



**GREEN
CLIMATE
FUND**

Meeting of the Board
17 – 20 October 2022
Incheon, Republic of Korea
Provisional agenda item 13

GCF/B.34/02/Add.12/Rev.01

10 October 2022

Consideration of funding proposals - Addendum XII

Funding proposal package for SAP025

Summary

This addendum contains the following six parts:

- a) A funding proposal titled "Adaptation of agricultural production systems in Coastal Areas of Northwest Guinea-Bissau";
- b) No-objection letter issued by the national designated authority(ies) or focal point(s);
- c) Secretariat's assessment;
- d) Independent Technical Advisory Panel's assessment;
- e) Response from the accredited entity to the independent Technical Advisory Panel's assessment; and
- f) Gender documentation.

It is noted that the no-objection letter has been replaced with the latest version.

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Simplified Approval Process Funding Proposal

Project/Programme title: *Adaptation of agricultural production systems in Coastal Areas of Northwest Guinea-Bissau.*

Country(ies): *Guinea Bissau*

National Designated Authority(ies): *Ministry of the Environment and Biodiversity, General Direction of the Environment*

Accredited Entity: *Sahara and Sahel Observatory (OSS)*

Date of first submission: *2021/05/11*

Date of current submission/
version number: *[2022/05/05] [V.3]*

If available, indicate GCF code: *22550.*



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Contents

Section A PROJECT / PROGRAMME SUMMARY

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

Section B PROJECT / PROGRAMME DETAILS

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

Section C FINANCING INFORMATION

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

Section D EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

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

Section E ANNEXES

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

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

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

Please submit the completed form to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

"SAP-FP-[Accredited Entity Short Name]-[yyymmdd]"

Acronyms

ADPP-GB	Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau	MoEB	Ministry of Environment and Biodiversity
AE	Accredited Entity	MoE	Ministry of Education
AF	Adaptation Fund	MPI	Maritime and Port Institute
AfDB	African Development Bank	M&E	Monitoring and Evaluation
AFS	Agroforestry Systems	NAPA	National Adaptation Programme of Action
AWP	Annual Work Plan		
CA	Conservation Agriculture	NCPS	National Civil Protection Services
CBO	Community-Based Organization	NDC	Nationally Determined Contributions
CC	Climate Change	NGO	Non-governmental Organization
CCA	Climate Change Adaptation	OG	Observation Group
CCC	Community Climate Centres	O&M	Operation and Maintenance
CCP	Processing and Marketing Centre	OSS	Observatoire du Sahara et du Sahel
CDM	Clean Development Mechanism	PFS	Pre-Feasibility Study
CO	Community Observers	PMU	Project Management Unit
CRA	Climate-Resilient Agriculture	PNTC	Cacheu River Mangroves National Park
CRRP	Climate-Resilient Rice Production		
CSO	Civil Society Organization	PSC	Project Steering Committee
DO	Development Officer	PWD	People living With Disability
EE	Executing Entity	REDD+	Reducing Emissions from Deforestation and forest Degradation
EU	European Union		
ESAP	Environmental and Social Action Plan	RO	Regional Office
ESS	Environmental and Social Safeguards	SIDS	Small Island Developing States
EP	Executing Partner	SLM	Sustainable Land Management
EVB	Vocational School Bissorã	SLR	Sea Level Rise
FAO	UN Food and Agriculture Organization	SRI	System of Rice Intensification
FC	Farmers' Club	SWI	Salt Water Intrusion
GAP	Gender Action Plan	TNC	Third National Communication
GCF	Green Climate Fund	TOC	Theory of change
GDWR	General Directorate of Water Resources	TOR	Terms of Reference
		TST	Technical Support Team
GDTF	General Directorate for Traditional Fishery	TTC	Teacher Training College
		TVET	Technical and Vocational Education and Training
GEF	Global Environment Facility		
GHG	Greenhouse Gas	UNDP	United Nations Development Programme
GoGB	Government of Guinea-Bissau		
IBAP	Institute for Biodiversity and Protected Areas	UNFCC	United Nations Framework Convention on Climate Change
IGA	Income-Generating Activities	WMC	Water Management Committee
INITA	National Institute for Applied Technology Research	WSQM	Water and Soil Quality Monitoring
INPA	National Institute of Agricultural Research		
IGA	Income Generating Activity		
IP	Intellectual Property		
IPCC	Intergovernmental Panel on Climate Change		
IUCN	International Union for Conservation of Nature		
KAP	Knowledge, Attitude and Practices		
LDC	Least Developed Country		
MI	The Meteorology Institute		
MoA	Ministry of Agriculture and Rural Development		

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A. PROJECT/PROGRAMME SUMMARY					
A.1. Has this FP been submitted as a SAP CN before?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
A.2. Is the Environmental and Social Safeguards Category C or I-3?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
A.3. Project or programme	Indicate whether this FP refers to a combination of several projects (programme) or one project. <input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	A.4. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector	A.5. RfP	Not applicable
				GCF Contribution	Co-financers' contribution¹
Mitigation total				<u>Enter number</u> %	<u>Enter number</u> %
<input type="checkbox"/> Energy generation and access				<u>Enter number</u> %	<u>Enter number</u> %
<input type="checkbox"/> Low emission transport				<u>Enter number</u> %	<u>Enter number</u> %
<input type="checkbox"/> Buildings, cities and industries and appliances				<u>Enter number</u> %	<u>Enter number</u> %
<input type="checkbox"/> Forestry and land use				<u>Enter number</u> %	<u>Enter number</u> %
Adaptation total				<u>Enter number</u> %	<u>Enter number</u> %
<input checked="" type="checkbox"/> Most vulnerable people and communities				45 %	20 %
<input checked="" type="checkbox"/> Health and well-being, and food and water security				40 %	80 %
<input type="checkbox"/> Infrastructure and built environment				<u>Enter number</u> %	<u>Enter number</u> %
<input checked="" type="checkbox"/> Ecosystem and ecosystem services				15 %	<u>Enter number</u> %
A.7.1. Expected mitigation outcome (Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)	N/A	A.7.2 Expected adaptation outcome (Core indicator 2: direct and indirect beneficiaries reached)	202,450 beneficiaries (70% women)		
				82,450 direct beneficiaries (70% women)	120,000 indirect beneficiaries (70% women)
				4,6% of the country's population	6,4% of the country's population

¹ Co-financer's contribution means the financial resources required, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e. GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

A.8.1. Total investment (GCF + co-finance²)	Amount: <u> 9,955,000 </u> USD		A.8.2 Total GCF funding requested	Amount: <u> 9,807,800 </u> USD
A.9. Type of financial instrument requested for the GCF funding	<p><i>Mark all that apply.</i></p> <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan ³ <input type="checkbox"/> Equity <input type="checkbox"/> Guarantees <input type="checkbox"/> Others:			
A.10. Implementation period (months)	60 months			
A.11. Total project/ programme lifespan (years)	300 months	A.12. Expected date of internal approval	2/14/2022	
A.13. Executing Entity information	The Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau (ADPP-GB) is Executing Entity (EE) of the project.			
A.14. Scalability and potential for transformation (Eligibility for SAP, max. 100 words)				

² Refer to the Policy on Co-financing of the GCF.

³ Senior loans and subordinated loans.

The proposed project integrates and scales up initiatives and expertise from climate resilience and rural development projects in the Cacheu and Oio Regions of Guinea-Bissau. The project combines experiences in supporting resilience-building in smallholder agriculture, organizational and technical capacity building of youth, women and various other stakeholders, climate-resilient value chain development and strong existing collaborations among key institutions, CSOs, CBOs and private sector in the country.

The project brings together the AE OSS, with vast experiences in the West-African region; the largest NGO in the country (ADPP-GB – the EE); the institution with most relevant technical experience (IBAP); and the relevant line ministries MoEB and MoA) in a joint effort to build resilience of the most vulnerable populations in Guinea-Bissau. ADPP-GB will lead the overall implementation of the activities, and carry out the work shoulder to shoulder with the communities and farmers. IBAP, MoEB and MoA will provide expertise and policy guidance in developing the Observatory Groups (OGs) under Component 1, necessary for integration in national systems and considering the multi-dimensional nature of CC adaptation (CCA). IBAP will provide expertise in the work in the mangrove-rice ecosystems, and the management of the Environmental and Social Action Plan. The MoEB and MoA, and their sub-national counterparts and departments, as per usual practice, will provide policy guidance and technical support in the implementation of concrete actions with the communities, essential in the light of long-term sustainability and future support to communities in CCA.

The project is informed by and builds upon the assessments and project design and development of the Adaptation Fund (AF) project GNB/RIE/Agri/2015/1 – *“Scaling up Climate-smart Agriculture in East Guinea Bissau”*, with BOAD as Implementing Entity, which represents a second phase of the GEF/UNDP-00077229 Project *“Strengthening adaptive capacity and resilience to CC in the Agrarian and Water Resources Sectors in Guinea-Bissau”*. As such, it builds on existing approaches, considered as successful CCA by the AF and GEF, adapted to new contexts. Cooperation with the AF project will mainly happen in the shape of knowledge and experience sharing, and making use of existing structures in the MoEB, which is the NDA and the government coordinator of CC-related projects in the country.

GCF financing will allow to integrate and scale up those experiences in a holistic approach, by establishing monitoring systems and developing and promoting concrete adaptation actions that target smallholder farmers in highly climate-vulnerable rice and horticulture productions. Through its design and implementation arrangements, the project thereby promotes a shift from Business as Usual to climate-resilient development. This will lead to increased resilience and adaptive capacity of rural communities towards the impacts and risks of CC.

GCF resources are needed: to support the development of climate-resilient practices and innovative technologies for water and soil quality monitoring; to build capacities at local and national level for the management of these practices and technologies; and to develop technical and organizational capacities of farmers and farming communities. GCF resources are furthermore needed for the development of climate-resilient micro-enterprises, which, in turn, will contribute to green employment opportunities and further development of climate-resilient value chains. As such, the GCF grant will allow for the development and implementation of models that can easily be scaled up to other parts of the country where adaptation demands are high.

A.15. Project/Programme rationale, objectives and approach (max. 300 words)

In Guinea-Bissau climate change has caused a temperature increase of approximately 0.6°C since 1990 and which is projected to increase further to 1.3°C-1.5°C by mid-century across RCP4.5-8.5 emission scenarios. Precipitation has become more erratic both seasonally and annually, with some years of high precipitation and others less than average. Future precipitation models using RCP 4.5 and 8.5 both suggest decreasing rainfall over the long term. Sea level rise had increased by 7cm by 2020 and is expected to rise to approximately 26cm-30cm by mid-century (although other models suggest this could be conservative).

Increasing climate hazard exposure is impacting already highly sensitive targeted communities' and namely farmers of the coastal region of Cacheu and Oio, within the identified project areas. These communities live on fragile coastal environments having developed a traditional form of crop production (mostly cashew and rice) within mangrove ecosystems that is sensitive to environmental variation.

Although there is a paucity of data due to lack of monitoring that demonstrates a causal relationship between climate hazards, and livelihood impacts in the project area, anecdotal and extrapolated evidence suggest that farmland in the region is currently being affected by higher sea level and tidal surges. At its most extreme this leads to the abandonment of farm and existing water points, such as shallow wells. Risks include an increase forcing of tidal surge due to sea level rise, that allows sea water to flow further upstream of rivers directly inundating agricultural land; and the risk of saltwater intrusion (SWI) into groundwater bodies. Both of these phenomena are expected to have a high probability of future occurrence without a project.

It is imperative that adaptive interventions are implemented in a timely and appropriate manner to avoid negative outcomes of climate change in this agro-ecosystem. However, lack of community and institutional capacity together with financial constraints and gender and other biases act as barriers to effective environmental monitoring, and the design and implementation of adaptation strategies and hence force a change in the current paradigm.

To address this, the project will first establish local observatories that will monitor climate impacts and coordinate appropriate data driven adaptation interventions in communities, which are affected by CC impacts such as sea level rise and rainfall variability. Findings of these entities will feed into concrete adaptation plans and interventions for adapted and climate-resilient water and coastal zone management at community- and farmer-level, accompanied with overall upscaling of climate-resilient agriculture and climate-resilient livelihoods in the targeted areas.

The project's objective is to "enhance the climate-resilience of livelihoods and food security of the most vulnerable populations in Oio's and Cacheu's coastal areas".

The project Components are:

- C1. "Development of technical and institutional capacity of government and civil society"; Outcome 1. Strengthened capacity and knowledge management to monitor and address water and agriculture-related climate risks;
 - C2. "Adaptation of water management towards climate risks in coastal zones.", Outcome 2. Sustainable management of coastal ecosystems leading to climate-resilient communities in Oio and Cacheu
 - C3. "Building climate-resilient farming communities"; Outcome 3. Enhanced climate-resilient livelihoods, food and water security of the most vulnerable people in coastal communities in Oio and Cacheu Region
1. Guinea-Bissau has been facing great stability challenges which hinders the availability of capital and institutional confidence to attract bilateral/multilateral financing. With a GDP per capita of 697 USD in 2019⁴, GB remains one of the poorest countries in the world. Its development delay opens possibilities for a paradigm shift, supporting efforts on boosting its population adaptation capacity and climate resilience. Due to the Country's instability and institutional fragility, the GCF SAP is considered a grant of the necessary size to be successfully manageable by a CSO and generate changes regarding CC adaptation at country level.

⁴ World Bank Data, 2019, Guinea-Bissau - <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=GW>

B. PROJECT/PROGRAMME DETAILS

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

Country Context

1. Guinea-Bissau is a small coastal country in West-Africa with an area of 36,125 km² and a population estimated at 1,82 million, which is growing at a steady rate of 2.5%, and of which 58% lives in rural areas and about two-thirds are under the age of 30. It is considered as a Small Island Developing State (SIDS). The targeted areas in **Cacheu and Oio Regions** are characterized by a vast hydrological network, composed of large estuaries of the Cacheu and Mansoa rivers, determining the lifestyle of rural dwellers. The mangrove swamp area, covering close to 10% of the country, is the 2nd largest of its kind in Africa. Socio-economically, the target regions reflect the country's low score on the Human Development Index, 178 out of 189 (2019), characterized by high poverty rates, 79% in Oio and 64% in Cacheu, manifested in the form of poor access to decent housing, malnutrition, poor quality of education, health and sanitation services. Lack of income generating opportunities further contributes to widespread poverty and to a life expectancy of below 60 years of age, a rate well below the African average and significantly below the world average. The main livelihood activities in Oio and Cacheu are based on the exploitation of natural resources through subsistence agriculture, livestock, fishery and cashew plantations⁶.
2. The country lies in the humid tropics within the tropical zone. There are two main seasons, a rainy season (from May to November), and a dry season (from November to April)⁶. The resulting climate-based hydrological balance is comprised of general water surpluses from July to October and deficits during the dry months⁶. Precipitation rates vary strongly by region. In the targeted regions Cacheu and Oio annual rainfall is between 1.400 and 1.800m⁵. Temperature is less variable by region and varies regularly through the year, with monthly average temperature varying between 24°C and 30°C.

Climate Change

3. Clear Climate Change (CC) trends are observed and show considerable variability in terms of temperature and uncertain precipitation patterns, including extreme events of rainfall⁶. An analysis of precipitation changes across the central northern portion of the country, consisting of the Oio Region, shows a slightly increasing linear tendency of annual rainfall over the past decades (1960-2010)⁶. Total annual precipitation trends between 1991 and 2020 as well as precipitation trends just in the rainy season were evaluated. These data show small positive, but not statistically significant⁷, trends in annual precipitation as well as in precipitation during the rainy season (Figure 2 and Figure 3). As the scatterplots show, there also do not appear to be increases in interannual variability of annual rainfall in recent years (although variability at the seasonal level can be inferred, see paragraph 6).

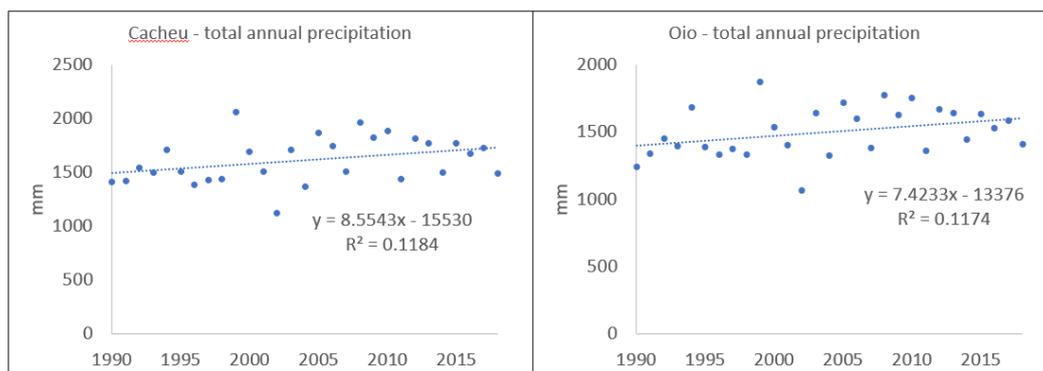


Figure 1 – Total annual historical precipitation rates in Cacheu and Oio regions

⁵ GoGB, Anuário da Direção G <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=GW> eral das Alfândegas, 2012

⁶ GoGB, Third National Communication (TNC) to the UNFCCC, 2018

⁷ Based on the Significance F value of the regression analysis run using the Excel add-in Analysis Toolpak. An alpha value of 0.05 was applied to assess significance.

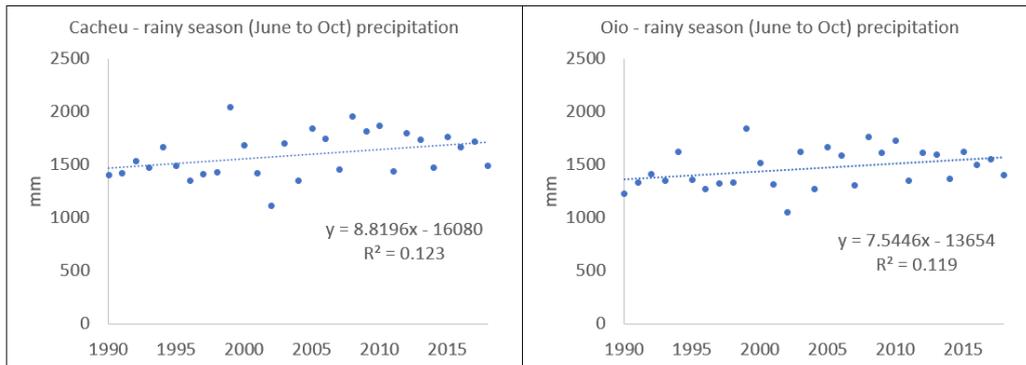


Figure 2 – Rainy season historical precipitation rates in Cacheu and Oio regions

4. A national analysis of temperature changes for a similar period (1950-2001) indicates a consistent rise in temperature, varying between ranges, 0.2 and 0.8°C, since the late 1970s⁶. This range experienced in the last decade has now further shifted to the ranges, 0.89 to 1.85°C. Between 1901 and 1989, the average temperature was approximately 26.5°C and 26.8°C respectively in Cacheu and Oio. Between 1989 and 2020, the average temperature increased to 27.1°C and 27.5°C in the two respective regions. The differences in the averages of time periods were found to be statistically significant⁸.
5. The impacts of CC are exhibited in the form of: (i) a much greater variability at the onset of rainy season, which is also presents with shorter durations (ending in October instead of November); (ii) less regular distribution of precipitation with higher intensity of rainfalls; (iii) shortening of the “cold season”; (iv) warmer and drier environment during the dry season⁹; (v) more frequent occurrence of high-tides of greater magnitude, and saline water intrusion in cropping areas (reaching up to 175 km inland) and in groundwater in the dry season; (vi) a significant increase in rainfall variability and (vii) sea level rise⁶.
6. Historical trends were evaluated on a monthly basis focusing on the months from May through November¹⁰ (Figure 3 and 4). In May, both regions showed small positive but not statistically significant trends in precipitation rates. There appear to be more recent years with higher rates of rainfall in May indicating a trend towards an earlier end to the dry season. In June, July, and October, the trends in rainfall are basically flat (i.e., no notable increasing or decreasing rates of precipitation). In contrast, historical precipitation rates in August and September are positive¹¹. In September, in addition to this overall positive trend, there has been a notable increase in interannual variability since 2010. An assessment of the standard deviation of precipitation rates in different time periods is evidence of this (Figure 5). As the scatterplots for that month show, there are more recent years with either very high or low rainfall rates, indicating increased risks of flooding events or water scarcity events. Finally, in November, a negative trend in precipitation rates, although not statistically significant, can be observed. There are fewer recent years with notable amounts of rainfall indicating an earlier beginning to the dry season.

⁸ More data and information is provided in the Pre-feasibility Study.

⁹ This data partially exists in 2nd and 3rd national communications.

¹⁰ The months from December through April have little to no rainfall and, therefore, were not evaluated.

¹¹ For Cacheu, this trend was found to be statistically significant for both months. For Oio, the trend was only found to be statistically significant in September.

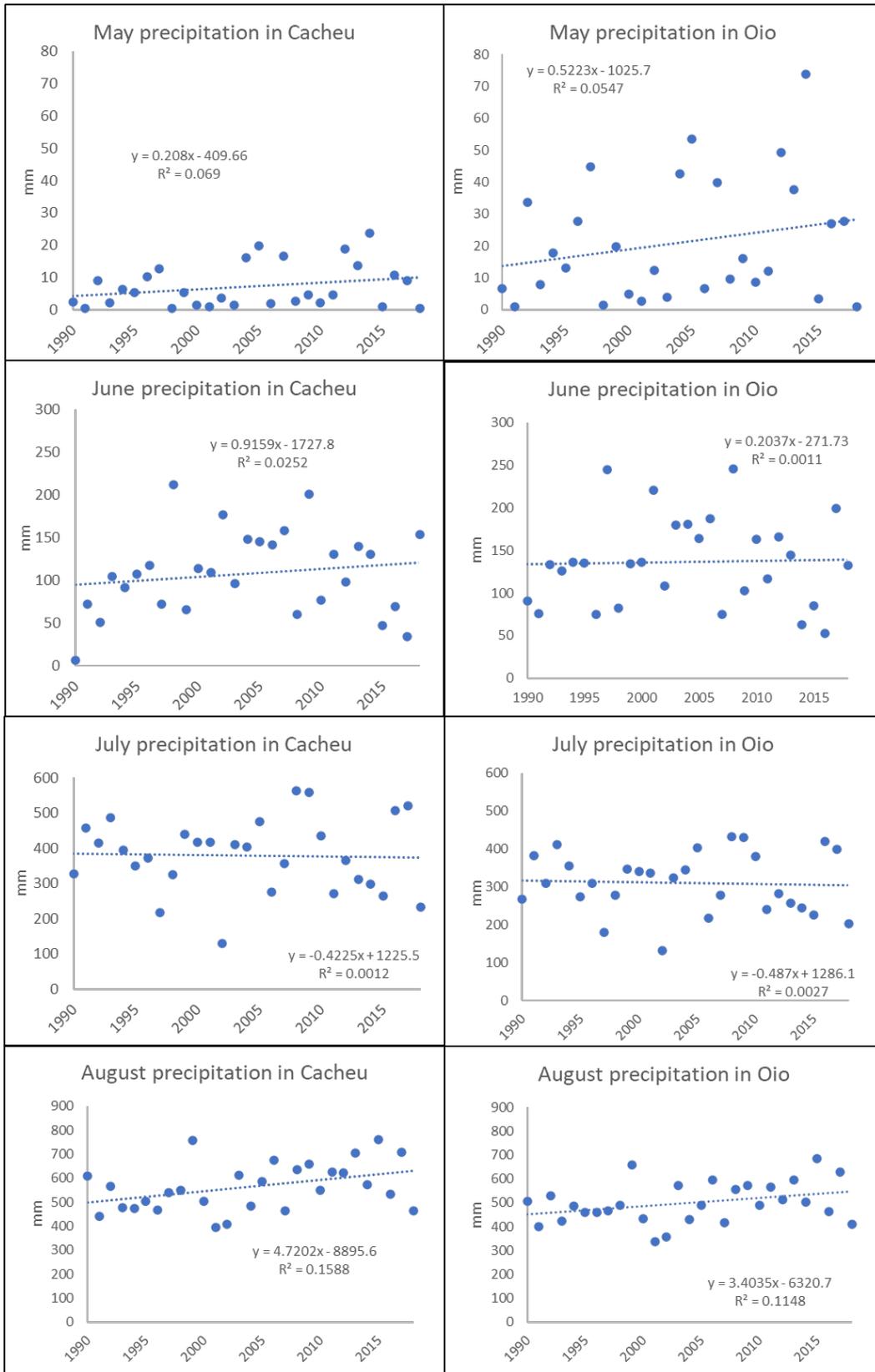


Figure 3 – Historical precipitation trends from May through August

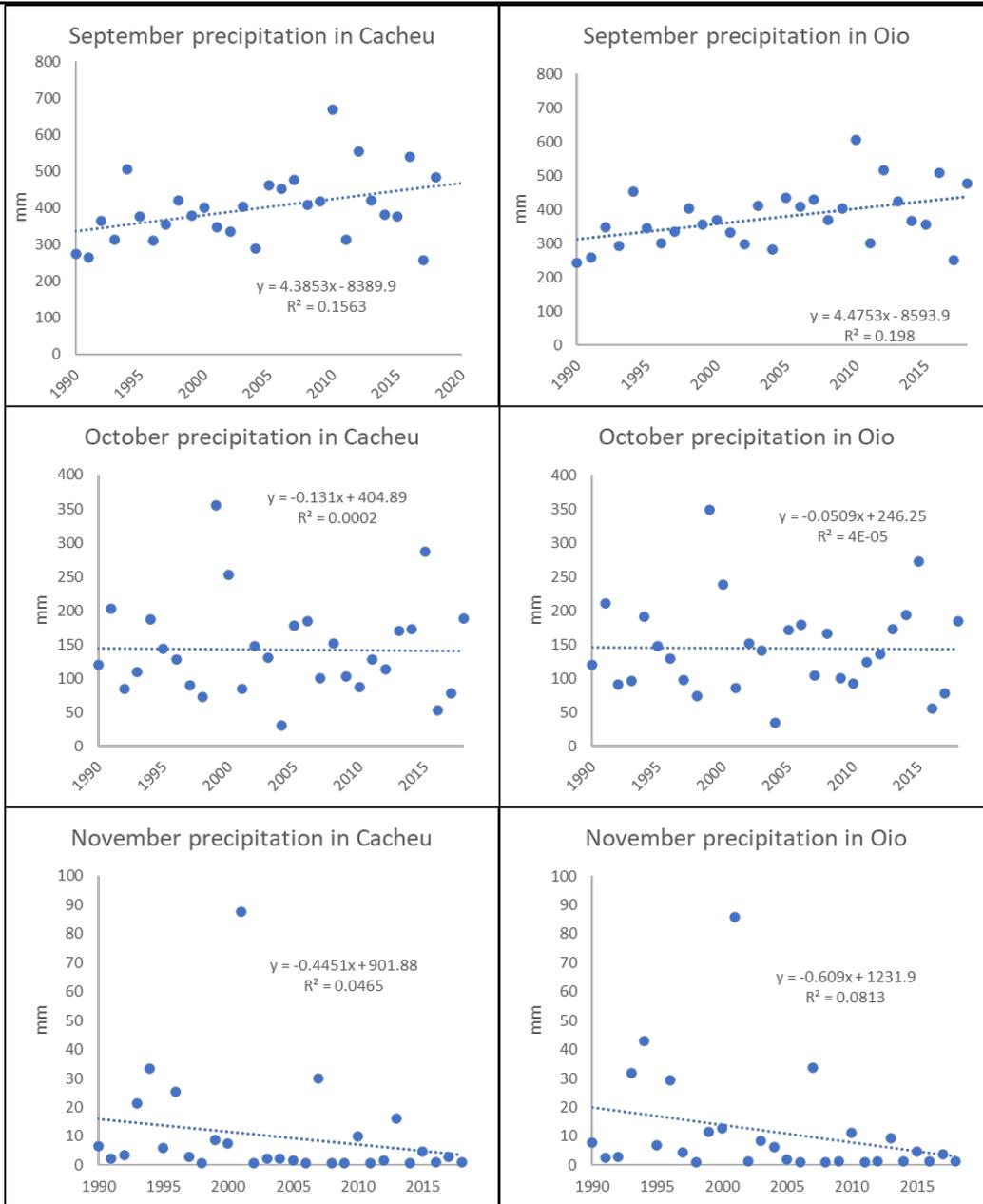


Figure 4 – Historical precipitation trends from September to November

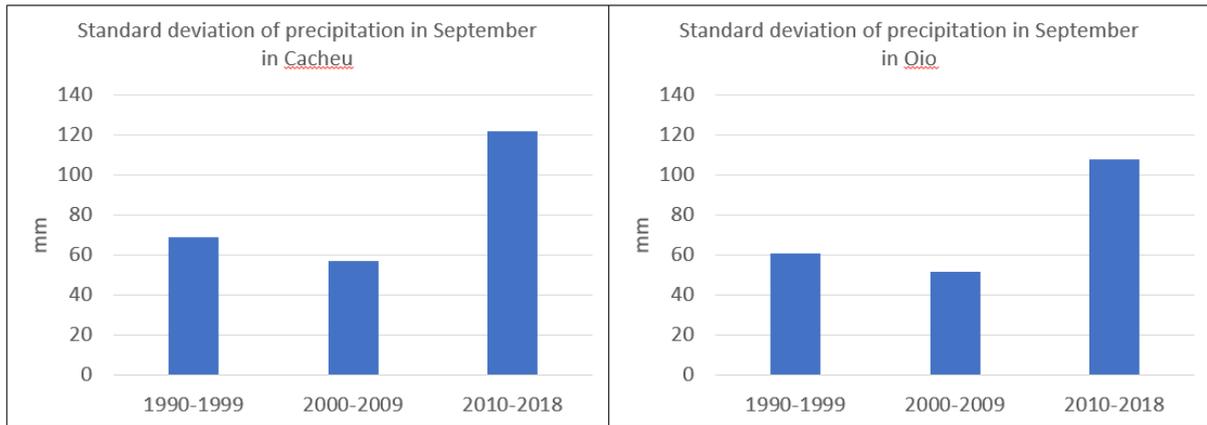


Figure 5 – Standard deviation of September precipitation in different historical periods of 9-10 years

7. In addition to looking at the yearly trends from 1990 to 2018, average precipitation rates for the following time periods were compared: 1901-1930, 1961-1990, and 1991-2020¹². In Cacheu, compared to precipitation rates in 1901-1930 (an average annual rate of 1692 mm), rates in 1960-1990 (1468 mm) and 1991-2020 (1488 mm) were substantially lower. Likewise, in Oio, rates in 1960-1990 (1417 mm) and in 1990-2020 (1451 mm) were substantially lower than the rates in 1901-1930 (1606 mm). Figure 7 and Figure 8 show the different monthly precipitation rates during these time periods.

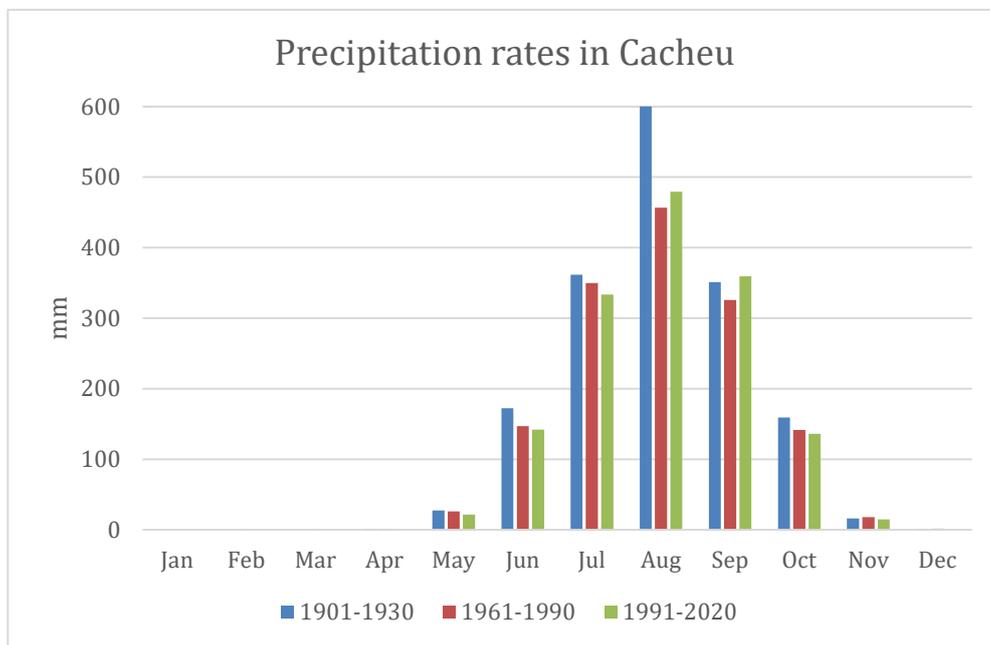


Figure 6 – Average monthly precipitation rates for different historical time periods in Cacheu

¹² World Bank Climate Change Knowledge Portal.

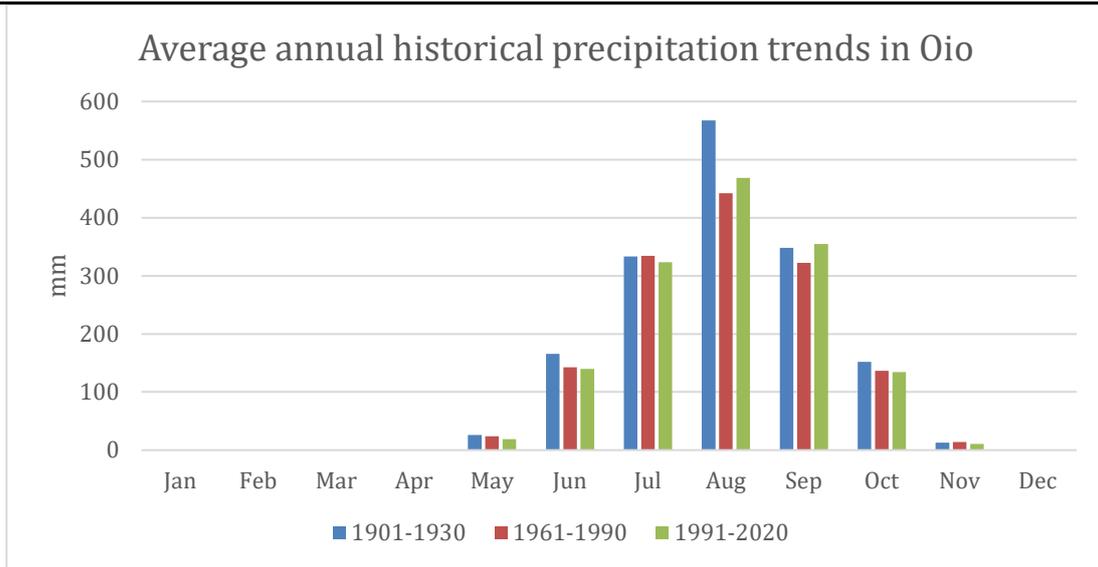


Figure 7 – Average monthly precipitation rates for different historical time periods in Oio

8. Projections clearly show further significant CCs for Guinea-Bissau, which is set to intensify its already high level of vulnerability. On the short term (2016-2045), regional climate models foresee, and shown by figures (a) and (b) respectively, an increase in temperature around 1.3°C under a low-emissions scenario (RCP4.5) and 1.5°C under a high emissions scenario (RCP8.5), compared to 1961-1990. By the second part of the century (2046-2075), temperatures are expected to rise between 1.5°C (RCP4.5), shown by figure (c) and 2.9°C (RCP8.5) as indicated by figure (d).

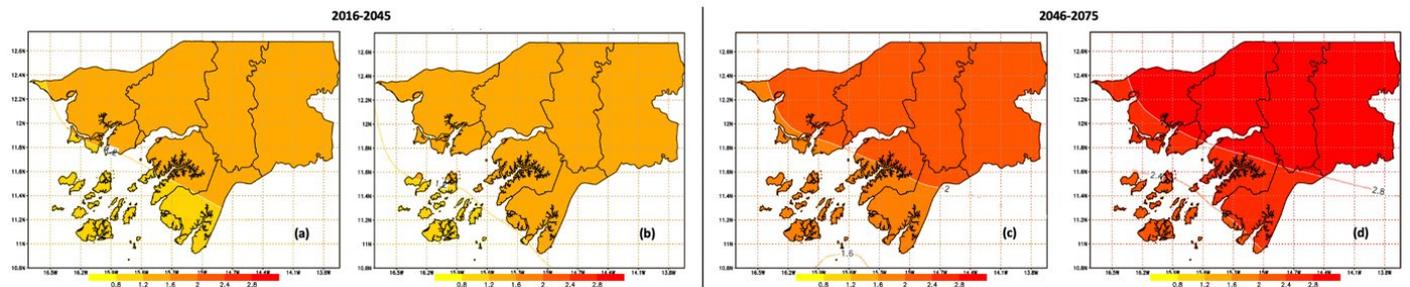
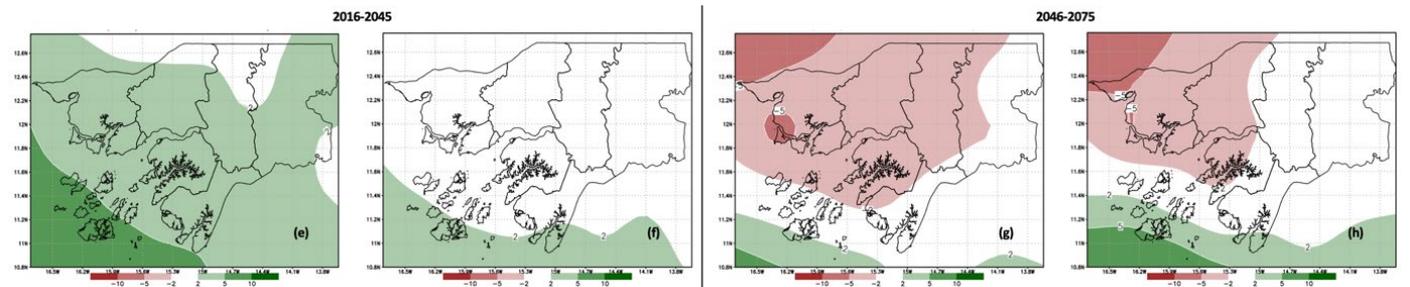


Figure 8 – Figures (a)-(d), from left to right: distribution of projected temperature changes for daily maximum temperature relative to 1961-1990. Projections for the period 2016-2045 are based on regional climate models run under the (a) RCP4.5 scenario and (b) RCP8.5 scenario. Figures (c) and (d) cover projections for the period 2046-2075, obtained under the same two scenarios, respectively⁶.

9. In terms of precipitation, there is high variability between regions. For the targeted areas of Cacheu and Oio, a slight increase in rainfall (+3%) is projected in the short term under a low-emissions scenario (RCP4.5), as shown by figure (e), and a decrease in the longer term (- 5%) under both scenarios, shown by figures (g) and (h). Extreme ENSO events are also increasing the frequency of connective storms in the coastal West African region, that suffered one cyclone and 13 connective storms in the period from 2008 and 2022.¹³



¹³ Emergency Disaster Database (EM-DAT), <https://public.emdat.be/data>.

Figure 9 – Figures (e)-(h), from left to right: distribution of projected rainfall changes for average daily rainfall relative to 1961-1990. Projections for the period 2016-2045 are based on regional climate models under the (e) RCP4.5 scenario and (f) RCP8.5 scenario. Figures (g) and (h) cover projections for the period 2046-2075, obtained under the same two scenarios, respectively⁶.

10. **Sea level** is expected to continue rising, aggravating risks for coastal regions, which include estuaries that are crucial for the rural populations of Chacheu and Oio. Projections using the Model MAGICC SCENGEN (version 5.1) indicate a total increase of around 7 cm by 2020, depicted by figure (i), and 20 cm by 2050, figure (j), in comparison to 1990¹⁴. The IPCC generally corroborates these findings in its Fifth Assessment Report (2014), expecting global mean sea-level rise to reach 26 cm by 2065 under a low emissions scenario (RCP4.5) and 30 cm under a high emissions scenario (RCP8.5). Other projections suggest the possibility of even more drastic outcomes, with sea-level rise in Guinea-Bissau reaching up to 13 cm by 2025, 35 cm by 2050 and 72 cm by 2075, compared to levels in 1995¹⁵.

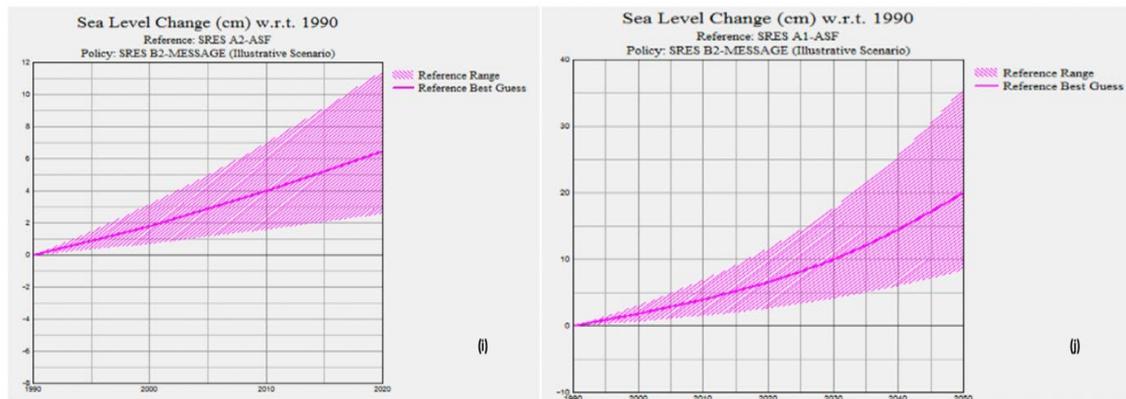


Figure 10 – Figures (i) and (j): sea level rise projections on a global scale (cm), in comparison to 1990. From left to right, figure (i) shows the increase for 2020 and figure (j) the expected change in levels for the following decades, up to the year 2050⁶.

CC Risks in Guinea-Bissau

11. Guinea-Bissau's geographic, climatic and socio-economic context greatly exposes it to climate risks. Coastal agricultural production is practiced in the lowland plains and low-lying mangrove ecosystems, which are vulnerable to the climate change hazards described above. These hazards can negatively impact growing as well as stored crops.
12. Underground aquifers of the project area of Oio and Cacheu and belonging to the Senegal-Mauritania Basin show varying levels of salinity. A national database (MWater) of groundwater, including information on borehole drilling logs, groundwater levels and groundwater chemistry, contains data on about 878 wells across the country. Using this data boreholes in the regions of Bolama and Cacheu stand out as areas with highest current levels of salinity (see Annex 2) and therefore may be most vulnerable to future SWI. Furthermore, using country wide water level and water quality data a GALDIT vulnerability analysis using 0.25m, 0.5m and 1m of seal level rise identified the Cacheu River system as most vulnerable to increased tidal influence under climate change¹⁶.

To date, most crops in Guinea-Bissau are rain fed with few areas being irrigated using groundwater. It is feared that as rainfall becomes more erratic farmers will turn to develop new wells in coastal areas, which if not undertaken appropriately could lead to saltwater intrusion of groundwater resources (see Annex 2). Once saltwater intrudes into an aquifer its recovery is nearly impossible. In coastal areas and oceanic islands, saltwater intrusion often occurs due to over pumping.

13. There is local concern that sea level rise is already pushing saltwater farther up rivers at high tide, increasing the potential for saltwater to contaminate agricultural lands rendering them infertile. Soil salinity in coastal lowlands results from a complex interaction of climate, hydrology, topography, tidal/river flooding and land management. Climate change is now recognized as an exacerbating driver of this increasingly global phenomenon through sea-level rise, increased evapotranspiration, changing rainfall patterns, and higher intensity cyclones that force sea water to intrude into surface and groundwater which in turn contributes to salt accumulation in the topsoil and the loss of ability to grow crops¹⁷.

¹⁴ Biai, Abissa Rosa Fernandes, *Efeitos das Alterações climáticas na Zona Costeira Noroeste da Guiné-Bissau*, Lisboa: UTL, 2009

¹⁵ Sally Brown et al., 2011

¹⁶ Ferreira et al (2011)

¹⁷ Eswar, D., et al. 2021. Drivers of soil salinity and their correlation with climate change. *Current Opinion in Environmental Sustainability* 2021, 50:310–318

14. Although no specific monitoring system or temporal data sets on salinization of soils currently exist in the country (this will be addressed through this project), farming communities in the mangrove rice systems along estuaries and rivers (the coastal line) of Guinea-Bissau, report on increasingly saline soils bordering coastal rivers, where traditional rice fields “bolanhas” are located in associated mangrove swamps which have forced many to attempt various coping mechanisms (such as impoldering and ridging) before abandoning them (see stakeholder photos in Annex 2). For example, in the Oio region, stakeholders report that bolanhas have been inundated with saltwater because of rising sea levels. Five villages of Cubucaré, in the south of the country, were prevented from cultivating 3,015 ha of bolanhas due to the destruction of their dikes by rising sea level and flooding. In 2003, 2004, and 2005 coastal areas experienced bad flooding due to high tides and torrential rains that caused a loss of cultivated rice paddy fields from saltwater intrusion forcing people to abandon their villages, some temporarily and others permanently¹⁸.
15. It is predicted that without a project future high intensity and slow onset CC hazards will severely impact coastal farming livelihoods leading to coastal farmland being abandoned due to the high costs of mitigating soil salinization and recovering land productivity, that will impose a high impact on already vulnerable communities.
16. Although there is a paucity of empirical data on rates and extent of soil salinity and saltwater intrusion for Guinea-Bissau the theoretical risk probability for increasing impacts on its agro-coastal freshwater and soil resources due to future climate change is undeniably high. Reference may be taken from the nearby and environmentally similar coastal zone of Senegal, where soil salinity issues constitute the most complex and common type of soil degradation generally due to seawater intrusion exacerbated by sea level rise¹⁹ which has increased at a rate of approximately 1.3 g –1 l –1 per year between 1950 and 1986²⁰. There, soil salinity has directly caused reduced soil quality, limited the growth of crops, constrained agricultural productivity, and in severe cases, led to the abandonment of agricultural lands²¹. Similarly, most of the soils in the rice-growing areas in The Gambia have become more saline over the past years, limiting growth of crops and affecting overall crop production²². Although irrigation practices have contributed to this situation, climate change induced saltwater intrusion is also believed to have had a significant effect²³.
17. In addition, increasing variability of rainfall places farming communities at risk. The increasing variability of the onset of the rainy season, and early cessation of it, has been a pertinent issue for the sector throughout Guinea-Bissau over the past six years. In the regions of Cacheu and Oio, the rice planting period traditionally goes from mid-June to mid-August, and the harvesting period lasts from late October to end of December²³. On the other side, the Cashew harvesting period goes between April and June²⁴. In 2014, the combination of irregular rains at the beginning of the cropping season and erratic rainfall thereafter, including rainfall deficits, affected growing conditions across the country resulting in a 38% drop of aggregate cereal production in comparison to the previous year. The production of rice, the most widely consumed staple food in Guinea-Bissau, declined by 36% in the same year. In 2017, the planting season was once again delayed due to the late arrival of rains, followed by poor distribution of rainfall, which affected both crop development and harvest in important producing regions. This time, production was about 6% lower than the previous year and 5% below the five-year average. Rice production was once again heavily impacted. The organization cites adverse climate conditions as a main driver behind concerns of future food security in the country**Error! Bookmark not defined.**

Consequences for the Agriculture and Water Sectors

18. These climate impacts will have significant consequences for rural livelihoods if not mitigated promptly. It is therefore the objective of this project to develop adaptation planning capacity and climate proof traditional agricultural systems prior to the extensive realization of these impacts. The main vulnerabilities in the target areas are related to fresh water quantity and quality, and saltwater-related soil degradation with current and future impacts such as (a) depleted soils and soil erosion; (b) intrusion of saline water on arable land due to sea level rise; (c) damages to dikes and rice fields resulting from more frequent occurrence of high-tides; (d) salinization of groundwater in the dry season; (e) floods; and (f) uncertainty about precipitation and renewal of water resources (groundwater and surface water).
19. The projected changes in temperature and rainfall are expected to have substantial impact on surface water resources, which are already limited in their capacity to provide sufficient water for the agriculture sector. With a predominance of rainfed

¹⁸ <https://climateknowledgeportal.worldbank.org/country/guinea-bissau/vulnerability>

¹⁹ Fall et al., 2014

²⁰ Page and Citeau, 1990

²¹ Diome and Tine, 2015

²² M'koumfa, B., et al. 2018, Res. Rev. J Ecol. Environ. Sci. 6 (1)

²³ <https://cropcalendar.apps.fao.org/#/home?id=GW&crops=0303>

²⁴ <https://documents1.worldbank.org/curated/en/443831467999735473/102933-REVISED-PUBLIC-MFM-Practice-Note-11.pdf>

agricultural production systems, yield of major food crops and livestock production are also expected to dwindle without appropriate climate-smart solutions²⁵. Levels of productivity are expected to be greatly and adversely affected as a result, with various studies indicating a resulting loss of crop yields between 10 and 30% if no action is taken^{26 27}. Higher occurrence of catastrophic climate events stemming from the CC projections presented above are likely to lead to infrastructure loss, further debilitating the country's agriculture sector and overall development process. Poor and vulnerable communities comprising the majority of the population, including those settled in the targeted areas, would be the most severely affected.

Sensitivity and underlying causes

20. The sensitivity of rural communities in the target area to CC and their low capacity to adapt to such threats and exposures is due to a number of compounding factors that collectively influence their level of vulnerability, including: high dependence on rain-fed agriculture, lack of assets and access to services, degrading ecosystems, high levels of poverty, limited financial and technical capacity for adaptation action, non-existence of awareness regarding CC impacts and how to mitigate and adapt to them, sub-optimal agricultural productivity and non-adapted practices, limited diversification within production and within household economy. In addition, gender inequality is pervasive through all sectors in the country, exemplified by low employment rates of youth (10.6%) and women (4.6%), and by female illiteracy rates being 71% compared to 45% for men.
21. One of the main root causes, as well as a key barrier, is long-lasting political instability and its consequences. Guinea-Bissau has been through decades of political turmoil, which has hindered the development of public services and leaves Ministries and their departments with a big capacity gap, unable to reach its population with necessary services²⁸. This lack of institutional development also manifests in a lack of technical and regulatory capacity in the climate sector. Combined with the high level of climate variability across regions in the country, this results in the absence of robust data, vulnerability assessments and concrete adaptation directions and intervention plans for regions and sectors, aspects partially addressed by a GEF-4 project (ID: 4019) completed in 2015 and a GEF-6 project (ID: 6988) that has been under way since 2019, both focused on strengthening the country's resilience and adaptive capacity to CC. Generally, there is a lack of awareness on adaptation solutions and climate-resilient practices, both at national as at community-level, which other projects like the ones just mentioned also recognize as barriers and issues to be overcome. The lack of institutional strength and technical capacity results in an almost permanent state of emergency, including in the education and health sector and in the food import sector. Combined with a continuously growing national debt, this results in lack of prioritization and investments in the climate and environmental sectors, exemplified by a lack of law enforcement for forest protection and a missing coherent and consistent natural resource management strategy. A technical barrier that has resulted from this ongoing instability is the limited capacity of national climate and meteorological departments and services, and its revitalization has been highlighted as a key priority by the TNC⁶. This will be partly addressed by a recently approved GEF-7 project (UNDP), which is focused on establishing functioning Early Warning Systems (ID: 10105, Strengthening Climate Information and Early Warning Systems for Climate Resilient Development and Adaptation to CC in Guinea-Bissau).

The Agriculture Sector

22. Agriculture is the primary socio-economic activity in the country, the sector contributes over 50% of the GDP, employs more than 80% of the active population and provides 93% of the country's exports. There is a strong reliance on cashew nuts for family income, which also represents the backbone of the national economy⁶. A high percentage of cashew production is exported as raw nuts, and processing capacity in the country is limited, with less than 5% being processed locally. The agriculture sector is furthermore characterized by a set of limitations: low productivity, inadequate infrastructure, little mechanization, significant post-harvest losses, limited private sector investment and inadequate product processing. This has ensured generally low and unstable economic growth, as well as a weak private sector still mainly consisting of informal activities⁶. Diversification of the primary sector, including agriculture, would foster growth and improve resilience, reducing overall poverty in the country and protecting it from external shocks⁶. It would bolster food security for rural populations whose income is directly affected by producer prices and export of agricultural goods, making them especially vulnerable to situations where increased imports of cereals are needed to offset reductions in national production impacted by adverse climate conditions and food prices go up^{Error! Bookmark not defined.}.

Technical barriers in the agriculture sector include a lack of capacity at all levels, including a lack of national experts on CC and adaptation options in agriculture, a lack of access to services and of assets. This is reinforced by the fact that the country does not have specific legislation for education programs and technical training in the sector, and financial support for youth

²⁵ FAO, Climate-Smart Agriculture Profile for Guinea-Bissau, 2019

²⁶ Shi and Tao, Vulnerability of African cereal yields to CC and variability in 1961-2010, 2014

²⁷ IPCC, 5th Assessment Report: Impacts, Adaptation and Vulnerability. Part B: Regional Impacts, 2014

²⁸ Guinea-Bissau scores in the bottom 10th percentile on all indicators measuring public sector capacity in the World Bank's Worldwide Governance Indicator

to access education is hardly available. Gender inequality is deeply rooted in entrenched socio-cultural attitudes, including women's unequal access to education and to ownership of land, forced early marriages and female genital mutilation. Evidence shows that 60% of women aged 15-24 are illiterate, 50% of women 15-49 are subject to FGM; 6% to sexual violence, 7% are married before 15 years and 22% before 18, 33% are mothers at 18 years²⁹. The total fertility rate per woman is more than four children, further restricting women's ability to enter the labor force⁶.

Rice Production

23. Rice is the most important food in the diets of the population in Guinea-Bissau representing 75% of food intake. However, production is low (Guinea-Bissau averages 1.7 tons per hectare, compared to up to 10 tons per hectare in other countries). With anticipated population growth driving demand, production would need to be tripled by 2025 to achieve self-sufficiency in rice production. The Cacheu and Oio regions currently account for 80% of Guinea-Bissau's rice production^{30 31}.
24. The GoGB estimates that less than 50% of the mangrove area cleared for bolanhas is used for agricultural production³², evidence for the need for a more sustainable land use planning that guarantees coastal resilience.
25. Furthermore, the bolanhas in the Northern region have suffered extensive degradation and loss of rice productivity over the last decades due to rural exodus and the impacts of climate change. In an effort to recover agricultural rice production in former mangrove areas, large-scale dams have been built, yet they often have limited success due to the inability to avoid saltwater flooding. The two most effective measures for increasing productivity are increased fertilizer applications and augmenting rainfall with efficient drip irrigation during the dry months³³. However, future development of irrigation sources needs to be carefully managed to avoid exacerbating soil salination associated with breaching of dikes with saltwater. Increased productivity of functioning, and restoration of abandoned, balonhas are priorities to reach production and resiliency targets.
26. The System of Rice Intensification (SRI) is an agro-ecological and low-input methodology to increase rice productivity. It allows yields to increase by 20-50% and more while using 90% less seed, 30-50% less water and 30-100% fewer agro-chemicals. Based on the principles of early plant establishment, reduced competition among plants, enriching soils with organic matter, and reduced water use, rice plants grow more vigorously and can better express their genetic potential than under conventional approaches. Healthier and stronger plants with deeper roots can better withstand weather calamities such as drought, floods, and strong winds, and assure (some) production, while conventionally planted crops succumb more easily to these forces, often leaving farmers without harvests .

SRI is a knowledge-based methodology and allows farmers to improve rice production and the fertility of the soils with the resources available on their farms. As an agronomic approach, any variety improves its productivity when planted with SRI, be it a high-yielding or a traditional variety. Once farmers have learned the technique, they can improve their farming outputs within one cropping season. This makes SRI a very effective method, especially for the more vulnerable groups of the population. Hence, demand from the rice farmers across Guinea Bissau to obtain proper training and adapting the method to their specific farming environments. The activity led by the implementation team, with input from the specialized project partners and lessons learned from other in country initiatives will be promoted as an adaptive measure to CC.

27. The target population does not reach food security, nor has access to technical, mechanical, input, adapted seeds or other support. The target communities possess large mangrove rice fields that were abandoned due to rising sea levels, consequent water salinization and lack of water management capacity.

Mangrove Ecosystems

28. It is one of the priorities of the Strategy and National Action Plan for Biodiversity to: promote and to improve the traditional techniques of conservation and sustainable management of the mangroves ecosystem and their sources; intensify and improve the use of the best management practices for mangroves ecosystems through the research, education, training and incentives for the fulfilment from the communities and other intervening actors and; improve the opportunities and to promote alternative activities of income generating associated with the mangroves ecosystem and to intensify training and sensitization sessions and environmental education on the durable use of mangroves products.
29. Guinea-Bissau has 338,652 hectares of mangrove, 2.5% of the world total. The mangrove ecosystem is the most representative vegetative formation of the coastal zone, covering 9% of the national territory. Guinea-Bissau has the second

²⁹ UNICEF, Multiple Indicator Cluster Survey (MICS) 5, 2014

³⁰ Guinea -Bissau NAPA 2006

³¹ Guinea-Bissau BUR 2019

³² Guinea -Bissau NAPA 2006

³³ FAO 2019

largest extension of mangroves in Africa, after Nigeria (GIRI, C. et al., 2011). This places it, proportionally to its size and coastline, among the first countries with the largest vegetation of mangroves in the world. The Cacheu River delta (project target area) has the most diverse mangrove cover on Africa's west coast, hosting about 60% of Guinea Bissau's mangroves. Between 1975 and 2013, mangroves decreased by 6.4%. In north-western Guinea Bissau (the project target area), coastal zones have eroded rapidly over the past few decades. The shoreline has retreated by up to 700 m inland in the past 40 years. Both rising sea levels and the destruction of mangrove forests, which act as natural barriers, have been blamed for the loss of land. Towns and villages located close to the shoreline, where most of the economic activity takes place, are likewise threatened. "Hence, preparedness — protection of existing natural barriers, monitoring of the coastline, and creation of alternative income opportunities is paramount" (Nicholls and Cazenave, 2010).

30. This ecosystem is essential for the rural communities and their preservation is imperative. More than 80% of Guinean people depend on agriculture for survival, and 45% of the rice-cultivated surface is mangrove-rice (salty rice paddy) (MARD 2002). The women, while they fish or collect molluscs in mangrove forests, collect mangrove logs and/or the branches to be used as a source of energy for lighting and food preparation. Traditionally, the branches of mangroves are for fencing around houses and orchards. Honey extracted from mangrove forests is highly appreciated. Several other products of the mangrove ecosystem also appear among the most traditionally used resources in the Guinean coastal zone. The "madeira-de-sangue" blood wood (log and branches) is used regularly as construction material and fencing of the houses and yards and to make domestic furniture and workmanship; it is also used to produce salt and to process fish. In the aerial roots of Rhizophoraceas, regularly submerged by the tides, grow the settlement of oysters and other molluscs, such as "Combés" (*Anadara sinilis*), "Ligron" (*Tagelus adansonii*), "Gandim" (*Pugilina morio*) and "Cunthurbedja" (*Cymbuim* spp.) emerge from the sandy and muddy substratum of the mangrove embankments and in the sandbanks. Additionally, the mangrove ecosystems that populate the whole coastal zone are important hard winter places for many species of birds that come from the Northern Hemisphere. A well preserved and managed mangrove area represents a potential tourist pole as additional income generating activity for the communities.
31. The roots system of the mangrove forest is very dense which traps fine sediments that function to limit coastal erosion (indeed build up soil) and offer an ideal shelter for micro to macro-organisms. This ecosystem of great biological productivity and plays an important role in the food chain and in repopulating of the marine and coastal resources. Local traditional use of mangrove resources is implemented with specific management rules, including some that implicate the alternate exploitation of different margins according to reproductive calendars.

Vulnerabilities in the Target Areas

32. A vulnerability assessment was conducted in the targeted areas, and the impacts of CC within the targeted communities, strongly dependent of ecosystem-related services, activities and income generation options are well documented in the pre-feasibility study³⁴.
33. The exposure of residents to current climate and climate change is highest for stressors related to water availability and high temperatures. Indirectly, the low level of productivity in food production associated with seasonal rainfall patterns affects food security in the project regions. Health conditions and food insecurity in the region are already poor because of non-climate stressors related to poverty and instability in food prices and are expected to worsen because of increased exposure to climate stressors.
34. Exposure is also negatively affected because rural communities of the Oio and Cacheu region have very low access to basic sanitation and health care services. Education and literacy levels are poor across the project regions, leaving little opportunity for economic advancement. Lack of knowledge and information transfer regarding climate change impacts and adaptive responses leaves populations sensitive to changing climate dynamics.
35. Residents have very low adaptive capacity to address disruptions in the availability of water for household and garden purposes. Most of the wells in the region are shallow; if they are depleted during the dry season beyond recharge rates, they are easily contaminated. It is estimated that only 14% of deep aquifers in the two regions have been exploited; however, the local population does not have the financial or technology capacity to access these deep resources.
36. Rural populations are primarily reliant upon unprotected, hand dug wells which have high rates of contamination, and often require significant travel (30 minutes or more) to access. While only 2% of freshwater resources available within the country are currently being withdrawn,³⁵ there is significant vulnerability for local populations who are unable to gain access to those resources due to economic challenges and lack of infrastructure for transportation of freshwater. The affected populations

³⁴ Annex 11: Pre-feasibility Study

³⁵ "SDG6 Snapshot in Guinea Bissau," United Nations, UN Water, 2021. https://www.sdg6data.org/country-or-area/guinea-bissau#anchor_6.4.2.

are aware of this change and for now neighbouring communities have allowed the sharing of resources with no major conflicts reported by interviewed stakeholders.

37. In all the communities visited, agricultural disease and pests have been a constant and growing problem. The populations do not have access to any modern means nor knowledge for combating or controlling them. Some of the interviewed farmers use chemical N-based fertilizers, without any knowledge on the product use and harmful effects.
38. Small-scale farmers are highly vulnerable to current climate and climate change, with medium to high exposure to most climate stressors (Annex 2). Crop production is highly sensitive in addition to being exposed, owing to current management practices, while adaptive capacity to reduce vulnerability is low when assessed for farmers, value chain actors, and the government.
39. Partly as a consequence of CC impacts, the majority of the target population is turning to cashew monoculture and itinerant upland rice cultivation, and in so doing converting previously forested areas to farming and reducing their access to diversified nutrition possibilities. These communities cease all other activities to fully dedicate themselves to collect cashew nuts in the cashew harvest season. All communities use firewood as the main fuel for domestic use, and, a large part of the target population prefers to use mangrove wood, especially for smoking fish and meat for conservation. Very few of the smallholder farmers in the area have horticulture gardening as a secondary activity, mainly producing native species for family consumption, and only during a small part of the season production is sold in the local markets (lemon, mango, etc). Some smoke-dried fish can be found in the local market too, as well as mangrove crabs, shellfish, wild oyster, home processed palm oil and palm wine, all seasonal and quantity limited activities. Another income-generating activity is firewood selling which places additional pressure on local forests. All the mentioned activities are artisanal, mostly by women, in small amounts, and do not cover basic household needs, both in nutrition, access to health care or education for the children, thus male children are prioritized for education, increasing the existing gender gap. Furthermore, the outward migration of unskilled youth to cities, that have little access to training or prospects to obtain a job in rural areas, is undermining the production capacity in the target communities.

Main Constraints and Barriers

40. A needs assessment and a pre-feasibility study (PFS) conducted in the targeted regions identified the main constraints and barriers to CC adaptation and climate-resilient development. The political and institutional instability that results in economic fragility is the biggest barrier to a resilient and coordinated path to a paradigm shift at country level. The table below summarizes the main barriers identified, which are documented and recognized by the national authorities. It details possible project responses to each and relies on CSO stakeholders and multi-lateral support.

Table 1 – Barriers and Responses

Barriers	Project Response
Technological	
Limited knowledge on sustainable land management practices lead to land degradation.	Under Component 1 the project will establish Observatory Groups with respective data collection and systematization, build capacities of relevant stakeholders, and disseminate and systematize knowledge.
Lack of access to information and training on climate resilient agriculture.	
Inadequate access to sustainable water sources for production during the dry season.	Under Component 2 the project will introduce concrete interventions to (i) future proof salinization of rice-mangrove farming systems, and (ii) establish water systems for irrigation and consumption.
Lack of capacities to respond to longer periods of drought or extreme rain phenomena.	
Reliance on single cash crops and mono-cropping (cashew) and limited production diversification.	Under Component 3 the project will promote climate-resilient agriculture, promote diversification, and promote climate-resilient value chains and income generating options.
Limited technical capacity for adaptation action.	
Lack of knowledge on harvest and post-harvest conservation options leads to great losses.	
Environmental/ Ecological	
Lack of knowledge on natural resource management and adapted alternative IGAs lead to high deforestation rates both in tropical forests and for mangrove ecosystems.	Under Component 1 the project will build capacities of relevant stakeholders, and disseminate and systematize knowledge.
Inexistence of awareness on CC impacts and adaptation options – water management, plague and pest response, mangrove benefits, natural fertilization options, amongst others – leads to great losses in agriculture production.	Under Component 2 the project will promote mangrove restoration, by establishing nurseries, mobilizing communities and conducting reforestation activities. Firewood saving stoves will be promoted to reduce deforestation rates.

<p>General lack of awareness on CC effects and adapted solutions to mitigate them, both at national and community-level.</p>	<p>Under Component 3 the project will promote environmentally-friendly agriculture practices, and establish community-based structures for CC awareness and adaptation.</p>
<p>Regulatory, Institutional, Financial</p>	
<p>Inexistence of micro-credit systems for smallholder farmers, youth and/or SME initiatives.</p>	<p>Under Component 1 the project will establish Observatory Groups with respective data collection and systematization, build capacities of relevant stakeholders, and disseminate and systematize knowledge.</p>
<p>Absence of robust data, vulnerability assessments and concrete adaptation directions and intervention plans for regions and sectors.</p>	<p>Under Component 2 the project will introduce concrete interventions to (i) address salinization of rice-mangrove farming systems, and (ii) establish water systems for irrigation and consumption.</p>
<p>Limited capacity of national climate and meteorological departments and services.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Nonexistence of an effective early warning system.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Existing data collection – monitoring on CC impact – not organized methodically, processed or summarized.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Dependence on imports of cereals (specifically rice, the basis of national diet), frequently with uncertain quality, chronically increasing the national external debt.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Lack of financial and technical capacity by local and central authorities to access and follow-up on smallholder farmer activities in rural areas.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>No access to and understanding of existing climate information.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Inadequate infrastructure, little or nonexistence of mechanization, significant post-harvest losses, limited private sector investment and inadequate product processing.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Limited economic means and mechanisms for farmers to access local markets.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Lack of specific legislation for education programs and technical training in CC and environment.</p>	<p>Under Component 3 the project will establish community structures for CC action, promote climate-resilient agriculture, including rice production systems, promote production and income diversification. The project will establish processing centres and support business along the value chains.</p>
<p>Social / Gender / Inclusion</p>	
<p>High poverty and food insecurity rates in Oio and Cacheu regions, manifested in the form of poor access to decent housing, malnutrition, poor quality of education, health and sanitation services.</p>	<p>Under Component 2 the project will introduce concrete interventions to future proof against salinization of rice-mangrove farming systems, which will lead to enhanced rice production (main staple) and thereby food security. It will establish access to water for production and consumption.</p>
<p>Gender, cultural, and poverty-caused norms and differences in access to literacy, education, information, training, finances, land ownership, and decision-making positions hinder individual and the household adaptation potential.</p>	<p>Under Component 3 the project will promote production and income diversification. It will train youth from the target areas and support youth and women in the establishment of micro-enterprises. Specific activities to address gender barriers will be conducted (literacy, organized child care).</p>
<p>Harmful practices against women and girls are reinforced by high household poverty: forced early marriages, female genital mutilation, sexual and gender-based violence, and child pregnancy.</p>	<p>The combination of components will have positive socio-economic benefits, in terms of household income, health and nutrition, and empowerment of women and youth.</p>
<p>Limited diversification within production and within household economy.</p>	<p>The combination of components will have positive socio-economic benefits, in terms of household income, health and nutrition, and empowerment of women and youth.</p>
<p>Migration of youth to cities for lack of training and job opportunities in rural areas.</p>	<p>The combination of components will have positive socio-economic benefits, in terms of household income, health and nutrition, and empowerment of women and youth.</p>

Alignment with National Priorities

- The project is based on national priorities for CC adaptation as identified in the Nationally Determined Contribution (NDC) and the National Action Plan for Adaptation (NAPA), and is informed by the findings of the Third National Communication (TNC) to the UNFCCC. It also falls in line with the country's latest GCF Programme (2020), which presents a national response largely comprised of CC adaptation measures included in this proposal. The focus on low-emission agriculture will ensure the country remains an absolute GHG sink, supporting national and global CC mitigation efforts. As an LDC that is highly vulnerable to the impacts of CC, the report also highlights the need for external financial support in order to ensure

sustainable and resilient development for the country. A gender dimension is stated as an essential criterion for future projects, as well as the involvement of local populations, both of which have been taken into account here. Additionally, the project contributes to “Terra Ranka 2015-2025”, which is the national development plan for Guinea- Bissau, the Programme of Action to Fight Drought and Desertification, DENARP II – National Strategy for Poverty Reduction, and sector-specific policies and programmes such as the National Plan for Agriculture Investments, the National Environmental Management Plan and the National Biodiversity Strategy and Action Plan. Relevant government authorities and departments were involved in the design of the project.

42. In its CC strategies, the GoGB defined key adaptation measures for the agriculture sector, with the following measures proposed per farming ecosystem:

Table 2 – Key CC Adaptation measures, Agriculture Sector, by Ecosystem³⁶

Ecosystems	CC Adaptation Measures of Agriculture Sector
Mangrove	<ul style="list-style-type: none"> • Construct micro/small dams for water retention • Enhance mangrove planting • Implement “no take zones” for mangrove management
Bas-fonds (freshwater)	<ul style="list-style-type: none"> • Construct micro/small dams for small valley water management • Support small-scale mechanization, particularly rice farming • Promote small scale irrigation systems • Support the development of irrigation infrastructures in the Geba River basin
Plateau	<ul style="list-style-type: none"> • Popularize new seed varieties adapted to environmental stresses • Improve genetic material of vegetables, cashew and palm • Construct micro/small dams for small valley water management • Promote small scale irrigation systems • Improve agricultural practices to both intensify and diversify production • Strengthen the research and dissemination of results
Backyard Farming	<ul style="list-style-type: none"> • Implement programs to increase water management and storage • Construct micro/small dams for small valley water management • Improve agricultural practices to both intensify and diversify production

43. In the target region, coastal communities in Oio and Cacheu, the predominant agriculture ecosystem is the mangrove-rice system, in which rice paddies (“*bolanhas*”) are located near the coastal line. Alongside rice and cashew production, backyard farming (horticulture) is practiced by the communities. The project, therefore, focuses on mangrove and backyard farming systems, adopting the recommendations made by GoGB strategies.

Synergies with other projects

44. The proposed project is aligned and in synergy with a variety of existing projects, as listed below. The AE and EE have been closely engaged with the evolution of the below-listed projects; most are in delay or recently initiated as a result of the country’s recent instability. The project, throughout its project Management Unit, will also create synergies with other related future and ongoing actions, as well as build on relevant past actions. As example, some of those projects and relevant outputs are listed as follows:
- “Strengthening climate information and early warning systems for climate resilient development and adaptation to CC in Guinea Bissau” (UNDP, 2019-2023, updated starting date 2021, GEF-7, ID:10105). The project is working to establish a functioning Early Warning Systems in the country. It is expected to ultimately enhance the capacity of the National Hydro-Meteorological Services (NHMS) and environmental institutions to monitor extreme weather and CC. It is also expected to promote the efficient and effective use of hydro-meteorological and environmental information to make early warnings and to mainstream CC into long-term development. The project is delayed and was just recently approved; there will thus be an overlap of the implementation period. The present GCF project will closely the project outcomes and ensure that the OG activities are linked to the new created EWS. The synergy between the two projects will be developed through common implementation partners, namely the National Authorities involved in both initiatives – Min. Environment, Meteorology Institute, Min of Agriculture amongst others;
 - “Strengthening the resilience of vulnerable coastal areas and communities to CC in Guinea Bissau” (GEF-6 project; ID: 6988 – 2019-2024/ starting 2021) – UNDP/Min Environment: The project is focused on policy and institutional development for climate risk management in coastal zones, concrete coastal protection measures and diffusion of technologies to strengthen the climate resilience of coastal communities. The present GCF project will benefit from this project’s policy and Institutional

³⁶ Republic of Guinea-Bissau, 2018

development; it will also use the experiences and lessons learned on sustainable land management in production systems (agriculture, rangelands, and forest landscapes). The present GCF project will feed the plans and policies to be created in the referred project scope. The synergy between the two projects will be made via the common project partner – Min. Environment;

- “Strengthen the Adaptation Capacity and Resilience of Coastal Communities in Guinea-Bissau Vulnerable to Climate Risks”, (GEF/UNDP-00077229 Project, Government as main partner, 2020-2025): the project focus is to jointly stimulate stakeholders to discuss resilience and risks management, such as: floods, erosions, temperature variations and landslides, that undermine living conditions and sustainability in the target areas. The project outcomes and lessons learned are of great interest to the present GCF project team. The synergy will be developed through common project partners – Min. Environment, Meteorology Institute, Min of Agriculture, INPA amongst others;
- “Scaling up Climate-smart Agriculture in East Guinea Bissau” (Adaptation Fund project – GNB/RIE/Agri/2015/1; 2018-2023): the project builds on the formulation of detailed intervention plan to pilot climate-smart agriculture actions and policies, procedures and guidelines related to CC, gender and natural resources; technical trainings material on adaptive systems and organizational capacity building; formulation/update of contingency plans for climate-risk management; forest fires prevention plan; experience on development of lowlands to maintain agricultural production in drought periods; manuals and other materials on best practices and measures for climate-smart agriculture. All of the produced material is of great interest for the present GCF project. The synergy will be developed through common implementing partners – MoEB;
- European Union initiative “DeSira – Mangrove, mangrove rice and mangrove people – sustainably improving rice production, ecosystems and livelihood” (2020-2024); the project aligns with the mangrove management experience. It develops laboratory soil fertility and toxicity analyses, meteorological and hydrological stations and traditional sustainable fishery practice in mangrove areas. Desira implementing consortium includes several international universities and research institutions. The outcomes of the project are of great interest to the present GCF project. The synergies will build on common implementing partners – Meteorology Institute, MADR and ADPP’s solid relationship with implementing partners – LVIA;
- European Union “Landa Guinea Arrus”, (2019-2025), IMVF, LVIA (amongst others): The project is part of the EU Landa initiative, which covers various sectors that require development aid in Guinea-Bissau. The project takes place in Oio region and is focused on sustainable and productive mangrove rice production systems, including water management and Bolanhas recovery. It explores traditional mangrove beekeeping techniques as alternative income generating activity and nutrition source (good quality honey, pollen, propolis, wax and apitoxin). The lessons learned on mangrove rice production, Bolanhas recovery and alternative mangrove-related income generating activities are of great interest to the present GCF project. ADPP is implementing 2 of the EU-landa projects, namely the landa – Water and Energy and the Horticulture landa, in Cacheu and Oio regions, and has good access to the project outcomes and lessons learned through the Project Management Units;
- “Deduram” – Sustainable Development of Mangrove Agriculture, (AFD/UE, 2019-2023), KAFO (amongst others); the two projects have a shared region – Oio; there is much interest in sharing experiences and lessons learned about mangrove rice, salt production, the georeferenced database and dissemination of good practices in the present project e-platform; ADPP and KAFO have a good relationship and communication channels to promote synergy actions;
- “Project for Protection and Restoration of Mangroves and Productive Landscape to strengthen food security and mitigate CC” (IBAP / IUCN – GEF; 2018/23) - Synergies between the two projects will be created through common implementing partners – IBAP; partially coincides geographically – North Cacheu Region; the main assets are the lessons learned at sustainable livelihood experiences and in local techniques/technologies for mangrove protection; The present project is already using some inputs regarding this IBAP experience. It is already established that part of this project’s tools will build on tools produced by IBAP under the GEF project;
- The “Cacheu River Mangroves National Park (PNTC)” – IBAP/IUCN – since 1997 – mainly by proximity of the target area and foreseeing a future expansion of the Park area – the project is already using some of the PNTC practices, experiences and recommendations, namely in the mangrove management activities and in the alternative income generating activities connected to the mangrove areas. The present GCF project intends to reproduce and align with the PNTC initiatives, land and resources management experience, sensitization material, ecological restoration/recovery methodology. The bridge between the two initiatives will be done by the common implementing partner – IBAP – and by the relationship built by the EE teacher Training school in Cacheu and the PNTC;
- PDCV-RIZ (2018-2021) and PACVEAR (2021-2024); AFDB – Rice Value Chain in Guinea-Bissau – ADPP-GB is implementing partner on both projects, capitalising the lesson learned;
- The “Scaling-up climate-resilient rice production in West Africa” (2021 – 2025 / OSS-Adaptation Fund) for the benefit of Benin, Burkina Faso, Côte d’Ivoire, The Gambia, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo, will contribute to climate resilience and increase rice system productivity of smallholder rice farmers across West Africa using a climate-resilient rice production approach. This project is being implemented by OSS and thus its results and approaches will benefit Guinea Bissau although it is not a direct project partner. Same Accredited Entity.

B.2.1. Project/Programme description (max. 1,000 words)

Project Objectives

45. The project aims to “benefit the most vulnerable populations with increased climate-resilient sustainable development” through actions that address GCF’s Adaptation Result Areas, specifically (1): “Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions;” and (2): “Increased resilience of health and well-being, and food and water security”.
46. The project specifically addresses (i) high levels of climate vulnerability in rural coastal communities, and high vulnerability of an underdeveloped and unorganized agriculture sector; (ii) The absence of knowledge, capacity and robust monitoring systems on CC, its impacts and on adaptation options; and (iii) the limited extension and uptake of climate-resilient agriculture and livelihood practices. Three interconnected project Components directly address these main priorities, which are identified in national programmes and policies on adaptation.

Target Areas

47. The project will be implemented in the Cacheu (northwest) and Oio (northcentral) Regions – covering the coastal zones, and the estuary and margins of the Cacheu and Mansaba rivers, as well as the Northern Geba river. It targets approximately 17 communities in Cacheu Region and 17 communities in Oio Region.
48. Cacheu Region: Cacheu Sector - KanKan, Pitchilan, Tchur Briqui; Canchungo Sector – Pelundo, Jolmete; Caio Sector – Ponta de Pedra, Pexice, Djeta; Calequisse Sector – Mato do Có, Calequisse centro antigo; Bula Sector – Có, João Landim, Nhilim; São Domingo Sector – Campada Maria, Poilão de Leão; Bigene Sector – Barro, Antotinha, Bianda, Mata, Manga, Quideti, Alia, Varela and Quitchir-ndaia.
49. Oio Region: Farim Sector – K3, Galomba, Bafata-Oio; Mansabá Sector – Tchagal; Mansoa Sector – Jugudul, Cuntubom, N’Tchasse, Cubui; Nhacra Sector – Ensalma, Jugudul-com, Nhoma; Bissorã Sector – Missira, Watini, Blassar, Iaram, Patche lala, Uncur, and Bissun Naga

50. The proposed project has 3 main, complementary Components/Outcomes, as depicted in the Logical Framework, Theory of Change diagram and activity descriptions below:

Table 3 - Logical framework

Objective	ARA	GCF Core Indicator	Output	Activity	Activity Indicator	MOV	Baseline	Targets	
								Mid-term	Final
Outcome 1 Strengthened capacity and knowledge management to monitor and address water and agriculture-related climate risks	ARA 1 ARA 2	Core Indicator 6 Core Indicator 7 Core Indicator 8	Output 1.1.	A1.1.1	N. of official meetings of the Observatory Group per year of project implementation.	Meeting Minutes and Reports of OGs; Annual Reports	0	6	12
					N. constructed / or rehabilitated Observatory Group offices and equipped	Progress Reports; Mid-term and final evaluation; Pictures pre- and post-Action	0	2	2
				A1.1.2	N. of CCCs constructed and equipped	Progress Reports; Mid-term and final evaluation; Pictures pre- and post-Action;	0	20	20
					N. of CCCs established and functioning.		0	20	20
					Gender indicator: % of CCCs with at least 50% female members		0	75%	75%
					Gender indicator: % of CCCs with at least 50% female leadership	Regulatory and Legal documents on the constitution of CCCs; Key informant Surveys;	0	75%	75%
					Gender indicator: % of CCCs that provide referrals to women and men on issues of importance to women (GBV, family planning, more)		0	100%	100%
					N. of CCCs management committees trained.	Progress Reports; Mid-term and final evaluation; Pictures pre- and post-Action;	0	20	20
					N. of Extensionists recruited and trained.	Contracts and training session reports	0	34	34
				A1.1.3	N. Training modules package on management and administration, etc developed	Training Manuals	0	1	1
					N. Training sessions on management and administration, operational capacities, financial literacy and management, community sensitization and leadership, and sustainability planning	Sessions de formation	0	12	16
					N. CCCs and OGs equipped with WSQM systems .	WSQM devices	0	68	68
				A1.1.4	N. of extension workers from CSOs and local government trained in CRA, WSQM and adaptation towards soil and water salinization (Sex-disaggregated)	Annual Reports; Mid-term and final evaluation; Reports from Ministry of Environment and Biodiversity;	0	90 (30 women; 60 men)	150 (45 women; 105 men)
				Output 1.2.	A1.2.1	N. of training manuals developed within the project scope (agri-environmental practices, technologies, water and soil quality monitoring...)	Training Manuals	0	1
			N. meeting of the working groups			Meeting reports and minutes; Validated modules	0	16	16
			A1.2.2		No. of community members, extensionist, CSOs, CBOs and individuals trained on WSQM and CRA (Sex-disaggregated)	Attendance lists	0	1500	3000
					N. of workshops/trainings sessions addressed on agri-environmental practices, technologies, water and soil quality monitoring.	Reports from Training sessions	0	8	16
					Gender indicator: % of workshops with at least 50% female participants	Reports from Training sessions; Attendance Sheets; Operation and Maintenance Manual;	0	50% of 1500	50% of 3000
					N. of workshops and training courses addressed for decision-makers at national and regional level on agri-environmental practices, technologies, water and soil quality monitoring system.		0	4	10
					Gender indicator: N. of workshops and training courses that are reviewed/ revised by the gender specialist before being held	Reports from Training sessions and Workshops; Attendance Sheets; Pre- and post-training surveys;	0	100%	100%
					Gender indicator: # of webinar trainings with at least 25% female participation		0	3	8
					Gender indicator: # of workshop and training attendees who are women ministries or gender ministries involved in steering and technical committees to support with oversight and technical issues		N/A	N/A	N/A
			A1.2.3		N. of youth trained on climate-resilient agriculture with practice done in the project Farmer Clubs (Sex-disaggregated)		0	55 (50% women)	115 (50% women)
					N. of youth trained on livestock and breeding of short cycle animals with practice done in the project Farmer Clubs (Sex-disaggregated)	Reports from Training sessions and Workshops; Attendance Sheets; Pre- and post-training surveys;	0	55 (50% women)	115 (50% women)
					N. of youth trained on agri-business (Sex-disaggregated)		0	80	160
				N. of youth trained on post-harvest practices and use of technologies (Sex-disaggregated)		0	55 (50% women)	115 (50% women)	

				A1.2.4	Gender indicator: # of trainings with at least 20% female participation		0	3	8		
					Gender indicator: # of workshop attendees who are from women ministries or gender ministries	Mapping documents;	N/A	N/A	N/A		
					N. Training centers and schools equipped	Purchase orders and contracts	0	2	2		
					N. of teacher trained in TOT for Adaptation to Climate Change (agriculture, health, nutrition, gender equality..)	Training certificates	0	68	68		
					N. of people trained in functional literacy classes in the context of Adaptation to Climate Change (agriculture, health, nutrition, gender equality)	Training certificates / or diploma	0	1800	2720		
					N. of communities sensitized on agri-environmental practices, technologies, water and soil quality monitoring system.	Reports from Training sessions and Workshops; Attendance Sheets; Pre- and post-training surveys;	Baseline	34	34		
					Gender indicator: Sensitization material gender sensitive		0	100% of materials	100% of materials		
					Gender indicator: Sensitization activities organized for women to be able to attend		0	100% of activities	100% of activities		
					Gender indicator: % of communities in which efforts have been made to mobilize men as champions of women's empowerment & equality in agricultural productive systems:		0	1	1		
					N. of extension workers from CSOs and local government trained in CRA, WSQM and adaptation towards soil and water salinization (Sex-disaggregated)	Reports from Training sessions and Workshops; Attendance Sheets; Pre- and post-training surveys;	0	90 (30 women; 60 men)	150 (45 women; 105 men)		
					A1.2.5	N. of manuals on functional literacy materials in the context of Adaptation to Climate Change 2,720 manuals	Manuals printed	0	1800	2720	
						N. of registration and identity card women beneficiaries	Identity cards	0	800	1000	
					Output 1.3.	A1.3.1	N. of Baseline study	Baseline Data base, Progress and final reports, Mid-term and final audits, Final evaluation, Monitoring & Evaluation, Inquiries, Surveys, National Statistics (National Institute of Statistics, Ministry of Agriculture and Rural Development, Ministry of Environment	0	1	1
							N. of workshops for Baseline validation	Workshop reports	0	2	2
				A1.3.2		N. of KAP surveys	KAP survey reports	0	1	2	
						N. of informative documents with lessons learned and recommendations integrated in national monitoring systems.	Lessons Learned and Recommendations Publications; Annual Report Meteorology Institute	0	1	2	
						Gender indicator: % of documents created that incorporate gender/take gender under consideration, as per the analysis of the gender specialist		0	100%	100%	
						N. of project collaborative e-platform developed and integrated with executing entity's website.	E-Platform Website and website review	0	0	1	
						N. of training workshops on the e-platform use	Training reports	0	2	3	
						A1.3.3	N. of knowledge management and dissemination strategies developed.	Knowledge Management Strategy - Document	0	1	1
				Gender indicator: % of management and dissemination strategies that are reviewed/ revised by the gender specialist before being finalized			0		100%	100%	
				N. sensitization workshops about CRA, CCA and the results of the project			Sensitization meetings minutes	0	6	9	
				N. Films production of good practices on climate change and resilience N. of radio programs on climate change and resilience	Podcasts and films		0	10	30		
				Output 2.1.	A2.1.1	N. of general adaptation plans for each region developed.	Adaptation plans documents	0	2	2	
						N. of workshops to validate the general adaptation plans	Workshop reports	0	34	34	
						N. of meetings to develop: • The intrusion of saline water in rice fields and management of saline groundwater • The water management plans on site and Operationalization and monitoring in the fields of general crops and horticulture. • The water management plans on site and Operationalization and monitoring in the rice fields	Meetings minutes and attendance list Validated Action plans	0	34	68	
						N. of actions for water management interventions on flood prone areas implemented.	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0	22	34	
					A2.1.2	N. of rice paddies protected with dykes and belts.	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0	34	102	
N. of actions for Establishment and revitalization of Water Points	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0	22			34					
A2.1.3	N. Workshop/Training : establish and strengthen Water Management Committees (WMCs)	Workshop reports	0		20	34					
	N. of Construction of rainwater retention system in 34 model fields	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0		20	34					
	N. Construction of rainwater retention system in 20 CCC's	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0		15	20					
A2.1.4	N. of actions for micro-scale irrigation systems interventions implemented.	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0		22	34					
	N. of actions for rain and storm water retention systems implemented.	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0		34 community + 20 household systems	34 community + 20 household systems					

			Output 2.2.	A2.2.1	Gender indicator: % of all actions (Op.2-4; 2-5;2-6; 2-7) consult women and men beforehand to identify different needs/constraints and to ensure that actions respond to varying priorities, needs of women and men	Progress Reports reporting on water management in the target areas; Pictures pre- and post-Action;	0	100%	100%					
				A2.2.1	No of community nurseries for mangroves and coastal trees established and operational		0	2	4					
				A2.2.1	Gender indicator: % of individuals participating in the actions that are female	Progress Reports reporting on Mangrove Ecosystems IBAP Reports; Key informant Surveys;	0	70%	70%					
				A2.2.1	Gender indicator: % of surveyed women engaged in mangrove actions who report that nursery management is being done in a manner that is fair and equitable		0	75%	75%					
				A2.2.1	No of communities engaged in reforestation of mangroves		0	22	34					
				A2.2.1	Gender indicator: % of individuals participating in the actions that are female	Progress Reports reporting on Mangrove Ecosystems IBAP Reports; Key informant Surveys;	0	70%	70%					
				A2.2.1	Gender indicator: % of surveyed women engaged in mangrove reforestation who report that they see benefits to themselves and their families from reforestation efforts		0	75%	75%					
				A2.2.1	No of communities trained in reforestation of mangroves		0	22	34					
				A2.2.1	N. of manuals of procedures and good practices for the protection and recovery of mangroves in the communities and manuals of good practices	Manuals printed	0	0	150					
				A2.2.1	N. of trees planted	Planted trees	0	1000	2000					
				A2.2.2	N. of manuals on firewood saving stoves benefits	Manuals printed	0	1	1					
				A2.2.2	No of communities where firewood saving stoves are introduced	Progress Reports reporting on Mangrove Ecosystems IBAP Reports; Key informant Surveys;	0	22	34					
				A2.2.2	Gender indicator: % of surveyed women using stoves who report that they see benefits to themselves and their families from the stoves		0	0,75	0,75					
				A2.2.2	N. of firewood saving stoves produced	Cooks stoves distributed and GPS position taken	0	1000	3500					
				Outcome 3	Enhanced climate-resilient livelihoods, food and water security of the most vulnerable people in coastal communities in Olo and Cacheu Region	ARA2	Core Indicator 2 Core Indicator 4	Output 3.1.	A3.1.1	N. of farmers organized in Farmers' Clubs (Sex-disaggregated)	Descriptive memories of the Farmers' Clubs; Farmers' Clubs bookkeeping and training reports;	0	8.500 (70% women)	8.500 (70% women)
									A3.1.1	N. of farming families mentored throughout the project (Sex-disaggregated)	Descriptive memories of the Farmers' Clubs; Farmers' Clubs bookkeeping and training reports;	0	8.500 (70% represented by women)	8.500 (70% represented by women)
									A3.1.1	N. of model plots established and equipped (Sex-disaggregated)	Descriptive memories of the Farmers' Clubs; Farmers' Clubs bookkeeping and training reports; Pictures pre- and post-Action;	0	170	170
									A3.1.1	N. of seed banks established and equipped (Sex-disaggregated)	Descriptive memories of the Farmers' Clubs; Farmers' Clubs bookkeeping and training reports;	0	25	35
									A3.1.2	N. of manuals and training modules on SRI & CRRP	training material	0	34	34
									A3.1.2	N. Trainings to promote Sustainable Rice Intensification (SRI) and Climate-Resilient Rice Production (CRRP).	training session reports	0	68	102
A3.1.2	Farmers accessing equipment and tools to implement SRI-CRRP	Equipments distributed / purchase orders : superviosn and control missions	0						20	34				
A3.1.3	N. Training manuals and dissemination package on short cycle animals	Reports from Training sessions; Attendance Sheets; Pre- and post-training surveys;	0						34	34				
A3.1.3	N. Sensitization campaigns at the communities level	Reports from sensitization sessions; Attendance Sheets; Pre- and post-session surveys;	0						10	10				
A3.1.3	N. of farmers Provide farmers with short-cycle animals (20 households per community) (Sex-disaggregated)	Reports from Training sessions; Attendance Sheets; Pre- and post-training surveys;	0						340 (70% women)	680				
ARA 1	Core Indicator 2	Output 3.2.	A3.2.1						Launch of a call for proposals for small grants	Annual Reports Vocational Training School; Graduation Data; Business Models;	0	1	1	
			A3.2.1						N. of Grants ditributed	Grant agreements signed	0	0	40	
			A3.2.2						Creation of 2 agricultural community units	Community centers established	0	2	2	
			A3.2.2	Reactivation support to 2 existng Processing Centers	0	1	2							
			A3.2.2	Creation of 4 business plans and 2 agricultural associations established and operational	Associations' registration documents; Meeting minutes of the general assembly; Bookkeeping records of the Associations;	0	2	4						
			A3.2.2	N. of people trained in business management (Sex-disaggregated)	Business Model documents; micro-enterprises registration datat; Descriptive memories of the green enterprises or business;	1	40 (50% women)	160 (50% women)						
			A3.2.2	N. of micro-enterprises along the value chain(s) and women-led IGAs supported (Sex-disaggregated)	Business Model documents; micro-enterprises registration datat; Descriptive memories of the green enterprises or business;	0	30 (50% led by women)	40 (50% led by women)						

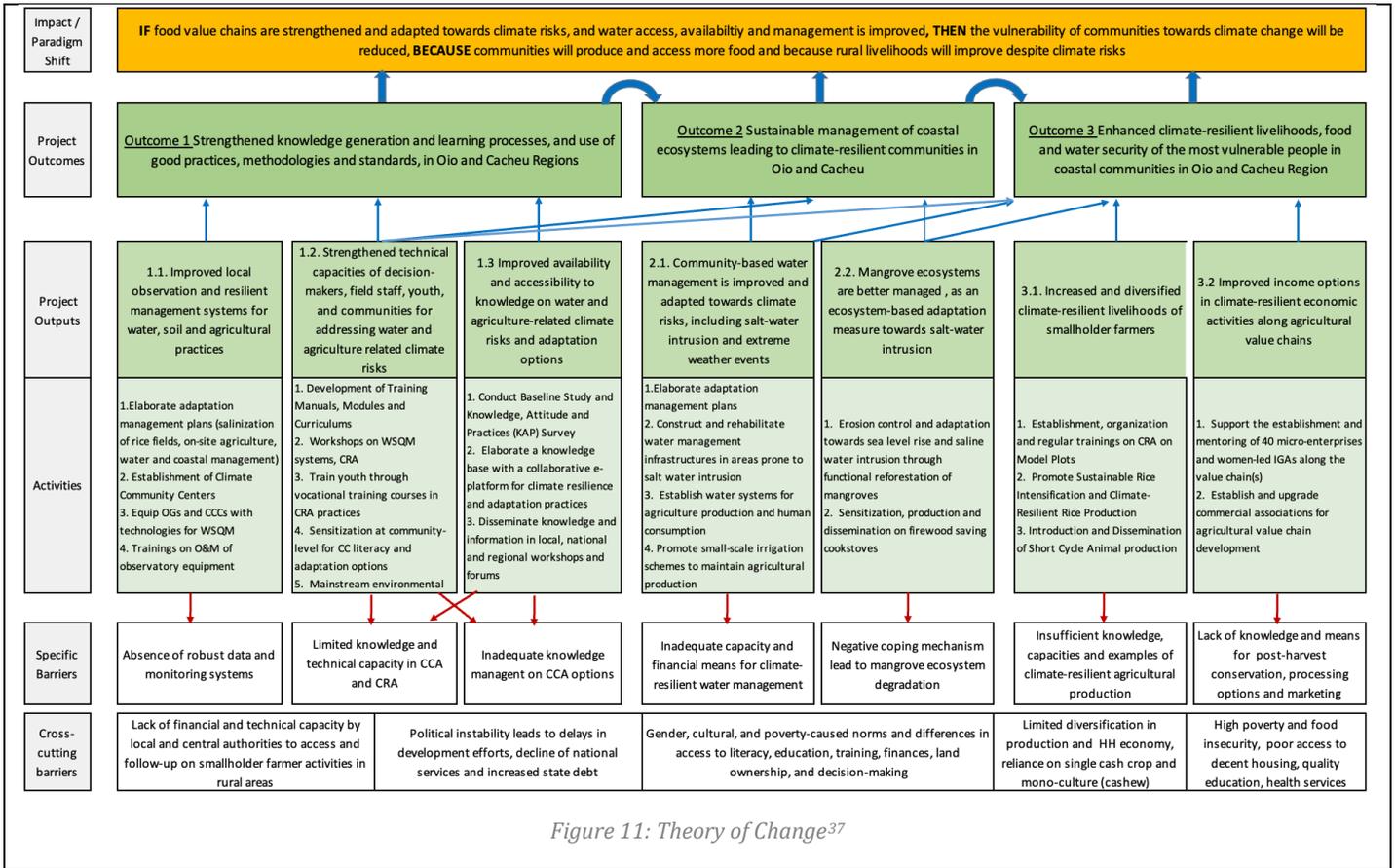


Figure 11: Theory of Change³⁷

³⁷ Also included in Annex 2, Logical Framework (annex 2c. Theory of Change)

Project Description

Component 1 – “Development of technical and institutional capacity of government and civil society”

51. This component strengthens technical and institutional capacities at various levels, while addressing key barriers to climate-resilient development. The component is aligned with GCF’s IRMF Enabling Environment Target “Degree to which GCF projects/programmes contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards”. The Component is justified by the country’s institutional and economic fragility, which hinders access for main, active stakeholders in the country to updated technical knowledge, support and orientation, data collection/processing and access to complementary information and tools to address CC impacts. Those in turn, represent direct threats to the food and nutritional security of the target populations. The activities under this component will be executed by the EE, which specifically includes the Project Management Unit (PMU), with technical orientation by a Technical Support Team (TST) and an extension team operating in the communities. The Project Partners include specific technical departments from the MoEB and MoA. Government institutions such as the Meteorology Institute and the National Institute for Agricultural Research (INPA) will be invited to participate, give technical advice and inputs to guarantee the alignment and appropriateness of the activities with national policy, legal frameworks and proven techniques and technologies at national level. Local government extension workers will work side by side with the EE’s extension team. OSS, as AE, will oversee the implementation of the project, visit project sites on a regular basis, and will follow up on implementation on a day-to-day basis. For the Project Partners’ efforts, per diems, transport fees and basic equipment will be provided by the project.

Outcome 1. Strengthened capacity and knowledge management to monitor and address water and agriculture-related climate risks

Output 1.1. Improved local observation and resilient management systems for water, soil and agricultural practices.

52. This Output responds to the lack of available climate change related data and the lack of systems for data collection, processing, analysis and dissemination. Through the activities, the project will generate an enabling environment for continuation of climate change adaptation (CCA) activities in the country. The initiatives will be integrated in government structures, and developed in dialogue with the relevant line ministries and key development partners with similar interests. The two Observatory Groups (OGs) established by the project will serve as pilots for the country, and could be rolled out and replicated to other regions. The extensive consultative process preceding this project, including with the Project Partners and government, identified the importance of establishing OGs. The EE will lead the execution of activities under this Output, with support from the AE. The project partners include IBAP, MoEB and its Regional Offices, MoA’s General Directorates and Regional Offices, the Meteorology Institute, INPA, and the National Civil Protection Services.³⁸

Activity 1.1.1. Conceptualization and operationalization of Observatory Groups (OG) for climate-resilient agriculture (CRA) practices and technologies and water and soil quality monitoring (WSQM).

53. The project will establish and operationalize two OGs, one in each of the target Regions. The OG will be a regional mechanism with permanent offices at the local administration, and will be composed of permanent staff, as well as key stakeholders and technicians. The OGs’ core function will be (a) to organise, monitor, collect and process water and soil quality data, salinity levels and climate trend data in the target areas, and (b) to centralize information on best practices in CCA and CRA. The OGs will report to central authorities, and disseminate findings back to the community level. The data collected will contribute to developing specific technical solutions and responses to CC impacts. The two OGs will work together to coordinate methodologies and actions and will communicate closely with local authorities, the Meteorology Institute, NCPS and connect the regional work with national-level authorities.

54. Data collection will take place through the operationalization of Proximity Monitoring Stations (PMS), which will be established throughout the Regions. The PMS will be connected to the Climate Community Centres (CCCs) established by the project (A1.1.2). Community Observers (COs), which are members of the CCCs and/or farmers’ clubs (FCs) participating in the project, will be trained in data collection and the management of technical equipment. The COs, who will be elected by the participating communities, will have the double role of (a) collecting data and reporting to the OGs; and (b) disseminating information – including early warnings, climate information and recommendations for adaptation – from the OGs to their

³⁸ See Table 6 below and section B3.

respective communities. The flow of information between OGs, CCCs and national-level authorities is depicted in figure 12 below.

The establishment of the OGs will include the following steps:

55. **Conceptualization of the OGs:** The conceptualization of the OG will cover the design, definition and development of the OG. This will include technical aspects (infrastructure, offices, transport means, tools, equipment, etc.) as well as operationalization (personnel, ToRs, O&M Manuals, long-term sustainability plans, methodologies and operation). The detailed scope of the OGs and its mandates will be defined through a set of consultations, workshops and exchanges, in a participatory manner, under the coordination of the EE and with support from expert stakeholders (technicians from the MoEB, IBAP, Meteorology Institute, MoA and the GDWR) and community representatives. The output of the consultations and workshops will be the definition of Terms of Reference (ToR) of the OGs, including the ToRs for the OG staff. Subsequently, the ToR of the OGs will be validated through two validation workshops. The EE will chair the workshops. The validation group is foreseen to include officials and senior representatives from the MoEB, MoA, Meteorology Institute, DGWR, 2 or 3 CSO representatives, community representatives, and technical representatives from UNDP and the EU.
56. **Operationalization of the OGs:** According to the validated ToRs, and allocated budget (GCF funds), the EE will recruit OG staff and members, and procure assets and equipment (A1.2.3). The staff to be recruited will include an OG coordinator supported by three OG deputies (1 senior and 2 junior), as well as a HR and procurement manager who will be charged with the supervision of the project team and procurement. The OG coordinator will need to have, among others proven relevant academic capacities, as well as extensive experience operating in a similar environment as Guinea-Bissau. The coordinator and his deputies will be paid by the project during the implementation period and be incorporated in the Government structure after project completion. Besides recruited staff, the OG will have members from the key relevant institutions, being the MoA, the MoEB, and IBAP, among others (to be defined in the ToR). The OGs will be supported by the EE and Project Partners throughout the lifecycle of the project.
57. **Integration of OG activities in the national monitoring systems:** The data to be collected, and measuring parameters and methodology, will be defined in collaboration with the authorities. This will support the OGs' work to be integrated into a broader national system. This activity will encompass all target sectors involved (water, soil, agricultural practices and technologies). As there is no National Monitoring System or National Early Warning System at this stage, the present project will participate in the establishment of those systems, which will be integrated under the Ministry/Institute (still to be defined).

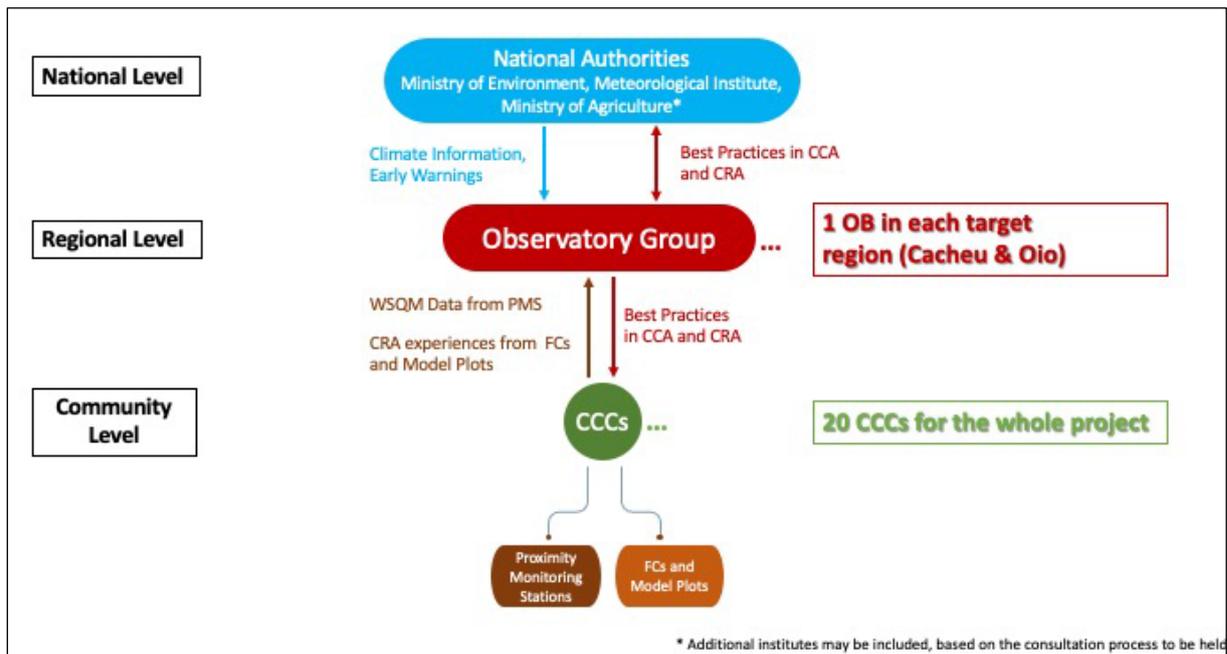


Figure 12: Observatory Groups' Information Flow

Activity 1.1.2. Establishment of Climate Community Centers (CCC).

58. Under this activity, the project will establish CCCs in the target areas, to serve all 34 target communities. The activity replicates the CCC model from a completed EU Energy Facility project in Oio Region. The 24 CCCs that were established under that project are still fully operational, and are regularly followed up on by the EE which operates in the area permanently. This was confirmed during a mission by OSS in Guinea-Bissau mid-2021. Tentatively, 20 CCCs are expected to be established, considering that some communities are too small to have an individual centre. Establishment of the centers includes identification of locations, construction of the centers, establishing operational capacities of management committees, and integration with the Observatory Groups and other central institutions and programmes. The function of the CCCs is to facilitate the project's CCA activities, support the OGs, host multiple functions within and beyond the scope of the project, serve as information points on CC and CCA, and serve as a central point for implementation of awareness and capacity building activities in the target communities. The CCCs will be long-term structures that will continue working to address CC issues beyond the lifespan of this GCF project.
59. The locations of the CCCs will be decided during the project's inception phase, in consultation with local authorities and communities. Criteria for the choice of location are: land availability and suitability, willingness of the land owner to provide the land, accessibility for the communities, and strategic proximity to the fields and watercourses to be monitored by the OGs. For the ownership of the CCCs, the project will adhere to the "Lei da Terra" (land law), which is applicable to communal land in the rural areas and which respects traditional procedures and community leadership. As such, agreements and copies will be signed between land owners and the community, represented by community leaders, witnesses that provide testimonies (a representative number of young adults to provide long-term testimony) and representatives of the local State Committee. The terms for the land concession are indefinite, i.e., the land will be allocated for an indefinite period of time. This is a legal procedure also applicable to the establishment of Model Plots (A3.1.1) and Community Processing Centers (A3.2.2).
60. The construction of CCCs will be led by the EE extension team, who will mobilize community members for the construction of their own centres. A team of 17 extensionists per region, one from each target community will be recruited by the project, trained and charged with facilitating all project activities such as community training inter alia. Materials and goods will be procured by the project, and specialized services will be contracted for example for electrical and plumbing works. The CCCs are simple structures, approximately 10m by 20m, consisting of a main meeting room, office spaces and sanitation facilities. Local materials such as sand, gravel and cibe palm wood will be provided by the community. Other materials will be procured locally, including clay blocks, zinc, nails and cement. Solar energy equipment will be installed, including 240W solar panels, 195ah batteries, parabolic antenna and accessories, 32p TV and DVD player. Each CCC will be equipped with a rooftop water harvesting system, including a locally made tank/cistern, set up as example and for the target community to have access to freshwater.
61. The management of the CCCs will be community-based. Committees will be established for each of the centres. The members of the committees will be elected by the community with a mandate for 3 years, with the possibility of re-election. The EE will mobilize, and facilitate the establishment of the committees, with an aim for gender balance. The committees will be coached by the EE extension staff, and gradually carry full responsibility for the CCCs. Committee members will be trained in management and administration, operational capacities, financial literacy and management, community sensitization and leadership, and sustainability planning. Specific technical capacities will be built on CCA, processing and disseminating of climate information and management of the WSQM monitoring equipment. The maintenance costs of the CCCs are minimal and can be easily managed by the committees. Small fees will be charged for services of the centres, such as charging of cell phones, childcare systems, renting of rooms and workplaces, etc. The CCCs will manage the funds and use it for maintenance of the buildings and for conducting CCA activities. Communities may decide among themselves that committee members can receive small fees from other community members for the services provided.
62. The CCCs will be linked to the Observatory Groups (OGs) for the collection of data, as well as for receiving and disseminating information and knowledge generated by the OGs. Proximity Monitoring Stations will be established in the 34 target communities to collect data on water and soil quality. These stations will be operated by Community Observers, which are small groups of community members with an interest and willingness to participate in the activities, who will take responsibility for data collection, reception and dissemination, and who will be managed by the CCC management committees. The Community Observers will be elected by the communities, based on individuals' interest and motivation to take ownership, and will subsequently participate in capacity building sessions on the operation and maintenance of the equipment, as well as technical knowledge on CC and climate information. The process of electing Community Observers will be facilitated by the EE's extension team, who will equally support and coach the observers during the lifespan of the project.

Activity 1.1.3. Equip OGs and CCCs with technologies for WSQM.

63. The EE will be responsible for the establishment and provision of equipment and necessary assets for the 2 OGs, as well as the connected CCCs and Proximity Monitoring Stations. Equipment will include, among others: office and IT equipment, vehicles, technical equipment for monitoring of water and soil quality and salinity levels; and sets of Soil Quality Monitoring Kits. The ownership of the assets and equipment will be handed over to the local government upon project closure. Acquisitions by the EE will follow the AE’s procurement rules, policies and procedures, as foreseen in the AE-EE grant agreement.

Activity 1.1.4. Training of OG members, including community members and individuals on O&M of observatory equipment.

64. Trainings will be provided for the management of observatory equipment, according to an Operation and Maintenance (O&M) manual for observatory tasks, with corresponding guidelines. The EE will lead on developing and executing the O&M manuals and respective training modules. Special attention will be given to developing gender-sensitive materials and to promoting gender-balanced working groups. Management of equipment will include the monitoring of correct functioning to promote preventive and corrective maintenance; repairs; inspections; and cleaning, among others. This activity will include the training of the OG teams on O&M, as well as the printing and distribution of the manuals to the target stakeholders, including project partners and target beneficiaries. Training sessions will be provided to the EE extension team, the Community Observers, the CCC management teams, representatives of the MoEB, MoA, Regional directorates and the Meteorological Institute.

Output 1.2. Strengthened technical capacities of decision-makers, field staff, youth, and communities for addressing water and agriculture related climate risks.

65. The activities under Output 1.2. will develop tools and provide capacity building to promote local adaptation solutions that address water and soil salinization, CRA practices, and general environmental and climate change sensitization. The activities will be directed to actors at all levels, including national- and local-level authorities, youth, and communities in general. The EE will lead the activities under this output. Project Partners involved are IBAP, MoEB and its Regional Offices, the MoA General Directorates and their Regional Offices, the Meteorology Institute, INPA, NCPS.³⁹

Activity 1.2.1. Development of Training Manuals, Modules and Curriculums for Environmental Education, CRA practices and technologies, adaptation towards water and soil salinization.

66. This activity consists of the development of training materials to serve the project’s capacity building and education activities. Training materials will be directed to serve the objectives of the project in CCA, and hence will be targeting CRA knowledge and practices, and adaptation towards water and soil salinization in coastal farming communities. Materials will include (a) training manuals for workshops and trainings of national- and local-level decision makers (serving Activity A1.2.2), (b) training manuals for extension workers, field staff and farmers in CRA and water management (A1.2.2; A2.1.3; A3.1.1), (c) updated curriculums for vocational training courses in climate-resilient agriculture, livestock management and post-harvest practices (A1.2.3), (d) modules for environmental education for youth (A1.2.5), and (e) materials for sensitization of the communities on climate change (A1.2.4) and mangrove restoration and management (A2.2.1).

67. For each of the materials to be developed, small working groups will be established consisting of consultants, technical staff from the EE, and technicians from the Project Partners IBAP, the MoEB and the MoA. For each of the working groups, consultants and technicians will be recruited and appointed according to the specializations required for the materials. Defined in their ToRs, the consultants will be tasked to consult with relevant stakeholders and take stock of existing materials and experiences, including on traditional knowledge and practices, and present findings, reports and final materials to the working groups, who will validate the final products. A gender expert will review all materials to assure their gender-responsiveness. Representatives and/or technicians from other ministries or institutions may be invited to participate in the validation of materials. Table 4 below depicts the entities involved in the working groups (lead entity stated first).

Table 3 - Materials to be developed within the scope of the project

Material	Entities involved in development
Training manuals for workshops for decision-makers (A1.2.2)	ADPP, IBAP, MoEB
Technical manuals for trainings of extension and field staff (A1.2.2)	ADPP, MoA, IBAP
Technical manual for training of Farmers’ Clubs (A3.1.1)	ADPP, MoA

³⁹ See Table 6 below and section B3.

Technical manuals for communities on management of water resources and systems (A2.1.3)	ADPP, IBAP, MoA
Updated curriculums for 6- and 11-month vocational courses in CRA, livestock management, post-harvest practices (A1.2.3)	ADPP, EVB, MoA, MoE
Sensitization materials on climate change, CCA, and the environment (A1.2.4)	IBAP, ADPP, MoEB
Sensitization materials and manuals for mangrove restoration and management (A2.2.1)	IBAP, ADPP, MoEB
Modules for Environmental Education in post-secondary institutions (A1.2.5)	IBAP, MoE, ADPP, MoE

68. All the materials will be made available to all interested stakeholders, including public and private entities, CSOs, donors, and potentially entities in neighbouring countries, and will equally be shared through the e-platform established by the project (A1.3.2).

Activity 1.2.2. Capacity building of national-level decision-makers, local government authorities and field staff on WSQM, Adaptation and CRA practices

69. Responding to a general lack of information regarding CC, its impacts on the population, and the need for adaptation, decision-makers, including parliamentarians and regional governors, will be sensitized as a means of building political support and capacities for future initiatives and policies. Through workshops and webinars, capacity building will be provided for decision-makers at national and regional/local level. Trainings will include climate-resilient practices, technologies, WSQM systems, and other capacity gaps related to the main contents. The EE will organize the workshops and precede it with public announcements as well as direct invitations to key stakeholders. The target groups include: Local and Regional Authorities, Regional Governors, Regional Deputies and representatives, and key stakeholders working on agriculture and CCA at national and local level. The training contents will be defined by the EE and its Project Partners. Each partner will lead workshops based on and most suited to its respective expertise.

70. This activity will also strengthen technical professional capacities of government extension workers and CSO field staff, in adaptation towards water and soil salinization and in CRA. The extension workers, considered as Trainers will benefit from Training of Trainers (ToT), then will in turn bring the new learnings to producer organizations, individual farmers, and the communities at large. The project will train 30 people per year in dedicated week-long workshops. Participation of women will be encouraged. The EE will develop the contents of the trainings in collaboration with the MoA (A1.2.1). Trainings will be publicly announced, and CSO management and government departments will appoint extension staff to participate, based on needs, and willingness and interest of potential participants.

Activity 1.2.3. Train youth through vocational training courses in CRA practices, including specializations in livestock management and post-harvest practices.

71. This activity will train a total of 460 youth from the target areas in technical training courses on CRA, climate-resilient livelihoods, agro-pastoralism and post-harvest technologies and practices. Trainings will take place at the Vocational Training School (EVB) in Bissorã, Oio Region, which is a boarding school managed by the EE, and a certified vocational training institute that has been operational since 1997, and which has served a variety of projects and programmes by the government and international development partners. The EVB offers courses of 6 to 11 months in a variety of technical skills, including sustainable agriculture, renewable energy, water infrastructure, etc. The participant youth will be mobilized according to the EVB's usual procedures. This starts with disclosing information in youth forums, high schools, and communities. For the present project, the criteria for the candidates are: (i) living in or adjacent to the 34 target communities, (ii) having finalized secondary school, and (iii) willingness to work in rural communities and contribute to the achievement of the outcomes of the GCF project. Subsequent to information disclosure, interested youth participate in written tests, individual interviews and interviews with the candidates' families. Based on these procedures, the EVB staff will make the final selection of youth, in alignment with the project's priorities.

72. The project will train youth in the following courses: climate resilient agriculture (115 youth); post-harvest practices (115 youth); animal husbandry (70 youth) and business management (160 youth). The project aims for 50% participation of women and girls in the courses, while the post-harvest practices course will have 70% women and girls. All trainings will benefit from the updated curriculums (A1.2.1). GCF funding will provide the scholarships for the youth from vulnerable communities and for in-service training of the teachers. The identified numbers of participants are based on availability and

capacity of the courses. The 11-month training courses include a 3-month internship period, in which the youth work alongside the EE extension team within the scope of the current project, and within their own communities, to support the promotion of improved practices, according to their respective training subjects. Based on EVB experiences, it is anticipated that part of the students will remain in remunerated positions in the target communities after project completion, for example as communities or CCCs pay for the services of the youth.

Activity 1.2.4. Conduct sensitization campaigns and address concrete barriers at community-level for CC literacy, adaptation options, and other resilience-building topics.

73. To address knowledge and awareness gaps, and specific barriers for community participation in the project, the EE will conduct a set of activities and campaigns in the 34 target communities. This includes general sensitization campaigns on CC, ecosystems and the environment and specific techniques and technologies for adaptation, as well as activities to address specific barriers that hinder women from full and effective participation in adaptation activities. The activity includes the following actions:
74. Awareness campaigns: the EE extension team will work together with the CCC committees to roll out sensitization campaigns throughout the project period. Topics will include CC basics, environmental management, EbA, WSQM systems, CRA practices and management, and healthy and balanced diets, among other topics. Levels of illiteracy will be taken into account and hence illustrative materials will be developed by the EE, with inputs from IBAP, the MoEB and the MoA. The campaigns will include actions targeting specific groups within the 34 target communities (women, youth, children, elder, schools, churches, mosques, community and religious leaders, etc.).
75. Addressing gender barriers: to support the full and effective participation of women in the project's activities and in future CCA-related interventions, the project will roll out a set of actions through the CCCs with the aim to address specific barriers, including literacy, legal documentation, and time constraints. For the literacy actions, a ToR will be developed by the EE for literacy teachers, who will be recruited to conduct classes at the CCCs in the target areas. Where possible, female teachers will be recruited. An estimated 1.350 people will be able to access classes, of which 80-90% are expected to be women. The EE will monitor and follow up on the literacy classes in each of the CCCs. Being literate will allow people a more effective participation in CC adaptation which will contribute to increasing adaptive capacity, as they will be better able to understand informative materials, manuals, climate information and early warnings, among others. Specific information on CC, its impacts, and adaptation will be included in the literacy classes, for better understanding of the terminology and information around the topic. In addition, to allow women to participate in agricultural associations and business-related activities (Output 3.2), the project will facilitate the legal registration of women and the issuance of identity cards (500/region). This will contribute to the economic empowerment of women and their access to basic rights as well as access to external support for CCA activities. Finally, to allow women to have time available to participate in the project's activities, the project will facilitate the operationalization of a childcare system, which shall be managed by the community itself. This will not only free up time, but also have positive impacts on early childhood development. The EE extension team will work closely together with the CCC management teams on the execution of these actions.

Activity 1.2.5. Mainstream environmental education in the young adult education system.

76. In addition to community campaigns, the project will mainstream environmental education in the existing education systems for young adults (post-secondary education). A specific subject and modules on Environmental Education, developed under Activity 1.2.1, will be introduced in two schools: the Teacher Training College (TTC) in Cacheu, and the EVB in Oio. It can be expected that this will have a multiplier effect and students will bring the gained knowledge into their future professions as primary school teachers and technicians in different subjects. All current and future TTC and EVB students will have Environmental Education added to their curriculum. This activity will be led by the EE, with technical assistance from IBAP and the Ministry of Education, and in collaboration with the management of the respective schools. The project will advocate for mainstreaming the piloted curriculum into national education curricula.

Output 1.3. Improved availability and accessibility to knowledge on water and agriculture-related climate risks and adaptation options

77. The set of activities under Output 1.3 have the objective to synthesize existing knowledge regarding CC and make it available to active stakeholders in the country. Considering a number of related initiatives taking place and in preparation in the country, the need arises to create platforms and forums where these initiatives can be consulted, lessons learned shared and synergies created to enhance successful solutions and to increase the individual and collective impact of such initiatives. There is a lack of dialogue opportunities to strengthen the capacity of active stakeholders and to coordinate individual efforts

towards addressing CC impacts. The EE leads the activities under this output. The Project Partners involved are IBAP, MoEB and Regional Offices, MoA's technical General Directorates and Regional Offices, Meteorology Institute, INPA and NCPS.

Activity 1.3.1. Conduct Baseline Study and KAP Survey.

78. During project development, a PFS was conducted by national experts, identifying among others data on the target areas and populations. Subsequently, an external international firm was recruited by GCF to complete the PFS with additional assessments on the climate rationale and groundwater availability. The baseline study and KAP survey will be conducted during the project inception phase, in order to update these baseline studies and further detail the interventions. In addition to the global baseline, each activity will be subject to specific ToRs. The latter will include further assessments to better consider the situation in due course during execution. Taking into account the project duration and the timeframe for the different activities the sites' status may change and thus require an update for the baseline
79. The Baseline Study will cover all project activities, beneficiaries and stakeholders, and will serve to develop and detail the M&E system. The study will confirm pre-selected target communities, identify and validate exact project sites such as bolanhas and mangrove swamps, water infrastructure intervention sites, sites for CCCs and CCPs, and socio-economic baseline information that will feed into the M&E system, allowing for accurate follow-up on all indicators as per the Logical Framework, Gender Action Plan and ESAP, and allowing for accurate annual progress reporting and planning. Data will be collected disaggregated by gender, age and vulnerable groups. A consultant will be recruited to conduct the study. Beyond serving the project's implementation management purpose, the collected data will be made available to the wider public, thus informing the efforts of public and private stakeholders at national level.
80. The Knowledge, Attitude and Practices (KAP) Survey will be undertaken to measure changes in KAP of project participants through a set of qualitative and quantitative methods. The main parameter for the resulting KAP Study will relate to changes in knowledge and awareness on CC and Adaptation methods. A consultant will be recruited to lead the KAP Survey. Throughout the project implementation period, the identified parameters, both quantitative and qualitative, will be measured and analysed and implementation plans will be updated accordingly. The KAP survey will be undertaken at the beginning and end of the project to measure project impacts on communities' and stakeholder knowledge, attitudes and practices.

Activity 1.3.2. Elaborate a knowledge base with a collaborative e-platform for climate resilience and adaptation practices.

81. A collaborative database will be developed with a focus on gathering knowledge on CRA and CCA practices, including existing knowledge, as well as lessons learned through the project and other initiatives, with the aim to centralize information, and to inform and feed into future interventions in the country. Among others, the database is envisaged to include: georeferenced assets and agricultural perimeters, management and remote access to the agricultural value chain (quantities, species, techniques used, applied agricultural products, etc.), systematized information on cultivation, harvest, post-harvest, processing and marketing, agriculture calendars, local CC impacts and solutions. By incorporating the project's collaborative e-platform with other ongoing websites of the EE and partners, the initiative will ensure that useful tools and experiences are replicated, and that new data is consistently incorporated into other projects and programmes.
82. Although the e-platform will be open for everyone, due to limited internet access and low literacy levels, the target audience principally consists of public and private sector management, project developers, and CSOs, who will represent rural communities within their capacities and bring the information to be used at the community-level.
83. The EE will lead the set-up of the e-platform and procure a specialized team/firm for it. Intellectual property (IP) and IP rights will be registered, beginning from its inception, under the MoEB, with a clear signed agreement on management and use by the project itself during the project implementation period. As MoEB is a government institution with a long-standing history of operations, the IP rights will be anchored within their mandate to ensure continuous monitoring as well as create institutional memory for future reference. Being interactive, well established and widespread, the e-platform will sustain itself in the future, needing minimum overall management. In the final project year and as part of the Exit Strategy, the management of the e-platform will be officially transferred to a selected entity. In a participatory way, the most committed and suitable entity to manage the platform will be selected. Preliminarily, it was agreed that the MoEB, IBAP and ADPP will assume the management of the tool, bundling its access most likely through the IBAP or the MoEB official website.

Activity 1.3.3. Disseminate knowledge and information in local, national and regional workshops and forums.

84. A knowledge management and dissemination strategy will be developed during project inception phase, with the aim to provide improved quality of data and information on CRA and CCA in Guinea-Bissau, and with the aim to create a space for key stakeholders to learn, teach, discuss and share. As part of the M&E system and the operationalization of the OGs,

information will be continuously collected and assessed. The EE will lead on centralizing information, continuously seeking inputs from Project Partners, as well as on disseminating the information. To this effect, a communication and visibility responsible will be recruited to ensure knowledge dissemination as well as the implementation of the communication strategy and action plan.

85. Once information and knowledge are collected and generated, it will be disseminated to key stakeholders at local, regional and national level through a set of seminars and workshops. Additionally, information will be disseminated to the wider public through traditional and social media. Synergies will be sought with other initiatives in the country. The target audience includes: stakeholders in the education, environment and agriculture sectors, the private sector, CSOs and CBOs. By using wider outreach media, such as radio broadcasting, internet and virtual tools, it can be estimated that the general information will reach at least 120,000 adult people in Guinea-Bissau. Through the network of the AE in West Africa, the project will facilitate the sharing of information in the West-African sub-region through messaging, website publications, and hosting of webinars.

Component 2: “Adaptation of water management towards climate risks in coastal zones”

86. This component builds on and complements the information, tools and capacities built under Component 1, and is aligned with GCF’s IRFM Result Area “ARA2: Health, well-being, food and water security . Activities are focused on organizing and concrete planning and implementation of adaptation and resilience solutions related to water management at community- and farm-level. Activities are planned to take place in the 34 target communities. The execution of activities under Component 2 is led by the EE. The Project Partners are IBAP, technical departments of the MoE and MoA, INPA and the Meteorological Institute. The partners will participate in meetings and will provide technical advice, as well as ensure alignment with national and local policies and strategies.

Outcome 2. Sustainable management of coastal ecosystems leading to climate-resilient communities in Oio and Cacheu

Output 2.1. Community-based water management is improved and adapted towards climate risks, including salt water intrusion and extreme weather events.

87. The target communities, located in the Northern coastal zone of the country, anecdotally report on increasing soil salinization, and an increase in extreme weather, especially impacting rice production near the coast and other agricultural production that is dependent on freshwater availability. The mangrove ecosystems in the areas play a crucial role in protection towards these impacts, and as such, the management and protection of those is considered an important element in the planning and execution of adaptation activities. Being located in coastal areas, the target communities are integrated in the National Coastal Management Plan, which although an existing strategy, lags on implementation.

Activity 2.1.1. Elaborate adaptation management plans (salinization of rice fields, on-site agriculture, water and coastal management).

88. This activity will develop adaptation management plans at local level, including specific water- and farm management actions, serving for the concrete interventions under this Output. The following plans will be developed: (a) 34 concrete intervention plans (one per community) for mangrove-rice paddies that are vulnerable to groundwater SWI and soil salinization, (b) 34 concrete intervention plans (one per community) for other cropland areas affected by increasing precipitation variability and droughts, and (c) 2 overall adaptation management plans (one per region) that include overall plans for the Region within the addressed sectors, and will include the concrete intervention plans as annexes. In addition, these plans will feed into an updated Coastal Management Plan for Guinea-Bissau, which is developed outside the scope of this project. The plans will focus mainly on Ecosystem-based Adaptation techniques and on low-cost and environment-friendly interventions, and will take into account best practices and lessons learned from other similar interventions, as well as build on traditional successful practices. The plans will also build on data and information gathered by the OGs, and will feed back into the functioning of the OGs.
89. The plans will be developed by technicians from the EE, with support and technical input from General Directorates of MoEB and Moa, MI, GDRW, and in consultations with farmers, communities and traditional leaders. Currently, there are no standards or benchmarks in place for developing such local plans. The plans developed will be validated and endorsed, within the scope of this project, by the Ministries, who will ensure alignment with policies, existing strategies, and applicable regulations, and will be validated by the AE, who will ensure consistency with the overall objectives of the project and its E&S categorization.

Activity 2.1.2. Construct and rehabilitate water management infrastructures to prevent salt water intrusion in mangrove-rice paddies

90. At the country level, which has approximately 50,000 ha of rice paddies, it is estimated that about 20,000 ha have been abandoned or were never used entirely due to broken dikes and subsequent salinization of soils, caused by storm surges. Although manual rehabilitation and reinforcement of these areas can be achieved, the work is not usually undertaken by farmers due to the intensity of labour and materials required to do so⁴⁰. This methodology of rehabilitation, which builds on traditional and well-recognized expertise on bolanhas' water management, includes the construction of belt-gated dikes, which are mini-dikes that serve for field protection and land wash (saline/rainwater balance), and field partialisation for water control and maximum use of the fields. The dikes are minor in size (2-3 meters up from field-level at most⁴¹) and use local materials (mud and vegetable fibre), in combination with PVC tubes. This traditional approach, used slightly differently but equally efficiently by both Balanta⁴² and Felupe⁴³ ethnic groups, acknowledges the usefulness of the existing mangrove belt for field protection, and accordingly respects the existing ecosystems.
91. The project intends to revive and boost this traditional approach, enhance it with modern means (such as PVC tubes and other small materials for the gates) where possible, introduce CC variables to improve its efficiency and make it more appealing for the younger generations. The bolanhas targeted by this activity belong to the 8,500 families and the 34 communities targeted by the project. The EE's extension team will facilitate activities and conduct the establishment of dikes in cooperation with the participant farmers, who will provide labour and time. Technicians and extension workers from the MoA and IBAP will provide technical assistance. The project will purchase basic materials, equipment and inputs, and will provide daily meals for the working farmers as an incentive. The number of new infrastructures, as well as those that need to be recovered, will be defined during the baseline study (A1.1.3) and project inception phase, in consultation with local and traditional authorities. The different steps in the rehabilitation of bolanhas are described in table 5 below.

Table 4 – Water Management Interventions to mitigate against soil salinization

Action	Description and Relevance
Needs identification and planning including on-site water management plans for each site	To define and optimize the cost-effectiveness of the intervention. It will make the intervention more resilient and adapted to the expected climate impacts on the field and/or interdependent field complexities.
Construction of improved traditional belt-gated mini-dikes	Developed to protect bolanhas from storm related tidal surges, and hence balance saline and rainwater as needed for land wash practices. Building on traditional techniques, the dimensions of the dikes will be decided taking into account sea level rise projections.
Field parcelling by traditional mini-gates	Established for inter-field water control and maximal use of the fields. Traditional gates will be upgraded with more modern materials and dikes, which are more resilient to extreme weather.
Capacity building and awareness raising of the target farmers	To "upgrade" and refresh local knowledge on water management practices, including on new practices and materials promoted, in light of increasing climate change impacts.

92. The project will identify 34 bolanhas, one in each community. The improved bolanhas will not only serve the participant families but will also serve as examples for other families and communities. It is estimated that approximately 7,000 ha of bolanhas will be restored by the project. The criteria for selecting the intervention sites are:
- Clear communal or individual land ownership, written and confirmed by community leaders and local authorities⁴⁴;
 - Availability and willingness of the owner(s) to participate in the initiative;
 - Abandoned or non-used bolanhas that are considered recoverable using traditional means;
 - Poorly developed, water-managed and/or under-productive bolanhas that would benefit from infrastructure and management intervention;
 - Adjacency to existing mangrove belts (damaged and/or partially damaged but still existing) to reinforce field protection and halt further coastal erosion, consequent shoreline retreat and greater groundwater exposure to salinity;
 - Proximity to the target communities;
 - Proximity or adjacency between selected fields, in order to optimise water management interventions;
 - Availability and willingness of the target farmer's families to join efforts with other participant families with adjacent fields;

⁴⁰ Strategy and National Action Plan for the Biodiversity (2015-2020).

⁴¹ Pictures of the dikes to be introduced are included in the Pre-feasibility Study — Annex 11.

⁴² Dynamique et usages de la mangrove dans les pays des rivières du Sud, du Senegal à Sierra Leone — La riziculture de mangrove de la société balant dans la région de Tombali (Guinée-Bissau) — Éric Penot.

⁴³ Felupe society: disintegration or social transformation? — Lúcia Bayan

⁴⁴ Lei da Terra, GoGB, 2007

Activity 2.1.3. Establish water management systems to address water shortages for production and consumption during prolonged dry spells.

93. Additional to impacts associated with sea level rise, farming communities will also face increasing water shortages due to prolonged dry seasons and more frequent dry spells. Along with the low quality of most existing water points (non-protected shallow wells), this hinders communities' access to freshwater, both for consumption and production⁴⁵. As such, the project will (a) upscale the use of rainwater retention systems and (b) revitalize existing water points and/or establish new water points.
94. **Rainwater Retention Systems:** building on small pilot interventions in the country, OSS' experiences in neighbouring countries, recommendations from the Winrock assessment, and experiences from sister organizations of the EE, the project will establish 34 rainwater retention systems⁴⁶. These systems will include (a) rooftop water collection systems for individual use and (b) in-field water retention systems for production. For (a), one model system will be established per community, and it will include water purification means so the water can be serving for human consumption in times of scarcity. For the latter (b), it will equally include one system per community, and the collected water will be used in the model plots for garden irrigation, as well as for livestock consumption, so to release pressure from existing water points. The surplus of rainwater after retention systems are filled, will be redirected for groundwater recharge. The techniques will be simple, affordable and feasible to be used and replicated.
95. **Revitalization or/and establishment of Water Points:** during the inception phase of the project, the EE in collaboration with the GDWR will conduct a mapping and evaluation of existing water points in the target areas, and subsequently develop a plan for the revitalization and establishment of water points. Priority will always be given to revitalization of existing water points, and only where no such systems exist, new water points will be constructed. An estimated 10 new water points will be established, and 24 existing ones rehabilitated. The systems will pump water from a borehole or well into a tank by a solar pump, and will include water quality testing systems, as well as means and instructions for water treatment. The project will provide materials and procurement of specialized services as needed. All procurement and acquisition by the EE project team, in this project's scope, will be done following the AE's procurement rules, policies and procedures, as foreseen in the AE-EE grant agreement.
96. **Strengthening Water Management Committees (WMCs):** the project will strengthen and/or establish WMCs for each of the 34 target communities. Where no WMCs exist, WMC members will be elected according to criteria established by the community themselves under the guidance of the EE extensionists. Women, generally the main managers of water and natural resources, tend to lead such committees. The WMCs will be trained by the EE extensionists on water quality control, O&M of equipment, water supply and conflict management, and other water-connected cross-cutting issues (such as waterborne diseases, hygiene and hand washing, etc.). WMCs will periodically organise awareness actions along those lines, with support and coaching from the EE extensionists. For the management of water points, a minimum fee for water use by community members will be introduced. The fee will be decided by the WMCs in consultation with community members, managed by the WMC and used to cover security, maintenance and repairs of the water systems. Other uses of the fees can be defined in a participatory manner by the community and the WMC.
97. This activity will be conducted by the EE, who will facilitate the establishment of water systems in cooperation with farmers and communities. The EE extension staff will work closely together with communities and WMCs in the establishment of the systems, to coach and build capacities of WMCs. Logistic assistance consisting of dedicated drivers and vehicles will be provided by the EE to distribute all the inputs related to hydro-agricultural works to the beneficiaries. Technical Assistance and guidance will be provided by the MoA (Directorate of Hydraulic Engineering) and the GDWR. The beneficiaries are all 34 target communities and their respective population.

Activity 2.1.4. Promote small-scale irrigation schemes to maintain agricultural production.

98. Irrigation system use in Guinea-Bissau is still very limited, especially in relation to its potential. The most intensive uses of irrigation are still very local and cover limited areas. This is due to initial investment costs being out of reach for most of the population. The project will promote irrigation systems as a mean to address rainfall variability and dry spells, thereby reducing crop losses, and as a means to provide water for yearlong horticulture production. The foreseen solar-powered drip irrigation systems will be connected to the retention systems and water points, and directed to horticulture production in the 34 communities, covering a total of 2.25 ha and benefiting 8,500 farmers. The activity will be led by the EE with technical support from the MoA as needed. The in-field set-up of the systems will be done by the farmers themselves with support

⁴⁵ Further detailed in Annex 11.b "Freshwater Provision Baseline Assessment" (Winrock, 2021).

⁴⁶ Detailed information is provided in the Pre-Feasibility Study.

from the EE's extension team. Purchases and procurement will be led by the EE project team and will follow the AE's procurement rules, policies and procedures, as defined in the AE-EE grant agreement.

Output 2.2. Mangrove ecosystems are better managed, as an ecosystem-based adaptation measure towards salt-water intrusion.

99. The mangrove forests of Guinea-Bissau play an important role in West-African ecosystems, acting as an ecological and climatic "lid". They function as a green barrier to the expansion of the Sahara-Sahel desert on one hand, and that of a regulator of climate, carbon storage, erosion control, soil fertility, pollination, water cycle, and resilience against CC impacts⁴⁷. Mangrove forests mitigate storm surges and high waves acting as a protective barrier to dikes and crop fields. They protect coastal dwellings and reduce coastal erosion, act as filtration barriers against sea water and reduce upstream salinization of rivers and lands. The mangrove ecosystem in Guinea-Bissau is under threat due to increases in population density, growing pressure on resources, and invasive agricultural (mal)practices. A major driver of mangrove degradation is the harvesting of firewood for cooking — about 63,4% of the population of the country uses firewood and 35% use charcoal. Less than 2% of the population uses sources other than biomass. CC impacts, such as declining water availability and yields, exacerbate these threats. As an EbA practice, the project will promote mangrove restoration, improved community mangrove management and improved cooking stoves to reduce pressure on the ecosystems.
100. Other initiatives in Guinea-Bissau have been addressing the conservation of mangrove ecosystems and the mangrove-rice production nexus⁴⁸. Lessons learned from these projects have fed into the design of this SAP project, notably through the committed contributions from project partner IBAP during the project development phase. IBAP, with technical partner IUCN, has been an instrumental actor in all mangrove-related projects in the country and has gained solid experiences in local mangrove species, propagation and transplanting methodologies, which will be capitalized on within this project. Lessons learned from other projects, and introduced in this project include, among others, the strategic choice of locations of the mangrove nurseries - at established institutions rather than at community-level, the management of nurseries as micro-enterprises, and the integration of mangrove restoration activities into broader projects that address communities' livelihoods and rice production activities. Heavy reliance on natural resources in the agricultural sector resulted in an ever growing pressure on the ecosystems and an ever increasing vulnerability to climate change, hence a weakened ecosystem and agricultural resilience with occurrence of degraded population livelihoods. To decrease human pressure and income dependency on mangroves as they are mainly used as fuel source for cooking, the project will promote and encourage the use of improved cook stoves which require much less biomass energy for cooking thus reducing deforestation and further improving mangrove resilience. The stoves also have the positive side effect of enhancing the daily life of community members, particularly women." *This activity highlights the importance of ecosystem preservation and the need to introduce firewood saving cookstoves. These cookstoves not only reduce on the time taken to go and collect firewood but also promote social services among the community members.*

Activity 2.2.1. Implement erosion control and adaptation actions towards sea level rise and saline water intrusion through functional reforestation of mangroves.

101. The activity comprises 3 sub-activities: (i) nurseries; (ii) recovery and protection of mangrove forests; and (iii) functional tree planting:
102. Establishment of nurseries: the project will establish 4 nurseries for mangroves and coastal trees — 2 in each Region — in strategic locations, taking into account accessibility for communities and nursery management capacities. Tentatively, one nursery will be at IBAP's regional office in Cacheu, and one will be at the EVB's campus. The other two locations for nurseries will be selected in consultation with local authorities, taking into account sustainability and accessibility for communities. They will be established under supervision of IBAP, which has extensive experience with mangrove restoration, and managing these nurseries, in the target areas, and which is the national authority on the matter. Trainees from the EVB school will be engaged to manage the nurseries as a micro-enterprise. The teams to manage the nurseries will be trained in sustainable nursery management, plant acquisition, caring, multiplication and maintenance and follow-up after replanting. Trees propagated in the nurseries will include mangrove species from the 3 main families present in the country (Aviceniaceae, Combretaceae and Rhizophoraceae), as well as other species for functional tree planting purposes. The project via the EE will involve INPA with IBAP to ensure a sufficient adherence to the national standards and avoiding any new species

⁴⁷ Strategy and National Action Plan for the Biodiversity (2015-2020).

⁴⁸ An overview of these projects is listed in the Pre-Feasibility Study annexed to this FP.

introduction. The EE, in collaboration with IBAP, will lead on establishing the nurseries and on providing training and coaching support to the 4 nurseries.

103. Mangrove swamp restoration and protection: through the community structures set up or reinforced by the project — the CCCs and the Farmers’ Clubs — the EE extension team will engage community members to set up small “mangrove protector groups”, in each of the 34 target communities. These groups will be supported to become community-based managers of the mangrove swamps, and will receive capacity building in ecosystems and biodiversity, and mangrove restoration and management. Special attention will be given to the inclusion of vulnerable population groups. Coached by the extension staff, the groups will conduct awareness and sensitization campaigns in the communities, and will lead and mobilize the community for restoration campaigns. It is foreseen that the project will protect and restore 250 ha of mangrove forest (7.5 ha per community⁴⁹), a careful target not to overload communities with work and to leave space for participation in other activities. In collaboration with IBAP, the project will align with other mangrove protection initiatives such as the “*Project for Protection and Restoration of Mangroves and Productive Landscape to strengthen food security and mitigate CC*” (IBAP/IUCN - GEF; 2018/23) and the “*Cacheu River Mangroves National Park*” (IBAP/IUCN).
104. Functional tree planting: in addition to the restoration of mangroves, the project will also promote functional tree planting, including planting of trees in and around agriculture fields for nitrogen fixation, land fertilization, fodder for animals, shade, firewood, fruit, construction material, and improvement of health. Fast-growing tree species will be promoted to address pressure on mangrove forests from firewood harvesting. Tree seedlings and saplings will be produced in the same 4 nurseries established by the project. The activity will be led by the EE extension team, and will reach the community through the CCCs and Farmers’ Clubs. The MoA, MoEB and IBAP will be engaged in the selection of tree species to be promoted, and to provide technical assistance to extensionists in tree planting and management techniques and practices. Indigenous species will be prioritized, and where other species are introduced, this will be validated by IBAP, the national authority on the subject, to ensure compliance with national regulations.

Activity 2.2.2. Organize sensitization sessions and promote production and dissemination of firewood saving cookstoves.

105. To reduce pressure on forests (mangrove and others), the project will promote the dissemination of improved cookstoves in the 34 target communities. As there is currently no supply chain of improved cookstoves, and considering the situation of extreme poverty, the project will support initiatives organized by CSOs and CBOs that target the production of cookstoves at a low cost, above developing a commercial model or value chain for cookstoves. The stoves promoted are both firewood and charcoal saving stoves being produced by women groups, led by the CBO “Pobreza Zero”⁵⁰, which works with the National institute for Applied Technological Research (INITA) for technical support and approval regarding the produced models. These stoves are considered of good quality and durability, and are produced by the women groups as an Income-Generating Activity (IGA). The project will support these women groups through the procurement of the stoves, giving a boost to their production and income. This will also be complemented by the continuous intervention of a gender expert to create the momentum for change as well as ensure engendering of the project interventions.
106. The EE will work with the communities in sensitization and awareness raising, selecting direct beneficiaries, and providing training on the use and the operation and maintenance (O&M) of the stoves. As such, 3,500 cookstoves will be procured by the project (approximately 100 per community, in 34 communities) with the intention of generating awareness on the benefits of the cookstoves (reduced firewood collection labour and reduced cooking time) and with intention that other families will invest in cookstoves themselves. The basic criteria for selecting the 3,500 beneficiaries are: the most vulnerable, households with more dependents (children, chronically ill, elders, etc.) and interest of the households to use cookstoves and demonstrate to other community members. Beneficiary families will be asked to pay a symbolic fee to the CCCs, to demonstrate their commitment. These fees will be adjusted to financial capacities of the families or for those who can’t afford, they will receive the cookstoves on the condition that they provide the raw materials which are easily accessible within the project areas. The CCC management teams will decide on an appropriate fee, and will use the money to fund CCC management and the respective CCA initiatives. INITA estimates the impact of the 3,500 cookstoves to be a reduced deforestation of 3,600 ha of forests over a 5-year period. In addition, the project estimates the production and distribution of 3,500 cookstoves in the communities.

Component 3 “Building resilience of farming communities towards CC”

107. The third component of the project focuses on strengthening climate-resilient livelihoods within the 34 target communities, achieved by increasing and diversifying food production, and by promoting IGAs along agricultural value chains. The

⁴⁹ Further details provided in the Pre-feasibility study, including maps, explanations and reference to assessments conducted.

⁵⁰ See information on Pobreza Zero and the cookstove types in the PFS

component is aligned with the GCF IRMF Outcome “ Result Areas “ARA2: Health, well-being, food and water security” and “ARA1: Most vulnerable people and communities”.” The activities under this component interrelate to activities under the other components, including the functioning of the OGs under Component 1, and the water and mangrove management practices under Component 2. The activities under this component are building on successful methodologies promoted by the EE in the country for over 30 years, and as such building on local and traditional knowledge of the population, while introducing specific adaptation-related practices and technologies.

Outcome 3 Enhanced climate-resilient livelihoods, food and water security of the most vulnerable people in coastal communities in Oio and Cacheu Region

Output 3.1. Increased and diversified food production of smallholder farmers.

108. Activities under Output 3.1 address the impacts of CC already and expected to be experienced by smallholder farmers on their production, including declining yields resulting from changing weather patterns and salinization of soils and water as a consequence of sea level rise. Being dependent on agriculture for subsistence, these adaptation activities are of crucial importance. The activities include strengthening of farmers’ organizations and demonstrations, trainings in climate-resilient agriculture and rice production, and promotion of diversification of production.

Activity 3.1.1. Establishment, organization and regular trainings in CRA practices on Model Plots of 170 Farmers’ Clubs - 8,500 farmers (70% women).

109. In order to facilitate extension of CRA practices and to build mutual support mechanisms, the EE will establish 170 Farmers’ Clubs (FCs), which are producer organizations of approximately 50 members (70% women) each. Altogether, this means 8.500 farmers will be participating, which based on average household sizes, and referring to one farmer per household participating, represents a total of 82,450 community members. An average of 5 FCs will be established in each of the 34 target communities, subject to population density of the communities. The EE extension team will work together with local and traditional authorities in the identification and mobilization of farmers to join the FCs. After initial sensitization about the project, farmers will have the possibility to join the clubs and project activities. In principle, the 170 clubs will be covering the vast majority of farmers in the target areas. The FCs consist of 50 members each, subdivided in 5 core groups of 10, with a respective lead farmer each. The 5 lead farmers are elected by the member farmers, and together they will form the FC Committee. The FC committee will receive specific trainings in administration, bookkeeping, planning and organizational management, and will subsequently take charge of organizing all other member-farmers in their core groups according to the project’s activity calendar, ensuring farmers’ participation in all trainings and activities. The FC model allows for easy access for extension workers, who are able to reach 50 farmers at once, instead of individually. The EE extension team will conduct the mobilization of farmers, trainings of the committees, technical trainings of farmers, and will provide operational support throughout the 5 years of project. Inputs, equipment and tool kits for each of the FCs will be procured and provided by the project.

110. Trainings of farmers’ clubs will take place at CRA Model Plots, which will be established by the project. As such, 170 Model Plots will serve as farmers’ field schools, where farmers will be able to test new practices and techniques in a guided environment. All model fields will consist of 8 sub-plots of 40m². There will be at least 2 model plots per community (on average 5 per community), of which one will be dedicated to rice production, and one to horticulture and other crop production, depending on the location of the plots and communities and the main production of the farmers. It is estimated that there will be 100 model plots for horticulture and other crops, and 70 plots for rice production. Plots will include irrigation systems, provided by solar-powered water collection and distribution systems. The plots will be established and managed by the farmers themselves, under the leadership and guidance of the EE’s extension staff, who will lead the design of the plots. The produce resulting from the work on the model plots will be distributed among the members of the respective clubs and communities.

111. The identification and assignment of land for the model plots will follow the same steps as for the CCCs, hence consultation with local authorities and target communities, identification of land and land owners, and signing of agreements between land owners and the community. The concession terms will be decided upon between the community and the land owners, and will at the minimum serve for the lifespan of the project. This is in adherence with the Lei da Terra (Land Law), in place for communal lands in Guinea-Bissau.

112. On the model plots, the farmers will receive weekly training sessions, organized by the EE extension staff, and with support from the MoA extension workers as per their availability. Trainings will follow the technical manual developed for the project (under Activity A1.2.2), and will include among others the following Climate-Resilient Agriculture (CRA) practices: land preparation, potholing for water retention, simple rain retention techniques, sustainable irrigation, composting and

application of organic inputs, methods of preparing nurseries, transplanting, conservation agriculture, and other applicable agronomic practices. Farmers will apply the new practices in their own fields, therein supported by the EE extension team.

The key CRA practices recommended for Guinea-Bissau⁵¹, and to be promoted by this project are:

1. Use of organic manure and compost to provide organic nutrients and increase the content of organic matter in soil;
2. Solar-powered drip irrigation systems to improve water availability;
3. Conservation Agriculture practices;
4. Crop rotation to mitigate low soil fertility resulting from intensive land use without adequate nutrient replenishment;
5. Zaï techniques: used for the production of corn, sorghum, and fonio, among other cereals. Zaï involves digging pits (at 20-40 cm diameter and 10- 15 cm depth) to accumulate water before subsequent planting with or without the application of organic resources such as compost, plant residues and animal manure.

113. To serve the model plots, the FCs and communities, within and beyond the scope of the project, a Seed Bank will be established to produce and distribute seeds. The seed bank will be established at the EVB school to ensure permanent management of the seed stock, and to allow the vocational students to learn about seed selection, storage and reproduction during and beyond the project's lifespan. Together with INPA, the project will select seeds that are drought- and flood-resilient and that are suitable to the current and future climatic and agro-ecological conditions of the target areas, including short-cycle varieties that allow for two harvests a year. An agreement will be signed between the EVB school and INPA for future mutual technical support in the management and development of the seed bank. Farmers and FCs will be encouraged to set up their own seed banks, although smaller in size, comprising of simple seed storage systems.

Activity 3.1.2. Promote Sustainable Rice Intensification (SRI) and Climate-Resilient Rice Production (CRRP).

114. By using the SRI-CRRP approach, rice production will be more climate-resilient, will better withstand droughts and floods, yields will increase, the need for irrigation water and chemical inputs will be reduced, and rice grain quality will be improved. The specific objective of this activity is to assist the small-scale rice farmers to implement and scale-up SRI and CRRP. Although the benefits of SRI are not well documented in Guinea-Bissau, the system is successfully implemented in West Africa in neighbouring countries with similar agro-ecological conditions. As such, the project will benefit from the OSS-implemented project "*Scaling-up climate-resilient rice production in West Africa (2021-2025 / OSS-Adaptation Fund)*" which benefits the neighbouring countries of Guinea-Bissau, and in turn builds on the SRI West Africa Program (<https://sriwestafrica.org/>), in which the benefits are well documented.

115. Training workshops on SRI/CRRP best practices will be organised on the relevant model plots and on individual farmers' fields. Field visits will be organised for farmers to plots that have adopted the SRI-CRRP approach. EE extension workers will assist the farmers to apply SRI-CRRP practices on the fields and will facilitate that members of the Farmers' Clubs are trained in these practices as a part of the 5-year project. The key elements of SRI-CRRP to be promoted are:

- a. Encourage early and healthy plant establishment: Careful and early plant establishment maximizes the plant's potential for shoot and root development, largely by minimizing early stress from both excessive competition among plants in the nursery and from transplanting. The earlier plants can be established in a rich soil, with plenty of space, the sooner they can develop roots and start tillering, and the healthier and more resilient towards stress they become. Most commonly, this translates in transplanting much younger seedlings, and if further pushed back can also include direct seeding.
- b. Minimize competition among plants: Minimizing competition for resources — such as nutrients, water, sunlight and soil volume — helps plants grow quickly and healthy and become more productive with better panicle and grain development. This principle is highly interactive and dependent on principles a and c, early and healthy plant establishment and building fertile soils, respectively. Under SRI management, competition is minimized by reducing the density of the plant population, by both i) increased spacing between plants, and ii) planting only 1 plant/hill instead of 3-5 plants/hill.
- c. Build up fertile soils rich with organic matter and beneficial soil biota: This principle strives to create a healthy soil that supports and provides a number of functions and benefits, among others: i) good and deep substrate for roots, and for microbial life to develop and support plant growth, ii) improved nutrient and water holding capacity of the soil, iii) improved fertilizer use efficiency, iv) favourable aerobic soil conditions, and iv) protection and buffer against conditions created by CC, be it variable rainfall patterns, increased temperature or pest and disease pressure. Improving soils with organic matter is the only viable solution to create and maintain productive and healthy soils in the long run. Integration of conservation agriculture principles and practices is beneficial to reach the objectives of this principle.

⁵¹ FAO, 2019, Climate-Smart Agriculture in Guinea-Bissau.

- d. Manage water carefully to avoid both flooding and water stress: The core point of this principle is that while rice plants can survive in flooded conditions, they do not thrive in them, as roots lack oxygen to develop comfortably in such cases. Under non-flooded and aerobic soil conditions, roots grow more proliferous and deeper. Aerobic soil microbes support healthy plant development, and the plants tiller more and better. Collectively, this results in better panicle development and a longer grain-filling period. Aerobic soils are greatly enhanced by organic matter additions. Mineralization of nutrients found in organic matter are improved in aerobic soil conditions, making nutrients better accessible to both soil microbes and plant roots. This principle translates into different practices depending on the rice system, be it irrigated, rainfed lowland or rainfed upland rice systems. It interacts with activities under Component 2 on water management.

Activity 3.1.3. Introduction and dissemination of short cycle animals in target communities.

116. This activity will support participant farmers to have alternative livelihoods and to reduce their dependence on crop production, which is sensitive to climate risks and impacts. Short-cycle animals (goats, chicken and pigs) will be introduced through a “pass-on gift system” for 680 people (women and youth) — 20 per community — to enhance animal husbandry and livestock propagation. The EE will sensitize the community about the opportunity, and the communities will elect the farmers/households to initiate with the system, based on their willingness and capacity for animal production. The EE will procure and distribute the first batch of animals. Priority will be given to female-headed households. The system works as follows: 20 households per community receive short-cycle animals provided by the project, and then pass the first offspring to another family. The next family, after the first offspring, returns the animals to the ‘giving’ family, and passes on the next offspring to another family. Based on experiences, all 8.500 participant households could be producing small animals and eggs within the lifespan of the project. The EE will initiate the activity, while the youth trained in the EVB in animal husbandry (A3.2.2) will be providing technical assistance within and beyond the scope of the current project to families. The youth will be linked to veterinary services provided by the MoA.

Output 3.2. Increased income options in climate-resilient economic activity along agricultural value chains.

117. Activities under Output 3.3 focus on contributing to the development of climate-resilient agricultural value chains, with a particular focus on creating income-generating opportunities along these value chains. The project will support youth and women to establish micro-enterprises, and strengthen agricultural associations that will manage post-harvest activities. Altogether, the diversification of people’s livelihoods will contribute to the overall resilience of communities towards climate risks and variability. The activities under this Output will serve the 34 target communities.

Activity 3.2.1. Support the establishment and mentoring of 40 micro-enterprises and women-led income generating activities (IGAs) along the value chain(s).

118. This activity will support the establishment, operationalization and capacity building of 40 micro-enterprises/IGAs along climate-resilient agricultural value chains. Of these micro-enterprises, 20 will be new initiatives, started by the project participants from the 34 target communities. In addition, 20 existing micro-enterprises within the target areas will be strengthened and provided with equipment and/or investments to develop their business activities. The IGAs will be aligned with the project’s objectives of building climate resilience and CCA. The project foresees a maximal investment of USD 12,500 per IGA, funded by the GCF grant. The exact scope of the businesses will be decided upon by the participants themselves, but will be guided by principles and criteria set out by the EE, and supported by the IDEA centre, which is a business incubation centre housed at the EVB. Potential businesses include those that would perform specific actions along climate-resilient agricultural value chains, such as small businesses that provide services for processing, conservation, marketing or equipment repairs connected to the adaptation and conservation activities promoted in the project scope. In addition, potential businesses could include, among others, the following: eco-tourism related activities as part of sustainable mangrove management plans, sustainable forest exploitation, sustainable fishing, improved cookstoves’ production, mangrove honey farming and by-products, and salt production on abandoned rice bolanhas. The EE will undertake this activity with a specific reference to the AE, who will ensure that all new activities under the micro-enterprises will not cause any E&S impact and will maintain the project category C under E&S risk classification while applying and following its Unidentified Sub-Project (USP) methodology⁵².

119. For the 20 new micro-enterprises, priority will be given to interested community members that have graduated from the EVB (trained under A1.2.3). The students will be encouraged to create small groups that could jointly apply for a grant. After presentation of their ideas, the EE will do an initial screening, including field visits to potential business sites, and the candidates/groups with potential will be supported by the EE to develop further their projects and business ideas. An accounting expert and cashiers will be recruited to support in the operationalization and day-to-day running of the micro-

⁵² Detailed in Section 3.4 of Annex 10, Environmental and Social Action Plan.

enterprises. For the support to 20 existing micro-enterprises, a scoping exercise will be conducted by the EE to identify and map all businesses with potential within the target areas, as well as an analysis of the available market and market priorities in the target regions and at country-level. Based on the outputs of this assessment, the micro-enterprises will be invited to present their ideas.

120. The selection procedure for the micro-enterprises is as follows: a call for proposals for small grants will be launched, open for the target communities' population, students graduated from the EVB courses and the existing micro-enterprises identified. Candidates will present a business case for their projects, including objectives, structure of the business, financial plan, and type of start-up support needed. The criteria for all the business proposals are: (i) alignment with overall objectives and outcomes of this GCF project; (ii) consistency with the E&S categorization of the present project (Category C); (iii) commitment of candidates to fully participate in trainings and receive mentoring and support from the EE. A final list of potential projects will be compiled by the EE, and a committee will award the 40 grants. The committee will consist of the following members: 1 representative from the Agriculture Regional Directorate, 1 from Environmental Regional Directorate, 1 from the Regional government, 1 from the AE and 1 from the IDEA centre.
121. As the grants are awarded, the EE will provide the 40 micro-enterprises/IGAs with the financial investments requested, which can be expected to be mainly inputs such as small equipment and materials. The EE will procure and provide the equipment and materials requested, and hand it over to the IGAs. Subsequent to the awarding of the grants, the 40 micro-enterprises will receive additional capacity building and coaching, led by the IDEA Centre. Trainings will include (a) resource optimization, such as utilization of raw agricultural products, conservation and transformation techniques, (b) marketing of products and services, quality control systems and differentiation in the product market, (c) management and use of inputs and assets, input renting and/or selling, among others, (d) basic business management, including existing tools, most important factors in business organization, how to develop a basic dossier, etc. Coaching of the 40 micro-enterprises, conducted by the IDEA centre, will include monthly follow-ups with each of the businesses, refresher trainings and troubleshooting support, among others. The businesses will be mentored for a period of 2 years.

Activity 3.2.2. Establish and upgrade commercial associations related to agricultural value chain development.

122. This activity will support the establishment and strengthening of two commercial associations – one in Oio Region, one in Cacheu Region. Within the scope of the associations, the project will establish and operationalize four Community Processing and Marketing Centres (CCPs) (two in each Region).
123. The strengthening of two commercial associations will include the creation, operationalization and start-up support for a new commercial association in Cacheu Region, and the support to an existing association (ACACB) in Oio Region. The ACACB association is operational but can benefit from additional capacity building to improve its operations. Financial constraints have not made this possible thus far. The new association will follow the same model as the ACACB.
124. The responsibilities of the associations include the ownership of community-based buildings and respective assets generated under the project (CCCs, CCPs, and their respective equipment), the coordination and management of CCPs, and the strategic leadership for climate-resilient economic growth in the target communities. The associations will have a dual objective to (a) continue the climate-resilient development of the target areas, and (b) provide market access to all members. They will be set up as a social business, and the proceeds will be re-invested in enhancing the climate resilience of the communities and the agricultural value chains, including building the capacity of its members.
125. Members of the associations are the participant farmers of the 17 target communities in their respective Region. The participant farmers of the target communities will be informed and invited to join the commercial associations, and those choosing to become members will pay a small annual membership fee. The members, all invited to attend the general assembly, will elect the association secretariat, which will hold the day-to-day management of the association, and which will receive a salary from membership fees and from a percentage of the profits generated. The EE will start working with the associations as soon as possible within the project's lifecycle, allowing for sufficient time for institutional capacity building and follow-up. The EE will provide management knowledge and tools, orientation, and institutional capacity building to the associations, as well as support for the legalization/formalization of the associations, and continued follow-up and support. Throughout the project cycle, the two associations will be gradually integrated in the project activities, becoming active co-leaders in the execution and management of activities, as a way of hands-on capacity building.
126. Equally, to increase income options along climate-resilient value chains, the project will establish three Community Processing and Marketing Centres (CCPs) (two in Cacheu, one in Oio) and strengthen an existing one (in Oio), for a total of four CCPs. The CCPs are small buildings to be constructed, with an approximate size of 10m by 20m. The communities, with

orientation from the EE, which will also procure the necessary materials, will undertake the construction. The CCPs will be equipped with basic materials for the conservation, processing, packaging and transportation of agricultural produce, including mills, oil presses and a solar system for energy. The basic processing activities of the CCPs will include rice de-husking, flour production of rice, cassava and maize, peanut butter production, and mango drying. Other activities may be added, based on farmers’ preferences and needs.

127. The management of the four CCPs will be overseen by the two above-mentioned commercial agricultural associations, and will serve farmers from the 34 target communities. Under the supervision of the associations, each CCP will have a management committee, which will be trained by the EE within the scope of this project. A ToR will be developed by the EE based on previous experiences, identifying the necessary skills and capacities of the committees. Based on this ToR, the Farmers’ Clubs will elect candidates for the committees, and a final selection will be made by the associations’ secretariats. Preference will be given to people living in the target areas and as close as possible to the CCPs. Whenever possible, a gender-balanced CCP management team will be selected. The committees, with support from the EE extension team, will develop a management model, production plans and marketing plans. The management model is built on the CCP committees receiving a percentage of the harvest that farmers want processed, and with this surplus, they finance operation and maintenance, and also generate income for themselves. The management model will further include a waste management plan, which will include composting and animal fodder production from organic waste. Through the CCPs, the associations will aggregate processed products from all member farmers, for joint marketing when opportunities arise.

128. The exact location of the CCPs will be defined during the project’s inception phase, based on the basic criteria of being near to a national road and centrally located within the target communities. The existing CCP is located in the Watine community, in Oio Region. As for land tenure, the project will follow the same process as explained for the model plots (A3.1.1) and CCCs (A1.1.2), hence consultation with local authorities, identification of land and landowners, and signing of agreements between landowners and community representatives. The concession terms will be decided upon between the community and the landowners, and will be, in principle, for indefinite time. This is in adherence with the Lei da Terra (Land Law), in place for communal lands in Guinea-Bissau.

B.2.2. Outcome mapping to GCF results areas and co-benefits categorization

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
Outcome 1: Strengthened capacity and knowledge management to monitor and address water and agriculture related climate risks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outcome 2: Sustainable management of coastal ecosystems leading to climate-resilient communities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

s in Oio and Cacheu								
Outcome 3: Enhanced climate-resilient livelihoods, food and water security of the most vulnerable people in coastal communities in Oio and Cacheu Region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Co-benefit number	Co-benefit					
	Environmental	Social	Economic	Gender	Adaptation	Mitigation
Co-benefit 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Institutional arrangements:

129. OSS, as Accredited Entity (AE), will be managing all the communication between the Project and GCF. OSS will actively follow up the execution progress, maintain regular communication with the EE, and receive regular project progress reports, both technical and financial from the EE. The EE will select and designate a Project Management Unit (PMU) dedicated to the establishment of the presented project and will oversee the PMU activity and follow up closely on all the management decisions, procedures, and take responsibility for any unforeseen difficulty, conflict or other that may occur during project implementation. The EE will be part of the communication between the PMU and the main partners and permanent part of the Project Steering Committee.

130. ADPP--GB⁵³ is the Executing Entity of the project and is a Bissau-Guinean NGO, active in the country since 1981 and officially registered as a national association since 1992. ADPP-GB has legal status in Guinea Bissau officially established in 1992 as per the supplement to the Official Bulletin of The Republic of Guinea-Bissau N°40. In the framework of this project, an agreement between OSS as the AE and ADPP-GB as the EE will be signed and will outline the terms of this collaboration. ADPP-GB as the EE will appoint and recruit the project team that will composed of the technical and financial Project Management Unit (PMU), the Technical Support Team (TST), and the extension teams deployed 1 per target region. The project team will be 100% dedicated to project implementation, and its work will be overseen, supervised and supported by ADPP-GB's permanent team.⁵⁴ The Project Partners are entities who were identified by the EE, OSS (AE) and the NDA and are considered relevant to implement successfully the project in Guinea-Bissau. The Project Partners have agreed to collaborate, and participated actively in the project development.

⁵³ The Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau (ADPP-GB) is a Bissau-Guinean NGO, with the aim of contributing to sustainable human development through the empowerment of the most isolated and vulnerable populations, with emphasis on women and young people. It has been developing 4 main programme lines: Rural Development and Agriculture (since 2008); Education (since 1982); Health (since 2007); Community Development (since 1981). It has 2 permanent Education programmes: Primary School Teacher Training College (since 2012); and Bissorã Vocational School – EVB TVET (since 1997). ADPP-GB has MoUs signed with all relevant National Authorities in the country on work developed in all Regions of Guinea-Bissau. ADPP-GB has 160 permanent employees.

⁵⁴ See figure 13 and Figure 14

131. ADPP-GB, in its responsibility as the Executing Entity (EE) of the project, will coordinate and execute implementation on the ground, in direct collaboration with the relevant line ministries, as per usual practice.
132. Since its conception phase, the present initiative has been discussed and developed in close collaboration with the national entity responsible for the Environment in Guinea-Bissau (changed during the process from State Secretariat to Ministry - MoEB), which is the National Designated Authority (NDA). IBAP and IUCN have been consulted, in an early stage of project's idea. In the full proposal stage, the group of project Partners have decided that, to simplify the processes:
- IBAP will be a Project Partner, and IUCN has agreed to give technical support, inputs and recommendations, whenever necessary, without being directly part of the execution of the project. IBAP will be collaborating in, and monitoring, most activities of the project, considering its specific expertise in the Environment sector. It will assume the follow up and monitoring of the Environmental and Social Action Plan to be implemented during the project lifespan. As project Partner, IBAP will contribute to align the project intervention with the efforts that are taking place within the Cacheu Mangrove Natural Park, to leverage the positive impacts of the present initiative in the surrounding areas to the Park. They will participate and lead the efforts of protection and restoration of the mangrove areas covered by the present project.
 - The Ministry of Agriculture (MoA) is the institute that hosts most of the departments and Technical General Directorates which expertise is required to build a solid synergy between the agriculture practices, water and soil monitoring and management, and with the expertise of the Ministry of Environment and Biodiversity (MoEB) on CC impacts and Adaptation methods. The project team will work with the Meteorology Institute and the National Civil Protection Services, coordinating efforts with the main expertise from the various General Directorates from both MoEB and MoA, on the ongoing initiatives to build an efficient Early Warning System in the country.
133. Pre-agreements of collaboration are signed, at this stage, between: OSS and ADPP-GB; ADPP-GB and IBAP; ADPP-GB and the MoEB (which covers the regional Directorate); ADPP-GB and the MoA (which covers all the technical General Directorates under the Ministry and the Regional Directorate); ADPP-GB and the Meteorology Institute; ADPP-GB and the NCPS; and ADPP and the GDTF. The pre-agreements follow local law and are binding as intentions at project development stage. The pre-agreements are meant as statements of intent and commitment for collaboration during the actual project. When and if the project is approved, a definitive agreement will be established by the parties and signed according to and listing the final and GCF approved scope of works. These agreements, based on the Funded Activity Agreement to be signed between the AE and GCF, will replace the pre-agreements, and will follow the GCF regulations, as stated in the AMA. No project activities will start implementation before the project is fully approved, Project Partners, as being mainly government structures, will not receive a salary from the project. A focal point from each partner will receive a monthly allowance to guarantee her/his availability and will be provided with basic office and communication materials to be able to fulfil the specific tasks that she/he is invited to participate in. The remaining technical staff will be requested according to project needs and paid by the project in per diems, transport costs etc.
134. A Project Steering Committee (PSC) will head the project. The PSC will have the role to follow-up the project execution, the project outcomes, and to collaborate in the efforts of overcoming the barriers associated with the government instability and political changing views and priorities. It will contribute to facilitate project outcomes dissemination countrywide and the incorporation of lessons learned, gathered experiences and tools in the country's policy and programme framework on CC Adaptation. The steering committee will be comprised of representatives from National Authorities, the main development actors, leaders and representatives from the target communities.
135. The below figure and table depict the institutional arrangements and roles and responsibilities from the key entities:

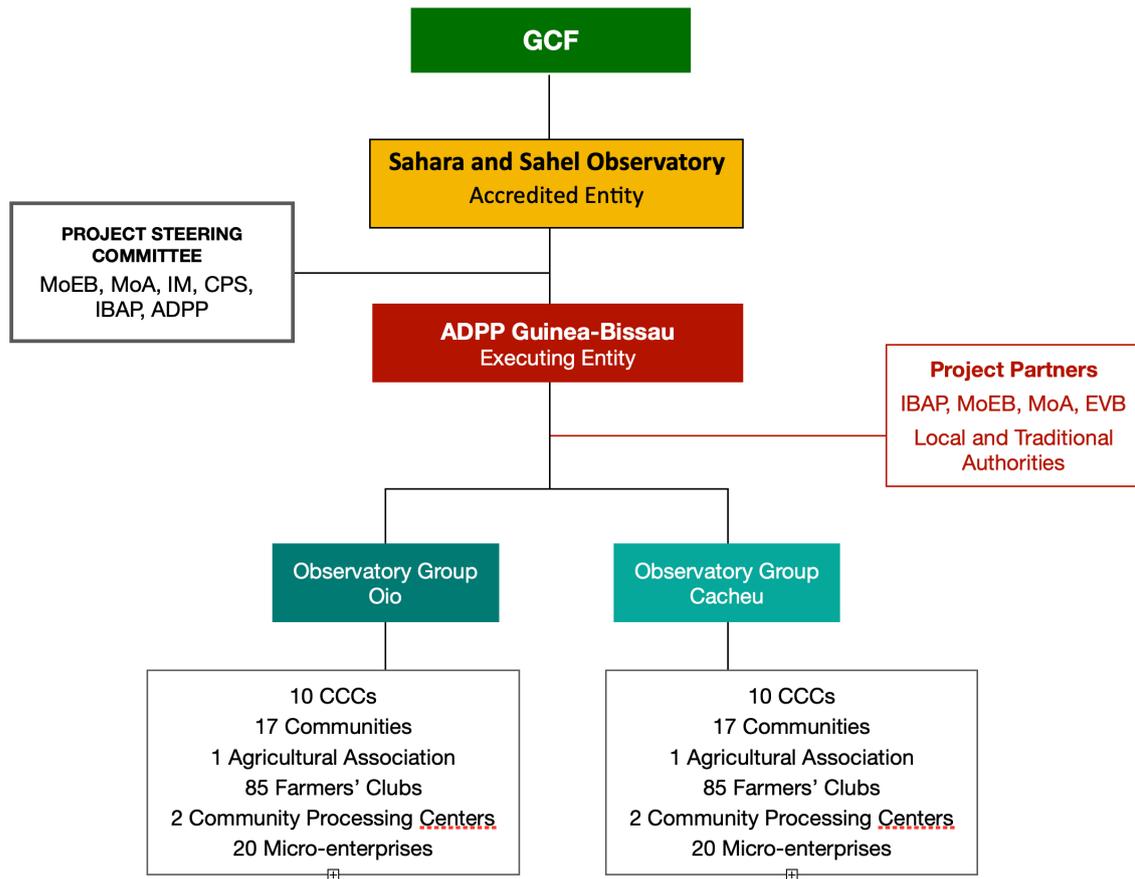


Figure 13: Institutional Arrangements

136. OSS, as AE, is the recipient of the funds from GCF and the Overall project manager. The contractual agreement between the AE and the EE will be the Subsidiary Agreement, in accordance with the requirements defined in the Funded Activity Agreement (FAA) and OSS' Accreditation Master Agreement (AMA) with GCF. Consequently, Grant Agreements will be signed between the EE and the respective partners, which will include details on the scope of activities and budget, and which will follow templates provided by the AE, and in accordance with the requirements of the FAA and AMA. As for the small grants for the 40 micro-enterprises/IGAs, the EE will provide the selected enterprises with the financial investments requested, which can be expected to be mainly inputs such as small equipment and materials. The EE will procure and provide the equipment and materials requested, as per the AE's procurement rules, and hand it over to the enterprises/IGAs.

Table 5 - Key Roles and Responsibilities

Entity	Key Roles and Responsibilities
OSS (AE)	<ul style="list-style-type: none"> Oversee overall financial and monitoring aspects of the project; Reporting of project consolidated results to the GCF; Approval of project annual work plan and budget at the regional level; Approval of annual financial and technical reports; Provide administrative and management support to the EE; Provide specific specialized technical support to project's Technical Support Team; Contribute to communication outreach of project outcomes;
Project Steering Committee (PSC) OSS, ADPP, NDA, MoEB, MoA, IM, CPS	<ul style="list-style-type: none"> Meet twice a year and provide strategic direction for the project at the national level (meetings will be organized back-to-back with other technical meetings); Provide political support and advocacy; provide policy guidance; Ensure local government engagement and participation; Facilitate cooperation between all project partners and facilitate collaboration between the Project and other relevant programmes, projects and initiatives;

	<ul style="list-style-type: none"> • Approval of project annual work plan and budget at the regional level; • Approval of annual financial and technical reports; • Advise on issues and problems arising during project implementation;
Ministry of Environment and Biodiversity (NDA)	<ul style="list-style-type: none"> • Supervise and follow-up the project achievements through the project regular reports and field visits; • Participate in the PSC; • Provide political support and advocacy; provide policy guidance; • Ensure local government engagement and participation;
ADPP (EE)	<ul style="list-style-type: none"> • Responsible for the execution at national level through the PMU and in collaboration with Project Partners; • Provide all the necessary means for the project to be successfully implemented; • Retain full responsibility for any delegated authority to the executing partners over financial management and procurement.
Project Management Unit (PMU); Project Technical Support Team (TST);	<ul style="list-style-type: none"> • Coordinate project management and execution at the national level; • Coordinate implementation with Project Partners; • Ensuring the project activities are implemented according to plan; • Ensure compliance with national technical standards and integration with government programmes; • Consolidate results from the project and link with PSC; • Monitoring and evaluation at national level; • Stakeholder engagement at national level;
Regional Extension Teams – 1 per target region;	<ul style="list-style-type: none"> • Execute project activities at community-level under the oversight of the PMU; • Ensuring the project activities are implemented according to plan and have a positive impact on the beneficiaries; • Consolidate the results from the project sites and link with the PMU; • Monitoring and evaluation of the project data at regional level and link with PMU; • Stakeholder engagement at regional and local community level; • Conflict management at community level;
ADPP's TVET school EVB in Oio Region and Teacher Training College TTC-Bachil in Cacheu Region;	<ul style="list-style-type: none"> • Participate in specific activities providing support and services according to their scope of work and local outreach to community schools and private sector at regional level;
Main Project Partners Ministry of Environment and Biodiversity; Ministry of Agriculture through its General Directorates of specific technical areas; IBAP; INPA; IM; NCPS; MPI; GDWR; GDTF; INITA; MoE;	<ul style="list-style-type: none"> • Create a conducive environment for the program execution especially by mobilizing technical experts at the national level where needed; • Participate in PSC; • Provide political support and advocacy; provide policy guidance; • Ensure local government engagement and participation; • Ensure ownership and sustainability; • Dissemination of project results in national and international forums; • Provide expertise in specific project areas; • Directly participate in the implementation of specific trainings and activities according to expertise; • Support implementation of activities on the ground; • Support dissemination of project results;

Implementation Arrangements:

137. **OSS, as the AE** has full responsibility for the overall project management and implementation, including the financial monitoring and reporting responsibility. Through its Project Implementation Unit (PIU), it will guide the execution of all the project activities, which will be carried out by ADPP-GB, as Executing Entity (EE). The EE will be responsible for the execution at national level through the Project Management Unit (PMU) and project partners.

138. **ADPP-GB, as the EE**, and based on its more than 35 years of experience working in Guinea-Bissau, has, in the development phase of the present initiative, consulted all the relevant stakeholders that could contribute to a successful outcome. ADPP-GB will retain full responsibility for any delegated authority to the project partners over financial management and procurement following the AE's procurement rules, policies and procedures, foreseen in the AE-EE grant agreement. Partnership agreements will be signed with each of the counterparts, building on the pre-agreements signed.

139. A Project Management Unit (PMU) and a Technical Support Team (TST), fully dedicated to the project, will serve the project. The EE will be responsible for the recruitment and appointment of the PMU and TST members, according to ToRs, as discussed with the partners, and will provide oversight and guidance for the PMU and TST activities. The TST will form a team of experts, which will technically support the PMU's work. This team will include an expert in agriculture and water management, an environmental expert, a gender expert and an entrepreneurship expert. Other technical support will be sourced from the project partners and consultants as required.

140. PMU members, as delineated in figure 9, will be recruited or appointed once the project has been approved by the GCF board. ToRs will be developed by the EE and approved by the AE for each of the positions, clearly identifying the required skills and experience. The EE will conduct the recruitment process and propose valid candidates, to be approved (no-objection procedure) by the AE. The recruitment of the technical support team will follow the same procedure. The visibility and communication plan will be included in the institutional communication plan of each partner involved in the project execution.

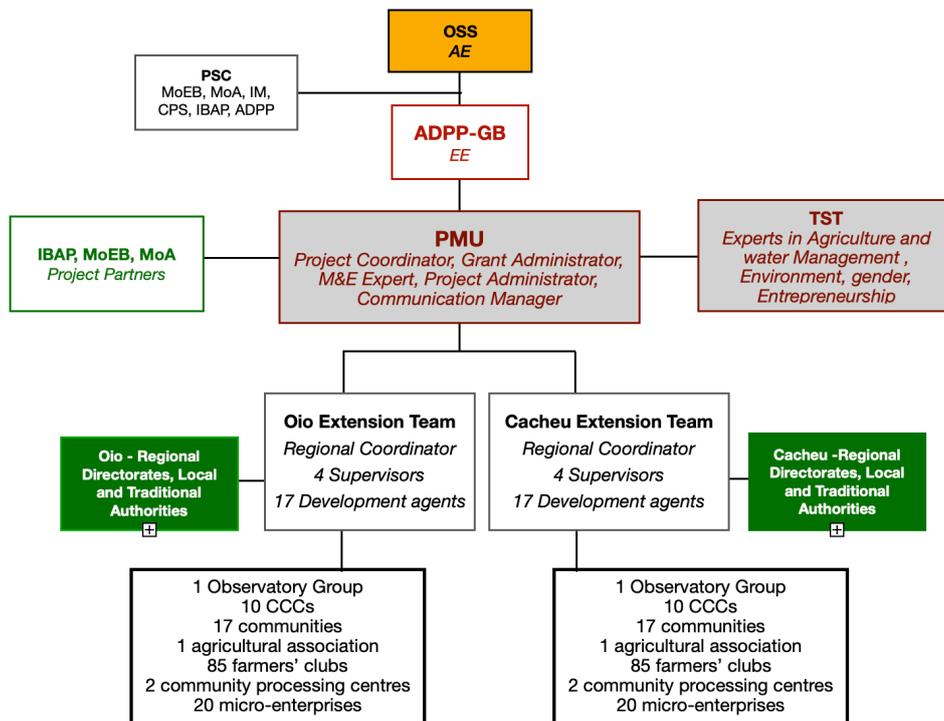


Figure 14: Implementation and Execution Arrangements

141. The AE and EE will have a set of collaborating institutions to achieve the aimed for objectives. The Project Partners of the project are:

- The Ministry of Environment and Biodiversity, and NDA, is the main national Project Partner, providing overall technical and policy guidance and oversight.
- The Ministry of Agriculture is a Project Partner, providing technical guidance and oversight to the agriculture-related activities. The coordination between the MoA and MoEB will validate technically and guarantee the project outcomes towards the path for a paradigm shift in country development plans.
- IBAP, the national institution responsible for biodiversity conservation action, is a Project Partner, and provides technical support, guidance and oversight to the project. IBAP secures the ESAP is conducted as planned.
- The Meteorology Institute (Ministry of Transport and Telecommunications), together with the National Civil Protection Services (Ministry of Interior) and the General Directorate of Water Resources (ministry of Energy and Natural resources), are Project Partners in the efforts to reinforce/integrate any initiative regarding an Early Warning System in the country.
- The National Institute for Agriculture Research (INPA) and General Directorate of Agriculture and Hydraulic Engineering are partners involved in the efforts regarding water and soil management and access to adapted seeds.

- Other partners regarding specific activities are the General Directorate for Traditional Fishery, Maritime and Port Institute of Guinea-Bissau, INITA and the Ministry of Education, namely the National Institute for Education (INDE) Development and the General Directorate for Literacy.
- The Vocational Training School in Bissorã, Oio Region (EVB) is a boarding TVET school operating for more than 25 years in the country. It is a permanent project managed by the EE that has been growing and adapting to the Bissau-Guinean reality regarding rural youth capacity building, and access to labour market opportunities related to sustainable rural development. The EVB School will cover the project's needs regarding professional and vocational capacity building, as well as business incubation.
- The Teacher Training College in Bachil, Cacheu Region is a boarding Primary Teacher Training school graduating teachers who are specifically trained and prepared to work, under limiting and harsh conditions, in the most isolated rural primary schools at country level. As the EVB School, it is a permanent EE institution working under the authority of the MoE. All TTS-Bachil graduated students have been employed by the National Education Authorities since its opening in 2010; it thus actively contributes to the state's effort in pursuing the goal of quality education for all.

142. The involvement of these institutions as partners in the project implementation and under the management of the EE through the PMU, will contribute, in both senses, to reinforce the expected project results and to strengthen the institutions involved. The table below depicts how and in which activity the Project Partners are engaged.

Table 6 - Execution arrangements

Activity		Executing Arrangements
A1.1.1	Conceptualization and operationalization of OGs for CRA practices and technologies and WSQM	The EE leads the activity. Project Partners MoEB, IBAP, MI, MoA, GDWR participate in consultations, workshops, and provide technical inputs to inform, design and validate the OG's ToR and secure integration in national systems.
A1.1.2	Establish Community Climate Centers (CCCs)	The EE executes the activity. Communities contribute with labour and time.
A1.1.3	Equip OGs and CCCs with technologies for WSQM	The EE executes the activity.
A1.1.4	Training of OG members, [...] on O&M of observatory equipment	The EE executes the activity.
A1.2.1	Development of Training Manuals, Modules and Curriculums for [...] and soil salinization	The EE leads the activity. Working groups are established with project partners IBAP, MoEB, MoE and MoA for design, development and validation of materials.
A1.2.2	Capacity building of national-level decision-makers, local government authorities and field staff on WSQM, Adaptation and CRA practices	The EE leads the activity. Executing Partners MoE, MoA and MI, invite and appoint staff and partners to participate in the workshops and trainings
A1.2.3	Train youth through vocational training courses [...] practices	The EVB school (EE-managed institute) executes the activity, with oversight from the EE.
A1.2.4	Conduct sensitization campaigns and address [...] other resilience-building topics	The EE leads and executes the activity at community-level. The MoE and the General Directorate on literacy provide inputs to the literacy curriculum.
A1.2.5	Mainstream environmental education in the young adult education system	The EVB school and TTC school (EE-managed institutes) execute the activity, with oversight from the EE.
A1.3.1	Conduct Baseline Study and KAP Survey	The EE executes the activity.
A1.3.2	Elaborate a knowledge base with a collaborative e-platform for climate resilience and adaptation practices	The EE leads the activity, purchases the necessary technology, licenses etc... The e-platform will be connected to IBAP's official website to increase its outreach. MI and NCPS provide inputs to keep specific data updated.
A1.3.3	Disseminate knowledge and information in local, national and regional workshops and forums	The EE leads the activity. MoEB, IBAP, MoA, MI, INPA and NCPS provide inputs to the knowledge management and communication strategy, and disseminate information.
A2.1.1	Elaborate adaptation management plans [...]	The EE leads the activity. MoEB, IBAP, MoA and GDWR provide inputs to the plans' design and development, and validate the final plans.
A2.1.2	Construct and rehabilitate [...] mangrove-rice paddies	The EE leads the activity. IBAP and MoA provide technicians and extension staff to support and overview the interventions.
A2.1.3	Establish water management systems to address water shortages for production and consumption during prolonged dry spells	The EE leads the activity. IBAP and MoA provide technicians and extension staff to support and overview the interventions.
A2.1.4	Promote small-scale irrigation schemes to maintain agricultural production	The EE leads the activity. IBAP and MoA provide technicians and extension staff to support and overview the interventions.
A2.2.1	Implement erosion control and adaptation actions towards sea level rise and saline water intrusion through functional reforestation of mangroves	The EE leads the activity. IBAP provides technical leadership and guidance to the EE extension team through its extension staff.
A2.2.2	Organize sensitization sessions and promote production and dissemination of firewood saving cook stoves	The EE executes the activity. 'Pobreza Zero' (CBO) provides technical support to women groups in production of cook stoves.

A3.1.1	Establishment, organization and regular trainings in CRA practices on Model Plots	The EE leads the activity. The MoA provide technicians and extension staff to support and overview the interventions.
A3.1.2	Promote Sustainable Rice Intensification (SRI) and Climate-Resilient Rice Production (CRRP)	The EE leads the activity. The MoA provide technicians and extension staff to support and overview the interventions.
A3.1.3	Introduction and promotion of short cycle animal production	The EE leads the activity. The MoA provide technicians and extension staff to support and overview the interventions.
A3.2.1	Support the establishment and mentoring of 40 micro-enterprises and women-led income generating activities (IGAs) along the value chain(s)	The EVB school (EE-managed institute) and its IDEA business incubator centre, executes the activity, with oversight from the EE.
A3.2.2	Establish and upgrade commercial associations for agricultural value chain development	The EE leads the activity. The MoA provide technicians and extension staff to support and overview the interventions.

Execution at Community Level:

143. The PMU will maintain constant communication with the project teams in the target regions and all the involved partners. It will coordinate the intervention of the Technical Support Team (TST), whenever required, to guarantee the activities being successfully accomplished. The regional extension teams will live and work in the target communities, developing a close relationship with the target beneficiaries and promoting regular accountability to community leaders, elderly and religious leaderships present in the communities. They will provide an open channel to opinion, new ideas and possible complains and conflict management.

144. The participant farmers will be organised into working groups/productive groups – the Farmer’s Clubs (FC), led by elected management committees whose members are trained in management and administration by the project. 4 to 5 of this FC, depending on common interests and/or proximity, will form a Project Unit (PU), which will be followed up, for 5 years, by a Development Agent (DA) who will live and work with them on a daily basis. This DA has a wide range of experience, from agriculture to conflict management and is trained to identify and solve the community's daily difficulties. 4 DAs, with their respective PUs, will be followed-up by a Project Supervisor, who will have comprehensive experience in implementing holistic development cooperation projects and will be able to support directly the DAs. The Regional Coordinator, that has a specific profile including a vast knowledge on project management, Guinea-Bissau’s reality and technical experience on the main topics of the project, will directly support the Supervisors. The Extension Team will be technically supported by the specialists from the Technical Support Team and the general coordination from the PMU.

Flow of Funds:

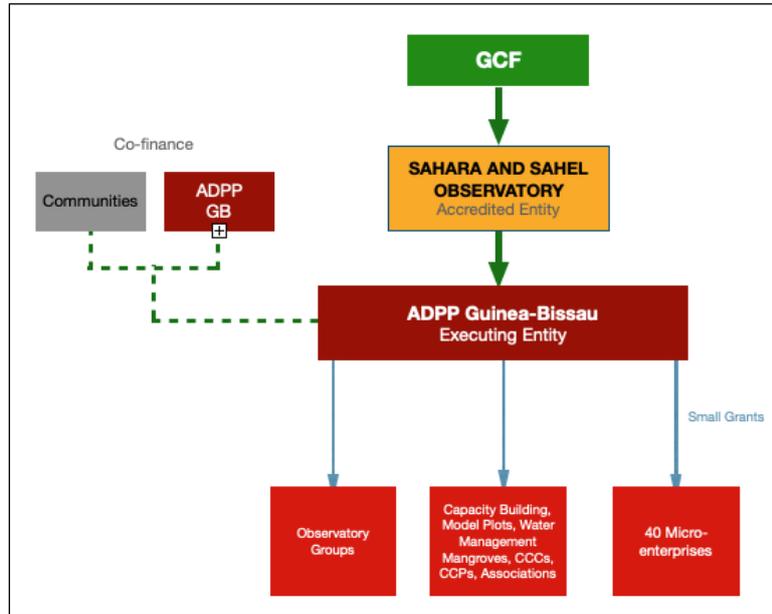


Figure 15: Flow of funds

The Flow of Funds is planned to be implemented as described in the figure 15.

145. OSS, as AE, is the recipient of the funds from GCF and the Overall project manager. OSS will provide the fund to the EE, periodically, according to a pre-established disbursement plan as well as conduct audit functions. Once the funds are with the EE, the EE will manage them in place, and guarantee all the tasks are fulfilled and accordingly remunerated, including all the local Project Partner’s participation. The Project Partners will be paid in the act of accomplishing their participation in specific tasks and actions under the project’s activities. They will receive some basic equipment, considered unavoidable for them to accomplish their tasks in the project scope, having in mind the great difficulties and technology limitations that the Local and Central Authorities face in the country, including transport limitations. Same will happen to the EVB TVET School, and the regional coordinators. The final beneficiaries will access the funds according to each activity and project needs, including material, inputs, assets, entrepreneurship investments and follow-up, communication costs, transport cost and other.

146. All the purchase and procurement will be done by the EE’s Project Management Unit (PMU), following the approved Procurement Plan, set-up following the AE’s procurement rules, policies and procedures, as foreseen in the AE vs EE grant agreement. The AE and EE will regularly oversee the accomplishments of the developed and approved M&E Action Plan to be executed by the PMU. The EE is to be made responsible for any PMU’s non-compliance and/or deviation in its project management activity, as well as to correct and resolve any major issue that the project team may be facing. ADPP-GB has a long track record of managing multilateral funds and is considered the biggest National NGO working actively in the Country. The AE has conducted an extensive Due-Diligence of the EE prior to project full proposal development.

Table 7 - Flow of funds at country level

<p>ADPP-GB, as EE</p> <p>(following the approved Procurement Plan, set-up following the AE’s procurement</p>	<p>Procure all the equipment necessary for the project activities’ implementation;</p> <p>Procure all the equipment and input necessary under the project activities;</p> <p>Procure external services necessary to accomplish specific tasks under project’s activities;</p> <p>Procure all the material necessary to build/set up the assets and buildings as project scope;</p> <p>Procure the equipment to be provided to the Eps for project implementation purposes;</p>
	<p>Pay the salary of the EE’s project implementation team;</p> <p>Pay the transportation and per diems for the EP participants under project activities;</p> <p>Pay the activity costs concerning the Steering Committee as well as sensitization and awareness campaigns, meetings, gatherings and presentations under the project scope;</p>

rules, policies and procedures, as foreseen in the AE-EE grant agreement)	Pay for the project's beneficiaries' services/efforts under the project scope such as the construction of the CCC and CCP buildings. Pay the EVB-TVET and TTS-Bachil schools according to the established budget for their participation in the specific activities;
	Help the beneficiaries to manage the project created community funds such as the CCC management funds, the water management funds, CCP revenues from the processing activities, the fees paid by the beneficiaries for the firewood saving cooking stoves etc.

Grievance Mechanism

147. The project includes a [grievance redress mechanism \(GRM\)](#) to voice the opinions and complains from the participants and all stakeholders involved in the process. This mechanism will provide an access point for individuals, communities and other relevant stakeholders to submit complaints. Considering the high levels of illiteracy in the project sites, the illiterate will be able to voice complaints to community leaders and the project's extensionists, who will write up the complaints and submit accordingly. The mechanism will also record and process all complaints relating to the project's activities, results or impacts. The proposed mechanism is intended to be rapid, effective, participatory and accessible to all stakeholders. It should prevent or resolve conflicts through negotiation, dialogue, joint investigation, etc. It will handle complaints related to the compliance of the project activities and impacts with environmental and social safeguards as well as fiduciary and legal aspects (grant agreements, contracts, etc.). The system will be closely linked to the OSS grievance mechanism, especially for the handling of major sensitive complaints. If necessary, complainants may also refer the matter to the GCF Independent Redress Mechanism (IRM). The complaint form by OSS will be made publicly accessible, electronically and in written forms.

148. The organization and functioning of the GRM, including definition of roles and responsibilities and the complaint handling process is further explained in the Environmental and Social Action Plan (ESAP) – annex 10 to this funding proposal.

C. FINANCING INFORMATION

C.1. Total financing

(a) Requested GCF funding (i + ii + iii + iv + v + vi)		Total Amount: <u>9,807,800</u>		Currency: <u>million USD (\$)</u>		
GCF Financial Instrument		Amount	Currency	Tenor	Pricing	
(i)	Senior loans	<u>/</u>	<u>Options</u>	<u>/</u> years	<u>Enter %</u>	
(ii)	Subordinated loans	<u>/</u>	<u>Options</u>	<u>/</u> years	<u>Enter %</u>	
(iii)	Equity	<u>/</u>	<u>Options</u>		<u>Enter % equity return</u>	
(iv)	Guarantees	<u>/</u>	<u>Options</u>	<u>/</u> years		
(v)	Reimbursable grants	<u>/</u>	<u>Options</u>			
(vi)	Grants	<u>9,807,800</u>	<u>million USD (\$)</u>			
(b) Co-financing information⁵⁵		Total amount		Currency		
		<u>147,200</u>		<u>million USD (\$)</u>		
Name of institution	Financial instrument	Amount	Currency	Tenor & Grace	Pricing	Seniority

⁵⁵ If the co-financing is provided in different currency other than the GCF requested, please provide detailed financing information and a converted figure in the GCF requested currency in the comment box. Please refer to the date when the currency conversion was performed and the reference source.

<u>ADPP Guinea Bissau</u>	<u>In kind</u>	<u>147,200</u>	<u>USD</u>	<u>Enter years</u> <u>Enter years</u>	<u>Enter %</u>	<u>Options</u>
(c) Total investment (c) = (a)+(b)		Amount <u>9,955,000</u>		Currency <u>million USD (\$)</u>		
(d) Co-financing ratio (d) = (b)/(a)		1.5%				
(e) Other financing arrangements for the project/programme (max ½ page)		N/A				

C.2. Financing by component

Component	Output	Indicative cost million USD (\$)	GCF financing		Co-financing		
			Amount million USD (\$)	Financial Instrument	Amount million USD (\$)	Financial Instrument	Name of Institutions
Component 1: Development of technical and institutional capacity of government and civil society	<u>Output 1.1. Improved local observation and management systems for water, soil and agricultural practices</u>	<u>2,559,100</u>	<u>2,533,100</u>	<u>Grants</u>	<u>26,000</u>	<u>In-kind</u>	<u>ADPP Guinea Bissau</u>
	<u>Output 1.2. Strengthened technical capacities of decision-makers and field staff in Oio and Cacheu Region for addressing water and agriculture related climate risks.</u>	<u>1,050,625</u>	<u>1,050,625</u>	<u>Grants</u>		<u>/</u>	
	<u>Output 1.3. Improved availability and accessibility to knowledge on water and agriculture-related climate risks and adaptation options.</u>	<u>190,600</u>	<u>163,400</u>	<u>Grants</u>	<u>27,200</u>	<u>In-kind</u>	<u>ADPP Guinea Bissau</u>
Sub-total Component 1		<u>3,800,325</u>	<u>3,747,125</u>		<u>53,200</u>	<u>/</u>	<u>/</u>
Component 2: Adaptation of water management towards climate risks in coastal zones	<u>Output 2.1. Community-based water management is improved and adapted towards climate risks, including salt-water intrusion and extreme weather events</u>	<u>1,470,500</u>	<u>1,448,500</u>	<u>Grants</u>	<u>22,000</u>	<u>In-kind</u>	<u>ADPP Guinea Bissau</u>
	<u>Output 2.2. Mangrove ecosystems are better managed, as an ecosystem-based adaptation measure towards salt-water intrusion</u>	<u>670,800</u>	<u>670,800</u>	<u>Grants</u>		<u>/</u>	<u>/</u>
Sub-total Component 2		<u>2,141,300</u>	<u>2,119,300</u>		<u>22,000</u>	<u>/</u>	<u>/</u>
Component 3: Building climate- resilient farming communities	<u>Output 3.1. Increased and diversified livelihoods of smallholder farmers</u>	<u>2,430,310</u>	<u>2,430,310</u>	<u>Grants</u>	<u>/</u>		Click here to enter text.
	<u>Output 3.2. Increased income options in climate-resilient</u>	<u>1,100,700</u>	<u>1,100,700</u>	<u>Grants</u>	<u>/</u>	<u>/</u>	<u>/</u>

	economic activity along agricultural value chains						
Sub-total Component 3		3,531,010	3,531,010		Enter amount		
Project Management Costs		482,365	410,365		72,000	Cash	ADPP Guinea-Bissau
Indicative total cost (USD)		9,955,000	9,807,800		147,200		

C.2.1 Financing structure (if applicable, mandatory for private sector proposal (max.300 words))

N/A

C.3 Capacity Building and Technology development/transfer

C.3.1 Capacity building Amount: 1,800,000 USD

C.3.2. Technology development Amount:5,400,000 USD

C.4. Justification for GCF funding request (max. 500 words)

149. Guinea-Bissau is a Small Island Developing State (SIDS) and an African LDC, which is heavily impacted by CC, due to (i) its low levels of development; (ii) its population’s high dependence on climate-sensitive sectors for subsistence, particularly small-scale agriculture; and (iii) its geographical position and shape, putting the population at risk of sea level rise and salinization of water and arable soils. CC projections for the country foresee that current trends will be significantly amplified under the current emission scenarios.

150. Despite persistent political instability, the government has made efforts to support the population in adaptation, yet the Government of Guinea-Bissau (GoGB) cannot meet the demands of its population in adapting to new conditions, and in building resilience towards CC. Despite considerable debt relief over the last decades, the country’s economy remains weak and CC impacts place the country at risk for further debt increases. GCF funding, with the proposed project, will assist in closing part of the gap between demands and availability of public funding, which has been further constrained due to the COVID-19 pandemic.

As such, GCF will contribute to:

151. Reaching the most vulnerable population groups: inherent to its approach and targeted areas in the country, the project aims to reach populations heavily impacted by CC impacts, including salinization of lands and increasing variability of precipitation patterns, among others. Especially subsistence farming communities near to the estuaries and coast lines are at high risk of food insecurity and loss of livelihoods, placing them in a perpetual cycle of recovery and coping. There is an urgent need for a shift towards climate-resilient livelihood development to break those patterns. By implementation of the proposed project, GCF contributes to establishing a climate-resilient and adapted foundation for the targeted communities.

152. Supporting the implementation of national strategies: the project was designed in close consultation with national authorities, notably IBAP, as a project partner, and the MoEB. As such, the project is anchored in national priorities as outlined in the NDC to the UNFCCC and builds upon the findings of the TNC. Thereby it is aligned with GCF’s mandate to support developing countries in the implementation of their CC strategies, especially noting that GB falls into the three priority country groups identified in the Governing Instrument (SIDS, LDCs and African nations).

153. Addressing gaps in finance: Although initiatives are undertaken by the GoGB, and support is provided by other international donors and development partners, including the AF and the GEF, among others, the GoGB, as a low-income economy is unable to reach the needs of its increasingly vulnerable population. Equally the country is unable to incur costs of financing of debt instruments and requires maximum concessionally through GCF grants to undertake these primarily adaptation-targeted measures. The COVID-19 pandemic is placing further economic pressure on the country’s economy and state budgets.

154. Promoting a scalable approach that sustainably addresses barriers and constraints: GCF resources are needed to support the development of climate-resilient practices and innovative technologies for water and soil quality monitoring, as well as to build capacities at local and national level for the management of those, as well as for the development of technical and organizational capacities of farmers and farming communities. GCF resources are furthermore needed for the development

of climate-resilient micro-enterprises, which in turn will contribute to green employment opportunities and further development of climate-resilient value chains. As such, the GCF grant will allow for developing and implementing models that can easily be scaled up to other parts of the country where adaptation demands are high.

155. Ensuring cost-effectiveness: the GCF grant will result in positive gains at community- and household-level that will strengthen the ownership that local populations have of their climate-resilient development. Although the funding is grant-based, the climate-resilient development of the agriculture sector, and the incentives for climate-resilient Income Generating Activities by youth, has high potential to unlock market development and development of climate-resilient value chains. The project furthermore builds on existing structures at national, sub-national and community-level with the involvement of state actors, national civil society organizations, local institutions and local CBOs, making the project considerably cost-effective in drawing upon existing resources and knowledge, while also strengthening the institutions and organizations, as well as strengthening true country ownership. Thereby it also reinforces foundations for continued support to rural populations in their quest for adaptation.

C.5. Exit strategy (max. 300 words)

156. Due to project’s dimension, a highly qualified, team will be selected, following specific ToR, for the PMU and the TST. Nevertheless, the main members of the extension team and office support team will be mobilized from the EE’s staff, with a long record of experience in the proposed activities and implementing methodology. This permanent staff will be complemented by new staff with specific additional skills. The EE’s policy toward project executing teams is to, whenever possible, enrol people that have previous experience with its work and working methodology, especially towards the contact and interaction with the direct beneficiaries, thus capitalizing the experience and the confidence built through previous projects.

157. The technical support and active participation expected from the main project Partners, IBAP, the MoEB and MoA and the Institutes involved, will be provided by experts in the required technical skills. The project concept, as it is set-up, will allow the bridging of knowledge from different intervention areas that are useful and necessary for a comprehensive Adaptation to CC initiative.

158. **Ownership:** Based on the participatory and ownership-focused methodology, the project will be carefully planned and organised to reach a large number of participants with a minimum of own staff. The EE’s PMU assumes the management and coordination of the work relying on implementation teams trained in the methodology by experience.

Table 8 - Participatory Methodologies Overview

<p>Smallholder farmers</p>	<p><u>The mobilisation of the participants</u> involves a continuous sensitisation, beginning with groups of community leaders, and a participative approach with the communities. The EE’s extension team will be formed by and based at community-level. Collaboration agreements will be signed with each target community, as well as with Regional/Local Authorities, defining the roles of each stakeholder, following local traditions. The extension teams will bridge the gap between the project itself and the community. It will help to break down barriers and manage conflicts that will arise during the project, related to the innovations that the project intends to introduce in the usual practices at community-level.</p> <p>Participants will be well informed of the goals, outcomes and outputs, as well as the procedures foreseen under the project. To increase mobilization, the project includes awareness campaigns on health, gender equality, income generating activities, saving mechanisms, nutrition, early childhood support, literacy, access to education and other cross-cutting issues of direct interest to the beneficiaries’ life.</p> <p><u>For the equipment, infrastructures</u>, goods, assets acquired or built under the action, as well as in the promotion of entrepreneurship, self-employment and cooperatives, the same approach of involving participants in the process is used, fostering their ownership from reception to maintenance. They are presented with the benefits and limitations and costs of maintenance and loss. They receive regular trainings to strengthen their technical and operational skills, they participate in the action planning and that of the financing methods and methodologies. All the planning material is made available for participants’ consultation and clarifications. Through community savings systems (A2.1.3. water management fund; A1.1.2. the CCC management fund; A3.2.2. The CCP fund) and application to start-up funds for selected businesses (A3.2.1. establishment and mentoring of 40 micro-enterprises), the communities have access to micro-financing, otherwise inaccessible in the country. The methodology promotes the participation of women as equal with men, fostering their inclusion in decision-making processes both within families and communities. The organisation of farmers into groups facilitates their mobilisation for mutual help, the organisation of common business systems, and maximises the impact of the capacity buildings and awareness.</p> <p><u>Peer to Peer Education (PPE) or peer education</u>, besides guaranteeing the participation of members of the groups in the conduction of the work, promotes the development of their knowledge, attitudes and abilities. To reach the farmer’s resilience in their improvements and new methods adapted to CC impact, the field team uses information</p>
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	<p>and exemplification by comparison, always respecting the farmer, his customs, his willingness and his land. The actors involved will share the feeling of belonging by using tools from their own experience alongside with the new tools provided by the project, such as the various experiences and methodologies. PPE facilitates communication between participants and makes activities more attractive to participants. Changes will be subtle and progressive, always negotiated and explained.</p> <p><u>Model fields/plots:</u> The productive groups will have model fields prepared under the project. The project comprises horticulture and mangrove rice model fields. The production that results from the joint work in the model plots will be managed and distributed according to rules established with the support of the project team and the participation of the direct beneficiaries.</p> <p>Gender is a permanent focus of all of the EE's projects, and will be taken into account on all this appropriation process.</p>
Local Authorities – Target regions	<p>To ensure the cohesion of the project and its full success, the project partners will base their collaboration using the PPE. Joint working sessions between peers from the partner organisations will be promoted on a regular basis to exchange experiences and difficulties within the project. These meetings will result in adjustments in practices and exchange of expertise, allowing the partners to build each other's capacity and better capitalize on the availability of expertise. The project partners are fully aware of the country's difficulties; as technical parties from the public sector, they acknowledge the need to approach, tackle and develop initiatives, such as the present project, at the national level. The constraints and willingness are the main "motors" that have boosted the present initiative and is confirmed by the willingness and active participation in the process of project development. CSO, CBO, Stakeholders and Private Sector external to the project, as well as the Steering Committee members, will be invited to visit, assist and give their contribution, occasionally and in a specific project scope or activity, thus increasing the general acceptance of the project activities. These are expected to support the project overcome any major barrier that might arise as a result from the country's instability.</p>
Central/ National Authorities	
IBAP and ADPP-GB	
EVB	<p>The Vocational Training School in Bissorã (EVB) is recognised by the GoGB, with a strong practical component in the form of work for the community, applying non-gender task division, it operates as a boarding school for longer courses facilitating access to young people from all over the country. The new curricular contents created, adapted and conducted within this project's scope will be further adapted, if necessary, to remain useful and active. The collaboration and approval of the curriculums from the MoE and INAFOR, as well as the inputs and the validation of contents from the MoEB, the MoA and IBAP will guarantee the quality of the contents and the acceptance by other teaching institutions in the country. The school will promote knowledge and tools exchange with other TVET schools in the country, as are the Buba Agriculture TVET school.</p> <p>The seed bank that will be set up in the EVB school, in collaboration with INPA, will remain as a key asset for the future school students. Its maintenance will be part of the School curriculum and followed up by the school teachers. All the new assets, tangible and intangible, resulting from the present project will remain as continuous assets benefiting the future students of the school.</p>
EVB students/ graduates in the project scope	<p>The EVB students and graduates in this project, will conduct their internship within the project itself, as part of its activities' scope. Part of them are expected to be absorbed by new activities introduced, after project implementation. The remaining graduated students will leave this project with strong knowledge and capacities in Adaptation to CC which is most valued in Guinea-Bissau's rural labour market. Following the school's policy, they will remain in contact with the school and the EE, being prioritised every time an opportunity for a qualified job is required by any stakeholder working in this sector in the country.</p>
Knowledge generation in general	<p>For knowledge generation and management, the project's method includes: Assessment, Information, Awareness, Training, Sharing and Follow-up. It seeks to improve knowledge and create a sense of goodwill and openness toward the new and changing attitudes. The training improves professional and practical skills. The awareness materials, manuals and good practice guides produced by the project are to be used by partners in experience sharing, recommendations and other actions with national authorities, policy and decision makers and other stakeholders. The follow-up stage aims to ensure total sustainable change in a group, an organisation, or a service, by providing outreach and multi-level support. In the current project, the focus will be on changing the practices of direct and indirect beneficiaries, other stakeholders, authorities and even the project team and partners on their attitude towards Adaptation to CC.</p>

Sustainable and suitable technologies in the local context and their sustainability in an Exit Strategy Context:

Table 9 - Sustainability of Introduced Technologies

Observatory Group and Community Observers	<p>These groups are an asset for the future Early Warning Systems (EWS) in the country. They will be formed, trained and operationalized under this initiative. During the project implementation period, the OG will work closely with the local and central authorities. By the end of the project the OGs will be incorporated in the national Observations and Monitoring systems' and will incorporate the Government's Observation team, feeding the EWS under development.</p>
CCCs	<p>As a Community Base, for activities and subjects regarding CC impacts and readiness, these Centers are crucial for climate-resilient community development and training. With access to renewable energy they will become an activity-development location for the community. The Centers will develop income generation activities for the community, as are, battery and cell phone charge, TV with access to news, sport championships, etc. They will be</p>

	available on rent for events, as well as development of community income activities that require energy. They will be owned by the communities' management committees, from project inception. Their management team will be trained, revolving and shared management system established. The functional literacy as well as the OC ongoing activities in the Proximity Monitoring Stations will be associated with the CCCs. The OC and the OG activity will be incorporated to the National CC awareness systems, which means the CCCs will be closely monitored after the project. A participatory plan will be established and upgraded throughout the project lifespan to establish the economic and social sustainability of each center according to each community's interests and priorities.
CCPs	The aim of the CCPs is value addition to the production of participant smallholder farmers' families. These basic processing centers are sustainable (experience piloted in previous projects) by using a shared income generating method. For a quantity of processed/correctly packed product, a small percentage stays in the Center as way of service payment. The surplus product is sold to local communities, at fair and accessible prices, in a small store clustered to the Center. These stores can sell, if it is the will of the producer, the surplus product generated by her/him. The income for the Centers serves the needs for maintenance of the center and the equipment and benefits the team in charge, as means of stimulating their efforts and availability.
Use of Renewable Energy	The renewable energy (RE) is the proven best option for GB reality and the isolation of the target communities. The EVB is providing the local rural market with capacitated youth to provide maintenance support to the renewable energy systems' as entrepreneurship activity. A community security plan will be set up for each of the RE systems' set up in the project scope, connected to local maintenance initiatives.
Mapping of CC impacts in target areas – georeferenced whenever possible	The mapping of the existing situation and the possibilities is found essential for the project's sustainability. A great number of individual and valid initiatives are taking, and are being prepared to take place in Guinea-Bissau. The political and institutional instability does not favour a full track record to capitalise and boost all the ongoing initiatives. This mapping is an asset of good experiences and lessons learned for future projects.
Mapping of cultural and traditional positive behaviour towards Adaptation	All the information generated in the project scope will be documented and made available to the national authorities and other key stakeholders in the country.
New TVET courses and contents on CC Adaptation	The EVB TVET school has been in continuous evolution and adaptation since its inception. New courses are added, existing courses are updated and piloted courses are put in standby if it is not the right moment. New associated activities, facilities, assets are added to the school structure every year. The new curricular contents created and adapted in this project scope will be piloted and be further adapted, if necessary, to remain useful and active.
Collaborative e-platform	It is a necessity to create an interactive comprehensive platform with accurate and confirmed data on CC trends to, at least partially, overcome the coordination limitation of the national institutions. The platform will be an ongoing project/process, involving the project partners. Being interactive, if well established and wide spread, it would feed itself in the future, needing a minimum of overall management. The Exit Strategy will assess which of the public and/or private stakeholder will be the most committed and suitable entity to follow up on this technology. The IP rights will further be anchored within the MoEB for continuity, monitoring and sustainability based on overall management and the inputs from the project partners.
Publications to be applied and shared	The main publications that will be made available by the project are the: Operation and Maintenance Manual for the OG, Basic Manual for the farmer's access to water resourced in a CC scenario; Procedure Manuals of mangrove Management; Manuals and Modules for CRA practices and adaptation towards water and soil salinization; Good Practice Manual for Anthropogenic Activity in Natural Mangrove Areas; Manuals for the Functional Literacy on CC Adaptation; Adapted manuals regarding Environmental Education for TVET and Teacher Training Schools; Knowledge management strategy, at national level; Awareness and sensitization manuals and material on CC Adaptation; The project final evaluation and report; All will be publicly discussed, validated and approved, being available for further use in the Country and at sub-regional level.

159. The active participation of the Authorities and specialized national stakeholders in the project activities as direct project partners, as well as the existence and importance, dimension and participation given to the Steering Committee in the project structure, will facilitate the access of the project findings and assets to contribute to future plans, programmes, policies and legislations on Adaptation to CC impact activity in the country.

Project Sustainability:

Table 10 - Project Sustainability

Institutional Sustainability	The partnership established with the MoA, the MoEB, IBAP, INPA, Meteorology Institute and NCPS, as well as the close collaboration with these institutions for the project implementation, the workshops and webinars to decision makers and other key stakeholders at regional, national and sub-regional level with the support from OSS and the government institutions involved and the active contribution and enrolment from the Steering Committee members are guarantee of institutional sustainability and contribution for the Government's plans for a paradigm shift at national level.
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Environmental Sustainability	The assessments, awareness and sensitization campaigns’, the trainings of the direct beneficiaries and main stakeholders working in the agriculture sector in the target regions, as well as the synergies that will be created with other ongoing projects on biodiversity and mangrove protection and the creation of various curriculums on TVET training and Environmental Education will contribute for a long term positive impact on the Environmentally safe and protective behaviour. Assets as are the autochthonous seedbank and the community nurseries for mangroves and coastal trees will continue to provide necessary inputs towards adaptation actions in the national territory.
Technical Sustainability	All the trainings within the project scope, infrastructures’, equipment, new tools, manuals, analytic assessments and other assets created, as well as, more specifically the capacity building of private and public entities and persons, will guarantee the consolidation and multiplication of the techniques, technologies, methods and methodologies applied in the project scope.
Social and Economic Sustainability	The gender sensitive and inclusive approach, the balance on opportunities access, professional trainings, access to labour markets in rural isolated areas, support in start-up financing and initial business follow-up, functional literacy availability and teaching contents, access to legal identification documents for women, access to surplus production, processing, conservation and alternative income generation activities, will contribute to enhance the household social and economic conditions, access to school for children, including girls, and to other basic social rights.

160. A specific Exit Strategy Plan will be elaborated during the project inception stage, using specific data from the Baseline study and in coordination with OSS (AE), the NDA and the Project Partners. This Strategy will be followed up and updated on regular basis following the M&E findings. O&M agreements regarding buildings, infrastructures and other project equipment will be signed.

The EE and its partners are permanent organizations and government entities that will continue to be present and work in the targeted communities. Their track records in mobilizing funding and resources for similar projects is extensive and multi-sourced. The partnership commits to continue seeking additional funding to assist target populations in Adapting to CC impacts, and supporting the regions in their climate-resilient development pathways.

C.6. Financial management/procurement (max. 300 words)

161. The financial management and procurement of the project will be guided by OSS fiduciary rules and procedures which are made available via its website and submitted with documents for referencing. Closer advisory and guidance will be provided throughout the project execution. As per responding to the accreditation requirements, OSS has built a comprehensive procurement rules which are available here: [Procurement Rules | Sahara and Sahel Observatory \(oss-online.org\)](https://oss-online.org). The rules outline proper procurement standards and guidelines across each phase of the procurement process, and they apply to all procurements in OSS.

162. The project activities will be executed following the national regulations as well as the executing entity (ADPP-Guinea Bissau) regulations as eligible for the implementation of the GCF funding (provide documents).

163. To this end, OSS being the GCF accredited entity for this project, primarily assessed the national capacities of the Executing Entity by undertaking a first investigation evaluation requested at the first stage of the development of the proposed project (call for project proposals). The investigation is part of the OSS know your customer (KYC) due diligence procedure and was conducted as a checklist/form completed and submitted by the project applicant and evaluated by the financial and administrative unit of OSS to assess the eligibility and capabilities of grant applicants to manage funds. The ADPP-Guinea Bissau capacities are fully compliant with OSS’ OSS fiduciary rules and procedures. To ensure the application of required rules and procedures, the EE is requested by the OSS to implement the project in compliance with OSS rules and guidelines, policies and procedures.

164. Accordingly, this is ensured through the national Government’s signature along the EE signature of the Grant Agreement including standard conditions to govern the use of the funds in compliance with the GCF standards. Furthermore, OSS will provide during project implementation a close oversight and quality assurance in accordance with its policies and procedures, and any specific requirements in the Accreditation Master Agreement (AMA) and project confirmation to be agreed with the GCF. This may include, but is not limited to field and institutional monitoring missions, remote guidance, supervision and participation in the project management meetings, quarterly progress and annual implementation evaluations, and audits at project level or at Executing Entity level on the resources received from OSS.

165. For audit requirement, the project progress and funds use will be monitored in accordance with OSS grant award mechanism, rules and procedures on audits, informed by and together with any specific requirements agreed in the AMA currently being negotiated with the GCF. Scheduled audits are performed to determine whether the funds transferred to the Executing Entity

were used for the appropriate purpose and in accordance with the work plan. Add to this, OSS mandate an external auditor to track progress and funds use of its annual activities under different projects financed by different donors.

166. All GCF resources will be provided to the Executing Entity by the OSS in the framework of the grant agreement disbursements schedule. Thus, OSS advances cash funds on a pre-determined basis to the Executing Entity (executing entity) for the implementation of agreed and approved project activities. The EE is then requested to comply with the OSS technical and financial reporting requirements by providing reports and expenditure statements according to agreed schedule defined in the Grant agreement. The EE and other entities involved in the project will comply with internationally acceptable accounting standards, which was confirmed by the due-diligence check by OSS. Any specific requirements will be taken into account as in accordance with the AMA as and when it is agreed.

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

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

167. The GNB SAP Project is expected to impact a total number of 82,450 direct beneficiaries with 50% representing females and 120,000 indirect beneficiaries of which 50% will also be women as disaggregated by gender including adaptation and Cross-cutting issues. The percentage of beneficiaries relative to total population directly related to the country's population is at 4.5% and indirectly at 6.4%.

168. The direct beneficiaries are 82,450 beneficiaries, which are household members of 8,500 farmers living in the 34 target communities. All activities at community-level cover these 34 communities and these 8,500 participant households. The project is socially inclusive and gender sensitive. A Gender Assessment and a Gender Action Plan were elaborated to address gender aspects, as well as to be responsive to needs and priorities of communities.

The target group constitutes the following sub-groups, which are further referred to in the activities:

- 8,500 small-scale farmers (at least 70% women), members of 170 Farmers' Clubs, will benefit from model plots, community horticulture plots, and capacity building in CRA and CCA.
- 40,000 persons (60% women) in the target areas will be reached with awareness raising and sensitization activities. 1,360 people (1,000 women) of those 40,000 are reached with literacy classes.
- 460 youth (50% women) will be trained in vocational courses as follows: 115 (climate resilient agriculture) + 115 (post-harvest practices) + 70 (animal husbandry) + 160 (business management).
- 110 community members and CBOs will receive training on the Operation & Maintenance (O&M) of Water and Soil Quality Monitoring (WSQM) equipment.
- 150 government extension workers and decision-makers will benefit from trainings, workshops and capacity building programmes in WSQM, CRA and CCA.
- 20 CCC's and 4 Community Processing Centers management teams, of at least 5 people each, will receive institutional and operational support.
- Two agricultural associations, including the existing ACACB Association in Oio Region and a new association in Cacheu will benefit from institutional and operational capacity building.
- 40 climate-resilient entrepreneurship projects, involving at least 90 people, will benefit from capacity building, operational strengthening and start-up support;
- Institutions will benefit from capacity building opportunities, acquisition of basic assets and means of transport, including: the regional departments of MoEB and MoA; the Meteorological Institute (MI); the National Civil Protection Services (NCPS); the Institute for Agricultural Research (INPA); the Vocational Training school in Bissorã (EVB); and IBAP.

169. The indirect beneficiaries expected to be impacted by the initiative include the MoEB, the MoA, the Ministry of Education (MoE), INAFOR, the different schools engaged, and CSOs and CBOs that will be able to make use of tools created. During the 5 years of the project, at least 120,000 people, from both target regions and users of the mentioned institutions and groups, will indirectly benefit from the project. This total represents approximately 11% of the country's total population. The assets, structures and knowledge created by the initiative will be included in national frameworks and plans, and could be replicated in other regions of the country and in future initiatives, and hence further benefit the population.

170. The project will have direct adaptation impacts by upscaling climate-resilient agriculture, as well as by the interventions applied to produce in vulnerable areas that are at risk of CC impacts. Supporting smallholders to adapt is essential given the role they play for current and future food security in GB, and strengthening community-based and farmer-based activities

and organizations is of core importance to transition towards a greener economy in the country. This will be strengthened by training youth and promoting entrepreneurship in specific technical skills relevant for adaptation. Enhancing the capacities of development professionals and government experts across different layers of the agriculture sector lays down foundations for long-term adaptation benefits in the regions, as well as for the country. As such, the project contributes to the achievement of the GCF Result Areas: *“Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions”* and *“Increased resilience of health and well-being, and food and water security”*.

171. Although the project targets adaptation, there are by definition *mitigation co-benefits* in the upscaling of climate-resilient agriculture, allowing for increases in carbon sequestration.

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

Innovation

172. The innovation aspects of the project are in the first place the introduction of climate-resilient agricultural practices, interventions and techniques that are novel to the area. This a modest form of innovation, yet highly needed for the targeted population groups. Additional to that, the project introduces the following innovations: (i) water and soil quality observation stations and information systems, which will support vulnerable farmers to make appropriate and adapted decisions towards their production and potential interventions on their farms; (ii) the establishment of CCCs, innovative to the target area, supporting the development and the reach of the MOE’s network regarding CC awareness raising, information sharing and community adaptation planning; and (iv) the promotion of green enterprises, engaging youth and creating local economic development. The database, or e-platform, that will be established under the project, is by itself innovative, but also fosters continuous access and hence learning in adaptation innovations.

Climate-resilient development

173. The project intends, through its multi-faceted approach, to shift the agriculture sector at community-level towards a climate-resilient pathway by providing the knowledge, technical capacities, basic infrastructure and information systems that will support an increase in production as well as the diversification thereof. Additional to climate-proofing agricultural production itself, the project targets the enhancement of other parts of the value chain, including the introduction of small-scale processing centres and the establishment of youth-led green enterprises to fill gaps in the chains. Multi-stakeholder platforms at local level will support the identification of opportunities within the agricultural markets targeted. Climate-resilient value chain development will also provide for diversification of income, further building resilience into households’ livelihoods. These interventions are encompassed by the strengthening of organizations and institutions at farmer- and community-levels, providing for sustainability as well as for increased social capital and cohesion, which have proven to be important intangible assets in crisis situations such as the covid-crisis.

Scalability

174. Organizational structures and climate information (water and soil quality) systems established under the proposed project allow for scaling up the project’s activities to other regions and communities without equally increasing costs. The enabling environment created hereby also provides for long-term continuation of the highly relevant outputs of the project, needed to respond to the demands, which are much higher than the reach of the project. The increased income generated through increased production (via improved and diversified practices and better access to information), and the diversified income streams (via post-harvest practices and market linking) is expected to be more than sufficient for the farmers’ clubs to firstly maintain the results and the O&M of equipment and infrastructure, but also to scale up activities post-project closure.

Strengthening knowledge, collective learning and institutional capacity

175. At community-level, the project focuses on enhancing social capital in terms of cooperation, mutual support and peer-learning structures, providing a basis for continued learning and innovation. At institutional level capacities are built and cross-sectoral cooperation is reinforced in highly relevant and climate-sensitive sectors (water, agriculture, meteorology), whom are direct partners in the project. Additionally, capacities are built of extension workers, farmers and communities, securing the continuation of support for the participant farmers, both from government services as from mutual support systems among farmers. Additionally, the CCCs established by the project will allow for continued information gathering and continued collective learning processes. At a technical level, the information and data that will be generated, processed, managed and disseminated by the Observatory Groups and the soil and water quality monitoring stations will allow for further research and documentation of best practices, which can benefit the population of GB as well as other countries in the region. The e-platform and interactive website that will be established under the project will allow for easy access for all stakeholders and actors.

Replicability

176. The project targets sectors, with an approach of establishing and reinforcing community-based technical capacities, that are highly relevant in terms of CC adaptation. In the majority of other rural areas in GB and in neighbouring West-African countries, these or similar community-structures are present but lack adequate capacities in CC related issues, and as such the project could be easily replicated with high potential impacts in areas that share similar agro-ecological conditions and CC related challenges, starting with other Regions in the country.

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

Environmental

177. The work with water and soil quality monitoring and the related agricultural interventions enable healthier soils for crops and livestock. CRA and other practices will lead to improved water availability, enhanced soil quality, reduced environmental impacts from salinization, reduced erosion and an increase in environmentally sustainable agricultural practices. As this leads to a sustained increase in productivity, and to food security, it will also reduce the need for expanding agricultural land and hence damage ecosystems in doing so, and will reduce other environment-negative practices including cutting of mangroves for firewood. Reinforced by awareness campaigns on CC and the environment more broadly, it is expected that there will be an increased understanding of the interaction between climate, environment and human activity. As such, the project will contribute to SDGs 15 “Life on Land”, as well as to national environmental targets set, among others, under the CDB and UNCCD.

Social

178. It is expected that the project will have positive impacts on household and community economy, through improved and more resilient production, as well as through the establishment of Green micro-enterprises. Increased household income in its turn has the potential of having multiple benefits on health, nutrition and food security, education, and other services. The formation and coaching of FCs and CCCs fosters social capital in the shape of improved collaboration and social cohesion among community members and across community-based institutions. Targeted trainings will build human capacities that will have a ripple-down socio-economic impact in the long run.

The project will deliver, among others, the following specific social co-benefits.

- Farmers are expected to increase production by 50%, improving food security.
- Improved food and nutrition security through diversification of production and promotion of nutritious foods;
- Water access and availability for households are expected to have added environmental, health and nutrition benefits;
- Increased social capital and social cohesion – by design.

As such, the project will directly contribute to the achievement of targets under SDG 1 “No Poverty”, SDG 2 “Zero Hunger”, SDG 3 “Good health and well-being”, and SDG 16 “Peace, Justice and Strong Institutions”.

Economic

179. Economic co-benefits are in the first place expected at the household level, through the surplus in production that can be marketed and through the increase and diversification of opportunities along the value chains, with value-addition practices and IGAs promoted. The Farmers’ clubs structure will facilitate easier access agricultural credits and insurances. It can be expected that the economic benefits gained at household and community level will have positive spill-over effects on a broader scale, which could potentially widen the reach of financial institutions, input providers, private sector actors and service providers, among others. The project will deliver, among others, the following specific economic co-benefits.

- An estimated 6,000 households will increase their income with 50%, through diversifying sources of income by creating new income-generating opportunities and market linkages;

As such, the project will directly contribute to the achievement of targets under SDG 1 “No Poverty” and SDG 8 “Decent Work and Economic Growth”.

Gender

180. The project will enhance the role of women in community actions to adapt to CC. They will be active members of OGs, CCCs, and Farmers’ Clubs. The project will educate both women and men about the importance of women’s participation and leadership, to encourage an environment more supportive of women leaders. All groups formed will be mixed men/women

to ensure that men continue to participate in partnership with the women. While men generally make decisions even when women's opinions are welcomed, the project will promote greater women's participation and involvement in decision-making. The project will improve women's and children's health by the improved firewood saving stoves, which will reduce indoor smoke inhalation and reduce time needed to collect firewood. Micro-scale irrigation systems will also reduce time spent by women and children to collect water. Both the stoves and the irrigation systems will also reduce the physical burden carried primarily by women and children, thus improving their wellbeing while also reducing time commitments. The project will also complement the agriculture training with education, training, and referrals for other issues that directly impact a woman's ability to produce. These include a high care burden (locally-run preschools will be established), referrals for victims of GBV, and targeted literacy training.

181. The project strives to reduce gender inequality by: increasing women's participation in farmers' clubs to facilitate access to inputs and credit; increasing access to literacy and income-generation education; facilitating women's access to employment and self-employed income earning opportunities; and encouraging women's participation in decision-making. The project will also make targeted actions to reduce the impact of women's care work on their productive capacity. A detailed Gender Action Plan was designed to secure these intentions are included in the project's activities (Annex 4).

Adaptation

182. The project will enhance the role of the communities in environmental conservation and women in community actions to adapt to CC. They will be active members of OGs, CCCs, and Farmers' Clubs.

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

183. Guinea-Bissau is highly vulnerable to climate risks, ranking 175th out of 181 countries on the ND-Gain Index (2020), ranking even lower on the sub-ranking of Vulnerability (177th). The ND-Gain index furthermore places GB with the lowest score globally on "projected changes of cereal yields", indicating the high risk of food insecurity. Approximately 70% of the population lives below the poverty line, while 33% of the population lives in extreme poverty (<1US\$/day). The UN Human Development Report of 2020 ranks GB as 175th of 189 countries. The two factors that contribute most to GB's low HD Index are: (i) widespread poverty with very low monetary income, and (ii) limited life expectancy (55.5 years old) resulting from the lack of income generating opportunities and access to quality health care.

184. Food insecurity in GB is very common: despite high rice production, more than 30% needs to be imported in order to cover the population's deficit needs. Other crops such as vegetables, tubers, oilseeds, maize, etc. are imported to cover the needs of a growing population, leaving GB highly vulnerable to fluctuations in international markets, which can be expected to be impacted negatively by the global Covid-19 pandemic. The vulnerability of agriculture to CC challenges the livelihoods of more than 70% of the population. Irregular precipitation and frequent flooding in coastal regions threaten the economy and the population, especially the large proportion of poor and vulnerable households with limited alternative livelihoods. Over 80% of the population lives in rural areas and depends on small-scale farming for subsistence, depending on the production of predominantly rice and cashew, and it is those population groups that the proposed project targets for participation.

185. Despite considerable debt relief over the last decades, the country's economy remains weak and CC impacts place the country at risk for further debt increases. The global covid pandemic places further constraints on the state budgets and availability of finance for climate action. Within the current scenarios, financing available is directed towards recovery and relief instead of towards building climate-resilience among the population.

186. The economic performance of GB remains highly correlated with the volumes and prices of cashew nuts. Considered the "green oil" of Guinea-Bissau, the nuts account for more than 90% of exports. Underperforming cashew exports in 2018 translated into lower revenue as agriculture is the main source of domestic revenues. The effect of the lower cashew price is expected to constrain the 2019 and 2020 budget. To finance state budget deficits, public debt securities totaling 10 billion CFA francs were issued in September 2019, leaving public debt in 2019 at an estimated 27%. Despite the cashew sector, AfDB's Economic Outlook for Africa 2020 classifies GB as a non-resource exporter, as well as a fragile country.

187. Services from public and private sector in CC adaptation and disaster risk reduction have been missing, due to limited resources, capacities and knowledge. Extension support for smallholders has not been able to reach the rural population with adequate information and capacity building in general, let alone with adequate climate information, or with information on adaptation options and opportunities. Although some readiness programmes, capacity building and CC programmes for the population are underway, the country lacks sufficient resources to successfully and sustainably support the rural population in its quest for adaptation.

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

Alignment with national priorities and strategies

188. The project is anchored in national CC policies, programmes and their respective priority areas defined. As such, the project is based on national priorities for CC adaptation as identified in the *Nationally Determined Contribution (NDC)* and the *National Action Plan for Adaptation (NAPA)*, and is informed by the findings of the *Third National Communication (TNC)* to the UNFCCC. The NDC and the NAPA recommend adaptation actions in the agriculture sector and indicate the need for capacity strengthening as key interventions for dealing with climate variability and change in the agriculture sector. Salinization of soils and water in coastal areas is identified a key climate risk in GB. Additionally, the project is anchored in targets set in the “*Terra Ranka 2015-2025*”, which is the national development plan for GB.
189. The project supports relevant national policies and programmes in terms of economic development, agriculture development and biodiversity conservation, and it supports the priorities of other ministries and agencies, such as those of the MoA, IBAP and the MoEB, as such contributing to targets set under the Programme of Action to Fight Drought and Desertification, DENARP II - National Strategy for Poverty Reduction, and sector-specific policies and programmes such as the National Plan for Agriculture Investments, the National Environmental Management Plan and the National Biodiversity Strategy and Action Plan (NBSAP).
190. Institutional capacities will be built to foster further and long-term adaptation interventions. The MOA and the MOE, and their counterparts in Oio and Cacheu region, will participate in the project's execution and monitoring, thereby securing policy guidance of all intervention components. Their capacity constraints will be addressed by the project (Component 1), which will assure that abilities to execute and monitor the project and its results are in place. This will reinforce the ownership and sustainability of the Action.
191. Building on the GCF Readiness projects in process and in the pipeline, of which OSS (AE) is a delivery partner, synergies will be built with such initiatives. This will be secured through the engagement with the NDA and its representation in the PSC. As such, the proposed project will benefit from the results of completed Readiness projects, and will equally feed into the development and implementation of future Readiness activities, among others by the data collected through the implementation of this proposed project and the operation of the Observatory Groups.

Engagement with NDA and consultative process thus far

192. The project design phase was informed by extensive stakeholder consultations with public institutions, NGOs and civil society, which started in October 2018. The Ministry of Environment (NDA) and the focal point were included from the starting phase of the consultations, providing the No-Objection Letter (NOL) in December 2018. During the initial CN development phase, a set of consultations took place between October and December 2018, which included: ADPP-GB (EE), IBAP, IUCN GB, NDA and NDA focal point (Mr. Viriato Cassama), MOE, MOA, INPA, MoE, local governments of Oio and Cacheu Regions, development partners (EU, AfDB) and existing project units in the Oio and Cacheu Regions. Those consultations took place through individual meetings, phone calls and email exchanges.
193. Following the endorsement of the CN by the CIC, and during the development of the full proposal (October 2020 – February 2021), stakeholder consultations were taken up again. The same stakeholders as mentioned above were consulted again through individual and group meetings, as much as possible in-person, yet some took place through virtual means in the light of covid-related restrictions. Additional to the stakeholders mentioned above, further meetings took place with the Agriculture and Environment departments in Oio and Cacheu, as well as with the Meteorological Institute (under the Ministry of Transport) and other relevant state stakeholders.
- A set of consultation workshops was held at community-level in the target area. As such 11 workshops in communities (3 in Cacheu, 8 in Oio) were conducted. An average of 30 persons took place in each meeting, with approximately 60% female representation. During these meetings the project idea was presented for inputs, and the meetings included: objectives of the project, target areas, organization of the project, implementation arrangements, expected funding, expected timelines and eligible activities. Community members were provided the opportunity to express their needs, preferences, as well as opinions on the proposed project. Overall, the project was welcomed by all stakeholders, while relevant comments and inputs were recorded, which then informed the further design of the full proposal and the project.
 - Afterwards, a National Stakeholder Workshop was organized on the 15th of December 2020 at IBAP's offices, for the validation of the pre-feasibility study and the project logical framework. 25 stakeholder representatives participated in the meeting, representing key government and civil society stakeholders. Further inputs to the project were provided by participants, which supported the further development of the FP. The national workshop was followed up by a set of

meetings between the EE and the key project partners (IBAP, MOA, MOE) in January 2021 to jointly incorporate the findings of the pre-feasibility study and the stakeholder meetings into the detailed design of the activities⁵⁶.

194. Additional to the project-specific consultations, OSS, in its delivery of the readiness programme, which included NDA strengthening, the establishment of no-objection procedure, and the development of a country programme, consulted a wide array of stakeholders throughout the country in a series of workshops (with equal representation of women and men).

Track Record and experience of AE and EE

195. OSS, as the AE, has a long-standing experience of working on the African continent with Sustainable Land Management and CC Adaptation projects to empower and support rural communities in their transformation towards being more climate resilient. Among others, OSS is implementing various Adaptation Fund projects in Western, Eastern and Central Africa⁵⁷, while it has other projects in the AF pipeline. Equally, OSS has played an instrumental role in the development and implementation of the Great Green Wall Initiative for Sahara and Sahel, which is supporting vulnerable farming communities, affected by CC, with nature- and ecosystem-based approaches to build their resilience. As such, the AE brings valuable and relevant knowledge, experience and expertise to the project, and is well placed to have overall management of the project. OSS is furthermore a key partner to the GoGB in its role as delivery partner for a readiness grant received by the GCF to strengthen the NDA and support Country Programming.

196. The EE, ADPP-GB is a National NGO with over 35 years of experience in implementing Cooperation for Development projects in Guinea-Bissau. It is one of the 30 independent member NGO's of the International Network Humana People to People with whom it exchanges expertise and has access to technical support whenever necessary. ADPP-GB's added value is its methodology/approach on mobilization, organization and enrolment of the small-scale farmers, the Vocational Training School in Oio and The Teacher Training School in Cacheu which trains primary school teachers for rural development, as well as the proven project management capacities through the successful implementation of projects funded by a variety of donors, among which EU, AfDB, AECID, WB, etc. Among its most relevant experiences are: "*Ianda Horticulture – Oio and Cacheu - EU - 1.940.992USD (2020/23)*"; "*Ianda Water and Energy – Oio and Tombali – EU - 649.888USD (2019/24)*"; "*Renewable Energy for local development, Oio – EU - 2.715.532USD (2011/16)*"

Stakeholder engagement

197. First and foremost, the key stakeholders are the participant farmers and communities. The project is one by and with the communities, and not one for the communities, hence farmers and community members (women and men) were and will be involved in the design, development, implementation and monitoring of all the project's activities. A participatory monitoring methodology will be facilitated and maintained throughout and beyond the project cycle. Key stakeholder identified include: Communities, Observatory Groups (OGs), Farmers' Clubs, Associations/Cooperatives, Vocational School Bissorã, the MoE, MoA, MoEB, Regional Directorates, IBAP and INPA. All throughout the project's implementation cycle, these stakeholders will be consulted through regular meetings (community-based; at local and at national level) and direct participation in project activities.

198. In accordance with GCF Social and Environmental Safeguards, stakeholder consultations and engagement will be a continuous process throughout the project cycle. A detailed stakeholder engagement plan was developed, and is included in the Environmental and Social Action Plan – Annex 10, which the project will strictly adhere to, with oversight from the AE.

D.6. Efficiency and effectiveness

D.6.1. Estimated cost per t CO₂eq, defined as total investment cost / expected lifetime emission reductions (Mitigation and Cross-cutting)

N/A

D.6.2. Expected volume of finance to be leveraged by the proposed project/programme and as a result of the Fund's financing, disaggregated by public and private sources (Mitigation and Cross-cutting)

N/A

⁵⁶ The consultative process is further detailed in Annex 12 – Environmental and Social Action Plan

⁵⁷ [to add link]

D.6.3. Describe how the financial structure is adequate and reasonable in order to achieve the proposal's objective(s), including addressing existing bottlenecks and/or barriers; providing the minimum concessionality; and without crowding out private and other public investment. (max. 500 words)

Cost-Effectiveness Study

199. The total project cost is 10 million USD. The GCF Contribution is 9.7 million USD, and co-finance will be provided by the EE. The largest section of the GCF grant will be invested in concrete adaptation benefits for the targeted communities and farmers through improved micro-scale infrastructure, investments in technical and operational capacities of farmers and producer organizations, and establishment and operationalization of CCCs. A full cost-effectiveness study (CE Study) was conducted and is annexed to this proposal (**Annex 10 – Cost-effectiveness Study of the Guinea-Bissau SAP Project**).

The key findings of the CE study are summarized as follows:

ALTERNATIVES CONSIDERED FOR THE COST-EFFECTIVENESS STUDY

200. The Adaptation of agricultural production systems in the coastal areas of Northwest Guinea Bissau project will create significant economic, social and environmental benefits and impact at household, community, national and regional levels. This cost-effectiveness analysis will evaluate two alternatives:

201. Alternative 1: The alternative to the project *Adaptation of agricultural production systems in the coastal areas of Northwest Guinea Bissau* of no project intervention, or the continuation of sectoral approaches in agricultural production and diversification in income sources, as currently underway in Guinea-Bissau.

202. Alternative 2: The economic, environmental and social benefits that the proposed *Adaptation of agricultural production systems interventions in the coastal areas of Northwest Guinea-Bissau* are expected to create in relation to increased agricultural productivity and improved livelihoods, environmental protection, mitigation benefits and climate change adaptation.

Table 12: Comparison of yield, water use and net return for four alternative rice systems with the conventional flooded paddy system (at 100%)

	Cost of the project (USD)	Number of beneficiaries	Average expenditure per beneficiary (over 5 years of project) USD	Year 1 USD	Year 2 USD	Year 3 USD	Year 4 USD	Year 5 USD	Total USD
SAP-GNB	9.990.985,00	170 Clubs 8500 agriculture family 82.450 Beneficiary	121,18	1.998.197,00	1.998.197,00	1.998.197,00	1.998.197,00	1.998.197,00	9.990.985,00
NO-Project	70.082.500,00	170 Clubs 8500 agriculture family 82.450 Beneficiary	850,00	14.016.500,00	14.016.500,00	14.016.500,00	14.016.500,00	14.016.500,00	70.082.500,00
	170 USD/year (Humanitarian AID/Beneficiary/Year)	Difference with the project		12.018.303,00	12.018.303,00	12.018.303,00	12.018.303,00	12.018.303,00	60.091.515,00

203. This cost-effectiveness analysis compares all the climate-adapted agricultural production and livelihood and income strengthening interventions defined in the proposal with the conventional system, considering the project investment and its return to the beneficiaries. Furthermore, the cost-effectiveness analysis makes a comparison between the implementation of different systems of income generating activities and in water management.

204. As shown in the study in Table 12, the SAP-GNP project with a budget of 9,955,000 USD supports 82,450 direct beneficiaries, with an average expenditure of about 120 USD per beneficiary. If the project were not implemented, to provide emergency assistance to the communities covered by the project, consisting of one meal a day, it would take more than six times the total value of the project, that is, about 60 million USD. Furthermore, the results of the project are long-lasting, incorporating the benefits of the investments made into the communities.

Alternative 1: The project *Adaptation of agricultural production systems in the coastal areas of Northwest Guinea Bissau* is not implemented

205. Without adaptation measures, agriculture in Guinea-Bissau is likely to be exposed and targeted for the worse because of climate change effects.

206. Climate scenarios for Guinea-Bissau systematically project increases in mean daily temperature up to + 1.4 °C for the period 2016-2045, with the potential to reach up to + 2.2 °C between 2046 and 2075 per low emissions scenario⁵⁸. Considering instead the worst-case scenario, with high emissions, the projected changes are even higher with temperature increases of + 1.6 °C to + 3.1 °C for the periods 2046 and 2075, respectively (Image 1). Altogether, the models point to significant increases in daily maximum and minimum temperatures in the order of +3.0 °C and +3.2 °C, respectively, particularly in the eastern part of the country⁵⁹. Regarding precipitation, the average of fourteen models used in the simulation's points to a slight increase in average daily precipitation of + 3% [2 to + 5%] for almost the entire national territory, under the low emissions scenario for the period 2016-2045. For the high emissions scenario, no significant changes are expected compared to the reference period: 1961-1990. Except for the southwestern part of the Bijagós Archipelago and part of the southern region of Tombali, where an increase of + 5 percent is expected, the projections in this scenario are generally characterized by significant variability⁶⁰.
207. The projected changes in temperature and precipitation are likely to have a substantial impact on water resources that are already limited in their ability to provide sufficient and especially adequate water for the agricultural sector. Without adequate and intelligent climate solutions, with rain-fed or rainfed agricultural production systems predominating, yields of the main food crops and livestock production are also expected to decrease⁶¹.

Alternative 2: The Adaptation of agricultural production systems in the coastal areas of Northwest Guinea Bissau project is implemented: The CRRP is expanded throughout West Africa

208. The proposed alternative to the current situation focuses on the use of an approach already tested in other climate change adaptation and mitigation projects that allows leading communities towards more economically, socially (gender) and environmentally sustainable production.
209. For rice production, the main one in the project area, the project plans to boost the Climate Resilient Rice Production (CRRP) methodology. CRRP is based on the Rice Intensification System (SRI) rice productivity enhancement methodology and is complemented with locally adapted and improved soil and water management practices, as well as integrated pest and disease management methods that are critical for climate change adaptation.
210. To produce alternative crops, such as maize, cassava (no irrigated) and vegetables (irrigated) the project will also compare traditional cultivation methods with improved cultivation methods adapted to climate change (more intensive productions, better water management - drip irrigation and ecologically sustainable systems - solar probes). In parallel, the production of plants of interest (fruit trees, medicinal plants, among others.) is compared in the following sections.

Table 13: Comparison between the benefits created by the project (Alternative 2) and the no-intervention of the project (Alternative 1)⁶²

⁵⁸ <https://www.fao.org/publications/card/en/c/CA5406EN/>

⁵⁹ Ibidem

⁶⁰ Ibidem

⁶¹ Ibidem

⁶² Tables in this section are also presented in Annex 12 – Cost-Effectiveness Study for the Guinea-Bissau SAP projects, including in Excel attachments

Output	Cost	With Project	no project
Output 1.1. Improved local observation and management systems for monitoring water and agriculture-related climate risks in Olo and Cacheu Region	458,150.00	The project aims to create an enabling environment for the sustainability and success of the initiative, nationally and centrally, with and within central government structures. The project will promote dialogue and create synergies with other initiatives (UNDP/EU) through direct communication between common implementing partners. The solutions created jointly will be piloted in the two target regions of the project. It can then be replicated at national level. In the consultations carried out with the Executing Partners, as well as in the PFS consultation seminar, the need and importance of such an initiative was confirmed and supported. 20 CCCs will be established and equipped in strategic geographic locations to cover the needs of all 34 target communities. They will cover the needs of a frontline observation center and Proximity Monitoring Stations, and will accommodate the CC teams. The CCCs will be especially relevant so that farmers and community members have access to locally generated climate information (mainly by the project itself, but also including information from other local initiatives taking place in the target area - to be collected by the EE project team and by the CC) and also received from the national systems upon completion of the project. 82450 direct beneficiaries and 170,000 indirect beneficiaries.	Without the project there will be no increase in the capacity of the local population and government to deal with natural disasters remains very weak and extreme weather events, which are increasing in frequency and impact in the context of global CC, and pose direct threats food and nutrition security of target populations. Without the project the rural population will not have adequate knowledge of CC or the ability to prepare for extreme weather events, as there is a lack of climate information and early warning. Therefore, around 202,450 people (direct + indirect beneficiaries) will have the risk of seeing their own resilience reduced with respect to CC. Without the project, and without the installation of the CCCs, there will be no real coordination between communities, local authorities and central bodies. Without the CCCs, the 34 beneficiary communities will not receive the proper training (theoretical and practical) on climate change and will not increase their own resilience.
Output 1.2. Strengthened technical capacities of decision-makers and field staff in Olo and Cacheu Region for addressing water and agriculture related climate risks	85,925.00	The development of an Operation and Maintenance (O&M) Manual for observatory tasks will entail the creation of guidelines for O&M. This will include observatory tasks and equipment, including: monitoring the correct functioning of each piece of equipment to promote preventive and corrective maintenance; repairs; inspections; and cleaning, among others. This activity will include the training of OG teams in O&M. It also includes the printing and distribution of manuals to target stakeholders, including project implementing partners and target beneficiaries. The training of key stakeholders involved in the operation and maintenance of the OG will use a community-based approach and will be carried out with the Proximity Monitoring Stations (hosted by the CCCs (A3.1.1)). Training sessions will be given to: EE field project team, CC members, and CCC management teams; representatives of the MoEB, MoA Regional Office, and MI will be invited to participate in the trainings. Special attention will be paid to the development of gender-sensitive materials, and the promotion of gender-balanced working groups.	Without the project, technicians and decision makers at central and peripheral levels will not increase their knowledge about the risks linked to climate change and adaptation and mitigation measures can be implemented. Without the project all knowledge will not be capitalized through the development of an Operation and Maintenance (O&M) Manual for observatory tasks will imply the creation of guidelines for O&M.
Output 1.3. Improved availability and accessibility to knowledge on water and agriculture-related climate risks and adaptation options	216,400.00	Synthesize existing knowledge about CC and make it available to active stakeholders in the country. The project identified a significant number of CC-related initiatives underway and in preparation in the country, thus confirming the need to create platforms and forums where these initiatives can be consulted, lessons learned can be shared and synergies created to improve solutions success and increase the impact of such initiatives. There is a lack of opportunities for dialogue to strengthen the capacity of active stakeholders and to coordinate individual efforts to address the impacts of CC.	Without the project, it will not be possible to know the real and detailed situation in which the communities in the region of Olo and Cacheu live and are preparing for the CC. As a result, it will not be possible to publicize them in local forums in order to keep people aware of their future.
Output 2.1. Community-based water management is improved and adapted towards climate risks, including salt-water intrusion and extreme weather events	1,544,250.00	Installation of "bolonhas": The "bolonhas" targeted by this activity belong to the 8,500 families (170 Farmers' Clubs) and to the 34 communities targeted by the project. Part of the pre-selection criteria for target communities was the existence of available fields and their need for intervention. From previous interventions and according to the field pre-assessment done, most target households have 0.2ha to 2ha of available field, with some exceptions having up to 3ha and more. It is estimated that this activity could reach 7,000ha by the end of the project. The exact numbers must be confirmed in the baseline study. 17 rainwater retention systems per target region, for a total of 34 - one per target community, and 20 individual home roof retention systems, including locally manufactured tank/tank, one for each CCC. Access to fresh water will thus be improved in all 34 target communities.	Without the project, the recovery of soils lost to agriculture will not begin. 40. Nationally, of the 50,000 ha of rice fields farmed by farmers, it is estimated that around 20,000 ha have been successively abandoned or never fully utilized, due to broken dikes or inadequate land preparation. WITHOUT THE PROJECT, THE 7,000 ha intended to be rehabilitated will still be unused (7,000 ha - more than 1/3 of the total lost ha). Without the project 8500 farming families will recover their own fields, will not start adopting the SRI rice production system and will continue to be food insecure.
Output 2.2. Mangrove ecosystems are better managed, as an ecosystem-based adaptation measure towards salt-water intrusion	343,030.00	The project will establish 4 mangrove and coastal tree nurseries (2 per target region). The activity will be implemented by the EE project team with the support of IBAP as Executing Partner and will include communities in a participatory manner, particularly young people and the elderly. The project will protect/restore 250ha of mangrove forest as follows: Each Farmers Club (A3.2.3.) of approximately 50 members will assume responsibility for overseeing approximately 1.5ha of mangrove forest	Without the project, the reforestation of the mangroves will not start, which allows for the maintenance of an environmental balance and thus production in the areas adjacent to them. Without the project, 250 ha of mangroves will not be rehabilitated, to be rehabilitated by the beneficiary communities after the awareness work
Output 3.2. Increased and diversified food production of smallholder farmers	4,654,770.00	Establishment, organization and regular training in CIA practices in Model Lots of 170 Farmers' Clubs- 8,500 farmers (70% women) - 82,450 people. Farmers will receive the ok production KIT depending on the baseline study findings. The Farmers Club system comprises approximately 50 members per Club, subdivided into 5 core groups of 10 members with 1 leader and 5 frontline farmers. This division and distribution takes place naturally in a participatory way with the beneficiaries; is done on a voluntary basis or based on suggestion or through election by the group.	Without the project, the Farmers' Clubs (170) will not be installed and the resilience of communities will not be increased through diversification of production and sources of income. Thus keeping 8500 families in food insecurity. Without the project, the rice production methodology will not be installed: Sustainable Rice Intensification (SRI) and Climate Resilient Rice Production (CRRP)
Output 3.3. Increased income options in climate-resilient economic activities along agricultural value chains	746,080.00	The project envisages providing target groups with a funding opportunity through a call for proposals - for small amounts - and a grant award to selected candidate rural small businesses, in response to the lack of available and affordable financial support from the banking system and the private sector. 20 new microenterprises and enterprises (IGAs) will be established by project beneficiaries, at least 50% led by women. In addition, 20 existing micro-enterprises will be formed and equipped with the initial equipment and investments necessary to develop their commercial activities.	Without the project, 20 existing microenterprises and 20 microenterprises to be installed during the project will not receive the support and technical assistance necessary to maintain their own sustainable production and contribute to strengthening the value chains of the productions chosen by them.

COST-EFFECTIVENESS STUDY FOR THE ALTERNATIVES

211. The cost-effectiveness analysis will compare the alternatives:

- Rice, with and without project
- Agricultural productions, with and without project
- Alternatives for diversification of income sources

212. The production costs, return and benefit of improved yields compared to the conventional method at plot level of the different crop productions are based on detailed input and labour costs per hectare, expected yield (kg/ha), plot income (yield x price) and plot benefit (yield - costs).

Cost-Effectiveness Analysis on Rice production

213. Rice farming without Project with traditional practices with Project implementation represented by the currently implemented conventional rice production practices (called Conventional or CONV in this analysis), and the SRI-CRRP methodology in West Africa with the SAP-GNB project (called SRI-CRRP), it is another crucial point of SAP-GNB.

214. In this analysis (table 3), the production of conventional rice was compared with the SRI rice and the analysis identified an increase of more than 250%, going from 1500 kg/ha to 3500kg/ha, and the production costs had an increase much lower than the benefits. In this analysis, the gains went from 483 USD to 1899 USD with a percentage increment of gains that was almost 300% (293%), equivalent to 1,416 USD (Table 2).

215. Considering the environmental benefits of the installation of the SRI-CRRP ploughs, the analysis can only confirm the importance of the installation of this methodology for immediate, medium- and long-term results.

Cost-Effectiveness Analysis on Agriculture production

216. The traditional agricultural production without the SAP-GNB Project with adapted agricultural production and introduction of irrigation techniques with the SAP-GNB Project, is analyzed in this section using table 14.

217. At the level of agricultural production, traditional production (rain-fed Mays, Cassava, etc.) and horticulture with a motor pump and furrow irrigation were compared with the sustainable production systems promoted by the project: drip irrigation and motor pump, drip irrigation and solar system, drip irrigation, solar system and greenhouse (for nursery). Again, all

222. In this case, considering that they are considered new activities, the benefits of the activities and the efficiency of the different investments were studied, calculating the necessary initial expenses, the operating costs and the profits, thus calculating the IRT of the different investments. The activities linked to the diversification of income sources (8: fishing, Aquaculture, Beekeeping and honey production, Goat farming, sheep Farming, cattle breeding, pig farming, Poultry farming), were compared with the others linked to agriculture and previously studied (Conventional Rice, Climate-Resilient Rice Production (CRRP), Tubers (Mays, Mandioc, Sweet potatoes, and other non-irrigated crops), Horticulture and fruit growing - Motor pump + furrow irrigation, Horticulture and fruit growing - Motor pump + drop by drop, Horticulture and fruit growing - Solar system + Electropump + drop by drop, nursery fruit and medicinal plants - Solar system + Electropump + drop by drop), thus totaling the analysis of 15 income generating activities.
223. The analysis was based on the analysis of the initial investment necessary to carry out the activity, the management costs (including the calculation of depreciation), the annual earnings and thus the profits. Finally, the IRR was calculated at 5 years (end of the project) and at 10 years (after 5 years of the end of the project).
224. As can be seen from the table 15 traditional rice is the worst investment, with an IRR of 10%, followed by pig and cow production and horticulture with motor pumps and furrow irrigation systems. Poultry production, beekeeping, goat production and aquaculture, present the highest IRR values, being 69%, 61%, 48%, 47% respectively. Finally, the SRI-CRRP rice and solar powered drip irrigation systems show excellent results, with values of 30%, 30 and 35% respectively. For that which refers to the exploitation of ruminants, analyzing also the environmental and social aspect, it is advisable to privilege the production of goats and ovine in a combined way, being that they present a very strong alimentary synergy (goats prefer arboreal and bush pasture, being that the ovine prefer grass), it is not advisable the bovines because, besides having a much longer productive cycle and besides needing a bigger initial investment, it has greater demands in terms of pasture and a lesser index of conversion.
225. Among the monogastric animals, pig production should be avoided because, besides having lower economic yields than the others, they are subject to the African swine fever, which in many contexts has decimated family productions, even when these have increased the bovine population and thus increased the population density and the risk of diffusion. Also in this case, the market analysis guarantees a high demand for the product, since no depreciations linked to an increase in supply are foreseen. Furthermore, the exploitation of chickens is traditionally carried out by women, so that by increasing this activity the role of women within the community will be directly reinforced. Fishing and aquaculture both present great potentialities. Also in this case, the high demand for the product does not show problems related to increasing the supply. For fishing, the current stock must be analyzed to estimate the volume of fishing possible in line with the environmental regeneration capacities, maybe during the Baseline Study. For aquaculture, it is necessary to study the areas that guarantee the safe digging of the tank and with clay soils that allow a more economical production of the paving. The production can be carried out in an intensive way (with certified alevins and industrial feed) or traditional (with alevins captured in the rivers and local feed). In short, beekeeping has a very high potential. By providing a protection kit and an extraction and bottling kit, experiments carried out in other countries show great productive increases (besides an increase in the bee population). Also in this case, the whole extraction, filtering and bottling phase is traditionally carried out by women, and they themselves manage the inputs of the activity.

	Area/quantity	Initial investment	annual profit	annual expenditure (including running and maintenance costs)	annual gain (stabilised at 3 years)	Abortion 10% (10 years)	current gain	internal rate of return (IRR) - 5 years	internal rate of return (IRR) - 10 years	
1	Conventional Rice	1 Ha	3.313,33	3.090,31	608,38	482,73	331,38	10%	22%	
2	Climate-Resilient Rice Production (CRRP)	1 Ha	3.087,27	2.576,95	616,36	389,10	3.098,17	29%	38%	
3	Tubers (Mays, Mandioc, Sweet potatoes, and other non-irrigated crops)	1 Ha	1.087,27	1.277,27	650,00	577,27	208,73	46%	31%	
4	Horticulture and fruit growing - Motor pump + furrow irrigation	1 Ha	2.087,27	4.545,45	3.586,33	959,12	208,73	750,39	14%	26%
5	Horticulture and fruit growing - Motor pump + drop by drop	1 Ha	5.587,27	6.000,00	2.993,97	3.050,03	558,73	2.493,38	23%	32%
6	Horticulture and fruit growing - Solar system + Electropump + drop by drop	1 Ha	8.087,27	6.576,95	1.495,44	5.050,01	808,73	4.261,28	30%	38%
7	Nursery fruit and medicinal plants - Solar system + Electropump + drop by drop	1 Ha	9.240,62	10.000,00	3.673,61	6.326,37	924,06	5.402,31	35%	43%
8	Fishing	1 fishing equipment	800,00	1.920,00	1.908,00	612,00	80,00	532,00	42%	48%
9	Aquaculture	1 tank (with fingerlings and feed for 1st production)	3.888,00	6.000,00	2.739,27	3.260,73	388,80	2.871,93	47%	53%
10	Beekeeping and honey production	1 KIT (2 protective suits 1 press, 1 filter 1 decanter)	2.160,00	3.000,00	777,00	2.223,00	216,00	2.007,00	61%	66%
11	Goat farming	1 KIT (1 male - 4 females + local sheepfold)	863,64	900,00	163,64	736,36	86,36	650,00	48%	54%
12	Sheep Farming	2 KIT (1 male - 4 females + local sheepfold)	954,55	800,00	163,64	636,36	95,45	540,91	34%	41%
13	Cattle breeding	1 KIT (1 male - 3 females + local sheepfold)	1.690,91	1.112,73	327,27	785,45	169,09	616,36	15%	26%
14	Pig farming	1 KIT (1 male - 4 females + local sheepfold)	927,27	749,09	327,27	421,82	92,73	329,09	14%	25%
15	Poultry farming	1 KIT (1 Rooster - 10 chickens + local sheepfold)	1.273,35	1.948,18	490,91	1.457,27	127,34	1.329,94	69%	73%

Table 15: Comparative Cost-Effectiveness Analysis of the Investment Projects proposed by the intervention in agricultural production and diversification of income sources.

FINANCIAL ANALYSIS

226. The financial analysis for the cost effectiveness of the project is presented in Table 5. The financial profitability of the project investment is determined by the project cost components and the estimated financial benefits obtained through the project interventions based on the following financial appraisal techniques: i) cash flow ii) benefit cost ratio, iii) net present value (NPV), and iv) internal rate of return (IRR).
227. For the calculation of the benefits, only the benefits related to the increase of the beneficiaries' income were calculated, since the social and environmental benefits have already been calculated in another part of this analysis, not monetizing them, since they are not monetary goods.
228. Every analysis was carried out in a precautionary way, calculating that at the end of the project only 50% of the beneficiaries will have reached economic and financial sustainability, whether for the SRI rice production activity or for the diversified income generating activities directed to women.

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
A. Cost Components						
Component 1	287 990,00	124 652,50	104 740,00	135 952,50	107 140,00	760 475,00
Component 2	804 183,67	810 013,67	102 738,67	85 172,00	85 172,00	1 887 280,00
Component 3	3 112 753,00	1 933 666,33	785 123,00	566 948,00	426 389,67	6 824 880,00
Execution costs (management units)	144 070,00	90 570,00	96 570,00	90 570,00	96 570,00	518 350,00
Implementation costs (management unit)						-
Total costs (A)	4 348 996,67	2 958 902,50	1 089 171,67	878 642,50	715 271,67	9 990 985,00
B. Financial benefits						
Study/Consultancy Benefits						
Benefits for trainers and extension services						
Benefits for rice farmers	1 088 000	1 360 000	1 700 000	2 125 000	2 656 250	8 929 250
Benefits for diversified producer farmers	2 741 791	3 427 239	4 284 048	5 355 060	6 693 825	22 501 964
Benefits for producer associations/groups						
Total financial benefits (B)	3 829 791	4 787 239	5 984 048	7 480 060	9 350 075	31 431 214
Cash flow (BA)	-519 206	1 828 336	4 894 877	6 601 418	8 634 804	21 440 229
Benefit Cost Ratio (B/A)	0,88	1,62	5,49	8,51	13,07	3,15
Net Present Value (NPV)						18 366 652
Internal Rate of Return (IRR)						44%

Table 16: Financial analysis for project cost-effectiveness

229. The financial analysis indicates a positive cost-benefit ratio of 3.15. The NPV is positive with \$18.36 million, and the internal rate of return is also positive with 44%. An important aspect to consider is that the additional benefits from the implementation of the project will continue in the future to occur on an annual basis. The proposed project is therefore very cost effective and worth the investment.

CONCLUSIONS

230. Considering this situation, cost-effectiveness analysis has shown that investments in planned interventions will be effective in building community resilience to climate change, creating local conditions to strengthen livelihoods and access to water and agriculture production, improve knowledge and awareness of environmental protection and preservation, and improve community collaboration of public, private and network institutions.
231. The SAP-GNB project is very important for the creation of household and business performance at the local level because it could stimulate the market and influence other actors not directly involved in the project. At the same time, the SAP-GNB project is an important contribution to these regions and to the country for some "novelties": climate change centers, which will help communities to have more knowledge about environmental issues related to agricultural production activity, networking through cooperatives, improvement of water quality both for irrigation and consumption, introduction of agricultural practices adapted to climate, support in the creation of small local businesses and especially women empowerment, which will be the focus of all activities.
232. Considering that populations live cyclically and periodically affected by disasters, the investments made on the territory by the interventions of the SAP-GNB Project represent a concrete possibility to change the condition of vulnerability in which they find themselves, improving their livelihoods, income, relationship, and interaction with the environment and therefore the future itself.

Adequacy

233. A GCF grant is not only adequate, but critical for this project, given the country's current economic situation. GB, as an LDC and a SIDS, has little capacity for concessional debt financing for its adaptation investments. This has become even more adequate considering the country's instability and the constraints that the Covid-19 pandemic situation has placed and will place on global and national economies, as well as on the state budget which is being directed towards Covid-response and recovery. The GoGB's financial means to address the Adaptation challenge of its rural populations are highly constrained.

Equally, the smallholder farmers and rural communities targeted by the project have little capacity to meet the additional costs that come with adaptation. Considering the high levels of extreme poverty and food insecurity as described in the sections above, one could say that the GCF grant could make the difference between life and death for some of the most vulnerable households.

Benefits

234. As per the theory of change and the project design, the benefits of the project are foremost at household and community-level, strengthened by capacity-gains for government institutions in Component 1. The project enhances and diversifies production and income in a climate-resilient manner, while climate-proofing farmlands and information systems that support the agriculture sector, which altogether will contribute to increases in income and availability of food for the targeted households. The enabling environment established with Observation Groups, strengthened information channels and systems, and strengthened Producer Organization, providing a framework for sustained incremental benefits, as well establishing the foundations for accessing credits, insurance products and markets.

Value for money

235. Considering the total cost of the project and the total number of beneficiaries, the total Adaptation Investment per direct beneficiary is 121 USD, or 24 USD per year. When looking at indirect beneficiaries the cost of adaptation comes down to 49 USD per beneficiary or 10 USD per year. The investments will have a rate of return for the communities that is a multifold of this, as the project introduces a combination of activities that will increase and improve production, and builds sustained incremental benefits both at organizational level as to household economy. The increase in annual household income is modestly estimated at 50% by the end of the 5-year project, and if little significant changes in external variables (e.g. extreme shocks or inflation) are assumed, a 10% average annual increase can be estimated, modestly.

236. Access to water and soil quality information, and improved capacities to respond to climate risks will reduce harvest and income losses in times of distress, equally resulting in reduced coping mechanisms such as sale of assets or overexploitation of natural resources. Co-benefits gained by the project, such as improved and diversified nutrition from horticulture production will further reduce household expenditures in health and food purchases. Altogether, it can be assumed that improved and climate-resilient economic growth will lead to further investments and job and/or income-generating opportunities. In addition, it can be assumed that there will be positive spillover effects to neighboring communities in the targeted Sectors and Regions, as the uptake of new practices and methods is not cost-intensive and farmers trained by the project, as well as CCCs, will continue their work and be accessible for others.

Efficiency and effectiveness

237. The project is built on existing national capacities, resources and experiences in GB, both at the governmental and civil society level, making the project considerably cost-effective and efficient. These capacities include government services and programmes such as extension worker networks. The project also builds upon the capacities, experiences and on-the-ground structures and presence from the EE that has been working with rural GB communities for multiple decades and from project partner IBAP, whom each brings specific technical expertise to the project. Thereby the project is eliminating potential costs that would for example come with 'importing' experts from other countries. Synergies with existing initiatives contribute further to that, as does the approach, community and group-based, generating high adaptation impacts with relatively limited resources.

Scalability potential

238. The project model, which is easily scalable and/or replicable, and its results will allow for further leveraging public and private finance into similar adaptation interventions, as both social and economic benefits at various levels will be significant. Continuation and replication of the project's results by public finance are aimed for through the direct involvement of government services, including the NDA and other CC-affected and adaptation-prioritized sectors, under the assumption that more finances will be channelled to CC adaptation in the near and far future, both from state budgets as from international support, as agreed under the Paris Agreement.

[1] <https://donnees.banquemondiale.org/indicateur/NY.GDP.MKTP.KD.ZG?locations=XE>

[2] <https://unstats.un.org/unsd/snaama/Index>

E. ANNEXES

E.1. Mandatory annexes

- Annex 1 NDA No-objection Letter(s) ([Template](#))
- Annex 2 Pre-feasibility (or feasibility) study ([Guidance](#))
- Annex 2a Logical Framework ([Template](#))
- Annex 2b Timetable ([Template](#))
- Annex 3 Budget plan that provides breakdown by type of expense ([Template](#))
- Annex 4 Gender assessment and action plan ([Template](#))
- Annex 5 Co-financing commitment letter
- Annex 6 Term sheet and evidence of internal approval
- Annex 7 Risk assessment and management ([Template](#))
- Annex 8 Procurement plan model ([Template](#))
- Annex 9a Legal Due Diligence (regulation, taxation and insurance) ([Template](#))
- Annex 9b Legal Opinion/Certificate of Internal Approvals ([Template](#))

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

- Annex 10 Economic and/or financial analysis ([Guidance](#))
(mandatory for private-sector proposals)
- Annex 11 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- Annex 12 Environmental and Social Action Plan (ESAP) ([Template](#))
- Annex 22 Assessment of GHG emission reductions and their monitoring and reporting (for mitigation and cross cutting-projects)⁶³
- Annex xx Other references
Pre-Feasibility Study, including Annexes:
 - (a) Freshwater Assessment;
 - (b) CSA Climate Rationale
 - (c) Coastal Management and Conservation Baseline Assessment;
 - (d) Vulnerability Assessment

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

⁶³ Annex 22 is mandatory for mitigation and cross-cutting projects.

No-objection letter issued by the national designated authority(ies) or focal point(s)



GOVERNO DA
GUINÉ-BISSAU

MINISTÉRIO DO AMBIENTE E BIODIVERSIDADE

O Ministro

To: The Green Climate Fund ("GCF")

N/Ref *224* MAB/2022

Bissau, September 21, 2022

Re: Funding proposal for the GCF by Sahara and Sahel Observatory regarding Adaptation of agricultural production system in Coastal Areas of Northwest Guinea-Bissau

Dear Madam, Sir,

We refer to the project titled *Adaptation of agricultural production system in Coastal Areas of Northwest Guinea-Bissau in Guinea-Bissau* as included in the funding proposal submitted by **Sahara and Sahel Observatory** to us on 04 August 2022.

The undersigned is the duly authorized representative of **Mr. Viriato Luís Soares Cassamá**, the National Designated Authority of Guinea-Bissau.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the project as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Guinea-Bissau has no-objection to the project as included in the funding proposal;
- (b) The project as included in the funding proposal is in conformity with the national priorities, strategies and plans of Guinea-Bissau;
- (c) In accordance with the GCF's environmental and social safeguards, the project as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the projects included in the funding proposal has been duly followed.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

Viriato Luís Soares Cassamá

GCF Focal Point


Secretariat's assessment of SAP025

Proposal name:	Adaptation of agricultural production systems in Coastal Areas of Northwest Guinea-Bissau
Accredited entity:	Sahara and Sahel Observatory (OSS)
Country/(ies):	Guinea-Bissau
Project/programme size:	Micro

I. Summary of the Secretariat's assessment

- The funding proposal is presented to the Board for consideration with the following remarks.

Strengths	Points of caution
The project targets one of the most climate-vulnerable and least prepared countries in the world: a coastal West African least developed country affected by sea level rise, saltwater intrusion, a hotter climate and increasingly irregular precipitation. It is fully aligned with national adaptation plans that highlight the risk to agriculture and coastal areas.	A paucity of data on saline water intrusion hampers the ability of the project to identify the climate problem and fine-tune the design. The accredited entity (AE) adequately adapted the project design by targeting communities that have lost mangrove rice fields to salinization, most likely due to climate change; this is a trend that is expected to increase. The project will also boost capabilities for monitoring water and soil to address the lack of data.
The project takes an ecosystem-based adaptation approach to climate resilience using traditional mangrove rice systems. Mangroves are highly biodiverse ecosystems, and are also vital for coastal protection and saline intrusion protection. Guinea-Bissau has 2.5 per cent of all mangrove area in the world and provides fertile ground for scaling up this initiative.	The project is recommended to involve technical partners and link up with other regional initiatives on coastal agriculture and mangroves in order to ensure that the System of Rice Intensification and other practices are carried out in the most impactful manner.
Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau, the executing entity, has a strong presence on the ground and experience in agricultural development and the establishment of Farmers' Clubs, which will be the primary delivery mechanism of knowledge and input to farmers.	

- Guinea-Bissau is a small coastal country in West Africa with high vulnerability to climate change, particularly in the form of seawater intrusion (SWI), which can reach up to 175 kilometres inland in the dry season, as well as the late onset of rainy seasons, irregular and

more intense precipitation events, hotter and drier climate, and sea level rise in coastal areas. With 338,652 hectares of mangroves (9 per cent of its territory), it is the second African country with the largest extension of mangroves, and represents 2.5 per cent of the total mangrove area in the world. Mangroves in Guinea-Bissau provide an ample range of benefits, as they are highly biodiverse and protect coastal areas, and rice is grown in the mangrove rice fields.

3. Climate trends are projected to result in increasingly severe impacts on key sectors of the economy of Guinea-Bissau. The main focus of the project is the agricultural sector, which is concentrated in low coastal areas and represents over 50 per cent of the gross domestic product and over 80 per cent of employment, and is also a key source of exports. The sector is severely affected by SWI, floods and higher tides, as well as the mentioned changes in precipitation patterns. SWI has led to the increased salinization and acidification of soils, forcing the abandonment of some fields, particularly mangrove rice systems along rivers which were traditionally tidally flooded. At the same time, changes in the rainy season have led to delayed planting and reduced yields in recent years (38 per cent in 2014 and 5 per cent in 2017). Despite a paucity of data, anecdotal and extrapolated evidence suggest that the farmland in the region is currently being affected by higher sea level rise and tidal surges. These allow seawater to flow into upstream rivers, directly inundating agricultural land, and cause SWI into groundwater bodies.

4. The project aims to strengthen and adapt food value chains to climate risk by introducing the System of Rice Intensification (SRI) – a knowledge-intensive set of techniques that have been proven to increase rice yields across varieties and in different environments – to food-insecure communities without access to technical, mechanical, input, adapted seeds or other support. Approx. 250 hectares of mangroves will be restored or reforested through community action, nurseries and planting activities, thereby helping to contain SWI, providing coastal protection, and enhancing the health and resilience of these vital ecosystems. The project will also improve water access and management, focusing on:

- (a) Ecosystem-based, low-cost adaptation approaches;
- (b) Water management infrastructure to prevent SWI (mini-dikes, field partialization);
- (c) Water management systems including rainwater retention, water points, and water management committees; and
- (d) Small-scale irrigation schemes. These two elements form component 2.

5. Component 3 will in turn focus on strengthening the resilience of communities through diversified livelihoods and climate-resilient agricultural value chains. GCF will support the establishment of 170 Farmers' Clubs (for 8,500 farmers), which will receive training in climate-resilient agriculture practices and build mutual support mechanisms. It will also support the establishment of 40 micro-enterprises and commercial associations linked to rice, cassava, maize, peanuts and mango.

6. Component 1 will help address the data, knowledge and capacity gaps of the project, with an important focus on monitoring systems for water and soil. This will enable the informed management of mangrove rice agroecosystems. It will also help form Observatory Groups that integrate adaptation knowledge and inform action on climate-resilient agriculture.

7. Communities to be selected include:

- (a) Communities in coastal areas;
- (b) Communities that participate in mangrove rice production and the respective arable land that is at risk of SWI and coastal erosion;
- (c) Communities with degraded but recoverable rice fields (bolanhas);

- (d) Communities with 150 to 500 families that show interest in participating in the project; and
- (e) Communities whose households are dependent on natural resources.

8. The proposal has looked into existing efforts to strengthen the climate resilience of mangrove and agricultural systems in Guinea-Bissau, including three Global Environment Facility projects by United Nations Development Programme and initiatives by the European Union, Agence Française de Développement and the International Union for Conservation of Nature, among other entities. Synergies have been considered and incorporated into the proposal’s design, mainly through collaboration with common project partners and the use of knowledge materials and lessons learned.

Table 1: Project financing

Source	Amount (USD)	Use	Amount (USD)
GCF	9,807,800 (grant)	Observation and management of water, soil and agricultural practices	2,559,100
		Knowledge and capacity-building	1,241,225
ADPP-GB	147,200 (in-kind)	Water management, mangrove restoration and rice cultivation practices	2,141,300
Total	9,955,000	Income diversification and resilient agricultural value chains	3,531,010

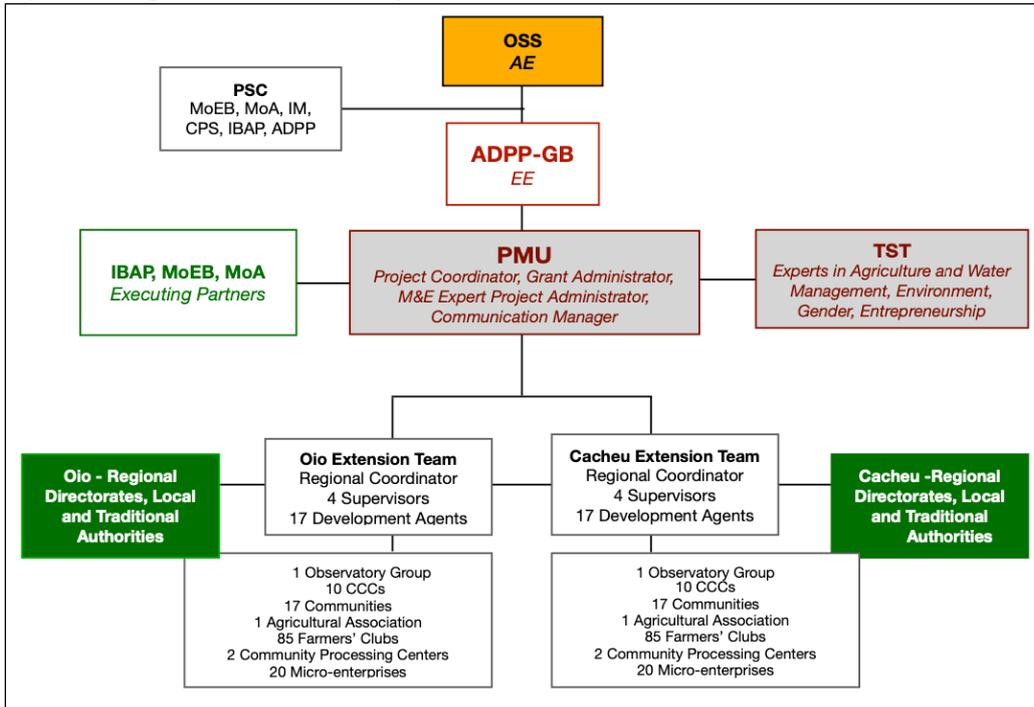
9. The project will be executed through Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau (ADPP-GB), a national non-governmental organization (NGO) with 41 years of experience in development projects, including Farmers’ Clubs. ADPP-GB will host the Project Management Unit, which will conduct all purchases and procurement, including equipment and materials necessary for the micro-enterprises established through component 3. A capacity assessment of ADPP-GB has not yet been provided. The executing entity (EE) has received assistance from or worked in the past with the African Development Bank, European Union, United States of America Department of Defense, and the Global Fund to Fight AIDS, Tuberculosis and Malaria, among other organizations.

10. ADPP-GB will engage the Ministry of Environment and Biodiversity (MoEB, which is the national designated authority), the Ministry of Agriculture (MoA) and the Institute of Biodiversity and Protected Areas (IBAP) as project partners, which support the delivery of activities related to mangroves and agriculture with their technical expertise, monitoring, and extension systems. These entities have been involved in the project since its inception. IBAP will lead the efforts for the protection and restoration of mangrove areas and will, among other things, contribute to strengthening Cacheu Mangrove Natural Park by leveraging the positive impacts of the project in its surrounding area.

11. The Board may wish to consider approving this funding proposal with the terms and conditions listed in the respective term sheet and addendum XIII titled “List of proposed conditions and recommendations”.

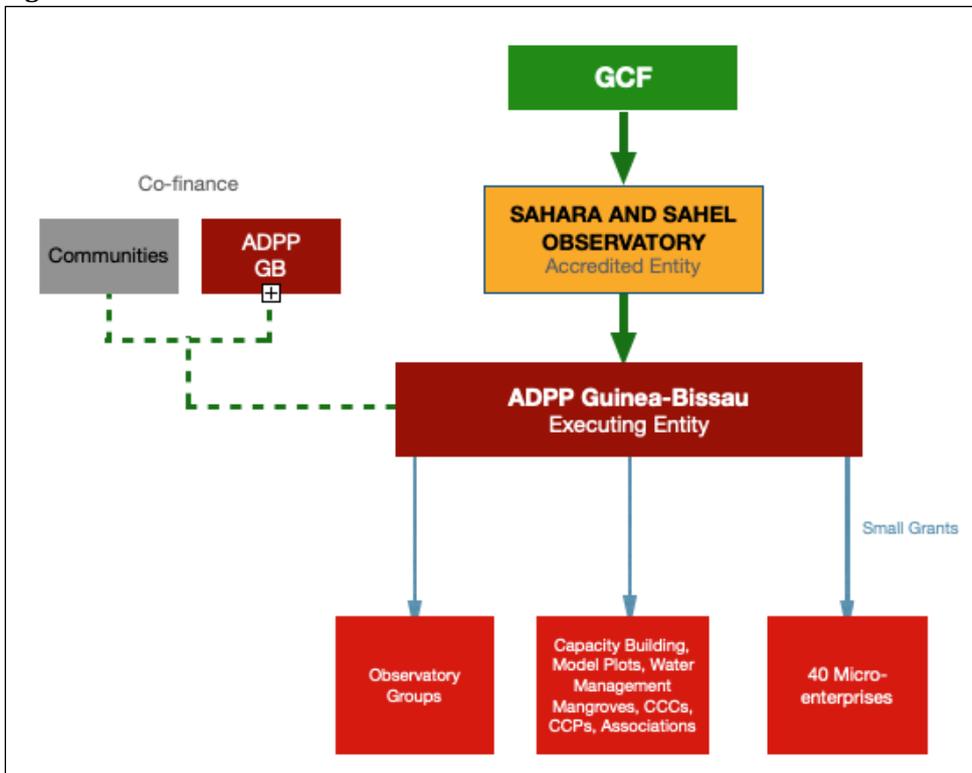


Figure 1. Implementation arrangements



PSC: Project Steering Committee; MoEB: Ministry of Environment and Biodiversity; MoA: Ministry of Agriculture; IM: Institute of Meteorology; CPS: Civil Protection Services; IBAP: Institute for Biodiversity and Protected Areas; ADPP-GB: Ajuda Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau; PMU: Project Management Unit; TST: Technical Support Team; CCC: Community Climate Centres.

Figure 2. Flow of funds



CCP: Processing and Marketing Centre. For other acronyms: see above.

II. Assessment of performance against investment criteria

12. The Secretariat team considers the proposal to be strongly aligned with its investment criteria, especially in terms of paradigm shift, sustainable development and needs of the recipient.

2.1 Impact potential

Scale: N/A

13. The project is expected to support the livelihoods and food and water security of 8,500 households in the regions of Oio and Cacheu, with a total of 82,450 direct beneficiaries (4.5 per cent of the total population). The project will specifically support women, which will make up 70 per cent of the 8,500 small-scale farmers in Farmers' Clubs benefitting from model plots, community horticulture plots, and capacity-building in climate-resilient agriculture and adaptation. Vocational courses on climate-resilient agriculture, animal husbandry, post-harvest practices and business management will be provided to 460 young people (50 per cent women), as well as general literacy for 1,360 people (1,000 women) and awareness-raising and sensitization (40,000 people).

14. An additional 120,000 indirect beneficiaries (6.4 per cent of the total population) will benefit from the knowledge and infrastructure created, including the total population of the two regions.

15. Improved rice cultivation techniques and water management in mangroves is expected to result in a yield increase of 50 per cent, helping strengthen the food security of the target vulnerable population. The improved management of 250 hectares of mangroves will contribute to the health and resilience of these highly biodiverse and valuable ecosystems for coastal protection.

2.2 Paradigm shift potential

Scale: N/A

16. The project will introduce the set of knowledge-intensive cultivation techniques known as SRI to the target areas thanks to the use of model and community plots through the Farmers' Clubs. SRI has yielded positive results in up to 40 countries, and will be newly introduced to Guinea-Bissau. This will also be supported by building the enabling environment for climate-resilient agriculture throughout the value chain and providing materials and the capacity necessary to establish community post-harvest systems.

17. The project will also establish observation systems that will enable the monitoring of soil and water. This will address the lack of data and knowledge that hampers the management of rice mangrove systems, which is precisely one of the gaps in the present proposal.

18. The project is a small-scale intervention targeting only 250 hectares of the 338,652 hectares of mangrove ecosystems in the country. A vital aspect of the funding proposal is thus the extent to which it can enable a paradigm shift in its approach to adaptation in the agricultural and water management sectors. The project provides a well-thought-out strategy to enable the generation and use of lessons learned for the replication and upscaling of such interventions in the future, setting up a paradigm of climate-resilient agriculture going hand-in-hand with sustainable ecosystem-based adaptation approaches. Knowledge generation will be enhanced via the establishment of Observatory Groups in component 1, which will support the generation, management and dissemination of data and knowledge products on climate-resilient agriculture and ecosystem-based adaptation. Scaling up would be possible through the project's executing partners (MoEB, MoA and IBAP) and by using the observation systems and knowledge established by the project.

2.3 Sustainable development potential

Scale: N/A

19. The project is likely to achieve highly relevant social, economic and environmental benefits through its ecosystem-based adaptation perspective focusing on mangrove rice agro-ecosystems. The conservation of mangroves and climate-resilient agricultural practices, as well as improved data for water and land management, will directly lead to improved water availability, enhanced soil quality, reduced environmental impacts from salinization, and reduced erosion. Indirectly, increased productivity will also reduce the need to develop further agricultural land, reducing the pressure on ecosystems.

20. Activities to develop alternative livelihoods and agriculture value chains will build capacity and jobs for local communities and should have a strong impact on local economies. Diversification of incomes and access to markets is estimated to increase the income of 6,000 households by 50 per cent. By targeting women in particular (70 per cent of beneficiary farmers) and providing equipment that can substitute hard labour (e.g. micro-irrigation), the project is also expected to improve women's roles in the community, especially on climate change issues, and reduce the physical burden borne primarily by women and children.

2.4 Needs of the recipient

Scale: N/A

21. As specified in its eligibility criteria, the project targets highly vulnerable communities in the regions of Oio and Cacheu, which are agricultural communities highly dependent on natural resources, at risk of SWI and coastal erosion, and with degraded but recoverable rice fields. In addition, the project targets a least developed country with strong climate vulnerability (third highest per the University of Notre Dame Global Adaptation Initiative ND-GAIN index) and with a very low level of preparedness. The project thus ranks very high in terms of the needs of its recipient, and can be highly impactful if approaches can be scaled up along its coastline.

2.5 Country ownership

Scale: N/A

22. Ownership of the project by the country is high. The project is based on national priorities for climate change adaptation as identified in Guinea-Bissau's nationally determined contribution (NDC) and its national adaptation programme of action (NAPA), and is informed by the findings of its third national communication to the United Nations Framework Convention on Climate Change. The NDC and the NAPA recommend adaptation actions in the agriculture sector and capacity-strengthening as key interventions for dealing with climate variability and change in the agriculture sector. The salinization of soils and water in coastal areas is identified as a key climate risk in the country. Additionally, the project is aligned with the targets set in the Terra Ranka 2015–2025, Guinea-Bissau's national development plan.

23. In addition to this, the implementation structure of the project denotes the involvement of grassroots stakeholders with the Government of Guinea-Bissau. The EE is a national NGO with long-standing experience in development projects and presence on the ground, whereas governmental departments and associated research institutes (IBAP) are involved in the execution and are key part of the knowledge-building and scaling-up strategies of the project. The project will also help organize community-level action on climate change adaptation, mangrove conservation and climate-resilient agriculture through Farmers' Clubs and community associations.

2.6 Efficiency and effectiveness

Scale: N/A

24. According to the Organisation for Economic Co-operation and Development Development Assistant Committee's climate finance statistics, Guinea-Bissau received USD 83 million in adaptation finance between 2012 and 2020. Adaptation finance was USD 43 per capita over this period; it is one of the countries that attracted the least amount of finance. According to the Global Financial Development Database, 71.6 per cent of firms in Guinea-Bissau identify access to finance as a major constraint, and only 0.7 per cent use bank loans to finance investment. This general context indicates that finance is scarce for the agriculture sector in Guinea-Bissau, and that the country is underserved in adaptation finance.

25. GCF is covering 98 per cent of the funding through a grant with the remaining 2 per cent being contributed in-kind by ADPP-GB. It has been noted that financial and budgetary constraints have made it difficult for the accredited entity (AE) to secure additional co-financing, including from the EE and the Government of Guinea-Bissau. Approximately 57 per cent of the budget is directly aimed at activities on the ground benefitting communities, with a further 26 per cent for equipment and training to improve water, agriculture and ecosystem management.

26. In terms of the cost-effectiveness of the interventions and justification for the GCF grant, the project's cost to impact ratio is 120 USD per beneficiary, in the lower range for activities without immediate financial return. The AE conducted a detailed cost-effectiveness analysis comparing a no-project scenario focusing on rice production, and the alternative income generation activities suggested under the project's outcomes 2 and 3.

27. For existing rice production, the increase in incomes is expected to be around 50 per cent. For new activities, including both rice production activities and alternative income-generating activities, OSS calculates an IRR of between 30 to 35 per cent. For the other types of interventions considered, including poultry production, beekeeping, goat husbandry and aquaculture, the IRRs range from 47 to 69 per cent. The high profitability of the alternative income-generating activities is good in two ways: (1) It ensures that the project outcome of increasing profitability is achieved; and (2) may be financed in the future through non-grant funding such as loans, facilitating the scaling-up of the methodology.

28. The Secretariat considers that the use of grant instruments is justified in the Guinea-Bissau context regardless of the high profitability of the interventions under consideration. First, the context analysis showed that there is limited access to finance for the target beneficiaries. It is likely that financial institutions have limited experience providing credit for the types of interventions considered in the project. Finally, it is likely that the success of the investments under consideration depends on the package of technical assistance and capacity-building activities included under the proposal.

29. The high profitability of the activities indicates a likelihood of financial sustainability in the long-run and potential for private sector participation. The AE estimates the project's overall returns at 44 per cent, well above the Secretariat's estimated discount rate of 9.8 per cent for the country. The project's benefit-cost ratio is estimated at 3.15.

III. Assessment of consistency with GCF safeguards and policies

3.1 Environmental and social safeguards

Does the project comply with the GCF Environmental and Social Policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Does the project have minimal to no environmental and social safeguards (ESS) risks compatible with SAP?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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30. **Project Background.** The project targets 34 communities in the Cacheu and Oio regions of Guinea Bissau with climate-resilient livelihoods, food and water security and coastal ecosystems management. It will also strengthen capacities through training of communities, government institutions and civil society in climate adaptation. Interventions such as construction of small community centres and agricultural activities are likely to incur minimal environmental and social risks. Expected social and environmental co-benefits are enhanced food and water security, and reduced erosion and deforestation in target areas.

31. **Environmental and Social Risk Category.** The project was submitted under the simplified approval process; therefore, a low/minimal environmental and social risk level equivalent to GCF category C was assigned by the AE. This is within the AE's accreditation level. A number of interventions are planned in communities such as construction of small community centres, agricultural activities, and mangrove restoration, however these are expected to be small-scale with minimal site-specific impacts.

32. **Safeguard Instruments.** An environmental and social action plan (ESAP) has been provided by the AE with the proposal. It outlines potential risks, mitigation measures, responsible parties, budget allocation, and schedule for implementation.

3.1.1. Compliance with GCF's Environmental and Social Safeguards (ESS) Standards.

33. **ESS 1 (Assessment and Management of Environmental and Social Risks and Impacts):** The project was screened using the AE's assessment checklist. The same will be used to screen activities as they are defined and refined at the implementation stage. Some of the potential risks and impacts include waste generation from processing of agricultural produce at community centres and occupational and community health and safety issues related to the establishing the same centres.

34. Activities are assessed as low or minimal risk. Preparation of environmental and social impact assessments or management plans is not necessary for a project categorised as low or minimal risk, however the process that will be followed at the implementation stage when activities and sub-projects are further defined may involve the preparation of such assessment according to the AE's procedures. The standard covenants to exclude high and moderate risk activities and to continuously screen and monitor potential environmental and social risks and impacts arising from the project is included in the term sheet to ensure that activities are within the project's category low/minimal risk classification.

35. **ESS 2 (Labour and Working Conditions):** The occupational health and safety management practices should be considered and included in the environmental and social action plan given the construction of small infrastructure included in the proposal. The AE is also recommended to establish a process for assessing risks related to labour in supply chains and mitigate them at the sub-project level.

36. **ESS 3 (Resource Efficiency and Pollution Prevention):** Small-scale solar-powered drip irrigation which should utilise available water resources are planned by the project. Organic waste generated at community processing and marketing centres from de-husking, drying and flour production of rice, cassava and maize, peanut butter production will be used for composting and animal fodder production purposes. Waste generated from animal husbandry activities supported under activity 3.1.3 should be managed well to avoid pollution. The project should use available groundwater resources if needed. The AE is recommended to undertake water balance studies for activities that will utilise groundwater to avoid

overexploitation of the resources. In addition, the AE is recommended to ensure that it has a process for safe disposal of solar panels and batteries after their shelf life.

37. **ESS 4 (Community Health, Safety and Security):** Construction activities involving establishing small community centres and installation of solar power and rainwater retention systems pose safety risks to communities when establishing them. Measures will be taken to avoid increasing vector-borne diseases from stagnant water collected by covering it.

38. **ESS 5 (Land Acquisition and Involuntary Resettlement):** Land for establishing agricultural model plots, community centres and community processing centres will be acquired for such activities based on the willingness of the landowner to provide the land. Related agreements will be signed between landowners and the communities, represented by community leaders.

39. **ESS 6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources):** Indigenous species will be prioritized in mangrove restoration and where other species are introduced, and they will be validated by the national authority to ensure compliance with national regulations and avoid introduction of invasive species. The development of the seed bank for agricultural purposes will also be established with the technical support of the national authority on agro-genetic materials to avoid the introduction of invasive species. No project activities will be undertaken in the Cacheu Mangrove National Park, a Ramsar site, or its buffer zones which are close to the target areas for the project.

40. **GCF Indigenous Peoples Policy and ESS 7 (Indigenous Peoples) :** The AE has undertaken all due diligence to ensure that the Project is in compliance with the applicable requirements under the Indigenous Peoples' Policy. Considering the micro-scale and community-based aspect of the project, and activities will mainly take place on families' agriculture plots and small plots of communal land, there are overall no negative impacts expected on collective access to land or resources. In relation to indigenous knowledge, the AE notes that traditional/local knowledge has largely informed some of the core activities of the project. For example, the techniques and practices applied on the mangrove-rice paddies is mainly based on traditional practices, with the introduction of some small modern technologies that improve upon and update the technologies. The storage tools for rice and seeds promoted ('Bembas') are another example of a traditional technology promoted by the project. The participatory nature of the majority of activities will furthermore facilitate that local knowledge is valued and integrated in all aspects of the project. This includes, for example the mapping of local and traditional behaviour that is considered positive as adaptation and/or resilience building.

41. **ESS 8 (Cultural Heritage):** No cultural heritage risks are expected from this project.

42. **Implementation arrangements.** The AE will oversee and supervise the implementation of the project by following up with the executing entity on project implementation, including undertaking visits to project sites on a regular basis. The executing entity, Ajuda de Desenvolvimento de Povo para Povo, will be responsible for the implementation of actions to manage any identified minimal environmental and social risks. The project management unit have a technical support team with an environmental specialist. It is recommended that the specialist provide oversight on the implementation of environmental and social safeguards matters for the project.

43. **Stakeholder engagement and information disclosure:** Consultations on the project during its preparation included communities and community-based organisations. Key stakeholder, information disclosed during the consultations, issues and concerns raised and how the project will respond to them, are outlined in the ESAP. A stakeholder engagement plan has been provided as well. It contains methods of engagement, responsible parties such as the executing entity and the project management unit, activities where stakeholders will be

engaged and timing of planned actions. Furthermore, the project also has a participatory approach and seeks to engage communities directly through participating as community observers who will collect data and report to communities, and implementation of activities such as setting up community centres, restoration of mangroves, and join farmers clubs.

44. **Grievance redress mechanism:** A project-level grievance mechanism will be established. The grievance mechanism will be communicated to the stakeholders, including the target communities, throughout the project during implementation. The mechanism will allow for oral complaints from those who are illiterate. The project’s coordinator within the project management unit will be responsible for receiving and registering complaints. The AE’s environmental and social committee will support the coordinator in the handling and resolving complaints. In addition, complainants will have access to the GCF independent redress mechanism. Details of how both mechanisms can be contacted are included in the document.

45. The revised GCF Environmental and Social Policy adopted by decision B.BM-2021/18 requires safeguarding from sexual exploitation, sexual abuse and sexual harassment (SEAH) in GCF-financed activities. As the project, Adaptation of agricultural productive systems in Coastal Areas of Northwest Guinea Bissau will address the adaptation needs of vulnerable smallholder farmers and their communities in the regions of Cacheu and Oio in Guinea Bissau, the SEAH safeguarding measures.

46. The projects ESAP has included some of these measures especially on the management of identified residual risks and complaints handling mechanisms. In particular, the summary of SEAH risks have been outlined considering the potential risks and impacts to community members during the execution of the project activities. The AE will ensure that communication avenues are used to raise awareness on SEAH and GBV provisions, as well as grievance mechanisms – this will be prioritized in the early stages of project implementation. A gender officer will oversee monitoring and managing any SEAH/GBV related issues; OSS Policy on SEAH (in its initial stages) and ensure that sensitization sessions are conducted for/with local staff. With regards to complaints handling, the AE will benchmark SEAH monitoring, management, and mitigation with its new SEAH Policy. Receipt and registration of complaints, including SEAH related complaints will be done through the PMU and these will be categorized as non-sensitive complaints and sensitive complaints which generally includes personal misconduct such as corruption, sexual abuse, discrimination etc. The is required to take all necessary measures to ensure that there are comprehensive ways to prevent and respond effectively to SEAH in a survivor-centered and gender-responsive way considering the nature of the project, including prior identification of any potential SEAH risks that may emerge from the establishment of the water harvesting and storage systems, water supply infrastructure, and other construction activities that will be undertaken. It is also recommended that the AE includes SEAH in the social risks screening of the project/ESAP as this is also a critical stage of the project for the project to be able to not only prevent but also respond and monitor SEAH and/or its equivalent at community and AEs level in a survivor-centred and gender-responsive way. The project considers that putting the SEAH prevention and response measures into place will not imply additional costs to the project as they are seen or costed as part of the project design.

3.2 Gender policy

Does the project comply with the GCF Gender Policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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47. The AE has provided a gender assessment and gender action plan (GAP) and therefore complies with the requirements of the Strategic Plan for the GCF 2020–2023. The gender assessment is based on a review of available sources of information as well as consultations with communities in the target areas of Cacheu and Oio.

48. Guinea-Bissau is a signatory to various international agreements regarding women's rights, such as the Convention for the Elimination of All Forms of Discrimination Against Women and regional ones such as the Protocol Relating to the African Charter on Human and Peoples' Rights on the Rights of Women. Article 25 of the constitution enshrines the principle of equality between men and women, whilst individual statutes such as the civil code, the law to combat female genital mutilation and the law against domestic violence demonstrate the government's commitment to gender equality. Nonetheless, contradictions to the principle of equality exist through customary law, which results in women receiving unfair treatment on inheritance and divorce matters. The country also has a national policy for gender equality and equity. At the institutional level, the Women and Child Institute and the Ministry of Women, Family and Social Solidarity were established by the government to promote the advancement of women. However, instability, lack of resources and limited institutional capacity hampers the implementation of laws and the national policy to improve women's standing in society.

49. Women in Guinea-Bissau face several challenges such as child marriage, female genital mutilation, domestic violence, low education levels, and gender roles which are more burdensome under poverty conditions and in a deeply patriarchal society. All ethnic groups have traditional beliefs, perceptions and practices that restrict women's roles and rights. The gender assessment discusses how climate change is further intensifying the challenges faced by women and increasing gender inequality, for example through time-consuming efforts to fetch drinking water and firewood due to increased scarcity, limited opportunities to earn income from agriculture and natural resources, and family stress. Coping mechanisms to climate effects by communities include emigration of men, which leaves women with more responsibilities in households.

50. Agriculture is a major source of employment in Guinea-Bissau. Sixty-five per cent of farmers are women, and they manage several aspects of agricultural production. Land ownership rights are mainly the preserve of men. Although most women do not own land, they are not restricted from access to or use of it. Women are restricted from decision-making due to lower education levels, entrenched gender inequalities and a heavy burden of work, among other reasons. Whilst they participate in decision-making in their homes on issues related to income generation, education and health, in village meetings their participation often does not result in their opinions being considered in decisions made.

51. The GAP contains activities, performance indicators, some sex-disaggregated targets, timelines, responsibilities, and costs, which are allocated from the project budget for implementation. A number of activities listed in the GAP address issues raised in the gender assessment, namely training on climate-resilient agriculture, functional literacy classes in the context of climate change adaptation, separate consultations for women and men, timing of project activities, particularly considering women's workloads and schedules, access to water and firewood-saving cookstoves, and the establishment of and mentoring for 40 micro-enterprises and women-led income-generating activities. Furthermore, qualitative indicators relating to reduced workload and timesaving for women are included in the GAP. There are a number of female-headed and polygamous households in the project areas, and beneficiaries will be disaggregated by sex for these households for some activities, though no related targets are included in the GAP. Awareness-raising activities will include use of and decision-making on land-related issues.

52. The project team will include a gender specialist in the technical support team, who will work closely with the project implementation unit. The gender specialist will oversee the implementation of the GAP and undertake some activities. Given the prevalence of violence against women in the country, local and project grievance mechanisms will be used and made accessible by the project. Information on the mechanisms will be circulated in project areas.

53. The AE is recommended to take into consideration the following issues and submit a revised gender action plan. The gender action plan can be improved by organizing it in a more comprehensible manner. Each activity has several subactivities, indicators and targets without clear connections between the indicators and the activities. The AE is requested to ensure the alignment of each activity, which should be described in a concise manner, with its own indicators, targets, assignment of responsibility and cost. Include most of the subactivities in the project's operations manual. Additionally, a few of the subactivities need to be changed into activities as they address specific challenges noted in the gender assessment, for example the provision of functional literacy classes and support to register and issue identity cards for women. The AE is advised to also rationalize targets against baseline data collected at the project's commencement (such as targets of 70 per cent women beneficiaries for some of the activities) while maintaining them as ambitious but also attainable state, and set and include in GAP sex-disaggregated targets that are yet to be confirmed on critical issues such as access to water and cookstoves. There are also various ways of disaggregation of women planned for some activities for which targets are yet to be confirmed. The AE is advised to limit this to critical groups such as female-headed households.

54. The above comments were provided to the AE. The AE responded that it no longer had the capacity to address them at the time. Therefore, a revised GAP addressing these issues is expected from the AE after the recruitment of the gender specialist for the project.

3.3 Risks

3.3.1. Overall programme assessment (medium risk)

55. GCF is requested to provide a grant of USD 9.8 million to establish monitoring systems and promoting adaptation actions for climate-vulnerable smallholder farmers in Cacheu and Oio Regions of Guinea-Bissau. The project is building on the experiences and assessments of the projects funded by Adaptation Fund and Global Environment Facility. The EE is providing in-kind contribution of USD 147,200 to the project.

56. Guinea-Bissau is a Small Island Developing States (SIDS) and an LDC in Africa.

3.3.2. Accredited entity/executing entity capability to execute the current programme (medium risk)

57. OSS as a Direct Access AE will be responsible for overall project management and communication between EE and GCF. This is the first funding proposal to be managed by the AE. OSS has an experience as a delivery partner for the readiness support in Guinea-Bissau.

58. Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau (ADPP-GB) is the Executing Entity for this project. It is a national non-governmental organization with over 40 years of experience in the country. It has a track record of implementing projects funded by external donors with a budget range between USD 0.6 million to USD 2.7 million in the past. The AE carried out a due diligence mission which includes a capacity assessment of the EE and provided the summary that EE has the required capacity to implement the project.

3.3.3. Project-specific execution risks (medium risk)

59. Unstable political situation and lack of capacity: the persistent unstable political situation in the country has been identified as a high risk by the AE. The leadership positions in the Government Institutions frequently change and political approval and effective implementation are often hindered by the lack of capacity and instability in the institutions. The EE has a long track record working with the national authorities and building on its credibility

on political non-interference policy. Therefore, the project success will depend on the EE's capacity to implement the funded activities.

60. Fee management and conflict of interest: A few funded activities will require some contribution or symbolic/service fees from the beneficiaries such as CCC management fee under activity 1.1.2 & 2.2.2, water management fee under activity 2.1.3, and CCP service fee or surplus under activity 3.2.2. The determination of the fee amount and management system of the fees are largely up to the communities. The AE stated that fees are to promote sustainability after the project support and to ensure that the beneficiary communities have a sense of ownership. There is a risk of conflict of interest or transparency issue in the process of making the decisions in terms of the fee amount and the way of charging fees depending on how well the governance system is structured in different communities. The AE responded that it will be agreed upon in a participatory way with the community leadership and voting process. The AE has an established grievance redress mechanism to handle complaints from the participants and stakeholders in the project.

61. Continuous support from the government: the project activities include the collection and management of climate risks related data. Therefore, a centralized system to manage the collected data at the country level will be critical to make the informed decision for policy development and resource allocation. Although national authorities have shown the willingness to participate in the development and integration of the OG structure, the work scope of OG members is still to be defined and the possibility of incorporating into the government system is currently not determined. In addition, the government support beyond the project implementation is not secured due to the limited financial capacity.

62. O&M responsibility: the project may face difficulties maintaining the equipment due to limited financing resources and expertise in the communities. The O&M responsibilities largely lie with the communities which have limited resources. Despite the supervision and technical support provided by the AE/EE, the project identified the lack of coordination and brain drain as one of the risks in the project. The commercial associations are expected to conduct a supervision function of different community groups, as the ownership of their assets such as purchased equipment and buildings will be transferred to the two commercial associations after the project implementation.

3.3.4. GCF portfolio concentration risk (medium risk)

63. In case of approval, the impact of this proposal on the GCF portfolio concentration in terms of results areas and single proposal is not material.

3.3.5. Compliance risk (medium risk)

64. Guinea-Bissau is subject to United Nations Security Council (UNSC) Resolution 2048 (2012), with restrictive measures including travel bans against targeted individuals. OSS, as the AE, confirmed that no individual or entity that is listed on any UNSC sanctions list, including the UN Consolidated Sanctions list, will be involved in any manner with the project or its activities, either as a counterparty, implementer or beneficiary.

65. OSS indicated that it will apply various measures to conform to these standards, such as ensuring due diligence vis-à-vis EEs and shall, on a regular basis, conduct supervision and monitoring missions to EEs to ensure compliance. OSS will monitor and assess implementation and provide updates according to the UNSC sanction regime to avoid any related risk.

66. OSS confirmed that it has conducted due diligence on the EE – ADPP-GB – according to its know-your-customer procedures in order to assess their capacities, verify financial management procedures and review application records and performance history with other

partners. Based on the assessment, a due diligence report was developed to indicate the competency of the EE and categorize the probability and impact of risk in the project as follows:

- (a) *Money laundering and terrorist financing (ML/TF) risk*: low probability, medium impact;
- (b) *Sanctions risk (including United Nations)*: low probability, medium impact;
- (c) *Reputational risk in the context of ML/TF*: low probability, high impact; and
- (d) *Prohibited practices risk*: low probability, high impact.

67. Based on the due diligence conducted, OSS ascertains that the EE is capable of executing the project technically and financially and notes their involvement with the Government of Guinea-Bissau. Documents provided by the EE include processes and procedures as well as certificates of compliance with the country and other partners, demonstrating a contextual background on the anchorage and solidity of the EE.

68. The EE has been involved with the Government of Guinea-Bissau and various international organizations since the 1980s. Notably, OSS signed an agreement with the Federation of Associations connected to the International Humana People to People Movement (FAIHPP), which is the overarching institution for the EE, and is also engaging with the FAIHPP network in other regions of Africa to execute projects.

69. OSS has procedures and guidelines it adheres to, which supersede all other procedures in the event of any malpractice and compliance issues in the execution of its projects/programmes. This is based on commitments in the accreditation master agreement (AMA) signed with OSS as an AE.

70. OSS confirmed its commitment to promoting and upholding the highest standards of integrity and accountability in the use of its funds, and will not accept the diversion of funds entrusted to it by Member States, non-member States and other sources via ML/TF. OSS is committed to combating ML/TF risks while also improving the protections and mechanisms in place to ensure the sustained achievement of goals. The new statement of OSS on anti-money laundering and countering the finance of terrorism was submitted during the accreditation mid-term review for GCF.

71. On certain projects, OSS also develops a project implementation manual (PIM), which indicates the various policies, procedures and regulations to undertake and adhere to. The PIM describes the money flows, procurement procedures, implementation responsibilities, and monitoring and evaluation, etc.

72. OSS organizes training and project philosophy sessions to walk EEs through the PIM as a guiding document for execution, ensuring knowledge dissemination and conformity to the stipulated and prescribed project guidelines. OSS also undertakes technical and financial audits of EEs during implementation to ensure funds disbursed are utilized for their intended purposes.

73. OSS reported that it applies operational procedures with the EE to develop documents such as an annual work plan and budget as well as a procurement plan to identify the activities to be carried out in line with project deliverables. This is supported by a no-objection procedure for any activities to be undertaken. OSS further conducts supervisory missions, which are also supported with monitoring, reporting and verification tools developed according to project specificities. Lastly, monitoring reports are generated by the EE according to templates developed by OSS, and the completion of evidence-based reporting requirements is ensured by OSS.

74. The project administers small grants, which will go through an elaborate process, including various stop-checks, such as selection criteria, establishment of a review committee, disbursements through tranches, grants agreements with known institutions, etc. OSS has a

grant-awarding mechanism to ensure the full execution of its duties as a regional implementation entity, including the management of grants received from other institutions and financial partners. This includes a due diligence process for beneficiaries. Additional controls are provided in the form of in-kind distributions of resources, which, as an example, include the identification and acquisition of inputs for the selected beneficiaries vis-à-vis direct cash payments.

75. OSS will apply its procedures and tools to monitor money flows for the execution of its projects/programmes. Accordingly, and in compliance with monitoring and evaluation procedures, procurement procedures, operational guidelines, reporting requirements and modalities, audit and supervision will be included in the agreement between OSS and the EE. Additionally, OSS promotes good governance and transparency as it is committed to observing the highest ethical, moral and legal standards within the organization as well as within its projects, programmes and activities, and believes that corruption and fraud are prejudicial to the achievement of its mission.

76. Another example in presented is relation to activities to be executed by communities. For example, in the case of the high intensity labour force, the EE will provide daily meals and transport indemnities to the working groups as an incentive instead of cash to ensure ownership and inclusivity in project activities when possible/required. This will reduce the risk of fraud, abuse, mismanagement of funds, ML/TF or prohibited practices in the management of such distributions.

77. OSS confirmed the project will include a grievance redress mechanism (GRM) so all participants and stakeholders involved in the process can voice opinions and complaints. This mechanism will provide an access point for individuals, communities and other relevant stakeholders to submit complaints. It will also record and process all complaints relating to the project's activities, results or impacts. The proposed GRM is intended to be rapid, effective, participatory and accessible to all stakeholders. It should prevent or resolve conflicts through negotiation, dialogue, joint investigation, etc. It will handle complaints related to the compliance of project activities and impacts with environmental and social safeguards as well as fiduciary and legal aspects (grant agreements, contracts, etc.).

78. If necessary, complainants may also refer the matter to the GCF Independent Redress Mechanism (IRM). The complaint form by OSS will be made publicly accessible, electronically and in written form. The organization and functioning of the GRM, including the definition of roles and responsibilities and the complaint-handling process, is further explained in the Environmental and Social Action Plan (i.e. Annex 10 of the funding proposal).

79. OSS applies a no-objection procedure adapted for each project as a first tool that allows for the rejection or halting of any proposed or ongoing request for funding by the beneficiary that OSS determines is in conflict with its guidelines for the execution of the project activities.

80. Additionally, by establishing a whistleblowing mechanism established in accordance with the OSS Whistleblowing Policy, OSS is committed to detecting, reporting and preventing any form of resource mismanagement.

81. **Recommended risk rating:** The Office of Risk Management and Compliance (ORMC)/Compliance Team has conducted a review of the project in accordance with relevant GCF Board approved policies and does not find any material issue or deviation with respect to compliance issues. Based on available information for this funding proposal, the ORMC/Compliance Team has determined a risk rating of 'medium' and has no objection to this request proceeding to the next steps.

82. ORMC/Compliance would like to remind OSS, as the AE, of its continuing obligations and responsibilities with regard to monitoring and reporting any risks for ML, TF or prohibited

practices among the intended counterparties, EEs, beneficiaries, persons involved, or any of the proposed activities.

3.3.6. Recommendation

83. It is recommended that the Board consider the above factors in its decision.

Summary risk assessment	
Overall programme	Medium
Accredited entity/executing entity capability to implement this programme	Medium
Project-specific execution	Medium
GCF portfolio concentration	Medium
Compliance	Medium

3.4 Fiduciary

Does the project comply with the GCF AE fee policy?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
In case the EE (ies) is different to the AE, has the financial management capacity assessment of the EE (ies) been undertaken?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

84. OSS, in its responsibility as AE, will be managing all the communication between the project and GCF. ADPP-GB, as the EE of the project, will coordinate and execute implementation on the ground, in direct collaboration with the relevant line ministries.

85. OSS will actively follow up on the execution progress, maintain regular communication with the EE, and receive regular project progress reports, both technical and financial, from the EE. The EE will select and designate a project management unit (PMU) dedicated to the implementation of the project. It will oversee the PMU activity and follow up closely on all the management decisions and procedures, and take responsibility for any unforeseen difficulty, conflict or other incident that may occur during project implementation. The EE will be part of the communication between the PMU and the main partners and a permanent part of the Project Steering Committee. The EE's project team is composed of the PMU, the technical support team and the extension teams (one extension team per target region).

86. IBAP will be a project partner, and International Union for Conservation of Nature has agreed to give technical support, inputs and recommendations without being directly part of the execution of the project. The project team will work with the National Institute of Meteorology and the National Civil Protection Services, coordinating efforts with various General Directorates from both MoEB (Ministry of Environment and Biodiversity) and MoA (Ministry of Agriculture) with sectoral expertise.

87. The financial management and procurement of the project will be guided by OSS fiduciary rules and procedures, which are available via its website and submitted with documents for referencing.

88. All GCF resources will be provided to the EE by the OSS in the framework of the grant agreement disbursements schedule. Thus, OSS advances cash funds on a pre-determined basis to the EE for the implementation of agreed and approved project activities. The EE is then requested to comply with the OSS technical and financial reporting requirements by providing reports and expenditure statements according to agreed schedules defined in the grant agreement. The EE and other entities involved in the project will comply with internationally acceptable accounting standards, which was confirmed by the due diligence check by OSS.

89. For audit requirements, the project's progress and funds use will be monitored in accordance with the OSS grant award mechanism and rules and procedures on audits, informed by and together with any specific requirements agreed in the AMA currently being negotiated with GCF.

3.5 Results monitoring and reporting

Is the project in line with the GCF Monitoring and Accountability Framework?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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90. The logframe of the proposal, which is the main basis for monitoring, has been aligned with the Integrated Results Management Framework (IRMF) that will enable the AE to report to GCF on IRMF indicators, including paradigm shift potential and enabling environment indicators as well as core outcome indicators.

3.6 Legal assessment

Has the AE signed the Accreditation Master Agreement (AMA)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <u>Date of AMA execution:</u> 6/20/2018
Has a bilateral agreement on privileges and immunities been signed with the country where the proposed project/programme will be implemented?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Has a certificate of internal approval been submitted?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

91. The AMA was signed with the AE on 20 June 2018 and it became effective on 7 February 2019.

92. The AE has not provided a legal opinion/certificate confirming that it has obtained all internal approvals and it has the capacity and authority to implement the project. It is recommended that, prior to submission of the funding proposal to the Board (a) the AE has obtained all its internal approvals; and (b) GCF has received a certificate or legal opinion from the AE in form and substance satisfactory to GCF confirming that all final internal approvals by the AE have been obtained and that it has the authority and capacity to implement the project.

93. The proposed project will be implemented in the Republic of Guinea-Bissau, a country in which GCF is not provided with privileges and immunities. This means that, amongst other things, GCF is not protected against litigation or expropriation in this country, which risks need to be further assessed. The Secretariat submitted the first draft of the privileges and immunities agreement and a background note to the Government of the Republic of Guinea-Bissau on 7 April 2016.

94. The Heads of the Independent Redress Mechanism (IRM) and Independent Integrity Unit (IIU) have both expressed that it would not be legally feasible to undertake their redress activities and/or investigations, as appropriate, in countries where the GCF is not provided with relevant privileges and immunities. Therefore, it is recommended that disbursements by the GCF are made only after the GCF has obtained satisfactory protection against litigation and expropriation in the country, or has been provided with appropriate privileges and immunities.

3.7 List of proposed conditions (including legal)

95. In order to mitigate risk, it is recommended that any approval by the Board is made subject to the following conditions:

- (a) Submission by the Accredited Entity to the Fund of a certificate or legal opinion, in form and substance satisfactory to the GCF Secretariat, within 120 days after Board approval, confirming that the Accredited Entity has obtained all final internal approvals needed by it and has the capacity and authority to implement the proposed project;
- (b) Signature of the funded activity agreement in a form and substance satisfactory to the GCF Secretariat within 180 days from the date of Board approval, or the date the Accredited Entity has provided a certificate or legal opinion confirming that it has obtained all final internal approvals, whichever is later; and
- (c) Completion of the legal due diligence to the satisfaction of the GCF Secretariat.

Independent Technical Advisory Panel's assessment of SAP025

Proposal name:	Adaptation of agricultural production systems in Coastal Areas of Northwest Guinea-Bissau
Accredited entity:	Sahara and Sahel Observatory (OSS)
Country/(ies):	Guinea-Bissau
Project/Programme size:	Micro

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential

Scale: N/A

1. Guinea-Bissau is an African country located on the western coast of the continent. It has a small land area of 36,125 km² and a population of 1.82 million. Due to its vast estuary and intricate river systems flowing through marshy wetlands before discharging into the sea, the country is regarded as a small island developing states despite not being an island.
2. The country's population is mostly concentrated in rural areas (about 58 per cent) and their primary livelihood is based on agriculture, which includes crop and horticulture production, scavenging and utilization of forest products, coastal fisheries and micro-scale livestock rearing. Since the majority of the population is employed in primary production from agro-silvo-pastoral systems and most of this is subsistence production, there is a considerably high rate of poverty in the country. This high poverty rate coupled with limited income-generation opportunities leaves the population with little option but to overexploit locally available resources, including forest and marine ecosystems. This has translated into gradual deforestation in forest areas and transformation of denuded forest lands into paddy fields and/or cashew plantations. While rice is the primary staple for the entire population, cashew is sold by producers and eventually finds its way legally or illegally to international export markets.
3. Despite the above-mentioned changes in areas of primary production, there are coastal pockets where it is difficult to maintain livelihoods and family well-being based on these activities. While the population is increasing at an annual rate of 2.5 per cent with 66 per cent of the population being 0–30 years, there exists a high rate of outmigration of young males from their ancestral villages. Those that remain may be forced to withdraw from productive activities owing to (i) difficulties in rural areas in terms of access to infrastructure, amenities and services; (ii) a continuous struggle to maintain productivity due to the vagaries of nature; (iii) disjointed value chains leaving little room for profitability in agriculture-based livelihoods; and (iv) depletion of natural resources owing to a lack of institutional surveillance and a high incidence of poverty. Moreover, there has been a general silent feminization of the rural production base, and it has also been difficult for rural women to maintain their livelihoods due to the above-mentioned reasons.
4. The overall poverty situation is further aggravated by political instability and a lack of finance for the creation of amenities and services at the production centres. Governance is also weak, which is why international maritime rights for fishing are violated by fleets from other countries. The overwhelming majority of the marine catch does not come to land in estuarine

fish landing centres, and small-scale fishermen complain about reduction of catch volume close to the shoreline. While the lack of processing capacity, technology and infrastructure allow international traders to purchase raw cashew from remote farms at an extremely low cost and then smuggle the product to neighbouring countries, taking full advantage of the lack of governance. As a result, the majority of agricultural profit goes to outsider traders, sometimes outside the country's formal revenue-earning system, while poor producers remain in abject poverty. The per capita gross domestic product is less than USD 800.0. The human development index for Guinea-Bissau was 178 out of 189 in 2019, which explains why the west African nation is identified among the group of least developed countries (LDCs).

5. Agriculture plays a significant role in the production of food, creation of income and employment. Rice farming is a national priority. Paddy cultivation supplies 62 per cent of the national cereal production and 75 per cent of annual current cereal consumption. Owing to a rather large ethnic diversity and associated cultural practices, including ethnically differentiated agronomic practices, there is no standard production system for paddy cultivation. One thing, however, appears common: rice production is mostly rain-fed, and mechanization of the production system has not taken place. As a result, the yield per unit of land is extremely low¹ compared to the western African and global average. Due to low yield, the total annual production could not cope with increasing demand, primarily caused by a high population growth rate. The country therefore remains a cereal-deficit country and its domestic consumption is dependent on international rice import. The latter places a burden on foreign exchange.

6. To increase the overall production of rice, the government has granted cultivation rights to modern producers with extensive agricultural parcels of lands ranging between 20 and 2,500 hectares. Such modern agriculture is happening on paper in about 27 per cent of agricultural lands, only a small portion of which is being cultivated in a modern fashion. In 2018, the rice deficit was met by importing rice worth USD 36.0 million. The government is keen to save on the rice import bill while enhancing national capacity to address nutrition deficiency from its own production. The rate of food insecurity in 2019 was 30.7 per cent, and this was even higher in rural areas. It is reported that at least 20 per cent of rural households face difficulties in meeting annual food needs. With the exception of children under five years, people have only two meals a day. Since production deficit is a reality, food insecurity is correlated with the prices of food products in the market.

7. As rice production is rain-fed and with climate change and related climatological factors interplaying with nature, there is a growing tendency to transform the traditional rice production system into cashew production. However, perennial orchards are required to sustain producers through the significantly dry, non-rainy season and excessive rainy periods in the wet season. With changing climate and widening inter-seasonal and inter-annual variability in rainfall, the transformation involving paddy to cashew cultivation has not been a smooth process for the poor, especially when the above-mentioned non-climatological realities remain largely unchanged.

8. Guinea-Bissau receives, on an average, 1,500 mm rainfall per annum. However, the overwhelming majority of annual rainfall (>97 per cent) occurs during the wet season. Consequently, there is a lack of available moisture at the root zone during the dry season. With the advent of climate change, which is exhibited by an average increase of 0.8°C in temperature between 1970 and 2000 in Guinea-Bissau, the evapo-transpiration losses during the dry season have become increasingly acute, affecting the water-loving paddy primarily, and, to a lesser extent, cashew production. Systematic analyses of monthly average rainfall patterns over the past six decades indicate that average monthly rainfalls for May and June have gradually declined for the periods 1961–1990 and 1991–2020 with respect to historical average of the

¹ Currently hovering around 1.9 tons per hectare.

period 1901–1930. Such realities have been observed for both Cacheu and Oio regions of Guinea-Bissau, the two regions most suited to rain-fed rice cultivation.

9. The climate change projection data are derived from the World Climate Research Programme’s Coupled Model Intercomparison Project Phase 5 (CMIP5) ensemble model outputs under the Representative Climate Pathway 4.5 (i.e. RCP4.5) scenario, downscaled for the country from the West African domain. Although the model based projections followed somewhat faulty methodology in terms of validation of models against their capacity to reproduce observation-based climatology of the past decades, the model outputs reveal that a rise in temperature of 1.3 °C is expected by the middle of current century under the RCP4.5 scenario. The projection indicates gradual withdrawal in early rainy season (particularly in May and June), however, the models identify no appreciable change in the annual average rainfall. Under the RCP4.5 scenario, rainfall is projected to increase only slightly, but the negligible increase will be in short quick bursts with much higher rates of run-off than usual during those episodes. Such subtle changes in rainfall patterns can have significant adverse effects on cropping practices.

10. The seasonality of rainfall and rising surface temperature will contribute to much increased evapo-transpiration (expressed by trends involving the standardized precipitation evapotranspiration index, SPEI) to cause frequent crop failure due to drought. As a result of increased evaporative loss of moisture from top-soils, crop-water demand will escalate, while there will be a decrease in rainfall at the plant establishment stage of rice production. For a water-loving crop such as rice, drought can be detrimental to its production.

11. However, the wet seasonal realities bring another twist in the life cycle of rice. Since a slightly higher amount of rainfall occurs in a shortened rainy season, there are episodes of short bursts, leading to flooding and increased sediment flows downstream. Under climate change, such hazards will occur increasingly with time. Increased sedimentation on mangrove swamps and low-lying lands often leads to eventual abandonment of paddy cultivation areas, indicating permanent loss of cultivable lands. The cycle of too little water in the dry season and too much causing flooding in the wet season is also detrimental for livestock management, especially for traditional methods of animal husbandry.

12. The available data on sea-level change indicate a sea-level rise (SLR) has occurred up to 7 cm by 2020. The projections indicate a future rise of 26 cm by the middle of the current century under the RCP4.5 scenario. A faster SLR is anticipated under RCP8.5. If Brunn’s equation is applied, it appears that rising sea surface temperature and SLR will result in a much-increased crest height of storm surges occurring along the coastal zone, which will overtop the protective earthen dykes that are temporarily created by farmers to safeguard the land against saltwater intrusion. The potential failure of the dyke-based protection system under climate change means saltwater intrusion will frequently devastate standing crops, thereby causing further damage to the rice crop. Prolonged exposure to salinity will also trigger higher soil salinity, further affecting the productivity of crops. Crop production in the coastal zone is already problematic, which will be aggravated under climate change. These elements of vulnerability to climate change warrant immediate response.

13. To respond to the multi-faceted challenges in agriculture involving smallholder primary producers, the project aims to establish local observatories so that local-level climate impacts are monitored and are based on such a knowledge base, and data-driven locally suited adaptation options are considered, showcased and coordinated. The findings of these grass-roots entities are expected to feed into concrete adaptation plans and to contribute to locally relevant climate-resilient water and coastal zone management, which will contribute to boosting local livelihoods. In this effort, institutional actors will be empowered by providing training of trainers sessions so that monitoring and extension of adaptation measures through

institutional facilitation as well as coordination could be ensured. The project targets providing support in two regions, namely Cacheu and Oio.

14. The project components and respective outcomes are the following:

- (a) Component 1 (C1). “Development of technical and institutional capacity of government and civil society”; Outcome 1. “Strengthened capacity and knowledge management to monitor and address water and agriculture-related climate risks”;
- (b) Component 2 (C2). “Adaptation of water management towards climate risks in coastal zones”; Outcome 2. “Sustainable management of coastal ecosystems leading to climate-resilient communities in Oio and Cacheu regions”; and
- (c) Component 3 (C3). “Building climate-resilient farming communities”; Outcome 3. “Enhanced climate-resilient livelihoods, food and water security of the most vulnerable people in coastal communities in Oio and Cacheu regions”.

15. C1 will involve strengthening institutional capacity and knowledge management at the grass-roots level, the establishment and functioning of local-level knowledge intermediary centres, strengthening local capacities to adapt to technologies aimed at implementing the water and soil quality monitoring (WSQM) mandate of the government and building local capacity for operation and maintenance. Vocational training for climate resilient agriculture (CRA) is also included as a deliverable under C1.

16. C2 aims at adaptation in the coastal zone through water management to assist agricultural production. Its deliverables include elaboration on adaptation management plans, construction and rehabilitation of water management infrastructure, establishment of water management systems to address water shortage and promotion of small-scale irrigation schemes. This component also considers improved management of mangrove ecosystems regarding soil erosion control, reforestation of mangroves and the dissemination of cookstoves that require use of less firewood.

17. C3 focuses on resilience building of farming communities by providing training on CRA practices, promoting sustainable rice intensification (SRI) and climate resilient rice production techniques, introducing short cycle animal husbandry and providing inputs towards post-harvesting and the establishment of micro-enterprises to manage value chains (VCs).

18. The Project is submitted under the simplified approval process (SAP) window of GCF. Project proponents have claimed that a total of 82,450 people will benefit directly, which corresponds to 4.5 per cent of the total population of the country. However, out of this estimated number, 40,000 are expected to benefit from awareness-raising and sensitization activities, which may or may not eventually lead to actual efforts in resilience building. Having this large uncertainty in the estimation, the actual number of direct beneficiaries might be much less.

19. Because of the large uncertainty in relation to actual adaptation measures, the total number of indirect beneficiaries appears significantly less than the number claimed in the funding proposal. Despite the discrepancy in terms of the actual number of beneficiaries, almost 50 per cent of the direct and/or indirect beneficiaries will be females; the latter is a desirable outcome. The adaptation capacities will be delivered primarily through community-level activities, which is again a potential outcome of the proposed project. The programming details indicate that 8,500 small-scale farmers involving 170 farmers’ clubs will likely benefit from model (demonstration) plots, which is likely to enhance household-level food security involving the same number of farming households.

20. In short, the independent Technical Advisory Panel (TAP) understands that the project is quite conservative in terms of the number of beneficiaries, especially in view of the need of

people requiring adaptation support. However, given that the project is aiming at financing through the SAP window, the numbers appear realistic.

21. The targeting in terms of locations is not optimal. In terms of occupation group requiring support to adapt to climate change, the choice of small-scale farmers appears appropriate. The predominant focus is on failing crop agriculture, and identifying two most important crops such as rice (for staple and food security) and cashew (for cash earning and national export): in both cases targeting has been done judiciously.

22. The population density in three coastal areas (located in the central north, north-east and southwest) involving Oio, Cacheu and Tombali regions, respectively, is sparse. The land contains mangrove swamp forests, marshy lands and forest vegetation areas. In terms of vulnerability to salinity and cyclonic activity, Tombali in the south-west could also be considered a candidate with its population of vulnerable smallholder farmers. However, the proposal claims that extensive public consultation has led to the identification of the vulnerable region, which is why preference was given to Oio.

23. In addition to direct and indirect beneficiaries, the project has rightly identified institutional weaknesses, where the project could have made significant advancements through capacity-building. Given the extremely weak institutional mechanism prevailing in the remote regions, Component-3 appears a good choice for building adaptive capacity. The knowledge transfer frameworks and opportunities for lessons learned and their judicious application beyond the project timeline could help extend the benefits to reach a larger population group.

24. In view of the above reasons, the independent TAP rates impact potential as moderate to high.

1.2 Paradigm shift potential

Scale: N/A

25. The project is building upon a similar project that is in its second phase of implementation by United Nations Development Programme using financial resources from the Adaptation Fund². The proposed project explored the potential of climate change adaptation in new contexts. Moreover, the proposed project will take valuable lessons from a few other projects that dealt with CRA, establishing VCs to optimize profitability from crop agriculture, strengthening weak institutional capacities to improve service delivery, strengthening of the natural resource base, etc. A good array of available lessons is blended to address the context-specific needs for enhancing local farmers' adaptive capacity. As a result, even at the national level, the proposed project does not offer a great deal of innovation. However, the remoteness of the two target regions indicates that the participatory nature of the approach in the design and delivery of CRA will be somewhat innovative for the recipients of the adaptation services.

26. There is a lack of climate change-related information and knowledge in the two target areas. The extremely low rice productivity indicates that farmers do not have the technical capacity to engage in modern crop (i.e. rice) production. Inter-institutional coordination is largely absent, which does not allow local realities to be considered and the CRA to be planned based on local contexts and needs. In defining the CRA, these are regarded as basic ingredients to build local CRA capacity. The SAP project is designed to blend the above in one modest package, although the ambition level is kept deliberately low due to opting for the smallest financing window under GCF.

27. The CRA-related complex set of needs will be delivered in a participatory manner, which will be further strengthened by building capacity of local extension officials and non-governmental organizations (NGOs) so that a sustained human resource capacity is retained at the farmers' level. While these are steps towards safeguarding production under climate change,

² Reference number Agri/2015/1/UNDP-00077229.

these efforts will be combined with VC strengthening activities so that farmers gain more from post-harvest activities and improved marketing of their produce, especially cashew. If all the above pieces of the jigsaw puzzle are combined well, a fragile and an agricultural production system threatened by climate change is expected to shift the production and marketing paradigm decisively so much so that climate change induced adverse implications can be turned into resilience in the farming system at the local level.

28. The project design involves a tiny fraction of the farmers in the project area. And if the CRA approach is successful, an autonomous uptake of the lessons learned from the project would be expected, even without further financial support from GCF. The project will involve: (i) compiling manuals to facilitate the training of extension service providers; (ii) establishing processes for monitoring climatological changes and record keeping; (iii) participatory planning at the local level for the CRA; and (iv) budgeting for water resources against the freshwater requirement for particular agricultural and other linked activities. These are all expected to generate enthusiasm at the local level among various actors, which will, in turn, stimulate autonomous replication elsewhere and scaling up within the borders of Guinea-Bissau. None of the activities are oriented towards the utilization of unusual and expensive technologies, which offers great scaling-up potential, even by the national system with its limited financial ability.

29. As indicated above, the project has great potential for knowledge generation, collective learning and building capacities of institutions and farmers alike to sustainably offer CRA-related as well as VC services. The proposed climate community centres (CCCs) will not only offer a participatory local-level platform for monitoring changes and generating key data with which to design appropriate CRA actions and action plans, these farmers' clubs will become platforms to nurture social capital based on mutual understanding, collective actions, and local institutions for sharing and peer learning. By the end of the project, these apparently non-technical platforms will become repositories of climatological knowledge, where technical aspects regarding farming-based livelihoods will be shared and debated towards seeking locally relevant context-specific solutions. Moreover, service providers such as extension specialists and intermediaries such as NGO workers will have opportunities to receive training on CRA and other adaptation techniques, while the micro-scale producers' association will learn about sustainable post-harvesting and VC. Meanwhile, the manuals developed under the institutional processes will ensure sustainability of capacity-building and training. Overall, the project has adequate avenues to promote learning and building local capacities.

30. C1 and to a lesser extent C3 of the proposed project have various elements which will contribute to the creation of an enabling environment. Training manuals, modules and curricula on environmental education, technologies for CRA and adaptation towards water and salinization (i.e. activity 1.2.1) will be developed and handed over to government service providers so that national institutional capacity is enhanced. These will have lasting impressions in promoting adaptation and environmentally safe agricultural practices, even beyond the project implementation period. Activity 1.2.2 will ensure building capacity of national-level decision-makers, local government authorities and field staff on adaptation, CRA and on WSQM – the latter is within the purview of the ongoing national WSQM programme and is expected to contribute to sustainable agricultural development in the target areas. Workshops are planned to be organized at different tiers of governance so that the sharing of knowledge will promote improved understanding on climate-change-resilient agriculture (activity 1.3.3).

31. Increasing income by improving post-harvesting practices and better VC management involving cashew is a national priority in Guinea-Bissau, which is expected to be served by activity 3.2.2. In this process, the establishment and upgrade of commercial associations on VC will help enhance institutional arrangements and contribute to market development so that greater export income from cashew can be achieved in the longer run. This activity alone will

help overcome systematic barriers to catalyse marketing (of cashew), beyond the scope of the project.

32. For the sustainability of the remaining mangrove forest, activity 2.2.1 will attempt to reforest mangrove species with the aim of arresting soil erosion during high-intensity rainfall events. Activity 2.2.2 will be dedicated to promoting the production and dissemination of cook stoves that save firewood. By not having an awareness programme on forest conservation, the project lost the opportunity to make local people aware of the topic. This would have indirectly contributed to the operationalization of a regulatory framework, had there been such an awareness-related activity on forest conservation. The independent TAP finds that the project missed an opportunity in relation to forest management.

33. There is a theory of change, which is linked with the barriers identified and with the responses to each of the barriers. The focus has been more on building adaptive capacity, not on reducing vulnerability by addressing exposure and/or sensitivity to certain climate parameters and hazards. One finds the lack of resources as the primary reason to keep the ambition low and to accommodate everything thinly within a SAP allocation limit, which is typical in GCF financing experience. Therefore, the thinly spread budget for more direct adaptation approaches and lack of ambition exhibited in the proposal is understandable.

34. In view of the above analysis, the independent TAP finds the paradigm shift potential of the project as moderate to high.

1.3 Sustainable development potential

Scale: N/A

35. Although thinly spread, the project has numerous elements that will contribute to the sustainable development potential of the country. The following Sustainable Development Goals (SDGs) will directly benefit from the project activities:

- (a) SDG 2 (Zero hunger) by improving the productivity of staple as well as cash crops, thereby increasing the availability of food at the household level. There is no better method to address household level hunger and food security involving poor smallholder farmers engaged in primary production for subsistence;
- (b) SDG 5 (Gender equality) by reducing intra-household food insecurity and directly engaging women in CRA activities as well as VC management;
- (c) SDG 6 (Clean water and sanitation) by enhancing water quality through training on micro-scale watershed management will also be helpful in maintaining water-related well-being. The latter is a socially-given responsibility of women in many countries, therefore it is also related to SDG 5 above;
- (d) SDG 13 (Climate action) by undertaking all the activities which are designed in the project to reduce vulnerability and enhance resilience at grass-roots level; and
- (e) SDG 15 (Life on land) by considering forest conservation-related actions including mangrove reforestation, conservation and the promotion of fuel-saving cookstoves.

36. In addition to the above direct contributions to various SDGs, the project will tangentially contribute to SDG 1 (No poverty) by increasing both food availability from own farming and greater income from higher productivity as well as engaging in VC management. SDG 3 (Good health and well-being) will be indirectly contributed to by addressing water and soil quality management and forest conservation activities.

37. **Social co-benefits:** The participatory approach in addressing vulnerability to climate change through community-based adaptation generally contributes heavily to achieving social co-benefits. The establishment of observation groups and CCCs are likely to contribute to social cohesion. Such semi-formal grass-roots platforms generally allow peer-to-peer interactions

involving non-beneficiary farmers, which in turn provides informal but seamless opportunities to learn, quickly fix mistakes in agronomic practices and optimize production by continued interactions with neighbours and peers.

38. Projects targeting smallholder primary producers, if they can contribute successfully to food security and increased income, are generally found to offer great social co-benefits. Small-scale investments in enhancing environmental capital (such as micro-watershed and salinity management, water and soil quality management and forest ecosystem enhancement, etc.) also contribute to social capital, the latter being regarded as one of the elements in strengthening adaptive capacity. The participatory CRA planning will also indirectly promote the creation of social capital. Water quality is a decent indicator of a benefit which will enhance social well-being.

39. **Economic co-benefits:** The ability to achieve greater household-level income through the enhancement of production is a great example of economic co-benefit. Where primary producers generally operate for subsistence, environmental endowments in such areas in quantity and quality can ensure economic opportunities are nurtured and maintained. Thereby contributing to economic returns in subsequent production cycles.

40. Since the areas produce cashew, one of the export-targeted crops, the improvement of post-harvest techniques and VC management can ensure conditions to enable increased gain from such production. By increasing the production of quality cashew for international markets means not only that the poor will gain financially, but it will also help export earnings to be realized by the government. This economic return at macro level has considerable potential to contribute further by supplying increased amounts of foreign currency to pay for increased imports of staple food. Therefore, one of the most important co-benefits of the project will be bringing economic balance to the country.

41. However, the profitability of cashew can be quite challenging as well. If the government places too much emphasis on cashew which in turn causes denudation of more (mangrove) forest vegetation to clear lands to establish orchards, the overall long-term environmental sustainability might be jeopardized in the target areas. Careful execution of the project is needed to ensure economic co-benefits.

42. **Gender equality and co-benefits:** The greatest strength of the project is embedded in placing its focus on women's active participation in the project. Women are expected to play central roles in the project. They will be active members of observation groups, CCCs and farmers' clubs. The intent of the project to involve women is particularly praiseworthy in the backdrop of outmigration of young males and the gradual feminization of agriculture. The participatory CRA planning process plans to integrate women's voices and experiences into the project, which will be useful in designing locally relevant adaptation measures, including CRA. Water- and soil-quality management will also significantly help women who mainly perform household duties, ensuring well-being.

43. The training and capacity-building efforts are all designed so that women can play active roles as micro-scale adaptation managers, especially in their production centres. However, efforts must be made to arrange such training sessions and engagements at times of the day that suit women. Otherwise, local women might feel overburdened, as they may have other demands on their time when the training is scheduled, at home or elsewhere. A careful local design is essential to ensure the best possible outcomes for women.

44. Participation of women in VC management, even in post-harvest activities will instil confidence, and simultaneously allow them to enjoy greater economic returns. These are specific outcomes to ensure dignity at household and community levels.

45. **Environmental co-benefits:** There are a few elements which will precipitate environmental co-benefits. The interventions in water and soil quality management, water

conservation, salinity management, forest restoration involving mangroves – all these are significant contributors to achieving environmental sustainability. The introduction of SRI can potentially yield water efficiency while reducing chemical burden in optimizing rice production. Moreover, SRI generally contributes heavily to soil carbon restoration and improving soil quality.

46. SRI and mangrove forest restoration will also contribute to reducing emissions from irrigated agriculture (especially rice production) and restoration of forest vegetation. Although these fall within the GCF mitigation-related results framework, these are presented as co-benefits and will not be regarded as having carbon sequestration potential due to cumbersome accounting methods and processes. The mangrove forest restoration efforts in turn will contribute to arresting soil erosion, especially during climate-induced high-intensity rainfall events. The non-coverage of the mitigation component is also a lost opportunity for the host country as their updated nationally determined contribution targets explicitly states that “Guinea-Bissau has established its target of reducing its GHG emissions by –30% by 2030, compared to the baseline scenario, and foresees an unconditional reduction in its emissions by –10% by 2030 relative to the baseline scenario—despite its low level of development and of its meagre economic means”.³

47. Provision of groundwater for sustaining cashew during the prolonged dry season might exploit groundwater beyond recharge, which is a strong possibility in the absence of formal institutional oversight and monitoring. The field workers need to interact with the local government and the CCC leaders so that the newly developed/augmented irrigation facilities are restricted for rice and vegetable production and, particularly, so they refrain from using groundwater as a source for irrigation in the case of cashew. This needs to be integrated into the environmental and social management framework (ESMF) of the project to ensure adequate attention to the inter-generational equity aspect of groundwater utilization.

48. Apart from the risks involving the exploitation of groundwater (which is manageable and should be within the purview of the ESMF), the overall potential of the project in contributing to sustainable development potential is high.

1.4 Needs of the recipient

Scale: N/A

49. As indicated in section 1.1 above, Guinea-Bissau is highly vulnerable to climate change. Acute temporal rainfall distribution (about 97 per cent occurring during the rainy season), delays the onset of rainy season, gradually increasing evapo-transpiration, the major cereal crop being dependent on available rainfall. This together with a lack of processing capacity of the cash crop cashew and not having access to marketing channels to obtain fair market price of cashew are among the most dominant factors which add layers to the vulnerability of the crop production sector. Moreover, the country’s vulnerability to climate change is also affected by its economic situation. Guinea-Bissau is an LDC, where 33 per cent of the inhabitants live in extreme poverty (<USD 1/day); where there is weak governance, and an extremely low human development index (ranking 175th out of 189 countries). While the Notre Dame Global Adaptation Initiative Index ranking on preparedness to respond to climate-change-induced vulnerability, ranks Guinea-Bissau 175 out of 181 countries.

50. The country’s farmers are poor and victims of climate change. In addition to dwindling rainfall in a predominantly rain-fed production system, the subsistence-based smallholder farmers have no answer but to “accept loss” due to much increased rainfall variability. Moreover, exposure to high-intensity tropical cyclones under higher sea surface temperature brings in saline storm surge, that easily overtops earthen temporary dykes to create havoc in

³ Republic of Guinea Bissau. 2021. Updated Nationally Determined Contribution in the Framework of the Paris Climate Agreement.

the rice production system. Even under a business-as-usual scenario, rice productivity along the coastal zone in Guinea-Bissau is by far the lowest when compared to the African average. This fact, combined with a lack of institutional guidance (i.e. extension) and technology support, create an extremely pessimistic scenario that not only maintains farmers as the poorest in society, but also forces local youth to leave their ancestral farms. Farmers, therefore, have no cash, no incentive and no hope. Their needs are among the highest as potential recipients of GCF financing.

51. The country is not self-sufficient in cereal production while it must pay dearly in terms of hard-earned foreign currency to import the deficit 30 per cent of the food to meet basic demands. The foreign currency earnings are through export of cashew, timber, and maritime fisheries. Due to lack of surveillance and enforcement, the revenue earnings from fisheries are insignificant, while sustainable timber production had to be halted due to rampant deforestation. There is no cashew processing facility and no investment in infrastructure development for cashew VC which is why raw cashew is sold at a nominal price from farm gates – denying the country its fair share of revenues from cashew export.

52. About 70 per cent of the population are farmers. The percentage of the population living on agriculture is higher than the national average in the two target regions. They do not have opportunities to earn cash and they remain dependent on fragile production systems to ensure household food security. The proposed project aims to provide critical supports to this occupation group who are both marginal and extremely vulnerable to climate change.

53. The project aims to address the production of rice and cashew, where the former contributes to food security and nutrition from own production and the latter generates cash. The government is keen to develop both sub-sectors in crop production. On the one hand, achieving greater productivity in rice by defying climate-change-related hazards means savings from reduced import bills, while greater export revenues from cashew means greater financial ability to organize the country's overall development sectors. Such a project is therefore much needed in the precarious agricultural context of the country where the needs of the recipients are among the highest.

54. Despite such needs for immediate interventions, as the country is an LDC, the government is unable to divert finance from other development sectors to implement this type of project. Many of the barriers to crop sector development are well articulated, however there is a lack of financing from own resources. There are ongoing (and/or recently implemented) projects elsewhere, however the focus is not always in the right areas where it will leave a lasting impression and to force a paradigm shift.

55. The farmers operate individually, often an information void, in relation to climate change and value chain development of key products. The remoteness of the target areas acts as a barrier to sharing information and extension services. The project is oriented to address each barrier that is identified, especially those involving farmers' capacity. The project also identified areas of weaknesses in terms of institutional capacities and lack of coordination among allied technical institutions. The needs of the institutions are likely to be addressed through the project.

56. In view of the above analysis, the independent TAP rates the needs of the recipient as high.

1.5 Country ownership

Scale: N/A

57. Although Guinea-Bissau has been going through decades-long socio-political instability, the country has developed a few policies on climate change. Accordingly, national and regional programmes and respective priority areas of interventions have been identified. The country

has developed and updated its nationally determined contribution to achieve the targets of the Paris Agreement. Previously, the national action plan for adaptation was developed, while the government has produced its third national communication and submitted the document to the secretariat of the United Nations Framework Convention on Climate Change. In all the above-mentioned efforts, the policy to address the climate change affected agriculture sector has been given due importance. Based on such policy orientation, the project is developed in alignment with the policy, where addressing the vulnerability of the agriculture sector is given due importance. Moreover, the project is also anchored in alignment with the national development plan for the country titled "Terra Ranka 2015-2025".

58. The project is designed based on relevant national policies and programmes in terms of agricultural development, forest conservation, coastal zone development, export promotion, and economic development. A multitude of national actors such as ministries, directorates and their technical wings are identified, while a few key institutions will be directly taking part in implementation of the project. This will ensure inter-agency ownership of the project leading to sustainable outcomes. A few of the key allied national programmes include the Programme of Action to Fight Drought and Desertification, National Strategy for Poverty Reduction, and sector-specific policies and programmes such as the National Plan for Agriculture Investments, the National Environmental Management Plan and the National Biodiversity Strategy and Action Plan.

59. It is anticipated that the ministries in charge of agriculture and the environment, along with their local offices in the two target regions, will participate directly in the execution of the project and its monitoring. Such active participation will ensure policy coherence in the execution processes. The involvement of officials in the regional and national dialogues and workshops will ensure institutional buy in, while inter-agency coordination will ensure that the tools (such as manuals and curricula) developed under the project have uptake for replication of capacity-building efforts elsewhere. The intended training of extension services will help formulate standardized advisories to combat climate change through CRA and SRI techniques. The involvement of local government bodies in the participatory development of CRA plans will also facilitate uptake of allied policies through a planned approach.

60. The accredited entity (AE) has been involved in GCF Readiness support activities as a delivery partner. Therefore, its capacity will be a boon for the seamless management of the project. OSS, as the AE, has long-standing experience of working on the African continent with sustainable land management and climate change adaptation projects to empower and support rural communities in their transformation towards being more climate resilient. Among others, OSS is implementing various projects in Western, Eastern and Central Africa with support from the Adaptation Fund, while it has other projects in the pipeline with the same fund. OSS has also played an instrumental role in the development and implementation of the Great Green Wall Initiative for Sahara and Sahel, which is supporting vulnerable farming communities, affected by climate change.

61. The executing entity is the Ajuda de Desenvolvimento de Povo para Povo Guinea-Bissau (ADPP-GB), which is a specialized NGO to deliver activities on agricultural development and marketing. ADPP-GB has over 35 years' experience in implementing development projects in Guinea-Bissau. ADPP-GB's added value is its methodology/approach on mobilization, organization and enrolment of the small-scale farmers, the vocational training school in Oio and the teacher training school in Cacheu which trains primary-school teachers for rural development. The NGO has adequate experience in implementing projects funded by international development partners. The Ministry of Agriculture and Ministry of Environment are capable bodies to guide the project execution process.

62. The national designated authority (NDA) and the climate change focal point is the Ministry of Environment. The NDA has been engaged throughout the project design. The design

phase was enriched by extensive stakeholder participation through consultative processes. In addition to representation from various public institutions in these consultations, NGOs and civil society organizations have taken part in shaping up the design of the project. The project engaged grass-roots farmers, including women producers in the build-up of the design. However, there is a lack of documentation of engagement of women-focused organizations, especially gender-based NGOs in the participatory processes. The NDA took the lead in the design phase and signed the no-objection letter on behalf of the Government of Guinea-Bissau.

63. The country ownership is rated as high.

1.6 Efficiency and effectiveness

Scale: N/A

64. The project is submitted by an African LDC to meet immediate and urgent needs towards implementing adaptation in one of the most affected sectors such as crop agriculture. The total budgeted amount is estimated at USD 9.955 million, of which GCF is requested to supply USD 9.80 million as grants. Apart from the negligible co-financing amount, the project will be implemented mostly with GCF grants. Given that the country is an LDC, and it is also part of the small island developing States located in Africa, the funding request is eligible to receive grant support from GCF. The project is submitted for GCF financing through its SAP window. Given the high vulnerability of the agricultural sector of Guinea-Bissau, the grant support appears fully justified for an African LDC.

65. An analysis of the budgetary allocation reveals that the majority of the GCF grant will be invested in building resilience at the community level. Such resilience-building efforts will be implemented through improved micro-scale vulnerability reduction infrastructure and technologies, including CRA and SRI techniques, investments in technical and operational capacities of farmers and producer organizations towards VC development, and establishment of CCCs and their operationalization. The SAP project funding request is accompanied by Annex 10 which is dedicated to reporting a cost-effectiveness study of the project.

66. The average expenditure per direct beneficiary is estimated at USD 121. Without the project under a business-as-usual scenario, assuming that there would have been provisions for emergency assistance to communities following crop damages and estimating the cost of providing one meal a day, the requirement would be in the order of USD 70 million for the duration of the project. Therefore, for the same number of beneficiaries the cost of “no project” would have been six times higher than the amount requested from GCF.

67. Should the intended SRI implementation result in an incremental harvest of 2 tons per hectares of rice, the net gain from USD 483 per ha would be increased to USD 1,899 per ha – almost a three-fold increase in value. The transformation of rain-fed cropping into irrigated cropping would result in five-fold value addition with respect to current economic returns. The high return potentials are because baseline productivity under rain-fed conditions is too low, and the project aims to decisively change this.

68. The economic return (i.e. internal rate of return) increases from 10 per cent to 30 per cent, as we move from traditional rice to SRI production with the help of the project. An additional 5 per cent with respect to SRI production is achievable if the irrigated condition is made applicable with the help of drip irrigators, as envisaged by the project.

69. The project’s net present value is estimated at USD 18.367 million. The positive net present value in 10 years is already attractive for a project which delivers increased food security at the household level. Such attributes are complemented by an internal rate of return of 44 per cent, making the project even more attractive. The project’s cost-benefit ratio is estimated at 3.15, which evidences the financial viability of the project. The above analyses suggest that the project’s economic potentials have a strong footing.

70. About 27 per cent of the cultivable areas in Guinea-Bissau are given to private companies to promote modern agriculture. However, the return from such arrangements have not been appreciable due to a lack of investment and innovation in modern agriculture. Perhaps the economic success of the project would have a demonstration effect so that private-sector investment in modern agriculture is leveraged and irrigation-based advanced crop production is finally put into practice. The project has the potential to catalyse private investment in this sector.

71. The theory of change calls for a shift from the current low-output paradigm into a technology and knowledge-oriented higher productivity paradigm, having adaptation embedded in this pursuit. This will be realized through watershed and soil management, controlling salinization of topsoils, and application of irrigation in combination with SRI. These techniques are among the industry's best practices, and farmers will gain know-how so that they can use the knowledge base for future applications. Moreover, the production of manuals and curricula will provide knowledge-driven solutions to address climate-change-induced difficulties in crop production for the extension workers and NGO extension service providers. The approach to building adaptive capacity involving farmers and service providers is likely to leave lasting impressions in the target areas.

72. The efficiency and effectiveness of the project is high.

II. Overall remarks from the independent Technical Advisory Panel

73. Based on the above technical review, the independent TAP recommends that the Board endorse the funding proposal.

74. Since access will be created for irrigation, the independent TAP recommends that water provision be handled with utmost care, especially when it opens opportunities to exploit groundwater resources. Since cashew is a commercial crop, provisioning of irrigation might entice farmers to grow more cashew – even if this means exploiting groundwater resources, even beyond the recharge capacity of the aquifer. This must be discouraged. The project's fieldworkers need to interact with the local government and the CCC leaders so that the newly developed/augmented irrigation facilities are restricted for rice and vegetable production and the farmers refrain from using groundwater as a source for irrigation water for cashew production. The creation of water committees within CCCs, where this interaction will take place and be formalized, is recommended. Equal participation of women and men in such committees is highly recommended.

75. The independent TAP recommends AE to integrate the precautionary principle regarding groundwater exploitation into the ESMF of the project, so that adequate attention is given to maintaining inter-generational equity.

Response from the accredited entity to the independent Technical Advisory Panel's assessment (SAP025)

Proposal name:	Adaptation of agricultural production systems in Coastal Areas of Northwest Guinea-Bissau
Accredited entity:	Sahara and Sahel Observatory (OSS)
Country/(ies):	Guinea-Bissau
Project/programme size:	Micro

Impact potential

The AE welcomes iTAP's assessment of the project's impact potential as being moderate to high. In terms of locations, Tombali Region was initially considered as an option. Through extensive consultations with local and national authorities, and in order to avoid over project's impact overestimation, Cacheu and Oio Regions were selected. Nonetheless, the project intends to establish a model that can be replicated to other areas of the country in a next phase.

Regarding the number of beneficiaries, it was considered that addressing low levels of awareness and knowledge on CC and CCA in the targeted areas, in combination with a strengthened enabling framework and examples of successful adaptation will lead to the uptake of resilience building beyond the 8,500 farmers and their households. The impacts will replicate and a positive uptake will be evidenced within the region and beyond hence raising the number beyond the 8,500 target.

Regarding the gender approach, and as per the project's pre-feasibility study, interviewed women – as opposed to men – expressed the belief that improvements of basic social services and the creation of economic opportunities for them could serve as the first step to overcome poverty and to achieve their well-being and that of their families. The project's concerted effort to target women as the majority of beneficiaries therefore has potential to create strong ripple effects.

Paradigm shift potential

The AE appreciates iTAP's assessment of the paradigm shift potential as moderate to high.

In addition to:

Para 29. [...] The proposed climate community centres (CCCs) will not only offer a participatory local-level platform for monitoring changes and generating key data with which to design appropriate CRA actions and action plans, these farmers' clubs will become platforms to nurture social capital based on mutual understanding, collective actions, and local institutions for sharing and peer learning. [...]

The CCCs will also nurture and promote greater gender inclusion, equality, and empowerment. 100% of the CCCs: will be established with input from women and men and with gender considerations; will be connected to community-based, rotating childcare system for children; and will have project staff who have been trained in GBV and to provide appropriate referrals. Furthermore, 75% of CCC monitoring systems will incorporate gender considerations and

strive for gender parity in leadership and membership. This will be ensured by the use of various criterion to be employed.

Para 32. [...By not having an awareness programme on forest conservation, the project lost the opportunity to make local people aware of the topic. This would have indirectly contributed to the operationalization of a regulatory framework, had there been such an awareness-related activity on forest conservation. The iTAP finds that the project missed an opportunity in relation to forest management.]

This comment is well noted. Although not specifically identified as a separate activity, environmental protection and forest conservation will be integrated in the community-based awareness programmes, into the trainings of farmers on CRA and environment-friendly agriculture, mangrove restoration activities, inter alia. Nevertheless, we take the comment into account for potential replication and scale-up of the project in a next stage.

Sustainable development potential

Due to the interdependency and the multiplier effect of SDGs, besides the SDGs specifically targeted within the project, additional economic, social and environmental SDGs will be advance; SDG 4 on Education, in targets 4.4. and 4.5 regarding vocational and technical skills increase among women and men, youth and adults; SDG 8 on economic growth through and increased agricultural productivity; SDG 14 on marine resources conservation and sustainable use by introducing better management practices and restoration of land-marine ecosystems; or SDG 16 on good governance, by promoting more inclusive, participatory and representative decision-making processes at the local and regional levels.

Concerns from iTAP assessment on a careful management of the possible trade-offs between cashew growing and environmental sustainability, as well as on women's overburdened labour are very much appreciated. They have been noted and discussed steadily during the project elaboration and will be taken into account during every step of the project execution, by a close monitoring and evaluation, and by ensuring a local and participatory approach.

The comment on the para 46. [...] *non-coverage of the mitigation component* is acknowledged. The project has a strong focus on adaptation, thus it has been determined as a crucial and urgent matter in Guinea-Bissau. Besides the benefits of mangrove forest restoration mentioned in the iTAP assessment, mangroves' contribution to protect coastal communities, livelihoods and economic endeavours against sea level rise are to be noted. We also note that the cost of mitigation supersedes the micro-scale of this SAP and as an introductory project to the regions and the first GCF project, future upscaling and projects with larger funding windows can take up the opportunity further.

As per the project's Gender Assessment Action Plan, such efforts form part of the action. Gender sub-activity (b) for Activity 1.1.4, for example, states that special efforts will be made to mobilize women: outreach will be conducted at times convenient to women, where women frequent, and when men are not present and gender related questions are encouraged. Other examples are gender sub-activity (f) for Activity 1.2.2, which is to consult attendees on timing to fit around family commitments and to accommodate different time-schedules and literacy classes (gender sub-activity (b) for Activity 1.2.4), among others detailed in the Gender Assessment Action Plan. Gender aspects will be embedded in content and forms of messaging and/or interactions, and a gender sensitive approach will be used in all IEC activities. The project's Gender Specialist will play a crucial role in supporting these and all other activities, as well as by providing continuous input and guidance. This would ascertain that the project has been engendered.

Needs of the recipient

Para 54. [...] Many of the barriers to crop sector development are well articulated, however there is a lack of financing from own resources. There are ongoing (and/or recently implemented) projects elsewhere, however the focus is not always in the right areas where it will leave a lasting impression and to force a paradigm shift.

While acknowledging the limitations of non-articulated development projects across the country, a matter that unfortunately occurs too often in development aid, the scope and magnitude of this first GCF project in Guinea-Bissau is believed to make a wide and long lasting impact in Cacheu and Oio Regions, that will strength regional and local institutional capacities as well as reinforce and establish solid cooperation relations between all the relevant stakeholders involved, which, ultimately, will serve as a paradigm shift and will bring lessons learned for future development approaches within the country. This will also assist in promoting sustainability and upscaling capabilities of the project.

Country ownership

The project is also aligned with the *National Policy for Gender Equality and Equity* (PNIEG, 2017) as well as with numerous international agreements regarding women’s rights to which Guinea-Bissau is a signatory, including the United Nations Convention for the Elimination of All Forms of Discrimination Against Women (CEDAW), among several others.

A pre-feasibility study was conducted in targeted communities to gather more information on the situation of women, men, girls, and boys in the footprint area. During implementation, as detailed in the Gender Assessment Action Plan, local initiatives/organizations that have a focus on women and/or gender will be contacted to gather further information and discuss strategies for collaboration. In addition, the e-platform elaborated in Activity 1.3.2 will be tested with women-led organization/associations and/or organizations that are comprised of and/or that work closely with women (agricultural, commercialization) to receive input and feedback to improve its accessibility for women.

Efficiency and effectiveness

The AE notes and welcomes iTAP’s overall assessment of the high efficiency and effectiveness of the project.

When designing the project, there has been a strong focus on building resilience at the community level, by reducing vulnerabilities and enhancing technical skills and infrastructure. The expected increased productivity of crops and associated increased food security and economic return will be made by including a sustainability approach, both environmental and social. The piloting technical approach of sustainable and monitored irrigation-based advanced crop production will benefit local communities and aims at serving as a milestone for future investment on small-scale agriculture and value chain development in the target regions.

Overall remarks from the independent Technical Advisory Panel:

The AE notes and welcomes iTAP's overall assessment and carefully notes the remarks on groundwater sustainable use and monitoring, especially among cashew growers.

Concerns from the assessment on a careful management of the possible trade-offs between cashew growing and water usage, they have been noted and discussed steadily during the project elaboration and will be taken into account during every step of the project execution, by a close monitoring and evaluation, and by ensuring a local and participatory approach.

A close collaboration between project implementers with local and regional authorities and with CCC leaders, as well as the creation of water committees within CCCs, will be strongly encouraged in this regard, in order to ensure that newly developed/augmented irrigation facilities are restricted for rice and vegetable production and not for cash crops growing.

The AE will integrate the precautionary principle on water exploitation into the ESAP of the project, as advised by iTAP.



Adaptation of agricultural production systems in Coastal Areas of Northwest Guinea-Bissau

Annex 4

Gender Assessment and Action Plan

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1. Introduction

Introduction

Women and girls are disproportionately affected by the impacts of climate change and associated severe weather events. Climate-induced floods, droughts, and resulting changes in productive activities exacerbate women's poverty and unpaid care and domestic work burdens. This is due to many factors, including entrenched discriminatory social and cultural norms, a lack of entitlements, and unequal access to land, water and productive assets; this is further compounded by limited mobility and decision-making power. Women are, however, agents of change who make crucial contributions to climate change mitigation and adaptation efforts.¹

In Guinea-Bissau, several studies show that gender inequality is present in all domains. In the legislative framework, despite the approval of the parity law in 2018, which foresees 36% of female representation in the National Popular Assembly, women continue to occupy only 14% of parliamentary seats; this highlights the limited role that women have played over time in political dialogue. In the economic sector, women and men in Guinea-Bissau are generally confronted with inequality, but the feminization of poverty is highly visible, because men control the available resources and women's paid work is harder and less productive. Domestic work does not allow women to concentrate on income-generating activities and leads to a significant proportion of girls being left out of the education system. Women are involved in small-scale trade, market sales and service provision. Despite the scarcity of statistics, the data provided under the National Policy for Gender Equality and Equity (*Política Nacional para a Promoção da Igualdade e Equidade de Género*, PNIEG, 2017) indicate that women represent 51.6% of people involved in the informal sector and particularly women heads of households (62.2%). The exclusion and discrimination of women in Guinea-Bissau is supported by the logic of patriarchal power. Women are exposed to various types of violence, such as female genital mutilation (FGM), domestic violence, early marriage, polygamy, etc. These inequalities are based on social gender practices, which start from childhood and persist throughout life. Current statistical data on formal education shows that women on average attend school for only 1.4 years, less than half that of Guinean men, who have an average of 3.4 years of schooling. The reasons for the low presence of girls in the education system are related to factors such as early pregnancy, family poverty, domestic work, etc.²

Over 30 years of repeated military coups and political instability in Guinea-Bissau, and especially the consequences of the most recent coup in April 2012, have undermined socio-economic progress and the institutions needed for gender-equitable development. Conditions today for the majority of women as well as men in Guinea-Bissau are marked by poverty, lack of basic infrastructure, and absence of basic services of health, education and justice. The PNIEG finds that women and girls have been especially disadvantaged by the years of crisis since they are allocated by gender to a secondary status in all spheres of household, community and national life. They face gender-based restrictions on their access to resources and education, and the double burden of household work to care for and feed their families along with market work to contribute to family income. Additionally, girls and women in Guinea-Bissau face the gender-specific risk of maternal mortality, and gender-specific abuses such as domestic violence, FGM, and early/forced marriage. Interviews with Bissau-Guinean women and women's associations, government officials, other civil society groups, and international donors, as well as relevant documents and reports, indicate that women have many needs, including: income, opportunity, legal rights, literacy and education, reproductive and maternal health, freedom from violence and harmful traditional practices, and changes in patriarchal norms and customs. The new government is committed to gender equality but it faces daunting development challenges in every sector, weak institutions, and lack of resources.³

The country also faces enormous challenges that stem from climate change. Although it is an insignificant emitter of greenhouse gases, it is vulnerable to its consequences because of its lowland geographical position: coastal erosion, salinization of agricultural land, rising sea levels, and floods engender negative consequences in the lives of women, especially those living in rural areas.⁴

The proposed project strives to ensure that vulnerable populations - 70% women - benefit from increased climate-resilient sustainable development in Guinea-Bissau. It will utilize a gender-responsive approach to contribute to: greater, and more effective, sustainable and equitable climate change results; build equally women and men's resilience to, and ability to address climate change; address and mitigate assessed potential risks for women and men from activities; and contribute to reducing the gender gap in climate change-exacerbated social, economic and environmental

¹ Green Climate Fund & UN Women. *Mainstreaming Gender in Green Climate Fund Projects*

² <https://www.impactpool.org/jobs/602176>

³ African Development Bank & UN Women. *Country Gender Profile: Guinea-Bissau (2015)*

⁴ <https://www.impactpool.org/jobs/602176>

vulnerabilities. The project will measure the outcomes and impacts of project activities on women and men’s resilience to climate change through gender-responsive monitoring and evaluation (M&E).

This gender assessment serves to verify that gender issues relevant to the project have been included systematically in the project design.

2. Gender in Guinea-Bissau

2.1 Achievements and Challenges

Gender achievements and challenges in Guinea Bissau

In Guinea-Bissau, only 20.4% of indicators needed to monitor the SDGs from a gender perspective are available, with gaps in key areas such as Violence Against Women, Unpaid Care and Domestic Work and Key Labor Market indicators such as Unemployment Rate and Gender Pay Gaps. In addition, many areas such as gender and poverty, women’s access to assets including land, physical and sexual harassment, and gender and the environment currently lack comparable methodologies for comprehensive and periodic monitoring.⁵

2.2 Basic Statistics

Basic statistics

Description	Country level	Targeted area level - Cacheu and Oio
Maternal mortality rate	790 per 100 000 live births ⁶ A household survey carried out in 2014 suggests that almost one in 100 pregnancies ends in the mother’s death, making Guinea-Bissau one of the 15 countries with the highest maternal mortality rates in the world. Causes of maternal death include widespread poverty, low status of women in society, persistently high fertility rates, low levels of contraceptive use, early marriage and pregnancy, and the consequences of FGM. Birth spacing is limited by the rare use of contraception, and only 65% of women receive four antenatal care visits. Less than half of all women (45%) deliver their babies with the assistance of skilled birth attendants – this is lower than the sub-Saharan African average. ⁷	Births taking place in public health facilities (%): <u>Cacheu</u> : 47% <u>Oio</u> : 24% ⁸
Infant mortality rate	54 per 1000 live births ⁹ A large proportion of child deaths (36%) occurs during the first 28 days of life. Preventable diseases, such as malaria, diarrhea and pneumonia account for 43% of all under-five child deaths. Between 2010 and 2014, under-five mortality fell substantially for the poorest 20% of the population, and among children of mothers with low educational attainment, although the gap between rural and urban areas is growing. Core	<u>Cacheu</u> - 71 per 1000 live births <u>Oio</u> - 39.5 per 1000 live births ¹¹

⁵ <https://data.unwomen.org/country/guinea-bissau>

⁶ UNICEF. A review of equity and child rights in Guinea-Bissau

⁷ UNICEF. *Situation analysis of children and women – Guinea-Bissau (2015)*

⁸ UNICEF. A review of equity and child rights in Guinea-Bissau

⁹ <http://hdr.undp.org/en/countries/profiles/GNB>

¹¹ <https://apps.who.int/gho/data/view.main.SUBREGchildmortality-GNB>

	vaccine coverage has increased steadily since its introduction. ¹⁰																			
Under 5 years children care (disaggregated by sex)	<p>Under 5 years' children left under inadequate supervision: <u>Total:</u> 70.1% <u>Male:</u> 70.7% <u>Female:</u> 69.6% <u>Urban areas:</u> 70.7% <u>Rural areas:</u> 70.0%</p> <p>Mostly for women work overload additional to income generating efforts, culturally, the under 5 year's old children are left with elder siblings (mostly sisters) care and even alone, considered inadequate by UNICEF.¹²</p> <p>This data additionally makes evident one of the causes that hinder female children's access to education.</p>	<p><u>Cacheu:</u> 80.1% <u>Oio:</u> 62.4%</p> <p><u>By main project target Ethnic:</u></p> <p><u>Fula:</u> 71.8 % <u>Balanta:</u> 66.9 % <u>Mandinga:</u> 69.1 % <u>Maniaco:</u> 76.9 % <u>Mancanha:</u> 76.0 % <u>Felupe:</u> 87.5 %</p>																		
5 to 17 years old children involved in the household activities (disaggregated by sex)¹³	<p>5 to 17 years old <u>girls</u> involved in household activities <u>Total:</u> 68.4% <u>Urban areas:</u> 66.3% <u>Rural areas:</u> 69.8%</p> <p>5 to 17 years old <u>boys</u> involved in household activities <u>Total:</u> 54.1% <u>Urban Areas:</u> 54.2% <u>Rural Areas:</u> 54.0%</p>	<p><u>Cacheu:</u> 66.9% <u>Oio:</u> 72.0%</p> <p><u>Cacheu:</u> 54.5% <u>Oio:</u> 46.0%</p>																		
Educational status of girls and boys	25.7% of girls aged 10-11 are out-of-school, versus 17.5% of boys aged 10-11 ¹⁴	<p><u>Cacheu:</u> Ratio of girls to boys in primary education – 0.9 <u>Oio:</u> Ratio of girls to boys in primary education – 0.4¹⁵</p>																		
Adult literacy rate (disaggregated by sex)	Female literacy – 32.6% Male literacy – 52.3% ¹⁶	<p><u>Cacheu:</u> 44.5% male; 37.6% female <u>Oio:</u> 26.9% male; 13.2% female¹⁷</p>																		
Poverty rate	Population living below income poverty line – 69.3% ¹⁸	<p>Quintile of wealth index (%)¹⁹</p> <table border="1"> <thead> <tr> <th></th> <th>Most poor</th> <th>2nd</th> <th>Medium</th> <th>4th</th> <th>Most wealthy</th> </tr> </thead> <tbody> <tr> <td>Cacheu</td> <td>21.9</td> <td>30.6</td> <td>23.6</td> <td>20.0</td> <td>3.9</td> </tr> <tr> <td>Oio</td> <td>33.8</td> <td>29.7</td> <td>19.6</td> <td>15.0</td> <td>1.9</td> </tr> </tbody> </table>		Most poor	2nd	Medium	4th	Most wealthy	Cacheu	21.9	30.6	23.6	20.0	3.9	Oio	33.8	29.7	19.6	15.0	1.9
	Most poor	2nd	Medium	4th	Most wealthy															
Cacheu	21.9	30.6	23.6	20.0	3.9															
Oio	33.8	29.7	19.6	15.0	1.9															
Labour force participation rate	77.80% ²⁰	<p><u>Cacheu</u> - 78.17% <u>Oio</u> - 73.53%²¹</p>																		
Employment rate	33.72% ²²	<p><u>Cacheu</u> - 36.20% <u>Oio</u> - 35.98%²³</p>																		
Unemployment rate	3.59% ²⁴	<p><u>Cacheu</u> - 2.91% <u>Oio</u> - 3.74%²⁵</p>																		

¹⁰ UNICEF. *Situation analysis of children and women – Guinea-Bissau (2015)*

¹² UNICEF. *MICS6 – 2018/2019*

¹³ UNICEF. *MICS6 – 2018/2019*

¹⁴ <https://www.unicef.org/guineabissau/education>

¹⁵ UNICEF. *Situation Analysis of Children and Women – Guinea-Bissau (2015)*

¹⁶ Monitorização da Situação da Criança e da Mulher. Inquérito aos Indicadores Múltiplos 2018-2019

¹⁷ Monitorização da Situação da Criança e da Mulher. Inquérito aos Indicadores Múltiplos 2018-2019

¹⁸ <http://hdr.undp.org/en/countries/profiles/GNB>

¹⁹ Monitorização da Situação da Criança e da Mulher. Inquérito aos Indicadores Múltiplos 2018-2019

²⁰ <https://guineabissau.opendataforafrica.org/GWSECD2015/guinea-bissau-socio-economic-data-2015?region=1037380-cacheu&indicator=1022100-poverty-incidence-of-absolute-poor-population-2-usd>

²¹ *ibid*

²² *ibid*

²³ *ibid*

²⁴ *ibid*

²⁵ *ibid*

<p>Political participation rate (disaggregated by sex)</p>	<p>Despite the country's historical fragility, elections generally pass off peacefully and voter turnout is usually high.²⁶</p> <p>In the March 2019 elections, the United Nations and European Union praised parliamentary elections as peaceful and orderly, and an observation mission from the African Union deemed them free and fair, though it noted some flaws in the process. Women enjoy equal political rights, but their participation is limited in practice by cultural obstacles, and they are underrepresented in leadership positions. Just 14 women won seats in the March 2019 parliamentary elections, the same number as in 2014. A 2018 law requires 36% of candidates on party lists to be women.²⁷</p>	<p><u>Cacheu</u> As per the project's pre-feasibility study, the number of women who participate in local meetings is significant. In some communities visited (Pelundo, João Landim) there are at least 2 women opinion leaders. In the communities of João Landim, Pelundo and Có, both men and women participate in decision-making. In all the communities visited, women stated that they participate in large numbers in the debates and village meetings. They give opinions in relation to decisions, but which are often not taken into account in the final decision.</p> <p><u>Oio</u> As per the project's pre-feasibility study, in the communities visited in the Oio region, especially those of the Balanta ethnic group (Nhoma, Djugudul, Watini, Missia-Bissorã), the power of decision, organization and management, as well as judgment of disputes, belongs to the chief of the morança (within the family), to the head of the tabanca and/or tabanca committee (within the tabanca), and the most relevant or controversial issues are taken by them to the council of elders, so that a final decision can be taken. The council of elders (described more below) can be convened to analyze and resolve conflicts between the traditional authorities of tabanca (Balanta) who have the power to organize the life of tabanca and to judge the problems that occur in it. All groups interviewed reported that women take part in decision-making.</p>
<p>Life expectancy (disaggregated by sex)</p>	<p>58.3 years 60.2 years – female 56.3 years – male²⁸</p>	
<p>Gender-based violence</p>	<p>Between 2006 and 2010, 23,193 reports of gender-based violence (GBV) were registered in Guinea-Bissau; the actual number is believed to be much higher. 44% of women were victims of different types of physical violence (punch, slap, kick). GBV is rarely denounced due to the naturalization of violence against women, and also because of low public confidence in the police and judicial system.²⁹</p> <p>65% of women who have no education have undergone FGM, compared with 28% who have secondary education; almost half of daughters of uneducated mothers are subjected to FGM, compared with 9% of daughters of highly educated women.³⁰</p>	<p>Between 2006 and 2010:³¹</p> <p><u>Cacheu</u>: 1,988 reports of GBV</p> <p><u>Oio</u>: 2,077 reports of GBV</p> <p><u>Prevalence of FGM among women 15-49 years:</u>³²</p> <p><u>Cacheu</u>: <25%</p> <p><u>Oio</u>: 51-80%</p>
<p>Early Child Marriage</p>	<p>Percentage of woman between 15 and 49 years that have married when under 15 years' old³³</p> <p><u>Total</u>: 8.4%</p> <p><u>Urban Areas</u>: 5.2%</p>	<p><u>Cacheu</u>: 4.9%</p> <p><u>Oio</u>: 8.7%</p> <p>By main project target ethnics:</p> <p><u>Fula</u>: 13.8 %</p> <p><u>Balanta</u>: 4.5 %</p> <p><u>Mandinga</u>: 9.3 %</p>

²⁶ UNICEF. *Situation analysis of children and women – Guinea-Bissau (2015)*

²⁷ <https://freedomhouse.org/country/guinea-bissau/freedom-world/2020>

²⁸ <http://hdr.undp.org/en/countries/profiles/GNB>

²⁹ Um retrato da violência contra mulheres na Guiné-Bissau (2011)

³⁰ UNICEF. A Review of Equity and Child Rights in Guinea-Bissau

³¹ Um retrato da violência contra mulheres na Guiné-Bissau (2011)

³² UNICEF. A Review of Equity and Child Rights in Guinea-Bissau

³³ UNICEF. *MICS6 – 2018/2019*

	Rural Areas: 10.5%	Manjaco: 2.1 % Mancanha: 3.7 % Felupe: 6.8 %
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2.3 Policy Framework

The legal status of women in Guinea-Bissau

Against the background of government instability and crisis, women's associations and civil society have worked to address women's needs, and provided recommendations and advocacy on gender issues for the 2013-14 transition government, including the formulation of the PNIEG. These organizations received critical support for their efforts from United Nations agencies, which remained in the country after the coup as part of the UN Integrated Peace-Building Office in Guinea-Bissau (UNIOGBIS), and also from the European Union and a few other partners after the withdrawal of most international donors.³⁴

Guinea-Bissau is a signatory to numerous international agreements regarding women's rights, including: Universal Declaration of Human Rights; United Nations Convention for the Elimination of All Forms of Discrimination Against Women (CEDAW); Optional CEDAW Protocol; Protocol Relating to the African Charter on Human and Peoples' Rights on the Rights of Women; International Covenant on Civil and Political Rights; United Nations Convention on the Rights of the Child; United Nations Convention on the Rights of Refugees (plus additional protocols); Marriage Consent Convention (minimum age and registration); Convention on the Political Rights of Women; Convention on All Forms of Racial Discrimination; International Covenant on Economic, Social and Cultural Rights; Convention Against Torture and Other Cruel, Inhuman and Degrading Treatment or Punishment; Multilateral Cooperation Agreement to Combat Trafficking in Persons in West Africa (ECOWAS); Maputo Protocol; and UN Resolution 1325 on Women, Peace and Security (2000), among others.³⁵

Guinea-Bissau has also committed to eliminate child, early and forced marriage by 2030 in line with target 5.3 of the Sustainable Development Goals. During Guinea-Bissau's 2015 Universal Periodic Review, recommendations were made to improve the school attendance of girls as a way of discouraging child marriage in rural areas. The government reported that child marriage is embedded in traditional culture and that eliminating the practice would take a "great deal of time" and require "careful handling". It agreed to take practical steps to eradicate the number of child marriages, including through public information campaigns.³⁶

National laws further demonstrate the Government's commitment to women's empowerment and equality. These include: Law No. 12/2011 of 6 July 2011 - law against trafficking in persons; Law No. 14/2011 of July 6, 2011 - law to combat female genital mutilation; Law 06/2013 of 18 July 2013 - law against domestic violence; Proposed revision of the land law; Draft quota law; Framework law for political parties; Civil service operating statute (proposal to change maternity leave - change from 2 to 3 months); Educational policy charter (with a focus on promoting IEG); Strategic plan for the development of the education sector; National youth policy; DENARP II; Operational Strategic Plan "Terra Ranka"; Canchungo Declaration; Incentive to recruit technicians (women) trained in law for the judicial area (search for balance); Recruitment policies at various institutions encourage female applications; National family policy; and exemption from consultation fees for pregnant women and children up to 5 years, among others.³⁷

Nationally, there has been additional, visible progress:

- Existence of several PNIEG-inspired/based projects in all sectors (public, private, non-state and cooperation);
- Increase in the participation of women in parliament and government (occupation of key areas: defense, justice, cooperation);
- Increased sensitivity of legislator/Assembleia Nacional Popular (ANP)³⁸ on gender aspects;
- Improved capacity of CSOs;
- Greater strengthening of institutional capacities and human resources of women's organizations (to reduce discrimination and increase participation of women in access to property and credit);
- Increased availability of information
 - Dissemination of gender issues in the media (girls' program for girls, television program "positive adolescence", disclosure of the law against FGM - conference, radio program "The Citizen", "bambaram");
- Emergence of new female organizations

³⁴ African Development Bank & UN Women. *Country Gender Profile: Guinea-Bissau (2015)*

³⁵ Política Nacional de Igualdade e Equidade de Género – II (Revisão da PNIEG II) Validação 07/03/2017

³⁶ <https://africa.unwomen.org/en/where-we-are/west-and-central-africa/guinea-bissau>

³⁷ Política Nacional de Igualdade e Equidade de Género – II (Revisão da PNIEG II) Validação 07/03/2017

³⁸ National Assembly of the People

- Creation of PPM, REMPECAO, Association of Women Journalists, Association of Women Lawyers, Association of Women Teachers and Educators, Association of Young Leaders, CMDS;
- Creation and promotion of Monitoring House for the Women's Electoral Process (*Casa de Acompanhamento do Processo Eleitoral das Mulheres*) sensitizing women to participate, early warning, monitoring the electoral process, sensitizing candidates to accept the results, exchanging experience with women in the sub-region, participation in the announcement of election results).³⁹

Yet although the law enshrines the principle of equality between men and women, based on Article 25 of the Constitution and the international conventions to which Guinea-Bissau is a signatory, there are important laws, such as the civil code, which have contradictory provisions with the principle of equality. Art. 1674, for example, assigns a man as the head of the family. And in customary law, most women have no right to land ownership, inheritance, and are unequal in divorce. In addition, there is inequality in the sharing of assets and in the rights and responsibilities in the maintenance and education of children.⁴⁰

Although the Government established the Instituto de Mulher e Criança (IMC; an organization with which ADPP-GB has worked in the past) and created the PNIEG, the country and its institutions were not able to put the PNIEG into action. This is in large part due to the country's instability. As an illustration, the Ministry in charge of implementing PNIEG had five ministers in three years and in the middle of the PNIEG review process, the president of the IMC was released from her duties.⁴¹ In addition, the National Committee for the Abolition of Harmful Practices (CNAPN) is conducting work to eliminate FGM. UNFPA is also working to eliminate FGM, fistula due to FGM, and to promote improved sexual and reproductive health; ADPP-GB has worked with UNFPA on these subjects, on several occasions, as part of ADPP-GB's health program.

2.4 Situation in the Footprint Area

The situation of women and men in the specific sector of intervention or in the project/program footprint area

Women and men face alarming circumstances in Guinea-Bissau. Nearly 70% of people live below the poverty line, with high infant and maternal mortality rates and a countrywide chronic malnutrition rate of over 25%.⁴²

Agriculture is a major source of employment for most of the population (69%) with women farmers forming the larger proportion (65%). There is no collected data on monthly earnings of male and/or female farmers.⁴³

Although both women and men suffer from the effects of poverty, gender bias means that men control whatever scarce resources are available and women's income-producing labor becomes more arduous and less productive. Women's gender-specific roles are also more burdensome under poverty: domestic labor, which keeps women from income-producing activities and girls from school; and women's reproductive roles, for which poverty increases risks of malnutrition, illness and maternal mortality. Young girls are also at greater risk of early/forced marriage. According to the PNIEG, throughout the country, women bear the responsibility for the care of the household and the family and 89% of their households are in precarious condition, 80% rely on candles for light, 96% cook with wood or charcoal, 91% get their water from sources outside the house, and 65% use latrines in precarious condition. These conditions signify more hours of work for and more sacrifices by women.⁴⁴

In addition to the overall challenging situation that most farmers in Guinea-Bissau face, women and girls additionally face:⁴⁵

- Child marriage. 24% of girls in Guinea-Bissau – and 2% of boys – are married before their 18th birthday and 6% are married before the age of 15. Child marriage is much more common in rural areas.
- Lower levels of education.
- Harmful traditional practices such as FGM, sexual rituals and child marriage.
- Harmful traditional attitudes. It is generally considered that a girl is ready for marriage when she hits puberty.
- Weak legal frameworks.
- Violence. Acceptance of violence against women is widespread. Many women believe their husbands are entitled to beat them if they argue with them or leave the house without informing them.

In preparation of the proposed project, a pre-feasibility study was conducted in targeted communities to gather more information on the situation of women, men, girls, and boys in the footprint area.

³⁹ Política Nacional de Igualdade e Equidade de Género – II (Revisão da PNIEG II) Validação 07/03/2017

⁴⁰ Política Nacional de Igualdade e Equidade de Género – II (Revisão da PNIEG II) Validação 07/03/2017

⁴¹ Política Nacional de Igualdade e Equidade de Género – II (Revisão da PNIEG II) Validação 07/03/2017

⁴² <https://www.wfp.org/countries/guinea-bissau>

⁴³ FAO. *Climate smart agriculture in Guinea-Bissau (2019)*.

⁴⁴ African Development Bank & UN Women. *Country Gender Profile – Guinea-Bissau (2015)*

⁴⁵ <https://www.girlsnotbrides.org/child-marriage/guinea-bissau/>

With regards to access to education, communities reported no difference between boys and girls, and that everyone has the right to access education. They did report, however, that girls leave school earlier because they are subjected to early marriages and pregnancies. These circumstances happen across all ethnic groups, but in the team's research, was found mainly in the K3 tabanca, where the predominant ethnic group is the Mandinga.

Climate change has affected both women and men primarily through reduced incomes. Women also face additional difficulties in accessing drinking water and increased stress in family life. Many families have significantly reduced food consumption, and now often eat just two meals a day. Children, pregnant women and elderly women generally eat two meals a day. At the Nhoma and Ensalma tabancas, Mansoa these groups take one meal a day.

All tabancas in the Oio region use natural resources to satisfy basic needs. The production of cash crops has not been sufficient to ensure children's food and education.

Access to drinking water is one of the biggest problems for the tabancas in the Oio region. When water is scarce, the population digs traditional wells. Animals drink water from the bolanha.

There are a significant number of tabancas where women are heads of household. Their role is to work to keep children in school and to provide them with food and clothing. Although they are heads of households, when the husband dies, the wife is not entitled to the property or land left by the husband. The issue of land tenure for women not only contributes to social inequalities at the community level, but also has negative impacts on women's sexual and reproductive health, as many live in polygamy and/or are inherited by other men from the husband's family. If they do not have any adult children, when they become widows, the land that belonged to the husband becomes theirs. When they are "inherited" by a family member on the husband's side, the right to that land passes to the man who inherited it or to the eldest son of the husband who died.

Guinea-Bissau is a patriarchal society. In most cases, a woman filing for divorce – 0.5% of women⁴⁶ – is at risk of losing guardianship of her children. Additional reasons are economic inequality, as many women – due to embedded inequalities and a lack of opportunity to training/education/income generation – are not able to economically support themselves alone. Culturally, a divorced woman is often shamed and rejected by family and community. Several ethnic groups in Guinea-Bissau do not allow women married under customary law to ask for separation or divorce. Some other groups simply do not allow divorce. When women are awarded guardianship, it is generally only until the children reach the age of seven, when they may be handed over to their fathers.⁴⁷ In the communities interviewed in the Oio region, land ownership is always male; there is no land inheritance by women. However, in the Missira-Mansoa and Mansoa tabancas, there are women who have their own land/gardens that were donated by their husbands/fathers. These properties are not legalized, but have been recognized by local committees (which represent an intermediary between the traditional system and the state system).

Collecting water for domestic consumption is generally the responsibility of women, who must travel distances to water sources. Water scarcity has greatly affected horticultural work.

In relation to culture, and due to poverty and a lack of opportunities in rural areas, there was an increase in the emigration of young people to the capital, thus weakening the continuity of cultural practices in the communities.

In the meetings held at all tabancas and with all social groups (women and men) it was clear that among all the different groups, there is a strong aspiration to improve their well-being and the conditions of their housing environment.

Women generally seek improvements of basic social services (water, health and transport) and the creation of economic opportunities for them, as the first step to overcome the state of poverty prevailing in the tabancas and to achieve their well-being and that of their families. At all meetings, it was common to request support to facilitate access to health services and to reduce the isolation of their tabancas.

All the men of the ethnic groups expressed aspirations to improve their condition and the living conditions of their families. They showed a more resigned attitude towards the situation of social and economic difficulties of their tabancas. Although they ask for support, especially to promote the increase in rice production and the development of agriculture, they do not seem to place themselves at the center of the dynamics nor do they see themselves as the main actors and promoters of the improvement of the socioeconomic conditions of their communities.

The low level of literacy among women also represents a conditioning factor for their role. The main social problems specific to women in the regions covered by the study are related to the many and diverse tasks and responsibilities they have. This multiplicity of tasks and family responsibilities is the main factor of overload of this group and, being a large part of its routine activities related to the availability of natural resources, the reduction and/or the disappearance

⁴⁶ Monitorização da Situação da Criança e da Mulher. Inquérito aos Indicadores Múltiplos 2018-2019

⁴⁷ UNICEF. *Situation analysis of children and women – Guinea-Bissau (2015)*

of these resources in the vicinity of the tabancas, will still overburden more women looking for alternatives to ensure household food security and the traditional way of life.

2.5 Beliefs and Stereotypes

Commonly held beliefs, perceptions, and stereotypes related to gender in the project/program footprint area or the country of intervention

With the majority of Bissau-Guineans and of women living a rural, agricultural lifestyle without education or services, ethnic group traditions have an especially strong hold, and all ethnic groups have traditional beliefs and practices that restrict women's roles and rights. Some men and women use religious beliefs to justify the inferior status of women, including acceptance of violence against women and FGM.⁴⁸

According to data collected during the project's pre-feasibility study, commonly held beliefs, perceptions and stereotypes related to women in the targeted communities include the following:

Oio, Manso

- Women should take care of children and the elderly (Missira)
- Women must not contradict their husbands; women must not control money or goods; women should not be overly educated; women should not speak too much in public (Jugudul)
- Women must not contradict their husbands; women must not control money or goods; women should not be overly educated (Watini)

Oio, Farim

- Women must take care of children and the elderly; women must not speak too much in public; women must not contradict their husbands; women must not control money or goods; women should not be overly educated (Ga Lomba)

Cacheu

- Women should not be overly educated (João Landim)
- Women should take care of children and the elderly (Pelundo)

Some roles of women that the communities reported included: worker; teacher; leader; and salespeople in lumos⁴⁹ and horticulture.

Also according to the pre-feasibility study, commonly held beliefs, perceptions and stereotypes related to men in the targeted communities are the following:

Oio, Manso

- Men must take care of their families financially (Missira)
- Men should not get sick (Mansoa)
- Men are responsible for/must control their wives; women contribute more to the family's economy (Jugudul)
- Men must take care of their families financially; men must not get sick (Mansini)

Oio, Farim

- Men should not get sick (Ga Lomba)
- Men are responsible for/must control their wives; men need more time than women to rest (K3)

In Gã Lomba it was reported that men and women share tasks.

Cacheu

- Men must take care of their families financially (João Landim)
- Men are responsible for/must control their wives; women contribute more to the family's economy (Pelundo)
- Men need more time than women to rest (CÓ)

Some of the roles for men were reported as: worker; teacher; leader; and farmer.

3. Economic Differences

3.1 Division of labor among women and men

The division of labor among women and men in the project/program footprint area and/or the country of intervention

⁴⁸ African Development Bank & UN Women. *Country Gender Profile – Guinea-Bissau (2015)*

⁴⁹ A regional market – larger than a local market – that generally takes place once a week or once a month. Many different sellers, mostly informal, gather at this market.

As part of the pre-feasibility study, all communities reported that women are responsible for housework and responsibilities - cooking, looking after children, washing, and fetching water or firewood. The one exception was Ga Lomba, which reported that responsibilities were shared between men and women.

They travel long distances in search of water. Water collection points reportedly are locations for conflicts - because they concentrate a large number of women, which can create disagreements about water collection priorities. They are also a location where women talk about family and community problems.

The communities reported a significant number of female heads of household. They must keep children in school and also provide food and children's clothing.

The men from the tabancas visited for the project's pre-feasibility study are essentially farmers, and most of the leaders are male. Some are also teachers, especially in João Landim tabanca.

Agricultural production is often managed in partnership between women and men. A man, for example, separates the rice for the next crop and for consumption; the rest is left to the woman/wife. In the Cacheu region, specifically in the Có community, men have increased their participation in horticulture (they help to prepare fields and support the construction of fences.)

The predominant activity sectors in most of the communities visited, especially in the Farim and Mansoa sectors are: horticulture, rice cultivation, and cashew production. However, there is also production of palm oil/roots/tubers and salt extraction. All of these activities have been affected by climate change, which has reduced income opportunities for women and made access to drinking water more difficult.

Women reportedly spend 1-5 hours a day taking care of the family.

3.2 Participation of women and men in the economy

The participation between women and men in the formal/informal economy in the country of intervention or in the project/program footprint area

Women manage the food in the home and mainly work as market traders and vendors. They make important contributions to cashew and rice cultivation and agriculture in general, most notably during harvesting season. Though women have the formal right to own assets, if they are married under customary law, then crops, land, household goods and livestock are considered the property of the head of the household.

As per data collected in the project's pre-feasibility study, women in the targeted areas develop income-generating activities such as horticulture, salt production, artisanal fishing, fish smoking, production of roots and tubers during the dry season, the collection of cashew nuts, and the production of wine and brandy. They also collect non-timber forest products, which contribute to the family economy and ensure basic needs (health and school for children).

Women do not have the right to access land or manage and redistribute production on land; they only have the right to use the land.

In all of the areas visited for the pre-feasibility study, the productive role and responsibilities of women have increased while their domestic obligations have not decreased; women have increasingly contributed to the family economy.

Even facing difficulties caused by climate change, growing vegetables is an incentive to seek resources to ensure family expenses related to school, clothing and food for children.

In addition to horticulture, women also carry out other activities, such as palm oil extraction and rice production, which further contributes to their financial autonomy.

When asked about improvements and development in the community, all women interviewed stated that there had been significant developments in education, infrastructure, health, and sanitation. They pointed out that the number of children in school has been increasing, that more houses are covered with zinc, there is greater access to the health center in São Domingos, and a greater number of health workers. They reported, however, a continuing lack of materials and human resources in the areas of health and education.

In the Oio region, the cultivation of mangrove rice is dominant and practiced mainly by men, but women play an important role in all tasks associated with rice cultivation. Other economic activities include the production of salt (K3 tabanca), small-scale fishing (practiced by women and men), and small-scale production of vegetables.

3.3 What resources women and men access

What resources (economic, financial, physical, natural, other assets) do women and men have access to? Who manages or controls access to these resources?

According to data collected during the pre-feasibility study, referring to the right of ownership from a social and cultural perspective, a man is considered the sole owner. For reasons of tradition and culture, women are hardly considered owners of the land. But analyzing the role of men and women in terms of who decides on the money they earn from selling the products, the main executor of this task is the woman.

In all the communities interviewed in the Cacheu region, land is always owned by a man, with men considered the legitimate owner of the land. However, in some communities visited, there are women who own land, such as Bachil, Cacheu sector. (This tabanca is primarily Manjac, an ethnic group that is matriarchal) Although most women do not own land, they are not restricted from access or use.

As for the exploration of natural spaces and resources, women have the right to such spaces/resources without needing authorization; all goods extracted become property of whoever removed them. In all of the tabancas visited in the Cacheu region, women are the main users and beneficiaries of the mangrove ecosystem products/goods (fish, mollusks, firewood, seafood, salt). They can freely decide on the use/destination of these goods (consumption, marketing).

During interviews in all tabancas, women stated that they are the ones who decide the fate of the money they earn from marketing agricultural products. Usually, they use this money to pay for their children's school, to buy seeds, food, clothes, to secure a loan for their husbands, etc. They always communicate with their husbands and show them the money they have earned, but they keep the money.

Women have control above all over the sale of products that are their initiative (agricultural and forestry). In general, men supervise but do not have full control over the income generated by women. The income belongs to the household, even if it is paid by women (in the case of harvesting and selling cashew nuts).

The management of agricultural production is generally carried out by the women (tabancas of Nhoma and Ensalma). They decide what to cultivate, when to cultivate, and where to cultivate.

The preparation of the land for rice cultivation is carried out by women, as well as sowing and harvesting (in all communities). Usually, it is the man who decides how to share the produced rice for consumption, for ceremonies, and for the next sowing. As for rice for domestic consumption (house), the quantities used daily are determined by the woman (housewife).

In relation to men, most of them are farmers, but there are male teachers. Climate change has affected men mainly in decreasing income and increasing stress in their family life.

As per the pre-feasibility study, some resources that women have access to include:

- Vegetable garden (Jugudul)
- Rice (Jugudul & Pelundo)
- Livestock (Missira & João Landim)
- Okra production (Ga Lomba)
- Salt extraction (K3)
- Horticulturists association (Watini)

Resources that men have access to include:

- Cashew (Jugudul & Pelundo)

And resources that both are reported to have access include:

- Bolanha⁵⁰ (Jugudul)
- Horticulture (Ga Lomba)
- Agricultural land (Pelundo)
- Missira reported that both women and men have access to various economic, financial, physical, and natural resources

4. Access to information and training

4.1 Access to education and technical knowledge

Do women have equal access to education, technical knowledge, and/or skill upgradation?

Statistics on education from the MICS4 survey of 2010 showed improvement in both girls and boys school enrollment and completion rates, but there were still serious problems. In 2010, primary enrollment overall was at 70%, indicating that almost 1/3 (30%) of children of primary school age did not attend school. In the eastern province regions of Bafatá and Gabú, more than half of young children (53%) were not in school. Among the poorest two quintiles, 56% were not

⁵⁰ Wet rice field

in school. These data are not disaggregated by sex but other evidence suggests that the rate of non-enrollment of girl children would be much higher than the overall statistic. Also according to MICS4, primary school completion rates in 2010 increased to 64%, from 29% in 2000. The rate for girls' completion of primary school increased to 57% from 21% in 2000. This is a significant improvement but it shows that 43% of girls who were enrolled in primary school dropped out before completing.⁵¹

Literacy for adult Bissau-Guinean women is a critical input that can improve labor productivity and income, awareness of rights, and management of household and resources.⁵²

Despite the importance of agriculture to the economy, the majority of farmers – especially women – work at primitive levels, with little or no tools, equipment, training, access to water or decent roads. A priority defined by women in interviews and discussion groups in regions outside Bissau is for agricultural extension services to provide training and supplies to improve efficiencies and productivity. They said that with training as well as equipment and tools, women's labor could be much more productive.⁵³

The communities visited for the project's pre-feasibility study reported that they had never received any training or awareness activities from the Government, NGOs or grassroots associations on the subject of adaptation to climate change.

All communities visited reported that women have equal access to education, technical knowledge, and/or skills upgrading.

Women demonstrate a strong desire to improve the level of school knowledge of their children and to take advantage of the few opportunities that exist locally in the field of training. All of them expressed an interest in participating in community literacy programs.

Women report that they need jobs, training support, and more opportunities to participate in activities related to horticulture and extraction of forest goods.

4.2 Access to information, training and opportunities

Do women and men from vulnerable communities have equal access to information and opportunities necessary to participate and benefit fully from the anticipated outcomes of the project/program?

As described above, as a woman's level of education increases, the probability of her daughter not being subjected to FGM decreases. In addition, the primary net attendance rate for girls whose mothers have secondary education or higher is 91%, compared with 55% for girls whose mothers have no education. And 78% of children whose mothers have a high level of education have received all the necessary vaccinations, compared with 56% of children with uneducated mothers.⁵⁴

Access to education is a cross-cutting problem in all regions visited, and is a problem aggravated for girls. The interviewees highlighted the importance that academic training represents for the development of a community. As a result of the greater workload that is under the responsibility of girls, it often leads to school dropout and the search for alternative employment in urban centers.

Based on feedback from the pre-feasibility study, women and men will have the necessary access to information and opportunities to participate and benefit fully from the anticipated outcomes of the project.

5. Decision-making

5.1 Women and men's participation in decision-making

To what extent do women and men from vulnerable communities participate in decision-making processes?

The civic participation of Guinean women and their access to decision-making levels continues to be insufficient. There are numerous and various factors that contribute to the poor representation of women in political decision-making and for their weak participation in political and/or institutional and civic. As a result of poor socialization and schooling, most women do not take an active part in the political party life of political parties. The family and school curricula do not promote or stimulate the image of good practices of women in political and family life. Politics and major national decisions continue to be a space where male values and attitudes prevail. The general labor law guarantees women

⁵¹ African Development Bank & UN Women. *Country Gender Profile – Guinea-Bissau (2015)*

⁵² African Development Bank & UN Women. *Country Gender Profile – Guinea-Bissau (2015)*

⁵³ African Development Bank & UN Women. *Country Gender Profile – Guinea-Bissau (2015)*

⁵⁴ UNICEF. *A Review of Equity and Child Rights in Guinea-Bissau*

access to any job, however it does not have any specific mechanism that favors the participation of women in decision-making bodies.⁵⁵

According to information collected during the project's pre-feasibility study, women's decision-making power, both within the family and at the community level, is weak and limited.

Yet in all communities visited during the field mission, the number of women who are engaged and participating in local meetings was significant. In addition, in all sectors in the Cacheu region a certain level of social cohesion and autonomy with regard to horticultural production was. In the communities visited (Pelundo, João Landim) there are at least 2 women opinion leaders. In the communities of João Landim, Pelundo and Có, both men and women participate in decision-making. Women are mainly concerned with issues related to the family, education of children and family health. In all the communities visited, women stated that they participate in large numbers in the debates in the different meetings that are held in the village. They give opinions in relation to decisions, but their opinions are often not taken into account in the final decision.

When asked about the mobilization of women, the response in almost all communities was positive; this further reinforces their contribution and interest in building a space where they can develop their skills and reinforce their abilities to exhibit and present in other spheres of society.

Although most communities do not have a formal and legal association, those that do exist are a space where women discuss their problems openly.

Asked who the opinion leaders in the community are, most women said they were men. However, in Mansoa village, there are women opinion leaders who have a very important role in making decisions related to the life of the village.

Women considered to be opinion leaders in the community are "big" women (older women); they have no academic qualifications and are sometimes illiterate, but they have the skills and experiences acquired over the years in mediation and counseling. The only compensatory measure that exists for these women opinion leaders is the respect that is reserved for them in the tabanca.

Women in the communities stated that they participate in decision-making; this is above all linked to issues related to finances, the family, income generation, education, health and tradition.

In all the tabancas visited, women stated that there is a certain level of social cohesion and that there are few situations of conflict. If there is a conflict in the community, it will be resolved on the basis of dialogue through the council of elders. (Depending on the ethnic group, the council can be formed by men and women or just by men. Sometimes there is an elder council of woman and another council of man in the same village. Generally, however, the councils are comprised of men) In some tabancas (K3 and Mansoa) the interviewees mentioned the existence of a protection committee - against gender-based violence - which is usually made up of men and women. The participation of women in protection committees facilitates their affirmation in the community in terms of voice, defense of women's rights, and social protection of women and girls.

In the communities visited in the Oio region, especially those of the Balanta ethnic group (Nhoma, Djugudul, Watini, Missia-Bissorã), the power of decision, organization and management, as well as judgment of disputes, belongs to the chief of the morança, (within the family), and the head of the tabanca and/or tabanca committee (within the tabanca); the most relevant or controversial issues are taken to the council of elders, so that a final decision can be taken. The council of elders can be convened to analyze and resolve conflicts between the traditional authorities of tabanca (Balanta) who have the power to organize the life of the tabanca and to judge the problems that occur in it.

What types of decisions are made by women?

Mainly due to poverty, many families have significantly reduced food consumption, and now often eat just two meals a day. In most communities this decision was made by women, with the exception of the Pelundo tabanca, where - in most families - men and women discussed and made that decision jointly.

If the income is not sufficient to cover all feeding needs, families decide on food consumption by priority. This may differ by community/ethnicity but, based on ADPP-GB's experience, can generally be described by the following: children are generally given 1st priority, followed by sick and pregnant household members (2nd), followed by the elderly (3rd), and then followed by adult men and women. During mango season, it is common for an adult eat to eat just mango and eventually other fruit, leaving household food for the weaker/more vulnerable family members.

⁵⁵ Política Nacional de Igualdade e Equidade de Género – II (Revisão da PNIEG II) Validação 07/03/2017

Women are generally the household managers who handle household-related economic and other day-to-day decisions. Based on ADPP-GB's experience, in project formed committees, women are usually chosen by community members to be water managers and income managers. In a project related to renewable energy implemented by ADPP-GB with EU support,⁵⁶ 70% of beneficiaries were women. They formed an association by the project end and, as part of the exit strategy, 90% of the association's members were women.

In the 6 tabancas visited in the Cacheu region, it is women who decide on the fate of the money they earn from selling vegetables, cashews and palm oil, lemon vinegar and others. This further reinforces the importance of the role of women in organization, development and security in rural communities. Their financial autonomy is still seen as a challenge, as this is only possible when they are successful in selling their products.

In recent years, when harvests have been poor due to drought or floods, the family has reduced food consumption, and there has been increased emigration, especially among young people who move to urban centers and abroad in search of work. This decision is made by the husband and wife within the family.

The following were reported as the types of decisions that women make:

- Finances (Mansoa & Ga Lomba)
- Family (Missira & C6)
- Education (Missira, Ga Lomba, Jo6o Landim)
- Health (Missira, Ga Lomba, Jo6o Landim)
- Agriculture (Ga Lomba)
- Decisions linked to tradition (Jugudul & Ga Lomba)
- Income generation (K3)
- Family property (Watini)

In the regions of Cacheu and Oio visited for the project's pre-feasibility study, dozens of associations formed mostly by women were identified. Despite these initiatives, however, most of these associations still have very weak organizational dynamics. Some of the main problems of these associations are: no legal recognition; inexistence of statutes and internal regulations; members' ignorance of their roles and responsibilities; existence of savings banks, but not regularly provided; absence of a functional registered office; difficult access to finance; weaknesses in member capacity building; weak support in production and marketing; lack of technical and financial partnerships; and lack of administrative support from sectors.

5.2 Constraints for women to participate in decision-making

What are the constraints (social, cultural, economic, political) that restrict women's active participation in household and community level decision-making processes?

Women in Guinea-Bissau face restraints in social, cultural, economic, and political spheres that restrict their active participation in decision-making processes.

Social. Lack of education and access to training/information reduces women's ability and likelihood to participate in decision-making processes. Poor health and wellbeing reduce a woman's ability and capacity to participate actively. Devoting a large amount of time to care work reduces a woman's ability to participate in other activities, including decision-making forums.

Cultural. Some cultural mores continue to entrench gender inequalities, often do not empower women, and do not generally create enabling circumstances to allow women greater participation.

Economic. Many women have a heavy burden of work, income-generating activities, and home/care work; this limits their time and ability to actively participate in decision-making processes. They also face difficulties in accessing credit, land, and inputs; all of these circumstances contribute to less financial security, which in turn can reduce the chances that they will be able to participate actively.

Political. Many women do not participate actively, thus reducing the likelihood of their participation in household and community level decision-making. In addition, the lack of education opportunities for women and girls reduces their possibilities to reach positions of political or governmental leadership.

⁵⁶ Renewable Energy for Local Development in Bissora. Case study can be found here: <http://www.adpp-gb.org/pt/adpp-guine-bissau/publications/energy-facility-case-study-022017-2/>

5.3 Opportunities to promote women’s leadership

Are there any opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions? If not, what are some of the constraints that hinder women from assuming leadership roles?

All communities visited in the project’s pre-feasibility study reported that there were opportunities to promote the leadership of women in local governance/political systems and formal/informal institutions. Some possible opportunities reported by the communities were: village development; club/organization; groups; CBOs; and as a party member. ADPP-GB also has extensive field experience with women’s empowerment in similar projects and has seen that - with training, support, and increased community awareness - women do take up positions of leadership in local systems.

6. Climate Change and Gender

6.1 Existing inequalities exacerbated by climate change

Existing gender inequalities that may be exacerbated by climate change impacts in the proposed project/program footprint area

The impacts that climate change has had on men and women were highlighted by the communities during the pre-feasibility study:

<i>How has climate change affected men in your community?</i>	
<u>Oio</u> It has given them less income-earning opportunities. It has increased stress in family life.	<u>Cacheu</u> It has given them less income-earning opportunities.
<i>How has climate change affected women in your community?</i>	
<u>Oio</u> It has given them less income-earning opportunities. It has made access to water more difficult/time-consuming. It has increased stress in family life. It has created many problems.	<u>Cacheu</u> It has given them less income-earning opportunities. It has made access to water more difficult/time-consuming. It has increased stress in family life.

Women’s response and ability to cope with climate change issues depend on their underlying health and wellbeing, as well as their community support networks. And women’s ability to adapt to climate change depends on the extent of their control over economic resources and access to economic and financial resources.

Climate change is expected to cause more frequent and severe food and water shortages, which can lead to reduced household income, increased household burden for women and compromised nutritional balance. Rising food prices often affect the poorest community members, who are usually women. The communities have reported that both women and men are faced with a decrease in income-earning opportunities combined with an increase in familial stress. These circumstances can contribute to greater poverty – which will be most prevalent among women and children – as well as an increase in gender-based violence.

As per the project’s pre-feasibility study, the task of commuting to collect water is still considered an extremely painful task. To fetch water and return in 30 minutes or more, people are carrying less and less water. For more than a third of all households, it takes more than 30 minutes to reach the water source and bring water. In addition to water, women also have to travel longer distances in search of food and firewood, as reported in Oio. This creates an increased physical demand on the women and girls who collect, and it also affects their agricultural productivity and that of their families.

A common adaptation/coping practice towards increasing food shortages and bad harvests – and which has been reported in the targeted tabancas – is an increase in migration in search of paid labor.

In Cacheu, the Manjacos de Canchungo, with the support of family emigrants, move to the sector of São Domingos, eventually settling in order to open agricultural farms for planting cashew and fruit trees and for producing mancarra (peanuts) and beans. Felupes, especially girls, travel to Senegal, Gambia and Bissau in search of domestic jobs and boys to continue their studies in S. Domingos and Bissau and end up not returning to their origins. Both only return periodically in the rainy seasons - from late July to October - to support family members in the cultivation of bolanha rice. Emigration is generally permanent in the cases of Manjacos, Mancanhas and Felupes to Senegal, Gambia and Europe (Portugal and France; it is mainly Manjacos who emigrate to Europe.) In some cases, families influence and encourage young people to leave their tabancas for lack of socioeconomic conditions and to create jobs and wealth.

When men emigrate, it adds an additional burden on women in terms of securing food and water, and household responsibilities. Migration has additional impacts on women, who are left to care for household income, food, health, children, and other dependent household members.

Furthermore, the increased disease rates of HIV/AIDS, hantavirus, hepatitis C, SARS, etc. due to climate change contributes to the domestic burden of women, who are often the primary caregivers for sick family. Women are also vulnerable to maternal/infant health issues that are exacerbated by climate change impacts.⁵⁷

Climate change is also having a negative impact on the future of girls. Many girls are being forced out of school for longer periods each day to help with vital household chores. Evidence also shows a link between natural disasters and an increase in child marriages, which is prevalent in some of the targeted areas. As families struggle in these situations, more girls are being married at a very young age. In addition, food insecurity is having a significant impact on their health and growth, with many young girls from the poorest families having neither the nutrition nor the time to concentrate on their studies. As more girls are forced into poverty, the gender gap widens.

6.2 Inequalities affecting adaptive capacity

Some of the inequalities that exist between different social groups in the project/program footprint area? How do these inequalities affect people's capacity to adapt to climate change?

The Cacheu region consists of four main ethnic groups: Manjacos, Mancanhas, Balantas and Felupes.

They are different ethnic groups that speak different languages and have different cultures. Regarding religion, these ethnic groups are mainly animists; some of them – particularly Balantas – practice Christianity. Many Manjacos are known to have emigrated mainly to France via Senegal. They have the reputation of caring for their families by sending home goods and money. These remittances, however, are sent without any organized framework which hinders their positive impact.

Balantas and Felupes have long and positive track record of working in mangrove rice production. They generally respect mangrove swamps because they understand its importance for their rice production; this expertise has been documented since colonial times. In this project, their knowledge, expertise, and experience will be a traditional local asset, and they will be mobilized to teach and share experiences with other ethnic groups.

The Oio region is the second largest and most populous in Guinea-Bissau, with the following most prevalent ethnicities: the Balantas, Mandingas and Fulas.

The Mandingos are generally Muslims. Although half of all girls and women nationwide have undergone FGM, the practice is “nearly universal” among Muslims.⁵⁸

The National Committee to End Harmful Traditional Practices (CNPJ; *Comité Nacional para o Abandono de Práticas Nefastas*) found that in Muslim communities, FGM is in part rooted in what many believe to be a requirement of Islam. The Guinea-Bissau National Islamic Council, however, found no Islamic requirement for FGM, issued a “fatwa” against the practice, and was a key supporter of the 2011 law banning it (CNPJ, 2010, p.12).

There is a collaborative effort of Muslim and Christian leaders to disseminate information in rural areas about the lack of religious justification for FGM and the need to end this harmful practice.⁵⁹

As per the project's pre-feasibility study, the most vulnerable groups in the different regions were identified as the following:

Oio

<i>Tabanca/aldeia/comunidade</i>	Mansoa	Missira	K3	Ga Lomba	Watini	Missira
<i>Are there groups in your community that are more vulnerable than other groups?</i>	Women with disabilities	All women	Children	Women with disabilities Widows All women	Women with disabilities Seniors	Widows All women Men with disabilities Children

⁵⁷ UN Climate Change Learning Partnership. Gender and Climate Change Module

⁵⁸ HUMAN RIGHTS SECTION, (UNIOGBIS-HRS)- OHCHR REPORT ON THE RIGHT TO HEALTH IN GUINEA-BISSAU (APRIL 2017)

⁵⁹ African Development Bank & UN Women. *Country Gender Profile – Guinea-Bissau (2015)*

Cacheu

<i>Tabanca/aldeia/comunidade</i>	Có	João Landim
Are there groups in your community that are more vulnerable than other groups?	Women with disabilities	All women

These inequalities and vulnerabilities of these identified groups will affect their ability to adapt to climate change are detailed below.

All women

Three key factors explain why women and girls are more vulnerable than men to the impacts of climate change. First, the climate crisis exacerbates gender inequality and makes it harder to achieve gender justice. Women and girls often have an unequal and demanding responsibility to care for children and the elderly, which makes it harder and more difficult to leave home. And women displaced by disasters also face an increased risk of gender-based violence. Second, social and cultural norms and barriers mean that women are less likely to be involved in decisions making about how to prevent, mitigate and cope with climate change. Third, women and girls do most of the subsistence farming and are the primary providers of food, water and fuel, which become scarce due to climate change. Women are also on the frontlines when it comes to combating climate change. They help protect the food and nutrition security of their families and communities, and play a critical role in overcoming challenges.⁶⁰

Climate change impacts women and men differently, to the detriment of women, and existing gender inequalities are likely to be exacerbated by climate change. The greater vulnerability of women to climate change stems from gender norms and discrimination that result in the imbalanced division of labor, lower incomes, and lesser livelihood opportunities; less access and control over land and other productive assets; fewer legal rights; lesser mobility and lesser political and professional representation.⁶¹

Men with disabilities

Women with disabilities

Due to discrimination, marginalization, and certain social and economic factors, people with disabilities may experience the effects of climate change differently and more intensely than others. People with disabilities also experience poverty at more than twice the rate of people without disabilities. This puts people with disabilities at heightened risk.⁶² Disabled populations will most likely have limited access to knowledge, resources, and services to effectively respond to environmental change. Compromised health makes disabled people more vulnerable to extreme climate events, ecosystem services loss, or infectious diseases. Those with disabilities are more likely to have difficulties during required evacuations or migrations.⁶³ Disabled people are also susceptible to damages caused both by floods and storms and by slow-onset events such as recurrent droughts.⁶⁴

Disabled women and girls face the same spectrum of human rights abuses that non-disabled women face, but their social isolation and dependence magnifies these abuses and their consequences. Women and girls with disabilities fare less well on most indicators of educational, professional, financial, and social success than their non-disabled female and disabled male counterparts. Though definitive data is rare, there is some evidence that disabled women and girls face higher rates of violence and discrimination than non-disabled women.⁶⁵ Impoverished women who have disabilities make up some of the most isolated and overlooked people. Gender, socioeconomic status, and disability create multiple layers of discrimination.⁶⁶ Women with disability are disproportionately affected in disaster, and emergency due to the lack of accessibility in evacuation, response, and recovery efforts, and exclusion of disability issues in planning and preparedness.⁶⁷

Children

Extreme weather events complicate children’s ability to access schools that are often far from home. Salinized water as well stagnant water increases the presence of insects, parasites and bacteria - cholera, malaria, lymphatic filariasis, onchocerciasis, typhoid and yellow fever, stomach parasites amongst others - and children are the most vulnerable to waterborne diseases, increasing their mortality and morbidity. As escalating droughts and flooding degrade food production, children will bear the greatest burden of hunger and malnutrition. As temperatures increase, together with water scarcity and air pollution, children will feel the deadliest impact of water-borne diseases and dangerous

⁶⁰ CARE. *Evicted by climate change: Confronting the gendered impacts of climate-induced displacement* (July 2020)

⁶¹ Green Climate Fund & UN Women. *Mainstreaming Gender in Green Climate Fund Projects*

⁶² <https://www.hrw.org/news/2020/05/28/people-disabilities-needed-fight-against-climate-change#>

⁶³ <https://www.unenvironment.org/news-and-stories/story/how-climate-change-disproportionately-impacts-those-disabilities>

⁶⁴ Islam, S. Nazrul and John Winkel. *Climate change and social inequality*.

⁶⁵ <https://www.hrw.org/legacy/women/disabled.html>

⁶⁶ Humphrey, Megan. *The intersectionality of poverty, disability, and gender as a framework to understand violence against women with disabilities: A case study of South Africa*.

⁶⁷ Saorath, Ngin. *Women with disability and Climate Change impact*.

respiratory conditions. As more extreme weather events expand the number of emergencies and humanitarian crises, children will pay the highest price. As the world experiences a steady rise in climate-driven migration, children's lives and futures will be the most disrupted.⁶⁸

Widows

If women in the targeted areas do not have any adult children, when they become widows, the garden/land that belonged to the husband becomes theirs. Most of the time, they are "inherited" by a family member on the husband's side; in these situations, the right to that land passes to the man who inherited it or to the eldest son of the husband who died. Widows face the same threats as other women in their communities, but compounded by their additional risks and vulnerabilities. Their homes are susceptible to damages caused both by floods and storms and by slow-onset events such as recurrent droughts.⁶⁹

Seniors

Older people are more vulnerable to the effects of temperature extremes and have a significantly higher mortality risk in extreme weather events. They are at greater risk because of increased susceptibility to disease, reduced mobility and the effects of stresses on the food and water supply. Social and economic factors may also increase the vulnerability of some older people. The combination of chronic health problems and social isolation in addition to more limited access to services, which are often concentrated among older people, can reduce their capacity to cope with climate-related stresses. Minor conditions can quickly become major challenges that overwhelm an older person's ability to cope. During emergencies, frail or housebound older people may be less able or less willing to flee from potential harm. They can struggle to obtain food, travel long distances or endure short periods without shelter. Loss of family members, carers and community ties can also leave older people isolated. Coping with day-to-day life after a disaster can be difficult; in many cases, the psychological impact of a disaster on older people can be greater than on other groups.⁷⁰ The homes of the elderly are also extremely susceptible to damages caused both by floods and storms and by slow-onset events such as recurrent droughts.⁷¹

7. Project Gender-responsiveness

7.1 Anticipated differences, differential needs and priorities

In terms of the proposed project/program, will there be any anticipated differences in men's and women's vulnerability and adaptive capacity to climate change? If so, what are these?

In the targeted areas, there are differences in men's and women's vulnerability and access to training, education, opportunities, decision-making, etc. The proposed project will thus strive to target these differences to reduce vulnerability and strengthen adaptive capacity of both men and women, while promoting gender empowerment.

According to the project's pre-feasibility study, climate change has resulted in less income opportunities and it has added stress to family life. It has become harder/more time consuming to get water.

In response to poor harvests due to drought or flood, in Oio, families have been forced to sell goods (livestock, cereal stocks, others), reduce food consumption, and emigrate to find work; in Cacheu, families have reduced their food consumption and face higher numbers of thefts.

The project will enhance the role of women in community actions to adapt to climate change. They will be active members of Observatory Groups, Climate Community Centers, and Farmers' Clubs. The project will educate both women and men about the importance of women's participation and leadership, to encourage an environment more supportive of women leaders. All groups formed will be mixed men/women to ensure that men continue to participate in partnership with the women. While men generally make decisions even when women's opinions are welcomed, the project will promote greater women's participation and involvement in decision-making.

The fact that 70% of the lead farmers will be women will also empower them as leaders. This will be especially true in activities related to demonstration plots, as farmers – men and women – will visit lead farmer plots to see the positive impact of project-promoted improved practices and lead farmers will be mobilized for and encouraged to take on a teacher role among neighboring farmers.

The project will improve women's and children's health by the improved firewood saving stoves, which will reduce indoor smoke inhalation and reduce time needed to collect firewood. Micro-scale irrigation systems will also reduce time spent by women and children to collect water. Both the stoves and the irrigation systems will also reduce the

⁶⁸ UNICEF. Unless we act now: The impact of climate change on children.

⁶⁹ Islam, S. Nazrul and John Winkel. *Climate change and social inequality*.

⁷⁰ HelpAge. *Climate change in an ageing world*

⁷¹ Islam, S. Nazrul and John Winkel. *Climate change and social inequality*.

physical burden carried primarily by women and children, thus improving their wellbeing while also reducing time commitments.

The project will hold training sessions with mixed (male/female) groups.

The project will conduct information and training sessions, as well as knowledge dissemination campaigns. The project will ensure that information dissemination is conducted through varying means, to ensure that it reaches both men and women and that its messages are created with men and women in mind. Some sensitization and awareness campaigns will be conducted with just women and/or just men; this will also provide opportunities for more open discussions and for venues to share information and referrals on issues that could be received differently in mixed group settings (such as information on and referrals related to GBV.)

The team will strive to hire/engage as many female Development Officers (AD) and other staff as possible; most of the planned staff are already employed by ADPP-GB. In addition, for actively recruiting women, the project will also provide training to all staff, including male ADs, to ensure that they have an understanding of gender dynamics and how women’s empowerment improves agricultural output and development. This will ultimately improve women’s interaction with project extension services. The team will obtain gender training and capacity-building with the support of the gender specialist on the project technical support team (ETP).

The project will strive to reduce the heavy care work responsibility that the farmers – especially women – shoulder. ADPP-GB has experience training community-based and community-paid caregivers to look after small children (generally aged 2-5 years.) ADPP-GB will thus work with communities to establish local preschools/community-based daycare centers. This will improve women’s situation while simultaneously providing a positive learning and growing environment for small children at a critical stage of their development.

For all new income-generation activities and productive activities – restoring mangroves, animal husbandry, short-cycle animals, micro-enterprises, businesses – the project will closely monitor developments to ensure that these activities decrease women’s burden and create positive impacts (and not more responsibilities, less time, etc.) The team will also strive to enroll a gender-balanced number of participants.

For all new systems and plans – such as the early warning system and the water management plans – the project will closely consult women, men and sub-divisions of each group (i.e. elderly women and elderly men, disabled women and disabled men, widows) to solicit their input on the plans.

Similarly, it will monitor community reception of the functional literacy classes for women, to ensure that they do not create any negative impacts (such as resentment on the part of men who do not take the classes.) Men will also be mobilized to take the literacy classes, although the priority will be women.

What are the differential needs/priorities of women and men in the context of the project/program? Will the project/program be able to address their respective needs and priorities? If so, how?

The needs and priorities of women and men were identified by communities in the pre-feasibility study as follows:

Oio

	Jugudul	Missira	Ga Lomba	K3	Watini	Mansoa
Women	Jobs More opportunities to lead Horticulture, extraction of forest products	Training Carework support	More opportunities to lead	Jobs Training	More opportunities to lead	(not clearly defined by the assessed subjects)
Men	Jobs	Training	Jobs Training	(not clearly defined by the assessed subjects)	Jobs	Carework support

Cacheu

	João Landim	Pelundo	Có

Women	Training Carework support More opportunities to lead	Cacheu source, bolanha closure/dikes ⁷² , horticulture	Clean water, bolanha closure/dikes, electricity on tabanca, fence for horticultural perimeter
Men	Training Health	Healthy family	(not clearly defined by the assessed subjects)

The project will address these needs and priorities with education, training both for income generation and related health/nutrition education, as well as water and soil management plans and water management work in the target bolanhas, and active encouragement of leadership roles, especially among women.

The project will also train communities to establish local preschools/community-based daycare centers so that caregivers (who are primarily women) will have more time for business/income generation. The team will train caregivers – who will be paid by the community – to look after children.

7.2 Roles of women and men in the project

Roles women and men are anticipated to play in the context of the project/program? What will these entail in terms of time commitment and need for mobility?

As per the project's pre-feasibility study, the communities anticipate that both men and women should be able to actively participate in project activities.

Role	Time commitment	Need for mobility
Women		
Training and capacity building	The numbers of hours per week/month will be defined with the beneficiaries in a participative way in their weekly and monthly planning sessions; it will differ from community to community.	Trainings will be conducted close to where the farmers live and at convenient times Activities will be close to home
Leadership/active participation in Observatory Groups, Climate Community Centers, and Farmers' Clubs as lead farmers		
Advocacy and campaigning		
Network, share experiences, and learn from peers		
Training in micro-enterprises and businesses		
Training in alternative livelihoods		
Functional literacy classes		
Management of new assets (stoves, micro-scale irrigation systems, micro-enterprises)		
Men		
Training and capacity building	The numbers of hours per week/month will be defined with the beneficiaries in a participative way in their weekly and monthly planning sessions; it will differ from community to community.	Trainings will be conducted close to where the farmers live and at convenient times Activities will be close to home
Leadership/active participation in Observatory Groups, Climate Community Centers, and Farmers' Clubs as lead farmers		
Advocacy and campaigning		
Network, share experiences, and learn from peers		
Training in micro-enterprises and businesses		
Training in alternative livelihoods		
Management of new assets (stoves, micro-scale irrigation systems, micro-enterprises)		

7.3 Services and technologies provided to women and men

Will services and technologies provided by the project/program be available and accessible to both women and men?

All services – trainings and awareness-raising – will be available and accessible to both women and men.

Given the profound difference in the levels of literacy between women and men in the targeted areas, functional literacy training will mainly be provided to women to ensure that as many women as possible are able to attend the trainings.

⁷² People need protection dikes to ensure that salt water does not get into the fields. People thus reported that they need these dikes/protection, likely as their dikes have fallen and they are not able to repair/replace.

Nevertheless men will be welcome to also participate; a planning session will be conducted at the beginning of each training cycle.

The project will develop a collaborative e-platform as a knowledge base for climate-resilience and adaptation practices. There will be free access to the platform but it is expected that the majority of community members will not have easy access to it. It will therefore mostly be a tool for CSOs, authorities, the private sector, and to anyone else who can and knows how to access it. It will, however, mainly be for service providers, activity organisers, major entrepreneurs, and/or TVET schools.

7.4 Strategies for vulnerable groups

Have the needs of specific (and vulnerable) sub-groups been taken into account by the project/program (e.g. children, girls, women and men with disabilities, the elderly, widows)?

The needs of specific and vulnerable sub-groups were identified by the targeted communities during the project's pre-feasibility study as follows:

Oio

Sub-group	Needs identified by community				
	Missira	Jugudul	Ga Lomba	K3	Missira
Children	Poor access to education / training		Poor access to education / training		Poor access to education / training
Girls	Poor access to education / training Health	Education	Poor access to education / training Health	Early marriage	Poor access to education / training Health Education
Women with disabilities				Lack of production materials	
Men with disabilities	Poor access to education / training Health	Falta de bolanha	Poor access to education / training Health Lack of bolanha	Lack of production materials	Poor access to education / training Health Lack of bolanha
The elderly	Improved water access for bolanhas		Improved water access for bolanhas		Improved water access for bolanhas
Widows	Food Health		Food Health		Food Health

Cacheu

Sub-group	Needs identified by community	
	João Landim	Có
Children	Poor access to education / training Health	
Girls	Poor access to education / training Health	Education
Women with disabilities		
Men with disabilities	Poor access to education / training Health	Lack of bolanha
The elderly	Improved water access for bolanhas	
Widows	Food Health	

These needs have been taken into account by the project. Each related activity will make specific efforts to reach and work with these vulnerable groups. For those identified as having poor access to education/training, for example, concerted outreach efforts will be made to mobilize those groups, to ensure their participation, and to raise community awareness as to the importance of their importance. Trainings on health, nutrition, and food security will reach all community members and special efforts will be made to ensure that targeted training reaches those groups identified as most vulnerable for these particular areas.

The project will improve water and soil management capacity via improved bolanhas and horticulture production, as well as through the provision of TVET training and better employment opportunities for the target beneficiaries. The project will also conduct awareness and sensitization sessions, promote gender-sensitive mobilization of the beneficiaries, and ensure inclusiveness of all activities at community level. Some elderly community members, children and people with disabilities will implement activities/be responsible for tasks as per their interest/capacity; this will include (for example) mangrove swamps management overview, small animal breeding and tree planting. This will empower these individuals, improve their skillset, increase confidence, and also promote a more inclusive and supportive community environment and as they increase their productivity, they will gain greater access to better paid and more specialized jobs, they will develop entrepreneurship activities, and their household's food security will improve. As a result, girls will gain greater access to education, families will improve their access to better nutrition and healthcare, and more.

During the pre-feasibility study, many communities did not identify all the specific needs for women with disabilities yet they did identify needs for men with disabilities. At the baseline/start-up stage, the project team will make concerted efforts to speak as much as possible with women with disabilities, identify their needs, and tailor project activities to meet those needs.

Has the project/program recognized the distinct vulnerabilities of women and men and developed specific response strategies for each target group?

The project team has identified unequal leadership and decision-making opportunities for women as compared to men. The team understands that one project will not change long-held beliefs and practices, but will strive to work with communities to better understand the importance of gender empowerment and the actively positive role that women play in development in Guinea-Bissau and around the world. It will simultaneously create opportunities for women to lead – as lead farmers, in Community Observer teams, in the community processing centers, etc. – while also promoting spaces where they can work together with men and share experiences. It will also provide targeted awareness and sensitization sessions to women and men only, as appropriate, and will also create spaces where both women and men participate on an equal footing. It will furthermore encourage men to share some of the workload that is generally considered to be that of women, such as taking children to the doctor.

Alternative livelihoods and micro-enterprises and businesses will provide an opportunity for women to actively participate and to earn money. Women entrepreneurs (and men, but the majority of members are expected to be women) will be trained to plan, manage, save and earn money as well as to be linked to markets.

The project will also complement the agriculture training with education, training, and referrals for other issues that directly impact a woman's ability to produce. These include a high care burden (locally-run preschools will be established), referrals for victims of GBV, and targeted literacy training.

The project will mainstream gender as per the GCF's *Mainstreaming Gender in Green Climate Fund Projects*. As such, it has/will take the following steps:

In project identification and preparation stage:

- **FLAG** gender issues the project might need to address.
- **CONDUCT** gender assessments.
- **RECRUIT** gender specialists.
- **DEVELOP** project components that contribute to promoting greater gender equality, and to addressing women's and men's needs.

Project implementation stage:

- **HIRE** gender experts and assign responsibility for gender-specific actions; the project team will include a gender specialist on the Technical Support Team (ETP).
- **UNDERTAKE** gender training for the project's implementation team and undertake gender awareness and sensitization for counterparts and other agencies involved in execution.
- **INVOLVE** government departments/institutes (the main project partners are national authorities) that represent women's interests and partner with nongovernmental organizations/community-based groups working on gender equality issues.

- **MOBILIZE** communities (men, women, girls and boys) to participate in gender-based programming and follow-up activities.
- **PROVIDE** infrastructure and amenities that help to address gender concerns, and the priority needs of women, men, girls and boys.

Project monitoring and evaluation stage:

- **INCLUDE** gender-specific outputs and indicators in the overall project results framework.
- **INCLUDE** mechanisms to monitor and report on gender impacts.
- **HIRE** a gender specialist with a strong M&E background to assist in monitoring and evaluating gender-specific components of the project.
- **INCLUDE** provisions for capacity development for the executing agency on gender-based M&E; this will be led by the gender specialist on the Project Management Unit as part of the technical support team.
- **DOCUMENT** and disseminate gender-relevant best practices and lessons learned.

Gender-based violence

Mitigation measures will be put in place to handle gender-based violence issues, including access to grievance mechanisms for women, given the prevalence of violence against women.

At the project start, the project team will work with a local GBV specialist to identify which services are available in the area. With this specialist and with other contacts, the team will identify focal points for each targeted area (such as health and protection actors) who can serve as local focal points for additional information and support to field staff, i.e Women and Child Institute, Access to Justice Centers, and RENLUV focal points. Information will be gathered on who/where to contact for issues related to the following: child protection; mental health/psychosocial support; health; sexual and reproductive health; non-food items/WASH including dignity kits; shelter; legal; food/nutrition; services for adolescents/youth; services for people with disabilities; services for sexual and gender minorities; harmful practices (female genital mutilation); and/or services for child or female-headed households.

At the project start and on an annual basis, staff will be trained on how to do a risk assessment through a short checklist in order to be ready to contain and protect/be ready to respond in case of GBV, suspected GBV, reported GBV and define a network protocol to refer the victims to the support services – psychosocial, health and justice, etc. The team may use half and/or full-day training such as the format available here: https://gbvguidelines.org/wp/wp-content/uploads/2018/03/GBV_UserGuide_021618.pdf (English) and https://gbvguidelines.org/wp/wp-content/uploads/2019/05/GBV_UserGuide_021718_FR_Final.pdf (French).

All field staff will also be provided with a field-friendly resource for field staff, which likely will include a decision tree, Do's/Don'ts, sample scripts of what to say to a survivor and more, such as the guide available here: <https://gbvguidelines.org/wp/wp-content/uploads/2020/06/Portuguese-GBV-Pocket-Guide.pdf>

If GBV is reported, field staff will follow the appropriate GBV referral pathway – which will be designed with the GBV expert at the project start – to inform the survivor about available GBV services and refer (if given permission by the survivor.)

In some tabancas (K3 and Mansoa) there exists a protection committee against GBV which is usually made up of men and women. At the project start, the project team will discuss their procedures and policies, and ensure – as appropriate and in consultation with the GBV specialist – that they are included in response.

The project team will also make a central phone number (with WhatsApp and/or a green line) available to all beneficiaries; this number can serve as an anonymous hotline to provide information and referrals. The team will also make an anonymous grievance box available in various project locations.

In addition, information about GBV and available services/referrals will be posted in public areas. The information will also be shared in written form and recorded and dispersed as voice messages among beneficiaries via community radio spots in local languages to facilitate greater outreach/information sharing, both for those who are literate and illiterate. Information will also be shared at the project's public events/community campaigns. This information will be distributed to people in farmers' clubs, those who come for trainings, etc. It will be housed at a central project location where everyone can access. The information will be disseminated in all djumbais with farmers.

7.5 Opportunities

Are the specific knowledge and skills of women and men, especially from vulnerable groups, being utilised to contribute to project/program outcomes and solutions?

Throughout its more than 35 years of experience working in the target regions, ADPP-GB has learned a great deal about women farmer strengths and, using this knowledge and experience, has developed participatory approaches and methodologies to utilize this expertise and capacity to contribute to project/program outcomes and solutions. At community level, ADPP has witnessed that the participation of women in the projects is generally stronger than that of men; according to staff accounts, women are often more proactive and stand out from the group as organizers/managers/ leaders. They often just need an opportunity, and the project teams always strive to empower them to enhance their voice and to work with them to create as many opportunities as possible. Women are generally chosen by the beneficiary group to lead organizational local committees, sales, saving revolving plans, etc.

Elderly men and women are very respected and often consulted by the community on complicated situations, problems, and conflict management. Nevertheless, some of the elderly, both men and women, still want to actively participate in their community, although their fiscal strength and chronic health issues create obvious constraints. The proposed project will thus enroll them, on a voluntary basis, in the management, oversight, orientation, community training on traditional agriculture techniques, output control, gender inclusiveness and other such activities. It will encourage their regular participation through frequent opportunities according to their desire, capacity and availability.

To further support the project's inclusivity, the project team will live in the communities and therefore know first-hand the communities' actual and day-to-day situation throughout the project's lifetime. The team will furthermore work with communities to break down certain entrenched cultural barriers, such as the custom of hiding people with disabilities, especially young people. As much as possible, these community members will be mobilized to participate in project activities; this will include the technical and vocational trainings, which are yearly and semester trainings. Community members can therefore be approached, sensitized, and mobilized to enroll. And as necessary/desired, these community members and their families will be referred to other existing CSOs that work specifically with people with disabilities.

During the project preparation and throughout implementation, the team will work to gain a greater understanding of women and men's circumstances, vulnerabilities, needs, and interests. This will be accomplished through surveys, interviews, focus groups, key informant interviews, and regular project monitoring; this all will be strengthened by members of the project team living in the communities. Constant feedback, especially from vulnerable groups, will ensure that the project activities and their resulting outcomes contribute to solutions, empowerment, and development.

The information gathered from the gender analysis/assessment will be considered and reviewed in all stages of the project cycle: design, formulation, implementation, and monitoring and evaluation. In each of these stages, project/program managers, supported by the gender specialist, will keep a 'gender lens' in mind, looking at ways the project/program can address gender inequalities that emerge from the project/program; ensure the differential needs of women and men are addressed; ensure women and men have equal access to resources, services, and capacity development; ensure equal participation of women and men in management arrangements and as beneficiaries, partners and key stakeholders; and ensure women's equal participation in decision – making processes.

Has the project/program identified opportunities to challenge gender stereotypes and increase positive gender relations through equitable actions? If so, what are these opportunities and actions?

The project has several built-in opportunities to challenge gender stereotypes and increase positive gender relations. These include: active participation on local groups, in community centers, processing centers, community observer groups, the TVET courses, the business opportunities and in the Farmers' Clubs; greater decision-making; more leadership opportunities; more enabling environment via raised awareness; and equal and promoted access to equal training and education.

Gender Action Plan

7.6 Introduction

Gender action plan (GAP) - introduction

As per the GCF's *Mainstreaming Gender in Green Climate Fund Projects*, the purpose of a gender action plan is to operationalize the constraints and opportunities for women and men identified during the gender analysis to fully integrate them into the project design. The plan should include:

- (i) Gender-responsive actions that address and strengthen the voice and agency of vulnerable women and men in climate action;
- (ii) Gender performance indicators and sex-disaggregated targets that can be incorporated into a results framework; and
- (iii) Presentation of gender-responsive development impacts.

The GAP will:

- Document and track project work undertaken to address gender issues;
- Monitor tangible benefits to women and men, especially from vulnerable communities;
- Include mechanisms to ensure implementation of the gender design elements; and
- Include gender-sensitive monitoring and evaluation indicators.

The project strives to reduce gender inequality by: increasing women's participation in farmers' clubs to facilitate access to inputs and credit; increasing access to literacy and income-generation education; facilitating women's access to employment and self-employed income earning opportunities; and encouraging women's participation in decision-making. The project will also make targeted actions to reduce the impact of women's care work on their productive capacity.

The project will utilize a strong, disaggregated M&E system.

ADPP-GB has experience with projects that have promoted gender empowerment with concrete results; the organization is thus well-suited to implement this gender action plan.

In a project related to renewable energy implemented by ADPP-GB with EU support, for example, 70% of beneficiaries were woman. They formed an association by the project end and, as part of the exit strategy, 90% of the association's members were women. More information about this project can be found here: <http://www.adpp-gb.org/pt/adpp-guine-bissau/publications/energy-facility-case-study-022017-2/>

ADPP-GB has also worked with the Government's Women and Child Institute (IMC) and the National Committee for the Abolition of harmful practices (CNAPN), in a UK Foreign Office funded project on Female Genital Mutilation (FGM) and Early Child Marriage (ECM) in Quinará Region, in 2015/16.

ADPP-GB has also worked with UNFPA to eliminate FGM, fistula due to FGM, and to promote improved sexual and reproductive health. UNFPA stated that the project results could be even more significant if expanded to other regions of the country.

ADPP-GB has a signed Collaboration Agreement (MoU) on Social and Economic development programs for women and families with the Ministry of Women, Family and Social Solidarity, since 2017.

ADPP-GB also has experience identifying issues that affect women and girls and working with communities (women and men) to create local, sustainable solutions. ADPP has, for example, experience training community-based and community-paid caregivers to look after small children (aged 2-5 years) while their parents engage in trainings and productive activities.

While in the past, ADPP-GB often trained its project staff holistically, i.e. incorporating gender as a "cross-cutting" issue, in recent years, ADPP-GB is placing more emphasis on gender empowerment as its own focus area. That being said, the organization still requires support in designing introductory trainings materials for its field staff – what is gender, why is gender empowerment important, what are issues that women face that are different than men and how does this impact their lives (and vice versa), how to change the gender dynamics between you as a field staff and a female beneficiary, how are these issues related to this particular project, and how can we as an NGO respond and contribute positively to change relating to these areas – as well as in the creation of tools for the field staff to have on hand in their day-to-day work.

Such tools needed will include how to respond to a reported or suspected case of GBV (as detailed above), information for relevant referrals for women and girls, checklists for how to hold training sessions, community sessions, and individual sessions/home visits that are empowering to women and girls. Working with the gender specialist, the team will also identify additional areas that could be supported with further training and/or tools for the field.

The project will be supported by a gender specialist. The gender specialist is responsible for oversight of all activities, to ensure that: (1) they follow the gender action plan; and (2) that additional issues/difficulties that arise related to gender are identified, discussed, and responded to appropriately. The specialist is responsible for regular follow-up training at least each quarter. The specialist will review project M&E and reporting and trainings will be in response to issues identified. The specialist will also review IEC materials, to ensure that they use a gender-sensitive approach. The specialist will also keep abreast of all national, regional, and international current events (policies, findings, research) as they relate to gender in international development, particularly as it relates to climate change. The specialist will thus also tailor trainings to current findings and knowledge, to ensure that the team is fully updated and trained as per the latest information and expertise. As required, the specialist will work directly with field leadership staff as well as ADPP-GB's national team.

Activities that will be implemented at the set-up phase of the project's implementation are responsibilities that will be included in the terms of reference of the gender specialist, who will be recruited by the project, and/or in a project manual detailing the tasks that need to be executed. This also applies to most of the other activities/sub-activities listed in the gender action plan.

The AE will monitor the gender action plan on a monthly basis and check M&E reports against stated goals. Should any issues or questions arise, the AE will communicate directly with ADPP-GB's leadership team and the gender specialist, if needed.

7.7 Gender Action Plan

Gender action plan (GAP) – Description

The following section describes the gender-responsiveness of the project by Component and Output, drawing upon lessons learned from the analysis, as described above. Consultations, interviews and surveys with women and men in the target areas have taken place and led to the proposed GAP. The project has also been designed based on ADPP-GB's long experience in the target area.

Overall, the project targets women's empowerment by prioritizing women (70% of target) to benefit from increased climate-resilient sustainable development.

Specific attention is paid to how each of the proposed activities take into account access and participation in an equitable way, and how barriers for women and other vulnerable groups' participation are taken into account and addressed.

Structurally, the GAP below provides a short introduction to the overall idea of each component, followed by the gender considerations and responsive activities per Output. Below the narrative description follows, as required, the indicator framework with gender-disaggregated data.

The project's baseline and KAP study (activity 1.1.3.1) will be used to collect baseline data to rationalize the targets in the gender action plan.

Cross-cutting activities:

Cross-cutting activities are included in the project design to support project efforts to contribute to gender equality, including:

Facilitate the uplifting of time-poverty related barriers. This includes, among others:

- Women's engagement, empowerment and organized self-help through Farmers' Clubs as well as other community-based structures;
- Promote more equal distribution of labor – including care work – through education and outreach; and
- Organize child care in the communities to make participation in project activities more feasible and to establish a sustainable system that can be locally maintained post-project.

Project efforts will also:

- Include activities to enhance equal access to and control over material and non-material resources of both male and female farmers;

- Promote gender balance in decision-making; and
- Encourage voice and participation of both women and men.

All project staff will receive a gender training at the start of the project, provided by a Bissau-Guinean gender expert. The training will include an emphasis on designing activities, approaches, trainings and materials in a gender-responsive manner, taking into account needs, preferences and priorities of women in regards to, among others, access to information and training. Project staff will be hired with a preference for both women staff and those with gender experience.

All trainings, materials and manuals will be designed from a gender-responsive starting point, securing that the information provided is equally easily accessible for women and other vulnerable groups.

Given the low levels of literacy – especially for women – in the project areas, and based on ADPP-GB's previous experience with farmers with varying levels of literacy, project materials will be designed with illiterate farmers in mind. They will have instructive pictures and drawings as much as possible, with accompanying text for those who can/wish to read more.

Field staff will also work with local groups to identify those who are literate and comfortable supporting other farmers; these people can then work in smaller groups to review materials shared.

Information will also be shared via audio messages on WhatsApp and via text, so those who cannot read can listen.

Field staff will also be trained about illiteracy and different ways of learning. When they go in the communities to conduct activities, they will first find out the educational backgrounds of the farmers they are working with, especially where and how farmers learned, to understand their literacy levels and their best methods of learning. With this knowledge, they will use a range of techniques that are both creative (storytelling, games, team-building quizzes) and more formalized (more traditional teacher/ student approaches.)

The project will also hold literacy classes, especially for women farmers, to build their capacity to read and write.

ADPP-GB will also invite networks of local groups, including women's groups and cooperatives, among others, to help disseminate information.

Stakeholder engagement undertaken during the preparation of the project has been incorporated in gender-related activities to address the needs and priorities of women and men and contributed to:

- The establishment of childcare / consideration of children's presence for several activities;
- Efforts to incorporate men's awareness and support for activities that empower women, and viewing them as partners;
- Inclusion of issues related to GBV, family planning, health in trainings, etc. as these directly impact a woman's ability to be productive; and
- Inclusion of Functional Literacy on adaptation to climate change and access to basic rights by promoting access to identity documentation for women in target communities.

Project preparation

During the project preparatory stage, the following efforts will be made:

- Goal of: 30% of PMU/UGP and technical support group (ETP) teams; 25% staff teams composed of women, PWD, people from vulnerable communities.
- A gender sensitive approach will be taken in all IEC activities.
- Efforts will be made to achieve gender balance in initial assessments.
- Attendees to be consulted on timing to fit around family commitments and to accommodate different time-schedules.
- M&E data collected will be disaggregated by sex and age for all possible indicators.

The project is organized in **3 Components**.

Outcome 1. Strengthened capacity and knowledge management to monitor and address climate risks

Outputs:

- Improved observation and management systems for monitoring climate risks
- Strengthened technical capacities for addressing water and agriculture related climate risks
- Enhanced and better systematized knowledge management

Women play key roles in all areas yet their input is not always taken into full consideration for decision-making. As such, the project will:

- Ensure the monitoring systems, CCCs takes gender considerations and is designed with male and female input.
- Promotes gender parity among members of CCCs.
- CCCs are established with gender considerations.
- Yearly awareness-raising and information campaigns on mangrove issues are made with gender considerations.
- 50-70% of students/youth trained are women.
- Environmental Education curriculum includes gender aspects and is gender-inclusive/responsive.
- Functional Literacy Classes in the Context of Adaptation to Climate Change for women.
- Support in the registration and issuance of identity cards for women.
- Support the establishment of revolving child care system in the communities.

Capacity building must take gender into consideration and also make efforts to ensure women and men are trained. As such, activities under this component will ensure that:

- The Observatory Group (OG) will be created with female participation in both leadership/decision-making positions (30%) and in membership of the Community Observer team (OC 70%).
- Women and men are consulted in design manuals, modules, action plans and strategies are designed with gender considerations.
- Analysis of community-based brigades to ensure that they do not place unsustainable additional burdens on women and/or children and/or on other vulnerable groups.
- Female and male participation in workshops, trainings and consultations; gather information in a manner in which community members feel as comfortable and as safe as possible to speak and share information openly.
- Attendees are consulted on timing to fit around family commitments and to accommodate different time-schedules; efforts will be made to ensure gender balance of people trained and of trainers.
- Male & female extension workers and CSOs staff are trained. They are also trained in gender aspects.
- Consultation, participation and consultation with both male and female authorities and actors from various sectors (including women's organizations). Workshops include women and men and women's input is encouraged.
- Information and knowledge is disseminated to both male and female key actors and stakeholders. Communication and dissemination strategy is done with women's participation, gender considerations and with a gender-sensitive approach.
- Collaborative database includes information and knowledge with a gender perspective, input from women and men, etc. It is designed to be accessible to both women and men.
- At least 25% of targeted decision-makers are women.
- Campaigns include gender elements and are conducted at times deemed suitable for all targeted audiences.

Outcome 2. Adapted water management towards climate risks in coastal communities

Outputs:

- Climate-resilient community-based water management
- Improved management of coastal ecosystems

Activities will include:

- Consult both male and female key stakeholders Gather information in a manner in which community members feel as comfortable and as safe as possible to speak and share information openly
- Planning and identification of tree species, as well as planning for where trees should be planted, done in consultation with both men and women. Efforts made to ensure that men and women participate equally in tree-planting campaign, mangrove management and nurseries.
- Awareness raising and training on improved stoves that include gender aspects.
- Development plans drawn up with gender considerations.
- Include input from women and from men in identification of needs for water access points.
- Working sessions to identify and plan interventions include women and men. Basic manual created for the farmer done with gender considerations and input from women and men.

Outcome 3 Enhanced climate-resilience of smallholder agricultural systems

Outputs:

- Increased and diversified climate-resilient production of smallholder farmers

- Improved income options along climate-resilient value chains

Women farmers lack desired trainings and capacity building opportunities. And when they do participate, they are often not given the same voice in decision-making processes nor equally represented as men. Activities related to this outcome will thus strive for:

- 70% women in farmers' clubs.
- Mentoring of productive groups done by both male and female animators and supervisors, followed up/with orientation provided by the gender specialist.
- Seed bank created with input from both women and men. Information will be gathered in a manner in which community members feel as comfortable and as safe as possible to speak and share information openly.
- Trainings incorporate gender aspects.
- Promotion of women on management committees.
- Consultation for model fields done with both males and females; as above, consult in a manner that promotes openness, comfort, safety, and transparency.
- Training curricula designed with gender considerations and analysis. All training materials to be gender-inclusive/responsive. Trainings held at times convenient for both women and men.
- Agricultural community units/Clubs are established with both male and female user input. Promotion of women on management teams of the CCPs. Marketing plan takes into account considerations/concerns/priorities of both women and men.
- Promotion of women on leadership of commercial association/cooperative.
- Ensure female and male participation in farmer involvement. Monitor involvement/labor burden and if additional tasks are being taken up by women and not men; work with communities on response if so.
- 160 students targeted, minimum 50% women.
- Development of strategy includes gender considerations and input from men and women. Coordination with other projects with a focus on gender and/or women.
- Creation and training of a wide range of new micro-enterprises and businesses for women and men (at least 50% women). Awareness campaigns include the importance of women's involvement and empowerment in income generating activities.

The project will strive to ensure that women with intersecting vulnerabilities have access to the project's benefits; it will also work to track how the activities work with and impact targeted households.

The team is aware of many sub-groups of women in the targeted areas but does not yet have defined data on how many women fall into each sub-group.

It will therefore track many indicators disaggregated by sex and further disaggregated by women's sub-group. Which sub-groups to track will be determined after the baseline is completed and in consultation with the Gender Specialist. The possible sub-groups that will be tracked in many of the following indicators (some will overlap) are:

8. under 25;
9. widows (including those who now live with another family/family and those who do not);
10. women in a polygamous union;
11. head of household;
12. women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.);
13. women in households with up to 7 family members;
14. women in households with more than 7 family members;
15. by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree);
16. N^o of children (pregnant women, women with 1 child, etc. up to women with more than 5 children);
17. women with a chronic disease;
18. women who have been victims of FGM; and
19. women who have been a victim of other harmful practice.

19.1 Logical Framework

Impact Statement:

Vulnerable populations benefit from increased climate-resilient sustainable development.

Gender Impact Statement:

Vulnerable women benefit from increased climate-resilient sustainable development.

Selected indicator:

[I.1.] Impact Indicator 1. N. of total beneficiaries relative to total population (disaggregated by gender). Target: 4,5% of the total population of Guinea-Bissau (70% women)

[I.2.] Impact Indicator 2. N. of total direct beneficiaries (disaggregated by gender). Target: 82.450 people (70% women)

[I.3.] Objective Indicator 3. N. of total indirect beneficiaries (disaggregated by gender). Target: 120.000 people (70% women)

Result Area 1: Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions

Selected indicator:

[R.A.I.1.] Result Area Indicator 1. N. of people benefiting from the adoption of diversified, climate resilient livelihood options (disaggregated by sex). Target: + 202.450 people (70% women)

Result Area 2: Increased resilience of health and well-being, and food and water security

Selected indicators:

[R.A.I.2.] Result Area Indicator 2. N. of food-secure households (disaggregated by male and female-represented households). Target: + 8.500 (70% female-represented)

[R.A.I.3.] Result Area Indicator 3. N. of people with year round access to reliable and safe water supply despite climate shocks and stresses (disaggregated by sex). Target: + 82.450 (70% women)

Component 1. Development of technical and institutional capacity of government and civil society.

Outcome 1: Strengthened capacity and knowledge management to monitor and address water and agriculture-related climate risks in Oio and Cacheu Regions

Selected Gender Indicators per Components:

[Oc.I.1.] Outcome 1. Component 1 Indicator. 2 Observatory Groups operational and working with the National authorities, providing information to the population. **Please note:** This outcome is not gender specific yet gender indicators are included under certain outcomes.

Gender indicator/goal: % of women active in Observatory Groups. Goal: leadership: 30%; membership: 70%

Component 2 - Adaptation of water management towards climate risks in coastal zones

Outcome 2: Improved water availability and quality for production and consumption, in coastal communities in Oio and Cacheu, despite climate risks

Outcome 2 Indicator 2. N. of people reached by risk reduction measures established/strengthened (disaggregated by gender). Goal: 82.450 (70% women)

Component 3 - Building resilience of farming communities towards climate change

Outcome 3: Enhanced climate-resilience of smallholder farmers in coastal communities in Oio and Cacheu Region

Component 3 Indicator 1. N. of people made aware of Climate Change threats and related appropriate responses (disaggregated by gender). Goal: 120,000 (60% women)

Outcome 3 Indicator 3. N. of vulnerable households using action supported tools, instruments, strategies and activities to respond to climate change and variability (disaggregated by male-headed and female-headed). Goals: 8,500 farmers (70% female-represented) adopt CRA practices promoted on 170 Model Plots; 8,500 farmers (70% female-represented) with improved access to water for production; 160 people (70% women) gained access to support for establishing micro-enterprises and IGAs;

Outcome 1 Strengthened capacity and knowledge management to monitor and address water and agriculture-related climate risks in Oio and Cacheu Regions

Output 1.1. Improved local observation and management systems for monitoring water and agriculture-related climate risks in Oio and Cacheu Region.

Please note: This output is not gender specific yet gender indicators are included under certain activity outputs.

Selected indicators:

[iOp-1.1.2.] N. of annual action plans of the Observatory Group designed and validated.

Gender indicator/goal: No. of action plans that take gender into consideration as a result of support (led by gender specialist) given to project team and communities. Goal: 5

[iOp-1.1.4.] N. of CCCs established and functioning. Goal: 20;

Gender indicator/goal: % of CCCs with at least 50% female members – Goal: 75%.

Gender indicator/goal: % of CCCs with at least 50% female leadership – Goal: 75%.

Gender indicator: % of CCCs that provide referrals to women and men on issues of importance to women (GBV, family planning, more). Goal: 100%

Output 1.2. Strengthened technical capacities of decision-makers and field staff in Oio and Cacheu Region for addressing water and agriculture related climate risks.

Please note: This output is not gender specific yet gender indicators are included under certain activity outputs.

Selected indicators:

[iOp-1.2.1.] N. of workshops/trainings sessions addressed on agri-environmental practices, technologies, water and soil quality monitoring.

Gender indicator/goal: % of workshops with at least 50% female participants. Goal: 75%

[iOp-1.2.3.] N. of workshops and training courses addressed for decision-makers at national and regional level on agri-environmental practices, technologies, water and soil quality monitoring system. Goal: 10.

Gender indicator/goal: % of workshops and training courses that are reviewed/revised by the gender specialist before being held. Goal: 100%

Gender indicator/goal: # of webinar trainings with at least 25% female participation. Goal: 8.

Gender indicator/goal: # of workshop and training attendees who are women ministries or gender ministries involved in steering and technical committees to support with oversight and technical issues

Gender indicator/goal: # of workshop attendees who are from women ministries or gender ministries

[iOp-1.2.5.] N. of communities sensitized on agri-environmental practices, technologies, water and soil quality monitoring system.

Gender indicator/goal: Sensitization material gender sensitive - 100% of materials

Gender indicator/goal: Sensitization activities organized for women to be able to attend - 100% of activities
 Gender indicator/goal: % of communities in which efforts have been made to mobilize men as champions of women's empowerment & equality in agricultural productive systems: 100%

[iOp.1.2.7.] N. of youth trained on climate-resilient agriculture with practice done in the project Farmer Clubs. Goal: 110.

Gender indicator/goal: 50% women

[Op.3.6.] N. of trained youth integrated in the Farmers' Clubs. Goal: 68.

Gender indicator/goal: 50% women.

[Op.3.7.] N. of youth trained on post-harvest practices and use of technologies. Goal: 115.

Gender indicator/goal: 50% women.

[Op. 1.3.] Output 1.3. Improved availability and accessibility to knowledge on water and agriculture-related climate risks and adaptation options.

Please note: This output is not gender specific yet gender indicators are included under certain activity outputs.

Selected indicator:

[iOp.1.3.1.] Output Indicator 9. N. of knowledge management and dissemination strategies developed.

Gender indicator/goal: % of management and dissemination strategies that are reviewed/ revised by the gender specialist before being finalized. Goal: 100%

[iOp.1.3.2.] Output Indicator 10. N. of informative documents with lessons learned and recommendations integrated in national monitoring systems.

Gender indicator/goal: % of documents created that incorporate gender/take gender under consideration, as per the analysis of the gender specialist. Goal: 100%

Activities	Indicators and Targets	Timeline	Responsibilities	Costs
<p>Activity 1.1.1. Conceptualization and operationalization of The Observatory Group (OG) for climate-resilient agriculture (CRA) practices and technologies and water and soil quality monitoring (WSQM) and integration of the OG activities with national monitoring systems.</p> <p>Gender sub-activity (a): Consult male and female key stakeholders.</p> <p>Gender sub-activity (b): Field staff work with communities to create Observatory Group (OG), and to advocate for female participation in both leadership/decision-making positions.</p> <p>Gender sub-activity (c): Individuals involved in OGs are trained by project staff in gender empowerment/inclusion</p> <p>Gender sub-activity (c): Identify local initiatives/organizations that have a focus on women and/or gender; contact organizations to gather information and discuss strategies for collaboration.</p>	<p>[A.1.1.1.a] Observatory Group (OG) created with female participation in both leadership/decision-making positions. Goal: 30% (leadership) and 70% (membership)</p> <p>[A.1.1.1.b] Number of stakeholders consulted, disaggregated by sex. Goal: TBC with baseline</p> <p>[A.1.1.1.c] Number of initiatives that have a focus on women and/or gender identified and contacted. Goal: TBC with baseline</p> <p>[A.1.1.1.de] Project plan and design is updated to incorporate new findings.</p>	<p>Q1, Q2, Q3, Q4/Y1</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity budget</p>

<p>Gender sub-activity (d): With gender specialist support, incorporate findings into project plan and design.</p>				
<p>Activity 1.1.2. Establish Climate Community Centers (CCC). Gender sub-activity (a): Gender specialist supports project team to consult community members – men and women – about location and other characteristics of CCCs. Consultations are held at times convenient for respondents. Gender sub-activity (b): Gender specialist provides input to team on materials at the center and how they can be more gender-inclusive/responsive, etc. (such as establishing a private area for breastfeeding mothers, separate latrines, and/or creating a play area outside with simple, locally available materials so women can come and their children can play while they consult/are active at the CCCs, for example.) Gender sub-activity (c): Community members are mobilized to help establish CCCs and are informed about the gender considerations. This includes meetings with local leaders/key stakeholders and influencers and meetings with community members. Gender sub-activity (d): Train all project staff in how to provide referrals. Gender specialist assists in training all project staff in how to recognize signs of GBV, how to respond to allegations of GBV, and how to support survivors with referrals. Gender sub-activity (e): With gender specialist support and information gathered on referrals, centers place information/referral contacts related to issues of relevance to women including family planning, GBV, more in public areas at the center. Gender sub-activity (f): Support communities to establish CCC monitoring systems. Provide information on the importance of gender parity in responsibilities and in women’s involvement in decisions. Gender sub-activity (g): Organize a community-based, rotating childcare system with the mothers and the gender specialist.</p>	<p>[A.1.1.2.a] % of centers are established with input from women and men and with gender considerations. Goal: 100% [A.1.1.2.b] % of CCC monitoring systems incorporate gender considerations and strive for gender parity in leadership and membership. Goal: 75% [A.1.1.2.c] % of CCC connected community-based, rotating childcare system for children from 2 to 5 years organized with the gender specialist and community mother’s participation. Goal: 100% [A.1.1.2.d] % of project staff who have been trained in GBV and to provide appropriate referrals. Goal: 100% [A.1.1.2.e] % of CCCs that have information available on GBV support/referrals. Goal: 100%</p>	<p>Y1 & Y2</p>	<p>ADPP (Executing Entity) Gender Specialist</p>	<p>5% of activity costs</p>
<p>Activity 1.1.3 Equip OGs and CCCs with technologies for WSQM</p>	<p>N/A</p>		<p>ADPP (Executing Entity)</p>	

			Gender Specialist	
<p>Activity 1.1.4. <u>Training of OG members, including community members and individuals on O&M of observatory equipment.</u> Gender sub-activity (a): Field staff consult OG members to determine what time and where training should be held. Gender sub-activity (b): Special efforts are made to mobilize women: outreach is conducted at times convenient to women, outreach is conducted where women frequent, outreach is conducted when men are not present and female questions are encouraged. Gender sub-activity (b): Project staff consult gender specialist on training materials, to ensure gender considerations and appropriate language and content; specialist provides input. Gender sub-activity (c): Training is given by a team that includes women.</p>	<p>[A.1.1.2.a] % of people trained who are women. Goal: 70% [A.1.1.2.b] % of trainers who are women. Goal: 25% [A.1.1.2.c] % of project staff at workshops who are women. Goal: 50%. [A.1.1.2.d] As per gender specialist: Gender issues are included in workshops. [A.1.1.2.e] As per gender specialist: Guidelines for the O&M manual are complete with gender considerations and with male and female input; Gender aspects are embedded in the content and a gender sensitive approach is used; Both genders are equally represented as actors and beneficiaries, and the language used is sex-specific and refers to both sexes. [A.1.1.2.f] % of OG members who can, based on training, name at least 3 ways in which responsibilities will be split fairly between men and women (disaggregated by sex). Goal: 75% of men and 75% of women.</p>	Q4/Y1, Q1/Y2	ADPP (Executing Entity) Gender Specialist	5% of activity budget
<p>Activity 1.2.1. <u>Development of Training Manuals, Modules and Curriculums for Environmental Education, CRA practices and technologies, adaptation towards water and soil salinization.</u> Gender sub-activity (a): Design guidelines for the Training Manuals and Modules with the gender specialist. The guidelines include gender considerations and are made with male and female input. Hold consultative meetings with women to gather input. Embed gender aspects in the content and use a gender sensitive approach. Represent both genders equally as actors and beneficiaries, use sex-specific language, and refer to both sexes.</p>	<p>[A.1.2.1.a] As per gender specialist: Manuals are completed with gender considerations; Gender aspects embedded in content and forms of messaging and/or interactions; Both genders are equally represented as actors and beneficiaries, and the language used is sex-specific and refers to both sexes. [A.1.2.1.b] # of women who have provided input to the design and development of the manuals and modules. Goal: TBC at project start</p>	Q1-Q2/Y1	ADPP (Executing Entity) Gender Specialist	
<p>Activity 1.2.2. <u>Capacity building of national-level decision-makers, local government authorities and field staff on WSQM, Adaptation and CRA practices.</u></p>	<p>[A.1.2.2.a] % of decision-makers who attend workshops who are women. Goal: 20%</p>		ADPP (Executing Entity)	

<p>Gender sub-activity (a): Field staff consult decision-makers to identify convenient time/date, and to mobilize women to participate.</p> <p>Gender sub activity (b): Project staff consult gender specialist on workshop materials, to ensure gender considerations and appropriate language and content; specialist provides input.</p> <p>Gender sub-activity (c): Workshops are given by a team that includes women.</p> <p>Gender sub-activity (d): Project staff consult gender specialist on training materials, to ensure gender considerations and appropriate language and content; specialist provides input.</p> <p>Gender sub-activity (e): Mobilize male & female extension workers and members of CSOs' staff.</p> <p>Gender sub-activity (f): Consult attendees on timing to fit around family commitments and to accommodate different time-schedules.</p> <p>Gender sub-activity (g): Sessions are given by a team that includes women.</p>	<p>[A.1.2.2.b] % of invited institutions who have been requested to send at least 1 female representative to workshops. Goal: 100%</p> <p>[A.1.2.2.c] # of attendees of workshops who represent institutions that focus on gender. Goal: TBC with baseline (to include Ministry, IMC, Practicas Nefastas, and other organizations to be identified)</p> <p>[A.1.2.2.c]: % of project staff at workshops who are women. Goal: 25%</p> <p>[A.1.2.2.d] Gender issues are included in the workshops, as per gender specialist.</p> <p>[A.1.2.2.e] % of authorities at workshops who are women. Goal: 20%</p> <p>[A.1.2.2.f] % of staff team at workshops who are women. Goal: 25%</p> <p>[A.1.2.2.g] Gender issues are included in the training, as per gender specialist.</p> <p>[A.1.2.2.h] % of extension workers who attend trainings who are female. Goal: 10%</p> <p>[A.1.2.2.i] % of CSO staff workers who attend trainings who are female. Goal: 25%</p>		Gender Specialist	
<p>Activity 1.2.3. Train youth through vocational training courses in CRA practices, including specializations in livestock management and post-harvest practices.</p> <p>Gender sub-activity (a): Gender specialist reviews curriculum and works with team to enhance/improve it so it is more gender-inclusive and gender-sensitive.</p> <p>Gender sub-activity (b): Mobilize youth – male and female – to take courses.</p> <p>Gender sub-activity (c): Trainings are provided by both men and women.</p>	<p>[A.1.2.3.a] Total (115) students (disaggregated by sex and within women disaggregated (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women</p>	ALL QUARTERS – Y1-Y4Q3 & Q4/Y1 Q1 & Q2/Y1	ADPP (Executing Entity) Gender Specialist	5% of activity cost

	<p>with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap). Goal: 70% women disaggregated goal/figures TBC with baseline); [A.1.2.3.b] As per gender specialist, trainings incorporate gender aspects. [A.1.2.3.c] At least 25% of trainers are women</p>			
<p>Activity 1.2.4. <u>Conduct sensitization campaigns and address concrete barriers at community-level for climate change literacy, adaptation options, and other resilience-building topics.</u> Gender sub-activity (a): Gender specialist supports project team to develop questionnaire to gather information from women about literacy interests, needs. Gender sub-activity (b): Primarily female field staff consult women on literacy classes. Outreach is done at times that are convenient for women and when they are home. Gender sub-activity (c): Team consults gender specialist, to share findings and establish times and locations for literacy classes. Gender sub-activity (d): Gender specialist supports team to ensure the curriculum for the functional literacy course is gender-sensitive. Gender sub-activity (e): Community outreach to men – through group discussions, one-on-one conversations, awareness campaigns, mobilizing local leaders to be “champions” of women’s literacy – to raise awareness and understanding of the importance of women’s literacy and how it is good for their development, as well as that of their families and communities. Gender sub-activity (f): Hold functional literacy classes in the context of adaptation to climate change (agriculture, health, nutrition, gender equality etc... in the context of climate change), and mitigation of climate change impacts. Work with Ministry of Environment and Ministry of Education, with knowledge of Ministry of Woman and Family to design content. Gender sub-activity (g): Monitor community members for potential negative feedback to women’s education; work with gender specialist with input from women’s groups and Ministry</p>	<p>[A.1.2.4.a] Total places per CCC per year, from the 2nd year on and total women who receive literacy training: Goal 20 /1,360 women receive literacy training. [A.1.2.4.b] % of campaigns are conducted with gender considerations. Goal: 100% [A.1.2.4.c] % of communities in which a local leader and/or influencer is promoting women’s literacy. Goal: 100%</p>	<p>Q2-Q4/Y1, ALL QUARTERS Y2, Y3, & Y4</p>	<p>ADPP (Executing Entity) Gender Specialist</p>	<p>5% of activity costs</p>

<p>of Woman and Family to adapt/respond appropriately (additional community outreach campaigns, for example) should negative reactions occur. Gender sub-activity (h): Work with gender specialist to design campaigns to ensure that they include gender elements. Embed gender aspects in content and forms of messaging and interactions – this includes messaging that targets men to increase their support for women’s active and equal role in agricultural productive systems. Use a gender sensitive approach in all IEC activities (written, verbal, audio and visual content.) In IEC materials used, equally represent both genders as actors and beneficiaries, and use language that is sex-specific wherever possible and refer to both sexes. Include in topics to cover access, use and decision-making over land related issues be dealt with in the project and also in relation to polygamous households. Gender sub-activity (i): Conduct awareness campaigns at times deemed suitable for all targeted audiences and/or at differing times to accommodate different schedules. Gender sub-activity (j): Support women to attain identity cards.</p>				
<p><u>Activity 1.2.5. Mainstream environmental education in the young adult education system in the target areas.</u> Gender sub-activity (a): Gender specialist reviews curriculum and works with team to enhance/improve it so it is more gender-inclusive and gender-sensitive. Gender sub-activity (b): Conduct community campaigns at locations where youth frequent to mobilize youth – male and female – to take courses. In campaigns, include targeted messaging for females to participate and to promote community support for women’s training in traditionally male-dominated areas. Include in topics to cover access, use and decision-making over land related issues be dealt with in the project and also in relation to polygamous households. Gender sub-activity (c): Hold community meetings with local leaders to discuss the importance of youth participation in the trainings, and of the importance of allowing young women to participate.</p>	<p>[A.1.2.5.a] As per gender specialist, trainings incorporate gender aspects. [A.1.2.5.b] Total # of students / % women (disaggregated by sex and within women (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1</p>	<p>Y2-Y5</p>	<p>ADPP (Executing Entity) Gender Specialist</p>	<p>5% of activity costs</p>

<p>Gender sub-activity (d): Enroll youth. Gender sub-activity (e): Trainings are provided by both men and women. Gender sub-activity (f): Provide enrolled youth with information on and referrals about GBV.</p>	<p>child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap). Goal: 115 / 70% (disaggregated TBC) [A.1.2.5.c] % of trainers who are women. Goal: 25%</p>			
<p>Activity 1.3.1. Conduct Baseline Study and KAP Survey. Gender sub-activity (a): Design baseline study and KAP Survey with input from gender specialist. Determine: when to conduct outreach to ensure women's participation; which female stakeholders should be targeted; and which data will be better collected from women without the presence of men, among other topics. Ensure disaggregated data to include (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N^o of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap). Gender sub-activity (b): Mobilize female field staff to contribute to study and survey. Gender sub-activity (c): Conduct study and survey at times that will allow both men and women to participate. Collect some data without men present. Gender sub-activity (d): Disaggregate collected data by sex, age, and polygamous union whenever possible.</p>	<p>[A.1.3.1.a] % of data collected comes from women. Goal: 50% [A.1.3.1.b] As per gender specialist and indicated in the text of the Baseline Study and KAP Survey: data collected includes gender related issues. [A.1.3.1.c] % of women who participate/provide information who are heads of household. Goal: 50% [A.1.3.1.d] % of women who participate/provide information who are in a polygamous union. Goal: 25%</p>	<p>Q4/Y1 & every other quarter all other years</p>		

<p>Activity 1.3.2. Elaborate a knowledge base with a collaborative e-platform for climate resilience and adaptation practices</p> <p>Gender sub-activity (a): Consult gender specialist on information and platform to ensure that it includes information and knowledge with gender perspective, input from women and men, is accessible to women etc.</p> <p>Gender sub-activity (b): Design e-platform with input from gender specialist, to ensure that it is designed to be accessible to both women and men.</p> <p>Gender sub-activity (c): Test e-platform with women-led organization/associations and/or organizations that are comprised of and/or that work closely with women (agricultural, commercialization) to receive input and feedback to improve its accessibility for women.</p>	<p>[A.1.3.2.a] # of organizations/associations that have provided input to improve e-platform for women. Goal: TBC with baseline</p> <p>[A.1.3.2.b] E-platform has been updated as per input provided by outside organizations/associations.</p>	<p>Y2-Y5</p>		<p>5% of activity costs</p>
<p>Activity 1.3.3. Disseminate knowledge and information in local, national and regional workshops and forums.</p> <p>Gender sub activity (a): Consult gender specialist to ensure that communication and dissemination strategy is done with gender considerations and with gender-sensitive approach. Ensure that information includes gender issues.</p> <p>Gender sub-activity (b): Identify both male and female key actors and stakeholders, as well as workshops and forums that include women’s organizations and/or that target gender issues.</p> <p>Gender sub-activity (c): Disseminate information through various means – in-person, via email, via WhatsApp, via radio, via hard copy to capture a wider range.</p> <p>Gender sub-activity (d): Develop dissemination strategy with input from gender specialist. Strategy will include women’s participation, gender considerations and input from men and women. Strategy will also coordinate with other projects with a focus on gender and/or women.</p> <p>Gender sub-activity (e): Field staff consult authorities to identify convenient time/date. Mobilize both male and female local and central authorities, actors from various sectors</p>	<p>[A.1.3.3.a] As per gender specialist, dissemination strategy includes women’s participation, gender considerations and input from men and women, and is coordinated with other projects with a focus on gender and/or women.</p> <p>[A.1.3.3.b] % of authorities who participate in workshops who are women. Goal: 20%</p> <p>[A.1.3.3.c] % of staff team who participate in workshops who are women. Goal: 25%</p> <p>[A.1.3.3.d] As per gender specialist and noted in the text of the workshop materials, gender issues are included in the workshops.</p> <p>[A.1.3.3.e] As per the gender specialist and noted in the texts, communication strategy and Action Plan are gender responsive and sensitive.</p> <p>[A.1.3.3.f] % of those who receive information who are women. Goal: 70%</p>	<p>Y2-Y5</p>		<p>5% of activity costs</p>

<p>(including women's organizations, among others) to participate in workshops.</p> <p>Gender sub-activity (f): Project staff consult gender specialist on workshop materials, to ensure gender considerations and appropriate language and content; specialist provides input.</p> <p>Gender sub activity (g): Workshops include women and men and women's input is encouraged.</p> <p>Gender sub-activity (h): Workshops are given by a team that includes women.</p> <p>Gender sub-activity (i): Gender specialist provides input to communication strategy and action plan. Strategy and action plan will include: efforts to achieve gender balance in outreach activities and audience; assuring that participants are consulted on timing to fit around family commitments and to accommodate different time-schedules of men, women, and youth; assuring that efforts are made to ensure gender balance of responders; and that all communication material produced is gender sensitive.</p>				
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Outcome 2 Improved water availability and quality for production and consumption, in coastal communities in Oio and Cacheu, despite climate risks

Output 2.1. Community-based water management is improved and adapted towards climate risks, including salt-water intrusion and extreme weather events

Gender indicators:

Gender indicator/goal: As confirmed by gender specialist, all plans made and/or established - water management interventions on lower flood prone areas; mini-dams for irrigation of rice and vegetable crops; updated Coastal Management – incorporate input from women and men and gender considerations

Gender indicator goal: As confirmed by gender specialist, all actions - for water management interventions on lower flood prone; micro-scale irrigation systems interventions; mini-dams for irrigation of rice and vegetable crops; rain and storm water retention systems – consult women and men beforehand to identify different needs/constraints and to ensure that actions respond to varying priorities, needs of women and men

[Op. 2.2.] Output 2.2. Mangrove ecosystems are better managed, as an ecosystem-based adaptation measure towards salt-water intrusion

Selected indicators:

[iOp.2.2.1.] No of community nurseries for mangroves and coastal trees established and operational.

Gender indicator/goal: 70% of individuals participating in the actions are female

Gender indicator/goal: % of surveyed women engaged in mangrove actions who report that nursery management is being done in a manner that is fair and equitable. Goal: 75%

[iOp.2.2.2.] No of communities engaged in reforestation of mangroves.

Gender indicator/goal: 70% of individuals participating in the actions are female

Gender indicator/goal: % of surveyed women engaged in mangrove reforestation who report that they see benefits to themselves and their families from reforestation efforts. Goal: 75%

[iOp.2.2.3.] No of communities where firewood saving stoves are introduced

Gender indicator/goal: % of surveyed women using stoves who report that they see benefits to themselves and their families from the stoves. Goal: 75%

Activities	Indicators and Targets	Timeline	Responsibilities	Costs
<p>Activity 2.1.1. Elaborate adaptation management plans (salinization of rice fields, on-site agriculture, water and coastal management)</p> <p>Gender sub-activity (a): Male and female field staff consult both men and women in regards to the plans. Outreach to community members is done at times that are convenient for both sexes and at times when people are home.</p> <p>Gender sub-activity (b): Gender specialists provides support and input to ensure that gender concerns, considerations, and strategies are appropriately incorporated.</p> <p>Gender sub-activity (c): Plans are elaborated with gender considerations and input.</p> <p>Gender sub-activity (d): Hold community sessions / groups / outreach activities to cover women's access, use and decision-making over land related issues, also in relation to polygamous households.</p>	<p>[A.2.1.1.a] % of field staff who conduct outreach who are female. Goal: 25%</p> <p>[A.2.1.1.b] % of people consulted who are female. Goal: 50%</p> <p>[A.2.1.1.d] As per gender specialist, plans incorporate input from both men and women, and with due consideration to their concerns, issues, and priorities.</p> <p>[A.2.1.1.d] # of people reached (TBC with Gender Specialist but likely to be disaggregated by sex, female HoH, and female in a polygamous union) with campaigns on women's access, use and decision-making over land related issues, also in relation to polygamous households. Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p>	<p>Q2 & Q3/Y1, Q1/Y2, Q1/Y3, Q1/Y4, Q1 & Q4/Y5</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity budget</p>
<p>Activity 2.1.2. Construct and rehabilitate water management infrastructures to prevent salt water intrusion in mangrove-rice paddies</p> <p>Gender sub-activity (a): Gender specialist supports project team to develop questionnaire to gather information from men and women about water infrastructure and to identify potential locations for infrastructures and water points that would reduce workload on women.</p> <p>Gender sub-activity (c): Male and female field staff consult both men and women on water infrastructure and water</p>	<p>[A.2.1.2.a] % of communities that have new water infrastructure that has been installed using a gender-responsive approach. Goal: 100%</p> <p>[A.2.1.2.b] % of communities with new water infrastructure that have incorporated something in their design to ensure that the workload on women is reduced. Goal: 100%.</p> <p>[A.2.1.2.c] % of communities in which a female stakeholder reports that new water infrastructure responds to women's interests and needs. Goal: 100%.</p>	<p>Q2 & Q3, ALL YEARS</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity budget</p>

<p>points. Outreach to community members is done at times that are convenient for both sexes and at times when people are home.</p> <p>Gender sub-activity (c): Team consults gender specialist, to share findings and identify potential locations.</p> <p>Gender sub-activity (d): Locations are confirmed with male and female local leaders and community representatives.</p> <p>Gender sub-activity (e): Water infrastructure is constructed and/or rehabilitated with gender considerations gathered from community members.</p> <p>Gender sub-activity (f): Conduct surveys with community members regarding their satisfaction/perceptions of the new infrastructure.</p>	<p>[A.2.1.2.d] Perceived reduction in workload and time savings for women who are currently sourcing water and using a lot of their time and labor to collect water (as per interviews with community members and key stakeholders)</p> <p>[A.2.1.2.e] The number of women and men benefiting from the establishment of infrastructures (TBC with Gender Specialist but likely to disaggregate women by head of household and women in a polygamous union). Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p>			
<p><u>Activity 2.1.3. Establish water management systems to address water shortages for production and consumption during prolonged dry spells</u></p> <p>Gender sub-activity (a): Gender specialist supports project team to develop questionnaire to gather information from men and women about irrigation systems and agricultural production practices, preferences, etc. and to identify potential locations for irrigation systems that would reduce workload on women.</p> <p>Gender sub-activity (b): Male and female field staff consult both men and women on irrigation systems. Outreach to community members is done at times that are convenient for both sexes and at times when people are home.</p> <p>Gender sub-activity (c): Team consults gender specialist, to share findings and identify potential locations.</p> <p>Gender sub-activity (d): Locations are confirmed with male and female local leaders and community representatives.</p> <p>Gender sub-activity (e): Promote systems of water access that are aligned with both male and female needs/priorities. Recover/open water points based on input from both women and men. Construct 10 new water holes with tanks for drinking water based on collected gender findings and considerations.</p>	<p>[A.2.1.3.a] % of irrigation systems installed/recovered are done so with gender considerations and with the idea to reduce workload of women. Goal: 100%</p> <p>[A.2.1.3.b] Perceived reduction in workload and time savings for women who are currently sourcing water and using a lot of their time and labor (as per interviews with community members and key stakeholders)</p> <p>[A.2.1.3.c] The number of women and men benefiting from the establishment of micro-scale irrigation systems (TBC with Gender Specialist but likely disaggregated by sex, HoH, and in a polygamous union). Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p>	<p>Q2 & Q3/Y1 – ALL YEARS</p>	<p>ADPP (Executing Entity) Gender Specialist</p>	<p>5% of activity budget</p>

<p>Gender sub-activity (f): Conduct trainings about the positive benefits of shared responsibility for water collection.</p> <p>Gender sub-activity (g): Conduct surveys with community members regarding their satisfaction/perceptions of the new systems.</p>				
<p>Activity 2.1.4. Promote small-scale irrigation schemes to maintain agricultural production</p> <p>Gender sub-activity (a): Team reviews data gathered regarding male and female insight on water collection, water infrastructure, etc. Analyze irrigation systems to determine how they respond to different interest and challenges.</p> <p>Gender sub-activity (b): Conduct trainings about irrigation systems, highlighting the benefits to interests, challenges, needs, constraints of men and of women.</p> <p>Gender sub-activity (c): Conduct surveys with community members regarding their satisfaction/perceptions of the new systems.</p>	<p>[A.2.1.4.a] Perceived reduction in workload and time savings for women through the micro-scale irrigation systems (as per interviews with community members and key stakeholders)</p>	<p>Q3 & Q4/Y1, Q1 & Q4/Y2 – Y5</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity budget</p>
<p>Activity 2.2.1. Implement erosion control and adaptation actions towards sea level rise and saline water intrusion through functional reforestation of mangroves</p> <p>Gender sub-activity (a): Gender specialist supports project team to develop questionnaire to gather information from men and women about reforestation and practices, preferences for tree species, etc.</p> <p>Gender sub-activity (b): Male and female field staff consult both men and women on reforestation. Outreach to community members is done at times that are convenient for both sexes and at times when people are home.</p> <p>Gender sub-activity (c): Team consults gender specialist, to share findings and identify potential locations and tree species.</p> <p>Gender sub-activity (d): Locations and species are confirmed with male and female local leaders and community representatives.</p>	<p>[A.2.2.1.a] % of nurseries designed with gender considerations. Goal: 100%</p> <p>[A.2.2.1.b] % of nurseries that have both women and men involved in their care and maintenance. Goal: 100%</p> <p>[A.2.2.1.c] # of people (to be confirmed with Gender Specialist but likely disaggregated by sex, female HoH and female in a polygamous union) who are involved in nursery care and maintenance. Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p> <p>[A.2.2.1.d] % of trees planted with gender consideration as to where, when, what, and who planted. Goal: 100%</p> <p>[A.2.2.1.e] % of trees that were planted by men / women. Goal: 50% / 50%</p> <p>[A.2.2.1.f] Community members report that they are satisfied with the trees that have been planted, and they believe that they will benefit them individually (as per surveys with community members and key stakeholders,</p>	<p>Q1-Q4/Y2, Q2-Q4/Y3-Y5</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity budget</p>

<p>Gender sub-activity (e): Train community members in how to plant and care for new trees. Explain the benefits and drawbacks of the different species.</p> <p>Gender sub-activity (f): Mobilize male and female community members to participate in tree planting; promote equal participation and ensure that it is a responsibility shared between men and women. Women and men work with project staff to identify how many of each species will be allocated, what will be planted, and where they will be planted.</p> <p>Gender sub-activity (g): Conduct tree planting at times convenient for women and men, and in separate groups as needed.</p> <p>Gender sub-activity (h): Design manuals with gender specialist to ensure gender considerations.</p> <p>Gender sub-activity (i): With gender specialist, analyze community-based brigades to protect and restore mangroves to analyze if brigades are placing unsustainable additional burdens on women and/or children and/or on other vulnerable groups. If additional burdens are identified, gender specialist works with project team and communities to create responses/solutions.</p> <p>Gender sub-activity (j): Hold awareness sessions to speak with communities/raise awareness of the need to share responsibilities.</p> <p>Gender sub-activity (k): Conduct yearly awareness-raising and information campaigns on mangrove issues with gender considerations. Ensure that gender aspects are embedded in content and forms of messaging and/or interactions. Use gender sensitive approach in all IEC activities (written, verbal, audio and visual content.) In IEC materials used, represent both genders equally represented as actors and beneficiaries, and use language that is sex-specific wherever possible and that refers to both sexes. Ensure that awareness campaigns are conducted at times deemed suitable for all targeted audiences and/or at differing times to accommodate different schedules.</p>	<p>TBC with Gender Specialist but likely disaggregated by sex, female HoH, and female in a polygamous union.)</p>			
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<p>Gender sub-activity (l): Conduct surveys with community members regarding their satisfaction/perceptions of treeplanting activities.</p>				
<p>Activity 2.2.2. Organize sensitization sessions, and promote production and dissemination on firewood saving cookstoves</p> <p>Gender sub-activity (a): Gender specialist assists team to design household questionnaires.</p> <p>Gender sub-activity (b): Conduct household questionnaires and surveys, as well as one-on-one discussions.</p> <p>Gender sub-activity (c): Conduct expert interviews.</p> <p>Gender sub-activity (d): Conduct focus group discussions with men’s groups and women’s groups.</p> <p>Gender sub-activity (e) Conduct cookstove performance tests with users in the field to ensure performance and women's ease of handling.</p> <p>Gender sub-activity (f): Observe women cooking on both their traditional cookstoves and with the improved models.</p> <p>Gender sub-activity (g): Conduct cookstove field trials and gather feedback.</p> <p>Gender sub-activity (h): Conduct surveys with women, to ascertain perceived time saved collecting firewood, decreases in workload, health benefits, and more.</p>	<p>[A.2.2.2.a] % of cookstoves installed with gender considerations. Goal: 100%</p> <p>[A.2.2.2.b] Women report that they are now saving time that would have been spent collecting firewood and that they have a lesser workload (as per surveys with community members and key stakeholders, disaggregated by sex)</p> <p>[A.2.2.2.c] # of people (TBC with Gender Specialist but likely disaggregated by sex, female HoH, and female in a polygamous union) who are using an improved cookstove. Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p>	<p>ALL QUARTERS starting in Y2</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity budget</p>

Component 3 Enhanced climate-resilience of smallholder farmers, in coastal communities in Oio and Cacheu Region

[Oc.3.1.] Outcome 3. Vulnerable populations have gained access to community-based structures for climate change adaptation

Selected indicators:

Output 3.1.1. Increased and diversified climate-resilient production of smallholder farmers

Gender indicator/goal: Women farmers report that supplementary support – rotating childcare, literacy courses – have strengthened their ability to sustainably produce (as per interviews with key female stakeholders and women farmers).

Gender indicator/goal: Women farmers report that there is a more enabling environment for their built capacity, greater production, literacy, and empowerment (as per interviews with key female stakeholders and women farmers).

Gender indicator/goal: Community leaders report that women’s economic empowerment and enhanced leadership positions are positive for community development and are supported and promoted (via key stakeholder interviews).

Selected Indicators:

[iOp.3.1.1.] N. of farmers organized in Farmers' Clubs. Goal: 8.500.

Gender indicator/goal: 70% women; disaggregated by (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap) (#s and goals TBC with baseline)

[iOp.3.1.2.] N. of farming families mentored throughout the project. Goal: 8.500.

Gender indicator/goal: 70% represented by women; disaggregated by (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap) (#s and goals TBC with baseline)

[iOp.3.1.4.] N. of model plots established. Goal: 170

Gender indicator/goal: % of decision made with female input. Goal: 100%

[iOp.3.1.5.] N. of farmers trained on climate-resilient farming practices. Goal: 8,500.

Gender indicator/goal: 70% women; disaggregated by (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap) (#s and goals TBC with baseline)

Output 3.3. Increased income options in climate-resilient economic activities along agricultural value chains

Selected indicator:

[iOp.3.2.1.] N. of people trained in business management. Goal: 160.

Gender indicator/goal: 50% women; disaggregated by (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap) (#s and goals TBC with baseline)

[iOp.3.2.2.] N. of micro-enterprises along the value chain(s) and women-led IGAs supported. Goal: 40.

Gender indicator/goal: 50% women; disaggregated by (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N^o of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap) (#s and goals TBC with baseline)

Activities	Indicators and Targets	Timeline	Responsibilities	Costs
<p>Activity 3.1.1. Establishment, organization and regular trainings in CRA practices on Model Plots</p> <p>Gender sub-activity (a): Awareness sessions conducted – at times convenient for women and men and using gender-sensitive language – to create awareness among men and community members about the importance of women’s active involvement and women’s leadership in productive activities. Topics include access, use and decision-making over land related issues be dealt with in the project and also in relation to polygamous households.</p> <p>Gender sub-activity (b): Women and men are mobilized to join through community outreach campaigns, smaller groups, community discussions with local leaders, house-to-house visits, and more. Outreach is done at times where both women and men are expected to be available. At these times, identify issues of importance to women farmers – i.e. family planning, GBV, other referrals.</p> <p>Gender sub-activity (c): Mentoring of productive groups done by both male and female animators and supervisors.</p> <p>Gender sub-activity (d): Team consults gender specialist on curricula that will be used for trainings and on-farm assistance. Gender specialist provides input to how to incorporate gender issues and make the curricula more gender-responsive and gender-sensitive. Training curricula designed with gender considerations and analysis.</p> <p>Gender sub-activity (e): Attendees are consulted on timing to fit around family commitments and to accommodate different time-schedules; mobilize both women and men to attend. Make targeted efforts to mobilize particularly</p>	<p>[A.3.1.1.a] % of farmers’ clubs members who are women and, of these, disaggregated by (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N^o of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap). Goal: 70%; disaggregated figures and goals TBC based on baseline and with gender specialist</p> <p>[A.3.1.1.b.] As per gender specialist, all training materials are gender-inclusive/responsive.</p> <p>[A.3.1.1.c.] As per gender specialist, training curricula designed with gender considerations and analysis. All training materials are gender-inclusive/responsive. Trainings held at times convenient for both women and men.</p>	<p>Q1 & Q2/Y1,</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity cost</p>

<p>vulnerable women, including women from polygamous marriages. Gender sub-activity (f): Trainings held at times convenient for both women and men. Gender sub-activity (g): Provide relevant referral information to farmers (family planning, GBV, others).</p>				
<p>Activity 3.1.2. Promote Sustainable Rice Intensification (SRI) and Climate-Resilient Rice Production (CRRP) Gender sub-activity (a): Team consults gender specialist on curricula that will be used for trainings and on-farm assistance. Gender specialist provides input to how to incorporate gender issues and make the curricula more gender-responsive and gender-sensitive. Training curricula designed with gender considerations and analysis. Gender sub-activity (b): Attendees are consulted on timing to fit around family commitments and to accommodate different time-schedules; mobilize both women and men to attend. Make targeted efforts to mobilize particularly vulnerable women, including women from polygamous marriages. Gender sub-activity (c): Trainings held at times convenient for both women and men. Gender sub-activity (d): Provide relevant referral information to farmers (family planning, GBV, others).</p>	<p>[A.3.1.2.a] As per gender specialist, all training materials are gender-inclusive/responsive. Trainings have been held at times convenient for both women and men. When feasible, issues of importance to women farmers (confirmed at the start of the project) have also been shared/education has been provided – i.e. family planning, GBV, other referrals. [A.3.1.2.b] # of people trained (TBC with Gender Specialist but likely disaggregated by sex, female HoH and female in a polygamous union). Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p>	<p>Q2-4/Y1, Y2-Y5</p>	<p>ADPP (Executing Entity) Gender Specialist</p>	<p>5% of activity cost</p>
<p>Activity 3.1.3. Introduction and promotion of short cycle animal production Gender sub-activity (a): Establish short cycle animal Pass-on Gift system (chicken and goat) for 680 people (women and young) 20 per community. Gender sub-activity (b): Organisation of initial goat and avian raising and breeding families in the communities - according to availability and interest; people pick animals of interest to them to raise. Priority given to (TBC with gender specialist and project team at project start –may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women</p>	<p>[A.3.1.3.a] % of people who benefit from short cycle animal rotation credit system (chicken and goat) who are women and of these, % who are (TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate;</p>	<p>Q2 & Q4 – ALL YEARS</p>	<p>ADPP (Executing Entity) Gender Specialist</p>	<p>5% of activity cost</p>

<p>with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap).</p> <p>Gender sub-activity (c): Training on animal care and animals bred in a "rotating breeding bank" system. Training done at times and locations convenient for men and women.</p> <p>Gender sub-activity (d): Awareness raising activities. Include outreach to men and community to raise awareness of and support for women's involvement and leadership in rotating credit, production.</p> <p>Gender sub-activity (e): Training on subproduct processing and conservation - access to markets. Consult with women and men beforehand to learn of different constraints, interests, and ensure that training responds to both women and men interests.</p> <p>Gender sub-activity (f): Monitor animal husbandry to ensure additional workload for women and youth is not excessive/unwanted and to ensure that there has been limited to no negative response from other community members; respond as needed with support from gender specialist.</p>	<p>women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap) Goal: 70% women. Disaggregated goals TBC.</p> <p>A.3.1.3.b] # of people (TBC with Gender Specialist but likely disaggregated by sex, female HoH and female in a polygamous union) who benefit from short cycle animal rotation credit system (chicken and goat). Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p>			
<p>Activity 3.2.1. Support the establishment and mentoring of 40 micro-enterprises and women-led income generating activities (IGAs) along the value chain(s)</p> <p>Gender sub-activity (a): Team consults gender specialist on curricula that will be used for trainings. Gender specialist provides input to how to incorporate gender issues and make the curricula more gender-responsive and gender-sensitive.</p>	<p>[A.3.2.1.a] % of new micro-enterprises and businesses (income generating activities) that are established by and for women (disaggregated by TBC with gender specialist and project team at project start – disaggregation may include all or a selection of the following): under 25; widows (including those who now live with another family/family and those who do not); women in a</p>	<p>Q3/Y2, Q1 & Q3/Y3-Y5</p>	<p>ADPP (Executing Entity) Gender Specialist</p>	<p>5% of activity cost</p>

<p>Training curricula designed with gender considerations and analysis.</p> <p>Gender sub-activity (b): Attendees are consulted on timing to fit around family commitments and to accommodate different time-schedules. Make targeted efforts to mobilize particularly vulnerable women - including divorced women, under-18, widows, women in a polygamous union, head of household, and women with a disability - through community outreach campaigns, smaller groups, community discussions with local leaders, house-to-house visits, and more. Outreach is done at times where women are expected to be available.</p> <p>Gender sub-activity (c): Provide training in micro-enterprises and IGA. Trainings held at convenient times.</p> <p>Gender sub-activity (d): Provide relevant referral information (family planning, GBV, others).</p> <p>Gender sub-activity (h): Creation and training of a wide range of new micro-enterprises and businesses (income generating activities) for women and men.</p> <p>Gender sub-activity (i): Training and funding in materials - new microenterprise and small cooperative agribusiness projects - prioritizing enterprises led by women or inclusive enterprises.</p> <p>Gender sub-activity (j): Awareness campaigns held include the importance of women's involvement and empowerment in income generating activities. Campaigns held at times convenient for both women and men and all outreach materials are gender-inclusive and gender-responsive. Topics include access, use and decision-making over land related issues be dealt with in the project and also in relation to polygamous households.</p>	<p>polygamous union; head of household; women with a disability (to include those with a disability from birth, those who suffered a disability from work or from violence etc.; women in households with up to 7 family members; women in households with more than 7 family members; by education level (women without education level/illiterate; women with primary education; women with elementary education; women with high school education; women with university degree); N° of children (pregnant women, women with 1 child, etc. up to women with more than 5 children); women with a chronic disease; women who have been victims of FGM; women who have been a victim of other harmful practice (some will overlap). Goal: 70%; disaggregated data/goals TBC based on baseline.</p> <p>[A.3.2.1.b] # people – TBC with Gender Specialist but likely disaggregated by sex, female HoH, and female in a polygamous union – who benefit from mentoring of micro-enterprises. Goal: TBC # of women (of which TBC # of female HoH and TBC # of females in a polygamous union) and TBC # of men.</p> <p>[A.3.2.1.c] # of new microenterprise and small cooperative agribusiness projects that receive funding and that are women-led. Goal: 5 out of 10</p>			
<p>Activity 3.2.2. Establish and upgrade commercial associations for agricultural value chain development</p> <p>Gender sub-activity (a): Hold group and one-on-one discussions to identify what type of processing unit/center would be well-received and identify different preferences from the male and female standpoints.</p> <p>Gender sub-activity (b): Agricultural community units are established with both male and female user input.</p>	<p>[A.3.2.2.a] % of marketing plans that take considerations/concerns/priorities of women into account. Goal: 75%</p> <p>[A.3.2.2.b] % of commercial association /cooperative that have women on the leadership team. Goal: 70%</p>	<p>Q4/Y1, Y2-Y5</p>	<p>ADPP (Executing Entity)</p> <p>Gender Specialist</p>	<p>5% of activity cost</p>

<p>Gender sub-activity (c): Promotion of women on management teams of the CCPs.</p> <p>Gender sub-activity (d): Team supports marketing plan development to take into account considerations/concerns/priorities of both women and men, and in consideration of their work, participation, daily labor, etc.</p>				
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