Other	Organisation pour la Mise en Valeur du Fleuve Gambie (OMVG) - Ex : Caleta Dam	Grant	Investment mobilized	10,500,000.00
Recipient Country Government	Republic of Guinea Bissau: Projet de D?veloppement de la Chaîne Valeur -Riz (PDCV-RIZ)	In-kind	Recurrent expenditures	1,500,000.00
Recipient Country Government	Republic of Guinea	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Republic of Guinea Bissau: Projet d'Appui aux Chaînes de Valeurs et ? l'Entreprenariat Agricole et Rural (PACVEAR)	In-kind	Recurrent expenditures	3,500,000.00
GEF Agency	IUCN - PAPBio C1-Mangroves	In-kind	Investment mobilized	500,000.00
Total Co-Financing(\$)				18,000,000.00

Describe how any "Investment Mobilized" was identified

OMVG's funding will be constituted of part of the compensation funds related to the negative impacts of transboundary projects such as the Kaleta Hydro Electricity Interconnection Project on ecosystems and will be used to restore degraded ecosystems. These kinds of measures have legal basis in that the environmental safeguards laws provide compensation measures for any investment that has an impact on ecosystems, and in the case of the Kaleta project, the interconnection line is obtained from the clearing of several hundred hectares of forest. For example, in Guinea Bissau, IBAP get compensation from OMVG to restore degraded areas affected by interconnection line of hydro-electricity. On the other hand, OMVG's funding will be drawn from its own funds intended to restore and improve the governance of natural and water resources in the major transboundary basins under its jurisdiction. IUCN co-financing is mobilised from a regional initiative which regroups various countries through a landscape approach and that works primarily in wetland-based ecosystems. Through this initiative there are several activities that concern the establishment of shared policies to govern water and wetlands, for example mangrove ecosystems and their governance. Under this project, IUCN works together with partners through networks, for example the PLANTA platform in Guinea Bissau, to mobilise collaboration and additional financing to enable the scaling of interventions to create landscape level impact. Based on these successes, the Corubal Project

will also engage with these established networks to further leverage co finance for landscape level impacts on water and wetland governance and management.

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(\$)
IUCN	GET	Regional	International Waters	International Waters	6,300,000	567,000	6,867,000.00
Total Grant Resources(\$)					6,300,000.00	567,000.00	6,867,000.00

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 (\$)

18,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
IUCN	GET	Regional	International Waters	International Waters	200,000	18,000	218,000.00
Total Project Costs(\$)					200,000.00	18,000.00	218,000.00

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
517,000.00	517,000.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

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

Name of the Protected Area	WDP A ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
517,000.00	517,000.00	0.00	0.00

Name of the Protected Area	WPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Boettcher National Park	342670	National Park	176,800.00	176,800.00					
Cufada Lagoon	342673	Protected Landscape/Seascape	89,000.00	89,000.00					
Dulombi-Salifo National Park	33050	National Park	251,200.00	251,200.00					

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)
50000.00	50000.00	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)
Cropland	26,562.00	26,562.00		

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)
5,000.00	5,000.00		

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)
Woodlands	5,000.00	5,000.00		

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)
13,438.00	13,438.00		

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)
150000.00	150000.00	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)
150,000.00	150,000.00		

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)

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)

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 ₂ e (direct)	0	0	0	0
Expected metric tons of CO ₂ e (indirect)	0	226100881	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 ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)		226,100,881		
Anticipated start year of accounting		2023		
Duration of accounting		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 ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
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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)
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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)
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Indicator 7 Shared water ecosystems under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem	Corubal	Corubal		
Count	1	1	0	0

Indicator 7.1 Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Corubal	1	1		

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
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Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministerial Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Corubal	1	1		

Indicator 7.4 Level of engagement in IWLEARN through participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Corubal	1	1		

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	163,997	164,000		
Male	100,000	100,000		
Total	263997	264000	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

Part II. Project Justification

1a. Project Description

Changes have been made in the organization and title of outcomes compared to what was described in the PIF. However, the formulation of these outcomes, which have been moved or renamed, has not changed. The reorganization in question consisted of the following:

- a. Moving outcome 2.1 from component 2 to component 1 of the PIF. Indeed, this outcome on the improvement of the governance and cooperation framework of the KCRB belongs more to component 1, which includes the assessment and planning of the basin's development, since governance and cooperation aspects are central to such development. It is in this component 1 that the TDA and the SAP will be developed, and this work will have to cover aspects of governance and cooperation between the two countries and among all actors.
- b. Renaming Component 2 to "Implementation of demonstration projects (at the country and basin levels) for the management of natural resources and the improvement of beneficiaries' incomes". This reformulation of the component is done while keeping 2 outcomes in it: outcome 2.2 of the PIF, "667,000 hectares of land, including protected areas, are subject to improved practices and 26,562 hectares of land are restored" which has become outcome 2.1 in the ProDoc; and outcome 2.3 of the PIF "263,997 people (163,997 women and 100,000 men) benefit from land restoration and improved land management practices" which has become outcome 2.2 in the ProDoc.

1a. Project Description

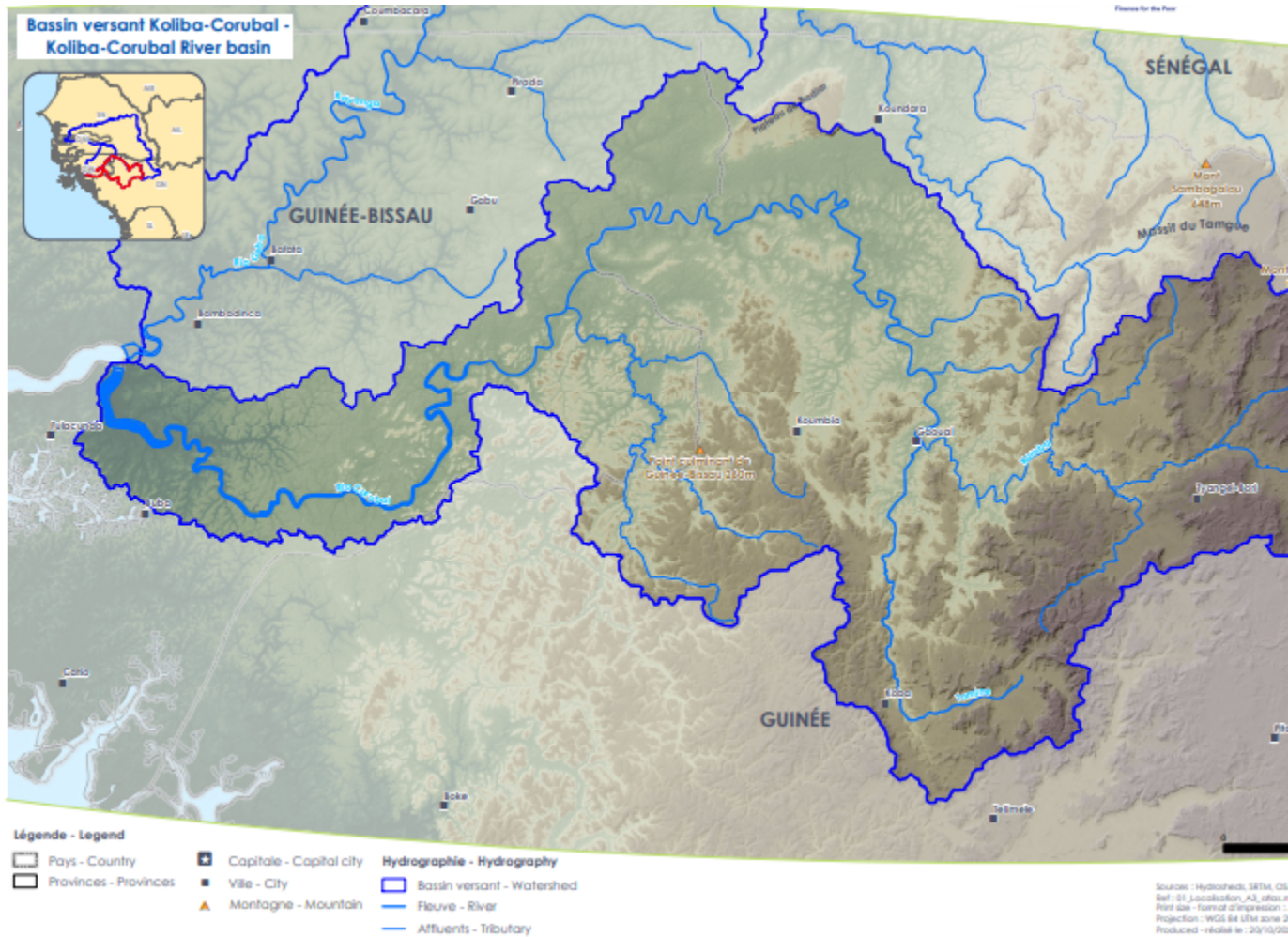
A.1 Location and spatial scope of the Koliba-Corubal basin

The Corubal River (usual name in Guinea Bissau) or Koliba (usual name in Guinea), located between parallels 11° and 13° North and meridians 12° and 15° West, rises in the highlands of Fouta Djallon, at an altitude of 1,000 m on the western slope of the cuirassed plateau north of Timboctou (Orange, 1990; 1992). It flows in a NE-SW direction for the first 60 km, then takes a general South-North direction for the remaining 80 km before Gaoul. It joins its main tributary, the Komba, one kilometre from the town of Gaoul, from where they form a single channel. After Gaoul, becoming again the Koliba, it flows towards Guinea Bissau where it takes the name of Corubal. In Guinea Bissau, it joins the Geba 70 km from the mouth and forms a single channel before flowing into the Atlantic Ocean.

The Koliba-Corubal River Basin (**KCRB**) is 1150 km long and is the fourth longest transboundary river in West Africa, originating in Fouta Djallon. It drains a catchment area of 24,000 km² (Division hydrologie de la Direction Nationale de l'Hydraulique (**DNH**) de Guinee, OMVG) of which 17,500 km² are in Guinea (73% of the basin) and 6,500 km² in Guinea Bissau (27% of the basin). Several tributaries feed the Koliba-Corubal from its source to its confluence with the Geba. From the point of view of the area covered, the KCRB covers several eco-regions and administrative regions in both Guinea Bissau and the Republic of Guinea. In the Republic of Guinea, two natural regions (Guinée Maritime and Moyenne Guinée), three (3) administrative

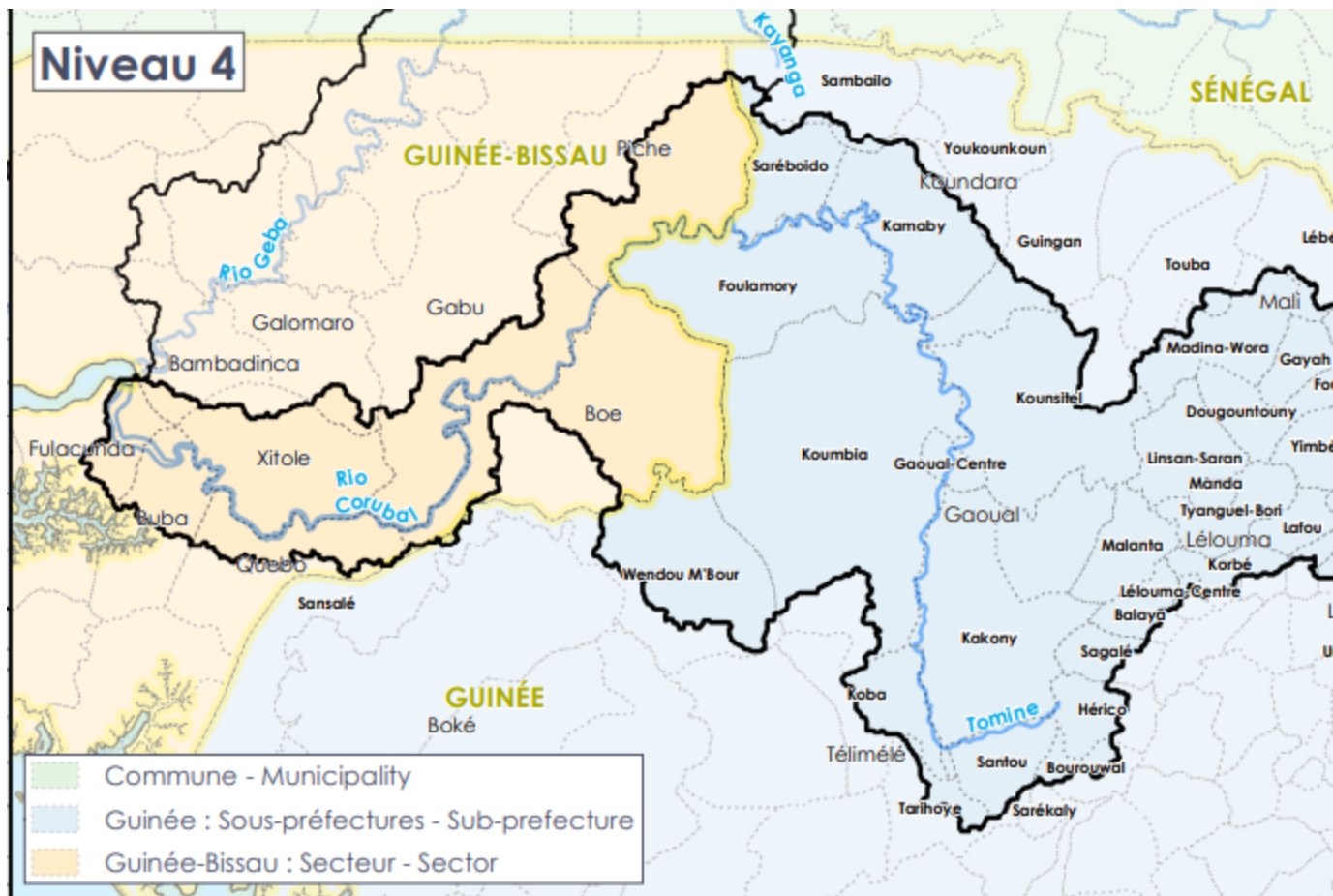
regions (Lab?, Kindia and Bok?), seven (7) prefectures and thirty-one (31) communes are watered by the Koliba-Corubal (see figure 2).

Figure 1: Pr?sentation du bassin versant du Corubal-Koliba



In Guinea-Bissau, the Koliba-Corubal drains four Administrative Regions (Bafata, Gabu, Quinara and Tombali), **six sectors (departments)**, two climatic regions (humid Sudanian and Guinean). It supplies a good part of the east and south of the country, the centre and the west with fresh water useful for agriculture, livestock, fishing and household consumption.

Figure 2: The main administrative subdivisions drained by the Koliba-Corubal



A.2 The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

A.2.1. A Global environmental and adaptation problems

The most serious environmental problems/threats of the Koliba-Corubal basin the last fifty years are global warming, decreasing rainfall and droughts, declining biodiversity and destruction of habitat, depletion of natural resources, toxic waste problems, water and air pollution. They are inter-connected and contributed to environmental degradation and constituted the main environmental challenges that threaten the future of the Koliba-Corubal river basin. Biodiversity has continued to decline quickly and globally in the river basin. Threaten species are growing and critical ecosystem services are under great pressure. Also, unsustainable practices in several socio-economic sectors (agriculture, energy, mining) affect the sustainability of the KCRB. The main problems/threats faced by the KCRB are described as below:

? **Climate[1] variability and change in the Koliba-Corubal catchment:** Climatic variability in West Africa in general (Sambou & Al, 2018; Servat & Al, 1998; Servat & Al, 1999; Quentin A, 2015; Hubert, 1989; Bodian, 2014; Ardoin-Bardin, 2004) and in the Koliba-Corubal river basin in particular (Sambou & Al, 2020) consist in the long term of alternating periods of good rainfall and

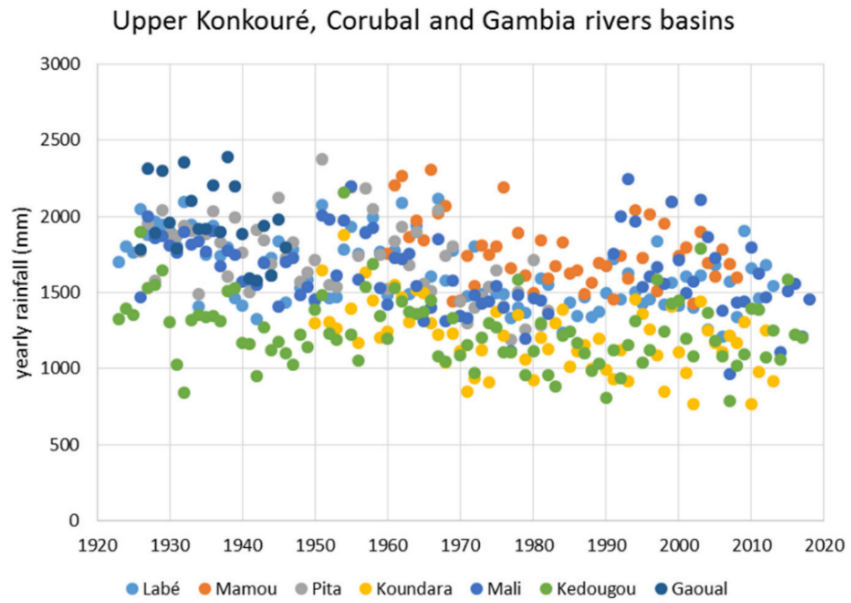
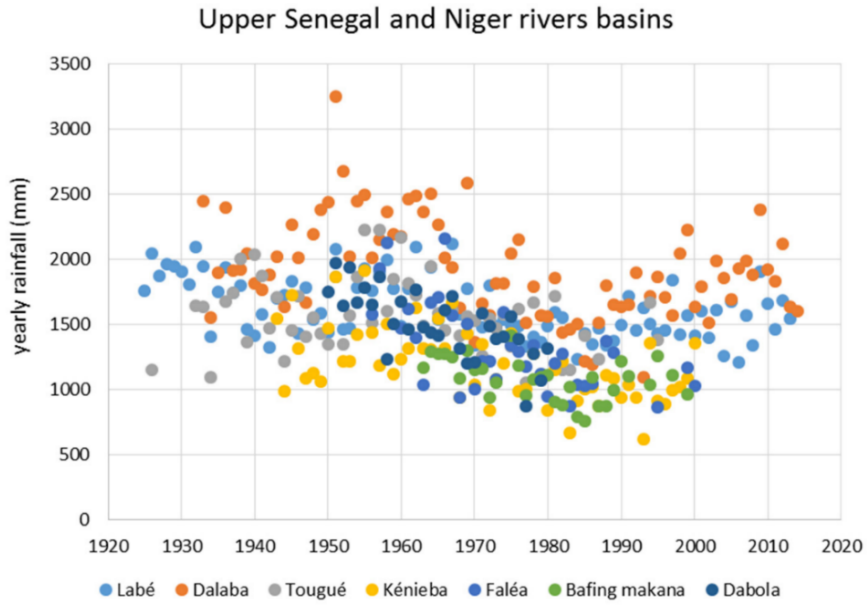
periods of severe drought, but also in constant increases in temperature. Firstly, variability in the spatial and temporal distribution of rainfall can be observed in the Koliba-Corubal river basin. These variations and modifications of rainfall patterns result from the alternating dynamics of the ocean/atmosphere and are strongly associated with anomalies in the distribution or amplitude of some climatic parameters: TSM, JEA, JET, ZITC, St Helena high pressure.

Earlier at the 1970s, the Southern Rivers, region where the Koliba-Corubal basin rises, face successive ecological crises, resulting in drought cycles with considerable decrease in rainfall and discharge of the Koliba-Corubal and its tributaries. From 1920 to nowadays, the Koliba-Corubal basin has recorded significant reductions in the volume of rainfall. In 100 years, decreases in rainfall reach 500 to 1000 mm in the various stations observed, notably those of Gaoual and Lab?. Rainfall decrease has been continuous over a very long time and has particularly affected the quantity of water resources and biodiversity.

[1] Climate change has caused important seasonal variations in average flows. Significant seasonal and interannual variations are observed and over a periodicity of 18 years of surveys. Seasonal variations ranging from 5.4 m³ / s of minimum monthly flow to 1600 m³ / s of maximum monthly flow are observed in Saltinho. The inter-seasonal decline in the Corubal's average flow affects its capacity as an ecological regulator for the entire basin and related ecosystems. Freshwater supplies to lakes and lagoons are reduced and water quality altered. Habitats are affected in some places, causing the reduction of the ecological functions of the watershed, the reduction of productive factors and considerable social and economic consequences in a context characterized by climate change and uncertainties related to productivity.

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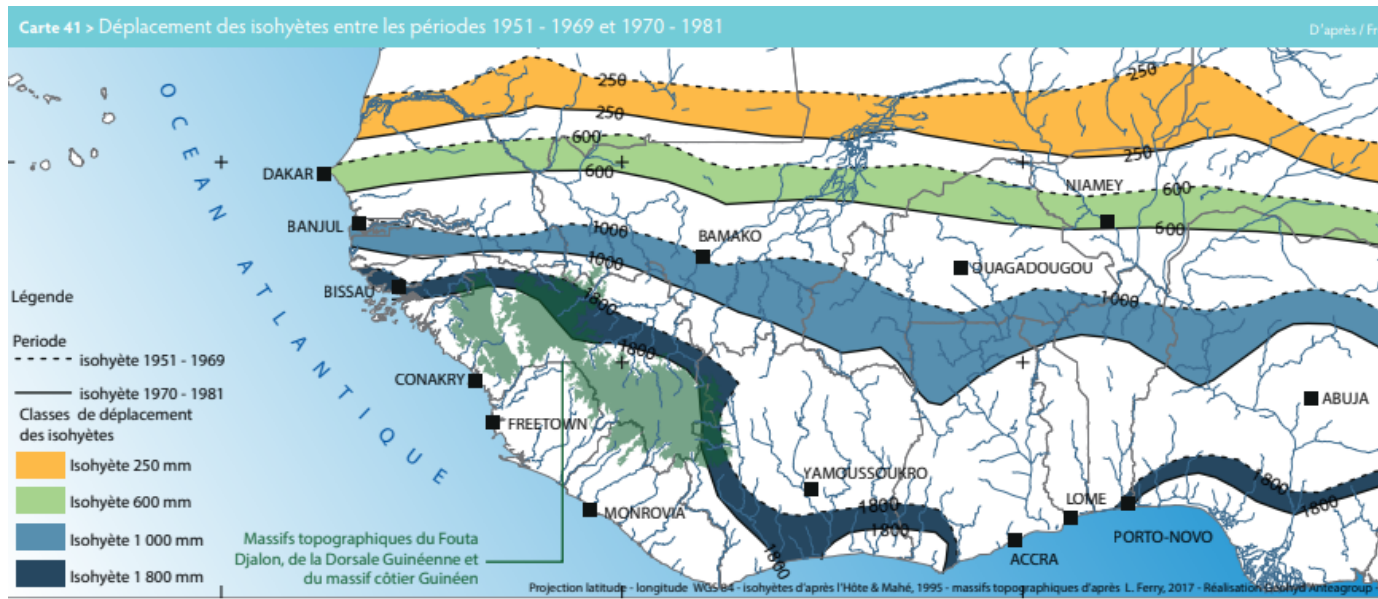
Figure 3 : Rainfall evolution in the Fouta Djallon mountain since 1923 (a) Konkour?, (b) Corubal & (c) Gambia rivers basins; Dots represent the annual total rainfall (ATR), in mm.



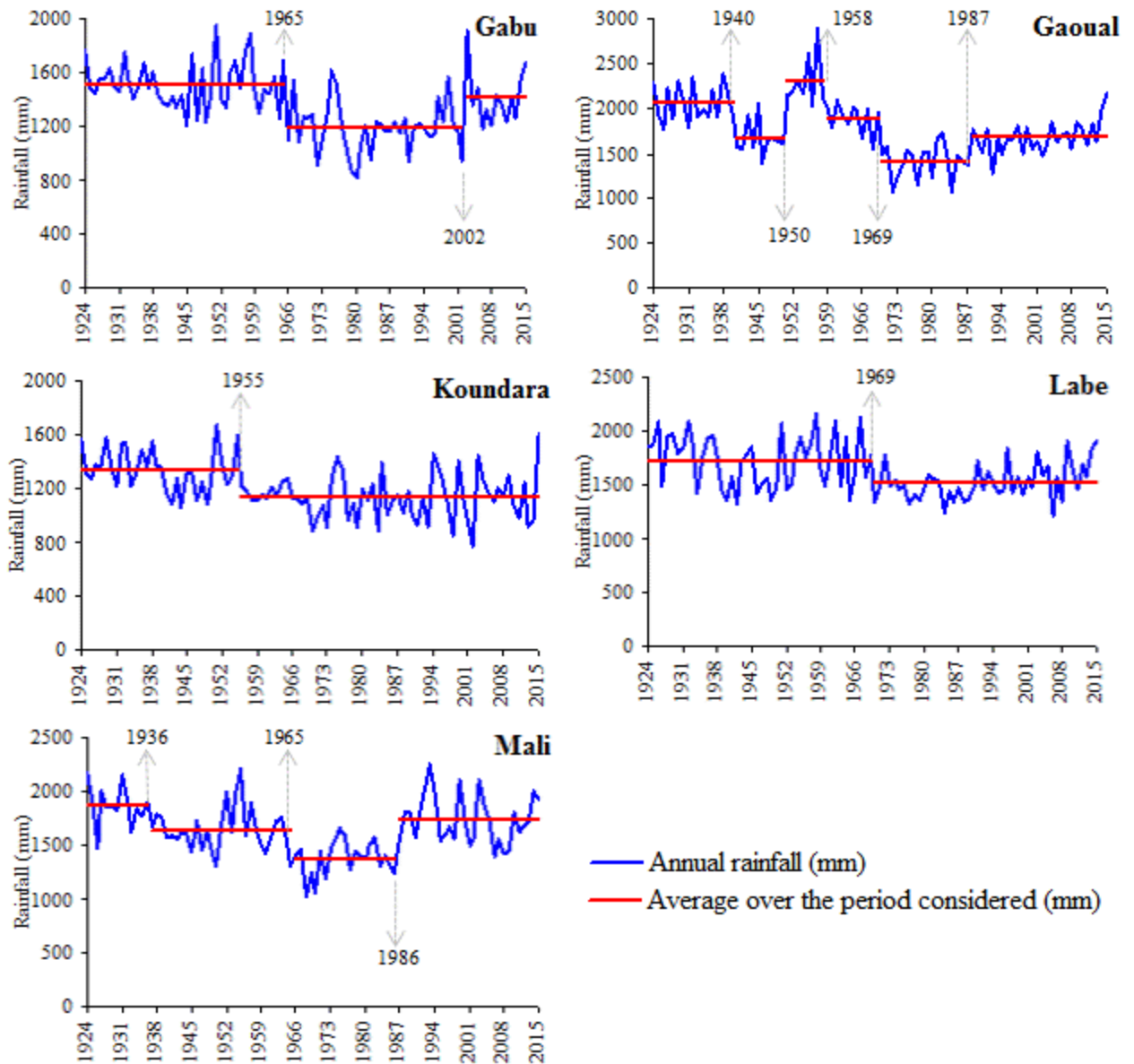
The decrease of the volume of precipitated water results from the strong southern migration of the isohyets. As a result, the river basin, which was above 1800 mm in the 1970s, is now below the same isohyet. The migration of isohyets of at least 100 km to the south (Sambou & Al., 2020) means a considerable loss of surface water and a reduction in the biodiversity of the basin. In short, the Koliba-Corubal basin is currently faced a significant drop in rainfall, a considerable reduction in water resources (surface and groundwater), and irregularities in the availability of water resources in time

and space, leading to major threats to ecosystems, biodiversity and the living conditions of the population.

Figure 4 : Spatio-temporal evolution of isohyets in West Africa



Rainfall will decrease on average by 6.5% in 2025, 10.78% in 2050 and 15.08% in 2100 compared to the 1961-1990 average.



Regarding temperatures, a significant increase has been observed over the last fifty years in the entire river basin. According to the second national communications, three scenarios are possible for the river basin, namely the optimistic scenario (1.5°C), the medium scenario (2.5°C) and the pessimistic scenario (4.5°C). Projections show an increase in annual temperature in the entire river basin of 1.4°C in 2025, 1.5°C in 2050 and 1.76°C in 2100 compared to the 1961-1990 normal. As a result, the average sea level will be altered, with a rise in sea level of around 1.03 m in 2025, 1.80 m in 2050 and 3.25 m in 2100.

The analysis of hydrological balances reveals a very high variability of regimes linked to the variability of rainfall intra and interannually. Consequently, there is an acute decrease in flow in the Koliba-Corubal basin due to a delayed and cumulative impact of the rainfall deficit on the water table.

The prolonged rainfall deficit in the Koliba-Corubal leads to a drop-in groundwater levels due to the early drying up of runoff.

Table 1: Climatic elements and their evolution in the Koliba-Corubal basin

Climatic elements	Main characteristics
Rains start	Late, irregular in space and in time
End of rains	Earlier, irregular in space and in time
Duration of the rainy season	Shortened and varied from eco-region to eco-region
Characteristics of the rains	Irregular, weak, localised
Number of days with rain	Declining, spatially unequal
Winds	Strong, violent and dusty with much damage
Temperature	Increasing
Dry periods	Frequent
Occurrence of drought	Often
Flooding	Often

In terms of consequences, the decrease of rainfall has affected water quantity and quality. In Guinea Bissau Koliba-Corubal river basin, decrease in water volume and degradation of water quality are being observed. The rainfall deficit and the increase in temperature, which leads to acidification and salinisation, causes the appearance of harmful substances: SO_4^{2-} , Al^{3+} , Fe^{3+} , H^+ , Na^+ , Cl^- . Combined with rising sea level, the salt water reaches the inland and destroys ricefields, wetlands. Also, serious problems of fresh water supply are met in some part of Guinea Bissau River basin. The supply of fresh water to lakes and lagoons is reduced and wetland habitats affected in several places and, their ecological functions, services are reduced. During dry season, with the absence of runoff and increase of temperature, wetland habitats are more exposed and deteriorate further. In Guinea part of the basin, decline in rainfall have also negative impacts on Koliba-Corubal water resources, aquatic and terrestrial habitats, ecosystems, productivity and food security, and the overall ecological function of the basin.

Table 2: Forecasted Climate Change Impacts in the Corubal River Basin

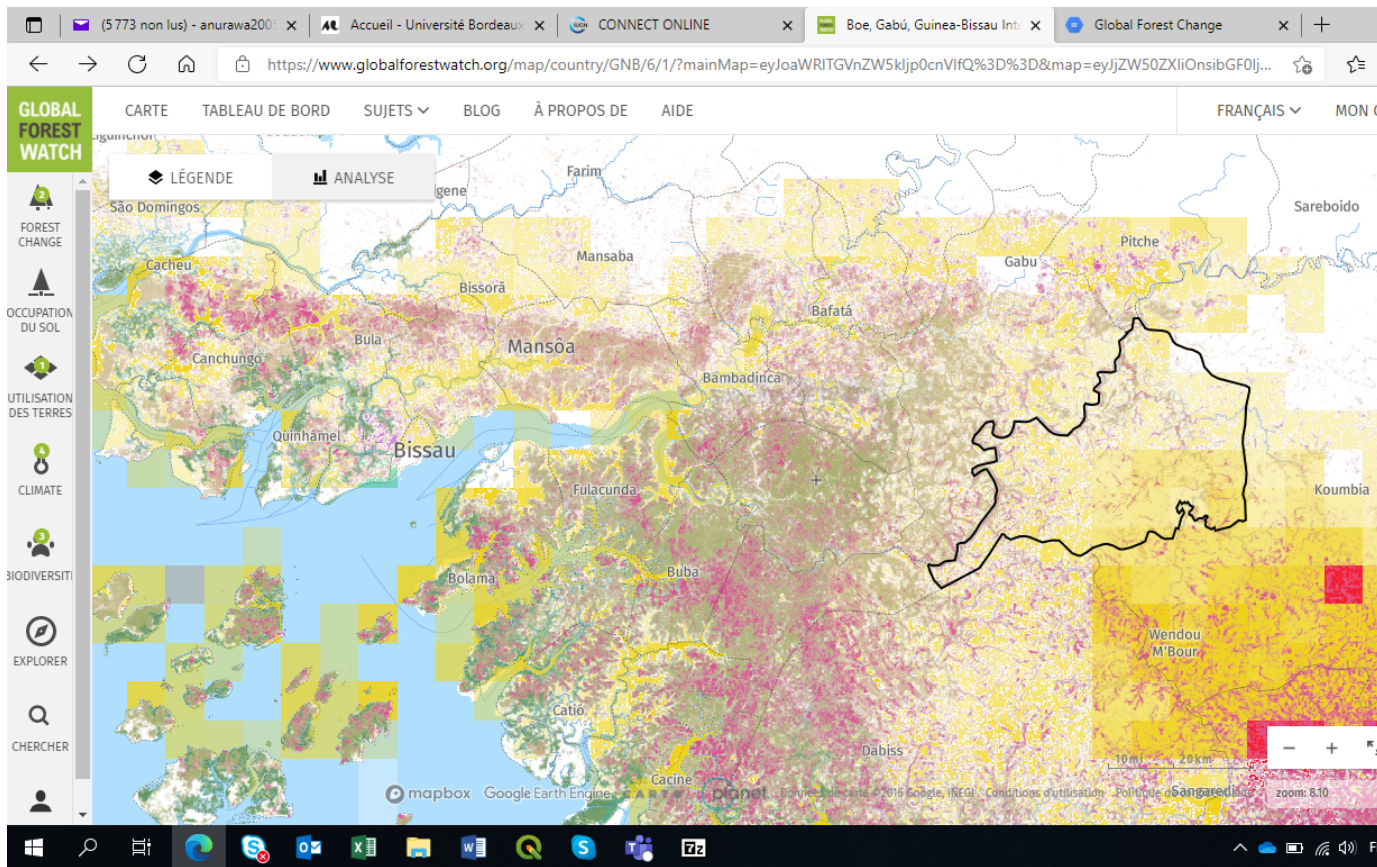
Climate change risks	Environmental impacts	Socio-economic impacts
Changes in rainfall patterns	<ul style="list-style-type: none"> ●Loss of biodiversity ●Disturbance of hydrological cycle 	<ul style="list-style-type: none"> ●Decrease in farming yields ●Change in agricultural production and agricultural calendar ●Loss in livestock production ●Worker redeployment ●Decreased purchasing power ●Rural depopulation

Droughts	<ul style="list-style-type: none"> •Soil degradation •Loss of biodiversity •Loss of surface water •Soil desiccation •Degradation of spring water •Desiccation of small waterways and pools •Water shortage for wild fauna •Sedimentation of waterways •Migration of wild fauna •Increase in bush fires •Proliferation of plant pathogens 	<ul style="list-style-type: none"> •Decrease of farming yields •Loss of crops/harvests •Decrease in animal productivity •Loss of livestock •Loss of incomes •Famine •Diseases •Change in agricultural production and agricultural calendar •Social conflicts over scarce resources
Floods	<ul style="list-style-type: none"> •Submersion of agricultural lands •Tuber plants rotting •Erosion and loss of arable lands •Loss of biodiversity •High air and soil humidity 	<ul style="list-style-type: none"> •Water borne disease •Population displacement •Loss of human life •Loss of access to agricultural zones •Development of pests
Extreme temperatures	<ul style="list-style-type: none"> •Loss of biodiversity •Dehydration of some animal and plant species •Land desiccation •Increase of plant evapotranspiration rate •Increase of bush fires 	<ul style="list-style-type: none"> •Increase of disease •Loss of crop productivity and production •Destruction of livelihoods/crops
Violent storms	<ul style="list-style-type: none"> •Erosion •Uprooting of trees •Destruction of habitat •Loss of biodiversity 	<ul style="list-style-type: none"> •Destruction of infrastructures •Agricultural production losses •Loss in livestock •Loss of human life

? **Loss of vegetation cover, habitats[1] and biodiversity:** Continuous loss of vegetation cover has been observed throughout the basin for more than 30 years. The loss of vegetation cover is mainly related to human activities. Mapping studies of vegetation cover change at river basin level by Hansen (Hansen & Al, 2022) show that slash-and-burn agriculture, forestry practices such as timber harvesting, mining, bushfires are the main drivers of deforestation and conversion of natural forests to agricultural (also plantation) or extractive land use. Losses of vegetation cover due to slash-and-burn agriculture are the most important and contribute significantly to the disappearance of habitats and biodiversity.

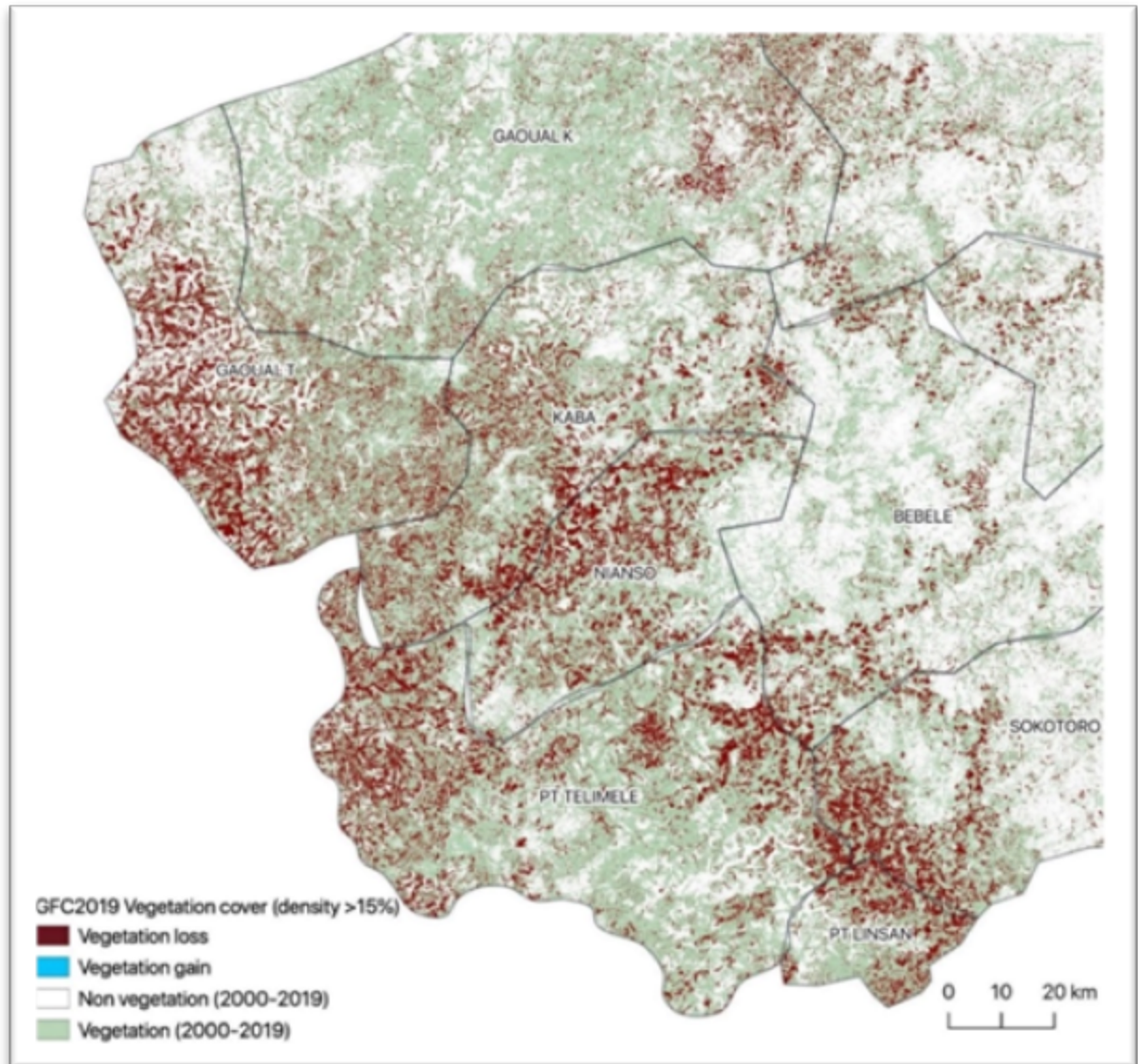
[1] Habitat loss is linked to deforestation, in particular the indiscriminate exploitation and cutting of species such as Pau Incenso (*Daniella oliveri*), Bissil?o (*Khaya senegalensis*), *Lophira lanceolata*, Goiaba de lala (*Schreberia arborea*), Tambacumba (*Parinaria macrophila*), Mancone (*Erythrophleum guineensis*), Faroba de lala (*Albizia zizia*), Pau Conta (*Azelia africana*), Poil?o foro (*Bombax costatum*), Mango de mato (*Cordia pinnata*), Macite (*Terminalia macroptera*), Faroba (*Parkia biglobosa*), Pau carbon (*Prosopis africana*), Pau sangue (*Pterocarpus erinaceus*), Fidida branca (*Federbia albia*), Mampataz (*Parinaria excelsa*), Pau bicho amarelo (*Chlorophora regia*), Pau bicho preto (*Antiaris africana*), Cibe (*Boatlanta rrasus aethiopicum*).

Figure 5: Evolution of the loss of vegetation cover in the river basin



Specifically, the loss of vegetation cover in the Guinean part of the River Basin is more significant due to the lack of environmental and natural resource conservation (or restoration) policies in this part of Guinea on the one hand, and the intensification of commercial agriculture and mining on the other hand. In 20 years, the losses of vegetation cover have been increased, with damaged areas doubling or even tripling the areas conserved and restored (see figure 6 & 7). This constitutes a major ecological problem in Fouta Djallon, the region where the Koliba-Corubal and several other rivers have their source.

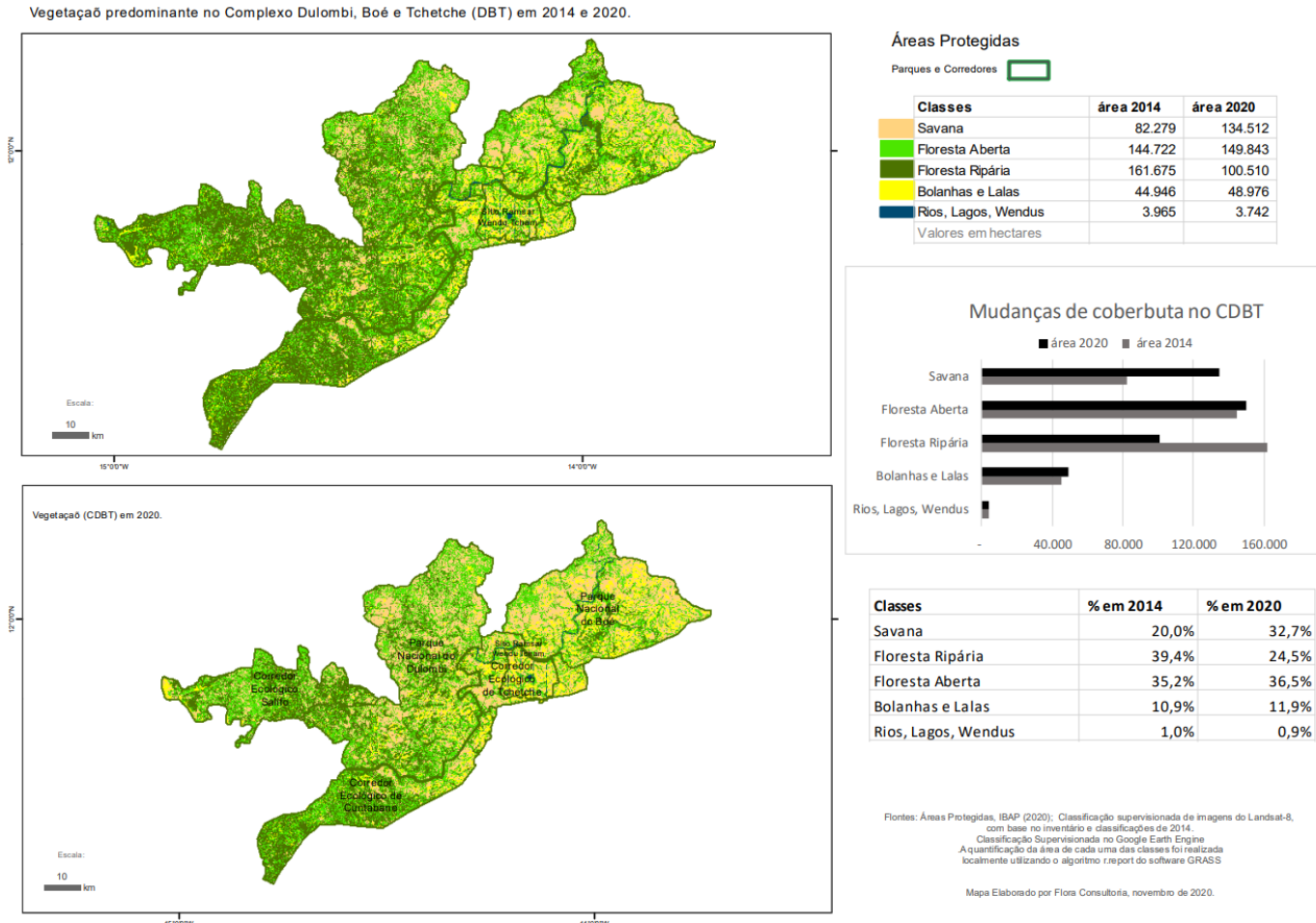
Figure 6: Spatio-temporal evolution of vegetation cover in the Guinean part of the basin from 2000 to 2019.



In the Guinea Bissau part of the basin, the loss of biodiversity between 2014 and 2020 is also significant. Conversions have increased the importance of savannah in forest ecosystems from 20% in 2014 to 32.7% in 2020[1]. Riparian forests decreased to 14.9%, open forests (synonymous with degradation) increased by 1.3%, rice fields (synonymous with mangrove degradation) increased by 1% and wetlands (rias, lagoons, lakes, flooded valleys etc.) decreased by 0.1% (IBAP, 2020). The decrease of wetlands in Guinea Bissau Koliba-Corubal river basin has impacts in the gallery forests along the Koliba-Corubal river. Indeed, the degradation of wetlands leads to a rush to clear gallery forests for the production of rice or other cereals. During periods of low water, the land under the gallery forests is used for market gardening, leading to significant clearing.

[1] The increase in the area of savannah is synonymous with massive deforestation and loss of ecosystems and biodiversity. Indeed, the increase in savannah is the result of deforestation processes

Figure 7: Spatio-temporal evolution of vegetation cover in the Guinea Bissau part of the basin from 2014 to 2020.



The massive deforestation of the Koliba-Corubal basin has negative impacts on different vegetal and animal species. Regarding vegetation, several species such as *Azelia africana* (lingu?), *Lonchocarpus cananeensis* (ngara), *Tamarindus indica* (Tyabh?), *Kaya senegalensis* (cauliflower ca?lc?drat), *Khaya grandifolia*, *Mitragina stipulosa* (popo), *Landolphia dulcis* (Kodoudou), *Xylopi americana* (Guil?), *Harungana madagascariensis* (sungala), *Vitex dominiana*, *Azola africana* are severely degraded and threatened. Moreover, in addition to the degradation of several vegetal species in the Koliba-Corubal watershed, erosion, land degradation and sedimentation of the river have intensified.

In terms of wildlife species [1], significant threats are observed on :

- o **Mammals:** Among the threatened mammal species of the Koliba-Corubal basin are *Protoxerus aubunn*, *Pan troglodytes* (Chimpanzee), *Panthera pardus* (Panthera), *Hippopotamus amphibius* (Hippopotamus), *Phacochoerus aethiopicus* (Warthog), *Phacochoerus porcus* (Wild pig), *Antilopus neutrogus* (Antelope), *Leo lea* (Lion), baboons (*Papio cynocephalus*), green monkeys

(*Cercopithecusaethiops*), patas (*Erythrocebus patas*), wild dog (*Lycaon pictus*), elephant (*Loxodontaafricana*) and black and white colobus (*Colobuspolychromos*).

o **Reptiles and amphibians:** the threatened species are (i) *Nectophrynoides occidentalis*, (ii) *Pelosis pelosisniger*, (iii) *Dermochelis cotacea*, (iv) Nilotic crocodiles, (v) *Python reticulais*, (vi) *Pithon regius* (vii). Seriously threatened are *Varabus ceda* and *Varanus exanthmaticus*. Many insects are also threatened with extinction. These include: Odonata (dragonfly), *Mantis religiosa* (praying mantis), Isoptera (termites), *Belostoma grandis* (large water bug) *Lucanus servus* (kite) Lepidoptera (butterflies of all kinds), *Pandenus imperator* (black scorpion).

o In aquatic habitats, the Nile crocodile (*Crocodylus niloticus*), hippopotamus (*Hippopotamus amphibius*), *Glareola pratincola* (collared Glarola), *Philomachus pugnax* (warrior), *Tringa glareola* (Wood Knight), *Himantopus* (White stilt), *Calidris ferruginea* (Cocorli Sandpiper) (Wibe Altenburg & Jan van der Kamp, 1983) are threatened by humans and climate change. In fact, the shrinking of wetlands and their habitats has led to a decrease (in the number) of Palearctic migratory birds that spend the winter there each year in the KCRB. With regard to the endemism of freshwater fish species, in particular for the species of the rivulina family (some of which are annual), cyprinodontidae (*Aphyosemion* and *Epiplatys*) and cyprinidae (*Barbus*), Mochokidae, Mormyridae, Claroteidae and Cichlidae, are decrease. This decline in freshwater fish species has a negative impact on fishing communities in terms of the availability of fishery resources (and therefore the decrease in financial income) and on food security. Climate change, especially saline intrusion up to more than 100 kilometers inland and the invasion of *Typha* and *Salvinia molesta*, have impacted fish migrations and the development of their reproductive cycle, which have decreased considerably. This, undoubtedly proves the decline in the ecological and hydrological functions of the basin as a result of climate change and human activities. This decline in biodiversity is impacting people's livelihoods, which is why there is a need to restore and maintain ecosystem services that provide support services for habitats and species to thrive

The case studies of Chimpanzee, Red Colobus and King Colobus in the Koliba-Corubal River Basin and beyond during the last thirty years, demonstrated the link between deforestation and threats on animal species. Observing evolution of chimpanzee population, the chimpanzee population is increasing in protected areas and almost disappearing in unprotected areas, namely in a very large part of the river basin.

Reduced water quantity and quality: This is one of the greatest threats to the basin's water resources. Significant interannual variations in river flows have been observed over the past forty years. The decrease in the volume of water in time and space affects the river's ability to maintain its function as an ecological regulator for the entire basin and related ecosystems. Climate change (drought cycles of the 1970s and 80s, then generalized decrease in rainfall until today) has led to very high salinization of the fresh waters of the river and its tributaries and soils as well as their acidification by oxidation with the increased exploitation of aquifers. The supply of fresh water to lakes and lagoons is reduced and water quality has decreased. Wetland habitats are affected in several places. All this is resulting in reduced ecological functions, services, and products of the basin, and significant related social and economic consequences in a context of climate change and productivity uncertainties. The increasing flow of salt water from the mouth of the river going upstream, domestic waste, infiltration of

agricultural chemicals (pesticides), mining, soil erosion and leaching, affect surface as well as ground water quality. All this leads to negative impacts on aquatic and terrestrial ecosystems, productivity and food security, the health of the population, and the overall ecological function of the basin through the ecological health of Ramsar sites.

Siltation and sedimentation: The loss of vegetation cover has severe consequences on soil cover and is the major factor of erosion, siltation and sedimentation. They have negative impacts on the hydrological regime of the watercourse: decrease of the water level and speed, and the transport capacity of solids and nutrients. Siltation and sedimentation causes retreat, gullyng of riverbanks and displacement of the riverbed. These phenomena are fundamentally linked to (i) the massive and continuous deforestation of watersheds, (ii) the production of terracotta bricks along the riverbanks; (iii) the absence of a land use and development plan for the watershed. Siltation and sedimentation of the Koliba-Corubal have increased turbidity values, which reach concentrations of up to 10 g/l downstream and around the coastal zone. Siltation caused discontinuities in the flow and supply of fresh water to the watershed. The changes caused by siltation and sedimentation of the river have significant social, environmental, and economic consequences. Indeed, the modification of the riverbed caused by the increase in sediment movement has also led to a loss of biodiversity and terrestrial and aquatic habitats. The accumulation of sandbanks quantitatively reduces aquatic biodiversity and fishing capacity, supply and storage capacity of freshwater lakes and lagoons. The reduction of water supplies from the Koliba-Corubal river to lakes and lagoons leads to a loss of biodiversity in these ecosystems.

Alkalization and salinization: are major problem of humid soils in the downstream, making soils increasingly unsuitable for cultivation. This is particularly true in the Guinea-Bissau part of the basin. Here, the ecological consequences of the salinization of rice fields affect negatively mangrove ecosystems. Indeed, to compensate the losses of rice fields, became unproductive due to the high salt content, local populations clear mangroves and transform them into rice fields. However, with the constant rise of the waters and the fragility of the dikes, the newly cleared mangroves transformed into rice fields also become unsuitable for cultivation and abandoned a few years later. New agricultural fields are again created in the mangroves to replace abandoned ones, thus contributing to continuous increase in hectares of degraded land. In whole KCRB, siltation and sedimentation causes retreat, gullyng of riverbanks and displacement of the riverbed.

Proliferation of invasive hydrophytes: Mainly, Typha Salvinia molesta, freshwater salad and water hyacinth are increasingly observed in the Koliba-Corubal basin. The presence of invasive plants and the reduction in river flow (speed and level), the increase in average temperature and consequently the increase in evapotranspiration, have led to consequences on wetlands. In terms of biodiversity, the presence of invasive plants has caused the loss of aquatic species in the watershed, some of which have even disappeared. The increase in salinity has created more favorable conditions for saltwater plants. The result is a process of eutrophication leading to a decline in freshwater fishing, a decrease in the

amount of drinking water for hundreds of thousands of people and, in some cases, the emergence of waterborne diseases.

Water-borne diseases: Water-born diseases such as malaria, diarrhoea, bilharzia, Guinea worms, liver fluke in animals etc. are common in the KCRB and negatively impact its populations. This situation leads to additional health expenses for local communities while their productivity and capacity to fight against food insecurity decreases in a context aggravated by climate change.

Mining activities and water quality: The increasing mining (artisanal and industrial) in the river basin is having an increasingly negative impact on the soil and water quality of the Koliba-Corubal river basin. Traces of chemicals are found and the colour of the water constantly changes due to pollution.

Corubal River Basin Risks and underlying effects

	Water quantity			Water quality			Ecosystems			Governance		socioeconomics			
Corubal basin in Guinea Bissau	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Corubal basin in Guinea	1	2	3	4	5	6	7	1	9	10	11	12	13	14	15
Entire Corubal River basin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Indicators															
1-Environmental water stress 2- Human water stress 3- Agricultural water stress 4- Nutrient pollution 5- Wastewater pollution 6- Wetland dysconnectivity 7- Ecosystem impacts from dams and mining 8- Threat to fish 9- Extinction risk 10- Legal framework 11 hydro-political and geopolitical tension 12- Enabling environment 13- Economic dependence on water resources 14- Societal well-being 15- Exposure to floods and droughts															
Scoring	Very low			Low			Medium			High		Very high			

A.2.2. Root Causes and Barriers

A.2.2.1. Root causes

The main threats to the availability and sustainability of natural and water resources in the KCRB are (i) loss of habitats and biodiversity, (ii) degradation of environment and ecosystem products and services, and (iii) decrease in water quality and quantity (see above).

The root causes (apart those from natural phenomena and climate change) stem from the lack of knowledge about the natural and water resources of Koliba-Corubal river, and its main tributaries, the inadequacy of policies for the management and governance of water resources (differences/incompatibilities of policies between the two countries) and bad practices in the governance and exploitation of land and plant resources.

Climate change, including droughts and floods, affects the flow and quality of water resources (Coba, 1992; OMVG, 2011, Lopes and Zahiri, 2017; Lubes-Niel et al., 1998). In addition, the lack of adequate and operational legislative and regulatory frameworks necessary for the sustainable governance of Koliba-Corubal's shared water resources is a factor aggravating threats to the sustainability of water resources. Addressing these root causes will improve watershed governance and ensure sustainable access to natural and water resources. The different causes are presented below in more details:

- ❑ Unsustainable agricultural practices: are one of the main causes of the degradation of the KCRB ecosystems and the threat to the sustainability of water resources. Slash-and-burn[1] shifting agriculture and the intensification of certain crops to meet the demands of a rapidly growing population are causing the loss of several thousand hectares of forest every year. This results in habitat loss, decreased soil productivity, mainly in the upstream part of the basin. Declining soil productivity has in turn increased the use of chemical fertilizers in agriculture and lead to chemical and toxic contamination of nitrates (NO₃⁻) and phosphate (PO₄) of aquifers, surface waters, and soils. In 2016, 95,000 t of pesticides were used in the Fouta Djallon mountains, where the Koliba-Corubal river originates, at rates of 2 to 5 kg/ha and up to 22 kg/ha for millet fields (World Bank, 2017). The increasing concentration of nitrates and phosphates in the water contributes to the eutrophication process of Koliba-Corubal. In addition, industrial (bauxite mines in Corubal tributaries) and domestic pollution increase the concentration of ammoniacal nitrogen (NH₄), NO₃⁻, PO₄, phosphorus (PT) and persistent organic pollutants (POPs) in groundwater, surface water and soils. Poor agricultural practices have negative consequences on the well-being of local populations in that the pollution they cause has negative effects on aquatic ecosystems, in particular on the reproductive cycle of fish due to the transformation of their metabolism. Water pollution also causes excessive and anarchic development of algae, leading to eutrophication and the disappearance of aquatic biodiversity.
- ❑ Large-scale and poorly controlled irrigation: the implementation of small- and medium-scale (uncontrolled) irrigation projects in Guinea and, to a lesser extent, in Guinea-Bissau, has impacted the average annual flow of the river, modified the ecological and hydro-physical conditions of the KCRB and affected the supply of freshwater. For example, in Guinea, the plains of Sal'a, Sintian Baroudi, Oulandji and Wanoumou are managed and irrigated from water drawn from the Koliba-Corubal

(FAO, OMVG & Senasol, 1987). More than 18,000 ha have been irrigated using the basin's waters (Aquastat, 2005) without any integrated and sustainable planning based on watershed approach.

✘ **Forest resource degradation:** Highland forests have traditionally played a key role in soil protection and stabilization, struggle against erosion and sedimentation inherent in intense rainfall and soil permeability (Orange, 2019). The loss of vegetation in the upstream part of the basin has had serious consequences in terms of river flows, habitat stability and biodiversity maintenance, carbon sequestration and the local water cycle, and has negatively influenced the water dynamics of the entire basin and the population income. The vegetation cover along the banks as well as that located further upstream is strongly degraded. Annual net forest losses are significant (see previous sections) and contribute to accelerating soil degradation, erosion and sedimentation of the main watercourse and its tributaries. At the zonal level, there is significant forest degradation in the upper part of the river, mainly in the highlands of the Fouta Djallon mountains. Vegetation cover has disappeared over entire pans of the highlands (Orange, 1990; Gupta, 1987) and led to the conversion of tropical rainforests consisting of *Parinari excelsa*, *Parkia biglobosa* into savannahs and grasslands (GUPTA, 1987). Over time, phenomena such as sedimentation, loss of habitats and biodiversity, erosion and siltation have taken on considerable and worrying proportions. Artisanal gold mining, particularly in the Gaoual area, accentuates the threats to forest, land and water resources with a sharp degradation of the vegetation cover, soils causing siltation of river beds. In areas further downstream, deforestation of sub-humid vegetation, especially mangroves, is inherent in the acidification and salinization of rice fields. In addition, in Guinea-Bissau, forest resources are also degraded due to the intensification of cashew cultivation, and inappropriate agricultural practices and land tenure policies. In reality, there is no land use planning policy in Guinea-Bissau and the land law has not yet been promulgated. This leads to unsustainable and indiscriminate land exploitation and increased pressure on forest and land resources. Massive deforestation (Orange, 1990) and soil degradation causes serious erosion and consequently the siltation of the river and the appearance of invasive plant species such as water hyacinth, and typha. It is clear that the protection of these areas is needed and this project will align with the submitted PFD for the Guinean Forest/the Fouta Djallon mountains (GEF ID 11142), to coordinate synergies.

✘ Climate change: rising temperatures, droughts, decreased rainfall in the KCRB are linked to climate change. In this basin, the climate risks of greatest concern are related to the behavior of the Harmattan and Monsoon winds, which either bring in hot and dry currents, thus intensifying evapotranspiration and early drying of rivers, or inject little power into the monsoon wind and thus cause insufficient amounts of water to fall into the basin, which in the long term decreases the quantity and even the quality of the waters. During the over-positive periods of monsoon winds, the basin experiences strong tides in places that cause flooding of the lowlands, the overflow of the river and its tributaries and landslides on unstable slopes. Extreme weather events, such as floods

and droughts and landslides, impact the local population in a variety of ways, such as the loss of agricultural production, the destruction of socio-economic infrastructure and increased health risks. In the coastal part of the watershed, the increase in temperature is manifested by the rise in sea level and consequently the saline upwelling far inland and erosion at the level of the coasts and coastline of the river.

- ❌ Demographic pressure: Strong, rapid and sustained population growth is a major constraint in the KCRB. Indeed, population increase is accompanied in the basin by the increase in the area of cultivated land and consequently by the increase in cleared and degraded areas. On another level, the increase of at least 2.8% of the population per year tends to increase the pressure on natural resources and water resources. Throughout the basin, there is an increasing rush of people to fertile areas leading to more degradation of natural resources.
- ❌ Weak legislative and institutional framework: The rainfall deficit and variability due to climate change, which has resulted in the decrease in average annual rainfall and therefore flows to the river, do not alone explain the decline in the water quantity and quality in the KCRB. To this must be added: the absence of quality standards, harmonized laws and regulations, and rigorous monitoring/control for the management of water resources in both countries. It should also be noted that one of the immediate causes of this problem is the decrease in the frequency and duration of flooding of the alluvial plain, which affects the groundwater recharge conditions. There is therefore a loss in quantity and quality of both surface and underground water resources. In addition to the weak legislative framework, the limited institutional capacities at the transboundary level should also be added as discussed.

[1] Slash and burn agriculture is the main agricultural practice in the basin and is based on the use of fire. Bush fires consume a significant volume of forest annually and remain one of the main causes of biodiversity loss in the basin. The use of fire is uncontrolled and unsafe and contributes significantly to soil depletion, increased greenhouse gas emissions and the accelerated effects of climate change.

The second factor contributing to deforestation is energetic. Indeed, more than 90% of the population uses wood as a source of domestic energy. With population growth, the volume of wood consumed is constantly increasing and accentuates the loss of forests and the degradation of the environment. Finally, the industrial exploitation of forest resources contributes significantly to deforestation and the loss of biodiversity. Popular species such as *Azelia africana*, *Pterocarpus erinaceus* and *Khaya senegalensis* are being decimated over thousands of hectares.

Barriers

Although both countries have been developing and implementing environmental policies and programs for several years now, they have limited experience and capacity in integrated water and

natural resources management of transboundary basins. The main barriers to an integrated and sustainable management of the KCRB for the sustainable use of its resources, involving all stakeholders (local, national and multicountry initiatives) are:

Barrier 1: Weak governance of water resources

There is no operational and specific legal framework for the KCRB to address the conflicting interests in its resources and the current and future needs of the various actors in the basin. Only a laconic agreement of 1978 very vaguely provides for some modalities for sharing the water resources of the basin while not including the development and implementation of integrated water management tools in order to guarantee both the protection and restoration of the environment, the integrated management of water, and land resources, and biodiversity conservation.

The existing very general water management framework of the basin is focused on the country and specific area of water use levels. At the national and local levels, institutional instruments are weak, embryonic and sectoral. Existing national laws and institutions are inadequate, most often not operational, and do not allow for consultation between different stakeholders and water uses in the basin. These weaknesses hinder the planning and adoption of sustainable actions for the use of water resources, the conservation and protection of the environment and the restoration of ecosystems in the basin. In this context, there is a clear need for the project to establish a strong common institutional framework, endorsed and supported by both countries, in order to better manage the shared water resources of the KCRB.

Significant legal and regulatory gaps and inadequacies remain in the status of wetlands, water law, land law, national spatial planning and decentralization policies. For example, in Guinea-Bissau, no legal or legislative provisions concerning the governance of wetlands and their ecosystems have been developed and implemented. In addition, the level of implementation of different legislations in Guinea Bissau is national, while in Guinea it is more detailed and also concerns the local level. This difference in scales of intervention raises the problem of harmonizing policies, tools, legislation and instruments for governance and management of a shared resource.

In addition, the level of application of existing laws differs from one country to another, as do the typologies of actors involved in river basin management. The rules and responsibilities for (participatory) river basin planning and natural resource management are vague and do not provide for any transnational provisions, nor the protection of sensitive areas such as riverbanks, wetlands, etc. The project is expected to contribute to the improvement of the legal and policy framework by establishing common legislative and regulatory instruments conducive to the shared and sustainable management of the basin. This will help to improve the planning of water resource uses, such as in the agriculture, fisheries and energy sectors. Institutional weaknesses affect the governance of water resources, limits the production of sufficient and accurate knowledge about the basin and decision support mechanisms.

Barrier 2: Insufficient scientific knowledge of the basin

Hydrological, meteorological, soil, environmental, economic, social, ecological etc. knowledge about the KCRB is very limited. No transboundary diagnostic analysis of the basin has been carried out and few scientific studies have been conducted. The few existing studies are more than a decade old and are either partial or do not take into account the various changes that have occurred recently, mainly climate change, loss of biological diversity, desertification, population growth and pressure on natural resources etc. As a result, there is a complete lack of full ecological, hydrological and soil monitoring of the watershed. The lack of reliable scientific data on the basin is a real barrier for development planning and resources use, and thus for the integrated and sustainable management of water resources. The establishment of a reliable and regularly updated knowledge base will improve the monitoring of ecosystems in the basin and facilitate good planning of restoration activities, environmental conservation and planning for the sustainable and balanced socio-economic development of the basin.

Barrier 3: Lack of financial resources and integrated management initiatives

Despite some investments in small-scale irrigation and hydropower, no funds are allocated to integrated and shared transboundary governance and management of the basin's natural and water resources. The lack of investment in the management and protection/restoration of water resources, biodiversity and soils at the basin level raises the urgent issue of the ecological sustainability of habitats and species in the basin. The financial contribution of the project will allow the establishment of common water resources management plans, the institutionalization of a common framework for governance and sustainable development of the basin, the development and implementation of a common legislative and regulatory framework, the implementation of pilot demonstration projects for the conservation and restoration of ecosystems. In addition to the establishment of these frameworks, it is also important that the management of the KCRB be supported by a financial mechanism that will help transform the practices that are driving the degradation and unsustainable use of water and natural resources in the basin, and ultimately leading to reduced water flows, ecosystem services and livelihoods. The project will help at this level to set up sustainable financing mechanisms for governance and shared management of water resources.

Barrier 4. Limited integration and synergies of key stakeholders for water resources management

Added to the absence and/or inadequacies of political, legal, technical, cooperative and operational instruments for the governance of the KCRB water resources, the lack of synergies and complementarities between the various stakeholders is a real constraint to the participatory and integrated governance of basin's water and natural resources. The management of water resources in the basin is fragmented and the logic for an integrated and shared scheme is not yet developed. There is no basin council and stakeholders act in an individualistic way, most often without consideration of initiatives undertaken in the basin by others. The lack of coordination among stakeholders ? who

have different perspectives and generally competing water needs ? has contributed to the predominance of sectoral and local perspectives that fragment the basin and contribute to the degradation of its natural and water resources.

Barrier 5: Political Instabilities and Insufficient national policies and laws for the governance of natural and water resources

Several shortcomings and gaps remain in laws[1], policies and regulations for the management of natural and water resources. One of the main limitations of development in the basin is the weakness of the regulatory and legal framework, in particular policies related to land, land use planning, forest resource management etc. These weaknesses negatively impact the sustainable management of the natural and water resources of the basin. The repeated political crises and the resulting political transition situations have negative impacts on the finalisation or rigorous implementation of several laws and texts that regulate the use of natural resources.

In addition, constant changes at the institutional level have implications on the dynamics of natural resource governance. At each political convulsion, changes of staff in charge of natural resource management follow and more often persons without competence in natural resource management are promoted. It is demonstrated that such changes favour situations of programmed destruction of forest resources, which will consequently impact on the availability of water resources in quantity and quality.

[1] In Guinea we have different laws which indirectly contribute to the conservation of the Corubal watershed:

- ? Ordinance No. 045 / PRG / SGG / 87 of May 28, 1987 on the Environment Code;
- ? Decree No. 199 / PGR / SGG / 89 of 08 November 1989 codifying environmental impact studies;
- ? Ordinance No. 990 / MRNE / SGG / 90 relating to the content and methodology of the environmental impact study;
- ? Ordinance No. O/92/019/PRG/SGG/92 of 30 March 1992 on the State Land Code and Land Policy.

In Guinea Bissau we find essentially :

- ? The Environment Code as well as specific regulations for environmental and social impact studies;
- ? The law n° 3/97 on protected areas which appeared in the Official Bulletin n° 21 of 26 May 1997;
- ? The Forestry Law No. 4-A of 29 October 1991). Some provisions of this Decree-Law are particularly relevant: the institution of a "forest protection regime" which applies by right to certain lands (including the banks of watercourses but not the sea shore). This regime can be extended to other lands in order to fix dunes, stabilize the hydrographic regime, to prevent erosion and desertification processes, and to protect wildlife and ecosystems;

? The water code is conceived as a set of principles and standards that frame and guide the exercise of the State, with the objective of planning, operating, conserving and optimizing the management of water resources.

Barrier 6: People's perception of water and natural resources

For the majority of people, water, plants and animals are gifts from God. These resources are created to satisfy man's needs according to god's will. There is a saying that "As long as beings created by god live, he will provide them with the resources necessary for their survival." Thus these resources are infinite and their renewal is eternal.

Therefore, people's access to these resources without prior investment and without control reduces their regenerative capacity. This perception and free access to resources means that each user "manages them to the satisfaction of his/her interests without taking into account those of others".

Table: Summarize of roots causes of unsustainable governance of the Koliba-Corubal River Basin

Technical Causes	Economic-Managerial Causes
<ul style="list-style-type: none"> •Little or no available information on shared water resources (inventory of uses and availability). •Lack of knowledge of water demands for different uses. •Lack of hydrological studies of the basin. •Asymmetries in the granting of rights of use. •Construction of hydraulic works for exploitation without the proper authorization. •Unsustainable agricultural practices placing demands on the resource. 	<ul style="list-style-type: none"> •Lack of integration and asymmetric application of water, land, and environmental legislation. •Lack of joint management bodies for shared water resources. •Little research on the topic of water resource use optimization.
Political-Institutional Causes	Social and Cultural Causes

- Asymmetries in the control and administration of the use of the resource.
- Asymmetries in public policies.
- Asymmetries in legal-institutional structures for integrated shared resource management.

- Poor culture, social awareness, and training on water use.
- Lack of knowledge of social actors about the value of resources and their limited availability.
- Lack of knowledge of users about regulations for the exercise of water use.
- Lack of a culture to seek collective solutions and shared management.

A.3 The baseline scenario and associated baseline projects

According to data stemmed from the project formulation studies and collected in different institutional sources in both countries, several projects and initiatives have been or are implemented in the Koliba-Corubal basin and are particularly focused on (i) adaptation to climate change, (ii) conservation and restoration of ecosystems, (iii) sustainable development in rural areas, (iv) increase in productivity and food security, (v) socioeconomic infrastructures in particular small-scale irrigation and energy, roads, access to energy etc.

Projects and initiatives dedicated to sustainable governance of shared and transboundary water resources between Guinea Bissau and Guinea Conakry and even beyond at the sub-regional level are non-existent.

Also, several environmental conservation/restoration initiatives have been carried out by the GEF in the Koliba-Corubal river basin. These initiatives will complement or be continued by the present project on sustainable and integrated governance of natural and water resources in Koliba-Corubal. Current GEF-supported initiatives will facilitate synergies with the Koliba-Corubal project and will contribute to restore degraded ecosystems or maintain and enhance ecosystem conservation. The GEF funds will finally facilitate complementarities and mash the widest possible conservation and restoration initiatives.

Past and ongoing project at regional level

Several projects and initiatives, even if not linked directly to the sustainable and shared governance of transboundary water resources and aquifers, have been implemented or are being implemented and will reinforce the actions that will be undertaken in the framework of the present project for the sustainable and integrated governance of the natural and water resources of the Koliba-Corubal river basin.

? **Natural Resources Development and Management Project (OMVG), 2003-2010:** co-financed by the African Development Fund (ADF), the Islamic Development Bank (IDB) and OMVG member countries for an amount of US\$ 19.36 million, the project aims to increase agro-forestry and pastoral production, encourage the sustainable use of natural resources and improve social infrastructure, as well as the living conditions of the populations in the border areas of The Gambia,

Guinea, Guinea-Bissau and Senegal. The project enabled good management of natural resources in the target areas and improved the living conditions of 214,000 people and the sustainable development of 22,000 farms. In addition, it facilitated the restructuring of village communities by revitalizing associations, groups, cooperatives, etc. It also promoted greater collaboration between different administrations, local authorities and leaders of groups and associations, with a view to optimal management of shared resources and the resolution of local and regional problems of management and protection of natural resources (phytosanitary control and animal protection). Finally, the project has also promoted capacity building of existing operators and the emergence of small and medium-sized enterprises in order to reduce poverty and sustainably improve the living conditions of the population

The present Koliba-Corubal project will capitalize on the achievements and results of the Natural Resource Management Project, particularly the mobilization of stakeholders for a concerted and shared management of natural resources, the establishment of regional and cross-border synergies and complementarities. The achievements will thus facilitate the implementation of instruments and tools for the sustainable governance of Koliba-Corubal's natural and water resources.

? **The OMVG Energy Interconnection Project**, launched in 2017 for an initial period of 18 months, the project is in its final phase and is expected to be completed by the end of 2022. It concerns the four-member countries of OMVG: Gambia, Guinea, Guinea-Bissau and Senegal. The aim of the project is to contribute to the socio-economic development of the countries through increased access to electricity for the population. Therefore, the project focuses on the distribution of energy and the improvement of the quality of electricity supply in the OMVG member countries. Among other things, it aims to provide the population with a clean, renewable source of energy at a competitive cost and, above all, to increase access to electricity, expand the energy exchange system and create a regional electricity market. In terms of environmental sustainability, the interconnection project will significantly reduce the consumption of fossil fuels and consequently greenhouse gas emissions. It is additional to the Koliba-Corubal project given that it contributes to the reduction of the population's hold on the forests and, in the long term, to soil conservation and the reduction of erosion and, consequently, the fight against sedimentation.

? **Boké-Quebo road development and construction project (2019-2023)**. Financed by the African Development Fund and the Fragile States Facility for an amount of 117.19 million of Euros over 4 years, the project consists in the rehabilitation/construction/bituminization of the road between Boké (Guinea) and Quêbo (Guinea Bissau) and the rehabilitation of closely related tracks. It aims, among other objectives, to (i) improve the level of service of the Boké-Quebo road; (ii) remove some of the obstacles to the movement of goods and people linked to customs controls; and (iii) improve the accessibility and living conditions of the populations in the Project's Direct Influence Zone (PIDZ). It is complementary to the Corubal project in that it will facilitate the accessibility of production sites, the sale of various products from IGAs and the valorisation of local products by creating local value chain.

? **The ECOWAS Regional Electricity Access Project (ECOWAS-REAP) (Phase 1)**, funded by the World Bank for a total of US\$225 million, it concerns three countries, namely Gambia, Guinea Bissau and Mali. It aims to provide and increase access to the electricity network in the ECOWAS region, in particular the reinforcement and extension of the distribution network (MV and BT) in the

three countries, namely cross-border electrification in the national peripheries in order to ensure the supply of electricity to 152,000 households, thus covering nearly 1.1 million people. It is consistent with the present Koliba-Corubal project insofar as it contributes to some extent to reduce greenhouse gas emissions and achieving Land Degradation Neutrality.

? **SALTINHO Hydroelectric Project (PAHE SALTINHO): 2015-2017** (over a period of 18 months): The purpose of the project is to conceive, build and exploit a 20 to 54 Megawatt (MW) hydroelectric power plant on the Koliba-Corubal River, more precisely at Saltinho in Guinea-Bissau. The Saltinho Power Plant project is complementary to ongoing regional initiatives for energy supply, particularly in border areas. In this sense, it will be interconnected with the transmission line to Bissau, which will be built within the framework of the regional project of the Organization for the Development of the Gambia River (OMVG). In addition, the Saltinho hydroelectric power plant project has a green dimension insofar as it gathers several entities concerned with environmental issues such as UNIDO, GEF and ECREEE, the ADB to create a favourable environment for investments in renewable energy in Guinea-Bissau, and in particular to support the development of Saltinho, heart of Corubal. The total cost for the project is estimated at USD 83 million, of which the development phase is estimated at USD 3.30.

? **Integrated Water Resources Management Project for the G?ba/Kayanga Basin (OMVG) 2009-2013:** funded by the African Water Facility (AWF) for 1,585,000 euros (88% of the cost), by the OMVG for an amount of 176,000 euros (9.7% of the project cost) and by the Member States for an amount of 42,000 euros (2.3% of the project cost), the project aims to support the building of a dam in Composta in Guinea Bissau in order to strengthen the freshwater provision in the entire part of the basin located in Guinea Bissau. The construction of the Composta dam will at term ensure an annual fresh water supply of 123 million m³, postpone the saline upwelling (including Corubal), recover 1250 ha of mangrove, secure 1000 ha of lowlands suitable for rice cultivation. In addition, the project will strengthen the dynamics of water provisioning for populations and livestock, support the intensification of agricultural production, research and development on the ecosystems of the basin and related basins (e.g. Corubal), hydro-agricultural developments to limit deforestation around the catchment area. The project is planned to be initiated between 2020 and 2021 (not yet started). It could be complementary with the Koliba-Corubal integrated water resources management project, in particular in regards to shared and participatory governance, research and development of shared tools for the management of transboundary river basins, the improvement of water discharge and quality, the maintenance of biodiversity, the fight against the loss of ecosystems and species, the improvement of agricultural productivity and the living conditions of the riparian populations of the river basins.

? **Regional Partnership on Water and the Environment in West and Central Africa**[\[1\]](#), **2020-2024:** the overall financing cost is 13,865,000 of which 10,000,000 is financed by SIDA and 3,865,000 of co-financing mobilised by IUCN. The general objective of the PREE-ACO is to strengthen the resilience of natural ecosystems and local communities in the river and lake basins of West and Central Africa. Specifically, the project aims to strengthen the implementation of Integrated Water Resources Management (IWRM) and the resilience of communities and ecosystems in order to prevent and manage conflicts over the use of natural resources in the targeted river basins. The proposed project, entirely with PREE project, will achieve its objectives in Guinea Bissau, more

particularly by establishing adequate institutions in the Corubal river basin capable of regulating access to resources and resolving potential conflicts. It will also implement interactive mechanisms between the institutions in charge of managing the water resources in the Koliba-Corubal basin.

Ongoing and past projects at National Level

i. Ongoing and past projects in Guinea

? **Village Community Support Programme - 3rd phase (PACV3[2]2 2016-2020**, Funded by AFD for 15 million euros, PACV3 aims to strengthen local governance in rural areas of Guinea and promote the social and economic empowerment of rural populations, including women, youth and other vulnerable groups. PACV 3 has effectively improved the living conditions of the population and the economic development of rural areas through the financing of basic and commercial infrastructure, improved local governance through the professionalisation and greater transparency of the communes, and strengthened the social link and the legitimacy of the communal institution thanks to the principles of consultation and the participation of all, particularly vulnerable populations, including women, in the definition of issues and priorities and in the management of collective infrastructure. In addition, the project promoted the establishment of a local rural elite capable of promoting sustainable development (Local Development Agent - LDA) and the establishment of sustainable financing mechanisms (Local Investment Fund - LIF). In relation to the Koliba-Corubal project, PACV 3 will be entirely complementary to it, in particular on the aspects of mobilisation of local actors and sustainable financing of development processes.

? **Strengthening Vegetation Protection in the Republic of Guinea Project 2017-2022**, The objective of the project is to improve the protection of plants and foodstuffs stored in the country at all levels (centralised and decentralised) and to consolidate better phytosanitary coverage. The components of the project are: (i) consolidation of the regulatory system for plant protection; (ii) protection of plants and stored food; (iii) pesticide management and related issues; (iv) training and research; and (v) capacity building of the national plant protection laboratory. It is funded by the Arab Bank for Economic Development in Africa (BADEA) and the Guinean government. It is complementary to the Corubal project, particularly at the level of component 2, and should enable the reinforcement of actions against the abusive use of pesticides, particularly in the Koliba-Corubal catchment area.

? **Integrated Rural Development Project Gaoual Koundara Mali (PDRI-GKM)[3]3: ,** January 2019 - December 2024, Funded by the Islamic Development Bank (IDB) for an amount of USD 27,000,000.00 in the form of a loan, the main objective of the project is to assist the Guinean Government to ensure efficient and sustainable agriculture, contributing to the improvement of living conditions in rural areas. The main expected results are the sustainable improvement of the conditions of production, processing, conservation and marketing of agricultural products by increasing the income of producers, with a view to promote sustainable modes of development of the natural resources. The project has three (3) components, namely: A- Sustainable intensification of agricultural production; B- Access to post-harvest facilities and market linkages; C- Project management and coordination. It is complementary to the Corubal project as the planned activities in

the Gaoual, Koundara and Mali sites, embedded in the Corubal watershed, will reinforce the activities planned in component 2, particularly the promotion of sustainable production systems and soil conservation through the fight against stripping and erosion.

? **Family Farming, Resilience and Market Project in Upper and Middle Guinea [4]4 (AgriFARM) 2018-2024**, founded by International Fund for Agricultural Development (IFAD), the Organization of the Petroleum Exporting Countries (OPEC), and the Guinean government for an amount of US\$ 66.2 million, AgriFARM aims to sustainably increase the incomes of 65,000 family farms, their resilience to external shocks, including climate change, and to improve their nutritional situation, as well as their access to local, urban and regional markets in the 15 targeted prefectures of the regions of Upper and Middle Guinea, which are the most affected by food insecurity. The project targets young people and women as a priority, with the following effects: (i) Family farmers, including women and young people, increase their production and their capacity to adapt to external shocks, particularly climatic ones, in a sustainable manner (80% of households report an increase in production and the adoption of environmentally sustainable technologies and practices that are resilient to climate risk), (ii) Agricultural producers improve the commercialisation of their crops (30% increase in volumes of agricultural products marketed and 65,000 people report improved physical access to markets, processing and storage facilities). The project will contribute to reinforce the actions to be undertaken in the Koliba-Corubal project, in particular the implementation of pilot demonstration projects foreseen in component 2, in particular the management of 37,000 ha of sub-watersheds, the management of 6,000 ha of plains and lowlands; the capacity building of 30,000 farmers in improved and resilient farming techniques; the support to 50 producers' organisations to reinforce their services to their members at the market level; the support to 25 Water Users Associations at the level of the managed plains and sub-watersheds.

? **Rural Mobility and Connectivity Project (RMCP)**, The objective of the project is to reduce poverty and increase food security and improve the living conditions of rural populations, through the establishment of a functional network of rural infrastructure, sustainable and environmentally friendly transport, to achieve the MDGs of Guinea's NDP. It has two components: (i) rehabilitation of rural roads and small community facilities; and (ii) capacity building for maintenance and food security. It is funded by the World Bank and the Guinean government for a 5-years.

? **Strengthening livelihood resilience to climate change in the prefectures of Gaoual, Koundara Mali**: The project aims to strengthen knowledge of the effects of climate change, through the collection and processing of agro-meteorological information and data, the integration of climate change issues into the elaboration of local development plans and the improvement of the resilience of vulnerable populations through the adoption of adapted agricultural production practices and the reduction of poverty in rural areas. To achieve this overall objective, the project aims to deliver three specific outputs: (i) capacity building of local authorities and decentralised institutions; (ii) production and dissemination of agro-meteorological information to key stakeholders in the prefectures to support climate resilient agroforestry; and (iii) strengthening climate resilient community livelihood options in the prefectures.

? **Promotion of Sustainable Tourism Development in Badiar National Park 2017-2021:** funded by the Islamic Development Bank (IDB) for the amount of USD 3 541 423,23, the project will (i) establish necessary synergies between environmental and tourism activities, and (ii) innovate in the development and promotion of ecotourism in Guinea. Specifically, the project will promote sustainable development of tourism in the Badiar National Park as a mean for reducing the poverty in surrounding communities coupled with effective conservation measures and ecosystem preservations.

ii. **National projects in Guinea-Bissau**

? **The Agricultural and Rural Sector Rehabilitation Project [5]5 (PRESAR), 2006-2012, U.A 5 800 000:** The project aims to achieve food security and combat poverty in rural areas. More specifically, the project aims to improve rice and vegetable production, as well as the promotion of livestock. PRESAR covers the North, East and West zones of Guinea Bissau, namely the regions of Oio, Bafata, Gabu, Cacheu and Biombo. The project is consistent with the objectives defined in the National Poverty Reduction Strategy Paper (DENARP) and in the Agricultural Development Policy Letter elaborated in January 1997 and updated in 2002. The purpose of the project is to intensify and increase rice and vegetable production by rehabilitating 2,500 ha of lowland rice fields and mangrove forests, the exploitation of 200 ha of small market gardening areas for women, the rehabilitation of agricultural tracks and silos, the introduction of improved rice and vegetable seeds, and the introduction of new agricultural techniques. The project also proposes to provide support to the regional directorates of the MADR by training supervisory staff, procuring the necessary equipment, training members of rice producers' associations, technical training for women vegetable producers, and the provision of the necessary equipment. This project reinforces the Koliba-Corubal project, in particular component 2, which aims to set up pilot demonstration projects, in particular new cultivation techniques, valorisation of lowlands, support for greater productivity for women, setting up income-generating activities geared towards market gardening and valorisation of non-timber products.

? **Protected Areas and Resilience to Climate Change 2016-2022,** funded by European Union, with the amount of Euro 3 900 000. The overall goal of the GCCA+ project have been to reduce the vulnerability of the populations and improve their resilience to climate change by supporting the country in its recent efforts towards a low-carbon, climate-resilient development. The specific objective aimed to enhance national capacities to address climate change through the strengthening of governance systems and reduction of deforestation and forest degradation, mainly in the National System of Protected Areas (SNAP, as Portuguese acronym). Additionally, the action generated co-benefits, addressed others priorities and responded to pressing national needs by supporting knowledge-based decision making in land use for sustainable agriculture and forestry.

3 main components constituted the body of the project: (i) Capacity building, (ii) Mitigation: It includes the actions aimed at supporting the operation of PAs, as well as specifically reducing the level of deforestation in the SNAP and, (iii) Direct support to the functioning of IBAP activities: to protect biodiversity, raise awareness and moderate all conflicts with local populations (ex. maritime and land enforcement activities; regular meetings of the Internal and General Council for the

Management of Protected Areas; regular consultation and awareness-raising meetings with communities; annual meeting with users of forest resources; identification and geo-referencing of deforested areas; community reforestation schemes to increase the forest cover and to connect fragments of forest areas). The GCCA+ action also includes the development of monitoring, measurement, reporting and verification (M&MRV) capacities for the entire National System of Protected Areas (SNAP), including the updating of existing deforestation and carbon emission baselines and collection of field data for monitoring in the Cacheu and Cantanhez protected areas.

The actions and experiences acquired within the framework of the GCCA+ will be capitalised and completed by the Koliba-Corubal project, in particular in components 1 and 2. The capacity building carried out by the GCCA+ project will enable the establishment of a concerted and shared framework for enhanced transboundary cooperation and governance of the natural and water resources of Koliba-Corubal, the continuation of the dynamic of reduction of deforestation and forest degradation, mainly in the Guinean Bissau part of the river basin.

? **The Support Project for Value Chains and Agricultural and Rural Entrepreneurship (PACVEAR)[6]6** (November 2019 - October 2024), funded by FAT, with the amount of CFAF 8.607 billion. The objective of PACVEAR is to contribute to the improvement of the competitiveness of the value chains of the rice and vegetable sectors in order to promote inclusive and sustainable growth in the agricultural economy. The specific objective of the project is to improve the production environment of the rice and vegetable sectors and to promote enterprises in all links of the value chains of the targeted sectors to generate sustainable employment and increase the income of rural populations. With a duration of five years, PACVEAR is structured around three main components: (i) Improvement of the competitiveness of agricultural value chains (rice and market gardening); (ii) Promotion of agricultural and rural entrepreneurship and (iii) Project management. The Koliba-Corubal project has complementary interventions with PACVEAR, in Guinea Bissau part for the river basin. Many of the activities of component 2 of the Koliba-Corubal project are complementary to those of PACVEAR, namely in agriculture, value chain of different products.

? **Family Farming Diversification, Integrated Markets, Nutrition and Climate Change Project in Cacheu, Oio, Bafata and Gabu Regions[7]7 (RED?+), dur?e, founded by the FIDA,** the development objectives are: 1) to support the diversification of family farming systems resilient to climate change and to improve market access and food diversity in the regions of Bafata, Cacheu, Gab? and Oio, and 2) to promote rural entrepreneurship of young people and women and their integration into regional and sub-regional trade corridors in the same regions. Complementarities and synergies will be established in Component 2 of the Koliba-Corubal project and will focus on the diversification of agricultural system, in particular the adoption of climate change resilient systems and better natural resource management.

[1] Partenariat Régional sur l'Eau et l'Environnement en Afrique Centrale et Occidentale - PREE-ACO

[2] Programme d'Appui aux Communautés villageoises -3^{ème} phase

[3] Projet de Développement Rural Intégratif Gaoual Koundara Mali (PDRI-GKM)

[4] Projet pour l'Agriculture Familiale, Résilience et Marché en Haute et Moyenne Guinée

[5] Le Projet de réhabilitation du secteur agricole et rural

[6] Le Projet d'Appui aux Chaînes de valeurs et l'Entrepreneuriat Agricole et Rural (PACVEAR)

[7] Family Farming Diversification, Integrated Markets, Nutrition and Climate Change Project in Cacheu, Oio, Bafata and Gabu Regions

GEF PAST AND ONGOING PROJECTS IN BOTH COUNTRIES

Project name/Implementation Period/Cost/Location	Specific objectives of the project	Project Component	Country	Potential synergies	Founder/Implementing agency
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<p>Project name: Strengthening Climate Information and Early Warning Systems for Climate Resilient Development and Adaptation to Climate Change in Guinea</p> <p>Implementation period: 36 months since 02 March 2019.</p> <p>Total project cost GEF grant values (in Dollar US): 5,000,000</p> <p>Location: whole country</p>	<ol style="list-style-type: none"> 1. To strengthen the climate monitoring capabilities, early warning systems and information for responding to climate shocks and planning adaptation to climate change in Guinea; 2. To enhance capacity of national hydro-meteorological (NHMS) and environmental institutions to monitor extreme weather and climate change; 3. To develop a more effective, efficient and targeted delivery of climate information including early warnings to both planners as well as communities living on the fringes of climate induced pressures; 	<p>Component 1. Transfer of technologies for climate and environmental monitoring infrastructure;</p> <p>Component 2. Climate information integrated into development plans and early warning systems;</p>	<p>Guinea</p>	<p>? Exchange of meteorological information and improvement of development planning;</p> <p>? Improved planning of responses to extreme climate events and establishment of shared mechanisms for adaptation to climate change;</p> <p>? Partage de connaissance et d'outils de pr?vision et de gestion des crises climatiques.</p>	<p>GEF/UNDP</p>
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<p>Project name: Developing a Market for Biogas Resource Development and Utilization in Guinea</p> <p>Implementation period: 2018-2022</p> <p>Total project cost values (in millions FCFA ? donations and loans): 960,00, equivalent to 2,475,000.00 USD</p>	<p>Establish a functioning and effective market for the widespread use and commercialization of biogas technologies in Guinea.</p>	<p>Component 1. Policy, institutional, legal and regulatory framework for the use of biogas as a sustainable source of renewable energy;</p> <p>Component 2. Business supply chain for sustainable and affordable biogas technology;</p> <p>Component 3. Increased capacity/awareness of MFIs and consumers to adopt biogas technology to capitalise on the economic and environmental benefits that it provides.</p>	<p>Guinea</p>	<p>Share the natural resources valuation tools that will be developed under this project to allow their utilization within the DBT complex management.</p>	<p>GEF/PNUD</p>
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<p>Project name: SPWA-BD Mainstreaming Biodiversity in Mineral Governance in Guinea</p> <p>Implementation period: 2010-2014</p> <p>Total project cost GEF grant values (in Dollar US): 1,950,000</p>	<p>The project global environmental objective is to mainstream biodiversity conservation into the governance framework for the mining sector in Guinea.</p>	<p>Component 1: Reform of Policy, Legal, Fiscal and Regulatory Regimes</p> <p>Component 2: Establishment of Social and Environmental Regulatory Frameworks and Capacities</p> <p>Component 3: Institutional Capacity Building and Governance Strengthening</p> <p>Component 4: Regional Geological Data Collection and Dissemination</p> <p>Component 5: Development of economic linkages and diversification of activities in mining regions</p> <p>Component 6: Project management and coordination</p>	<p>Guinea</p>		
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<p>Project name: Strengthening Resilience of Farming Communities' Livelihoods against Climate Changes in the Guinean Prefectures of Gaoual, Koundara and Mali</p> <p>Implementation period:2013-2018</p> <p>Total project cost GEF grant values (in Dollar US): 3,716,364</p>	<p>To strengthen adaptive capacities of vulnerable populations in the prefectures of Gaoual, Koundara and Mali (GKM) to the additional risks posed by the increased intensity and frequency of drought.</p>	<p>1) Local Authorities are technically strengthened to promote climate resilient local development</p> <p>2) Climate change information systems are established to guide climate resilient agroforestry practices</p> <p>3) Climate resilient Agroforestry is promoted in the prefectures of Gaoual, Koundara and Mali to increase community livelihood resilience</p>	<p>Guinea</p>		
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<p>Project name: Increased Resilience and Adaptation to Adverse Impacts of Climate Change in Guinea's Vulnerable Coastal Zones</p> <p>Implementation period:2010-2014</p> <p>Total project cost GEF grant values (in Dollar US): 2,970,000</p>	<p>To increase protection of coastal areas and communities from climate change and variability.</p>	<p>Component 1. Developing individual, institutional and systemic capacity to respond to climate change in coastal zone areas.</p> <p>Component 2. Demonstration of climate risk reduction measures implemented in Boffa and For?cariah areas.</p> <p>Component 3. Developing national capacity to design integrated Climate Change Strategies and Plans.</p> <p>Component 4. Knowledge management, dissemination of lessons learned and replication of best practices.</p>			
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<p>Project name: Strengthening climate information and early warning systems for climate resilient development and adaptation to climate change in Guinea Bissau</p> <p>Implementation period: 2022 - 2027</p> <p>Total project cost GEF grant values (in Dollar US): 6,000,000</p>	<p>To strengthen the climate monitoring capabilities, early warning systems and information for responding to climate shocks and planning adaptation to climate change in Guinea Bissau</p>	<p>Component 1: Transfer of technologies for climate monitoring infrastructure</p> <p>Component 2: Climate information integrated into priority development plans and early warning systems to support the NAP process.</p> <p>Component 3: Monitoring, evaluation and knowledge management.</p>	<p>Guinea Bissau</p>	<p>Adaptation and mitigation joint initiatives within the DBT complex</p> <p>Systems and frameworks established for continuous monitoring, reporting and review of adaptation</p> <p>Systems and frameworks established for continuous monitoring, reporting and review of adaptation</p> <p>No. of institutions with increased ability to access and/or manage climate finance</p> <p>Institutional coordination mechanism created or strengthened to access and/or manage climate finance</p> <p>OUTPUT 2.3.1</p> <p>No. of people trained regarding climate change impacts and appropriate adaptation responses</p> <p>OUTPUT 2.2.5</p> <p>Private investment mobilized</p> <p>OUTPUT 3.3.2</p> <p>No. of people made aware of climate change impacts and appropriate adaptation responses</p>	<p>GEF/UNDP</p>
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				<p>OUTPUT 3.3.1</p> <p>No. of people trained regarding climate change impacts and appropriate adaptation responses</p> <p>OUTPUT 3.2.3</p> <p>Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential</p> <p>OUTPUT 3.2.2</p> <p>Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance</p>	
<p>Project name: Strengthening Operational And Financial Capacity For SNAP Management</p> <p>Implementation period: 2016 - 2020</p> <p>Total project cost values (in millions FCFA ? donations and loans): 1 382,66</p>	<p>Strengthening financial sustainability and management effectiveness of the national PA system in Guinea-Bissau</p>	<p>Component 1. Strengthening the financial framework of the national PA system</p> <p>Component 2. PA and buffer zone management in Cantanhez NP</p>		<p>Share and create synergy initiatives for sustainable financing systems</p>	<p>GEF/PNUD</p>

<p>Project name: Project to Strengthen the Financial Viability of the National System of Protected Areas in Guinea-Bissau</p> <p>Implementation period: 2018-2021</p> <p>Total project cost values (in millions FCFA - donations and loans): 196,79, equivalent to 7 355 000 ?</p>	<p>The specific objective of the project is to strengthen the financial viability of the country's biodiversity conservation efforts by making recurrent financial resources available for the management of the SNAP through the operationalization of the BioGuinea Foundation and the capitalization of its endowment fund.</p>	<p>Component 1. Operational implementation of the FBG, including a pilot grant granting operation, supported by the FFEM;</p> <p>Component 2. Initial capitalization of the FBG endowment fund;</p> <p>Component 3. Capitalization and evaluation.</p>		<p>Sustainable financing mechanism can be shared with the FGB and joint efforts can be done to fundraise</p>	<p>FFEM/FBG</p>
<p>Project name: Strengthening ecological connectivity in the Dulombi-Bo? Tchetché complex (DTB)</p> <p>Implementation period: 2022-2026</p> <p>Total project cost GEF grant values (in Dollar US): 4,773,101</p> <p>Location: National wide</p>	<p>Improve and sustain the ecological connectivity of the DBT Corridor and related transnational areas of Niokolo-Koba (Senegal) and Badiar (Guinea) by strengthening biodiversity conservation and improving sustainable land use.</p>	<p>Component 1: Governance and stakeholder's capacity building</p> <p>Component 2: Management and restoration of ecological connectivity corridor and wildlife mobility</p> <p>Component 3: Monitoring, evaluation, knowledge management and sharing</p>		<p>Shared reforestation initiatives within the DBT complex selected zones</p>	<p>European Union</p>

<p>Project name: Strengthening Cattle Resilience Facing Drought In Guinea-Bissau</p> <p>Implementation period: 2021 - 2025</p> <p>Total project cost values (in millions FCFA - donations and loans): 16 800,00</p> <p>Location: Entire region of Gab?, Bafata and Oio</p>	<ol style="list-style-type: none"> 1. Restructure the transhumance practices, strengthen the technical and organizational capacities and define the pastoral routes and transhumance corridors, along which will be installed hydraulic infrastructure (water reservoirs and human-powered drilling); 2. Stabilize families of pastoralists, particularly young people, through grazing development and the installation of local hydraulic infrastructures, in particular: <ul style="list-style-type: none"> (i) human-powered boreholes; (Ii) reservoirs dual purpose livestock-farming; 3. Share knowledge, disseminate lessons learned and replicate the project. 	<p>The strengthening of the regulatory framework for pasture management and transhumance will contribute for a better management of the corridors by determining specific routes of transhumance and development of water infrastructures that are essential to breeders, but also to other members of the communities in DBT complex, thus reducing the need to displace due to water scarce of water.</p>	<p>?</p>	<p>? Participative identification of geographical zones of DBT complex where the hydraulic infrastructures can be placed;</p> <p>? Definition of the transhumance routes according with the DBT corridors and sensitive zones of biodiversity.</p>	<p>FVC/BOAD</p>
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<p>Project name: Promoting Better Access to Modern Energy Services through Sustainable Mini-grids and Low-carbon Bioenergy Technologies Among Guinea-Bissau's Forest-dependent Communities</p> <p>Implementation period: 2021</p> <p>Total project cost GEF grant values (in Dollar US): 2,912,702</p> <p>Location: Regions along the Corrubal river</p>	<p>To promote investment and sustainable business models in both solar mini-grids and low-carbon bioenergy technologies.</p>	<p>Component 1. Policy and financial instruments and incentive scheme for solar mini-grids and low carbon bioenergy technologies</p> <p>Component 2. . Capacity building for mini-grid and low-carbon bioenergy</p> <p>Component 3. . Mini-grids and low-carbon bioenergy technologies roll-out</p>		<p>The knowledge management can be a strong synergy with the connectivity project, especially in what concerns development assessment.</p>	<p>GEF/UICN</p>
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Gap analysis

The analysis of past and/or ongoing projects and programmes in the region where is located the Koliba-Corubal basin reveals that :

- o Projects dedicated to transboundary river basin governance are limited in number, and non-existent for the Koliba-Corubal river basin. The initiatives implemented are more oriented on environmental restoration and conservation, integrated rural development, etc. ;
- o The projects implemented are partial and do not cover the whole basin;
- o Past or ongoing interventions to address land degradation factors which is increasing in the Basin and affecting the availability of all natural and water resources, biodiversity
- o Fragmented and unsustainable management of land and natural resources;
- o Insufficient coordination, complementarities and synergies in the different interventions at river basin level ;
- o Insufficient knowledge and informations of the ecosystems and water resources of the river basin;
- o Limited capacity to implement ecosystem and integrated approaches to natural resource and water management, biodiversity conservation and climate change adaptation. Therefore, many restoration and SLM interventions are fragmented and discontinuous in their implementation;
- o Weak application and implementation of land use and natural resource management policies;
- o Generalization of sectoral interventions in the river basin;
- o Limited private sector engagement, which impacts the adoption of sustainable practices;
- o Absence of knowledge management platforms related to shared water resources at national and regional levels;
- o Insufficient capacity of relevant ministries at the regional level to establish efficient relationships between government and local users and to effectively implement national strategies and plans at the local level.

Therefore, the proposed project for natural and water resources management in the Koliba-Corubal river basin leans on past and planned actions and initiatives and mainly aim to enable good-shared water resources governance and integrated management for the sustainability of the shared resources under a changing climate.

The in-depth analysis of the baseline and the synthesis of the main points shows that the shortcomings or gaps are numerous and diversified and prevent a sustainable and integral governance of the water and natural resources of Koliba-Corubal. Overall, four types of gaps appear and consist of :

? **Conceptual gaps**, i.e. insufficient understanding of the cause and effect relationships between the factors, uses, pressures, states and impacts of the degradation of biodiversity and the decrease in the quality and quantity of water resources in the river basin. The non-establishment of formal causality between the different facts hinders the implementation of adequate and effective measures to improve the governance of natural and water resources in Koliba-Corubal. This insufficient understanding is aggravated by the unavailability of studies on the basin or their very partial nature. In this sense, the intervention measures taken or recommended are biased and inappropriate because they are based on insufficient and inappropriate information. Consequently, the theoretical and conceptual models developed for the sustainable governance of the Koliba-Corubal resources are also inadequate and need significant improvement.

? **Information and data gaps**, i.e. insufficient and partial information and data on Koliba-Corubal (hydrological, environmental, ecological, pedological, geomorphological, ichthyological, socio-economic etc.). Fragmentation and bias of data impact the planning and implementation of efficient water resources governance measures in Koliba-Corubal. Indeed, the gaps prevent the establishment of a robust monitoring and evaluation system for the water resources of Koliba-Corubal, the creation of a quantitative and qualitative database of the real resources and potentialities of Koliba-Corubal and the proposal of measures to reduce governance problems and ensure the sustainability of the ecological services of the Koliba-Corubal river basin;

? **Policy, governance and sustainable development gaps, i.e.** the lack of an adequate political, technical and governance response (including actions to restore degraded catchment ecosystems, political and technical instruments for cooperation and management of natural and water resources, integrated sectoral water policy frameworks, spatial planning and governance policies). The gaps in policy and governance have negative repercussions on the dynamics of the catchment area and constitute the main barriers to integrated and sustainable governance of the Koliba-Corubal water resources. The absence of strong political measures (laws, charter, management plan, joint water management agencies, etc.) hinders the implementation of sustainable governance measures for the water resources of Koliba-Corubal.

? **Financial gaps**, i.e. the lack of financial resources allocated to the management of natural and water resources in Koliba-Corubal (state funding, private funding, donations from development partners) to ensure integrated and sustainable governance of natural and water resources in Koliba-Corubal. The unavailability of financial resources also impedes the allocation of qualified human resources for the effective implementation of measures and actions for sustainable governance of shared water resources.

The add value of the GEF funding will as shown in the table below, allow to address these gaps individually. In addition, the GEF funding will reinforce the effectiveness of policy responses to address water governance in the Koliba-Corubal river basin.

Table: Gaps and the GEF add value to strengthen water governance in the Koliba-Corubal river basin

Gap type	Add valuing of GEF financing to address GAP
Conceptual gaps	<ul style="list-style-type: none"> ? Establishing linkage between the various factors of degradation and loss of biodiversity, natural resources and water in the Koliba-Corubal river basin ? Strengthening knowledge base for establishing the magnitude of the problem of water ? Availability of theoretical frameworks with establishing right linkage of different drivers, evolution and impacts on water resources; ? Addressing conceptual gaps for efficient planning and execution of share water governance policies and initiatives. ? Shared understanding of river basin problem and challenges.
Information and assessment gaps	<ul style="list-style-type: none"> ? Collect and elaborate data base for the River basin ? Establishment of knowledge data base for the river basin ? Strengthening knowledge on land use practices and impacts; ? Creation and operationalisation of a knowledge management platform for all data and information to be collected; ? Elaboration of TDA in whole river basin; ? Elaboration and implementation of a SAP; ? Building a robust monitoring and evaluation systems for the whole river basin. ? Reinforcing the current knowledge on underlying effects and causes of the river basing threats.
Policy, governance and implementation gaps	<ul style="list-style-type: none"> ? Strengthen policies related to shared water resources governance; ? Elaboration and adaptation of common measures to strengthen water resources governance; ? Establish specific regulatory targets; ? Strengthen the implementation of measures and actions focusing on drivers; ? Strengthen collaboration and cooperation between the two countries; ? Establish monitoring regulatory rules to better supervise water resources; ? Built instruments and mechanism for mobilising funds for shared water resources governance; ? Encourage the participation of private society in water resources sustainable governance; ? Promote new water rights regimes (flexibility), ? Strengthen land use policies to better influence economic good practices and sustainability.
Economic and financial gap	<ul style="list-style-type: none"> ? Develop financial strategy for mobilisation of fund ? Mobilise private sector

A.3 Proposed alternative scenario and brief presentation of expected outcomes and output of the project

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The resolution of all the problems facing the Corubal river basin requires immediate action to address (i) the legal and institutional vacuum related to the management of a shared water resource, (ii) the lack of a technical-institutional framework for cooperation, management and shared experiences on the management and governance of shared resources, (iii) the key factors contributing to the loss of biodiversity in the basin, land degradation and the loss and/or reduction of water resources in the basin, and (iv) to propose alternatives for sustainable governance of natural and water resources and climate-smart activities adapted to the sustainable use of natural resources in the river basin. In response to the above challenges, this GEF project aims to assist both countries in laying the foundations for collaborative and integrated management of the Corubal river basin for better adaptation to climate change and sustainable socio-economic development.

The project will therefore focus on water governance, which is one of the fundamental causes of the current situation of loss and degradation of water resources in the river basin. Indeed, by opting for this strategy, the present GEF project aims to address all the technical, institutional, operational, social, economic and environmental issues related to the use of natural resources, and which in return negatively affect water governance and the establishment of a solid and operational transboundary IWRM. In addition, the project will address other factors such as access and use of resources that limit IWRM. The proposed project will lay the foundation for improved water governance that will act as a catalyst to reverse negative trends and break the causal chain. (as seen in the Theory of Change diagram below).

The strategy is therefore based on the TDA/SAP process, which is the main tool for diagnosis, planning and sustainable governance of water resources in the Corubal river basin. [Based on the guidance provided for the TDA/SAP process on the GEF IW:LEARN website.](#) a detailed participatory diagnosis will highlight the main threats, potentialities, governance tools and mechanisms for sustainable financing of the strategic action plans. The aim is to have a formal binding instrument (the SAP) that presents an adequate balance between the technical, social, gender and political dimensions of transboundary water resources management. Furthermore, it is envisaged that the SAP will be the basis for future actions at local, national and bi-national levels.

To complement the TDA/SAP process, the project will develop and implement:

? Some pilot demonstration activities to address/support (i) the problem of resource degradation, especially land degradation due to bad practices, especially in agriculture, (ii) the problems of lack of financial and nutritional resources due to climate change, declining agricultural productivity, water control in the watershed, and (iii) the lack of monitoring and control of the activities developed in the watershed. A framework for sharing practical experiences and knowledge to generate knowledge on water and natural resources governance.

As mentioned, the project is designed to support an integrated approach in the planning and management of the Koliba-Corubal River Basin and its tributaries and depended wetlands. It will not only promote the principles of Integrated Water Resources Management (IWRM) within the two

Guineas but will generate significant environmental benefits to the region and potential global benefits through demonstration of integrated approaches to freshwater basin and wetlands. The proposed project actions have the potential not only to influence the lives and livelihoods of the inhabitants of this river basin, but also to affect global biodiversity by hosting several species of migratory birds, improving the quantity and quality of fresh water to the wetlands and Ramsar sites in Guinea Bissau particularly.

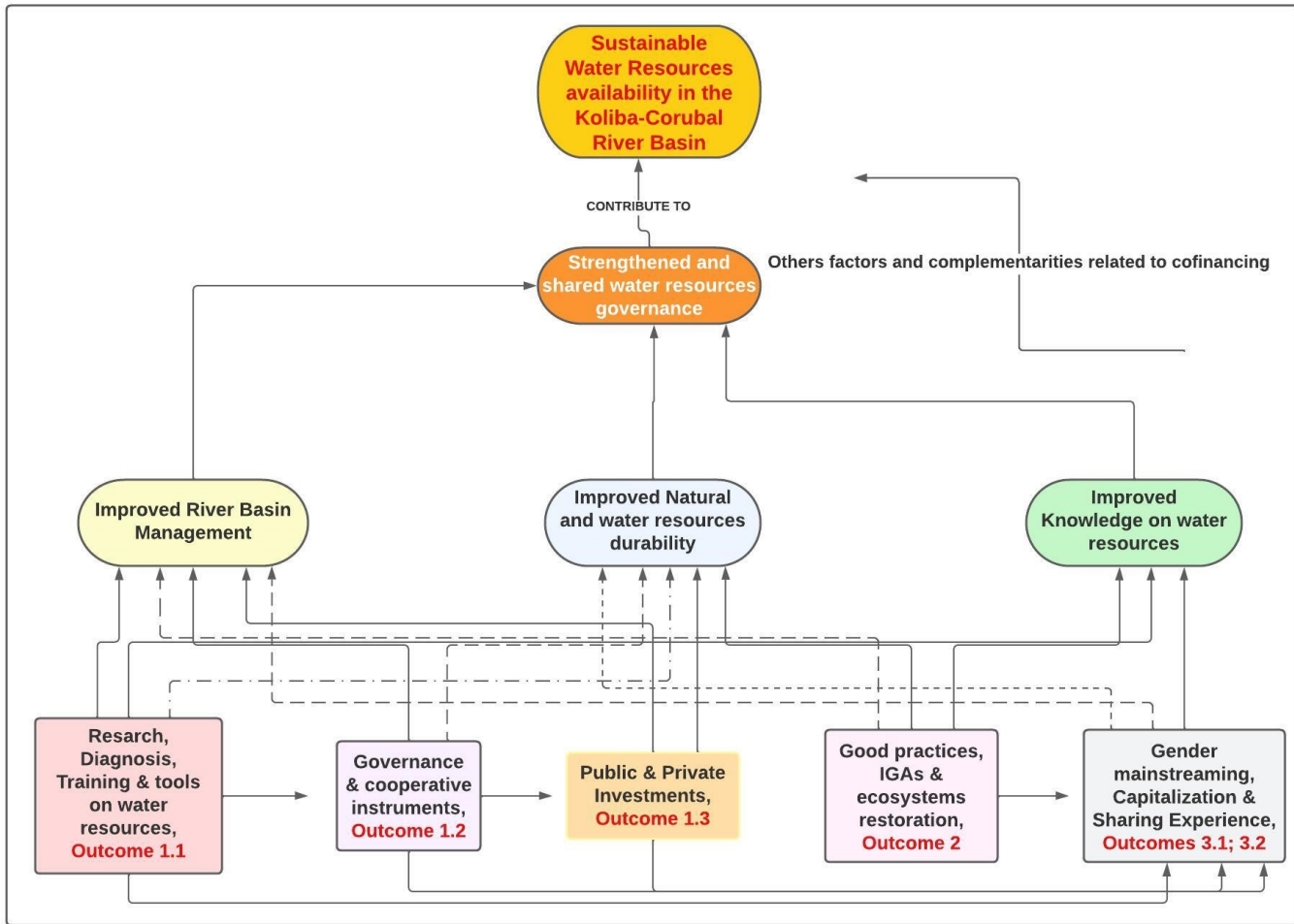
Water security in the basin is increasingly threatened and the degradation of its ecosystems continues at an alarming rate. Furthermore, the effects of climate variability and change in the basin are introducing additional uncertainties into efforts to achieve water, food and energy security and protect ecosystems. The Koliba-Corubal Project aims to respond to this complex set of challenges by establishing a common and shared vision to protect and manage water and natural resources, by strengthening capacities of institutions and people in the basin, and by implementing new vision of change through concret actions on the ground.

The envisaged theory of change is based on the triptych (a) if the improvement of water governance (e.g. multi-level dialogue) is done, (b) if legal and policy cooperation mechanisms and instruments are co-elaborated and adopted, (c) if pilot projects for good governance and improvement of resources use are adopted, then the quality and quantity of water and natural resources in the Koliba-Corubal river basin will be improved for the sustainable development and adaptation to climate change

The project will be a catalyst that will contribute to: (i) establish a common vision based on shared and integrated water resources management, (ii) establish joint planning to guide future actions at binational, national and local levels, and (iii) mobilise and involve key stakeholders for integrated transboundary management, (iv) implement demonstrative projects for future governance and sustainable management of Corubal's water resources. The project will strategically allocate GEF resources to (1) develop a participatory process to generate an integrated diagnosis of the current situation in the catchment area (i.e. TDA) and a formal strategic planning instrument adopted by both countries (i.e. SAP), (2) Establish and improve governance and cooperation instruments (revised and ratified 1978 agreement, mixed commission established), and (3) define strategies for mobilising financial resources for improved governance and implement pilot demonstration projects throughout the river basin.

All these actions will be carried out through three components:

- i. Evaluation and planning of the development of the Koliba-Corubal River Basin and strengthening of its Governance
- ii. Implementation of demonstration projects (at the country and basin levels) for the management of natural and water resources and the improvement of beneficiaries' incomes.
- iii. Knowledge Management, Monitoring and Evaluation, and Communication.



Project theory of change

Project objective and expected impact

The main objective of the project is to: "Contribute to the integrated and sustainable management of natural and water resources of the Koliba-Corubal river basin through enhanced transboundary cooperation and governance". In other words, the project objective is to secure long term and sustainable economic development throughout the Koliba-Corubal River Basin. Also, the project aims to address the main barriers^[1] affecting water resources governance.

In addition to the main objective, four sub-objectives are targeted:

Sub-objective 1: Strengthen the river basin's management policies and legal frameworks.

Sub-objective 2: Promote sustainable actions for the shared use of water resources, environment protection and ecosystems restoration.

Sub-objective 3: Develop a mechanism to ensure the financial sustainability of the Koliba-Corubal governance.

Sub-objective 4: Improve and facilitate the production and sharing of knowledge. that consider different future climate scenarios.

On one hand, the project will strengthen the governance and institutional context of the Corubal Basin by leading to the signature of the transboundary diagnostic analysis and a strategic action plans at the Ministerial level. This will support the establishment of a river basin commission. In doing so, the project will be additional and complementary to the work already undertaken by the countries, which led to the signing of a transboundary agreement in 1978 related to the management of the basin. On the other hand, the project will set the basis for having a sustainable mechanism related to restoration of ecosystems. For achieving this, and mainly under component 2, the project will develop tools and activities, which will contribute to implementing improved land practices over 667,000 hectares and restore 26,562 hectares of land. In addition to the dissemination of techniques and trainings on improved practices, the project will enhance the involvement of the private sector and enterprises in relevant sector in the basin through the development of an innovative financing mechanism. This specific activity will be the condition for ensuring sustainability of the project's activities beyond the project life. These two sets of activities will be strengthened by a cross-cutting knowledge component, which will inform stakeholders on best practices at both the national and regional levels.

The project should therefore lead to achieve the following outcomes:

- ? Outcome 1.1: Threats and development potential of the Koliba-Corubal River Basin (KCRB) are assessed and planned.
- ? Outcome 1.2: The governance and cooperation framework for the KCRB are improved.
- ? Outcome 1.3: Funds required to implement the Strategic Action Plan (SAP) are mobilized.
- ? Outcome 2.1: Integrated water resource management and sustainable land use promoted by improving practices in the use of 667,000 hectares of land, including protected areas, and promoting the restoration of 26,562 hectares of land.
- ? Outcome 2.2: 264,000 people (164,000 women and 100,000 men) benefit from land restoration and improved land management practices, providing the mitigation potential for 226,100,881 tCO₂-e.
- ? Outcome 3.1: Project results are known and disseminated at regional, national, and basin levels.
- ? Outcome 3.2: Lessons learned and good practices from the project are disseminated for replication and scaling up.

[\[1\] \(i\) weak institutional governance, \(ii\) non-relevance of existing policy and legal frameworks, \(iii\) environmental degradation and unsustainable land use, and \(iv\) insufficient scientific knowledge produced on the watershed.](#)

Project components, their expected outcomes, and outputs

To achieve the objective set and the expected impacts, the project will be implemented through 3 components described below, each with their outcomes, and outputs (in accordance with the results framework described in annex A).

Component 1: Evaluation and planning of the development of the Koliba-Corubal River Basin and strengthening of its Governance.

The KCRB has no assessment of the state of natural resources, including water resources. As a result, there is no integrated basin resource management plan to direct and coordinate investments in an informed manner. This first component will fill this gap by achieving outcomes described below.

In this component (and in connection with components 2 and 3), the project will enable stakeholders in the two countries obtain the knowledge, means and planning tools necessary for an integrated management of the natural and water resources of the basin by addressing current problems, and threats to the sustainability of the products and services of the basin on which local populations depend. (See sections on global problem/threats, above, for a description of these issues and threats.).

The means and tools discussed here for the sustainable development of the KCRB include a TDA, an SAP, and appropriate policies, laws, and governance institutions. In terms of policies and laws, the component 1 will support the revision of the water code, the water law and particularly (i) the establishment of national policies for integrated water resources management (IWRM) and, (ii) the development of an action plan that prioritises the consideration of cooperation on shared river basins.

The outcomes and outputs of this component are as follows:

Outcome 1.1: Threats and development potential of the KCRB are assessed and planned.

The project will carry out a transboundary diagnostic analysis of the basin that will provide, the data, and information needed to develop the knowledge necessary for appropriate decision-making and investment for the sustainable development of the basin, as a whole, for the benefit of the two countries concerned and the rest of the world through local, national, and global benefits.

The TDA will be developed with the support of [the guidance provided on the IW:LEARN website as well as](#) selected IUCN tools such as the Restoration Opportunity Assessment Methodologies (ROAM) and the Red List of Ecosystems. The TDA preparation will improve the collection and sharing of data, information, and knowledge to improve the quality of water resources and related ecosystems.

Concerning the process of elaboration of the TDA, a participatory approach is envisaged, including all relevant actors in both countries. The first step consists in identifying and constituting a multi-stakeholder technical committee for the elaboration of the TDA. This committee will be composed of institutional, economic and technical actors, development partners, and territorial development actors, both at the central level of the States and at the decentralised or deconcentrated level, directly linked to the issue of water and natural resources or any other territorial policies. After its establishment, the process of elaboration of the TDA will directly tackle a preliminary analysis of the situation through a workshop where the current data and the methodology for the elaboration of the TDA will be discussed. Secondly, the project will conduct an in-depth cross-border review involving key and indispensable stakeholders as needed and at every stage. The diagnostic study will be as comprehensive as possible and will review all the issues related to shared resources such as the situation of ecosystems, the situation of natural and water resources, the place and role of stakeholders in the management and use of natural and water resources, the gender issue in the use of natural and water resources, the root causes of the degradation of water resources and their poor governance, the causal links between the various existing problems etc. The project will connect with Vigilife

(<https://www.vigilife.org/en/vigilife-corubal-2022-en/>) to ensure the exchange of valuable information from their 2022 expedition in the Corubal to assess biodiversity. The hope is to review the possibilities to engage them partly as consultants in the TDA process.

In addition to the data collection phase, the analysis and discussion of the data will be engaged with all stakeholders in the whole river basin, i.e. in both countries. The analysis will establish the different causal relationships that impact the dynamics of the water resources in the river basin. This step will also highlight the actions and priorities to be undertaken, the gaps and recommendations for the development of the SAP. Finally, a validation phase of the produced document will be held including all stakeholders in both countries through a workshop preceded by technical input of all relevant stakeholders.

In addition, the project will support the identification of degraded areas and the definition of restoration measures to better monitor water flows and be aware of water quality in the basin. The development of the TDA will be carried out in a collaborative and cooperative manner between the various stakeholders.

Following the TDA preparation process, a Strategic Action Plan will be developed for the entire basin, using the guidance from the GEF IW:LEARN website on TDA/SAP process. The preparation of this SAP will also be done through a participatory process involving all stakeholders at the local, national, and transboundary levels, and through a negotiation mechanism to build consensus that can ensure the sustainability of development initiatives in the basin in the present and future.

This outcome will be achieved through the following outputs.

Output 1.1.1 A TDA of the basin approved by both countries.

Output 1.1.2 A SAP approved and signed at the ministerial level by both countries.

Outcome 1.2: The governance and cooperation framework for the KCRB are improved.

The achievement of this outcome will involve preparation of governance and cooperation frameworks between the two countries for the sustainable management of natural and water resources. This work will be informed and carried out in parallel with the TDA/SAP process described above. Work carried out for this outcome will support the establishment of a basin management commission between the two countries, and in liaison with OMVG's governance system.

Through this outcome, the project will also strengthen the capacities of the two countries to coordinate basin planning and management considering the perspective of various relevant actors of different sectors (energy, water supply, agriculture, fisheries, mining, natural resource, forest management?etc.). To do this, project activities will build on the initial agreement signed in 1978 between the two countries, which will be revised. The regulatory framework that will allow a transboundary management of the basin will also be examined under this outcome.

The following products will be developed for a strengthened governance of the basin as a whole and in keeping with its transboundary nature.

Output 1.2.1 Approval at the ministerial level of an updated and revised version of the agreement between the two countries on the management of the KCRB signed in 1978.

Output 1.2.2 Establishment of a KCRB Management Commission between the two countries.

Outcome 1.3: Funds required to implement the SAP are mobilized.

This last outcome of this component is very critical. Indeed, the success of the project depends essentially on the mobilization of the funds needed for the implementation of the SAP, and the strengthening of governance capacities in a follow up phase. Otherwise, the preparation of the TDA and SAP, and the strengthening of the basin's governance will not lead to expected results because the preparation of these tools is a necessary but not sufficient condition as execution will be lacking. To avoid a significant gap between the planning phase, which is this project, and the full-scale implementation phase (of the SAP) which should follow, the full achievement of this outcome before the end of the project is of utmost importance.

This expected outcome of the project will focus on the creation of a framework that includes a financing mechanism to support the sustainable development of the basin, considering the needs of the two countries to ensure coordinated sustainable development in the basin. Indeed, it is essential that the development of the basin is not based solely on public finances, but that a framework or mechanism that will help entrepreneurs invest in sustainable practices is established and set for the long term.

This outcome will be achieved through the development of the following outputs.

Output 1.3.1 A successful resources mobilization strategy (developed and carried out) for the implementation of the SAP covering various sectors relevant to the basin.

Output 1.3.2 An innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin.

Component 2: Implementation of demonstration projects (at the country and basin levels) for the management of natural and water resources and the improvement of beneficiaries' incomes.

This component focus on achievement of two main results: (i) the practices improvement of 667,000 hectares of land, including protected areas, and the restoration/ recovered of 26,562 hectares of land, (ii) benefit for 264,000 people (164,000 women and 100,000 men) by restoration of land and improvement of land management. This component will support the two states and the entire inhabitant of the Corubal basin to adopt best practices in land use and even to reform land use systems. At the same time, this component is fully consistent with countries target consisting on restoration of land and achievement of land neutrality by 2030. For example it is consistent with Guinea-Bissau target of restoring 40,000 ha of lands by 2030 and Guinea proposed objective to increase forest areas by 150,000 ha as the country's Intended Nationally Determined Contribution (INDC) under the Paris Agreement.

Specifically, this component will focus on the capacity of stakeholders to change and adopt new behaviour related to their manner they use land and also improve the stakeholders capacities to conserve and/or restore biodiversity in the basin, to implement sustainable development initiatives through the basin, to strengthen the capacity of stakeholders to achieve food security, strengthen adaptation to climate change and to address international targets related to land restoration and biodiversity. The purpose of this component is to adopt new paradigm in land and ecological service used around the river basin. The main activities with strong impacts in the biodiversity and water resources governance are selected and will be applied new way of doing with particular focus on women.

Through this component, the project will test and demonstrate innovative practices for the sustainable management of the basin's resources, which will be scaled up later in the implementation phase of the SAP, which will follow the current project. Indeed, the activities undertaken in the river basin are slash-and-burn agriculture, fishing, livestock rearing, bee-keeping, gathering, and the production of fired clay bricks. As practised, they all have consequences for ecosystems and the governance of the natural and water resources of the river basin (see above). Therefore, this component is intended to continue the implementation of these activities while making them sustainable. Concerning agriculture, the aim is to implement pilot demonstration activities throughout the basin, consisting of sustainable use of lowlands and Wendus. The implementation of this activity in areas where agriculture has caused significant negative impacts on ecosystems will serve as a catalyst for ecosystem and land restoration. The Ministries of Agriculture of the two countries will be the main institutional partners for the implementation of this pilot demonstration initiative which will have two main goals (i) to restore ecosystems and conserve biodiversity by improving techniques for the valorisation of natural resources, in particular land; (ii) to achieve sustainable development and better adaptation to climate change by increasing community income and diversifying production.

With regard to livestock, the project, through the component, will support the identification and establishment of pasturelands to limit the effects of stamping on the species and land degradation. Indeed, the Corubal river basin is an important pastoralist hub with several hundred thousand head of livestock. This activity will be implemented in close collaboration with the Ministries of Livestock and Regional Planning. Farmers will be mentored and provided with additional skills in dairy product development, the meat value chain, including the establishment of slaughter and meat distribution circuits along the stampings, mainly at road junctions. The aim is to create an economy that is not based on the exploitation of natural resources.

With regard to fisheries, the focus will be on providing fishermen with sustainable fishing tools and instruments, improving the capacity for sustainable conversion of fisheries resources. These initiatives will also encourage the engagement of populations and other stakeholders at the local level, especially through the implementation of small projects that provide initial solutions to livelihood problems they face (including the fight against poverty in a sustainable way).

The aim will be to support innovative projects that reduce negative impacts on water resources, both in terms of quantity and quality, and ecosystems of the basin. These initiatives will focus on sectors that have been identified that cause degradation of the basin's resources, such as agriculture, energy, fisheries, mining, logging etc.

This component will support small and medium-sized enterprises of local communities, the private sector, NGOs, and decentralized services that will have positive impacts on the management of the basin's resources to contribute to the preservation of its ecosystems' products and services. The actual projects and their funding modalities (subsidy or credit) will be defined during the implementation phase of the project based on the types of projects identified. Detailed feasibility studies will be conducted for each project regarding various technical and financial aspects, as well as the economic, environmental, and social impacts.

The outcomes and outputs of this component are as follows:

Outcome 2.1: 667,000 hectares of land, including protected areas, benefit from improved practices and 26,562 hectares of land are recovered.

This Outcome focuses on the restoration, conservation and improved governance of ecosystems throughout the catchment. The aim is to restore the degraded ecosystems and lands along the main course of the Corubal River to immediately stop the effects of sedimentation and erosion that are altering water quality and quantity, and to improve ecosystem governance and land use in the entire Corubal catchment. At the level of protected areas, this Outcome will focus on strengthening governance, supporting actions and activities for the assessment, restoration and conservation of ecosystems, in particular riparian forests. Finally, this Outcome aims to maintain the intact ecosystems of the river basin, to restore degraded ecosystems and above all to restore the land to maintain productivity, stop erosion and sedimentation, and maintain the hydric, ecological and economic capacities of the Corubal.

Output 2.1.1 Development of at least 200 ha of lowlands and alluvial plains, and valuation of family farmers production.

Output 2.1.2 Protection and recovery of at least 20,000 hectares of sensitive and/or degraded areas of the basin.

Output 2.1.3 Demonstration of sustainable management practices for grazing land and agroforestry.

Output 2.1.4 Demonstration of sustainable fisheries management practices.

Outcome 2.2: 264,000 people (164,000 women and 100,000 men) benefit from land restoration and improved land management practices.

This Outcome is an extension of the previous one and focuses mainly on the well-being of the populations. The aim is to introduce improved land use practices in the target areas that consider the immediate satisfaction of community needs on the one hand and the restoration and/or limitation of land degradation in economic activities on the other. The introduction of improved practices will thus increase the income of the populations and at the same time reverse the negative dynamics that affect the sustainable governance of the natural and water resources of the Koliba-Corubal watershed.

Output.2.2.1 Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes.

Output 2.2.2: "Support the implementation of sustainable Income Generating Activities (Improved beekeeping, Valuation of non-timber forest products, vegetable gardening).

Component 3 - Knowledge Management, Monitoring and Evaluation, and Communication

This component has two outcomes, the first is aimed at generating experience and lessons on key issues of the transboundary basin, and the second is intended at capturing and disseminating the project results, lessons and experience. This task will be the particular responsibility of the project executing agency (OMVG) and the implementing agency (IUCN). The two entities will be in charge during the project cycle of capturing, grouping, synthesising good practices, technical itineraries, successes and documenting them in the form of reports, posters, videos, brochures or papers to then disseminate and share them with state institutions linked to water and natural resources management, development partners, decentralised local authorities, populations of the river basin, research and higher education institutions, public and private communication media. Concerning the communication organs, the emphasis will be much more on iconographic productions such as posters, videos etc. A major constraint for a sustainable management of the basin is the lack of knowledge about its functioning, products and services, and internal and external factors affecting it.

In addition, the project will generate knowledge on the state of natural resources and communicate it to the population and key stakeholders of the river basin, and introduce the population and stakeholders to the different ways of generating knowledge on natural resources and landscapes. In this sense, the project will rely on components 1 and 2 which it will support. Indeed, the TDA, the SAP, and the demonstration projects will need the outcomes and products of this component for their successful implementation.

Tools developed at the local, national, and international levels by different actors of the project including [the guidance provided on the IW:LEARN website as well as](#) IUCN tools such as the Restoration Opportunities Assessment Methodology (ROAM) and the Red List will be used, based on best practices. Findings of several ongoing and upcoming studies of OMVG including that on its ?Development Master Plan? will also be used in this component. This component will promote involvement of key stakeholders in informed decision-making for the implementation of various project activities including those related to the TDA/SAP. It will also disseminate results and best practices at the community level, but also to other countries in the region and beyond. The latter will be done by having the project contribute to IW-Learn. This will be essential to ensure local ownership, but also to influence similar actions in other basins.

With regard to capacities building, this component will be helpful more particularly for the rangers and national institutions linked to protected areas, water resources governance, urban and regional planning, and even development partners. It will allow to these stakeholders to be able to know threats, opportunities and challenges for water resources governance and sustainable development.

Outcomes and outputs of this component are as follows:

Outcome 3.1: Project results are known and disseminated at regional, national, and basin levels.

This Outcome specifically aims to collect, store and disseminate the results achieved by the project. This includes the whole process of documenting, archiving and monitoring the actions and activities undertaken in the framework of the project. This Outcome will focus on the process of learning, implementation of biodiversity restoration and conservation actions, capacity building and stakeholder engagement.

Output 3.1.1 A project monitoring and evaluation system is elaborated and implemented..

Outcome 3.2: Lessons learned and good practices from the project are disseminated for replication and scaling up.

Output 3.2.1 Key experience and lessons learnt are compiled and widely disseminated.

Output 3.2.2 Project contribution to the GEF IW-Learn platform (1% of the project).

Output 3.2.3 A gender equity, women's empowerment and mainstreaming plan.

A.4 Alignment with GEF focal area and/or program strategies

The project is consistent with, and supportive of GEF-7 (2018-2022) Objectives related to the International Waters? focal area, in particular IW- Objective 3-5: Advance information exchange and early warning, IW- Objective 3-6: Enhance regional and national cooperation on shared freshwater and groundwater basins, IW-Objective 3-7 Investments in water, food, energy and environmental security. The table below outlines how the project outputs contributes:

Focal area	Related project outputs
<p>IW- Objective 3-5: Advance information exchange and early warning.</p>	<p>Output 1.1.1: A TDA of the basin approved by both countries.</p> <p>Output 3.1.1. A project monitoring-evaluation system is developed and implemented</p> <p>Output 3.2.1. A Communications and knowledge management strategy developed and implemented, including information sharing</p> <p>Output 3.2.2. The project contributes to the IW-Learn platform of the GEF (1% of the project)</p> <p>Output 3.2.3. Valued knowledge for national and local capacity building in land and water resources management.</p> <p>Output 3.2.4. Best practice guidelines for IWRM, including guidelines for water flow management, erosion control, pollution reduction, and protection of critical flora and fauna.</p>

<p>IW- Objective 3-6: Enhance regional and national cooperation on shared freshwater and groundwater basins</p>	<p>Output 1.1.2: A SAP approved and signed at the ministerial level by both countries.</p> <p><u>Output 1.2.1</u> Approval at the ministerial level of an updated and revised version of the agreement between the two countries on the management of the KCRB signed in 1978.</p> <p><u>Output 1.2.2</u> Establishment of a KCRB Management Commission between the two countries</p>
<p>IW-Objective 3-7 Investments in water, food, energy and environmental security.</p>	<p><u>Output 2.1.1</u> Development of at least 200 ha of lowlands and alluvial plains, and valuation of family farmers production.</p> <p><u>Output 2.1.2</u> Protection and recovery of at least 20,000 hectares of sensitive and/or degraded areas of the basin.</p> <p><u>Output 2.1.3</u> Demonstration of sustainable management practices for grazing land and agroforestry.</p> <p><u>Output 2.1.4</u> Demonstration of sustainable fisheries management practices.</p> <p><u>Output.2.2.1</u> Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes.</p>

The project also aligns with the focal area Biodiversity and land degradation :

- **Objective BD-1:** *Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors.* The project will contribute to Biodiversity Mainstreaming in Priority Sectors by strengthening policies, laws and regulations on biodiversity, promoting sustainable use of plant and animal genetic Resources across the river basin, establishing inclusive and participatory conservation ;
- **Objective BD-2 :** *Address direct drivers to protect habitats and species.* The proposed project will contribute to Improve financial sustainability, effective management, and ecosystem coverage of the global river basin, Prevention, Control and Management of Invasive Alien so that to improve governance in the Corubal river basin.

A.5 Incremental/Additional cost reasoning (and expected contribution from baseline, and co-financing)

The table below present the baseline scenario and the project incremental reasoning per project component.

Business as usual scenario	Alternative scenario with GEF resources
<p>Component 1: Evaluation and planning of the development of the Koliba-Corubal River Basin and strengthening of its Governance</p>	

The Koliba-Corubal river basin, with its natural and water resources, has great potential for development. The development potential (mining resources, agricultural land, biodiversity, water resources) is poorly planned and uncontrolled. Also, the legal and institutional framework that should govern the use of natural and water resources in the river basin is fragmented, embryonic and limited to the boundaries of the countries.

In terms of knowledge and studies carried out in the entire Koliba-Corubal catchment area, we note a very partial nature of the knowledge, documentation circumscribed to certain sites, which does not give an overview of the entire river basin and does not facilitate coherent planning of the development of the river basin.

In terms of the governance of the natural and water resources of the Koliba-Corubal, the actions undertaken are derisory or non-existent. So far, the actions undertaken have concerned each country individually, which leads to fragmentation and inconsistency in the interventions.

Furthermore, the mobilisation of stakeholders is partial and compartmentalised according to fields of interest. There is no mass mobilisation around the governance of water resources.

The baseline analysis concludes that all the projects operating in the Koliba-Corubal watershed give limited emphasis to the sustainable governance of the water resources of the watershed. They focus more on activities to restore the environment and preserve biodiversity (most often at the edge of the catchment area) or to adapt populations to climate change.

Finally,

The first component of the GEF project aims to address two fundamental gaps: (i) conceptual gap and (ii) information and assessment gap. In addition to these two gaps, the project will address the gap related to policy, regulation and governance of natural and water resources in Koliba-Corubal.

In this regard, the project will finance the production of updated knowledge on the catchment area. It will allow the realisation of the transboundary diagnostic analysis (TDA) of the watershed. The diagnosis will compile existing data on the catchment area, collect new data, create a platform for data collection and storage, and finally analyse the data.

Following the establishment or updating of watershed data, the GEF project will also finance the establishment of tools for the management and governance of water and natural resources in the Koliba-Corubal river basin. To this end, the project will finance the development of SAPs, the revision of the 1978 charter, the establishment of the joint commission, a fundraising policy for watershed governance, an innovative fundraising strategy.

The GEF funding will above all establish a theoretical and operational model where all stakeholders will come together for an integrated and sustainable governance of the water and natural resources of Koliba-Corubal.

Elsewhere, GEF funding will establish the causality between the different elements/factors of the catchment dynamics and mobilise all stakeholders around a sustainable project.

Whereas baseline project focus on research of funding to support the environmental governance, the GEF project will focus on financial contribution of active private sector in the river basin to strengthen the governance of the Koliba-Corubal.

Co-financing: \$7,500,000

GEF Funds: \$2,000,000

Component 2: Implementation of demonstration projects (at the country and basin levels) for the management of natural and water resources and the improvement of beneficiaries' incomes.

The richness of the Koliba-Corubal river basin results in several activities being carried out there, ranging from rainfed agriculture, irrigated agriculture, fishing, livestock farming, beekeeping, etc. All these activities are carried out in an unsustainable manner and have negative effects on the environment and biodiversity.

The restoration actions carried out and the policies for the governance of resources are sectoral and not focused on the whole river basin. With mining potential, more and more formal or artisanal mining companies are installing in the basin and carrying out activities that use the basin's water or contribute directly to its pollution.

The availability of arable land in the basin also attracts more people to practice and intensify agriculture. They clear and open up new fallow right up to the banks of the river.

And as seen in the baseline, several initiatives are being carried out to reduce the impact of human activities on ecosystems and biodiversity in the area, the latest of which concerns a GEF 7 project that will also affect part of the watershed in Guinea Bissau.

However, these initiatives do not address the issue of integrated and sustainable governance of the Koliba-Corubal water resources clearly and sustainably.

There is no initiative to tax private actors who use ecosystem services to prosper, even though these services are essential to their growth and these same private initiatives are a major contributor to biodiversity loss.

Finally, Coordinated and concerted initiatives for the sustainable use of the natural and water resources of Koliba-Corubal do not exist and sustainable actions and initiatives are fragmented and uncoordinated, leading to a uneven sustainable development process.

The second component of the GEF project will support the implementation of pilot demonstration projects in order to establish in the long term a coordinated, concerted and coherent process of resource use and watershed development.

Selected activities that have a negative impact on the natural and water resources of the catchment area will first be studied in depth for their sustainability and then implemented as pilot demonstration initiatives.

GEF's contribution will aim to bridge the existing gap between natural and water resources use, good governance of share resources and durability in the context of climate change and rapid population growth. To do so, the project will conduct various participatory studies in key sectors of activities in the river basin and will support the implementation of these activities who will serve as laboratories of sustainability.

On another level, the project will carry out joint and synchronous environmental restoration initiatives in degraded sites throughout the catchment area.

The GEF contribution will therefore enable a concerted involvement of both national institutions and stakeholders for the restoration and conservation of the environment in one hand and, for the increase of the income of population in the other hand. The GEF project has a geographic coherence and is perfectly aligned with the compliance of shared resources governance.

Co-financing: \$8,000,000

GEF Funds: \$3,200,000

Component 3: Knowledge Management, Monitoring and Evaluation, and Communication

<p>The projects and initiatives implemented in the region include a component for sharing knowledge and lessons learned throughout the implementation of the projects. However, lessons learned and good practices are not widely disseminated, and when they are, they are localized and reach a small audience. Furthermore, little emphasis is given to the links between the different scales involved in the landscapes, which could highlight the synergies, complementarities and interdependencies between the ecosystems, the actions undertaken and the results obtained overall. The horizon for sharing experiences and lessons learned is essentially national and there is a weak projection into the long term (replicability). There is no gender strategy at project level.</p>	<p>GEF funding will contribute to develop an assessment of lessons learned and good practices to identify successful lessons and develop scenarios for replication in other sub-regions, particularly in Africa and the tropics. The GEF project will set up a digital platform for knowledge management and dissemination. Regarding to knowledge sharing, the GEF project will allow the dissemination of good practices realized in the Koliba-Corubal river basin throughout the world by contributing to the GEF IW-Learn platform. Finally, the GEF project will fund a gender strategy and women's empowerment and mainstreaming plan through Capacity building and recruitment of Gender and Community Development Expert.</p>
<p>Co-financing: \$ 1,160,000</p>	<p>GEF Funds: \$ 800,000</p>

GEF resources will be incremental to the baseline as per the following:

i. The project will establish an Integrated and Transboundary Water Resources Governance system which is currently weak and not implemented. For doing so, it will strengthen the 1978 Governance framework which is not under implementation. The project will establish the basis for sustainable transboundary water and natural resources management. This will be done by considering all stakeholders active in the basin in between the two countries. This will be a major breakthrough given the current context. Also, the project will steer the management of the Basin around the establishment of a water commission and design a financial resources mobilization plan for the long term involving both public and private sector.

ii. The project will be incremental to the baseline scenario by enhancing the level of cooperation and development through a signed Transboundary Diagnostic Analysis (TDA) and Strategic Action Plan (SAP) approved and signed at the Ministerial level by both countries. This will provide the basis for strengthening the cooperation among the countries through the formalization and establishment of a River Basin Management commission, which is currently inexistent.

iii. Spatial planning and zoning will be done in a transboundary manner building on the characteristics of both tributaries countries. Related activities will be done to monitor water flows but also other factor relevant to the maintenance of ecosystem services in the basin such as erosion, sedimentation, biodiversity and specifies monitoring. This will support identifying and protecting the sensitive areas of the basin and be factored in the basin TDA and SAP.

iv. The project will encourage and facilitate the implementation of sustainable activities throughout the entire basin through the establishment of dedicated financing mechanism. The aim of this project's feature will be to improve agricultural (including fisheries) practices, agricultural activities, water resources management and energy generation and supply activities as these are

identified as the main causes to the environmental problems in the basin. The establishment of this financing mechanism, which will complement the set-up of the institutional framework, will ensure there is transformation in the economic activities happening in the basin. The implementation of sustainable activities will be accompanied by restoration actions in degraded sites.

v. In addition to the activities aiming at enhancing the institutional framework, the Corubal project will complement the co-financing activities that are currently focused on natural resources and ecosystem services management. For doing so, the project will provide the foundation for having a sustainable financing mechanism of the activities related to restoration and improved land management in the basin. This mechanism will be designed during the PPG phase, including establishing criteria on how it will support the development of relevant activities in the basin. This feature is innovative as there is no funding mechanism for the Basin at the regional level. However, it will build on the experience and expertise of mechanisms already active at the national level such as the BioGuiné Fund in Guinea-Bissau. Its successful design and implementation will be critical to ensuring the sustainability of the project and activities supported during its lifetime.

vi. Sharing experiences and disseminating good practices throughout the river basin: the project also aims to disseminate good practices throughout the river basin, to develop tools for monitoring and supporting institutions and communities in the sustainable and integrated management of the water resources of the Corubal basin.

A.6 Global environmental benefits

The proposed project will significantly improve the management of natural and water resources in the Corubal Basin. The project main deliverables under component 1 will focus on a Transboundary Diagnostic Analysis (TDA) and a Strategic Action Plan (SAP), which will be approved and signed at the Ministerial level in both countries. Through the TDA and SAP, the project will ensure sustainable use of natural and water resources through the planning based on scientific data and methodologies. This will inform decision making for planning and investment in some specific sectors that have been identified as the sources of ecosystem services reduction having a negative impact on economic activities at the basin level. The project will therefore ensure that planning is made taking in account the sustainability of the basin by providing a sustainable financing mechanism that will support the sustainable development practices in the sectors of agriculture, water and natural resources and energy generation and supply. These priorities will be further defined during the project preparation stage. As such, the project will reverse the drivers of degradation and ensure sustainable practices are embedded into a new paradigm under which the basin will be managed, leading to enhanced water resources management and the maintenance of ecosystem services needed for economic activities in the basin.

Consequently, the project will lead to:

- o The signing at Ministerial level of a Transboundary Diagnostic Analysis (TDA)
- o The signing at Ministerial level of a Strategic Action Plan (SAP)
- o 26,000 hectares of restored land
- o 667,000 hectares of land under improved practices
- o Providing the mitigation potential for -226,100, 881 tCO₂-e
- o Benefiting the livelihoods of 264,000 people

The SAP will help countries reduce the qualitative and quantitative loss of the basin's water and natural resources and to improve their governance. The political, legal and institutional reforms envisaged within the framework of the Corubal Basin SAP and the strengthening of the capacities of the stakeholders, as well as the availability of efficient management tools, will facilitate the achievement of these objectives for the sustainable management of the natural and water resources of the basin and the environmental sustainability. The GEF grants and co-financing will reinforce the restoration and management actions already planned and will facilitate the adaptation of populations to climate change. Ultimately, the integrated governance of the natural and water resources of the Corubal will enable the establishment of sustainable mechanisms, the monitoring and regulation of the water regime, and the restoration of ecosystems and habitats. In addition, the actions proposed in the SAP will maintain global ecological functions such as migratory bird sanctuaries, freshwater reservoirs and carbon storage, and climate regulation.

The project will also contribute directly to the socio-economic benefits for the people living around the catchment area. By promoting transnational and integrated management of water resources and encouraging the development of pilot initiatives improving the quality of resource management, the project will improve the living conditions of the populations by providing opportunities to improve the livelihoods of the inhabitants of the Corubal Basin countries. The achievement of the project's objectives will also contribute to the achievement of the Sustainable Development Goals (SDG) and several other strategic objectives related to the environment. The initiatives to be adopted will improve livelihoods and provide environmental benefits to communities through access to water and ecosystem services for improved food security and the restoration of productive natural resources.

The project is expected to generate substantial co-benefits. The improved governance framework will generate improved water flows in the Corubal water basin downstream. This will reduce the level of salinization that has been increasing over years due to the effects of sea level rise and the reduced amount of freshwater reaching the coastal zone where critical ecosystems such as mangrove or productive landscapes such as rice fields were established. Because of these two consequences, Guinea-Bissau saw its resilience and adaptive capacity to climate change on the coast reducing. Increased salinization of lands has also threatened the production of rice in coastal area that is happening behind mangroves and is determinant to livelihoods in the area. Finally, salinization has also had a significant negative impact on fish stocks in the delta, with a direct negative effects on livelihoods as well. The expected enhancement of water flows this project will trigger will improve the status of biodiversity and livelihoods in the area by maintaining critical ecosystems services.

The improvement of the transboundary governance framework will also have a positive impact on the ecosystem services provided by the forest in the catchment area with a direct positive impact on livelihoods, through better land and forest management. As the water Corubal catchment area in Guinea is the Futa Jallon, the improved governance framework set by this project will support preserving a forest ecosystem, which is the host of many endemic fauna and flora species. This will improve ecosystem services provided by this critical watershed for the region and the economic activities related to it (agriculture, energy generation, etc.). The project will have indirect effects in terms of CO₂ emissions reduction as the transboundary governance framework set in this project will ensure appropriate forest and land management.

A.7 Innovativeness, Sustainability and potential for scaling up

Innovativeness

The main innovation of this GEF project is the establishment of a sustainable financing mechanism for the governance of natural and water resources in Koliba-Corubal. [The innovative financing mechanism will serve as a catalyst to raise additional funds for sustainable governance of water and natural resources in the Koliba-Corubal river basin to address traditional revenue insufficiencies in river basin governance. In other words, it aims to tax the main beneficiaries of the watershed services for its sustainability.](#) This innovative financing mechanism in the Koliba-Corubal watershed consists of four central pillars: (a) Polluter-Payers, (b) Beneficiary-Payers, (c) financial contribution from decentralised territorial entities, (d) payment for ecosystem services through carbon sequestration.

The first pillar, i.e. the introduction of the polluter-payers principle, will mainly affect the private sector. Indeed, the mining sector and agriculture are mainly targeted by this principle. Mining companies in the Koliba-Corubal watershed or in other watersheds linked to the Koliba-Corubal will be invoiced on a quarterly basis according to the degree of pollution they cause in the watershed. The amount to be charged will be determined in a bipartite meeting (during the validation of the sustainable financing strategy or the definition of the sustainable financing strategy of the catchment area). The same principle will also be applied to farmers of more than 5 ha located in the catchment area who use phytosanitary products. Finally, urban centres located in the Koliba-Corubal catchment area will also be charged according to whether their waste is directly discharged into the catchment area or not.

The second pillar, i.e. the beneficiary-payer pillar, will constitute the second pivot of the innovation that the project will bring. It involves charging all users (mining companies, farmers, population) for water services. This innovation will enable the reform to be applied to all social strata (urban and rural) throughout the two countries.

The third pillar, i.e. the financial contribution of local authorities, will be an innovation in the sustainable governance of water resources in the region. Indeed, the local authorities watered by the Koliba-Corubal will be encouraged to release part of their tax revenues to support sustainable water resources governance efforts. These taxes will be drawn mainly from fisheries and livestock tax revenues.

The fourth pillar, i.e. payment for ecosystem services, will consist of funds from the sale of carbon. The aim here is to calculate the volume of carbon stored in the whole catchment, evaluate the revenue generated and provide a percentage for the sustainable governance of the natural and water resources of the Koliba-Corubal catchment. Within this pillar, the Bio Guin? Foundation, already active in carbon trading in Guinea Bissau, will play a central role. It will manage the revenues generated and will be in charge of seeing, with partners at the national level, how to set up programmes to strengthen actions for the conservation and/or restoration of biodiversity at the watershed level.

Sustainability

Financial and economic sustainability:

The project is institutionally managed by a subregional governance organisation for the Gambia, G?ba-Kayanga and Corubal river basins, namely the Organisation for the Development of the Gambia River (OMVG[1]), and at national level by the ministries in charge of water and natural resources management and governance. Both at the level of the OMVG and the ministries of the two countries, projects and programmes for the governance and development of water and natural resources are developed and implemented in the areas of agriculture and hydroelectricity. The mobilisation of funds and the implementation of activities will therefore be a key element in the continuity and sustainability of the funds mobilised under the Corubal project.

The involvement of the private sector, especially in the field of sustainable agriculture at the country level, constitutes a strong potential for the sustainability of the pilot demonstration projects to be initiated in Component 2. At the national level, the interventions will integrate multiple private and public actors. It is expected that through this networking, the fundamental elements of the project will continue in the institutional agendas.

Activities to be carried out for the SAP will result from a TDA which will take into account the formal local governance mechanisms in the two countries on one hand, and on the other hand on lessons learned from natural resource management mechanisms developed by previous or ongoing projects, particularly in the Koliba-Corubal basin area, such as the AGIR regional project, one of which components focused on the protected area in the border of Guinea and Guinea Bissau, the national REMEEC project implemented with GEF funding in the prefectures of Gaoual-Koundara and Mali in Guinea, which activities focused on strengthening the resilience of local communities for climate change.

The economic sustainability of the project will be ensured through the combined effects of promoting economic initiatives that better respond to the root causes of natural resource degradation in the basin (depending on the agro-ecological context of the localities) and building the capacities of stakeholders based on needs identified from lessons learned from the TDA/SAP process.

Projects envisaged include i) carrying out development of lowlands and alluvial plains; ii) implementing measures to protect and restore sensitive and/or degraded areas of the basin; iii) promoting agro-forestry practices for the sustainable management of natural resources; (iv) supporting sustainable fishing activities in the basin.

Capacity building initiatives should focus on various themes including: i) improving the governance and cooperation framework for the sustainable management of the basin ii) creating management

bodies at the basin and possibly sub-basins levels; iii) capacity building of institutions (local, national, and transboundary); IV) institutional strengthening and training of producer organizations (farmers, breeders, fishermen, beekeepers, timber operators, charcoal producers, etc. . .).

Institutional sustainability

The concern for institutional viability of the project was taken into account from the onset of its formulation phase through the involvement of various stakeholders in the two countries (national, and government authorities, private sector, NGOs, and local communities) and at regional and global levels with the involvement of IUCN, the Gambia River Basin Organization (OMVG), and technical and financial partners interested in the sustainable management of the basin such as UN agencies, the European Union.etc.

The formulation of the project is based on the basin's real needs for the sustainable management of its resources and is in compliance with the institutional context as well as identified development objectives in the two countries and at the regional level, with a particular focus on the sustainable use of the basin products and services.

All stakeholders were involved in the preparation process through: (i) the organization of a launching workshop in Conakry attended by participants from governments at national and provincial levels, NGOs, the private sector, and technical and financial partners of the two countries; ii) organization of nine (9) community consultation forums and workshops at the provincial level (six in Guinea and three in Guinea Bissau; iii) organization of a design workshop in Dakar bringing together representatives of the technical services of the two countries, representatives of IUCN and OMVG, in addition to consultants; and, the organization of a validation workshop bringing with participants from institutions that were represented during the launching workshop. In addition, several data and information were collected through meetings with groups and individuals, as well as literature throughout the project preparatory phase.

The participatory and inclusive process used made it possible to involve all relevant stakeholders, at the institutional and individual levels, in the preparation of the project. In addition to making the project formulation appropriate, this approach will also enhance the likelihood for the real engagement of stakeholders during the project implementation phase.

Another aspect that will contribute to the project sustainability is the communication and knowledge management activities planned in the project. In addition, this will promote well informed decision making, and project ownership by the various stakeholders in the two countries.

The planning of project activities in a way to create synergy thru co-financing and other types of partnership agreements will optimize project interventions and make them more sustainable in the long run.

Innovativeness and potential for scaling-up

The innovation of the project lies in the integrated and sustainable governance of the Koliba-Corubal river basin, in particular the mobilisation of several stakeholders from different political and institutional frameworks to share the same vision of the water resource. In order to achieve this objective, the project will support the establishment of common tools for governance and management of natural and water resources in the Koliba-Corubal, the development of the institutional and regulatory framework related to water resources management in the river basin, the implementation of pilot demonstration projects that have the role of drastically reducing the degradation factors of natural and water resources through the introduction of sustainable practices that it will enable, the development and operationalisation of a bi-national, global and multi-stakeholder platform for the sharing of experiences and knowledge on water resources governance, the integration of the local communities' needs and interests, including the decentralised and deconcentrated authorities in charge of planning and materialising local territorial development policies and the private sector valuing the natural capital.

The innovation of the project is also linked to the finalisation and operationalisation of the 1978 agreement and the establishment of a sustainable financing mechanism that will take over from the present GEF financing and generate overall environmental benefits in the whole river basin. Regarding the sustainable financing mechanisms for the governance of the Koliba-Corubal, the executing agency (OMVG) will play a central role through the mobilisation of economic stakeholders in the disbursement of funds for the sustainable governance of natural and water resources in the catchment. The private sector related to hydropower, mining, sustainable tourism, agro-forestry must be mobilised to provide sufficient funds to maintain the ecosystem services of the river basin. In addition, sustainable financing can include providing the project (during the implementation cycle) with all relevant information to inform the different uses and their negative impacts on ecosystems and water resources. Finally, it can also consist in providing the project and the basin management body that will be created and established with the necessary expertise in the sustainable governance of the river basin resources. All this will be possible through (i) the full valorisation of the project execution agency, namely OMVG, the implementing agency (IUCN) and the two governments at central as well as at deconcentrated or decentralised levels and (ii) the capitalisation of the experiences of agencies specialised in fundraising and sustainable financing of natural resources governance such as IBAP, the Bioguin? Foundation etc.

The project has significant replication potential in several aspects and at different scales (local, national, regional, and international). Resources mobilized including those made available by the GEF will help catalyze an integral and dynamic process of learning. Being in essence a demonstration and planning project, experiences of participatory development of community projects, and participatory approaches for the preparation of the TDA and SAP, will be documented and lessons learned will be capitalized, disseminated and shared widely through the project website, IUCN and OMVG portals, and other channels such as the IW:LEARN platform. It is expected that lessons learned from the demonstration projects will be used in other basins in the two countries and possibly other countries. Lessons learned from this project will certainly be applicable to various contexts around the world, especially for west Africa given that most rivers in this region originate from the Fouta Djallon mountains for Guinea including the Niger, Senegal, Gambia, Mano, and Kayanga-Geba rivers in addition to the KCRB targeted in this project.

Different aspects of replication are applicable through the different components of the project and include:

Component 1: Good practices in terms of assessment and planning for the sustainable development of a river basin (preparation of a TDA and a SAP); strengthening the governance bodies of a basin for its integrated management; and mobilization of financing for the implementation of the plan.

Component 2: As their name suggests, one of the main objectives of the demonstration projects is precisely to show innovative solutions for a sustainable use of the ecosystems of the basin, reversing or at least reducing its degradation. Lessons learned from these projects will be used to propose solutions to be scaled up in the subsequent SAP implementation phase that will follow this project.

Component 3: This component for knowledge management, and monitoring and evaluation is designed to learn from what works well or not. Therefore, it is this component that will make it possible to identify good practices and share them for replication and scaling up at different levels.

The different levels of replication and scaling up include local, national, regional, and international initiatives

At the local level: good practices developed in one part of the basin at the community level will be shared with other communities living in other parts of the basin.

At the national level: good practices developed by the project can potentially be replicated in other basins or ecosystems in the two target countries

At the regional level: first, there is the potential for replication within OMVG for the other two basins, which in addition to the Koliba-Corubal are included in its mandate. These are the basins of the Gambia and the Kayanga-Geba rivers. This regional level also includes possible replication at level of: the Economic Commission of West African States (ECOWAS); the of African Ministers Council for Water (AMCOW); and, the African Network of Basin Organizations (ANBO)

At the global level: there is IW-LEARN, for which 1% of the project resources will be reserved for the sharing of experience within the framework of this learning network for the management of international waters financed by the GEF.

[1] Organisation pour la mise en valeur du fleuve Gambie

[1] Partenariat Régional sur l'Eau et l'Environnement en Afrique Centrale et Occidentale - PREE-ACO

[2] Programme d'Appui aux Communautés villageoises -3^{me} phase

[3] Projet de Développement Rural Intégré Gaoual Koundara Mali (PDRI-GKM)

[4] **Projet pour l'Agriculture Familiale, Résilience et Marché en Haute et Moyenne Guinée**

[5] Le Projet de réhabilitation du secteur agricole et rural

[6] Le Projet d'Appui aux Chaînes de valeurs et l'Entrepreneuriat Agricole et Rural (PACVEAR)

[7] Family Farming Diversification, Integrated Markets, Nutrition and Climate Change Project in Cacheu, Oio, Bafata and Gabu Regions

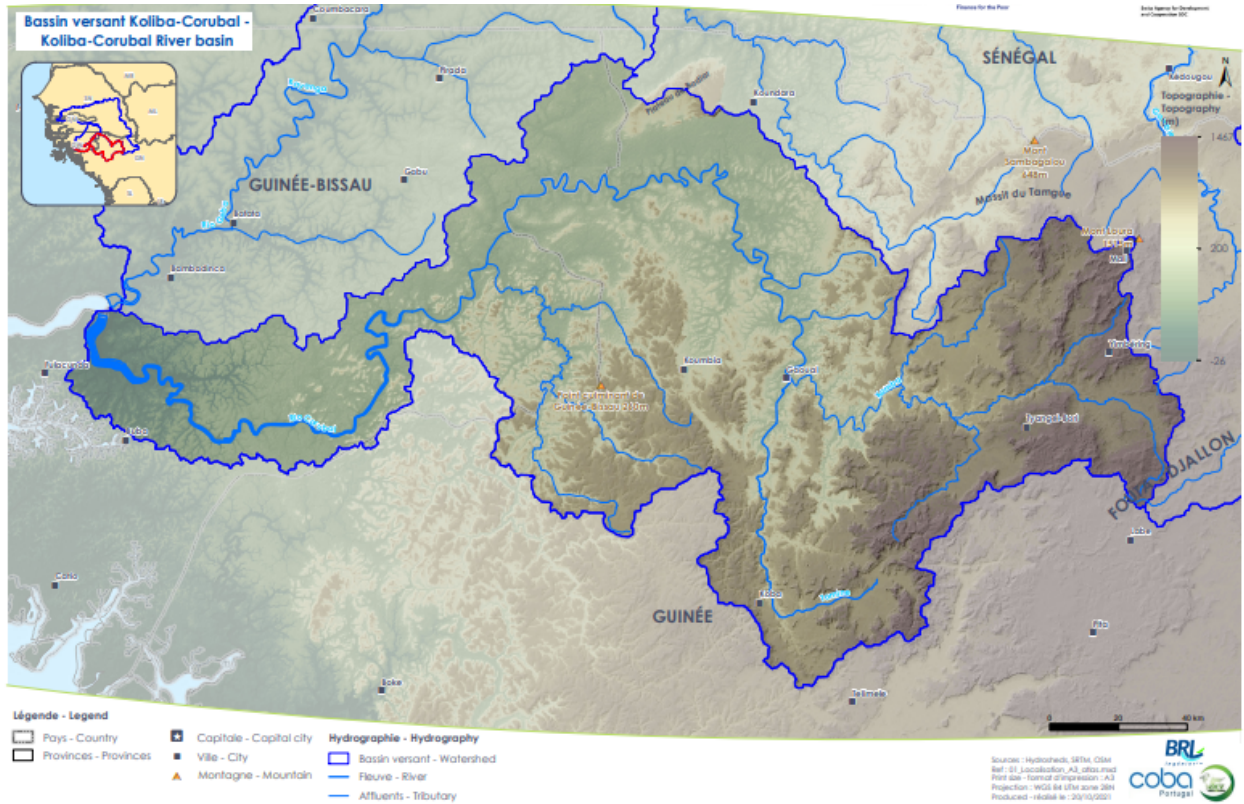
[1] The KCRB, faced with high deforestation and reduced rainfall (especially during the major droughts of the 1970s and 1980s), is experiencing a strong and worrying loss of habitats and biodiversity. Terrestrial habitats are highly degraded and even in critical condition in some places (Bazzo 2000).

[1] The increase in the area of savannah is synonymous with massive deforestation and loss of ecosystems and biodiversity. Indeed, the increase in savannah is the result of deforestation processes

1b. Project Map and Coordinates

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

The project is located in West Africa between parallels 11° and 13° North and meridians 12° and 15° West. Precisely, it is located in the Fouta Djallon region in Guinea and in the East, Centre-South and Centre-West regions of Guinea Bissau.



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 Yes

If none of the above, please explain why:

OMVG is the intergovernmental agency for the execution of the project and will act as an interface between the implementing agency (IUCN) and the governments and institutions of Guinea and Guinea Bissau. To this end, OMVG is responsible for achieving the project's objectives and coordinating all

actions and activities. Several public institutions from both countries and civil society organisations and populations, which have already been involved since the PIF and PPG preparation steps, will be involved in the implementation of the project. Each relevant and involved stakeholder has been informed about the objectives and problems that the project will address, as well as their role and contributions in achieving the expected results. State stakeholders were directly involved in the definition of targets and performance indicators.

The main stakeholders involved in this project are:

- ? States: Government (relevant ministries), specialised institutions (General Directorates, Institutes), decentralised or deconcentrated territorial authorities (local authorities, governorate, commune mayor or rural communities);
- ? Civil Society Organizations: national NGOs specialised in agroecology, rural development, ecosystem conservation/restoration, access to basic social services such as water, local development etc;
- ? Local stakeholders: farmers, women and men associations, youth associations, council of elders, traditional power structure;
- ? Private sector: agriculture contractors, tourism actors, private stakeholders and mining companies, traders of non-timber forest products, fishermen;
- ? International organizations with experience in watershed management, crossborders & multinational project implementation, local development and environment preservation.

Concerning national institution to be directly implicated in the implementation of the project, we have

In Guinea Bissau:

- Generate Directorate of Hydraulic Resources:
- General Directorate of Forest and Fauna
- General Directorate of Agriculture
- General Directorate of Urban and Regional Planning
- National Institute of Studies and Research
- Institute of Biodiversity and Protected Areas (IBAP)
- National Directorate of Geology and Mining

- ☒ Office of Coastal Planification (GPC)

In Guinea:

- ☒ Generate Directorate of Hydraulic Resources:
- ☒ General Directorate of Forest and Fauna
- ☒ General Directorate of Agriculture
- ☒ General Directorate of Urban and Regional Planning
- ☒ National Directorate of Geology and Mining

Stakeholder contribution to the project design phase

Firstly, a limited number of stakeholders have been involved during the PIF design phase. These are mainly national institutions in charge of water resources management, natural resources and actors intervening in the catchment area either to support socio-economic development or to contribute to building sustainability in the catchment area. They contributed to a better understanding of the problems of the river basin and the priorities for intervention. Among them are in Guinea the General Directorate of Water and Forests, the General Directorate of the Environment, the General Directorate of Water Resources, the national unit of the OMVG. For Guinea Bissau, we have the Institute of Biodiversity and Protected Areas (IBAP), the Directorate General of Water and Forests, the Directorate General of the Environment, the Directorate General of Water Resources, the national OMVG unit, the Directorate General of Meteorology, NGOs AD, CHIMBO.

During the elaboration of the PPG, stakeholders were, at different levels, involved in the formulation of the project. During the inception workshop held in Conakry on 03, 04 and 05 August 2021, key national institutions from Guinea Bissau and Guinea, as well as OMVG, UNDP, EU and several national and international NGOs took part in the workshop. The three days of workshops focused on the identification of the main causes of the degradation of natural and water resources in the catchment area, the obstacles to good governance of natural and water resources, the possible and adequate institutional framework for the implementation of the project, the components and activities to be implemented, the intervention strategy, etc.

The inception workshop is followed by a one-month field mission inside the whole river basin. During this field mission, several stakeholders are also consulted and their knowledge and experience have been used to strengthen the project formulation. The stakeholders consulted are regional governors, prefects, customary and traditional leaders, youth and women's representatives, directors of regional technical services (Forestry, Water and Hunting, Fisheries, Agriculture, Livestock, Land Use Planning and Development, Hydraulics, Environment), the private sector and development partners

As during the Inception phase, the involvement of stakeholders in the field has enabled a better understanding of the natural and water resources problems of the Koliba-Corubal catchment and to

propose appropriate solutions to strengthen the governance of natural and water resources and therefore to invert the negative trends that characterise the river basin. The involvement of stakeholders living directly in the catchment area has enabled the identification of all relevant activities to address the anthropogenic problems that constitute the main barriers to good governance of natural and water resources in the Koliba-Corubal river basin. In other words, the involvement of the stakeholders of the Koliba-Corubal river basin allowed the definition of the second component of the project and the finalization of the project Baseline.

Finally, a third moment in the project formulation phase also involved the stakeholders' expertise and deep knowledge of the river basin. It is the validation workshop of the project document. During this activity, all relevant project stakeholders were consulted and gave their opinion on the project document. This step allowed to gather comments and recommendations and to improve the content for a better formulation of the project in order to address the barriers to a sustainable governance of the water resources of the catchment area. Local (river basin) and national stakeholders have actively contributed to the formulation of the Project design process and PPG activities.

Documentation of Stakeholder Consultation				
Consultations (place and date)	Organizations represented and respective functions	Number of participants (disaggregated by gender)	Form/methodology of consultation	Issues discussed and outcomes of discussion (including how it influenced project design)

Documentation of Stakeholder Consultation				
Consultations (place and date)	Organizations represented and respective functions	Number of participants (disaggregated by gender)	Form/methodology of consultation	Issues discussed and outcomes of discussion (including how it influenced project design)
PRODOC inception workshop held in Conakry in 07/08/2021	Please refer to the list of participants annexed	48 (for gender, please refer to the list of participants annexed).	Workshop: Plenary and working groups; TEAM	<p>The launching workshop of the project aimed at informing and updating all the stakeholders on the objectives and expected results of the Koliba-Corubal project. The objective also consisted in reviewing the PIF, identifying the relevant elements for the elaboration of a PRODOC responding to the challenges of the sustainable governance of Koliba-Corubal but also to the expectations of the GEF for any project concerning international waters.</p> <p>The results of the project formulation kick-off workshop are relevant. All stakeholders have acquired a common understanding of the project and the roles of each one in the process. On the substance, the workshop allowed an updating of the mapping of the main actors and stakeholders in the use of water and natural resources in the river basin, to calibrate the project</p>

Documentation of Stakeholder Consultation				
Consultations (place and date)	Organizations represented and respective functions	Number of participants (disaggregated by gender)	Form/methodology of consultation	Issues discussed and outcomes of discussion (including how it influenced project design)
				components and outputs. In addition, the inception workshop provided an analysis of the coherence of the activities in relation to the objectives and expected results; validated the methodological approach for the formulation of the PRODOC; specified the mapping of partners, beneficiaries, intervention sites, past and current initiatives eligible for co-financing of the PROJECT, the collection of needs and field data.
Consultation on the ground and field mission				
Public consultation in Lelouma	All stakeholders in the municipality	19 (for gender, please refer to the list of participants annexed).	Plenary meetings.	The various public consultations provided relevant data on the river basin and carried out a territorial and institutional diagnosis of the basin. Stakeholders (technical services, local communities, development support organisations, CBOs, etc.) have facilitated the deepening of the issue of sustainable governance of the watershed by
Public consultation in Mali	All stakeholders in the municipality	21 (for gender, please refer to the list of participants annexed).	Plenary meetings.	
Public consultation in Gaoual	All stakeholders in the municipality	25 (for gender, please refer to the list of participants annexed).	Plenary meetings.	

Documentation of Stakeholder Consultation				
Consultations (place and date)	Organizations represented and respective functions	Number of participants (disaggregated by gender)	Form/methodology of consultation	Issues discussed and outcomes of discussion (including how it influenced project design)
Public consultation in Koundara	All stakeholders in the municipality		Plenary meetings.	highlighting the problems, constraints, current solutions and gaps to be addressed by the project. Therefore, priority sites for intervention were identified with all stakeholders as well as pilot demonstration projects. Also, the roles and contributions of each stakeholder have been identified and defined. Issues related to ESMS are also discussed during public consultations: <ul style="list-style-type: none"> ●Involuntary Resettlement & Access Restrictions (IVR) ●Indigenous Peoples (IP) ●Cultural Heritage (CH) ●Gender equality and risks ●Risks of affecting vulnerable groups ●Community health, safety and security risks
Public consultation in Tchetché, Guinea Bissau, 07/11/2021	Ministry of Natural Resources and Energy Local delegate of Ministry of Environment in Bafata Local community representatives	38 (for gender, please refer to the list of participants).	Plenary meetings.	
Public consultation in Buba, Guinea Bissau, 09/11/2021	Local community representatives from Cuntabane, Sare Ali, Sintcha Sarifo, Assana Djau	33 (for gender, please refer to the list of participants).	Group meeting animated by a interview guide.	
Public consultation in Saltinho, Guinea Bissau, 10/11/2021	Local community representatives of the Koliba-Corubal River Basin from	47 (for gender, please refer to the list of participants).		
Consultation with the State Institutions of the Gabu Region	Governor, Regional Director of Fisheries, Regional Director of Agriculture, Regional Director of Water and Forests, Regional Director of Planning, Regional Director of Environment, Regional Director of Water Resources	One meeting per category of actor		
Consultation with the state institutions of the Bafata region	Governor, Regional Director of Fisheries, Regional Director of Agriculture, Regional Director of Water and Forests, Regional Director of Planning, Regional Director of Environment, Regional Director of Water Resources	One meeting per category of actor		

Documentation of Stakeholder Consultation				
Consultations (place and date)	Organizations represented and respective functions	Number of participants (disaggregated by gender)	Form/methodology of consultation	Issues discussed and outcomes of discussion (including how it influenced project design)
Consultation with the state institutions of the Quinara region	Governor, Regional Director of Fisheries, Regional Director of Agriculture, Regional Director of Water and Forests, Regional Director of Planning, Regional Director of Environment, Regional Director of Water Resources	One meeting per category of actor		<ul style="list-style-type: none"> ●Labour and working conditions ●Risk of violating human rights ●Resource efficiency, pollution, wastes, chemicals and GHG emissions <p>Finally, these consultations have showed the ownership of the project by all stakeholders in both countries, particularly their interest to contribute to the implementation of pilot demonstration project, first step of good and sustainable governance of water resources.</p>
Validation workshop				

Documentation of Stakeholder Consultation				
Consultations (place and date)	Organizations represented and respective functions	Number of participants (disaggregated by gender)	Form/methodology of consultation	Issues discussed and outcomes of discussion (including how it influenced project design)
Atelier de validation du PRODOC, Conakry, 03 et 04 mars 2022.	Please refer to the list of participants annexed	35 (for gender, please refer to the list of participants annexed).	Workshop: Plenary and working groups; TEAM	The aim was to present the project and to get feedbacks from all relevant stakeholders, to look for possible collaboration during the project implementation phase. During this meeting, synergies and complementarities have been established between the project and other interventions in the River Basin. Strong recommendations to strengthen project document have been provided and discussions have permitted to give right orientations to the project.

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Stakeholder Engagement Plan ? by stakeholder					
Stakeholder	Purpose of Engagement	Mechanism / process of Engagement	Responsible Entity	Resources	Frequency /Timing
Government agencies (at different levels)					

Stakeholder Engagement Plan ? by stakeholder

Stakeholder	Purpose of Engagement	Mechanism / process of Engagement	Responsible Entity	Resources	Frequency /Timing
<p>Relevant Directorates- General in both countries: General Directorate of Water Resources, General Directorate of Energy, Directorate General of Geology and Mining, Directorate General of Agriculture, Directorate General of Forestry and Fauna, Directorate-General of Environment, General Directorate of Urban and Regional Planning, General Directorate of Livestock</p>	<p>Provide guidance on the government's policies, plan and strategies related to environment, natural resources and water.</p> <p>Provide a baseline of the country's environment, natural resources, biodiversity and water resources, namely in the Koliba-Corubal basin.</p> <p>Participate in the implementation of the project through technical adviser or direct execution of some activities.</p>	<p>? Steering committee</p> <p>? Memorandum of understanding with some of them</p> <p>? Technical support</p>	<p>OMVG & National Institutions responsive for the execution of the Project</p>	<p>Refer to the project budget</p>	<p>Minimum once a year for some</p> <p>Often for those who will be implicated in the direct implementation and technical adviser of the project</p>
<p>Local authorities in concerned region and others administrative subdivisions;</p> <p>Local authorities:</p> <p>-</p> <ul style="list-style-type: none"> • Governorate of Bafata, Gabu & Quinara regions in Guinea Bissau • Governorate of Lab? & Bok? regions in Guinea 	<p>Links establishment between PMU, local administration (decentralized or deconcentrated) and population for the achievement of project's goals in target areas.</p>	<p>Regular meetings</p> <p>Steering committee at national level</p>	<p>OMVG & National Institutions responsive for the execution of the Project</p>	<p>Refer to budget dotation for M&E</p>	<p>twice a year</p>

Stakeholder Engagement Plan ? by stakeholder

Stakeholder	Purpose of Engagement	Mechanism / process of Engagement	Responsible Entity	Resources	Frequency /Timing
<ul style="list-style-type: none"> •Regional Directorates of Water and Forests of Bafata, Gabu & Quinara in Guinea Bissau & Bok? & Lab? regions in Guinea •General Directorates of Hydraulics and Water Resources of Bafata, Gabu & Quinara in Guinea Bissau & Bok? & Lab? regions in Guinea •Regional Livestock Directorates of Bafata, Gabu & Quinara in Guinea Bissau & Bok? & Lab? regions in Guinea •Regional Directorates of Agriculture of Bafata, Gabu & Quinara in Guinea Bissau & Bok? & Lab? regions in Guinea •Directorate General of Fisheries (Continental) of the regions of Bafata, Gabu, Quinara in Guinea Bissau & Bok? & Lab? regions in Guinea •Urban municipalities in the regions of 					

Stakeholder Engagement Plan ? by stakeholder

Stakeholder	Purpose of Engagement	Mechanism / process of Engagement	Responsible Entity	Resources	Frequency /Timing
Bok? & Lab? in Guinea • Rural municipalities in the regions of Bok? & Lab?					
Relevant Ministries: Minister of Natural Resources and Energy, Ministry of Agriculture and Rural Development, Ministry of Environment and Biodiversity, Ministry of Foreign Affairs and Cooperation, Ministry of the Environment and Sustainable Development, Ministry of Agriculture and Livestock, Ministry of Energy, Hydraulics and Hydrocarbons, Ministry of Fisheries and Maritime Economy	Commitment at the higher level of the state to ensure strong governance of natural and water resource at the Koliba-Corubal basin Commitment and achievement of all policies, legal, cooperative and technical needs related to good governance of transnational shared water resources.	Memorandum of understanding Co-elaboration of policies and needed instruments for shared water resources governance Regular meeting and reporting	OMVG & National Institutions responsive for the execution of the Project	Refer to the project budget, especially in the component 1	During all steps related to policies
Civil Society Organizations					

Stakeholder Engagement Plan ? by stakeholder					
Stakeholder	Purpose of Engagement	Mechanism / process of Engagement	Responsible Entity	Resources	Frequency /Timing
Relevant National civil society and NGOs CHIMBO DARIDIBO, Palmerinha, AD, Tiniguena, Guin?e Ecologie, Carbone Guin?e	Actively participate in the implementation of activities under Component 2: Implementation of demonstration projects (at the country and basin levels) for the management of natural and water resources and the improvement of beneficiaries' incomes.	Memorandum of understanding Regular meeting and reporting	OMVG & National Institutions responsive for the execution of the Project	Refer to the project budget for the different activities concerning component 2.	Day to day Minimum quarterly meetings
Local stakeholders					
Farmers (men and women) Women/women associations Young people/ Youth associations Council of elder Traditional power structure,	Support the field implementation of activities under Component 2 (Implementation of demonstration projects (at the country and basin levels) for the management of natural and water resources and the improvement of beneficiaries' incomes) and Component 3 (Knowledge Management, Monitoring and Evaluation, and Communication).	Cooperation Direct implication in the implementation of the project	OMVG & local communities	Refer to the project budget for the different activities involving the community	As needed
Private Sector					
Private stakeholders	Ensure sustainable exploitation of natural capital	Memorandum of understanding and cooperation	OMVG & National Institutions responsive for	No budget dotation needed to	As needed

Stakeholder Engagement Plan ? by stakeholder					
Stakeholder	Purpose of Engagement	Mechanism / process of Engagement	Responsible Entity	Resources	Frequency /Timing
			the execution of the Project	carry on this engagement	
Mining companies	Ensure sustainable exploitations respecting all the environmental norms in the river basin	Memorandum of understanding and engagement document signed.	OMVG & National Institutions responsive for the execution of the Project	No budget dotation needed to carry on this engagement	As needed
International organizations					
UNDP	To ensure complementarities and synergies and alignment between the different project promoted/financed by these organizations	Concertation meeting	OMVG & IUCN	No budget dotation needed to carry on this engagement	As needed
IFAD					
Food and Agriculture Organization ? FAO					
Research & universities					
Relevant institutions INEP , INPA , Amilcar Cabral University , Cheikh Anta Diop University , CIBIO , Environmental Research Institute of Guinea , High Institute of mining and geology of Guinea (ISMGB) , Guinea Research and Training Centre in Infectious Diseases , Gamal Abdel Nasser University , General Lansana Conte University of Sonfonia	Knowledge production, management and sharing	Memorandum of understanding	OMVG & National Institutions responsive for the execution of the Project	Refer to the budget for the component 3	As needed

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

Stakeholder involvement in the implementation of the project

According to the project design, the stakeholders are the key actors for the implementation of the activities. In Koliba-Corubal river basin (Guinea & Guinea Bissau), more than 50 stakeholders are identified. The majority and more pertinent are government entities and have welcome the project. The result stemmed from project design show that only few local communities (farmers) and private sector related to mining have negative attitude towards the project because of restrictions and compulsory environment safeguards to implement while conducting mining activities. The main stakeholders will be engaged through a contract of engagement setting out the tasks, deliverables and timeline for implementation. The formal involvement of key actors will begin with the project inception workshop. The communication specialist will contribute to organise this meeting. This will be a binational meeting with the project partners.

The primary stakeholders in this project include:

- Government agencies: General Directorates, Ministries and local authorities;
- Civil Society Organizations: national NGOs specialised in community development and the preservation of fauna and flora;
- Local stakeholders: farmers, women and women associations, youth and youth associations, council of elders, traditional power structure;
- Private sector: private stakeholders and mining companies;
- International organizations with experience in local development and environment preservation;
- Scientists with experience in knowledge production management and sharing.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

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.

The PPG preparation phase highlighted several gaps that contribute to the hardening of women's lives in the two project countries in particular and the Koliba-Corubal Basin in general. Economic difficulties, political instability and socio-cultural constraints have contributed to keeping women in secondary positions and to worsen their living conditions. In rural areas, specifically in the project sites, gender equality is not observed and women are currently faced with poverty, lack of basic infrastructure and absence of basic health, education and rights. The difficult living conditions of women are exacerbated by the lack of support in rural areas, the failure to integrate gender issues into most development projects.

So, women's situation/conditions in the two countries concerned by the Koliba-Corubal project is still difficult and is characterised by inequalities in socio-economic status, access to resources and participation in social and political life. The global gender index places the Republic of Guinea 118th in the world with a score of 0.647. Guinea Bissau ranks 125th in the world with a score of 0.6420. There are disparities between men and women and high levels of inequality in several areas (see table).

Table : Gender Global Gap Index.

Country	GLOBAL INDEX		ECONOMIC PARTICIPATION AND OPPORTUNITY		EDUCATIONAL ATTAINMENT		HEALTH AND SURVIVAL		POLITICAL EMPOWERMENT	
	Rank	Score (0 - 1)	Rank	Score (0 - 1)	Rank	Score (0 - 1)	Rank	Score (0 - 1)	Rank	Score (0 - 1)
Guinea	118th	0.647	60th	0.712	143rd	0.647	101st	0.966	65th	0.225
Guinea Bissau	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

0 = disparity, 1 = parity

The mapping of the baseline scenario shows a relative presence of women in the different projects implemented and also a recognition of the need to reduce gender gaps as beneficiaries and of social categories requiring more support. With regard to decision-making positions, particularly at the level of institutions in charge of governance of natural and water resources, the project's formulation studies showed a limited presence of women in natural and water resources governance bodies.

At the level of decentralised local authorities, the formulation studies revealed that women participate very marginally in the dynamics of territorial governance and sustainable development. They are poorly represented in the political and technical bodies of territorial governance. Indeed, at the level

of local authorities, women are marginal economic actors and rarely participate in the territorial dynamics.

At the association level, women, although active members in all the associations surveyed, play secondary roles. In rural areas, the presence of women in mixed associations is low. They are mainly found in women-only associations.

Regarding the use of natural resources, more specifically land and water resources, women have limited access to them. In fact, in the entire Corubal river basin, women have limited access to land and resources derived from the Koliba-Corubal, due to socio-cultural constraints. In a majority of ethnic communities in the river basin, especially those of Islamic religious beliefs, women do not have access to land. When they do exploit the land and some natural resources, they do so on loan rather than under private ownership.

In terms of the use of the natural and water resources of the river basin, the gender analysis reveals that women are in first place. Indeed, they are involved in rice cultivation, market gardening, fishing, harvesting oysters, shrimps and many other seafood. All these activities, which play a major role in the socio-economic activity of the population, are done in the watershed.

Women face barriers to access, participation and decision making in water governance, mainly due to: (i) lack of access to technical training, (ii) low leadership capacity due to less exposure and training in public spaces, (iii) inequitable power relations in spaces dominated by men where discriminatory practices are carried out and their technical capacities are disparaged, (iv) work overload in the family environment that curb their participation, and (v) denial of gender equality based on cultural beliefs where it is considered that women are not capable to represent all people on technical and political matters.

In summary, women face two fundamental barriers:

Barrier 1. The role of women in water management and governance is not fully recognized and accepted, both by a gender perspective (focused on the role of men).

Barrier 2. Domestic responsibilities and care for others are an important part of the workload of women and it can limit their participation in several activities (e.g., meetings, production) if the initiatives to be implemented do not consider this factor or are not suited to it.

The gender action plan (Annex 7) delineate the measures to be executed during project implementation, which include the following general measures:

i. At all-time promote a gender responsive approach which seeks to ensure that women and men are given equal opportunities to participate in and benefit from the project's interventions and promote targeted measures to address inequalities and promote the empowerment of women.

ii. Working groups, management committees and related meetings and participatory processes will promote and facilitate the inclusion of women and men, mutual respect, and collective decision-making among them, with specific measures to ensure women's priorities and suggestions are included in decision-making processes.

iii. The inclusion of women and men will be promoted in the project implementation team. Inclusive language will be used in the pertinent hiring procedures and

documents. At least, one member of the team will have experience in the incorporation of the gender approach into development projects.

iv. The training courses will be inclusive and sensitive to gender and local culture in terms of participation, instructional design and use of language.

v. All project actions will be culturally sensitive and will consider, if necessary, the needs of people with disabilities.

vi. The communication strategy of the project will recognize the concerns and constraints faced by women and men, as well as their perceptions and motivations, to ensure a gender responsive approach.

vii. Communication materials, project documents, and publications will use appropriate gender-sensitive, and culturally inclusive language. The process of documenting the project's lessons will pay special attention to recording and informing the contribution and role of women in the implemented activities.

viii. The participation in meetings, training courses and other activities will be documented using sex-disaggregated data. If pertinent, this will be applied in the collection of information of consultancies and studies.

The gender, participation and intercultural specialist will be responsible for the implementation of the gender action plan.

The project plans to implement a multi-level strategy to address the gaps in women's suffering by focusing on:

Economy:

- ? Encourage the participation of women in various economic activities by promoting income-generating activities aimed at improving the quality of life of women
- ? Promote the economic role of women, while taking measures to increase their productivity
- ? Create a special fund for the granting of loans and microcredits to women farmers and small business owners;
- ? To provide technical support to the various economic initiatives for women in the Corubal catchment area.

Legal rights

- ? Guarantee women's human and legal rights:
- ? Publicise and enforce existing laws against domestic violence and female genital mutilation (FGM);

Gender Action Plan	
Project's Impact Statement:	Contribute to the integrated and sustainable governance of natural and water resources in the Koliba-Corubal basin through enhanced transboundary cooperation and governance?.
Gender-related aspects (e.g. specific indicators/targets):	N/A

Project activities	Gender equality aspects or objective(s) within each activity	Indicator	Target mid-term	Final Target	Responsible institution
Project's Outcome Statement:	Threats and development potential of the KCRB are assessed and planned.				
Gender-related aspects (e.g. specific indicators/targets):	Women active collaboration in the elaboration of strategic instruments and policies for sustainable governance of natural and water resources of the Corubal.				
<i>Output 1.1.1</i> A TDA of the basin approved by both countries.	Participation of women in the diagnosis of the transboundary water resources situation	% of women among all participants of the TDA process		Minimum of <u>50%</u> of participant are women	OMVG & National Executing Institutions
Output 1.1.2 A SAP approved and signed at the ministerial level by both countries.	Participation of women in the PAS process.	% of women among all participants of the TDA process		Minimum of <u>50%</u> of participant are women	OMVG & National Executing Institutions
Project's Outcome Statement:	The governance and cooperation framework for the KCRB are improved.				
Gender-related aspects (e.g. specific indicators/targets):	Women participation at the governance of the basin is real				
<i>Output 1.2.1</i> Approval at the ministerial level of an updated and revised version of the agreement between the two countries on the management of the KCRB signed in 1978.	Women are implicated in the meeting of approbation of the 1978 charter	% of women among all participants		Minimum of <u>50%</u> of participant are women	OMVG & National Executing Institutions
<i>Output 1.2.2</i> Establishment of a KCRB Management Commission between the two countries.	Women are implicated in decision process of the governance of the Corubal basin	% of women in decision board		Minimum of <u>50%</u> of the board are women	OMVG & National Executing Institutions
Project's Outcome Statement:	Funds required to implement the SAP are mobilized				

Gender-related aspects (e.g. specific indicators/targets):	N/A				
<u>Output 1.3.1</u> A successful resources mobilization strategy (developed and carried out) for the implementation of the SAP covering various sectors relevant to the basin.	Participation of women in the consultative process and the validation process	% of women among all participants		Minimum of <u>50%</u> of participant are women	OMVG & National Executing Institutions
<u>Output 1.3.2</u> An innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin.	Participation of women in the consultative process and the validation process	% of women among all participants		Minimum of <u>50%</u> of participant are women	OMVG & National Executing Institutions
Project's Outcome Statement:	667,000 hectares of land, including protected areas, benefit from improved practices and 26,562 hectares of land are recovered.				
Gender-related aspects (e.g. specific indicators/targets):	N/A				
<u>Output 2.1.2</u> Protection and recovery of at least 20,000 hectares of sensitive and/or degraded areas of the basin.	N/A				
<u>Output 2.1.3</u> Carry out hydro-agricultural development of lowlands and alluvial plains "	Women beneficiated of the management of low land	Number of beneficiary	500	1000	OMVG & National Executing Institutions

Output 2.1.4 Demonstration of sustainable fisheries management practices.	Women benefited of the new fisheries management plan	Number of beneficiary	100	200	OMVG & National Executing Institutions
Project's Outcome Statement:	264,000 people (164,000 women and 100,000 men) benefit from land restoration and improved land management practices.				
Gender-related aspects (e.g. specific indicators/targets):	Income-generating activities address women difficulties and improve their livelihoods to face climate change				
Output.2.2.1 Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes.	Income-generating activities are promoted based strongly on women needs and aspirations	% of women among all beneficiaries		Minimum of 50% of the beneficiaries are women	OMVG & National Executing Institutions
Project's Outcome Statement:	Project results are known and disseminated at regional, national, and basin levels.				
Gender-related aspects (e.g. specific indicators/targets):	N/A				
Output 3.1.1 A project monitoring and evaluation system is elaborated and implemented	Women participated in the monitoring of the project and defend gender issues during all process of project's implementation	% of women implicated in the project's monitoring		At least 50% of women	OMVG & National Executing Institutions
Project's Outcome Statement:	Lessons learned and good practices from the project are disseminated for replication and scaling up.				
Gender-related aspects (e.g. specific indicators/targets):					
Output 3.2. 1 Key experience and lessons learnt are compiled and widely disseminated	Women participation are documented and disseminated	% of women implicated		At least 50% of women	OMVG & National Executing Institutions

Output 3.2.2 Project contribution to the GEF IW-Learn platform (1% of the project).	Women participation encouraged	% of women implicated		At least 50% of women	OMVG & National Executing Institutions
Output 3.2.3 A gender equity, women's empowerment and mainstreaming plan	Women capacities are strengthen	Number of women trained	1000	2000	OMVG & National Executing Institutions

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.

The commitment of the private sector in the project is required given that the project is implemented in rich area (natural resources, water and mining) and where different actors are involved and lead economic activities. Concerning the economic perspective of the Koliba-Corubal river basin, access to and security of water resources has become a crucial development issue in a context increasingly characterised by climate change. Consequently, it is crucial in the river basin to engage all stakeholders (public sector, private sector, development partners, resident communities) for a sustainable governance of water resources. More concretely, the commitment of the private sector in the Koliba-Corubal river basin will be in the field of the green economy. The idea is to guide and direct the private sector towards transferring part of the revenue generated by their activities into green infrastructure. The aim is to encourage private companies to invest in the restoration and conservation of forests, habitats, soils and fisheries resources. In other words, each category of private sector actors will have to sustainably change their practices and adopt nature-based solutions.

The innovation of the project consists in engaging all economic actors in the river basin for sustainable governance of natural and water resources, either by contributing financially, or by adopting sustainable approaches in the exploitation of the basin potential. The involvement of the private sector in the governance of the water and natural resources of the Koliba-Corubal river basin

will be done through two strategies: the first one will consist in making the private sectors pay whose activities have a direct impact on the loss of water quality and even quantity; a second strategy will consist in pushing the private sector to invest in the green economy, notably the restoration of forest ecosystems (forests, riparian forests, mangroves). This second strategy involves testing medium and long-term investment in the carbon market. At this level, farmers are strongly mobilised and decentralised local authorities can also act as private actors and invest in the sequestration and sale of carbon for the conservation of biodiversity.

The engagement of the private sector will therefore be achieved through the following elements:

- ? Agriculture : attracting national economic actors and directing them towards the valorisation of lowlands (basfonds) and arable land, which have limited impact on the dynamics of the river basin's forest resources. The agricultural private sector is strongly encouraged to invest in NBS;
- ? Mining : to motivate mining companies operating in the area to be more social, economic and environmental responsible. The aim is to encourage them to create more economic opportunities for local communities and to adopt practices with limited impact on the environment and ecosystems
- ? Tourism: encourage the private sector to enhance the natural capital of the Corubal basin wetlands by investing massively in ecotourism;
- ? **Value chain**: engage private sector in the development of non-timber forest products value chain to reduce pressure on forest resources and land in the river basin.

Finally, the project will support the structuration and capacity building of the national and local private sector in sustainable natural resource valorisation, value chain development and the application of nature-based solutions.

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):

Project risks					
Description	Type	Impact & Probability (1-5)	Mitigation Measures	Owner	Status

<p>Guinea and Guinea Bissau are characterised by unstable, fluctuating and uncertain political situations. Periods of political stability alternate with sudden and relatively long periods of instability and uncertainty. This was verified in Guinea in September 2021 and in Guinea Bissau in February 2022.</p>	<p><i>Political</i></p>	<p>Impact: 4 Probability: 4</p>	<p>OMVG being a sub-regional organisation with financial and decision-making autonomy will be an asset in the implementation of the project. Indeed, OMVG has a position of neutrality that allows it to continue the implementation of activities with any government in the member countries. This position and its experience will permit the rigorous implementation of the activities.</p> <p>The transnational projects being implemented by OMVG and which have coincided with several political and geopolitical convulsions have enabled OMVG to capitalise on solid experience in managing the political and geopolitical risks that can affect the implementation of a project.</p> <p>Finally, the confidence of the various governments in OMVG is a key element that can enable OMVG to adopt fair and neutral positions for the benefit of the project and the</p>	<p><i>Government</i></p>	<p><i>High.</i></p>
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			countries concerned.		
Political and geopolitical tensions may arise and compromise the commitment of one or both countries to sign the 1978 agreement or to adopt the SAP or TDA	<i>Geopolitical</i>	Impact 3 Probability 1	The OMVG benefits from an important aura with the governments of the two countries, allowing it to be above the political and geopolitical stakes of the moment in order to continue working for a sustainable development shared by the two countries. OMVG's long experience in both countries gives it the technical and scientific support needed to continue the implementation of the project whatever the current situation.	<i>OMVG</i> <i>PMU</i> <i>IUCN</i>	<i>Low</i>

<p>During project implementation, difficulties and conflicts may impede project implementation due to institutional problems, conflicts between stakeholders, or technical and operational limitations of the project implementation unit.</p>	<p><i>Implementing and operational Risks</i></p>	<p>Impact: 3 Probability: 2</p>	<p>The project will be implemented by OMVG in collaboration with experienced national institutions related to natural and water resources. OMVG's project implementation will reduce the risks associated with project implementation and the mobilization of all stakeholders in both countries</p> <p>The recruitment process for the project management unit at regional and national level should be rigorous and the most suitable profiles should be selected to minimise the risks associated with managing complex projects.</p> <p>At the same time, during the Inception workshop, the executing and implementing agencies should conduct a risk seminar and brief all stakeholders on their roles in project implementation, synergies and complementarities and possible conflicts.</p>	<p><i>PMU OMVG IUCN</i></p>	<p><i>Medium</i></p>
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<p>The Koliba-Corubal river basin is located in a mining area with abundant and valuable resources such as gold, and is often confronted with road cutters, aggression and robbery. These insecurity phenomena can have risks on the smooth running of the project</p>	<p><i>Security</i></p>	<p>Impact 3 Probability 1</p>	<p>A security alert and monitoring committee should be set up and work with the various stakeholders on the field to better assess the situation and define the security measures to be taken.</p> <p>In collaboration with the local authorities, the project PMU will have to identify high-risk areas and put in place accompanying measures with the law enforcement agencies</p>	<p><i>PMU</i> <i>OMVG</i> <i>IUCN</i> <i>Local authorities</i></p>	
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<p>People in the catchment have little interest in the project and are afraid of being expropriated or deprived of their rights to use natural and water resources and to access land in the catchment</p>	<p><i>Social</i></p>	<p>Impact: 3 Probability: 1</p>	<p>Communities are very enthusiastic. During the PPG stage, the team of experts used a list of criteria to select project villages for inclusion in the project. A key criterion was social cohesion and commitment. The selection of a small number of pilot villages (18) will allow thorough development of activities which are chosen by all stakeholders in villages and have strong technical and financial support to ensuring their effectiveness.</p> <p>Moreover, the project will provide capacity building, regular meetings, and ensure involvement in each stage of the process. It will support a better involvement of communities in the Parks boards.</p> <p>As regards the risk of land access conflicts, the project will produce a land-use management plan, and will produce simplified management plans for the 18 pilot villages (including conservation and restoration agreement).</p>	<p><i>PMU</i></p>	<p><i>Low - decreasing.</i></p>
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<p>Several infrastructures and mining activities are under development around the Koliba-Corubal River basin may have negative impact on the natural resource</p>	<p><i>Environmental</i></p>	<p>Impact: 3 Probability: 2</p>	<p><i>The project will ensure more coordination between Ministries (in charge of dam project developers, in charge of mining activities, in charge of environment). The inter-ministerial commission and the DBT platform at the local level will deeper and enhance collaborative process and take appropriate decisions to better articulate economic development (planned dam, mining activities) and environment protection. In particular, environmental impact studies will be reviewed within the <u>Project</u> board.</i></p>	<p><i>OMVG PMU IUCN</i></p>	<p><i>Medium</i></p>
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<p>Climate change risks may cause changes in the Koliba-Corubal water flow and disbursement</p>	<p><i>Climate</i></p>	<p>Impact: 5 Probability: 4</p>	<p>The project will conduct studies to better known climate change impact in the Koliba-Corubal river basin; promote climate resilient activities, implementation and dissemination in agriculture, fishing, mining etc.</p> <p>By implementing pilot demonstration projects, the project will contribute to increase overall resilience of communities in climate change and to stop ecological degradation.</p> <p>The project will collaborate with adaptation projects.</p>	<p><i>PMU</i> <i>OMVG</i> <i>IUCN</i></p>	<p><i>High</i></p>
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<p>Social resistance against the involvement of women in activities;</p> <p>Low participation of women in local committee / governance;</p> <p>Project interventions are not gender-sensitive and gender-responsive.</p>	<p><i>Gender</i></p>	<p>Impact: 2 Probability: 1</p>	<p>To mitigate these risks, the project will pursue thorough and gender responsive communication showing the benefits of gender equality for both women and men. The involvement of stakeholders will be ensured at all levels, with special regard to involving women and men. Women will be recruited in the Project Board to support the implementation of the project activities in a gender-sensitive manner.</p>	<p><i>PMU</i></p>	<p><i>Low.</i></p>
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Epidemiological risk	<i>Health</i>	Impact: 3 Probability: 1	<p>Given the situation caused by the epidemic of COVID 19 in 2019 and 2020 around the world, the probability that an epidemic threatens project advancement is not unlikely. The project will ensure that all staff can respect hygiene and mitigation measures in the case of such an epidemic. The project will also be designed in a manner that components can be implemented independently so delays are not too high, should the case happen.</p> <p>In the short term, the risks are significant in case the epidemic continues and will mainly impact on the finalisation of the project document and the effective start of the project.</p> <p>In the medium and long term, and always in the hypothesis of a prolonged epidemic, the risks become serious and may even result in the non-achievement of the objectives assigned to the project. On another level, they will increase the impoverishment of the rural</p>	<i>OMVG</i> <i>PMU</i> <i>IUCN</i>	<i>medium</i>
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			population, which in return may intensify the pressure on natural resources and thus degrade ecosystems.	
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Climate risk analysis:

[Magnitude of CC are significant and its impacts important as we can see in earlier sections of this submission? this is translated into the table below.](#)

Climate Risks	Adaptive Capacity	Climate Risk Rating	Climate Risk Management Options	How Climate Risks Are Addressed in the Project*

Recurrent Drought Cycles

In the Corubal watershed, they will cause the main river and its tributaries to drying up, intermittently at least. The drying up of land and ponds, prolonged low water levels in the river and its tributaries, silting of the river bed, loss of biodiversity, water scarcity and water stress, migration of aquatic fauna, reduced income and food insecurity for communities etc.

Drought are now recurrent in the river basin and can be observed sometime during several consecutive years.

Guinea Bissau and Guinea have limited technical, scientific, financial and human resources to anticipate and manage climate risks. Climate information are insufficient and outdated. Populations are deeply dependent on activities, which are highly dependent on climate. As a result of the combination of these two factors, rural communities in the Corubal watershed have few alternatives during periods of climatic crises and are deprived of important sources of income.

Moderate

Reinforce the withdrawal of groundwater instead of surface water and runoff, create retention reservoirs throughout the catchment area to recover runoff water; creation of potable water points for agriculture and consumption; implementation of water allocation and use guidelines; development of rainwater harvesting systems; improvement of soil management techniques to reduce soil erosion and increase water retention capacity; adoption of drought resilient and short cycle crops; updating climate communication and guidance to rural populations; strengthening legal, policy and institutional frameworks for drought risk mitigation etc.

Demonstrate pilot projects, namely activities 2.1.1.1; 2.1.1.2; 2.1.1.3; 2.1.3.1; 2.1.3.3; 2.2.2.1 will provide evidence on drought mitigation which can then be scaled to enable further resilience to be built at the systems scale contribute to mitigate drought effect in the river basin.

- Also, development of the TDA and the adoption of the SAP will contribute to strengthen the adaption strategy an plan to face drought in the River basin in accordance of both national drought plan.

Temperature and sea level rise
Those phenomenon result in the submergence of the lowlands of the catchment area by sea water, the modification of the taxonomic structure of the catchment area, the salinization and loss of agricultural land, the scarcity of drinking and agricultural water in the catchment area, the degradation of ecosystems, particularly those of the mangrove area etc. [These climate phenomenon are now permanent and cause serious challenge for the durability of river basin water resources.](#)

High

Mastering of spatio-temporal information on the evolution of the coastline and coastal zone, Elaboration of crisis scenarios considering ecological dynamics (capacity of ecosystems to respond to the effects of global warming and sea rise) and human dynamics (population growth, migration, economic activities); structural prevention policies (walls, dykes, recovery of rice fields, water diversion) and non-structural (environmental education, awareness raising).

The project will conduct environmental, social, economic researches by developing TDA in whole basin. After this the project will plan and implement actions to facilitated adaptation by implementing the SAP. The implementation of pilot demonstration projects in component 2, more particularly Outputs 2.1.1 & 2.2.2 will contribute to mitigate these impacts.

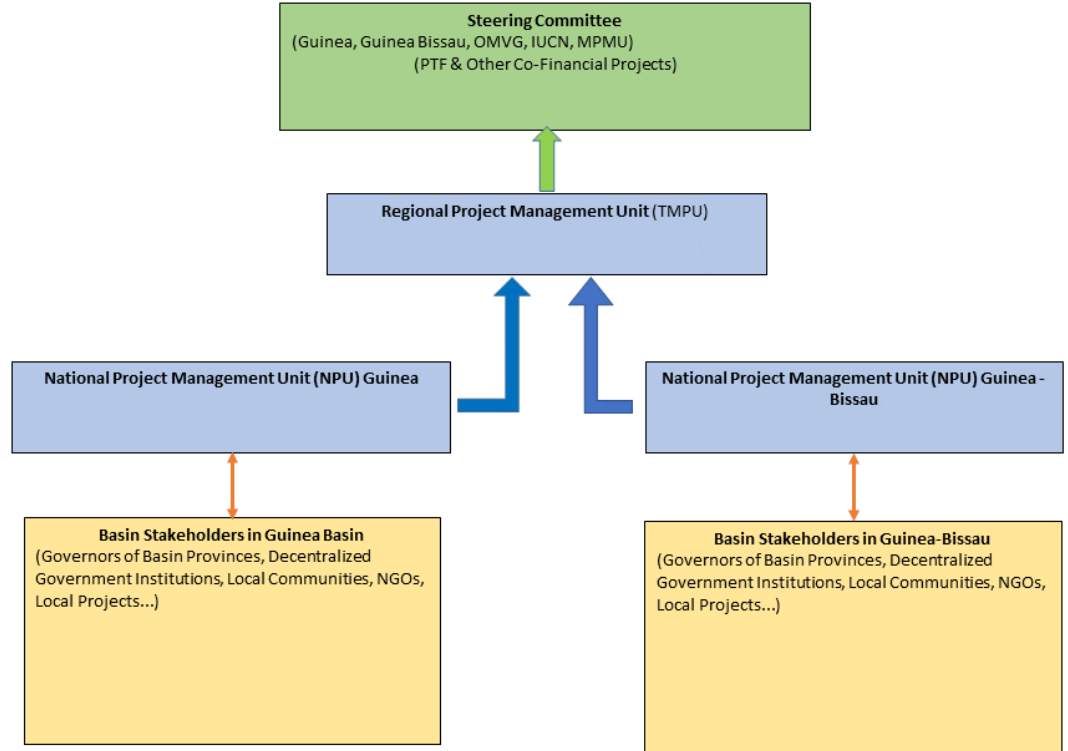
<p>Floods Floods cause increased flooding and land erosion, loss of productivity of lowlands and rice fields, proliferation of hydro-diseases, loss of habitats and biodiversity, destruction of socio-economic infrastructures <u>. Floods occur often in the river basin and can be observed sometime many time during the raining season.</u></p>		<p>Moderate</p>	<p>implementing measures to limit water pollution and erosion; building protective dykes in sensitive areas; installing derivation canals; restoring natural environments.</p>	<p><i>The management of low lands envisaged in component 2 as also the restoration of gallery forests and mangrove <u>provide evidence and demonstration for scaling interventions across the basins</u> to address climate risks related to floods and biodiversity loss in the Koliba-Corubal River basin</i></p>
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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.

The institutional framework and implementation modalities of the project are summarized in the diagram below and discussed in detail in what follows.

Figure 1: Institutional Framework for project implementation (Blue and bold lines mean that the body at the bottom reports the one on the top; orange and smaller lines are collaboration relationships)



The project will be implemented at two levels:

- o Overall Programme coordination, implementation and oversight at transboundary (multi-country) level.
- o Coordination and Implementation at Country level

Overall Project coordination, implementation, and oversight at the transboundary (multi-country) level

Implementing Agency

IUCN is the implementing agency (IA) for the project. It will support OMVG, the executing agency of the project, to ensure the implementation of activities in order to achieve expected results while respecting technical, administrative and financial norms and procedures of international standards, and based on its comparative advantage. It will also play a key role in promoting synergies between this project and other IUCN and GEF initiatives around the world, in general, and the West Africa sub-region, in particular.

More specifically, IUCN, as IA, will have primary responsibility, among other to: provide fiduciary and technical oversight on behalf of the GEF Secretariat; ensure project compliance with GEF policies and standards; monitor and evaluate project performance and prepare for the annual implementation review; provide support to the executing agency, particularly on technical issues and collaborations with Technical and Financial Partners; and ensure quality control of project work plans, budget and reports.

Executing Agency

OMVG is the executing agency (EA) and will, therefore, have the overall responsibility for the implementation of the project as a whole including all technical and financial matters. As EA, OMVG will also be ultimately responsible for the achievement of all project expected results. This will be in accordance with the content of the project document as approved by the countries, IUCN, and the GEF, and the terms and conditions of agreements signed between the countries and IUCN and the OMVG and IUCN. OMVG will ensure effective and efficient use of project resources in accordance with its own procedures, and those of IUCN and GEF. OMVG is also responsible for collecting and joining annual plans in each country and to submit to IUCN for receiving funds for the implementation of the project. Finally, OMVG is responsible of drafting the annual implementation report, planning in accordance with IUCN, the mid-term evaluation and the terminal evaluation of the project, with OMVG as responsible entity for recruiting consultants to carry out the MTR and TE and IUCN providing appropriate oversight of the process. OMVG, leading the transnational Project Management Unit and the National Project Management Unit, will convene Project Steering Committee and review projects achievements, expenditures, constrains and propose solutions for review to strengthen the implementation and to achieve results.

With regard to possible political and geopolitical problems/tensions that may affect the countries internally or arise between the two countries, the OMVG, given its position of neutrality, will serve as buffer against political, institutional and geopolitical crises. The OMVG will maintain links, contacts, dialogue and consequently the continuity of the implementation of the project activities even in a crisis context.

Finally, OMVG, with regard to its mission and mandate, will continue to implement activities in the river basin after the project to promote its sustainable development and the application of best practices.

The Project Steering Committee

The project will set up a project steering committee (PSC) to assist in facilitating the project implementation in the two countries. The PSC will serve as an advisory body for the implementation overall project activities. It will provide guidance, oversight, and support of on issues of major concern such as political ones at the transboundary level (and on occasion at national levels). It will have, among other responsibilities: reviewing and endorsing annual progress reports, as well as mid-term and final evaluations; approving annual project work plans and budgets; providing guidance on major changes to the project orientation (major change in content such as objectives, results, outputs of the logical framework) and its management.

Members of the PSC will include representatives of the two countries as indicated below, OMVG, and IUCN. The other members of will include the MPMU as the secretariat including organizing meetings, reporting and follow up on decisions made to ensure implementation. The PSC should also include technical and financial partners in a very selective way using criterion

such as provision of co-financing or supporting projects that are complementary, and/or potential partners for the subsequent implementation of the SAP that will be produced by this project.

Representation of the countries in the steering committee will be as follows:

Guinea: the GEF Focal Point; the Coordinator of OMVG National Unit; and representative of the Ministry in charge of Hydraulics, and the Ministry in charge of the Environment.

Guinea-Bissau: the GEF Focal Point; the Coordinator of OMVG National Unit; and representatives of the Ministry in charge of Hydraulics, and the Ministry in charge of the Environment.

Coordination and facilitation at Country level

As indicated in the diagram of the institutional framework presented above, there will be, in each country of the basin, a committee of partners to be established at the level of the basin bringing together all stakeholders including government authorities, NGOs, local communities, as well as technical and financial partners active in the field. These partner committees will play an advisory role to support the National Project Management Units (NPMU) that will be established in each country.

Project Implementation at transboundary and national levels

Project implementation will be managed by a Transboundary Project Management Unit (TPMU), which will be established by OMVG, and National Project Units (NPU) in each one of the countries.

Responsibilities of the TPMU

- ? Ensure the implementation of project activities;
- ? Ensure efficient and effective use and management of project financial resources;
- ? Ensure compliance with OMVG, GEF, and IUCN project management procedures and standards;
- ? Ensure the timely delivery of inputs and outputs to achieve the expected results of the project;
- ? Ensure appropriate monitoring and evaluation of project progress, including support for the organization of mid-term and final evaluations;
- ? Ensure a high level of coordination and collaboration between participating institutions and organizations at transboundary, national and local levels;
- ? Consolidate and submit technical and financial reports to the OMVG and the steering committee,
- ? Provide support and oversee the work of the NPU and various stakeholders, to ensure their performance;
- ? Prepare tender documents and monitor the performance of contractors in addition to staff working full time for the project;
- ? Administer and ensure contract compliance, including timely reporting;
- ? Purchase of all necessary equipment and supplies;
- ? Other duties as defined.

Composition of the TPMU

The transboundary project management unit (TPMU) will be comprised of : a Project Coordinator, an Administrative/Finance Officer, a Knowledge Management/Monitoring and Evaluation Expert, an IWRM Expert, a Gender and Community Development Expert, **and a Driver.**

Responsibility of the NPU

In each country of the project, a National Project Management Unit (NPU) will be established at the basin level. These NPUs will be the direct respondents of the TPMU in each country. These units will be supervised directly and only by the TPMU.

The NPU's responsibilities will be to: implement all project field activities within the basin; and support the TPMU in its responsibilities as described above. Given the transboundary nature of the project, it is important to note that these NPUs are parts of the project management structure and not separate project management units that report to national authorities in the target countries.

Composition of the NPU

Each NPU will be comprised of : a [National IWRM Expert](#) who will report directly to the Project Coordinator of the TPMU, **and a** Administrative and Financial Associate

7. Consistency with National Priorities

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

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

- ? National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC
- ? National Action Program (NAP) under UNCCD
- ? ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury
- ? Minamata Initial Assessment (MIA) under Minamata Convention
- ? National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD
- ? National Communications (NC) under UNFCCC
- ? Technology Needs Assessment (TNA) under UNFCCC
- ? National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD
- ? National Implementation Plan (NIP) under POPs

- ? Poverty Reduction Strategy Paper (PRSP)
- ? National Portfolio Formulation Exercise (NPFE) under GEFSEC
- ? Biennial Update Report (BUR) under UNFCCC

The project's contributions are aligned with national priorities, particularly those related to natural and water resources governance, socio-economic development, conservation, protection and restoration of the environment and the sustainability of ecosystem services, sustainable development. By promoting the integral and sustainable management of natural and water resources in the Corubal Basin, the project will contribute to the resilience of communities and ecosystems to climate change, to enhance human being conditions, improvement of women's living conditions. Therefore, the project is aligned with the following national priorities:

For Guinea Bissau:

The Water and Sanitation Master Plan, 2006: The project is aligned with the objectives and policies identified in the Water and Sanitation Master Plan. Indeed, the project will contribute to the achievement of the main objectives of the master plan, namely: (i) improving the access to drinking water for populations and agriculture, (ii) sustainable management of water resources for the satisfaction of the water needs of the various users, conservation of resources and preservation of the environment, (iii) strengthening and reorganisation of the institutional framework for water supply and sanitation management, (iv) transforming the role of the state and involving communities, civil society and the private sector in the governance of water resources.

National Biodiversity Strategies and Action Plan (NBSAP) 2015: The project is aligned with several NBSAP's priorities, including (i) Realizing vulnerability assessment and developing relevant adaptation measures to improve the resilience of the prioritized ecosystems to climate change, (ii) Promoting assisted or natural regeneration or intervention where mangrove ecosystems do not have the capacity for self-renewal, including restoration of the hydrological regime and/or the planting of mangroves, (iii) Promote the implementation of integrated water resource management plans, including the protection and restoration of critical wetlands, (iv) Update the assessment of all wetlands in the country, develop and implement management plans in accordance with Ramsar site management principles. **National Agricultural Investment Plan second phase (PNIA2) :** The project is aligned to the priorities of the PNIA2. For instance, the sub-program on Sustainable management of natural resources (water, soil, forests, etc.) including integrated water resources management, sustainable soil fertility management, management of forest resources, incorporates the issues and priorities of the proposed GEF project and are being addressed by its components. Specifically, the Consistency with PNIA Priorities will be achieved through (i) Strengthening the institutional framework for water resources management by supporting their creation and functioning where they are lacking, (ii) Improvement of the knowledge about surface and groundwater resources, (iii) Integrated water resources management in the lowlands and sustainable management of forest resources.

Poverty Reduction Strategy Paper (PRSP): The project is therefore aligned to the fifth core principle of DENARP II, which promotes a sustainable development, more resilience to climate change. The fourth principle of the strategy - which deals with the consideration of capacity building needs - is also well integrated in this project that aims at strengthening capacities from the local communities to the national institutions.

National Drought Plan (NDP) 2019 : The Corubal project will contribute to the strengthening of the NDP by reinforcing financing and actions for the management of natural and water resources in the Corubal basin, combating bad practices that increase the effects/impacts of drought on communities and limit their adaptation and resilience. The introduction of resilient and sustainable productive systems will limit human impacts on natural and water resources.

Strategic and Operational Plan for 2015-2025: The project is aligned to several axis of the Guinea Bissau Strategic and Operational Plan for 2015-2020. In particular the project is contributing to the biodiversity and sustainable management of natural capital pillar, which includes amongst others programmes on capacity building in the management of natural capital, knowledge and surveillance of natural resources and preservation of ecosystems. The present project is contributing to these efforts by strengthening the governance of natural resources, the establishment of an appropriate and efficient institutional framework, the protection of biodiversity, the implementation of sustainable income-generating activities.

National Action Plan for Adaptation (NAPA) : The project is aligned with Guinea Bissau's NAPA in terms of climate change adaptation, specifically water and natural resources long term access, food food security, resilience of ecosystems. This GEF project will contribute to improve fresh water resources quality and quantity in the context of climate change, reduce pressure in natural resources and loss of habitats and biodiversity. In addition, the present GEF project is in line with some previous NAPA projects, in particular: (i) the Rural Potable Water Improvement Project, (ii) The Project for Capacity Building for the Prevention and Protection of Mangrove Rice Fields against the Invasion of Living Waters, (iii) Project for the Promotion of Small Irrigation in the Geba and Corubal River Margins. Finally, it will capitalize lessons-learned and good practices generated by projects implemented under the NAPA.

For Guinea

Guinea developed and implemented policies, programmes, action plans and legislation for the protection and valorisation of the environment and its resources, of which the most important are:

The National Environmental Action Plan (NEAP) is the pillar of Guinea's environmental policy. The NEAP articulates all public policies and participatory approaches of sustainable management of natural resources and environmental protection. It focuses on different sectors and areas related to natural resources, biodiversity, and anthropogenic uses of ecosystem services. The NEAP emphasises in particular on plant and wildlife conservation, biodiversity management, sustainable land management, integrated management of natural and water resources, sustainable use of and access to vital resources (land and water), and improving the living environment. Ultimately, the NEAP focuses on sustainable use of natural and water resources, environmental conservation, biodiversity, balanced development, sustainable governance of natural resources.

National Economic and Social Development Plan (NESDP) 2016-2020: whose objective is to "promote strong, high-quality growth to improve the well-being of Guineans and carry out the structural transformation of the economy, while putting the country on the sustainable development pathway" is complementary to the present GEF project. The project will also complete actions undertaken on the NESDP, more particularly sectorial programs such as the Socio-Economic Recovery and Resilience Strategy, the Accelerated Food and Nutrition Security and Sustainable Agricultural Development Program. The project will contribute to the implementation of adaptation actions for the riparian communities of the Corubal basin and to the promotion of sustainable agricultural practices.

National Strategies and Action Plans for Biodiversity Conservation and Sustainable Use (2002): This plan aims to adopt management systems that are more focused on the ecosystem approach, taking into account the effects of resource extraction to promote the long-term balance of socio-economic considerations for the benefit of the whole population. The project will contribute to the implementation of the strategy, more particularly the adoption of management systems based mainly on the ecosystem approach, the creation and development of a network of protected areas representative of the diversity of terrestrial and aquatic ecosystems, the conservation and sustainable use of biological diversity; the strengthening of the human and material capacities of the institutions responsible for the conservation and use of biological diversity; the strengthening of subregional, regional and international cooperation for the conservation and development of ecosystems and their biological diversity.

Le Programme Cadre de Promotion, Décentralisation et Renforcement des Capacités de la Société Civile (PC/PDRSOC) : enables the implementation at the decentralised level of participatory and integrated initiatives for the management of natural resources and the governance of shared resources between the State, the population and the various development actors at the level of each territorial community. The PC/PDRSOC facilitates the establishment of a dynamic and interactive partnership system between decentralised authorities, NGOs, cooperatives, development projects and citizens' associations for sustainable territorial and human development.

In other words, the PC/PDRSOC aims at the sustainable use of natural resources for the benefit of populations and local communities, which makes it relevant and coherent with the Corubal project

The National Regional Planning Scheme: This plan, adopted in 1991, defines the future evolution of the territory through a long-term demographic projection for 2020, the distribution of economic activities and reception structures, the improvement or creation of basic infrastructures and the protection of the environment (protection of nature, sanitation, protection of sites and monuments, etc.).

Agricultural Development Policy Letter (ADPL): The GEF project on the Corubal waters is complementary to the ADPL, particularly in its actions aimed at improving the management and preservation of the natural heritage (soil, forests, genetic heritage, fauna and ecosystems), promoting the fight against harmful traditional agricultural production systems (itinerant slash-and-burn agriculture, use of fires, uncontrolled clearing of forests, colonisation of fragile areas such as mountain slopes, river beds, shallows, spring heads, etc.).

National Environmental Action Plans: NEAP (1996) : the GEF Corubal project is consistent with the NEAP by integrating its fundamental concerns, i.e. the improvement of farming systems, integrated protection of water and soil resources, biodiversity conservation, integrated management of river basins, etc.

National forest action plans: NFAP (1987) : The main objective of the NFAP is to develop a comprehensive long-term forest sector development strategy. The intervention strategy is based on the following priority actions: institutional strengthening, preservation of the national forest heritage by fighting against its degradation, improvement and introduction of sustained exploitation techniques, restoration of degraded forest ecosystems, conservation of related resources such as water resources and land real estate assets.

the Corubal GEF project is consistent with NFAP in particular the conservation of the national forest resources, the rational management of production forest areas and related sectors, the conservation of mangrove and wetland forests and watercourses.

The Mangrove Master Management Plan (MMMP) : aims at a balanced and sustainable exploitation of the mangrove ecosystem. This master plan proposed the main guidelines for the development of the Guinean mangrove. The aim of the MMMP is to find an acceptable compromise between the necessary development of the coastal environment through the mobilisation of resources and the conservation of the most sensitive areas.

The Fisheries Master Plan: The objective of the Fisheries Development and Management Plan is to protect the national estate of fisheries resources in order to ensure their sustainability in the interest of present and future generations, to protect the fragile and strategic ecologies for fish reproduction and finally to contribute to the population' food security.

The National Strategy on Biological Diversity for the implementation in Guinea of ??the strategic plan (SNDB 2011 ? 2020) and the AICHI objectives: Like many countries in the world, Guinea has actively participated in the development and in the negotiation of the convention on biological diversity, which it signed in Rio in June 1992 and ratified on May 7, 1993. The national commitments and objectives had been included in the national strategy and the action plan adopted by the Government in 2001. A new strategy was developed in 2010 with the ambition to preserve, increase, restore and enhance biodiversity throughout Guinea. The SNPAB 2011-2020 highlights the root causes of the degradation of biodiversity in Guinea. These are: (i) population poverty, (ii) population growth, (iii) insufficient human, financial and institutional capacities, (iv) poor governance in the management of biodiversity, (v) the entanglement of skills, and (vi) the low level of knowledge of the value and role of biodiversity. 17 The SNPAB 2011-2020 is based on the following vision: ?from 2011 to 2020, biological diversity is restored, conserved, valued and used wisely by all stakeholders, ensuring the maintenance of the ecosystem services provided, maintaining the ecosystems in good health, ensuring essential benefits for the present and future generations of Guinea?

The National Water Resources Management Policy and Strategy : The Corubal project aligns with the national water policy, especially regarding the strengthening of knowledge related to water resources, the implementation of hydro-ecological monitoring systems of national and international waters basins, the fight against silting and siltation, the fight against pollution phenomena related to industrial, agricultural and extractive activities, the strengthening of stakeholders capacities in water resource management, the strengthening of capacities related to the collection and processing of water resource data, the establishment of water resource management plans.

National Strategy and Policy Documents	Main Actions	Alignment and complementarity with Koliba-Corubal Project	Country
<p>PAN/LCD- National Action Plan to Combat Desertification</p>	<ul style="list-style-type: none"> - Biodiversity conservation - Soil management and land degradation neutrality (LDN) - Restoration of degraded areas and ecosystems - Strengthening the technical capacities of the different actors and the legal and institutional framework 	<ul style="list-style-type: none"> - Restoration of degraded land in the river basin, - Conservation and restoration of biodiversity; - strengthening the Governance of natural and water resources throughout the river basin. 	<ul style="list-style-type: none"> - Guinea Bissau

<p>NAPA-National Action Program of Adaptation to Climate Changes, 2006</p>	<ul style="list-style-type: none"> - Conservation of biodiversity in degraded and fragile ecosystems; - Restoration of ecosystems in degraded areas and territories; - Introduction of sustainable techniques for the use of natural and water resources; - Introduction of community-based management of forests in the entire country; - Reforesting of zones degraded, restoring through the use in each agro-ecological zone of local species and sustainable management of those species thus allowing their future natural regeneration 	<ul style="list-style-type: none"> - Biodiversity conservation and restoration; - Sustainable land use management; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes; - Application of an innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin 	<ul style="list-style-type: none"> - Guinea Bissau
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<p>ENAP-National Strategy for Protected Areas and Biodiversity Conservation 2014 - 2020</p>	<ul style="list-style-type: none"> - Strengthening the management of spaces and species through a consolidated partnership policy - Identify and implement strategic partnerships that will further respond to growing pressures on biodiversity and ecosystems. - Develop financial instruments that ensure the continuity and sustainability of IBAP's intervention 	<ul style="list-style-type: none"> - Improving the governance and cooperation framework for the Koliba-Corubal River Basin . - Development of financial resources strategy; - Improving policies, regulations, institutional collaboration, and stakeholders' capacities and participation, - Implementing sustainable activities in the river basin. 	<ul style="list-style-type: none"> - Guinea Bissau
<p>Strategic and Operational Plan 2015-2025 ??Terra Ranka??</p>	<ul style="list-style-type: none"> - Establish a regulatory and institutional framework for sustainable development and protection of biodiversity, - Regulating the exploitation of renewable natural resources to ensure biological renewal - Implement a Climate Plan that increases the resilience of the national territory to change 	<ul style="list-style-type: none"> - Improving the governance and cooperation framework for the Koliba-Corubal River Basin . - Development of financial resources strategy; - Improving policies, regulations, institutional collaboration, and stakeholders' capacities and participation, - Implementing sustainable activities in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes 	<ul style="list-style-type: none"> - Guinea Bissau

<p>PNADS ? National Environment and Sustainable Development Policy</p>	<ul style="list-style-type: none"> - Promotion of Community Forests; - Updating and approval of the Forest and Fauna Development Policy and Strategy; - To redesign and act on a national strategy for the restoration of forest landscapes; - Create a National Resource Centre for restoration of forest landscapes; - Strengthen forest management capacity by the competent institutions (DGFF, IBAP, National Guard) and communities; 	<ul style="list-style-type: none"> - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes - Improving the governance and cooperation framework for the Koliba-Corubal River Basin . - Development of financial resources strategy; - Improving policies, regulations, institutional collaboration, and stakeholders' capacities and participation, - Implementing sustainable activities in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes - Development and implementation of a project monitoring and evaluation system. 	<ul style="list-style-type: none"> - Guinea Bissau
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<p>The National Environmental Action Plan (NEAP)</p>	<ul style="list-style-type: none"> - Improve the living conditions ; - Enhance the value of rare biodiversity and cultural resources and, more generally, ensure the rational management of all natural resources, including marine resources; - Prevent major risks, not only climatic, but also linked to human activities in both urban and rural areas; - Organise mining and industrial development, better control and ad hoc prevention of pollution. 	<ul style="list-style-type: none"> - Implementing sustainable income generating activities in the river basin - Restoration of degraded ecosystem - Assessment of threats and improvement of the governance of the natural and water resources in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin. 	<ul style="list-style-type: none"> - Guinea
<p>The National Programme for Sustainable Human Development (PNDHD)</p>	<ul style="list-style-type: none"> - Governance and participation, - Access to basic social services, - Human resource capacity building, environmental protection and management, and - The fight against poverty in its largest sense. 	<ul style="list-style-type: none"> - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes - Improving the governance and cooperation framework for the Koliba-Corubal River Basin . - Improving policies, regulations, institutional collaboration, and stakeholders' capacities and participation 	<ul style="list-style-type: none"> - Guinea

<p>The National Biodiversity Strategy for the implementation of the Strategic Plan (SNDB 2011 - 2020) and the AICHI objectives in Guinea</p>	<ul style="list-style-type: none"> - Preserve biological diversity, - Increase, restore and enhance biodiversity throughout Guinea. 	<ul style="list-style-type: none"> - Restoration of degraded ecosystem - Assessment of threats and improvement of the governance of the natural and water resources in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes 	<ul style="list-style-type: none"> - Guinea
<p>The Mangrove Management Plan</p>	<ul style="list-style-type: none"> - Sustainable development of mangrove ecosystems; - Conservation of the most sensitive areas. 	<ul style="list-style-type: none"> - Restoration of degraded ecosystem - Assessment of threats and improvement of the governance of the natural and water resources in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes 	<ul style="list-style-type: none"> - Guinea

<p>The Decentralisation Policy</p>	<ul style="list-style-type: none"> - environmental protection - Governance of natural resources - Sustainable governance of forest resources; - Forest landscape restoration; - Knowledge building on forest ecosystems - Sustainable financing of forest resource governance. 	<ul style="list-style-type: none"> - Restoration of degraded ecosystem - Assessment of threats and improvement of the governance of the natural and water resources in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes; - Development and implementation of a project monitoring and evaluation system; - Application of an innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin. 	<ul style="list-style-type: none"> - Guinea
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<p>The Forestry Policy</p>	<ul style="list-style-type: none"> - Sustainable governance of forest resources; - Forest landscape restoration; - Forest ecosystem knowledge generation - Sustainable financing of forest resource governance. 	<ul style="list-style-type: none"> - Restoration of degraded ecosystem - Assessment of threats and improvement of the governance of the natural and water resources in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes; - Development and implementation of a project monitoring and evaluation system; - Application of an innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin. 	<ul style="list-style-type: none"> - Guinea
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<p>The National Action Plan to Combat Desertification (PAN/LCD)</p>	<ul style="list-style-type: none"> - Safeguarding ecosystems ; - Poverty alleviation; - Rational and integrated management of natural resources; - Decentralisation and effective participation of actors at the grassroots level; - Partnership between actors; - Promotion of activities adapted to climate change. 	<ul style="list-style-type: none"> - Restoration of degraded ecosystem - Assessment of threats and improvement of the governance of the natural and water resources in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes; - Development and implementation of a project monitoring and evaluation system; - Application of an innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin. 	<ul style="list-style-type: none"> - Guinea
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<p>The national climate change adaptation plan (PANA)</p>	<ul style="list-style-type: none"> - Rational use of natural resources - Improvement of production technique. - Improvement of water supply for various needs - Protection of the coastal zone, - Improvement of agricultural and livestock production, - Safeguarding of forest resources, promotion of information, education and communication, and - Commitment to reduce the consumption of firewood and charcoal per capita (urban and rural) by 50% by 2032 compared to 2011; - Reforestation of 10,000 ha per year. 	<ul style="list-style-type: none"> - Restoration of degraded ecosystem - Assessment of threats and improvement of the governance of the natural and water resources in the river basin; - Implementation of sustainable practices for the use of natural resources in the basin to improve productivity, food security, and incomes; - Development and implementation of a project monitoring and evaluation system; - Application of an innovative financing mechanism including private sector partners in the sectors identified in the SAP is created to stimulate the restoration and improvement of land management practices in the basin. 	<ul style="list-style-type: none"> - Guinea
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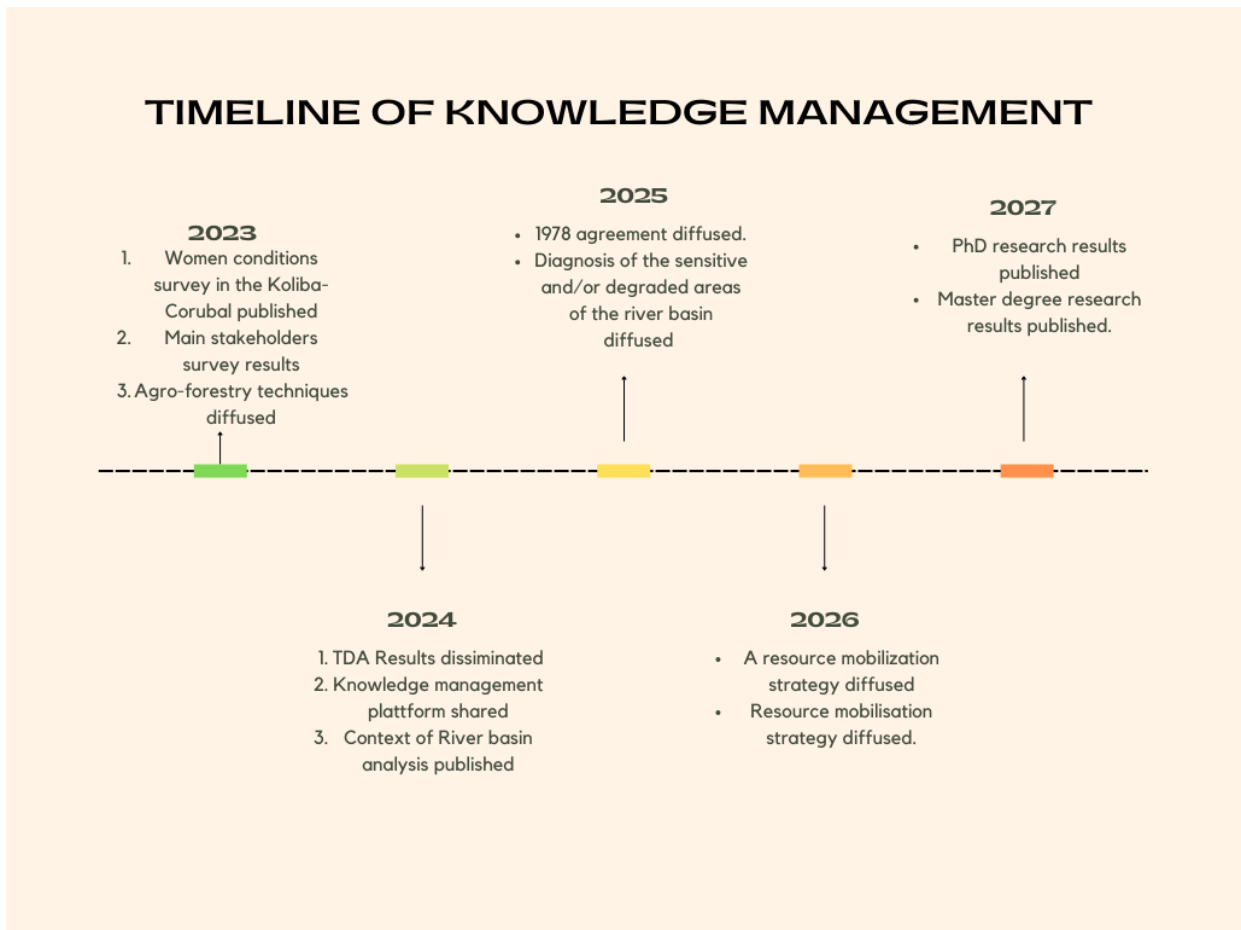
8. Knowledge Management

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.

Under the framework of the Communications and Knowledge management strategy, results from the project will be disseminated within and beyond the project intervention area, through networks and exchange forums. The project will identify and participate, as necessary and appropriate, in scientific, policy-based and other networks that can be beneficial to the project. The project will identify, analyse and share the learning that could be beneficial for the design and implementation of similar projects and the lessons will be widely disseminated. There will be a continuous exchange of information between this project and other projects of similar approach in the same country, region and worldwide. Projects

that operate in the same area and are complementary to the present project will be invited during the sessions of dissemination of results, capitalisation of experiences, and sharing of good practices. The scientific knowledge that will be generated in the framework of the Master's and doctorate courses will be disseminated in specialised journals and in university libraries. Also, this knowledge will be shared and discussed **at the IWLEARN International Waters Annual Conferences**, in symposia, workshops and other scientific activities at the national level of both countries, sub-regional and global levels.

Specific and fundamental activities such as the TDA/SAP process, the establishment of concerted and shared mechanisms for the governance of shared water resources, the involvement of vulnerable groups, in particular women, will be documented and synthesised and shared at all levels: local, national, regional and global. They will be disseminated mainly in Portuguese, French and English. The experiences concerning the strengthening of the role of women and vulnerable groups, and the sustainable governance of water and natural resources in the river basin will also be disseminated in the most commonly used local languages of the river basin.



9. Monitoring and Evaluation

Describe the budgeted M and E plan

M&E activity	Frequency	Responsible/roles	Budget (GEF funded)
Inception Workshop & Report	No later than three months after validation of the project	<p>-OMVG (organisation of event and coordination with PMU; review and validation of workshop report)</p> <p>-PMU (organize event with support of OMVG & IUCN; draft workshop report)</p> <p>-IUCN (oversight and planning & facilitation support; review and validation of workshop report)</p>	USD 10,000 under Component 1
<p>Development of an M&E system and</p> <p>Baseline assessment</p>	<p>Within 6 months of project start up</p> <p>Within 6 months of project start up</p>	M&E specialist	<p>USD 120,000 Budgeted under Component 3</p> <p>Includes:</p> <p>-USD 96,000 (specialist consultant contract)</p> <p>-USD 14,000 (International Consultant to define and monitor indicators)</p> <p>-USD 10,000 (training on database and indicator monitoring)</p>
Planning and Analysis of progress made in terms of the project outputs and implementation	Annually, before the PIR and in the annual work plans	<p>PMU (drafting of progress report in collaboration with implementing partners)</p> <p>OMVG (review and validation of progress report)</p> <p>IUCN (oversight, review and validation of progress report)</p>	Covered by PMC

Quarterly Progress Reports	Quarterly	PMU (drafting of progress reports in collaboration with implementing partners) OMVG (review and validation of progress reports) IUCN (oversight, review and validation of progress reports)	Covered by PMC
Annual PIR	Annual	PMU (drafting of PIR in collaboration with implementing partners) OMVG (review and validation of PIR) IUCN (oversight, review and validation of PIR and submission the GEF&GEF OFP as GEF agency)	Covered by PMC
Midterm Review / Terminal Evaluation	Mid-term Review (MTR) 3 months before the end of the project (TE)	PMU (drafting of TOR for MTR and TE) IUCN (Oversight: Approves TOR; NO Objection to consultant selection) OMVG (budget holder; contracts consultants)	USD 70,000 (USD 30,000 for MTR and 40,000 for TE)
End of Project report	3 months before project end	PMU (drafting of end of project report in collaboration with implementing partners) OMVG (review and validation of end of project report) IUCN (oversight, review and validation of end of project report)	Covered by PMC
Site visits	Annual	PMU (coordination of site visits and stakeholder engagement) IUCN (oversight and monitoring of progress) OMVG (supporting the coordination of site visits and stakeholder engagement)	Covered by PMC

Total estimated costs (Excluding project personnel and IUCN agent costs and travel expenses)	USD 200,000
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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 (LDCE/SCCF)?

During the implementation of the project, several initiatives and activities will be implemented and will contribute to positive transformations of the social and economic conditions of the communities in the river basin and even beyond. The efforts of understanding and mastering the context of the river basin that will be promoted by the project through the realization of the TDA will facilitate an in-depth analysis of the social, economic and cultural context of the river basin. The TDA will also analyse the environmental situation and the territorial dynamics of the river basin in order to identify all the negative factors that impact the sustainability of the river basin and hinder the social and economic development of the resident communities. Other diagnostic studies, focused on specific sectors or commodities (including studies on key commodities and sectors such as fisheries, lowlands, rangelands, natural resources, etc.) will also be conducted during the implementation of the project.

In addition, several other activities directly or indirectly affecting communities' livelihoods will be implemented by the project. All the initiatives implemented during the project will have considerable social and economic benefits for the river basin and for both countries directly. At the local level, the benefits consist in setting up income-generating activities for the most disadvantaged strata, women and young people in particular. The social impact of these activities is considerable, it is first of all to guarantee access to land and means of production to its disadvantaged strata.

- Social benefits :

The activities and initiatives to be implemented during the lifetime of the project will have, among other social benefits:

- ? A better understanding of the social issues in a context of increasing scarcity of natural resources and climate change in the catchment area;
- ? A better planning of the development of the river basin in the short, medium and long term, including the social development of the communities living there;
- ? A better management of social conflicts between communities and stakeholders;
- ? The creation of links between the different communities, stakeholders of the river basin;
- ? The establishment of a network of interacting stakeholders in the river basin;
- ? The conservation of biodiversity;
- ? The creation of economic opportunities and the achievement of food security.

With regard to vulnerable groups, the project will promote empowering initiatives. Special attention will be given to women. A full-time position will be provided to support communities in the river basin to increase positive action towards women. In addition, the IGAs that will be developed will greatly contribute to the economic and financial empowerment of women. These positive changes will affect 30 villages in the river basin.

- Economic benefits :

One of the main expected results of the project is the development and implementation of an innovative strategy for financing water and natural resources governance activities of the river basin. This activity will constitute a significant economic element for better governance and ecological sustainability of the catchment area. Furthermore, the activities to be implemented, which consist of better planning of the use of resources in key sectors such as fishing and livestock, will boost the economy generated by these sectors.

The promotion of income-generating activities will increase the income of communities, particularly women and young people. These activities will reduce the pressure on forest resources and increase income from non-timber forest 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/Approva I	MTR	TE
Medium/Moderate	Medium/Moderate		

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.

The project aims at securing the integrated and sustainable use of natural resources in the Corubal Basin through enhanced transboundary cooperation and governance on water resources management. This will be achieved through a structured water resource planning and management process using the methodology of transboundary diagnostic analysis (TDA) and the development of a resulting strategic action plan (SAP). This will lay the ground for strengthening institutional capacities and improving water resource governance and cooperation through bilateral agreements and protocols for water management. The implementation of the SAP will be advanced through mobilizing financing and by implementing concrete conservation and restoration action through pilot projects. By promoting sustainable management practices for grazing land, agriculture, agroforestry and sustainable fisheries

management, these activities will not only contribute to water management and land restoration but also provide tangible benefits to the local communities by improving productivity, food security, and incomes.

By developing strategies for sustainable water management of the Corubal River Basin and strengthening institutional capacities and legal frameworks, as well as implementing pilot-projects for restoration and sustainable water management, the project is expected to lead to highly positive environmental outcomes. Social outcomes are also expected to be overall positive as the pilot projects aim at increasing productivity, food security, and incomes. However, the water diagnostic might reveal the need for changing or reducing the consumption of water resources, which could have negative social impacts, in particular for vulnerable groups. Depending on the specific outcomes of the TDA, the pilot projects will also address other sectors that have been identified as causing degradation of the basin's resources, such as slash-and-burn practices for agriculture, illegal gold-mining and unsustainable crop farming practices. Preventing these practices, while needed from an environmental perspective, might cause negative social impacts when affecting peoples' livelihoods - in particular if vulnerable groups are affected who do not have other options for generating income or meeting subsistence needs.

Because these pilot projects will only be defined during project implementation, they cannot be screened on environmental and social risks at this stage. Therefore, an Environmental and Social Management Framework (ESMF) is needed that provides the procedure for assessing such risks once these pilots have been designed guidance for managing such risks.

In response to potential risks for vulnerable groups as identified in section B of the ESMS questionnaire the ESMF developed for this project includes provisions for conducting a quick scan in each selected locality to identify potential vulnerable people who may be more likely affected by adverse impacts and/or more limited than others in their ability to take advantage of the project's benefits.

As described in section C1 of the ESMS questionnaire, it is quite likely that the Standard on Involuntary Resettlement and Access Restrictions will be triggered by some of the pilot projects as it is the water diagnostic might reveal the need for changing/ reducing water usage. As the pilot projects focus on sectors that have been identified as causing degradation of the basin's resources, such as agriculture, energy, fisheries, mining, logging reducing these pressure will also likely need to involve some form of use restrictions. The ESMF includes a Process Framework (PF) that establishes the consultative processes with local stakeholders to be carried out by each pilot project for assessing whether risks from access restrictions are triggered. Where triggered, the PF include provisions how project-affected people will be involved in assessing the significance of risks and developing mitigation measures to restore their livelihood losses.

In addition, the TDA will be amended by a high-level assessment of social impacts of recommended water management strategies.

The Standard on Indigenous Peoples has not been triggered. While the basin is host to a large variety of ethnic groups, languages and religions, there are no indications of specific groups that meet the IUCN criteria for indigenous peoples. Any potential risks of discrimination or marginalization of specific ethnic groups are dealt with under the risk area Vulnerable Group. The decision on the Standard on Cultural Heritage is likewise pending as sites and activities are not fully known. Guidance for this standards is provided in the ESMF.

The ESMF developed for this project is based on the ESMS screening and has followed IUCN's Internal Project Appraisal and Approval System (PAAS), and been approved by the IUCN ESMS coordinator.

In addition to direct impacts caused by the pilot projects, it is also important to be aware of potential high-level unintended negative impacts caused by the Strategic Action Program (SAP) developed as a result of the TDA. While the implementation of these actions is not part of the project, the ESMS does require that potential E&S impacts from downstream implementation of policies, plans and programmes are taken into account. Therefore, the TDA will need to be amended by a high-level assessment of social impacts of recommended water management strategies.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
GEF ID 10508 ESMF Corubal River_11 MAY 2023	CEO Endorsement ESS	
ESMS screening and clearance	CEO Endorsement ESS	
esms preliminary screening_corubal_GEF7- draft	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).

Results Chain	Indicators	Baseline	Midterm target	End of project Target	Means of Verification	Risks and Assumptions
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<p>Objective: Ensure the integrated and sustainable use of the natural and water resources of the Koliba-Corubal Basin through strengthened transboundary cooperation and governance.</p>	<p>Indicator 1.1: Number of shared fresh water ecosystems under cooperative management between Guinea and Guinea Bissau</p> <p>Indicator 1.2: METT scores for the Koliba-Corubal River Basin show improvements in management and biodiversity conservation effectiveness</p>	<p>0</p> <p>0</p>	<p>0</p> <p>0</p>	<p>1= Koliba-Corubal River basin</p> <p>At least 40% of 20000 ha under improved management of the River basin show increases on biodiversity in all river basin.</p>	<p>Signed commitments</p> <p>Annual reports</p> <p>Mid Term and Final Evaluation PIR</p> <p>Surveys reports on biodiversity evolution in river basin</p> <p>Data collection methods on restored areas</p> <p><i>Project reports ?</i></p> <p><i>METT analysis repeated as part of project M&E process.</i></p> <p>Annual reports.</p> <p><i>MTR</i></p> <p><i>PIR</i></p> <p><i>Project site visits and evaluation for verification</i></p>	<p>Risks:</p> <p>? Socio-political stability</p> <p>Political and geopolitical tensions between the two countries and at the community level (ECOWAS) which may lead to the exclusion of one of the parties from regional cooperation bodies.</p> <p>Assumptions</p> <p>∴</p> <p>? Both countries maintain their political commitment to advance collaborative management of transboundary water resources.</p> <p>? It is a priority in the political agenda of both countries to address the major anthropogenic pressures that negatively affect the Koliba-Corubal river basin.</p> <p>? There is good communication and collaboration</p>
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						among government agencies and local governments in both countries. ? The executing agency (OMVG) maintains and plays his role of medium between the two countries. ? The changes resulting from the national and local elections do not affect working relations and commitments.
-	Indicator 2: Number of specific binational commitments to address critical aspects of conservation and sustainable use of water resources and to advance IWRM in the Koliba-Corubal transboundary basin.	A draft agreement established in 1978	2 (The 1078 agreement revised and technically cleared, SAP drafted)	At least 3 (SAP, the 1978 agreement, the management commission for the Koliba-Corubal river basin established between the two countries)	Signed commitments , Reports Government policies and strategy documents MTR & final evaluation reports	Risks: Same as above. Assumptions : Same as above and can be added ? Key stakeholders are motivated to advance IWRM in the transboundary basin. ? Political factors do not limit collaboration among key organizations and local and national authorities

Indicator 3: Number of direct project beneficiaries.	0	At least 6000 farmers benefit from demonstration projects	At the signing of the SAP, 264,000 peoples (164,000 women and 100,000 men) benefit from the project (GEF Core indicator 11)	Annual report Project database MTR & final evaluation reports PIR Field verification and measurements PIR	Same as above
Indicator 4: Number of land and ecosystem under improved management or restored	0	At least 100 ha of lowlands At least 1000 ha of lowlands and alluvial At least 10000 ha of sensitive and/or degraded land under improved management (included in GEF indicator 3&4)	At least 200 ha of lowlands At least 2000 ha of lowlands and alluvial At least 20000 ha of sensitive and/or degraded land under improved management	Project activity report Map of areas under improved management (shapefile, map) Field verification and measurements MTR & final evaluation reports PIR	Same as above
Component 1: Assessment and planning of the development of the Koliba-Corubal basin, and strengthening of these governance institutions					

Outcome 1.1.: Threats and development potential of the Koliba-Corubal basin are assessed and planned	1.1. Level of knowledge of degradation	40%	50%	80%	Study report	Risks: Socio-political stability Political and geopolitical tensions between the two countries and at the community level (ECOWAS) which may lead to the exclusion of one of the parties from regional cooperation bodies. Assumptions : Both countries maintain their political commitment to advance the collaborative management of transboundary water resources. One of the priorities of the political agenda of the two countries is to tackle the main anthropogenic pressures that negatively affect the water resources of Koliba-Corubal. Communication and
	1.2. Number of known threats	40%	50%	80%	MTR & final evaluation reports PIR Field verification and measurements PIR	
	1.3. Number of development plans developed and implemented	0	1	2	Existence of plan	

					<p>collaboration between government agencies and technical bodies of both countries is good.</p> <p>The OMVG maintains the cooperative water resources management framework of Koliba-Corubal regardless of the geopolitical and political tensions between the two countries</p>
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<p><i>Output 1.1.1:</i> A transboundary diagnostic analysis (TDA) of the watershed is carried out, and approved by both countries</p>	1.1.1. a. number of national reports validated	0	1	2	Report	Same
	1.1.1. b. number of summary reports validated	0	1	1	Report TDA validation workshop minutes capturing consensus.	
	1.1.1. c. number of validation workshops of TDA key findings completed with the two national governments; subnational governments; scientific community; Civil Society Organizations (CSO) and private sector.	0	2	3	Document establishing the recognition of the TDA. TDA document published on project website.	
	1.1.1.d; A TDA defining the priority transboundary issues, their root causes, impacts and gaps approved by the Project Steering Committee	0	1	1	Minutes and attendance records from validation workshops.	
<p><i>Output 1.1.2:</i> A strategic action plan (SAP) is developed, approved, and signed at the ministerial level by the two countries</p>	1.1.2. a. a validated SAP	0	1	1	Report	Same

Outcome 1.2: The governance and cooperation framework of the Koliba-Corubal basin are improved	1.2.a. number and skills of structures involved in management (local, national and cross-border)	4 (National, regional, prefectural, communal)		5 (Cross-border, national, regional, prefectural, municipal)	Activity reports	Same
<i>Output 1.2.1.</i> Approval at ministerial level of an updated and revised version of the agreement between the two countries on the management of the Koliba-Corubal basin signed in 1978.	1.2.1.a. updated cooperation agreement	0		1	Updated Agreement Number of preparatory meetings	Socio-political stability Same
<i>Output 1.2.2.</i> A management commission for the Koliba-Corubal river basin is established between the two countries	1.2.2.a the commission is established	0		1	Updated Agreement Number of preparatory meetings Final report on the establishment of the commission	Socio-political stability Same
Outcome 1.3: The funds necessary for the implementation of the SAP are mobilized	1.3.a. commitments signed Funds available	0%		100%	Financial statements and financing agreements	Socio-political stability Same

<p><i>Output 1.3.1</i> A resource mobilization strategy for the implementation of the SAP is developed and implemented in the various relevant sectors for the sustainable management of the basin.</p>	<p>1.3.1.a mobilization strategy available</p> <p>1.3.1.b number of relevant sectors considered in the strategy document</p>	<p>0</p> <p>0</p>		<p>1</p> <p>At least 4 key sectors (water, land, forests, wildlife)</p>	<p>Mobilization strategy document</p> <p>Mobilization strategy document</p> <p>Field and strategy of intervention by sector</p>	<p><u>Risks:</u></p> <p>Socio-political stability Lack of interest from donors following unfavourable political situations</p> <p><u>Assumptions</u> :</p> <p>Both countries maintain their political commitment to advance the collaborative management of transboundary water resources.</p> <p>One of the priorities of the political agenda of the two countries is to tackle the main anthropogenic pressures that negatively affect the water resources of Koliba-Corubal.</p> <p>Communication and collaboration between government agencies and technical bodies of the two countries is good.</p>
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						The OMVG maintains the cooperative water resources management framework of Koliba-Corubal regardless of the geopolitical and political tensions between the two countries
<i>Output 1.3.2:</i> A resource mobilization strategy for the implementation of the SAP is developed and implemented in the various relevant sectors for the sustainable management of the basin.	1.3.2.a an innovative financing mechanism is established 1.3.2.b number of private partners interested in and participating in the innovative financing mechanism	0 0		1 At least 2	Innovative financing mechanism document Financial mechanism document Private Sector Engagement Framework Document	Same
Results Chain	Indicators	Baseline	Midterm target	End of project Target	Means of Verification	Risks and Assumptions
-	Component 2: Implementation of pilot demonstration projects (at the country and basin levels) for the management of natural resources and the improvement of beneficiary incomes.					

<p>Outcome 2.1: 667,000 hectares of land, including protected areas, are subject to improved practices and 26,562 hectares of land are restored</p> <p>(Core indicator 6 mitigation potential - 226,100,881 tCO₂-e)</p>	<p>2.1.a Number of hectares of land including protected areas under improved management</p> <p>2.1.b Number of hectares of land restored</p>	<p>0</p> <p>0</p>		<p>667,000 hectares of land including protected areas under improved management (GEF core indicator 1&4)</p> <p>26,562 hectares of land restored (GEF Core indicator 3)</p>	<p>Project activity report</p> <p>Map of areas under improved management (shapefile, map)</p> <p>Annual PIR</p> <p>MTR & Final Review report</p>	<p>Risks:</p> <p>Climate conditions;</p> <p>Socio-political stability</p> <p>Non-participation of local communities in improved management of water resources</p> <p>Assumptions</p> <p>:</p> <p>Both countries maintain their political commitment to advance the collaborative management of transboundary water resources.</p> <p>One of the priorities of the political agenda of the two countries is to tackle the main anthropogenic pressures that negatively affect the water resources of Koliba-Corubal.</p> <p>Communication and collaboration between government agencies and technical bodies of both</p>
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						countries is good The OMVG maintains the cooperative water resources management framework of Koliba-Corubal regardless of the geopolitical and political tensions between the two countries

<p><i>Output 2.1.1.</i> At least 200 ha of lowlands and alluvial plains are developed and the production of family farmers promoted</p>	<p>2.1.1.a Number of hectares of lowlands and alluvial plains identified and characterized</p> <p>2.1.1.b. Number of farmers identified and supervised</p> <p>2.1.1.c. Number of hectares of lowlands and alluvial plains developed</p> <p>2.1.1.d. Number of farmers (at least 30% women) with enhanced capacities to sustainably develop the developed lowlands and alluvial plains</p> <p>2.1.1.e. Number of sectors valued sustainably</p>	<p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p>		<p>At least 2000 ha of lowlands and alluvial plains</p> <p>At least 4000 farmers</p> <p>At least 200 ha of lowlands and alluvial plains are developed</p> <p>At least 4000 farmers (1200 women)</p> <p>At least 4 streams</p>	<p>Diagnostic study report</p> <p>Project annual activity reports</p> <p>Crop Year Reports</p> <p>Evaluation reports</p> <p>Shapefiles and maps</p>	<p>Same</p>
<p><i>Output 2.1.2.</i> At least 20,000 hectares of sensitive and/or degraded areas of the watershed are protected and restored</p>	<p>2.1.2.a Number of hectares of sensitive and/or degraded areas of the watershed protected and restored</p>	<p>0</p>		<p>At least 20,000 hectares of sensitive and/or degraded areas of the watershed are protected and restored</p>	<p>Project activity report</p> <p>SHP files</p> <p>Evaluation reports</p> <p>Maps</p>	<p>Same</p>

<p><i>Output 2.1.3.</i> The land/space intended for grazing and agroforestry is managed sustainably</p>	<p>2.1.3.a. Number of management plans (natural pastures, sustainable fisheries, natural resources) developed and implemented</p> <p>2.1.3.b. Number of households using improved stoves</p> <p>2.1.3.d. Number of people trained to make improved stoves</p>	<p>0</p> <p>0</p> <p>0</p>		<p>At least 3 management plans (natural pastures, sustainable fisheries, natural resources)</p> <p>At least 2,000 households</p> <p>At least 200 people</p>	<p>Project activity report</p> <p>Evaluation reports</p> <p>Project activity report</p> <p>Evaluation reports</p>	<p>Same</p>
<p><i>Output 2.1.4.</i> Sustainable water and fishery resource management measures in the watershed are implemented.</p>	<p>2.1.4.a Number of sustainable water and fisheries resources management measures identified and implemented,</p>	<p>0</p>		<p>At least 10 sustainable measures</p>	<p>Study report</p> <p>Project activity report</p> <p>Evaluation reports</p> <p>Report of field visits</p>	<p>Availability of resources on time</p> <p>Community interest and availability</p>

<p><i>Output 2.1.5.</i> Sustainable measures for the use of the natural resources of the watershed are implemented to improve productivity, food security and incomes</p>	<p>2.1.5.a Number of people (164,000 women and 100,000 men) benefiting from land restoration and improved land management practices</p>	0		<p>264,000 peoples (164,000 women and 100,000 men) (GEF core indicator 11)</p> <p>At least 5 best practices</p>	<p>Project activity report Evaluation reports Study report Report of field visit</p>	<p>Political stability and climatic conditions Political stability and climatic conditions</p>
	<p>2.1.5.b Number of good practices implemented</p>	0		<p>At least 5 AGR per domain</p>		
	<p>2.1.5.c Number of Sustainable Income Generating Activities supported</p>	0		<p>At least 30 Associations</p>		
	<p>2.1.5 d. Number of associations (at least 30% of women) beneficiaries of AGR</p>					
Results Chain	Indicators	Baseline	Midterm target	End of project Target	Means of Verification	Risks and Assumptions
-	<u>Component 3: Knowledge management, monitoring and evaluation and communication.</u>					

<p>Outcome 3.1: The results of the projects are known and disseminated at the regional, national and basin levels</p>	<p>3.1.a Number of annual publications of the project results disseminated</p> <p>3.1.b Number of community workshops to present results</p>	<p>0</p> <p>0</p>	<p>6 (one each year for country + regional report)</p> <p>4 (one each year per country)</p>	<p>12 (3) annual publications</p> <p>8 (Four community dissemination workshops per country)</p>	<p>Reports produced and disseminated by the project</p> <p>Studies carried out</p> <p>Scientific papers</p> <p>Workshop report</p>	<p>Socio-political stability implementing problem</p> <p>Inefficient planning</p>
<p><i>Output 3.1.1.</i> A project monitoring and evaluation system is developed and implemented</p>	<p>3.1.1.a A validated project monitoring and evaluation plan is available</p> <p>3.1.1.b Number of annual monitoring and evaluation reports available</p>	<p>0</p> <p>0</p>	<p>1</p> <p>2</p>	<p>A monitoring and evaluation plan available</p> <p>Four (4) annual reports</p>	<p>Annual monitoring and evaluation reports drafted by the project</p> <p>4 Annual reports,</p> <p>4 PIR with indicators reported</p> <p>Audit Report, MTR and Final Review report</p>	<p>Socio-political stability implementing problem</p> <p>Inefficient planning</p>
<p>Outcome 3.2 : Lessons learned and good practices from the project are consolidated and disseminated for scaling up</p>	<p>3.2a Report on lessons learned and good practices of the project</p>	<p>0</p>		<p>One (1) report on lessons learned and good practices</p>	<p>Activity reports</p>	<p>Socio-political stability implementing problem</p> <p>Inefficient planning</p>

<p><i>Output 3.2.1.</i> Development and Key experience and lessons learnt are compiled and widely disseminated</p>	<p><u>3.2.1.a</u> <u>A</u> <u>communications and knowledge management strategy including validated information exchange is available and implemented</u> <u>0</u></p> <p><u>3.2.1.b</u> <u>Number of communications made: In the direction of each of the target groups (stakeholders)</u> <u>By communication channel</u></p>	<p><u>0</u> - - - - - - <u>0</u></p>	<p><u>1</u> - - - - - - <u>8</u></p>	<p>One (1) strategy document</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>At least one (1) six-monthly communication activity carried out for each of the project's stakeholders (target groups) including relevant posters/brochures/ training manuals/summary flyers about the TDA/SAP process</p>	<p><u>Reports on communication and KM activities carried out</u></p>	<p>Socio-political stability Stakeholder engagement</p>
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<i>Output 3.2.2.</i> The project contributes to the IW-Learn platform of the GEF (1% of the project)	3.2.2.a project information transmitted and capitalized in the GEF IW-Learn platform	0		At least two (2) papers on good practices, lessons learned and innovative solutions and other relevant project documents	Activity reports Reports on participation in IW Learn meetings Number of visitors per month (annual average) registered in the network of electronic platforms used to disseminate project lessons and best practices.	Socio-political stability Availability of adequate resources (human and material) to carry out the related activities ?
	3.2.2.b project monitoring and evaluation reports introduced in GEF IW-Learn	0		At least two project reports shared with IW:LEARN		
	3.2.2.c Other written contributions from the project sent to the platform	0		At least two (2) success stories in the form of webstories / shorthands or videostories to be shared on IW:LEARN	Activity reports	
	3.2.2.d Project participation in workshops and meetings organized by IW Learn	0		At least two (2) workshops / webinars (online or hybrid) to be organised through IW:LEARN to disseminate lessons learned.		
<i>Output 3.2.3.</i> A gender equity, women's empowerment and mainstreaming plan	3.2.3.b Number of national and local capacity building actions for women 3.2.3 b Number of women who acquired new skills	0 0		1 At least four (4) capacity building actions At least 2000 women are trained	Project activity report National and local capacity building plan implementation reports	Socio-political stability Implementing problem Inefficient planning

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).

Comments from GERMANY COUNCIL (May 20, 2020)	Response
<p>1. ? Germany recognises the risk assessment of diplomatic and political conflicts as high and suggests to elaborate further on the mitigation measures for the facilitation of a successful multi stakeholder dialogue, particularly regarding the ongoing tensions between the presidents Cond? and Umballo.</p>	<p>The mitigation of political and geopolitical risks and tensions between the two countries that could affect the implementation of the project is seriously being taken into account by the project. The choice of OMVG as the project executing agency is a strategy to mitigate implementation risks. Because the OMVG, being a neutral entity, will serve as a mitigating and compromise force against possible political tensions that might arise during the implementation of the project. The OMVG, being a privileged partner of each member state, of each technical institution partner and working for the well-being of the communities of the catchment area, will allow the project to perform even in case of political and geopolitical tensions.</p>
<p>2. The success of the project would benefit from a strong ownership from partners in both countries, as well as the regional institution Organisation de Mise en Valeur du Fleuve Gambie (OMVG). Further, the involvement of riparian communities in project design, implementation and monitoring is regarded as crucial. Incentives, shared understanding, as well as tangible benefits for local communities are necessary for long term participation.</p>	<p>During the PGG, the project's objectives and expectations, as well as the key activities to be implemented to address all the barriers identified, are discussed with the communities living in the river basin, the key technical institutions at state level, the local authorities (decentralised and deconcentrated). Several meetings were organised in different parts of the river basin in both countries. During these forums, stakeholders from institutions, civil society, communities and the private sector showed a real interest for the project.</p> <p>The main components of the project, especially the pilot activities that will be implemented, were identified by the project stakeholders. The resident communities of the river basin have defined the IGAs to be implemented, taking into account their interests and activities.</p> <p>All the activities proposed for IGAs or pilot demonstration activities emanate from direct discussions with the communities and the relevant national institutions. Indeed, these activities reflect the main priorities of the populations of the Koliba-Corubal river basin.</p> <p>Concerning OMVG, several working sessions between IUCN, OMVG and the national directorates in charge of water resources were organised to discuss the problems of the Koliba-Corubal river basin and the solutions to be envisaged in the framework of the project. In addition, OMVG lead the activities of launching, writing and synthesis, and validation of the PRODOC.</p>

<p>3. Sustainable forestry in partnership with communities in the entire basin is indispensable for permanent water availability and therefore project sustainability.</p>	<p>This issue is addressed in Output 2.1.3, specifically in Activity 2.1.3.3. In this sense, training and capacity building sessions for the communities of the river basin in agroforestry and landscape management will be organised. In addition, the project plans to establish nurseries to strengthen forest restoration initiatives to ensure the sustainable availability of water resources in the River Basin. The adoption of sustainable energy solutions (improved stoves, ovens, etc.) and the elaboration of a management plan will contribute to better management of forest resources at the level of the catchment communities and therefore enhance the possibilities of sustainable water use.</p>
<p>4. Impacts resulting from of potential future dam construction in Guinea-Bissau could be addressed in component 1 of the proposal with a feasibility study for social and environmental compatibility for such infrastructure projects..</p>	<p><u>GEF Funds can not be used to development TORs for EIAs nor undertake EIAs. However, the knowledge and information from Output 1.1.1, Output 1.1.2 ,Output 1.2.1 ,and in Output 2.1.3 will provide a baseline of information to the governments of Guinea and Guinea Bissau if they wish to themselves develop ToRs and undertake an EIA.</u></p> <p>-</p>

Comments from STAP (May 20, 2020)	Agency Response
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STAP welcomes this project from IUCN to support integrated, transboundary water resources management in the Corubal basin.

The project addresses a clear gap in transboundary basin governance. It provides a good analysis of the weak institutional and legal framework for transboundary cooperation. The approach is typical for TDA-SAP projects in the IW portfolio, but the context of a defunct legacy transboundary agreement can provide lessons for the revitalization of governance cooperation in similar transboundary contexts, amidst considerable capacity constraints.

There is a very good visual representation of theory of change, showing interconnections among actions and outcomes. Before CEO endorsement, STAP recommends specifying assumptions and mechanisms to enable adaptation in implementation plans.

Specific gender barriers (e.g., related to land tenure, management decision making, income opportunities, benefits sharing, etc.) remain to be identified.

The initial description of the project's knowledge management (KM) approach is very general. Specific objectives and mechanisms, as well as processes for adaptive learning, should be specified prior to CEO endorsement. Metrics for KM performance should also be provided.

Feedback from STAP is well noted and appreciated. Indeed this project will provide a key piece of the puzzle to improving transboundary basin governance for the Corubal/Koliba.

Please note that the assumptions based on the theory of change submitted at PIF stage have been now further elaborated in the CEO endorsement submission package. A revised and updated theory of change has been developed for CEO endorsement.

Regarding gender barriers, the gender analysis undertaken during project development has indicated further information on specific gender barriers and the Gender Action Plan is designed to address these during project implementation

Regarding knowledge management (KM), the project's design now includes a communications and KM strategy with clear activities under Component 3 on KM, information dissemination and learning and exchange.

1. Are the global environmental benefits/adaptation benefits likely to be generated?.

The global environmental benefits/adaptation benefits are improved, please see the CEO Endorsement and the PRODOC.

2. What is the set of linked activities, outputs, and outcomes to address the project's objectives?.

And additional figure of ToC has been provided and focus more on Outcome contribution to general objective of the project. This figure abstracts all needed step to achieve project objective.

3. What activities will be implemented to increase the project's resilience to climate change?.

Comment addressed, please refer to PRODOC from page 119 and CEO Endorsement at page 90

4. What are the stakeholders' roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?.

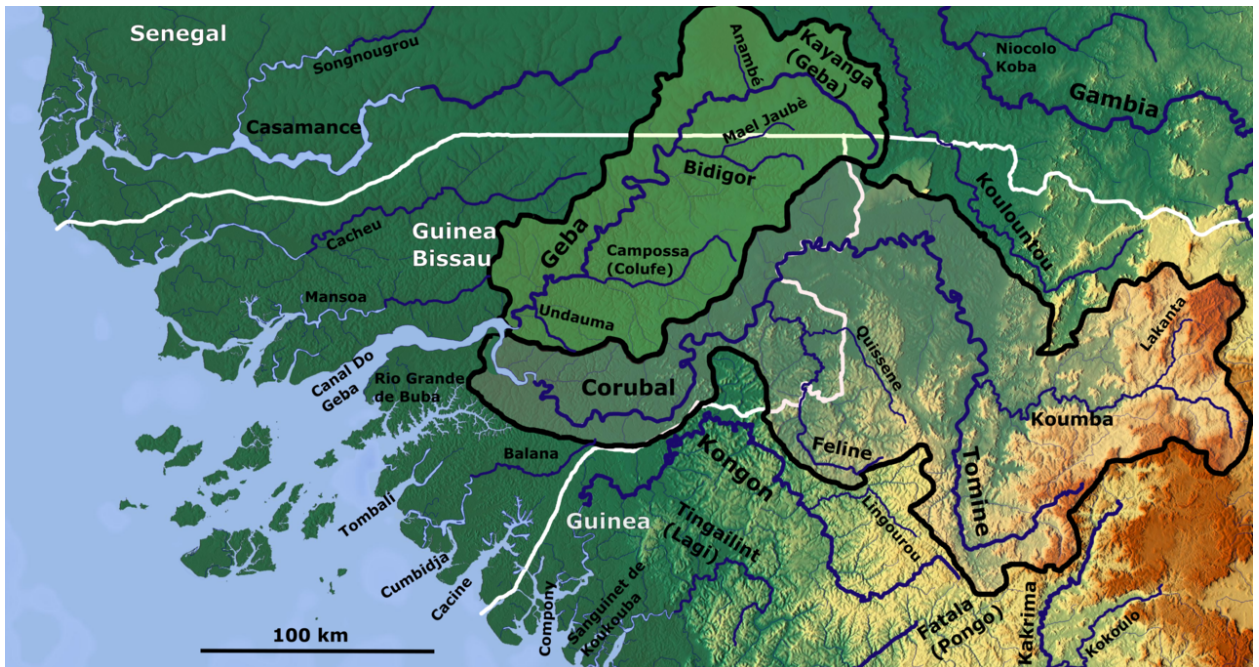
Addressed, see the PRODOC from page 155 and the CEO ENDORSEMENT from page 69.

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 (excluding PPG Fees 18,000)			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
1. Consultants fees Firm	88,000	88,000	
2. Workshops (inception, consultation, validation, writing session)	17,267	17,267	
3. field mission - including travels of participants of both countries to workshop	78,733	78,733	
4. esms	16,000	16,000	
Total	200,000	<u>200,000</u>	

ANNEX D: Project Map(s) and Coordinates

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





ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description									Sub-Total	M&E	PN
		Component 1			Component 2		Component 3					
		Outcome 1.1	Outcome 1.2	Outcome 1.3	Outcome 2.1	Outcome 2.2	Outcome 3.1	Outcome 3.2				
National Consultant	National consultants to revise the Koliba-Corubal agreement of 1978		10,500							10,500		
	National Consultant to define the legislative and regulatory management framework governing the basin management commission.		10500							10,500		
	National Consultant for the inventory and analyse existing innovative financing mechanisms that align with the objectives of the river basin			7350						7,350		
	National Consultant to propose and implement a funding mechanism that builds on existing and new ideas			42000						42,000		
	National Consultant for supporting the value chain of cereal and market garden outputs				30,800					30,800		
	National Consultant to Realise a diagnosis of the sensitive and/or degraded areas of the river basin				42,000					42,000		
	National Consultant to Elaborate management plans for natural pastures				21,000					21,000		
	National Consultant to Realise a diagnosis study of inland fisheries in the basin area (identification of fishing areas, existing stakeholder groups and organisations, fishing practices).				21,000					21,000		
	National consultants to elaborate, adopt and implement sustainable fisheries management plan				21,000					21,000		
	National consultant to Realise a diagnostic study of the project's target actors and the patterns of use of natural resources					21,000				21,000		
	National Consultant to Elaborate and implement sustainable natural resource management plans					42,000				42,000		
	National consultant to Develop an assessment of lessons learned and good practices to identify successful lessons and develop scenarios for replication in other sub-regions, particularly in Africa and the tropics							7,000		7,000		
	National consultant for the development of the Communications and knowledge management strategy							7,000		7,000		
	National IWRM EXPERT for Guinea			96,000						96,000		
	National IWRM EXPERT for Guinea Bissau			96,000						96,000		
	Gender and Community Development Expert							96,000		96,000		
International Consultant	International Consultant to Create and operationalise a knowledge management platform for all data and information collected (linked to the DMVG database).	21000								21,000		

	International consultant to develop the SAP	28000							28,000		
	International consultants to revise the Koliba-Corubal agreement of 1978		14000						14,000		
	International Consultant to define the legislative and regulatory management framework governing the basin management commission.		14000						14,000		
	International Consultant to Elaborate the resource mobilisation strategy for the SAP including a development plan and maintain contacts with TFPs on a permanent basis.			63000					63,000		
	International Consultant for the inventory and analyse existing innovative financing mechanisms that align with the objectives of the river basin			10500					10,500		
	International Consultant to propose and implement a funding mechanism that builds on existing and new ideas			17500					17,500		
	Consultant team to Realise a diagnostic study of the potential of the lowlands and alluvial plains for development of agricultural land					41,800			41,800		
	International Consultant to define and monitor indicators							14,000	14,000	14,000	
	M&E specialist							96,000	96,000	96,000	
	ESMS experts							40,000	40,000		
Staff costs	DSA international travel	2,000							2,000		
	DSA local travel (for both country teams)	4,000							4,000		
	DSA international travel	5,000							5,000		
	DSA international travel (OMVG Mission: 3 representatives/country)	4,800							4,800		
	DSA international travel (2 experts) to revise the 1978 agreement		6,000						6,000		
	DSA international travel (2 experts)		2,500						2,500		
	DSA international travel to elaborate resources mobilisation strategy			6,000					6,000		
	DSA to Elaborate resource mobilisation strategy for the SAP			28,000					28,000		
	DSA international travel			3,750					3,750		
	DSA voyage international			15,200					15,200		
	DSA for national institution to support and supervise the development of lowlands					7,000			7,000		
	DSA OMVG and/or national institutions					18,000			18,000		
	DSA Consultants					12,000			12,000		
	DSA National Consultant for supporting the valued chain of cereals and vegetable and market garden products					9,000			9,000		
	DSA to Realise a diagnosis of the sensitive and/or degraded areas of the river basin					12,000			12,000		
	DSA Technical Services Expert					40,000			40,000		
	DSA project team, participants and expert for the pooling workshop					1,250			1,250		
	DSA National consultants					7,500			7,500		
	DSA of the project team to follow-up of the agreements					7,000			7,000		
	DSA of the National Institution to follow-up of the agreements					22,500			22,500		
	DSA regional project team, farmer leaders and national experts					25,000			25,000		
	DSA national consultants					6,000			6,000		
	DSA National consultants					8,000			8,000		
	DSA Project Management Unit team					4,000			4,000		
	DSA national consultants					8,000			8,000		
	DSA regional project team and national consultants					20,000			20,000		
	DSA National consultants					16,000			16,000		
	DSA of the project team					10,000			10,000		
	DSA International Travel							3,500	3,500		
	DSA national consultants to carry out the inventory							2,000	2,000		
	DSA participants in the workshop							6,000	6,000		
	DSA national consultants							2,000	2,000		
	DSA participants in the workshop							6,000	6,000		
	DSA setting platform							4,000	4,000		
	DSA & transport mission Gender & Community Development Expert							40,000	40,000		

Travel	International transport (return tickets)	3,000						3,000		
	Fuel local transport & mobility	35,000						35,000		
	International transport (return tickets) to approve SAP	9,000						9,000		
	Vehicle 4x4 Maintenance-2 Vehicles	16,000						16,000		
	International transport (2 return tickets) for revising the 1978 agreement		9,000					9,000		
	International transport (2 return tickets) to validate the mixed management commission		3,000					3,000		
	International transport (return tickets) to elaborate the resources mobilization strategy for the SAP			3,000				3,000		
	Local travels to elaborate the resource mobilisation strategy for the SAP in whole river basin			24,000				24,000		
	International transport (3 return tickets) for the elaboration and implementing of a funding mechanism			6,000				6,000		
	Transport international (15billets A/R) to conclude and implement fundings mechanism			22,500				22,500		
	Local transport to Realise a diagnostic study of the potential of the lowlands and alluvial plains for development of agricultural land				15,000			15,000		
	Transport local to Realise a diagnosis of the sensitive and/or degraded areas of the river basin				4,000			4,000		
	Regional and local transport to implement measures to protect and restore sensitive and/or degraded areas of the river basin				30,000			30,000		
	International transport to Define and monitor indicators.					1,500		1,500		
	Air ticket for workshop participants to Develop an assessment of lessons learned and good practices						15,000	15,000		
	Local transport workshop participants to Develop the knowledge management strategy including information						3,000	3,000		
	Ticket for workshop participants to Develop the knowledge management strategy including information						15,000	15,000		
	Local transport for Setting up a digital platform for knowledge management and dissemination						10,000	10,000		
	International transport for Setting up a digital platform for knowledge management and dissemination						3,000	3,000		
Trainings, workshops, meetings	National workshop/data validation meeting	5,000						5,000		
	Regional data validation workshop	25,000						25,000		
	Inception workshop & Report	10,000						10,000	10,000	
	National workshop/meeting for the validation of the SAP	30,000						30,000		
	Regional workshop for the validation of the SAP	35,000						35,000		
	Workshop/Meeting (Official signing of the PAS)	50,000						50,000		
	Training workshops organisation & capacities building at national level	10,000						10,000		
	Regional workshop for the revision of the 1978 agreement		35,000					35,000		
	Regional Signing Meeting For the 1978 agreement		54,000					54,000		
	National Workshops/Meetings for mixed management commission		30,000					30,000		
	Regional workshop for mixed management commission		35,000					35,000		
	workshops (2 per year) to elaborate TPFs			20,000				20,000		
	TFP Round Table workshop			74,000				74,000		
	National Workshops/Meetings for mechanism funding			30,000				30,000		
	Regional workshop for mechanism funding			35,000				35,000		
	Workshops for the restitution of the study				10,000			10,000		
	Training sessions on cultivation techniques				12,000			12,000		
	Basin-wide measurement pooling workshop				25,000			25,000		
	Management plan validation workshop for natural pasture				30,000			30,000		
	Validation workshop of the agreement for grazing management plan				61,000			61,000		
	Workshop for sharing techniques at the basin level to promote agro-forestry				30,000			30,000		
	Stakeholders capacities building trainings			104,000				104,000		
	Restitution and validation workshop for diagnosis study for inland fisheries				60,000			60,000		
	National workshops for validation of management plans				30,000			30,000		
	Feedback and validation workshop					30,000		30,000		
	Management plan validation workshop					10,000		10,000		
	Training sessions for the Development of sustainable vegetable gardening for women					60,000		60,000		
	Training on elaboration and treatment of database & indicator monitoring						10,000	10,000	10,000	

	Workshop to validate the inventory							30,000	30,000		
	Strategy validation workshop							45,000	45,000		
	Workshop/meeting setting platform							10,000	10,000		
	Workshop/Meeting							23,000	23,000		
	Capacity building workshop/meeting							53,000	53,000		
	Steering committee meetings							60,000	60,000		
	Management missions							12,000	12,000		
	Attendance at IW Conferences							20,000	20,000		
	Awareness and information workshops to promote energy saving technologies				40,000				40,000		
	Training sessions for farmer leaders				8,000				8,000		
	Training of trainers on the techniques of making improved stoves and ovens				20,000				20,000		
Goods	Equipment & material for National Institutions (Ministry of Water Resources, National Meteorological Services)	114,000							114,000		
	Vehicle 4x4	40,000							40,000		
	Vehicle 4x4	40,000							40,000		
	Acquisition of intrans (seeds, agricultural tools...)				117,400				117,400		
	Acquisition of equipment for market gardening				15,000				15,000		
	Acquisition of equipment for market gardening				16,000				16,000		
	Acquisition of equipment (ruben, line...)				60,000				60,000		
	Acquisition of materials and equipment to support the manufacture of improved stoves				24,750				24,750		
	Acquisition of 2 motorised pirogues for monitoring in protected areas in favour of IBAP				80,000				80,000		
	Equipment for the Development of sustainable vegetable garden for women						300,000		300,000		
Contractual services	PhD scholarship in Hydrology, Geography and Environmental Sciences	96,000							96,000		
	Contract (MOU) with research institution to compile data and supervise granted student	77,500							77,500		
	Contract (MOU) with research institution to analyse data collected and supervise granted student	156,800							156,800		
	Students (PhD/Master) & supervision (landscape management, GIS, governance) in partnership with abroad universities	96,000							96,000		
	Master in environmental law		48,000						48,000		
	Company for the development				273,000				273,000		
	Translation for validation meeting of the SAP	8,000							8,000		
	Translation for the SAP approval	4,000							4,000		
	Translation for the revision of the 1978 agreement		4,000						4,000		
	Translation for the validation of the mixed commission		4,000						4,000		
	Translation to submit the revised agreement to the ministerial authorities of the countries for signing and publication.		8000						8,000		

	Translation for the Elaboration of the resource mobilisation strategy for the SAP including a development plan and maintain contacts with TFPs on a permanent basis.			8,000					8,000		
	Translation for Workshops for the restitution of the study of diagnosis				4,000				4,000		
	Translation for Supporting the value chain of cereal and market garden outputs				8,000				8,000		
	Translation for the Development of the knowledge management strategy including information							8,000	8,000		
	Translation for Setting up a digital platform for knowledge management and dissemination							8,000	8,000		
	Produce written contributions and other means of communication for sharing within the IW Learn platform and other knowledge sharing networks							16,000	16,000		
	Share monitoring and evaluation reports with other IW projects as necessary							8,000	8,000		
	Consulting Firm for Midterm Evaluation							30,000			30,000
	Consulting firm for Terminal Evaluation							40,000			40,000
	Supervision of the development works by the national technical services				63,000						63,000
	Support to the implementation of the management plans					20,000					20,000
	Technical Services Expert to implement measure to protect and restore sensitive and/or degraded areas of the basin				80,000						80,000
	Technical support (setting up of equipment)				100,000						100,000
	Support for the setting up of fruit and forest tree nurseries				50,000						50,000
	Legal specialist				28,000						28,000
Other operating costs	Full time of 2 drivers			57,600							57,600
	Communication							16,000	16,000		
	Field equipment							10,000	10,000		
	Awereness and communications							102,000	102,000		
	Monitoring of the database functioning	18,000									18,000
Grants	Call of proposal for other sustainable IGA					360,000					360,000
	Grant for the development of non timber forest product					450,000					450,000
	Support to commercialisation				20,000						20,000
	Support to pastoral units				90,000						90,000
	Support to the monitoring of fishing activities in the river				20,000						20,000
Project management cost	Regional Coordinator										-
	Administrative & Finance Associates (80%)										-
	financial, administrative and procurement manager										-
	PMU office supply										-
	Laptops and printers										-
	Audit										-
Grand Total		943,100	287,500	769,400	1,781,000	1,347,000	389,000	483,000	5,930,000	200,000	30

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 Agency 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).