

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Resilient Futures: Safeguarding Guinea-Bissau's Coastlines and Urban Areas from Climate Risks

Region	GEF Project ID
Africa	11890
Country(ies)	Type of Project
Guinea-Bissau	FSP
GEF Agency(ies):	GEF Agency ID
UNDP	10102
Executing Partner	Executing Partner Type
Ministry of Environment, Biodiversity and Climate Action (MABAC)	Government
GEF Focal Area (s)	Submission Date
Climate Change	3/5/2025

Project Sector (CCM Only)

Climate Change Adaptation Sector

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Climate resilience, Ecosystem-based Adaptation, Disaster risk management, Private sector, Livelihoods, Least Developed Countries, Small Island Developing States, Climate information, International Waters, Freshwater, Aquifer, Forest, Forest and Landscape Restoration, Biodiversity, Protected Areas and Landscapes, Community Based Natural Resource Mngt, Terrestrial Protected Areas, Gender Equality, Gender results areas, Gender Mainstreaming, Access to benefits and services, Capacity Development, Awareness Raising, Knowledge Generation and Exchange, Beneficiaries, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Learning, Capacity, Knowledge and Research, Theory of change, Adaptive management, Knowledge Generation, Knowledge Exchange, Stakeholders, Local Communities, Communications, Behavior change, Public Campaigns, Education, Type of Engagement, Information Dissemination, Partnership, Participation, Consultation, Private Sector, Individuals/Entrepreneurs, SMEs, Financial intermediaries and market facilitators, Civil Society, Non-Governmental Organization, Community Based Organization, Influencing models, Convene multi-stakeholder alliances, Demonstrate innovative approach, Strengthen institutional capacity and decision-making, Integrated Programs, Sustainable Cities, Municipal waste management, Green space, Municipal Financing, Urban Resilience

Type of Trust Fund	Project Duration (Months)
LDCF	84
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
8,932,420.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
848,580.00	0.00

Total GEF Financing: (a+b+c+d)	Total Co-financing
9,781,000.00	42,000,000.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
200,000.00	19,000.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
219,000.00	10,000,000.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: No Competitive Window: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Guinea-Bissau is both an LDC and a SIDS, highly vulnerable to climate hazards, and facing significant development challenges. Low-lying coastal areas—home to 70% of the population, including the capital Bissau—are increasingly threatened by sea-level rise, flooding, erosion, extreme heat, and rainfall variability. Poor urban planning, inadequate infrastructure, and encroachment into flood-prone zones exacerbate exposure and risk. Coastal livelihoods—especially for women—are highly exposed to climate shocks, with limited capacity to adapt. Degraded ecosystems, such as mangroves, once natural buffers, are also in decline, compounding vulnerabilities. Climate change adaptation in the coastal zone is a national priority embedded in Guinea-Bissau’s UNFCCC commitments.

The project’s objective is to strengthen the climate resilience by implementing risk-informed spatial planning, building climate-proof infrastructure, and enhancing disaster risk management. The project targets urban sites (Bissau) and rural/coastal areas (Varela, and the island of Bubaque), covering approximately 32,400 hectares and 13 km of erosion-prone coastline. It will directly benefit 120,000 people, 53% of whom are women, through a gender-transformative and inclusive approach to spatial planning, disaster risk management, and access to resources.

Expected adaptation benefits include:

- Climate-resilient livelihoods, particularly for vulnerable coastal and urban communities
- Ecosystem restoration, including mangrove rehabilitation for coastal protection
- Protection of critical infrastructure and people against flooding and erosion
- Reduced public health risks through the climate-proofing of local health infrastructure and improved access to clean water

The project will promote financial sustainability through strengthening private sector engagement in the blue economy and innovative finance solutions.

Indicative Project Overview

Project Objective

To strengthen the adaptive capacity of communities, critical infrastructure, and ecosystems along Guinea-Bissau's coast by implementing risk-informed spatial planning, building resilience, and enhancing disaster prevention measures against climate risks such as erosion, coastal flooding, and other climate-induced hazards.

Project Components

Component 1: Climate risk assessment for policy effectiveness and planning

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
1,139,095.00	8,000,000.00

Outcome:

Outcome 1: Strengthened governance mechanisms are leading to enhanced climate-responsive spatial planning and improved institutional capacity for effective implementation

Output:

Output 1.1: Urban vulnerability and risk assessments conducted in project intervention sites to inform the selection and design of adaptation measures, such as coastal protection, urban drainage infrastructure, and improved water management practices in rice-growing areas.

Output 1.2: Design and implementation of a gender-responsive spatial planning framework for adaptation to identify and select adaptation measures at both urban and community levels, ensuring inclusivity and sustainability.

Output 1.3: Training provided to enhance the technical and institutional capacity of stakeholders, among them women, to effectively use hydro-meteorological risk information and apply the gender-responsive spatial planning framework for adaptation.

Component 2: Resilience to climate risks in urban and coastal

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing (\$)	Co-financing (\$)
4,800,000.00	15,000,000.00

Outcome:

Outcome 2: Enhancing climate resilience in urban and peri-urban areas through practical adaptation measures, community-led initiatives, and strategic infrastructure, ensuring long-term, inclusive, and gender-responsive support for vulnerable populations.

Output:

Output 2.1: Implementation of no-regret adaptation measures such as climate-proofing of key public infrastructure (e.g., health centers, schools, market areas, public sanitation facilities, piers) and implementation of small-scale, low-cost interventions with adaptation benefits.

Output 2.2: Implementation of selected adaptation measures through a gender-responsive low value grant-making scheme, enabling local communities and stakeholders to carry out actions on climate resilience community-based identified in the spatial planning framework (component 1).

Output 2.3: Implementation of identified adaptation measures from the spatial planning process (component 1), focusing on the most urgent infrastructural/hard adaptation interventions or strategic actions in priority areas for enhancing resilience to climate impacts.

Component 3: Community-based disaster risk management (DRM) in project affected areas

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing (\$)	Co-financing (\$)
1,200,000.00	13,000,000.00

Outcome:

Outcome 3: Enhanced community resilience to climate-related disasters through strengthened local disaster risk management and institutional capacity building of civil protection services.

Output:

Output 3.1: The National Service of Civil Protection is supported to develop and implement national and regional disaster preparedness plans, and to provide technical assistance to local committees, and empowering local women to participate.

Output 3.2: Establishment and strengthening of local disaster risk management committees in collaboration with the National Service of Civil Protection, ensuring the active engagement and full participation of women and marginalized groups in decision-making and implementation.

Output 3.3: Community-based urban and peri-urban early warning systems for sudden-onset climate-driven disasters (flooding, storms, wave surge) and climate-sensitive diseases (vector- and water-borne, heat related, etc.) are setup and incorporated into the existing early warning systems managed by the National Service of Civil Protection, meteorology, and health sectors. Women's special needs and vulnerabilities are prioritized in the design and implementation of these systems.

Component 4: Coordination mechanisms, knowledge management, and innovative finance solutions

Component Type	Trust Fund
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Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
1,107,805.00	4,000,000.00

Outcome:

Outcome 4: Enhanced institutional capacity and private sector engagement for sustainable coastal zone development and climate adaptation in Guinea-Bissau

Output:

Output 4.1: Institutional coordination mechanisms strengthened to effectively implement climate-resilient, gender-responsive integrated coastal zone management policy and plans, ensuring collaboration across relevant sectors and stakeholders.

Output 4.2: Establishment of Blue Economy Incubators, among them women, and Innovation Labs to foster private sector investment and entrepreneurship in Guinea-Bissau to sustain implementation of coastal adaptation measures.

Output 4.3: Enhanced access to climate finance for coastal and urban resilience through public-private partnerships, including female-led businesses, blended finance mechanisms and engagement in African Risk Capacity (ARC)

Output 4.4: Establish knowledge management systems to support climate action initiatives in Guinea-Bissau, facilitating the collection, sharing, and dissemination of climate-related data, best practices, and lessons learned to enhance policy development and decision-making.

M&E

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
260,167.00	

Outcome:

Project level M&E

Output:

Standard M&E Outputs and activities

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
Component 1: Climate risk assessment for policy effectiveness and planning	1,139,095.00	8,000,000.00
Component 2: Resilience to climate risks in urban and coastal	4,800,000.00	15,000,000.00
Component 3: Community-based disaster risk management (DRM) in project affected areas	1,200,000.00	13,000,000.00
Component 4: Coordination mechanisms, knowledge management, and innovative finance solutions	1,107,805.00	4,000,000.00
M&E	260,167.00	
Subtotal	8,507,067.00	40,000,000.00
Project Management Cost	425,353.00	2,000,000.00
Total Project Cost (\$)	8,932,420.00	42,000,000.00

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

National and Local Context

In Guinea-Bissau, approximately 65% of the territory is considered part of the coastal, with a continental shelf spanning 39,339 km², wind speeds reaching over 35 km/h, and waves ranging between 1 and 1.5 meters. Guinea-Bissau is both an LDC (Least Developed Country) and a SIDS (Small Island Developing State), making it naturally vulnerable to climate hazards. The coastline is specifically vulnerable to climate change and marked by numerous fjords and estuaries penetrating far inland. This geography that is unique in the subregion includes the Bijagós Archipelago, encompassing 88 islands and islets. The coastal zone is divided into two sub-zones by the Geba estuary: the northwest zone (Cacheu, Biombo, Bissau, and Varela) and the southwest zone (Quinara, Tombali, Bijagós Archipelago, and Cantanhez National Park).

This coastal area is crucial to Guinea-Bissau, as it not only covers a significant portion of the country's area but also supports about 70% of the population and the most critical economic activities. Maritime influence extends deep inland into Guinea-Bissau's rivers, affecting hydrographic basins as far as Farim and Bafatá, with oceanic tides impacting freshwater bodies with saline intrusion, which creates challenging conditions for coastal agriculture. The country's capital Bissau is a low-lying area located at the outer estuary of Geba river, with several meandering rivers exerting tidal influence on tightly urbanized areas, generating recurrent flooding, at times with catastrophic effects.

The degradation of ecosystems like mangroves and coastal forests in Guinea-Bissau can further increase the coastal zone's exposure to extreme weather events, intensifying erosion trends and changes to the shoreline, threatening agriculture, critical infrastructure and livelihoods, including women's. Additionally, the country is generally at risk of more frequent and intense floods, droughts, and wildfires—all of which are climate-driven hazards, likely to get worse as a result of climate change and increased variability. In urbanized areas, these hazards can lead to disaster, with high human impact and high recovery costs. The intensification of these hazards will certainly also exacerbate health risks in densely populated areas, including increased transmission of malaria, waterborne diseases, and respiratory illnesses. These are conditions that can also be aggravated by worsening air pollution and extreme weather events.

Climate change adaptation in Guinea-Bissau's coast zone is an urgent national priority, as articulated in key national documents under the UNFCCC.

Guinea-Bissau is an LDC and a SIDS, and its Human Development Index (HDI) is ranked 177th out of 191 countries (UNDP, 2024). The country faces sizable development challenges and structural economic vulnerabilities, particularly related to food security, energy dependence and limited foreign investment. The private sector is underdeveloped, informal and with limited awareness about climate change and its implications. Vital infrastructure and services in urban areas such as the Autonomous Sector of Bissau are already under significant strain and these conditions are bound to get worse under climate change. Bissau is also a disaster-prone urban area, with floods and epidemics featuring as the most important hazards. Urban flooding occurs every year during the rainy season, causing destruction of property and putting lives at risk, especially in Bissau.

Many of the urban and peri-urban households in Guinea-Bissau are deeply affected by poverty and deprivation and lack the capacity to adapt to climate change. It is also assumed that many of the urban households are also female headed, although no comprehensive statistics on it are available. The proportion of vulnerable people within Bissau is particularly large – and women among this population face specific vulnerabilities, climatic and other. Nevertheless, when compared to the rest of the country, there are more assets and services in the cities that people, including women, are able to rely on for recovering from disaster and adapting to climate change.

Women in Guinea-Bissau have on average 4.7 to 5.0 children and face persistent gender-based discrimination, including unequal access to quality education (including in IT, where the gap is significant), employment in

qualified jobs, and decision-making. These conditions further exacerbate women's and girls' ability to adapt to and recover from climate impacts. Field level assessments and key informant interviews conducted in Bissau in February 2025 concluded that urban women in Guinea-Bissau are particularly vulnerable to climate change due to their reliance on informal labor, limited access to resources (including land and property), and inadequate housing, which are often located in flood-prone areas.

In all coastal sites, due to the disorderly, inadequate, and/or obsolete nature of coastal protection constructions, infrastructures present vulnerabilities. With climate change, they will no longer be able to provide the necessary protection for human settlements. In the city of Bissau, urban infrastructure and services are generally underdeveloped, with many areas lacking adequate access to basic services such as clean water, sanitation, and reliable electricity. Urban roads are often in poor condition, with limited drainage systems contributing to frequent flooding during the rainy season. In Bissau, these challenges are compounded by rapid urbanization, which accelerated since the 1990's.

In 2019, the study "Bissau 2030" by UN Habitat collected extensive GIS-based data about conditions in the city, consulted stakeholders and proposed Bissau's first Spatially based Strategic Development Plan for 2030. The Plan targets the metropolitan area of the Autonomous Sector of Bissau and its zone of influence. It highlights that several climate risks affect Bissau and its inhabitants. Bissau is prone to water and climate-related risks such as flooding, increased salinity of water sources, landslides and damage to agricultural land in the peri-urban areas. The study also points out that, in the peri-urban areas, the reclamation of mangroves that provide coastal protection is due to increased demand for land for both agriculture and urbanization, which had developed in a rapid and anarchic way in the outskirts of Bissau. However, those areas are highly prone to flooding, erosion and saline intrusion.

In sum, climate change is leading to increased vulnerabilities in Guinea-Bissau's coastal zone, threatening viability of key economic activities, exacerbating disaster and worsening pre-existing vulnerabilities for communities reliant on natural resources for a living, among them and in particularly women. Urban and peri-urban areas and vital infrastructures, as well as climate change driven disaster and erosion-prone areas along the coast, have not received enough attention or adaptation funding.

An ongoing UNDP GEF LDCF coastal adaptation project for Guinea-Bissau (GEF ID 6988, known as the "*Coastal Project*")^[1] that is set to conclude in 2025 has been dedicated to addressing climate change adaptation needs in the rural areas of Guinea-Bissau. The presently proposed intervention (proposed short title "*Resilient Futures*") aims to complement the mentioned *Coastal Project* by focusing on unmet needs within the coastal adaptation sector. It will build on the policies, studies, and emerging national capacities developed through the ongoing intervention. It will also learn lessons from the *Coastal Project*, and other GEF projects, while pushing the adaptation agenda forward in Guinea-Bissau, in line with the Nationally Determined Contribution^[2].

national development policies and in collaboration with other relevant interventions linked to resilient development, gender equality and women's empowerment, and disaster risk management priorities.

Three sites are being targeted by this project: Site 1 The Wider Bissau urban and peri-urban landscape; **Site 2 Bubaque Island;** and **Site 3 Varela** (the latter focusing on an erosion prone coastal strip). Refer to ANNEX C: Project location for maps and brief descriptions.

The Climate Problem

The climate in West Africa shows significant natural variability, with inter-annual fluctuations and decades-long cycles, such as in the case of Sahelian droughts. This variability is influenced by 'oceanic forcing,' which affects sea surface temperatures due to El Niño and La Niña cycles. Long-term observation and analysis of these changes are crucial. In Guinea-Bissau, hydro-climatic data is limited, but a new UNDP GEF LDCF project for Guinea-Bissau, starting in 2025, will address this issue by building national capacity for delivering hydroclimatic information services, as well as early-warning systems.

Temperature: General climate scenarios for Guinea-Bissau point out to steady temperature increases and uncertainty about average precipitation patterns (see Figure 1 and Figure 2 for a visual assessment). New climate scenarios obtained through the Regional Climate Models of the CORDEX Project (Coordinated Regional Climate Downscaling Experiment) project significant changes in the climate of Guinea-Bissau, considering a climate change scenario with more restriction to GHG emissions (RCP4.5) and one with little restriction, implying quite intense climate change^[3]:

- For the short-term climate scenario (2016-2045), an increase temperature between 1.2°C (RCP4.5) and 1.3°C (RCP8.5) is predicted for the coastal zone, and between 1.4°C (RCP4.5) and 1.5°C (RCP8.5) in the interior of the country.
- For the medium-term climate scenario (2046-2075), a temperature increases of 1.5°C (RCP4.5) to 2.9°C (RCP8.5) is projected.

Precipitation: The precipitation patterns in Guinea-Bissau from 1954 to 2000 have shown a decline and became more unpredictable, with the rainy season now limited to five months, from June to October. These changes, along with the intrusion of saline water, have reduced water availability. This has negatively impacted agricultural production, particularly for rice and other cereals grown in the small valleys and uplands of the north and east. In the south, center, and islands, crops that depend on water, such as rice and millet, have also seen decreased yields.

- For the short-term climate scenario (2016-2045), average daily precipitation is projected to increase slightly by 3% (RCP4.5) or stagnate (RCP8.5), except for the Southwest of the country and the Bijagós Archipelago, where an increase between 5% to 10% (RCP4.5) and 2% to 5% (RCP8.5) may be observed.
- For the medium-term climate scenario (2046-2075), an increase in average daily rainfall is projected with 5% to 10% (RCP4.5) and 2% to 5% (RCP8.5) in the South of the country and a slight decrease of -2% ~ -5% (RCP4.5) or -2% ~ -10% (RCP8.5) north of the Cacheu region.

Multiple climate hazards and impacts are expected to worsen the pre-existing vulnerabilities of the coastal zone in Guinea-Bissau. Coastal, urban and riverine flooding are common hazards at the moment and coastal erosion is relatively strong in certain sites.

Floods are a recurrent natural disaster with significant impacts on infrastructure, agriculture, public health, and livelihoods. Annually, high tides and heavy rains lead to flooding that damages public infrastructure, homes, and food production, affecting both rural and urban families. These events often result in temporary or permanent displacement of people from their homes.

In many coastal regions, increased flooding and coastal erosion have caused the loss of rice paddy fields due to saltwater intrusion. In the capital city Bissau, the risk of flash floods is heightened by poor urban planning and inadequate maintenance of drainage systems. Floods can also disrupt or damage electricity generation, transmission, and distribution. In the future, unpredictable and extreme rainfall patterns could exacerbate damage to infrastructure, lead to soil erosion, reduce crop yields, cause pasture loss, and increase the risk of waterborne diseases among the population.

Droughts are a critical threat to agriculture and livestock production, with far-reaching consequences for water resources and food security. On average, droughts currently affect about 74,000 people each year. Significant drought events impacted 100,000 people in 2002 and 32,000 in 2004. Looking ahead to future climate conditions (2050–2100), the number of people affected by droughts is expected to rise dramatically, potentially by as much as sevenfold, which could affect up to 38 percent of the population. Droughts are most prevalent in the northeastern plains and eastern highlands, where they severely affect human health, agriculture, and livestock.

Sea levels rise and coastal floods: Most of Guinea-Bissau's population (approximately 70-80%) lives in low-lying areas considered part of the coastal zone. People, assets and ecosystems are highly susceptible to the impacts of sea level rise in this area. Constituting two-thirds of the nation's land area, the coastal zone is not only economically significant but also extremely vulnerable to the consequences of rising sea levels, storm surges, and flooding due to intense rainfall. Studies^[4] indicate that along Guinea-Bissau's northwestern coastline, the sea level has been rising at approximately 8.79 millimeters per year over the past 15 years. Projections included in a 2024 WB publication on Guinea-Bissau indicate that by 2040, sea levels could rise by 0.2 meters under the conservative RCP2.6 scenario, with an increase of up to 0.3 meters by the end of the century^[5]. Under strong climate change scenarios, increases in sea level rise will be intensified, although there

is more uncertainty in current predictions. Such changes are likely to result in considerable damage to infrastructure, widespread land erosion, increased water salinization, degradation of ecosystems, and challenges to food security and public health. The physical, human, and economic ramifications could be substantial without the implementation of effective adaptation strategies. Under the RCP8.5 scenario a rise of 0.52 to 0.98 meters is projected for the West African coast by the end of the century. With climate change, sea level rise could reach up to 0.4m by mid-century, according to a coastal mapping study conducted through the ongoing UNDP GEF LDCF project for the rural areas of the coastal zone^[6].

A recent peer-reviewed study highlighted the high vulnerability of coastal areas such as Bissau, Bubaque and Varela to coastal erosion and flooding as a result of sea level rise and other hazards.^[7] Combined with increased average wave height and more frequent storm surge, coastal erosion and coastal flooding phenomena will be exacerbated under climate change scenarios, especially in the coastal zone. Figure 4 (in Annex C) depicts the modelling for flood hazards in the Bissau area based on a high confidence climate change scenario. Even without sea-level rise, certain parts of Bissau and Bijagós Archipelago are exposed to flood risk. With only 40cm sea-level rise, the effects of floods could be devastating. The effects on people's health are also expected to be negative, according to a recent assessment covering health centers in selected project sites (see Annex C).

See also **figures** in section ANNEX C: Project location for an assessment of the severity of flooding and erosion in project sites).

Figure 1. Climatology for Guinea-Bissau: Precipitation anomaly under different climate scenarios

^[1] Title: GEF ID [6988](#) | PIMS 4978: Strengthen the adaptive capacity and climate resilience of Guinea-Bissau vulnerable coastal communities to climate risks [\[Link\]](#).

^[2] The Initial Nationally Determined Contribution (iNDC) is from 2016 and was updated in 2021 (NDC), including with a specific white paper that constitutes the “Updated Adaptation Component of the NDC” (2022, currently undergoing validation).

^[3] RGB [República da Guiné-Bissau] (2021). Updated Nationally Determined Contribution in the Framework of the Paris Climate Agreement. República da Guiné-Bissau.

^[4] Lopes, Namir & Li, Tianxin & Matomela, Nametso & Sá, Rui. (2022). Coastal vulnerability assessment based on multi-hazards and bio-geophysical parameters. case study - northwestern coastline of Guinea-Bissau. Natural Hazards. 114. 10.1007/s11069-022-05420-w. Accessed through [Research Gate](#) on 26-Mar-2025.

^[5] World Bank (2024): [Guinea-Bissau. Country Climate and Development Report](#).

^[6] According to a coastal mapping study conducted through the ongoing UNDP GEF project PIMS4978 (*Strengthen the adaptive capacity and climate resilience of Guinea-Bissau vulnerable coastal communities to climate risks*). Study title: Mapping of Coastal Vulnerability in Ten Zones of Interest in Guinea-Bissau (2023).

[7] Fandé, M. B (2020): Alterações climáticas e comunidades costeiras: avaliação de risco e adaptação à erosão e inundação costeira em cenários de elevação do nível do mar na Guiné-Bissau, Morto Baiém Fandé, Tese FCUL, 2020.

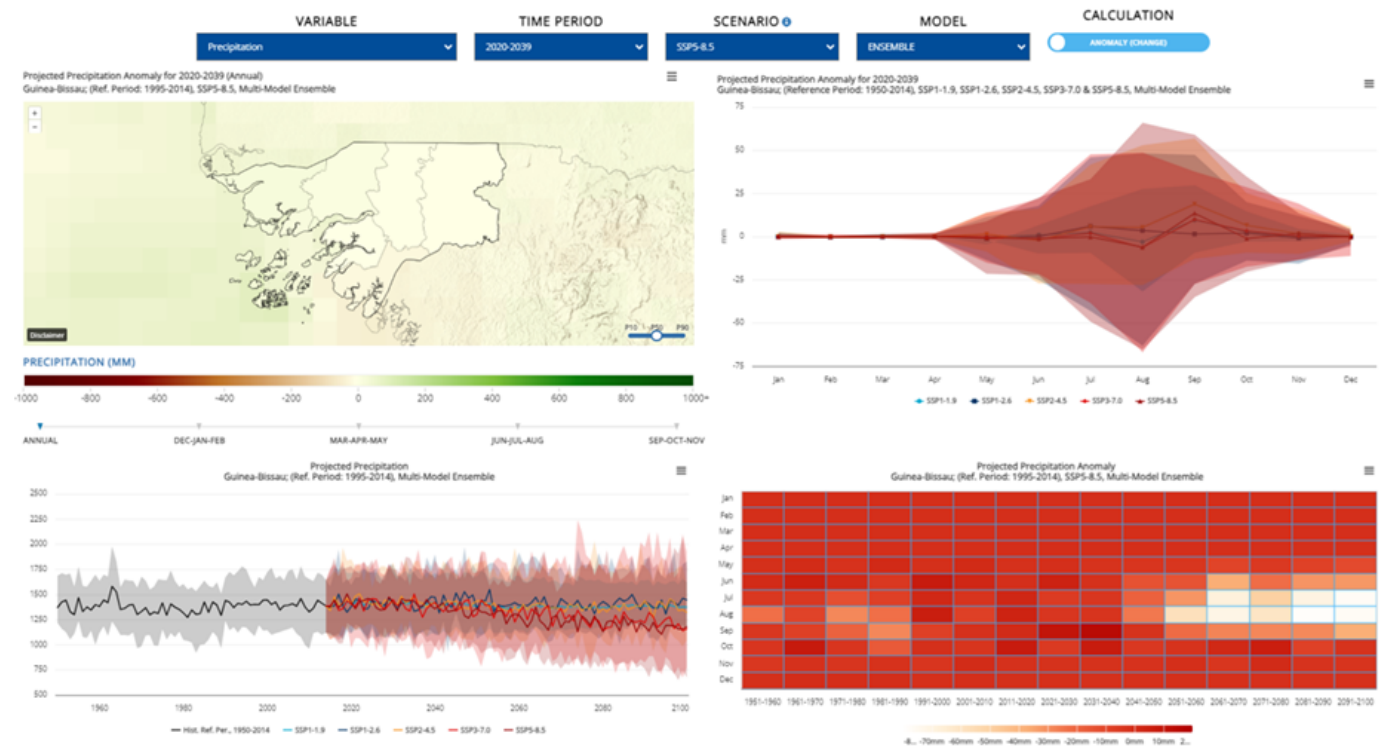
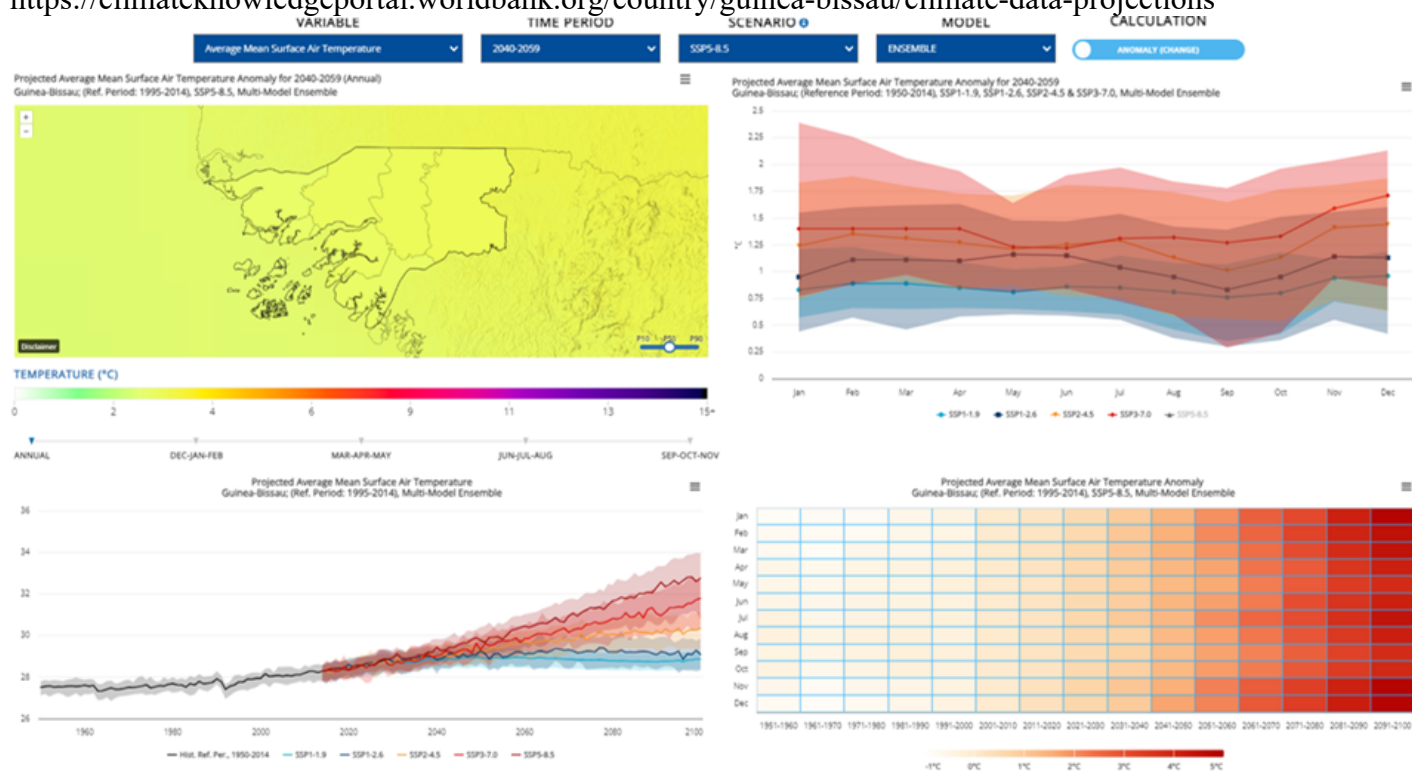


Figure 2. Climatology for Guinea-Bissau: Average mean surface air temperature anomaly under different climate scenarios

<https://climateknowledgeportal.worldbank.org/country/guinea-bissau/climate-data-projections>



Climate change impacts

Guinea-Bissau's susceptibility to climate change and variability is significant, and the country's capacity to prepare, respond, and adapt is limited. Statistical data from the 2018-19 Harmonized Survey on Households Living Standards for Guinea-Bissau^[1] indicate that climate shocks are already directly affecting around 20% of households. The situation is projected to deteriorate by 2030, further compounding existing challenges and increasing the population's vulnerability, particularly in rural areas where education levels are lower and marginalization more pronounced.

Climate change poses a significant threat to **agriculture**, with the country's reliance on rainfed agriculture and smallholder subsistence farming making it particularly susceptible to the impacts of climate variability. The 2006 National Program of Action of Adaptation to Climate Changes report anticipates a 20-30% reduction in agricultural yields due to floods, droughts, higher temperatures, land degradation, increased pests, and salinization from rising sea levels.

Moreover, as oceans absorb more carbon dioxide, they will become more acidic, eventually affecting **marine productivity and food chains** in Guinea-Bissau's coastal areas. While marine productivity and marine food chains have shown resilience so far, the slow-onset effects of climate change will eventually affect the availability of marine habitats, which are the base for the country's fisheries -- an important economic activity in the coastal zone. These effects have so far been poorly studied. Fisheries in Guinea-Bissau provide 255,000 jobs and contribute to 6 percent of national GDP^[2]. However, with half of the fish stocks off the West African coast already overexploited, and projections suggesting a decrease in maximum catch potential of 14-21% by 2050 due to rising sea temperatures, the sustainability of the fisheries sector could be in jeopardy.

Rising temperatures and decreased / or more variable precipitation will also **impact groundwater** recharge, the primary source of drinking water in the country. In coastal sites, saline intrusion in the water table is already a problem. The current climate already strains **water supply services**, and future conditions could lead to reduced river base flow and a significant drop in the water table. Groundwater salinity is expected to rise under climate change scenarios, especially with sea level increases in the coastal zone.

Loss of labor and productivity is another significant concern. The productivity of subsistence farming is already in decline, partly due to the over-reliance on cashew monoculture. In the absence of adaptation measures, food insecurity in Guinea-Bissau will be exacerbated by the impact of climate change, including by impacting the local cultivation of vital crops such as rice.

Climate change is anticipated to exacerbate flood events, which will likely lead to increased damage and disruptions within Guinea-Bissau's **road network**. Climate change intensifies the difficulties faced by rural transportation networks, with a significant portion of these roads becoming impassable for motorized vehicles during the rainy season, which spans five months from June to October. Consequently, many rural inhabitants are forced to travel by foot, which severely restricts their access to markets, water sources, schools, health care,

employment, and other vital services. Women often bear the brunt of these limitations. As the effects of climate change worsen, the challenges of transporting cashews to ports for export and rice from farms to urban centers are likely to increase.

Climate change presents considerable risks to **health and education sectors**. Guinea-Bissau's development is already hindered by its poor performance in these areas, stemming from prolonged underinvestment. The escalation of extreme weather events is likely to exacerbate these challenges by heightening the prevalence of diseases, undermining food security, and impeding children's access to education.

Guinea-Bissau's disaster **preparedness, response, and recovery capabilities** are virtually non-existent and heavily dependent on donor assistance. The country lacks comprehensive national climate data. Its weather, hydrometric, and tide observation networks are not capable of providing accurate weather, sea level rise, and climate projections, and the country lacks an early warning system (EWS). In addition, the government has not acted on implementing disaster management frameworks such as the Hyogo Framework for Action prepared between 2009–11 and 2013–15, the Disaster Risk Management Strategy in West Africa and the Sahel formulated, work that was supported by the Food and Agriculture Organization (FAO) in 2011. The same applies to the Sub-Regional Action Program to Combat Desertification in West Africa. As a result, the population is highly vulnerable to climate-induced hazards and extreme weather events.

Guinea-Bissau's coastal areas are already facing the detrimental impacts of global sea level rise, with increased flooding and saltwater intrusion affecting livelihoods. The legal, policy, and administrative frameworks in place for coastal zone management are insufficient, lacking an integrated and coordinated approach to effectively manage climate-related risks and impacts. These frameworks do not adequately consider the specific vulnerabilities of the coastal zone, and coastal zone planning is not effectively utilized as a governance mechanism. This makes the implementation of integrated coastal zone management or other strategies to reduce climate risks challenging. There is also a lack of comprehensive understanding of how climate change will affect the coastal economy, and coordination among relevant agencies and actors is poor. In the absence of adaptation, sea-level rise and storm surge are expected to affect several areas of urbanized Bissau. However, no studies have yet been conducted in Guinea-Bissau to protect people and assets from the impacts of climate change in urbanized areas, nor from the long-term effects of coastal erosion, which with a high degree of certainty will be exacerbated by climate change.

Guinea-Bissau lacks a comprehensive coastal protection and investment strategy. Most coastal infrastructure, including fishery wharfs, bridges, roads, coastal hotels, and public buildings, suffers from a lack of maintenance and designs that do not account for the impacts of climate change, making them increasingly vulnerable to impacts such as sea level rise and higher storm surges.

Moreover, there is a critical shortage of scientific and technical information and capacity needed to identify, plan, design, assess, prioritize, implement, and monitor economically important coastal protection options. The country's network of meteorological stations was destroyed during the 1998–99 political-military conflict and has not been rebuilt. Consequently, critical information and data on coastal processes, such as sea level rise

projections and meteorological conditions, have not been collected for almost two decades. This lack of data makes it very difficult for national agencies to set priorities and develop effective policies.

In addition, the potential of coastal ecosystems to help communities adapt to climate change is not being fully realized. For example, mangroves are one of the most cost-effective solutions for reducing coastal disaster risks, while also functioning as a carbon sink. Mangroves cover 9 percent of the territory in Guinea Bissau, probably one of the highest proportion of mangroves coverage by country in the world. Mangroves play a vital role in sustaining the livelihoods of coastal communities in Guinea-Bissau by hosting a vast number of species, reducing erosion, and providing protection from storms and flooding. Yet, mangroves have declined in Guinea-Bissau by 32 percent over the past 80 years, and the country currently lacks policies and regulations for their sustainable protection and management or for other forms of ecosystem restoration. In developing such strategies, it is essential to identify community needs and engage community members.

Climate Action: Towards a transformative approach

To effectively tackle climate change, Guinea-Bissau must undertake a transformative shift in its development approach. This entails tackling structural issues and political instability, as well as enacting significant institutional reforms. Priorities should focus on building resilient energy and transport systems, encouraging sustainable agricultural and agroforestry methods, and fostering private sector engagement. Additionally, enhancing access to vital services such as education and health care is crucial. By implementing comprehensive policies that prioritize population welfare, economic stability, and protection from climate effects and environmental harm, Guinea-Bissau can achieve substantial economic and social benefits.

The WB's 2024 publication "Guinea-Bissau: Country Climate and Development Report" identified following priorities that are relevant to this project (Table 1):

Table 1. Priority Actions for Urban Areas and Infrastructures according to the WB 2024 publication "Guinea-Bissau: Country Climate and Development Report"

[1] Instituto Nacional de Estatística (INE). (2022). Inquérito Harmonizado sobre as Condições de vida dos Agregados Familiares 2018-2019 [Data set]. World Bank, Development Data Group. <https://doi.org/10.48529/1EKB-M086>. Accessible through the [WB's Micro-data Library](#).

[2] Intchama, Jeremias Francisco, Dyhia Belhabib, and Raul Joaquim Tomás Jumpe (2018). Assessing Guinea-Bissau's Legal and Illegal Unreported and Unregulated Fisheries and the Surveillance Efforts to Tackle Them. *Frontiers in Marine Science* 5.

Action	Priority (for climate agenda)	Time Frame
Strengthen the legal, policy, and institutional framework related to urban development and the preparation and enforcement of adequate urban planning instruments, which also address climate change and variability	High	Short Term
Develop technical specifications/designs for roads, drainage, bridges, and transport infrastructure to take into account resilience and climate impacts based on climate data	High	Short Term

Protect and restore coastal ecosystems such as mangroves and wetlands as a cost-effective option to act as natural barrier to environmental risks and contribute to carbon sequestration	High	Short Term / Medium Term
Invest in stormwater drainage infrastructure and climate resilient urban services	High	Medium Term

Adaptation benefits will be produced by this project in different ways. Climate risk informed assessments, planning and local implementation frameworks will lay the ground for generating adaptation benefits. Knowledge management and improved capacity for adapting to a change climate will underpin and sustain interventions. Up to **1,200 people** from government, NGOs, CSOs and CBOs, academia and the private sector are expected to benefit from capacity development interventions. Of these, at least 40% will be women, noting that those are typically male dominated environments in Guinea-Bissau and targets should be set realistically. At least one long-term planning framework (Bissau 2030) will incorporate climate risk-based planning and adaptation in implementation. Community-based resilience, including DRM that incorporate public health aspects (especially in urban areas) will be a key result, along with climate resilient infrastructures and ecosystems. **At least 32,400 ha will be encompassed by adaptation measures, along with an estimated 13km of coastlines. Some 7,150 households are expected to benefit directly from the project through mini-grants, half of which will be female-headed households (summing approx. 40,040 people, 60% women). Additionally, some 78,760 people in urban and rural areas are also expected to benefit from project actions, but not necessarily benefitting from mini-grants for adaptation.** The proposed targets will be revisited, calculated with more precision and confirmed during the PPG.

Adaptation options will be selected through a **participatory, climate risk-informed process** that integrates scientific assessments, stakeholder engagement, and gender-responsive planning. The selection will be based on vulnerability and risk assessments conducted in project intervention sites, considering factors such as climate hazards, exposure, and socio-economic conditions. A **semi-quantitative multi-criteria analysis (MCA)** will be used to compare and prioritize options based on **feasibility, cost-effectiveness, sustainability, and long-term resilience benefits**. Community consultations will ensure that selected measures align with local priorities and address the needs of vulnerable groups, particularly women and marginalized populations.

To ensure that adaptation solutions extend beyond the project sites, a **scaling-up strategy** will be developed during the PPG, focusing on government adoption, financing pathways, and policy mainstreaming. This strategy will identify mechanisms to integrate successful interventions into national and regional policies, ensuring long-term sustainability. Key elements will include aligning project findings with Guinea-Bissau's climate adaptation frameworks, fostering partnerships with ministries and local governments for institutional uptake, and leveraging both public and private financing sources—including climate funds, blended finance models, and risk insurance mechanisms—to support expansion (see Outputs 4.1, Output 2.4, Output 4.2). Replication efforts will be guided by best practices and lessons learned (Output 4.4), with a focus on adaptable and scalable models suited to different geographic and socio-economic contexts. This approach will be further explored during the PPG phase to refine implementation pathways and ensure a structured transition from pilot initiatives to national-scale interventions.

The Gender Dimension: Gender Equality and Women's Empowerment

Climate change poses heightened risks and increases the burdens for women, further exacerbating existing gender inequalities. In Guinea-Bissau, women are pivotal to the economy, contributing significantly through their involvement in the production of goods and services, especially within the informal sector and small-scale

subsistence farming. Beyond their economic participation, women are also the primary caretakers of households, assuming tasks such as child-rearing, care for the elderly and ensuring the welfare of their families and communities more broadly – tasks that are for cultural reasons not necessarily shared by men and women. Despite their critical roles, women face restricted access to essential resources such as land, livestock, and financial capital. They also encounter obstacles to participating in decision-making processes, development projects and community engagement, which diminishes their capacity to withstand the impacts of climate change. Addressing gender inequality and bolstering women's resilience to climate change is a complex challenge, compounded by the scarcity of country-specific data on gender and climate issues.

Climate Change and gender intersect at multiple levels. Men, women and youth face differentiated impacts based on their gender status and other social factors, which means they are differently positioned to contribute to, benefit from or be disadvantaged by responses to climate change. Sectors such as agriculture, trade, energy and water are critical in women's livelihoods, and with significant contributions to be made by them towards adaptation efforts.

Guinea-Bissau has a population of 2.1 million, with women making up 50.3%. Around 60% of the population is under 25 and a high fertility rate of over four children per woman further contribute to demographic pressures and gender inequality. Furthermore, the country faces one of the world's highest infant and maternal mortality rates, driven by early childbearing, lack of birth spacing, a high percentage of births outside healthcare facilities, and shortages of medicines.^[1] Decades of political instability, including military coups and assassinations, have left the country with poverty, food insecurity, weak state institutions, and a life expectancy of just 49 years.

Women are disproportionately affected by these conditions due to traditional gender discrimination in social, economic, and political spheres. They face greater burdens in labor and are the last to access scarce resources. Gender-based violence, female genital mutilation, and early/forced marriage remain prevalent issues.

The government's commitment to gender equality is reflected in key policy documents like the National Development Plan (NDP) for the 2022-2023+ period. The National Gender Policy (PNIEG 2012), followed by its Action Plan (2013) were important milestones, although implementation faced challenges, and the policy has not been renewed. In 2018, a law was passed to ensure gender-balanced political representation, leading to a gender-parity achievement in Parliament, paving the way for enhancing gender equality in government. Nevertheless, gender-based discrimination in Guinea-Bissau is deep-seated in the country's culture and male dominated society.

The project will by default adopt a gender responsive approach, by ensuring equal access to resources and decision-making opportunities for women. The project will also seek to strengthen women's leadership roles on climate matters. It will offer training and business opportunities to women (as well as to men), while also addressing deep-seated and specific challenges such as gender-based discrimination at the level of project sites and economic disparities through targeted interventions that empower women and promote gender equality across all project activities. Gender considerations were already integrated into the language of project outputs. These considerations will also be applied to the development of activities and indicators in subsequent project development phases (e.g. whenever stakeholders are mentioned, women will be explicitly mentioned as well,

to avoid exclusion by default). Finally, a strong, actionable and SMART Gender Action Plan will be proposed during the PPG, along with a robust Stakeholder Engagement Plan.

The project will actively engage local governments, businesses, and community-based organizations to co-develop and implement adaptation strategies, ensuring inclusive participation and effective response mechanisms for both slow-onset climate hazards (e.g., coastal erosion, drought) and sudden-onset disasters (e.g., floods, extreme heatwaves). Recognizing the importance of financial sustainability, Component 4 will play a crucial role in mobilizing innovative financing mechanisms to support continued adaptation action beyond the project's duration. This includes strengthening private sector engagement, exploring climate insurance schemes, and leveraging blended finance approaches to sustain investments in coastal resilience.

Community-based organizations, including women's groups, are present in nearly every local community in Guinea-Bissau (including urban ones), though their capacity varies—some are well-established, while others remain weak. An integrated approach will apply, to the extent that the project will seek to strengthen these locally embedded organizations to implement community-driven adaptation and DRR interventions, working in collaboration with traditional leaders at selected sites (where present and depending on context), as well as with State actors. These partnerships may include village committees, health committees, local disaster response units, and other influential local structures. In most cases, cooperation among these local stakeholders already develops naturally in the interest of the community's well-being. The project will support them to address adaptation needs.

By integrating spatial planning outcomes, decentralized implementation, and innovative financing, the project will empower local authorities, communities, and businesses to proactively respond to climate impacts. A strong emphasis will be placed on ensuring that women, youth, and marginalized groups are actively involved in decision-making processes for adaptation planning, disaster preparedness, and climate resilience-building initiatives.

Urban development: lack of planning and investment strategy

The city of Bissau is one of the most vulnerable capitals in West Africa to climate change and environmental risks, primarily due to physical exposure, a heavy reliance on the informal economy for trade and services, agriculture and fishing, and unplanned urbanization. The city's wetlands occupy much of the land, and suitable areas for urban development are becoming increasingly limited. Despite this, a lack of regulatory enforcement has allowed construction to spread into these low-lying areas, resulting in poor housing conditions and neighborhoods prone to frequent flooding. Major threats to the city include flooding, coastal erosion, sea level rise, rising temperatures, decreasing rainfall, and coastal pollution. These challenges already pose significant risks to Bissau's sustainable development and could worsen further if urbanization current trends continues without careful planning and management.

The increasing flood risks are attributed to several factors, including unchecked urbanization, the absence of effective urban planning, waste accumulation in drains and urban streams, and the mismanagement and poor operation of coastal infrastructure. With the current projections for climate change affecting Bissau, the flood

risk and impacts will be significantly exacerbated, not least also because population growth in Guinea-Bissau's flood-prone areas is outstripping thresholds for what could be considered safer regions. The annual average growth rate is higher in areas with a high hazard of flooding (10-year return period) compared to those with a lower risk (100-year return period). This trend is particularly noticeable in urban centers, where the limited availability of suitable land restricts options for the poorer residents.

To mitigate these risks and consider the impacts of climate change, it is crucial to develop and implement comprehensive urban plans that integrate flood risk scenarios, thereby preventing construction in flood-prone zones. Additionally, there is significant potential for utilizing 'green' infrastructure, such as parks designed to capture stormwater, known as nature-based solutions. Wetland preservation and restoration would also serve as a natural buffer, absorbing excess water and reducing the impact of floods.

Urban development in Guinea-Bissau, particularly in its capital, Bissau, faces significant challenges due to limited infrastructure and rapid population growth. The influx of residents has strained existing urban systems, which suffer from minimal maintenance and lack essential services.

Bissau's legal framework for urban development is outdated and contains significant gaps, failing to address the city's evolving challenges. Municipal administration has historically been based on the Foral Municipal of 1936, and while efforts have been made to establish territorial planning, these frameworks remain largely obsolete. The first official urban planning document, the 1948 Urban Plan, was followed by the General Urban Plan (PGU) of 1977 and later the General Urban Plan of Bissau (PGUB) of 1993, which was approved by Decree No. 17/95. Despite these efforts, urban expansion and modernization have outpaced regulatory updates, leaving many aspects of development unstructured.

The City Code (Código de Posturas, Ordinance No. 1998 of August 8, 1968) governs essential urban elements such as construction, street alignment, building inspections, public spaces, sanitation, waste management, and traffic. However, as a colonial-era regulation, it has not been revised since 1968, making it increasingly inadequate for present-day urban needs. The legal framework is further supported by the Building Code (Decree No. 8/2006), as well as solid waste management and public market administration regulations, both approved by the Governing Council. Despite these additional regulations, Bissau's urban planning remains fragmented, underscoring the need for comprehensive legal reforms to support sustainable development, while taking into account the impacts of climate change through adaptation measures.

Adequate urban development planning is hindered by the absence of a coherent territorial development framework, leading to unbalanced human settlement patterns across urban, peri-urban, and rural areas. Public infrastructure, especially stormwater management and flood control systems, remains underdeveloped. Also, information on these systems is scant and outdated.

To address these issues, initiatives like the Bissau 2030 Strategic Spatial Development Plan, prepared by UN Habitat in 2022, aimed to promote inclusive and sustainable urban growth by integrating national strategies with global agendas such as the Sustainable Development Goals. The Bissau 2030 plan identifies main

challenges and needs through a deeper understanding of existing urban conditions and resources, growth patterns, environmental risks and deficiencies of the public infrastructure. It served as a baseline for spatial planning work and to further inform the integrated planning process.

The Bissau 2030 plan identified 10 objectives. Activities included in the proposed project are aligned with these objectives, in particular with objective 5 (“A green and resilient city”). Projects identified in the Bissau 2030 paper include;

- Prioritize the preservation of wetlands, mangroves (*tarrafes*), and the restoration of degraded areas in the Basic Structure Plan of Bissau
- Update the building code in accordance with climate change policies
- Develop a vulnerability profile to better determine climate change strategies
- Based on the vulnerability profile, develop a disaster risk management strategy for the city
- Strengthen institutional capacity to implement an early warning system based on the disaster risk management plan
- Strengthen initiatives advocating for mangrove (*tarrafes*) preservation
- Build a municipal nursery in Granja-Pessube
- Develop capacity in green infrastructure management
- Develop a bioclimatic architecture manual and implement a pilot project in 5 houses.

Solutions and Barriers to achieving the Project’s Goal

The project’s proposed Long-Term Solution to the climate problems on focus, foresees the following:

In line with national policies and the updated NDC, the solution proposed will facilitate transformational adaptation in Guinea-Bissau's coastal zone with a specific focus on urban and peri-urban areas, and vital infrastructures, enhancing beneficiaries' adaptive capacity and resilience, including and in particular vulnerable women, and integrating actions within a broader sustainable and inclusive development framework.

The elements of the proposed solution will be facilitated by the LDCF, while others will be supported by baseline interventions and co-financing.

Key stakeholders in this project include (their role is outlined in Section D):

- Ministry of Environment, Biodiversity and Climate Action (MABAC)
- National Climate Change Committee (NCCC)

- Not existing at the moment, to be revitalized with the NAP process
- Institute of Biodiversity and Protected Areas (IBAP)
- Minister of Public Works, Construction and Urbanism
- Ministry of Economy, Planning, and Regional Integration (MEPIR)
- Ministry of Finance (MF)
- Ministry of Transport and Communications & National Institute of Meteorology (INM)
- Ministry of Natural Resources and Energy & Directorate General of Water Resources (DGRH)
- Institutes/directorates for spatial planning, water resource management, and health (INASA)
- Local Government for Bissau's Autonomous Sector (SAB) and regional satellite
- Local Governments in Varela and Bubaque
- Various NGOs, CSOs, and CBOs (e.g., RENLUV, CVGB, GMF, Alerta Precoce / ECO Progresso, Ação para o Desenvolvimento, Amigos de Varela, plus local resident associations in urban and rural areas, many of which were consulted in the process of preparing this PIF.
- Wetlands International
- Academia (National Institute for Studies and Research - INEP, others)
- Private Sector (to be further identified) ECO Progresso, SARL, Bissau, Tourism sector in Bubaque and Varela
- European Commission
- UN Habitat (local, regional, and global reps)
- United Nations Capital Development Fund (UNCDF)

The project will **learn from past and ongoing adaptation and resilience building interventions**, including by learning lessons from the evaluation of relevant GEF projects in Guinea-Bissau. The proposed project will build on a **strong baseline of investments** in the form of development projects, programs or initiatives that focus on resilience, urban and coastal development, blue economy, WASH, gender equality and women's empowerment, green jobs, circular economy and capacity development. The latter includes interventions that benefit institutions, NGOs/CSOs and entrepreneurs, among them women and youth. The main donors supporting these baseline projects are **the European Commission (EC) through International Partnerships and UN Habitats, Wetlands International, with funding from Sweden (SIDA)**. The Institute of Biodiversity and Protected Areas (IBAP) is currently executing projects that are relevant for baseline and co-financing. (Refer to Table 2 for details.) Other potentially relevant interventions will be identified during the Project Preparation phase.

Through its integrated strategy, the project seeks to address the identified barriers and gaps in knowledge, in full alignment with the priorities identified in Guinea-Bissau's Initial Nationally Determined Contribution (iNDC) of 2016, which was updated in 2021 (NDC), including a specific white paper that constitutes the Updated Adaptation Component of the NDC (2022, currently undergoing validation). And in alignment with other relevant strategies such the Blue Economy Strategy for Guinea-Bissau (2021–2030)[\[2\]](#), Bissau 2030: Spatial Strategic Development Plan, National Policy for the Promotion of Gender Equality and Equity (PNIEG), National Strategy for Disaster Risk Management (2013) and the Integrated Coastal Zone Management (ICZM) Policy Framework (Under Development).

Nevertheless, there are important barriers to the realization of the long-term solution. Specific barriers identified include:

1) Fragmented coordination among institutional stakeholders and economic players:

In Guinea-Bissau, coordination among key institutional stakeholders, such as government agencies, local authorities, and private sector actors, is fragmented and ineffective. There is a lack of inter-ministerial coordination and integration needed for implementing e.g. the blue economy strategy. Currently, a governmental working group is working with consultants to develop a national package of legislation and policies for the coastal zone, and one that would already incorporate adaptation needs in the planning. Nevertheless, some barriers still remain in terms of achieving cohesion and sufficient institutional anchoring for implementing climate adaptation strategies and actions in Guinea-Bissau's coastal zone. Economic players, including smallholder farmers, fisheries, and tourism businesses, often lack the necessary linkages with governmental bodies, resulting in limited buy-in for coastal resilience initiatives and hindering the smooth integration of sustainable practices into local economies.

Barrier 1 will be addressed by Outputs under Components 2 and 4, to the extent that coordination mechanisms will be strengthened (Output 4.1) and multi-stakeholder engagement will be enhanced through investment activities that require intersectoral alignment (Component 2). It is assumed that key stakeholders understand the need for adaptation and can thereby embrace the project's agenda, including through learning and capacity development catered for under Component 4 activities.

2) Limited capacity for coastal adaptation planning, implementation, and enforcement of spatial planning frameworks:

The lack of technical and institutional capacity in Guinea-Bissau to plan and implement effective coastal adaptation measures remains a critical barrier. To date there is no Integrated Coastal Zone Management policy framework and plan. Existing spatial planning policies are not adequate. And spatial plans which have been developed for Bissau, Bolama and other urban centers need implementation support. Coastal zones face multiple vulnerabilities, including rising sea levels, coastal erosion, and extreme weather events. However, there is insufficient expertise in climate risk assessments, adaptation design, and policy implementation at the national and local levels.

Barrier 2 will be addressed primarily through the implementation of Outputs and activities under Components 1, 2, and 3, to the extent that the project will generate data-driven climate risk assessments (Component 1),

facilitate localized adaptation through planning-based investments (Component 2), and build capacities of national and local institutions to implement adaptation priorities effectively (Component 3). It is assumed that data for conducting climate risk assessments will be sufficiently robust for the purpose and that there is political backing for pursuing ensuring the effectiveness of policies and plans.

3) Inadequate disaster risk reduction (DRR) mechanisms and insufficient resources for implementation:

Guinea-Bissau faces significant challenges in addressing DRR in its coastal regions. The national disaster risk management systems are underdeveloped. Local authorities and communities lack the resources, technical knowledge, and capacity to manage disaster risks effectively. The absence of comprehensive, localized early warning systems and preparedness plans further exacerbates the vulnerability of coastal communities to climate-related hazards, including floods, storms, and coastal surges. Moreover, limited institutional capacity to address these risks at the local level increases the potential for economic and human losses. As a result, there is a pressing need for stronger DRR mechanisms that can be integrated into both national policies and local community preparedness strategies.

Barrier 3 will be mostly addressed by Outputs and activities under Components 1 and 4, considering that the project will improve climate data availability and early warning systems (Output 1.3 and Output 3.4), while mobilizing innovative finance and partnerships for long-term disaster risk governance (Component 4). Component 3 also strengthens DRM structures at local and national levels, thereby increasing capacity to respond to disasters, while also adhering to social and environmental safeguards in the national and local community preparedness and response strategies.

4) Limited access to funding and investments for coastal zone adaptation:

Access to financial resources for large-scale investments in climate adaptation is a significant barrier in Guinea-Bissau. Although adaptation plans and policies have been developed, there is insufficient financial backing for implementing crucial projects, especially in the coastal zone. This is due to a combination of factors, including limited government budgets, a lack of private sector investment, and challenges in attracting international funding. The situation is further compounded by the absence of innovative financing models or mechanisms to de-risk investments and incentivize both public and private stakeholders to invest in climate-resilient infrastructure, natural resource management, and coastal protection projects.

Similar to the previous barrier, Barrier 4 will also be addressed by Outputs and activities under Components 1 and 4, but to the extent that Component 4 will directly enable access to innovative financing mechanisms (e.g. blended finance, climate adaptive insurance products, and incubators under Outputs 4.2 and 4.3), while Component 1 will help justify such investments through risk-informed planning frameworks that guide resource allocation effectively.

5) Weak ability to leverage private sector investment for sustainable coastal development:

The private sector in Guinea-Bissau, particularly in coastal and marine industries such as fisheries, tourism, and agriculture, remains underdeveloped in terms of investment in climate-resilient activities. There is a lack of mechanisms to stimulate private sector engagement in coastal adaptation, partly due to a low level of

awareness and the absence of clear incentives. Furthermore, financial institutions in the country lack the capacity to assess climate-related risks and provide tailored financial products that would enable businesses to invest in sustainable practices. A lack of effective public-private partnerships and insufficient support for innovation and entrepreneurship further hinders the integration of climate adaptation into the business models of coastal industries, limiting the overall resilience of the region.

Finally, Barrier 5 will be addressed by Outputs and activities under Components 1, 3 and 4, because the project will foster an enabling environment for private sector participation (Output 4.2), offer financial tools that de-risk private investment (Output 4.3), and strengthen community-driven and local market linkages for climate-resilient services and infrastructure (Output 3.3). Training and planning tools under Component 1 will also improve private sector understanding of climate risks and opportunities.

[1] CIA World Factbook.

[2] The National Blue Economy Strategy (NBES) of Guinea-Bissau is closely linked with Guinea-Bissau's adaptation strategy and priorities (NDC), as both address climate resilience, sustainable development, and ecosystem protection in coastal and marine areas. The development of the NBES was supported by UNDP in 2023/4. Both the NDC and the NBES address climate resilience, sustainable development, and ecosystem protection in coastal and marine areas. Both make specific considerations with regard to the protection and use of marine and coastal resources promoting nature-based solutions (e.g., mangrove restoration, sustainable land use) to enhance climate adaptation as well as economic development and livelihood improvement. It is widely recognized that the role of private sector in mitigating climate risks needs to be strengthened. The National Blue Economy Strategy has mapped several pathways to achieve this. The actions included under this output will not consider all the action areas defined in the NBES but will particularly aim to strengthen these actions in the NBES that are aligned with the project outcomes

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Theory of Change

This proposed project will prioritize strengthening the resilience of assets (including infrastructure), people (and their livelihoods), and vulnerable ecosystems in Guinea-Bissau's coastal zone with a focus on **urban, peri-urban and erosion-prone areas**. These regions continue to face significant climate-related hazards, such as coastal erosion and flooding, which have yet to be fully integrated into a broader sustainable development framework for resilience. The proposed solutions will emphasize innovation, social inclusion—particularly regarding gender equality, youth, and vulnerable populations—and enhanced spatial planning based on climate risks for improved governance local.

PROJECT OBJECTIVE: The project herein proposed aims to strengthen the adaptive capacity of communities, critical infrastructure, and ecosystems along Guinea-Bissau's coast by implementing risk-informed spatial planning, building resilience, and enhancing disaster prevention measures against climate risks such as erosion, coastal flooding, and other climate-induced hazards.

According to the project's Theory of Change (TOC), four components are proposed, in addition to a specific M&E component:

- (1) Climate Risk Assessment for Policy Effectiveness and planning;

- (2) Resilience to climate risks in urban and coastal communities;
- (3) Community-based Disaster Risk Management (DRM) in project affected areas; and
- (4) Coordination mechanisms, Knowledge Management, and innovative finance solutions.

To each **Component**, an **Outcome** is foreseen with some results already enunciated in the TOC, depicted in a summary diagram in Figure 3.

The project's **Long-term solution** is part of the TOC and had been mentioned in the previous section, and the **Long-term Impact (or outcome) expected** is thus formulated: "The resilience and adaptive capacity of ecosystems, communities, and economies to the adverse impacts of climate change in Guinea-Bissau are enhanced".

Guided by this **long-term vision**, the project is designed to be transformative by operationalizing a robust TOC that integrates both community-based resilience-building and infrastructure-based adaptation. The approach strategically combines nature-based solutions (NbS) with targeted investments in climate-resilient infrastructure, ensuring that adaptation efforts are rooted in local contexts, while supporting long-term technical and financial sustainability. This integrated design strengthens local ownership and institutional capacity, while fostering scalable models of climate action across vulnerable coastal areas, in particular urban ones.

Enablers of the Solution(s) are also part of the TOC and have been thoroughly described / mentioned in the baseline section. They include:

- The fact that large swaths of Guinea-Bissau's coastal zone enjoys environmental protection (protected areas)
- There is a significant presence of mangrove along the coast, and this can function as a natural coastal protection factor. Mangroves can and will be restored as part nature-based solutions to climate change problems and this is proposed as part of the strategy.
- Favorable policies, plans and baseline strategies, including Guinea-Bissau's Blue Economy Strategy (2024), The Bissau 2030 Plan for the city, plus other key documents that underpin adaptation action, among them the NCD Adaptation Component (undergoing review) and the NAP (under preparation).

The project's TOC proposes to overcome key **barriers** linked to the limitations of Guinea-Bissau's challenging institutional and market context, while also addressing through the intervention the prevailing pattern of gender discrimination in society. Barriers to the proposed **Long-Term Solution** stated in the TOC Diagram were analyzed in the previous section. The Barriers connect to the project's Components in the color-coded manner shown in the TOC diagram^[1]⁸.

The project's TOC identified a small set of **assumptions** that need to remain valid for the objectives and outcomes behind each component to be realized. The non-realization of the **TOC's assumptions** constitute project **risks**, with seven 'TOC Risks' currently identified in the [Risk table](#), in addition to **social and environmental risks**. These **assumptions** are:

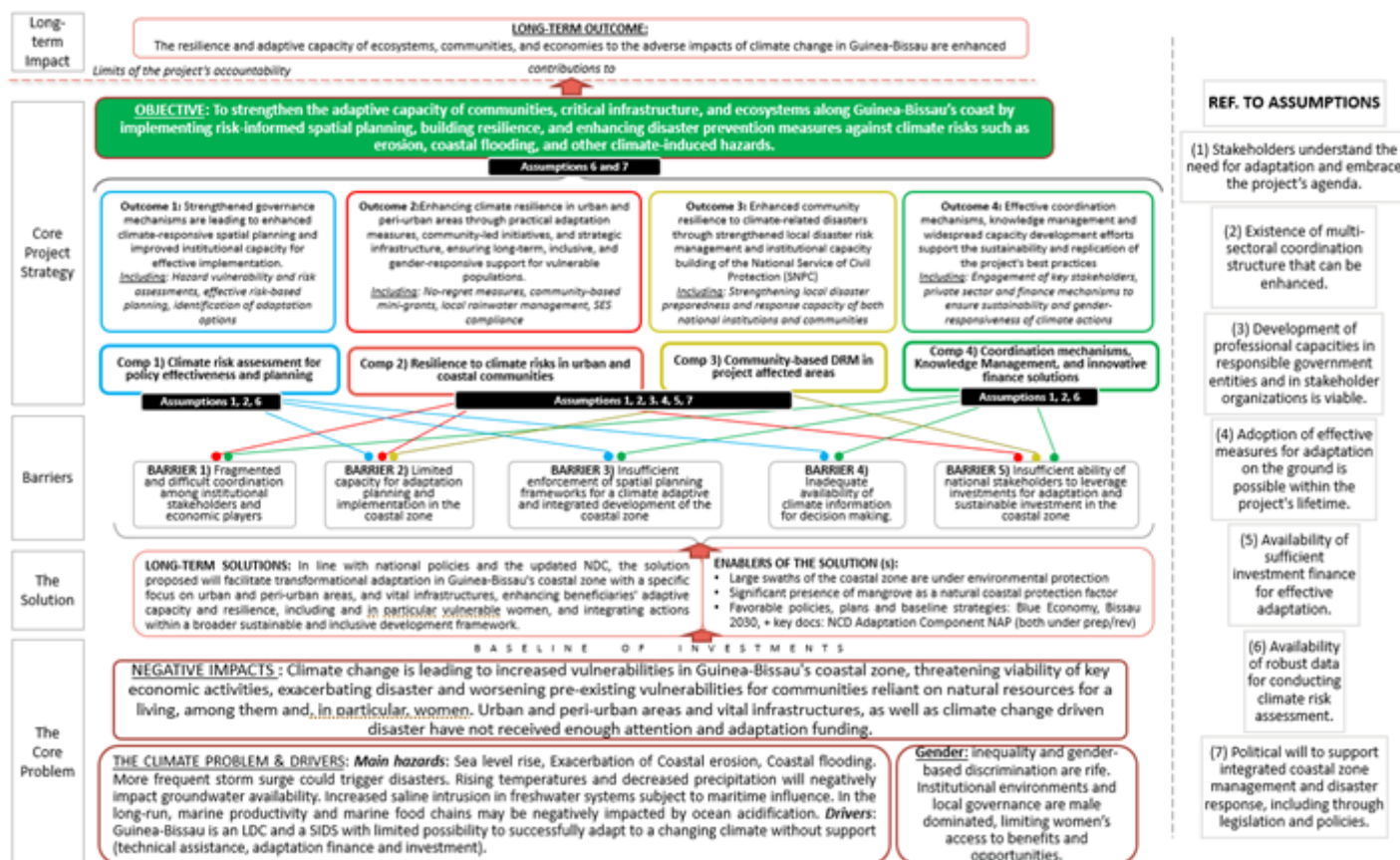
- (1) Stakeholders understand the need for adaptation and embrace the project's agenda.
- (2) Existence of multi-sectoral coordination structure that can be enhanced.
- (3) Development of professional capacities in responsible government entities and in stakeholder organizations is viable.
- (4) Adoption of effective measures for adaptation on the ground is possible within the project's lifetime.
- (5) Availability of sufficient investment finance for effective adaptation.
- (6) Availability of robust data for conducting climate risk assessments.
- (7) Political will to support integrated coastal zone management and disaster response, including through legislation and policies.

The **'Climate Problem'** for this project (described in Section A) is also presented in the TOC diagram, alongside the **drivers** and the **gender dimension** (also previously described), highlighting the impacts of climate change in the project zone, for which Guinea-Bissau requires assistance to address. **Baseline investments** and concurrent interventions were as assessed, but are not enough to achieve the proposed objective. Support from LDCF is needed, as foreseen in the TOC.

The project's logic, as illustrated by the TOC Diagram in Figure 3, also foresees the **long-term impact of the project**, formulated as "The resilience and adaptive capacity of ecosystems, communities, and economies to the adverse impacts of climate change in Guinea-Bissau are enhanced".

^[1] For example, Component 2 is marked in red, and therefore it addresses Barriers 1, 2 and 5, which are marked with a red dot.

Figure 3. Theory of Change (TOC) Diagram



Project Strategy description

Component 1: Climate risk assessment for policy effectiveness and planning

Outcome 1: Strengthened governance mechanisms are leading to enhanced climate-responsive spatial planning and improved institutional capacity for effective implementation

Through the ongoing UNDP GEF LDCF project for the coastal zone (PIMS4978) and the ongoing WB WACA II national project (funded by the World Bank and implemented through IBAP), a few studies have mapped vulnerability along the coast covering localities that will be encompassed by the project. Also, policy development consultancies are producing some results through the mentioned on-going project and baseline projects, in view of creating a stronger informational base for implementing adaptation in the coastal zone. Nevertheless, gaps in policy and strategy development and effectiveness remain. An integrated coastal zone management policy and planning framework is currently under development. Incorporating gender-equality and women's empowerment into any new framework is necessary and required.

Guinea-Bissau's urban planning landscape faces significant challenges, characterized by rapid, unplanned urbanization and insufficient infrastructure development. The capital city, Bissau, has not had a formal urban plan since the mid-1990s, leading to the proliferation of informal settlements – encroaching flood prone areas including rice production areas and mangroves - lacking access to basic amenities such as water, sanitation, and energy. In response, initiatives like the 'Bissau 2030' Strategic Spatial Development Plan have been launched to promote inclusive, resilient, and sustainable urban development. This plan aims to integrate local urban

development with national strategies and global agendas, fostering a coordinated framework for achieving sustainable development goals. Building upon these efforts, Component 1 will enhance and operationalize the existing urban planning frameworks by focusing on practical implementation challenges related storm water management and coastal flood risks – as follows:

- Adaptation options identified/selected in Output 1.1 will be larger interventions, mainly to be implemented by authorities. They will include flood control and erosion control measures (green and grey). The selection will be guided by the risk-informed spatial planning process.
- Adaptation options identified/selected in Output 1.2 can also include certain flood control and erosion control measures but will go beyond this and have stronger community focus. These measures do not specifically aim at flood or erosion control but are making communities more resilient. This can include access to drinking water, and other actions improving livelihoods such as actions aligned with the blue economy strategy. The selection process will follow the same principles, but need to be customized.
- A third output will cater for related training, aimed at enhancing the technical and institutional capacity of stakeholders, among them women

Through outputs and activities under this Component, the project will conduct comprehensive climate risk assessments to understand not just vulnerabilities, but also climate risks in Guinea-Bissau's coastal communities, with a specific emphasis on water and soil resources, especially in areas at risk from erosion, in addition to urban and peri-urban areas and vital infrastructure at risk from flooding and other climate-induced hazards. The project will utilize the findings from this work to inform an integrated, resilient and inclusive local planning in Guinea-Bissau, pro-actively engaging women (as well as men), youth and vulnerable groups in the process.

Output 1.1: Urban[1] vulnerability and risk assessments conducted in project intervention sites to inform the selection and design of adaptation measures, such as coastal protection, urban drainage infrastructure, and improved water management practices in rice-growing areas

To support adaptive coastal zone management in Guinea-Bissau, a comprehensive hydro-meteorological hazard, vulnerability, and risk assessment will be conducted, focusing on **three project intervention sites**. This assessment will generate interactive vulnerability maps and data to evaluate economic, social, and environmental risks, informing the selection and design of adaptation measures such as coastal protection, urban drainage infrastructure, and improved water management infrastructure for rice-growing areas (*bolanhas* or rice paddies).

The studies will analyze historical shoreline changes to understand long-term coastal dynamics, while coastal flooding and erosion models will be developed to assess both current and future climate scenarios, and to simulate the impact of proposed adaptation measures. Exposure mapping will identify vulnerable communities, infrastructure, and economic assets, particularly agricultural lands and rice paddies. A high-resolution vulnerability assessment will further provide critical insights into the risks faced by exposed populations and assets. These findings will be integrated into local and regional planning frameworks to guide climate-resilient infrastructure development and decision-making, as well as DRM planning. They will be made available through a National Climate Adaptation Repository (climate portal).

In parallel, a hydrological assessment will focus on flood-prone areas in the City of Bissau, particularly agricultural land and urban drainage systems. This will include an analysis of historical hydrological data, existing flood management strategies, and urban drainage infrastructure. A detailed terrain model will be developed to map existing hydraulic structures (drainage channels, dams and similar structures), offering a clear understanding of the city's water management systems and their functionality under different climate scenarios. Guiding elements are included in Box 1

Downscaled climate projections will be used to anticipate future changes in flood risks and inform long-term urban planning. Based on these insights, a water management strategy will be proposed, identifying priority rehabilitation measures for drainage and flood control infrastructure. This work will contribute to the development of a master plan – coherent with the Bissau 2030 plan - aimed at enhancing flood resilience and sustainable water management in Bissau’s urban and peri-urban areas. The proposed master plan will build on development objectives of Bissau 2030, e.g. the ‘A resilient and green city’ objective. The project will contribute to this goal by drawing up a master plan for storm water management and flood (coastal and fluvial). This should include both green and grey infrastructure, e.g. integrating green spaces (recreational) and mangroves, agriculture production areas etc. A high-level strategy to implement this objective is included in the Bissau 2030 plan and will be further developed into the drainage and flood protection master plan.

Although Many methodologies or frameworks exist to select adaptation options, the selection process of adaptation measures will follow a participatory semi-quantitative approach and multi-criteria analysis, including social, economic, technical, environmental parameters, as well as durability, complexity and cost of maintenance of the measures should ideally be included. The selection of adaptation measures will be guided by the risk-informed spatial planning process and be of a larger scale (implemented by the authorities).

The results of this output will be particularly useful for the implementation in component 2 (Output 2.3) and will be complemented both by the reminder of the outputs under this component and by capacity development activities under Component 4. This is important for ensuring the “institutionalization” of vulnerability and risk assessments funded by the project.

More specifically, the target of the vulnerability and risk assessments will be defined more at PPG stages, when a thorough review of the existing studies will be conducted. Access to all relevant data, models and reports available is proposed given to the national counterparts for this project (e.g. through open data platforms that may even established at PPG stage). Based on this review gaps can be identified, and additional or complementary studies can be designed. Additional studies will still need to be implemented during the full project, and in function of specific project outcomes (selection of adaptation measures, guiding disaster risk management plans). Those too are proposed internalized by national institutions to strengthen ownership and build national capacity. They should be integrated in (local) adaptation planning frameworks and DRM planning. It is therefore also important that local capacity is also built with regard to the interpretation and use of climate risk information (data, maps, etc.) and also that this information is made available through a National Climate Adaptation Repository (e.g. climate portal, as proposed under Component 4).

Box 1. Guiding elements for a comprehensive urban vulnerability and risk assessment foreseen under Output 1.1

Background: The proposed studies will build further on previous, in particular those studies conducted through the ongoing UNDP GEF LDCF project for the coastal zone (PIMS4978 / GEF ID 6988 “Strengthening the resilience of coastal areas and communities vulnerable to climate change in Guinea-Bissau” (GEF ID: 11222; PIMS 10717) and the ongoing national project West Africa Coastal Areas Resilience Investment Project 2 (funded by the World Bank and implemented through the Institute of Biodiversity and Protected Areas - IBAP). Existing studies (as of Mar-2025) have been primarily focused on coastal erosion and coastal flooding, which are largely confined to the immediate coastal areas. Pluvial and fluvial floods have not been studied, or only at low resolution (on regional or global scale). Exposure mapping and vulnerability assessments have only been conducted for selected pilot areas. Certain aspects such as socio-economic vulnerability and vulnerability of the health sector were not or only marginally included. Particularly for the urban area of Bissau, more data and knowledge is needed to be able to conduct a thorough risk assessment, and to define adequate and realistic protection levels and measures. Bissau is located on the banks of the Geba estuary and is also influenced by the Rio Mansoa to the North, thus being influenced by coastal dynamics and two river systems.

To ensure a comprehensive risk assessment, the following additional aspects require further investigation (indicatively):

1. **Detailed urban flood modeling for Bissau** – There’s a clear need for a hydrological and hydraulic assessment focusing specifically on pluvial and fluvial flood risks within Bissau, considering the combined influence of the Geba estuary [direct impact] and Rio Mansoa [indirect impact]. This should include floodplain mapping under current and future climate scenarios.

2. **Socio-economic and health sector vulnerability assessment** – The existing studies appear to be infrastructure-focused. A broader assessment covering vulnerable populations, critical services (like health facilities), and livelihoods would provide valuable insights.
3. **Drainage system assessment and rehabilitation strategy** – A full inventory and performance assessment of Bissau’s urban drainage network is crucial, including an evaluation of the system’s functionality under extreme rainfall events and climate change impacts.
4. **Integrated coastal-inland flood risk assessment** – Given Bissau’s estuarine location, it would be useful to study the interaction between coastal flooding (e.g., storm surges) and riverine/pluvial floods under compound event scenarios.
5. **Climate downscaling and impact projections** – Downscaled climate data for the region is essential to anticipate future risk trends, especially for precipitation extremes and sea-level rise impacts.

Output 1.2: Design and implementation of a gender-responsive spatial planning framework for adaptation to identify and select adaptation measures at both urban and community levels, ensuring inclusivity and sustainability.

A gender-responsive spatial planning framework for adaptation will be tailored to the existing policy context and local prevailing conditions in Guinea Bissau and implemented to support climate resilience in urban and coastal communities in Guinea-Bissau. If needed, an initial activity may include assessing gaps in policies and legal frameworks, so that the project can more effectively support institutional reforms and governance improvements for adaptation in the coastal zone. Through a participatory planning process, adaptation options as identified under output 1.1 will be selected and prioritized in collaboration with local stakeholders, ensuring that strategies align with community priorities and integrate the perspectives and needs of women and marginalized groups. Adaptation measures derived from the proposed special planning will be focused on building communities’ resilience, including through e.g. focusing on improving livelihoods or access to drinking water. The process behind the selection of measures at community level will be community context-oriented.

A community-based spatial planning approach will be developed to guide land-use decisions and climate adaptation efforts, integrating gender-responsive considerations. This framework will be piloted in selected project sites to test its applicability in real-world conditions. Insights from these pilot initiatives will help refine the planning process and inform the selection of priority adaptation measures that address key challenges in both urban and rural settings. Building on previous assessments, a range of adaptation options will be identified and evaluated based on their feasibility, effectiveness, and long-term sustainability. A semi-quantitative multi-criteria analysis (MCA) will be used in a participatory process to compare and prioritize specific measures, considering factors such as resource availability, maintenance needs, operational requirements and expected impact on reducing risks and sustaining livelihoods.

By embedding inclusivity and sustainability into spatial planning, this framework will provide a structured approach to decision-making, ensuring that climate adaptation strategies are both locally relevant and resilient over the long term.

The spatial planning framework and procedure for selection of measures will take into account any relevant conditions linked to the long-term maintenance of the public infrastructure. Additionally, mechanisms such as Capacity Needs Assessment (CNA) will be proposed as part of the exercise. This will help e.g. address the issue of maintenance of infrastructure in medium and long-term by forecasting the technical and financial capacity needs of local governments and/or communities. This is also linked to the issue of sustainability of the spatial planning framework, and will be further considered and complemented by dedicated training (Output 1.3). These aspects will be elaborated during the PPG.

Output 1.3: Training provided to enhance the technical and institutional capacity of stakeholders, among them women, to effectively use hydro-meteorological risk information and apply the gender-responsive spatial planning framework for adaptation.

A targeted training programs will be implemented to enhance the technical and institutional capacity for climate risk informed gender-responsive spatial planning at multiple levels. At the national level, government institutions, including relevant ministries and agencies, will receive technical training on integrating hydro-meteorological risk information into policy and planning processes. This will enable national authorities to make informed decisions that support climate adaptation and risk reduction efforts.

At the regional level, local government officials and urban planners will be trained to apply the gender-responsive spatial planning framework for adaptation. This will include capacity-building sessions on interpreting climate risk information products (data, maps, tools...), integrating adaptation measures into local development plans, and ensuring that land-use and infrastructure development decisions account for long-term climate risks. Strengthening regional-level expertise will support the effective implementation of adaptation strategies tailored to urban and peri-urban communities.

Community leaders, including representatives from women's groups and civil society organizations, will be engaged through participatory training sessions designed to build their capacity in disaster risk reduction, climate adaptation planning, and advocacy. These sessions will equip local actors with the knowledge and tools to contribute actively to decision-making processes, ensuring that adaptation measures are community-driven and inclusive.

Key stakeholders will receive a targeted training course for building their capacity in terms of technical and financial maintenance of public infrastructure. The content of the training will depend on capacity gaps identified through CNA mentioned in Output 1.2, but it can cover themes such as fundraising, technical aspects of maintenance of e.g. water and sanitation infrastructures, partnership development etc.

By addressing capacity gaps at multiple governance levels, this training initiative will enable national and local institutions, as well as civil society actors, to work collaboratively in implementing effective, gender-responsive adaptation strategies. This comprehensive approach will enhance the long-term sustainability of climate resilience efforts across Guinea-Bissau.

Component 2: Resilience to climate risks in urban and coastal communities

Outcome 2: Enhancing climate resilience in urban and peri-urban areas through practical adaptation measures, community-led initiatives, and strategic infrastructure, ensuring long-term, inclusive, and gender-responsive support for vulnerable populations.

Under this outcome, the project will implement climate adaptation actions through three key outputs. The interventions under this component will be closely aligned with the findings of Component 1, which will provide climate risk informed gender-responsive spatial plans and priority adaptation measures to protect urban and coastal communities and their livelihoods.

The first set of interventions will focus on no-regret adaptation measures (Output 2.1), allowing the project to deliver immediate local benefits before the completion of studies under Component 1. These measures will include climate-proofing key public infrastructure such as health centers, schools, market areas, sanitation facilities, and piers, alongside small-scale, cost-effective interventions with clear climate adaptation benefits. Climate-proofed public infrastructure will contribute to disaster preparedness and will be integrated in local disaster risk management plans prepared under component 3. Additional adaptation measures will be implemented through a gender-responsive low-value grant-making scheme (Output 2.2), empowering local

communities, businesses, and civil society organizations to take climate action based on priorities identified through Component 1's spatial planning framework. These grants will support diverse adaptation initiatives, including ecosystem-based coastal protection, climate-resilient agriculture, and improved access to safe drinking water, ensuring that interventions are community-led, context-specific, and responsive to the needs of vulnerable groups, particularly women and youth. Component 4 outputs will complement these efforts by developing innovative financing solutions, including private sector investments, blended finance mechanisms, and climate risk insurance schemes to sustain adaptation efforts over the long term.

For long-term resilience-building, larger-scale regional adaptation interventions will be implemented (Output 2.3) based on priority actions identified through the spatial planning process in Component 1. These interventions will address critical urban and peri-urban climate risks, including coastal erosion, drought, flooding, and extreme heat.

Output 2.1: Implementation of no-regret adaptation measures such as climate-proofing of key public infrastructure (e.g., health centers, schools, market areas, public sanitation facilities, piers) and implementation of small-scale, low-cost interventions with adaptation benefits.

Component 2 will kick-off with the implementation of no-regret adaptation measures in selected urban and rural sites, focusing on strengthening community resilience through immediate, high-impact actions. These measures do not require extensive studies and are aimed at addressing urgent climate vulnerabilities. Preparations and prioritization can already start at PPG stage and be refined when the project starts. Using simple rapid rural appraisal methods, the project will identify/assess the sensitivity of public infrastructure (as part of output 1.1) in intervention sites to climate hazards and identify priority actions that target key public infrastructure, including the climate-proofing of health centers, schools, market areas, public sanitation facilities, and water access points. This will be done based on available international standards and best practices demonstrated in countries with similar conditions as Guinea-Bissau (e.g. Building Climate Resilience in Mozambique, the case of Safer Schools^[21]). While Guinea Bissau does not have specific guidelines for climate proofing of public infrastructure, guidelines developed by UN Habitat in other countries facing similar conditions can be applied, with minimal adjustments to take into consideration local material and design considerations. Thus, the project can start implementation on the ground quickly and thus also avoid fatigue of communities which do not need to wait until the end of the project to see results. These interventions will focus on schools and health facilities, and possibly also other public infrastructure (markets, sanitation facilities etc.), complementing interventions foreseen under C1 of this project. They will also provide immediate, tangible benefits to local communities, enhance their adaptive capacity, and create a strong foundation for long-term climate resilience in the face of future climate risks.

The rationale for implementing 'climate proofing' measures is to be able to accelerate implementation. The selection of the infrastructure will be done at PPG stage, by site visits analysis of existing exposure maps and rapid rural appraisal techniques. While Guinea Bissau does not have specific guidelines for climate proofing of public infrastructure, guidelines developed by UN Habitat in other countries facing similar conditions can be applied, with minimal adjustments to take into consideration local material and design considerations. Thus, the project can start implementation on the ground already in the first year and thus also avoid fatigue of communities which do not need to wait until the end of the project to see results.

Output 2.2: Implementation of selected adaptation measures through a gender-responsive low value grant-making scheme, enabling local communities and stakeholders to carry out actions on climate resilience community-based identified in the spatial planning framework (component 1).

This output will implement a gender-responsive grant-making scheme to support community-led adaptation measures that address climate risks. With a total budget of **\$1 million, the program will fund approximately 30 mini-projects**, each receiving between \$25,000 to \$50,000. The grants will focus on following primary areas: coastal protection, developing climate-resilient value chains (rice production, fisheries, eco-tourism, ...), and improved access to drinking water. The scheme will empower local communities, particularly women, to directly engage in reducing climate risks and enhancing long-term resilience. In the area of coastal protection, the project will support primarily nature-based solutions, such as beach and dune stabilization using native vegetation, the creation of small protective barriers, and the restoration of mangroves to enhance shoreline resilience. These interventions will focus on building long-term protection against coastal erosion and flooding, directly benefiting vulnerable communities.

For climate-resilient agriculture, small grants will fund the climate-proofing of coastal rice fields by restoring and improving dikes, canals, and flow control structures (weirs, sluices, pipes, valves, etc.). The project will also promote climate-smart agricultural practices, including the use of organic fertilizers, efficient water management techniques like drip irrigation, and anti-erosion measures such as terraces and bunds^{[3]¹⁰}. These efforts will protect agricultural productivity and enhance the resilience of farming communities to climate variability. Where needed, extension services will be engaged to ensure the robustness of practices being introduced by the project and also of the development of capacity among lad users.

The third area of focus will be on improving access to drinking water for vulnerable communities. By upgrading water supply infrastructure and identifying reliable sources, the project will ensure that communities have access to safe water. A special emphasis will be placed on empowering women by involving them in water management and maintenance, reducing their workload and providing them with new roles in ensuring the sustainability of water systems. Additionally, local water user committees will be trained to manage and maintain water systems, and private sector actors will be engaged to ensure a steady supply of spare parts for infrastructure repairs.

The interventions considered under the responsive low value grant-making scheme will be further developed using other instruments and innovative finance solutions under component 4, particularly instruments and mechanisms to stimulate and/or de-risk local private sector investments.

While the full set of criteria and rules of access for the grant-making scheme will be fully developed during the PPG stage, the following are indicatively proposed as guiding criteria:

- Strategic alignment with the project outcomes, with national and local policies, including Guinea-Bissau's NDC, Integrated Coastal Zone Management Plan, and Blue Economy Strategy. Project should contribute to the objectives of climate resilience, disaster risk reduction, and sustainable livelihoods.
- Design elements: Projects should be designed to deliver tangible adaptation benefits, prioritize “low-hanging fruit” and community-level interventions, and ensure gender responsiveness. Simplicity, replicability, and scalability should be considered in the mini-projects' design, in line with best practices.
- Impact and sustainability. Project should demonstrate measurable long-term benefits in climate adaptation, infrastructure resilience, or community-based disaster management.
- Feasibility and readiness. Projects should have a clear implementation plan, with a realistic timeline and achievable milestones. Proposals should demonstrate the technical and operational capacity of the implementing entity to deliver results.

- **Inclusivity and social equity.** Project must prioritize gender equality, social inclusion, and the empowerment of marginalized groups (e.g., women, youth, indigenous communities). Community participation in project design and implementation must be demonstrated.

Also, as part of the gender-responsive and social inclusion approach mentioned above, the work under this output of the project will specifically target CBOs that are able to reach out to the most vulnerable groups, e.g. households headed by women, the poorest households within a community, household with a higher number of children, elderly, people living with disabilities, etc.

Output 2.3: Implementation of identified adaptation measures from the spatial planning process (component 1), focusing on the most urgent infrastructural/hard adaptation interventions or strategic actions in priority areas for enhancing resilience to climate impacts.

This output focuses on implementing a few limited infrastructural (or “hard”) adaptation interventions that are urgent, high priority and enhance climate resilience. More specifically, this output proposes to use LDCF resources as leverage for developing the necessary investment partnerships for implementing priority actions considered critical infrastructural solutions identified in the spatial planning process to be conducted under Component 1. Recognizing that these tend to be costly interventions and that they cannot be identified except through studies, the catalytic role of LDCF will be emphasized. These interventions will aim to climate proof (or if necessary, to build) infrastructure such as drainage systems and retention basins for better stormwater management and flood control, development of greens spaces, protection dikes, etc. As it will be important to maximize the number of beneficiaries for such interventions, the works to be prioritized will most likely be in urban or urbanized areas within project sites, and targeting the protection of the highest number people and assets per funding amount allocated through the recuperation or development of vital infrastructures.^{[4]¹¹} In terms of results, investments are expected to focus on sustainable and efficient water management solutions to mitigate flooding risks, protect vulnerable urban communities, and ensure long-term resilience to climate impacts. By upgrading/climate-proofing critical infrastructure, the project helps the regions adapt to climate challenges, safeguarding urban populations and enhancing overall resilience. Innovative finance solutions identified under Component 4 will also be targeted for additional support in implementing infrastructure projects prioritized under this output.

Component 3: Community-based disaster risk management (DRM) in project affected areas

Outcome 3: Enhanced community resilience to climate-related disasters through strengthened local disaster risk management and institutional capacity building of

Outcome 3 focuses on enhancing community resilience to climate-related disasters by strengthening local disaster risk management (DRM) capacities. This will be achieved through the establishment and empowerment of local DRM committees, ensuring active involvement from women and marginalized groups. These committees will develop disaster preparedness plans, receive necessary resources, and implement community-based early warning systems, focusing on last mile connectivity, in collaboration with national systems. By integrating efforts at the local level with national meteorological, civil protection, and health services, the project will increase resilience to climate hazards and climate-sensitive diseases, protecting vulnerable communities. **Strengthening of local disaster risk management capacities and development of local plans will be guided by the strategies and plans of the National Service of Civil Protection. The National Service of Civil**

Protection will be supported to update existing profiles, strategies and plans, integrating latest available knowledge, including assessments conducted under components 1.

Output 3.1: The National Service of Civil Protection is supported to develop and implement national and regional disaster preparedness plans, and to provide technical assistance to local committees, and empowering local women to participate

This output will support the SNPC in updating and developing national and regional disaster preparedness plans that integrate the latest available climate risks information and ensure the inclusion of marginalized groups, especially women, in decision-making processes. This will involve conducting a comprehensive review of the existing plans and identifying gaps in preparedness, capacity, and resources. It will also focus on harmonizing these plans with regional disaster risk reduction efforts to ensure a coordinated approach to disaster preparedness across Guinea-Bissau. This will also involve considerations of capacity and resources pertaining to the long-term sustainability of public and community-driven services linked to disaster preparedness and response, and also to maintenance of public infrastructures, both to be foreseen as a part of this project. The disaster preparedness planning process will therefore have a strong focus on future sustainability and continuity.

Through targeted technical assistance, the SNPC will receive support in designing tailored disaster preparedness plans that consider local risks, vulnerabilities, and capacities. The output will also provide training for SNPC staff at the national and regional levels, as well as local DRM committees (which will be established under output 3.3), enhancing their knowledge of disaster risk management practices, climate adaptation strategies, and the operationalization of preparedness plans.

By strengthening the disaster preparedness planning process and institutional capacity at all levels of government, this output will enhance the overall resilience of Guinea-Bissau's communities to climate-related disasters, ensuring that disaster response is swift, coordinated, and effective. This will contribute to the long-term goal of building a more resilient nation, capable of addressing both sudden-onset and slow-onset climate hazards and minimizing their impacts on vulnerable populations.

Output 3.2: Establishment and strengthening of local disaster risk management committees in collaboration with the National Service of Civil Protection, ensuring the active engagement and full participation of women and marginalized groups in decision-making and implementation

To enhance community preparedness and response to climate-related disasters, this output focuses on establishing and strengthening local Disaster Risk Management (DRM) committees in collaboration with the National Service of Civil Protection (SNPC). These committees serve as critical local structures responsible for identifying risks, coordinating emergency actions, and ensuring inclusive participation in disaster risk reduction (DRR) efforts, particularly for women and marginalized groups, as well as identifying maintenance needs for disaster risk preparedness infrastructure and services beyond the project lifetime.

DRM committees will receive targeted technical assistance, training, and resource support to ensure they are well-equipped to anticipate, prepare for, and respond effectively to disasters. Training programs will cover disaster risk identification, early warning systems, emergency response coordination, community-based resilience-building strategies, as well as sustainability of efforts and mechanisms for technical and financial maintenance of interventions, including e.g. the maintenance and future replacement of disaster response gear. Special emphasis will be placed on gender-responsive disaster management, ensuring that women actively participate in decision-making and implementation processes.

Key activities will include procuring and distributing essential emergency materials such as first aid kits, safety gear, communication tools, and other disaster response equipment. These resources will be provided at both the community and sector/sub-sector levels to ensure preparedness is strengthened across different administrative and geographical areas.

To enhance practical readiness, regular simulation exercises and emergency response drills will be conducted. These drills will enable DRM committees and local responders to test their preparedness strategies, identify weaknesses, and refine response protocols. By improving coordination between local communities and the SNPC, these exercises will ensure a quicker and more effective response during actual disasters.

DRM committees will also facilitate broader community engagement, mobilizing local populations to participate in disaster risk reduction activities. This includes awareness campaigns, information-sharing sessions, and the development of locally tailored preparedness plans. Special efforts will be made to ensure that vulnerable groups, such as women, elderly individuals, and persons with disabilities, have a voice in DRM efforts and access to necessary support during emergencies.

Outputs 3.1 will provide the necessary frameworks and tools to support the implementation of activities under this output, while the climate-proofing of public infrastructure under output 2.1 will also contribute to increased DRM capacity at local level.

Output **3.3**: Community-based urban and peri-urban early warning systems for sudden-onset climate-driven disasters (flooding, storms, wave surge) and climate-sensitive diseases (vector- and water-borne, heat-related, etc.) are setup and incorporated into the existing early warning systems managed by the National Service of Civil Protection, meteorology, and health sectors. Women's special needs and vulnerabilities are prioritized in the design and implementation of these systems

To enhance preparedness and response to climate-related disasters and health risks, this output focuses on establishing community-based early warning systems (EWS) tailored to urban and peri-urban areas. These systems will help local populations anticipate and react effectively to sudden-onset hazards such as flooding, storms, and wave surges, as well as climate-sensitive diseases like vector- and water-borne illnesses and heat-related conditions.

While a national early warning system (EWS) program is being put in place, this initiative will focus on community-level early warning and last-mile connectivity to ensure that warnings reach and are effectively acted upon by vulnerable populations. The project will work closely with the National Service of Civil Protection (SNPC), National Institute of Meteorology of Guinea-Bissau (INM-GB), and health authorities to bridge the gap between national systems and local communities. This will ensure that alerts are accessible, understandable, and actionable at the community level.

To enhance accessibility, multiple communication channels will be used to disseminate early warnings in local languages, ensuring timely and inclusive reach. These include SMS alerts and mobile notifications to rapidly inform residents of impending disasters, community radio broadcasts to share real-time updates, preparedness actions, and health advisories, visual and audio warning systems (such as sirens, flags, and loudspeaker announcements) in high-risk areas for those with limited digital access, engagement with local leaders and women's groups to further enhance information dissemination and ensure culturally appropriate communication.

To ensure that early warning systems are effective, local communities will be trained to interpret alerts and take timely action. Training activities will include: workshops and drills to educate residents on recognizing different types of warnings and appropriate response measures, simulation exercises to practice evacuation protocols and test the effectiveness of warning dissemination, women-centered training initiatives to empower women as key actors in early warning response, ensuring their specific needs are addressed in disaster preparedness efforts.

The project will enhance last-mile connectivity by equipping local responders, DRM committees, and community volunteers with basic response tools, communication devices, and emergency kits to act swiftly

when warnings are issued. Coordination with health services will ensure that climate-sensitive disease outbreaks are also integrated into the early warning framework, allowing for quicker containment and response.

Women and other vulnerable groups face disproportionate risks during disasters. The early warning systems will be designed with a gender-responsive approach, considering women's mobility constraints, caregiving roles, and access to information. By actively involving women in the design, implementation, and leadership of community-based EWS, this initiative ensures their inclusion and enhances overall disaster resilience.

Component 4: Coordination mechanisms, knowledge management, and innovative finance solutions

Outcome 4: Enhanced institutional capacity and private sector engagement for sustainable coastal zone development and climate adaptation in Guinea-Bissau.

The outcome under this component focuses on strengthening institutional coordination, mobilizing private sector investment, and expanding access to innovative finance. By enhancing governance mechanisms and fostering collaboration across government institutions, civil society, and private enterprises, the project will promote the effective implementation of climate-resilient and gender-responsive integrated coastal zone management policies.

A key pillar of this outcome is the establishment of Blue Economy Incubators and Innovation Labs, which will drive entrepreneurship and investment in sustainable coastal adaptation solutions. These initiatives will provide the conditions for enabling local businesses and investors to actively contribute to climate resilience, supporting nature-based solutions, sustainable fisheries, and climate-smart infrastructure.

Furthermore, Guinea-Bissau's engagement with African Risk Capacity (ARC) will be strengthened, improving the country's capacity to manage climate risks through financial preparedness and risk pooling mechanisms. Additionally, public-private partnerships (PPPs) and blended finance mechanisms will be explored to scale up investments in climate resilience, ensuring long-term sustainability beyond donor funding.

To support evidence-based decision-making, the project will establish knowledge management systems, enabling the collection, sharing, and dissemination of climate-related data and best practices. This will enhance institutional learning and support the continuous improvement of adaptation strategies.

Output 4.1: Institutional coordination mechanisms strengthened to effectively implement climate-resilient, gender-responsive integrated coastal zone management policy and plans, ensuring collaboration across relevant sectors and stakeholders.

Capacity-building initiatives are implemented to enhance stakeholders' ability to access climate financing and establish sustainable funding mechanisms for adaptation efforts. Training and technical support are provided to local authorities, civil society, and private sector actors to navigate climate finance opportunities, develop fundable proposals, and secure long-term investment for resilience-building. Both the training and technical support provided by the project will have a key focus on innovation and upscaling, for e.g. through Training of Trainers, through technology transfer geared training and exchanges, all in line with the KM strategy to be developed during the PPG. Partnerships are fostered to support the funding and implementation of priority adaptation measures in Guinea-Bissau's coastal zone, promoting innovation, social equity—including gender

inclusion—private sector engagement, and financial sustainability. Exploring potential public private partnerships or climate proofing of the coastal zone economy.

Output 4.2: Establishment of Blue Economy Incubators, among them women, and Innovation Labs to Foster Private Sector Investment and Entrepreneurship in Guinea-Bissau to sustain implementation of coastal adaptation measures.

The National Blue Economy Strategy (NBES)^{[5]¹²} of Guinea-Bissau was supported by UNDP in 2024 and it is closely linked with Guinea-Bissau's adaptation strategy and priorities (NDC). Both address climate resilience, sustainable development, and ecosystem protection in coastal and marine areas.

The establishment of Blue Economy Incubators and Innovation Labs in Guinea-Bissau aims to foster private sector investment and entrepreneurship, ensuring the long-term sustainability of coastal adaptation measures. Aligned with the NBES, this initiative focuses on strengthening key coastal value chains, including fisheries, eco-tourism, and climate-resilient agriculture, while promoting innovative business models and sustainable resource management.

The incubators will support initiative solutions for strengthening sustainable value chains positively impacting coastal resilience. The program will also focus on coastal agriculture, enhancing rice production through climate-resilient techniques, such as salt-tolerant crop varieties and improved water management systems. Strengthening agricultural value chains by improving market access and processing facilities will increase profitability for local farmers and boost economic resilience.

Beyond sector-specific support, the incubators and innovation labs will provide entrepreneurship training, access to finance, and tailored business development services. This includes facilitating partnerships between small enterprises and investors, as well as creating financial instruments that enable startups to scale up their operations in alignment with sustainable blue economy principles.

By integrating these efforts, the initiative will empower local entrepreneurs, create jobs, and drive sustainable economic growth in Guinea-Bissau's coastal regions. It will also reinforce climate resilience by ensuring that adaptation measures are not only community-driven but also financially viable in the long term, contributing to the country's broader development and environmental goals.

Also considered under this outcome is to support the organization of a next edition of the 'BlueInvest Africa' in Guinea-Bissau. BlueInvest Africa is an initiative launched by the European Union (EU) to promote sustainable Blue Economy investments in Africa. It serves as a platform connecting African entrepreneurs, startups, and small and medium-sized enterprises (SMEs) with investors and financial institutions interested in funding innovative, ocean-based businesses. Previous editions took place in Seychelles (2022) and Kenya (2024).

Output 4.3: Enhanced access to climate finance for coastal and urban resilience through public-private partnerships, including female-led businesses, blended finance mechanisms and engagement in African Risk Capacity (ARC)

This output focuses on mobilizing diverse funding sources through public-private partnerships (PPPs), blended finance mechanisms, and/or international climate finance facilities, enabling the implementation and sustainability of critical adaptation measures in coastal and urban areas. These funds will enhance regional investments in coastal protection, urban drainage, and water management infrastructure, aligning with priorities

identified under Component 2 of the project. They will also enhance the sustainability and proper maintenance of those investments beyond project lifetime.

To further unlock private sector investment, the project will evaluate and support the design of innovative financial instruments, such as climate resilience bonds, microfinance initiatives, and risk-sharing mechanisms that incentivize private enterprises to engage in adaptation-related activities. Special attention will be given to coastal value chains, including sustainable fisheries, eco-tourism, and climate-smart agriculture, encouraging businesses to adopt resilient and environmentally sustainable practices.

Additionally, the project will strengthen institutional capacities to access and manage international climate finance, supporting national entities in developing funding proposals for the Green Climate Fund (GCF), the Adaptation Fund, and other multilateral sources. Technical assistance will be provided to structure PPP models that align private sector incentives with public resilience goals, ensuring that investments contribute to long-term climate adaptation strategies.

By expanding access to climate finance through a combination of public funding, private sector engagement, and blended financial solutions, this output will enhance the sustainability and scalability of adaptation measures in Guinea-Bissau, ensuring that communities, rural regions, and businesses are better equipped to withstand climate-related shocks and stresses.

Guinea-Bissau's participation in the African Risk Capacity (ARC) is a critical step in enhancing national disaster risk financing and improving resilience to climate-related disasters. The ARC mechanism provides African nations with parametric insurance solutions and technical assistance to strengthen their capacity to anticipate and respond to climate shocks, particularly extreme weather events such as droughts, floods, and tropical storms. Currently, Guinea-Bissau has expressed interest in joining ARC, with the National Civil Protection Service (SNPC) identifying it as a valuable tool for disaster preparedness and response. Support is needed to facilitate institutional engagement, technical preparation, and capacity-building to fully operationalize ARC membership.

Output 4.4: Establish knowledge management systems to support climate action initiatives in Guinea-Bissau, facilitating the collection, sharing, and dissemination of climate-related data, best practices, and lessons learned to enhance policy development and decision-making.

A knowledge management system will be developed to facilitate the collection, organization, and dissemination of climate-related information products, best practices, and lessons learned. This system will serve as a critical tool for strengthening evidence-based policymaking, fostering innovation, strengthening coherence and complementarity between actions initiated or supported by different stakeholders, including development partners, and supporting capacity-building among stakeholders. During the PPG a KM and Communication Plan will be developed.

A National Climate Adaptation Repository (climate portal^{[6]¹³}) will be established to centralize climate-related information, such as policies, strategies, plans, reports and research. This digital platform will provide easy access to policymakers, researchers, practitioners, and local communities, ensuring that studies, spatial plans, and climate risk assessments developed under Component 1 are widely available. Additionally, it will serve as a hub for monitoring adaptation progress, tracking resilience-building initiatives, and informing future climate strategies.

The project will also document and disseminate best practices, success stories, and lessons learned from implemented adaptation and disaster risk management measures. These insights will be shared through reports,

workshops, policy briefs, and digital platforms to promote knowledge exchange and encourage the replication of effective solutions.

Linkages between project outcomes and the Monitoring and Evaluation (M&E) Component

The four project outcomes are interconnected through a structured approach to climate adaptation and resilience-building. Outcome 1 establishes a foundation for climate risk assessment and informed decision-making. It involves vulnerability assessments, gender-responsive spatial planning, and capacity-building to improve institutional effectiveness in addressing climate risks. Outcome 2 builds on Outcome 1 by implementing practical adaptation strategies derived from spatial planning. It focuses on both immediate (no-regret) interventions and long-term, large-scale resilience-building efforts, ensuring that urban and coastal communities are able to benefit from climate-proofed infrastructure and ecosystem-based solutions. Outcome 3 links to the previous outcomes by integrating disaster risk management (DRM) at the local level. It ensures that the policies and adaptation measures developed under Outcome 1 and implemented in Outcome 2 are reinforced through community-driven preparedness, early warning systems, and disaster risk reduction strategies. Finally, Outcome 4 supports and sustains the progress from the previous outcomes by fostering institutional coordination, mobilizing financial resources, and engaging the private sector in climate adaptation efforts. Knowledge management systems ensure that data and best practices inform ongoing and future adaptation strategies.

Component 5 of the project caters for its M&E needs. This project follows both UNDP and GEF procedures for M&E. When fully developed, the project will include standard M&E outputs and activities, among them gender-specific activities and gender-responsive indicators in the Results Framework. During the PPG a thorough Stakeholder Engagement Plan and a Gender Action Plan will be developed. As part of the relevant M&E framework, a mid-term review (MTR) and a terminal evaluation (TE) reports will be prepared. These will include an assessment of gender-specific results and progress in the implementation of the Gender Action Plan.

[1] Regarding the focus on urban / peri-urban areas: while the output is said to focus on urban areas, the exact delimitation in Guinea Bissau is not clear. The project sites are included because they have either been formally identified as urban or they have urban characteristics (based on population density, population growth, presence of certain infrastructures and functions commonly found in urban areas). Because the boundary is not always clear the project interventions areas are sometimes also identified as 'urban and peri-urban'.

[2] UN-Habitat. (2023). Building Climate Resilience in Mozambique: Safer Schools. United Nations Human Settlements Program (UN-Habitat).

[3] See: FAO and ICRISAT. 2019. Climate-Smart Agriculture in Guinea-Bissau. CSA Country Profiles for Africa Series. International Center for Tropical Agriculture (CIAT); International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); Food and Agriculture Organization of the United Nations (FAO). Rome, Italy. 23p.

[4] Considering the geographies of Guinea-Bissau, the capital city of Bissau is the only one among the project's coastal sites that a sizable population and a population density above 2000 inhabitants per sq km. All of the other sites can be considered rural, but some of them include urbanized settlements that also require coastal protection, albeit small (e.g. **Bolama**, Bubaque). Nevertheless the needs for infrastructural work in the urbanized areas of these other localities will also be considered.

[5] The development of the NBES was supported by UNDP in 2024.

[6] Example of a national climate portal <https://portaldoclima.gov.cv/en/home/>

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

Yes

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

A formal request for execution support has been submitted by the Government of Guinea-Bissau. A letter signed by the GEF OFP/Secretary General of the Ministry of Environment and Biodiversity is attached as Annex 1, confirming the government's need for assistance. The executing body, MABAC (Ministry of Environment, Biodiversity and Climate Action), underwent a HACT micro-assessment in 2024, resulting in a “partially satisfactory” rating in Human resources, and “unsatisfactory” regarding finance. The government's request for execution support is based on these challenges, consistent with experiences from previous projects. The government has identified specific areas where support was required. This includes the following execution support services:

- (a) Identification and facilitation of training activities.
- (b) Procurement of goods and services.
- (c) Transaction costs and other services as needed.

During the PPG, UNDP will conduct an assessment of various 3rd party option to provide execution support to the executing entity.

Table 2. Relevant initiative, their alignment with the project and contributions to baseline and/or co-financing

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
1	APOCEB, Regional (Baseline) - Adaptation of Coastal Communities and the Blue Economy	Canada - Global Affairs Canada	2020 - 2024	Regional, Guinea-Bissau 24.97%	The APOCEB project targets coastal communities in Cacheu park in Guinea Bissau, the Tristao islands in the Republic of Guinea, Niuni National Park in Gambia and the Abene marine protected area in Senegal. The initiative aims to improve the economic, social and environmental development of these communities in a sustainable way, as well as the living, working and health conditions of its residents and the resilience of vulnerable populations to climate change. In Guinea-Bissau, the implementing partner is The Institute of Biodiversity and Protected Areas (IBAP) in Guinea-Bissau,	APOCEB is aligned with the project because it addressed adaptation needs in coastal sites and supports blue economy's development in Guinea-Bissau. APOCEB also focuses on resilience. Because the project <u>has ended</u> in 2024, its relevant now is mostly as a source of lessons-learning.	Baseline, although APOCEB ended in 2024.
2	PRO-GB: Program for resilience and economic opportunities in Guinea-Bissau	EC, International Partnerships	2018 - 2025	National	Emergency social program for the population of Guinea-Bissau: strengthening basic services and access to them, as well as food security and economic opportunities in the agricultural sector	This initiative is relevant as it focuses on gender-responsive climate adaptation in coastal and ecologically sensitive areas, <u>similar to</u> the proposed project. It supports knowledge sharing, capacity building, and ecosystem restoration, contributing to gender-inclusive resilience strategies. Coordination will be ensured by inviting representatives from the EC Delegation in Guinea-Bissau to be part of the project board to discuss interventions in sites and how to best create synergies.	Baseline

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
3	Feminist climate action in Western Africa (ACF-AO)	Canada - Global Affairs Canada	2023 - 2025	Regional, Guinea-Bissau 25%	The project supports rural women and youth to adapt to climate change in ecologically sensitive coastal and island regions in Côte d'Ivoire, Guinea-Bissau, Senegal and Togo. The project aims to improve agro-ecological practices and ecosystem rehabilitation, as well as the economic power of women and youth through appropriate technologies and local marketing. The project supports the participation of youth to ensure the sustainability of learning and good practices, while strengthening their role in promoting gender equality, climate action and biodiversity protection. Project activities include: (1) training to improve knowledge on climate policies and biodiversity; and (2) providing technical and financial support to strengthen climate-resilient agroecological practices (micro-livestock, agroforestry, market gardening, beekeeping and oyster farming) and the provision of solar and energy-efficient equipment.	gender; coastal; knowledge management; capacity development; climate policies; biodiversity. UNDP maintains through the UN Resident Coordination Office an open dialogue with Canadian partners locally to ensure coherence of donor supported initiatives. This applies to the next row as well.	Baseline
4	Scaling Up Gender Equality through Women-Led Agroecology in West Africa	Canada - Global Affairs Canada	2022 - 2026	Regional, Guinea-Bissau 22%	The project addresses rural women and girls' challenges in agriculture due to unequal access to knowledge and natural and financial resources. These challenges also include opportunities for political agency, decision-making and leadership roles. The project contributes to poverty reduction and climate resilience by strengthening women's rights and helping them to implement agroecological approaches and sustainable business practices. It delivers meaningful changes in the lives of rural women, girls, and their communities. The project works with local partners in targeted countries who organize and mentor village-level women's groups to strengthen their power and influence. Local partners provide training in agroecology, fostering the production of nutritious crops that have adapted over generations to flourish in local conditions. The project helps establish processing and distribution networks owned and operated by women's collectives who sell directly to consumers in nearby urban areas. The local implementing partners are Inda Formation Burkina Faso, Inda Formation Togo, Enda Pronat (in Senegal) and Tiniguena (in Guinée- Conakry).	gender; women's empowerment; NGO; CSO; CBO; knowledge management; capacity development; entrepreneurship; agroecology.	Baseline

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
					Bissau). The project also has a regional partner, COPAGEN (Coalition pour la protection du patrimoine génétique africain/Coalition for the Protection of African Genetic Heritage).		
5	Improving urban governance and access to basic services for green and inclusive local development in Guinea-Bissau - Nô Misti Disinvolvmentu Local	EC, International Partnerships	2023 - 2027	National	Project entails an ideal combination of policy and normative measures that aim to provide the framework for urban development in Guinea-Bissau, along with capacity-building activities at different government levels and the opportunity to test these policies and capacities in practice via physical interventions in the targeted cities.	urban development; policies; inclusive development; capacity development; physical interventions. The same approach to coordination as in row 2 applies. UN Habitat is already a project partner.	Baseline and co-financing
6	EU for green and inclusive cities	EC, International Partnerships	2023 - 2031	National	This initiative follows an integrated approach, supporting policy and institutional reforms, with the participation of civil society. It aims at improving the urban planning and management, as well as infrastructural interventions in the area of the waste system (treatment and separation centers) in Bissau and the water sector (pumping and water distribution systems) in secondary cities. These components are focused on strong capacity building at different government levels (national, regional), which allows for comprehensive interventions to strengthen urban governance in the long term and implementation of concrete and sustainable urban projects. The infrastructure component, in particular, the waste management, contributes to promoting circular economy (plastic waste recycling channels) and creating green jobs. By strengthening governance and inter-institutional coordination and in line with the ambitions of the Global Gateway, the urban sector in Guinea-Bissau will improve its capacity to adopt an integrated and sustainable urban planning approach and to optimize local taxation. By ensuring access to services, notably waste management in Bissau and urban water and sanitation in other targeted cities, the action will improve	urban development; policy reform; urban governance; green jobs; circular economy; plastic reduction; access to urban services; capacity development; investment. The same approach to coordination as in row 2 applies.	Baseline and co-financing

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
					the living conditions of its inhabitants. It is a part of the TEI Green cities involving also the EIB who is preparing to resume the collaboration with the country, in particular, on waste management and road rehabilitation along the Praia-Dakar-Abidjan Strategic Corridor. In line with the ambitions of the Global Gateway, the construction of this crucial road axis will create the much-needed connectivity of the country and set the basis for economic development and regional integration. It will attract new investments, which, paired with this Action, will have a transformative impact on the capital and cities of Guinea-Bissau and its population. This initiative is also aimed at raising awareness among local authorities on the themes of resilience in the face of climate change, gender equality, health, environmental protection, and sustainable construction techniques.		
7	Activity under preparation: Wash secondary cities, Guinea-Bissau Program	EC, International Partnerships	2025 - 2029	National	This new EU-funded program in Guinea-Bissau, under preparation, aims to strengthen waste management and urban development through integrated solutions targeting regional and industrial solid waste, including hazardous and toxic materials. The program will enhance the collection, disposal, and treatment of waste, improve landfill management, and promote composting and reuse practices to reduce environmental pollution. It will also address critical gaps in basic drinking water supply, sanitation, and hygiene services, ensuring safer living conditions for urban populations. By focusing on integrated urban development, the initiative will improve urban infrastructure, services, and environmental management while supporting regional finances and planning. The program will also contribute to urban renewal, housing, and land information systems, fostering sustainable urban growth and local development across Guinea-Bissau's cities. Exact funding amounts to be confirmed in due course.	urban development; policy reform; urban governance; green jobs; circular economy; WASH; access to urban services; capacity development; investment. The same approach to coordination as in row 2 applies.	Baseline and co-financing
8	Wetlands International	Wetlands International,	2024 - 2030	National	Through NGO Wetlands International, SIDA supports a global program, which includes this project in Guinea-Bissau. The project covers selected landscapes, and implementation is	coastal; resilience; lessons-learning. Coordination will be ensured by inviting representatives	Baseline

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
	Partners for Resilience	funded by SIDA			taking place in the Jeta-Peixe-Cacheu Mangrove Coast in Guinea-Bissau (GB). The overall aim of the programme is to 'scale up' healthy, well-managed and biodiverse wetland landscapes at the global level by 2030, thereby contributing to climate resilience and environmental, social and economic sustainability at the local level. The program activities contribute to the restoration and sustainable management of wetland areas through knowledge dissemination, the creation of platforms for dialogue between stakeholders and policy development. The W4R functions as an advocacy program aimed at influencing and engaging others, contributing to the WI's overall strategy achievement by complementing other tools, models and programs that the organization is implementing in parallel or has previously implemented.	from Wetlands International to be part of the project board to discuss interventions in sites and how to best create synergies.	
9	WACA Resilience Investment Project 2 (WACA ResIP 2) – Guinea-Bissau	World Bank	2024-2027	National	This project is part of Phase 2 of the WACA program (West Africa Coastal Areas Resilience Investment Project 2), which supports coastal resilience efforts across multiple West African countries, including Guinea-Bissau. It focuses on coastal erosion, flood risk management, and ecosystem-based solutions to enhance climate resilience and protect vulnerable coastal communities.	coastal; resilience; adaptation; capacity development; investment. Coordination will be ensured by inviting the project coordinator to be part of the project board to discuss interventions in sites and how to best create synergies.	Baseline and co-financing
10	Ministry of Environment, Biodiversity and Climate Action (MABAC)	Government of Guinea-Bissau	2026-on	National	Environmental programs of MABAC. Not a baseline but leveraged co-financing, in-kind	Environment. MABAC will ensure coordination as the Implementing Partner for this project.	Baseline and co-financing
11	UNDP core resources	UNDP	2026-on	National	Cash resources attached to the project's budget	Environment. UNDP will coordinate its activities through the project board.	
12	"Strengthening the resilience of coastal areas and communities vulnerable to	GEF-LDCF	2019-Nov. 2025	National	This project [titled in short the "Coastal" project for Guinea-Bissau] supported the establishment of an enabling political, institutional and administrative environment for advancing the management of climate risk in the coastal zone. It also financed additional investments in hard and soft coastal protection measures to help maintain critical economic	coastal; resilience; adaptation; capacity development; investment Different from Coastal project, this one (Resilient Futures) has an urban	Related GEF project

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
	climate change in Guinea-Bissau" GEF ID: 6988 LDCF amount: \$12M				and natural infrastructure in the face of sea level rise and coastal degradation. Those included interventions in the agricultural and fisheries sectors, as well as relating to nature protection and ecosystem restoration. The project contributed to strengthening the climatic resilience by having livelihood options for the coastal communities with the special emphasis to most vulnerable groups such as women and youth.	focus. Nevertheless, it will definitely <u>building</u> on the legacy of the Coastal project. This includes studies, lessons, databases, stakeholders, knowledge <u>generated</u> and national capacity built, and quite importantly any legal and policy frameworks spearheaded by the Coastal project. It <u>should possible</u> to coordinate actions during the PPG, in case the PPG can start still in 2025 and consider interventions on sites, adaptation coastal protection measures, climate resilience building activities and the incorporation of gender equality and women's empowerment in the project. Lessons will be / have been learned from this project. E.g. its MTR report was consulted and fully explored (TE will start later this year). A key lesson relating to design is to avoid it becoming too complex, a lesson to be carried over to the PPG. Related to gender, the MTR mentioned that several actions proposed to design but not implemented. Lifting barriers to implementation will therefore be important. The project coordinator is a key individual stakeholder and was consulted in the preparation of this PIF.	

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
13	"Strengthening climate information and early warning systems for climate resilient development and adaptation to climate change in Guinea Bissau" GEF ID: 5065 PIMS 4938 LDCF amount: \$5.5M	GEF-LDCF	2024-2029	National	The project [titled in short the "EWS" project for Guinea-Bissau] is aimed at enhancing the capacity of the National Hydro-Meteorological Services (NHMS) in Guinea-Bissau, ensuring the effective use of weather and water information to make early warnings, mainstream climate change information into long-term development plans, and work toward ensuring the sustainability of investments in new climate services.	adaptation; capacity development; investment The current project will build on data produced through the EWS project and consider the project's interventions on the ground to the extent that strengthening systems are also foreseen in this project. Lessons learned from project implementation: It is still early to consider lessons, as the project's inception was delayed by the impact of the COVID-19 pandemic and other factors. Nevertheless, these will be considered during the PPG by interacting with the team set to implement it.	Related GEF project
14	"Promoting Better Access to Modern Energy Services through Sustainable Mini-grids and Low-carbon Bioenergy Technologies Among Guinea-Bissau's Forest-dependent Communities" GEF ID: 10152 PIMS 6206 GEF amount \$2.6M	GEF	2020-on	National	This UNDP-GEF project [titled in short the "Mini-grids" project for Guinea-Bissau] will address barriers that are specifically related to the investment in decentralized mini-grids and low-carbon bioenergy technologies. The focus will be small hydro (SHP) power, especially at Cantanber (south-west) and other forest areas where rivers are abundant and close to villages. It is only when there is no source of water or the Levelized Cost of Electricity (LCOE) for SHP is higher than for solar PV systems that the latter will be utilized for the mini-grid .	The Mini-grids project highlighted that introducing low-carbon energy solutions in remote, forest-dependent communities requires strong alignment with local development priorities and cultural practices. It underscored the need for early and continuous community involvement, particularly to build trust and ensure sustained use of mini-grids and bioenergy systems. Challenges included limited technical capacity at the local level for system maintenance and insufficient integration with broader rural development and land use	Related GEF project

#	Title	Donor	Duration	Scope	Descriptions (source: D-Portal.org)	Relevance to the proposed project (keywords) and how coordination / lessons learning will be ensured	Contributions to:
						planning. Future projects should emphasize long-term training, operation and maintenance planning, and financial models that ensure affordability and ownership by communities.	

[\[EDAS1\]](#) I suggest to remove this as it's specific for Jeta and Pecixe that are removed from the project sites.

[JS2]Some of the work conducted there may be relevant for Bubaque and Varela, so I removed it from the co-financing, but left it as baseline for that reason, it's still very relevant to our intervention even if not in our target areas.

Approach to Knowledge Management

The project's Knowledge Management (KM) strategy is integral to ensuring that the lessons learned, best practices, and innovative solutions generated throughout the implementation process are effectively captured, analyzed, and disseminated. A comprehensive KM system will be established to facilitate the continuous flow of information among stakeholders, including local communities, government agencies, and development partners. This is primarily embedded in the outputs of Components 1, but Components 2 and 3 will supply much of the data needed for enhancing the body of knowledge generated by and shared through the project.

This KM system will support the documentation of project data, success stories, and challenges, enabling stakeholders to adapt and refine their approaches in real-time. Additionally, the project will promote strategic communication initiatives to share knowledge products, fostering broader awareness and encouraging replication and scaling of successful interventions both within Guinea-Bissau and in similar coastal contexts globally.

To enhance local and institutional capacities, the project will implement multi-tiered training programs and workshops targeting diverse stakeholder groups. These capacity-building initiatives will focus on equipping participants with the necessary skills to utilize risk-informed planning tools, adopt sustainable practices, and effectively engage in climate-resilient development. The project will also leverage partnerships with academic institutions and research organizations to co-develop robust data sets and knowledge resources. In terms of South-South cooperation, a partnership will be sought with BlueInvest Africa for the incubators and innovators under Output 2.4 and with African Risk Capacity (ARC) under Output 4.2 – both to be fully developed during the PPG. Other potential partnerships with relevant entities in countries such as Brazil, Senegal, Cuba, Poland, Denmark, Belgium and Mozambique will also be sought during the PPG. By embedding knowledge generation and sharing into the project's core activities, it aims to foster a culture of continuous learning and innovation that supports the sustainability and long-term impact of its outcomes.

Engagement of Private Sector entities

The project recognizes the critical role of the private sector in driving climate resilience and sustainable development in Guinea-Bissau's coastal and urban regions. The private sector in Guinea-Bissau is characterized by a limited number of formal enterprises. Several structural barriers impede private sector development in Guinea-Bissau. According to the UNDP's 'Building Forward Better for Businesses in Guinea-Bissau' report, these challenges include regulatory obstacles, property rights issues and financial constraints. Addressing these barriers is crucial for fostering a more robust and diversified private sector in Guinea-Bissau. While this project is not designed to lift all these barriers, it will contribute to private sector development. By mobilizing private investment, technical expertise, and market-driven solutions, the project aligns with the GEF private sector engagement strategy, which emphasizes scalability, financial sustainability, and innovation in climate adaptation. Beyond infrastructure, the private sector will play a key role in climate-smart agriculture and coastal livelihoods by supporting local enterprises and cooperatives. Through the establishment of Blue Economy

Incubators and Innovation Labs (Output 4.2), the project will foster entrepreneurship and investment in climate-adaptive value chains, including eco-tourism and sustainable aquaculture. These initiatives will create economic opportunities while enhancing community resilience to climate impacts.

To mobilize investment and scale up adaptation solutions, the project will seek solutions - together with financial institutions, investment funds, and microfinance providers - to develop de-risking mechanisms (Output 4.4). This includes blended finance models to attract private capital for climate-proofed infrastructure, insurance schemes under the African Risk Capacity (ARC) (Output 4.3) initiative to mitigate climate-related financial risks, and targeted grants for small businesses—particularly those led by women—to adopt climate-resilient practices.

By actively integrating private sector expertise, financing, and innovation, the project will ensure long-term sustainability beyond donor funding while fostering a market-driven approach to climate resilience. This strategy directly supports GEF's focus on private-sector-led adaptation solutions, financial innovation, and multi-stakeholder partnerships, positioning Guinea-Bissau's coastal communities for a more resilient and climate-adaptive future.

Sustainability: Considerations on the trade-offs and the long-term benefits of the selected approach

Justification of an integrated approach

The approach is proposed in response to various needs that have been identified to adequately address challenges sound in the coastal zone of Guinea Bissau and the urban areas in particular. A risk-informed spatial planning approach strengthens the efficiency of adaptation options to be implemented and avoid mal-adaptation. Climate proofing of existing public infrastructures such as schools and health facilities is widely considered as no-regret measures, which can be implemented successfully based on currently available information, whereas other measures such as the improvement of drainage infrastructure and flood protection measures need more detailed assessments and studies. The approach of combining these different types of measures allows spreading in time and optimizing the project implementation strategy.

Climate proofing and improving infrastructure to limit the impact of floods, coastal erosion and other climate induced hazards is mainly aimed at reducing climate risks (by reducing exposure and vulnerability), disaster risks however, cannot be reduced to zero. As such also other components of the disaster risk management cycle need to be considered, the project therefore also addresses preparedness. Finally, the long-term benefits of the selected approach are safeguarded by including finance solutions, including strengthening of private sector.

The synergy between infrastructure resilience, community engagement, and financial mechanisms allows for a more comprehensive solution to urban climate challenges.

The long-term benefits of the integrated approach are clear: it not only addresses immediate vulnerabilities but also builds capacity for future climate resilience. By combining risk-informed spatial planning with climate-proof infrastructure, the approach ensures that new development is adaptive to future climate conditions. The

community-based DRM aspect fosters local ownership, ensuring that residents are equipped to manage risks independently. The integration of finance solutions, meanwhile, ensures that the project's outcomes are sustainable, with mechanisms for continued funding and investment in resilience initiatives.

System transformation and scalability

The integrated approach that combines risk-informed spatial planning, climate-proofing infrastructure, community-based disaster risk management (DRM), and finance solutions aims to achieve system transformation by addressing multiple interrelated challenges in a holistic way. This approach goes beyond isolated interventions, recognizing that climate resilience requires systemic change across various sectors such as urban planning, infrastructure development, and community engagement. By incorporating climate adaptation measures into spatial planning and infrastructure design, the project ensures that urban and coastal communities are better prepared for future climate risks. At the systems level, the project will act by fostering coordination among local governments, community groups, and the private sector, enabling them to work together in identifying vulnerabilities, prioritizing investments, and implementing scalable, long-term solutions. Furthermore, the integration of financial mechanisms ensures that resources are efficiently mobilized to support ongoing resilience efforts, making the approach not only sustainable but also adaptable to changing conditions and expanding to other regions or sectors. The combined effect of these interventions will create a robust, interconnected framework that transforms how communities plan for and respond to climate risks, driving systemic change in urban resilience.

Alternative approaches

While alternative approaches, such as focusing solely on engineering solutions (e.g., flood barriers, sea walls) or purely community-based approaches (e.g., participatory DRM planning), are valid, they tend to address only specific aspects of the climate risk equation. Engineering solutions alone may not be sustainable in the long term, particularly when they fail to incorporate socio-economic factors, while community-based approaches may lack the necessary infrastructure and financial resources for scalability. The integrated approach selected provides a more holistic strategy that balances technical, social, and financial dimensions, ensuring a more adaptable and sustainable solution.

[\[EDAS1\]](#) I suggest to remove this as it's specific for Jeta and Pecixe that are removed from the project sites.

[\[JS2\]](#) Some of the work conducted there may be relevant for Bubaque and Varela, so I removed it from the co-financing, but left it as baseline for that reason, it's still very relevant to our intervention even if not in our target areas.

Core Indicators

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

META INFORMATION – LDCF

LDCF true	SCCF-B (Window B) on technology transfer false	SCCF-A (Window-A) on climate Change adaptation false
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Is this project LDCF SCCF challenge program?
false

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

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

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

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

This project will collaborate with activities begin supported by other adaptation funds. If yes, please select below

Green Climate Fund false	Adaptation Fund false	Pilot Program for Climate Resilience (PPCR) false
------------------------------------	---------------------------------	---

This Project has an urban focus.
true

This project will directly engage local communities in project design and implementation
true

This project will support South-South knowledge exchange
true

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

Agriculture	0.00%
Nature-based management	0.00%
Climate information services	0.00%
Coastal zone management	60.00%
Water resources management	0.00%
Disaster risk management	30.00%
Other infrastructure	0.00%
Tourism	0.00%
Health	10.00%
Other (Please specify comments)	0.00%
Total	100.00%

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

Sea level rise true	Change in mean temperature true	Increased climatic variability true	Natural hazards true
Land degradation true	Coastal and/or Coral reef degradation true	Groundwater quality/quantity true	

CORE INDICATORS – LDCF

	Total	Male	Female	% for Women
CORE INDICATOR 1 Total number of direct beneficiaries	120,000	56,400.00	63,600.00	53.00%
CORE INDICATOR 2 (a) Area of land managed for climate resilience (ha)	0.00			
(b) Coastal and marine area managed for climate resilience (ha)	32,400.00			
CORE INDICATOR 3 Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation	0.00			
CORE INDICATOR 4 Number of people trained or with awareness raised	1200	720.00	480.00	40.00%
CORE INDICATOR 5 Number of private sector enterprises engaged in climate change adaptation and resilience	5.00			

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Context: TOC Risk 4) Adaptation measures on the ground may not effectively show sufficient results against climate hazards within the project's timeframe, especially the slow-onset ones. Assessment and Mitigation Measures: Apply adaptation best-practices and learning in the design of adaptation measures. Plan adaptation measures by fully considering the science-based results from climate risk and vulnerability assessments foreseen under Output 1.1. Focus on implementing a mix of quick-impact interventions alongside long-term strategies to balance immediate results and sustainability (Outputs 2.2, 2.3, 3.1). Prioritize pilot projects in areas with high visibility and potential for quick gains to build momentum and stakeholder confidence (Outputs 1.3, 2.2). Continuously monitor and evaluate the impact of adaptation measures, adjusting strategies as needed (Output 4.2).
Environmental and Social	Substantial	Context: TOC Risk 1) There is a risk of unequal access and exclusion of stakeholders, particularly marginalized groups, from project participation, decision-making processes, and benefits, and also competing interests over resources or land use triggering resistance or conflicts among stakeholders. Risk 2. There is a risk of poor labor and working conditions, such as unsafe practices, exploitation, or inadequate wages. Risk 3. Project activities such as ecosystem restoration and infrastructure development may inadvertently

		harm natural habitats, biodiversity, sensitive ecosystems, soils or water resources. Risk 4. Project activities may lead to significant consumption of raw materials, energy, and/or water, and potential release of pollutants. Risk 5. Project activities, including ecosystem restoration (e.g., mangrove planting, water flow restoration) and land-use management for adaptation (e.g., climate-smart agriculture), such as ecosystem restoration or conservation measures, may result in economic displacement or restricted resource access. Risk 6. Climate change impacts, such as droughts, or extreme weather, may undermine the effectiveness of project activities and increase the vulnerability and coping capacities of local communities. Risk 7. If unchecked, the project may end up reproducing patterns of gender-based discrimination against women that are prevalent in society, and in extreme cases also create conditions that would favor gender-based violence. Risk 8. There is a risk that the construction and/or renovation of flood protection infrastructure may lead to safety risks for neighboring communities, particularly women and youth Risk 9. In connection with construction works, there is a risk that excavations could affect cultural heritage. Assessment and Mitigation Measures: The following will be carried out during the PPG phase: Develop a Stakeholder Engagement Plan and Gender Action Plan. Design a Grievance redress Mechanism. Develop an ESMF (Environmental and social Management Framework) as a framework document that summarizes all risks and mitigation measures as well as responsibilities. Several assessments to be conducted and management plans to be prepared. These will be identified in the SESP and ESMF at the PPG phase.
Political and Governance	Substantial	Context: TOC Risk 7) Insufficient political will to support integrated coastal zone management and disaster response, potentially including resistance to relevant legislation and policy development, including due to political and institutional instability. Assessment and Mitigation Measures: Engage political leaders and policymakers early in the project to secure buy-in and emphasize alignment with national priorities and international commitments (Outputs 4.1, 4.4). Advocate for policy integration and legal reforms by showcasing successful adaptation interventions as models for replication, including for leveraging partnerships, financial resources and encouraging the emergence of an adaptation-minded (and climate conscious) private sector in Guinea-Bissau (Outputs 4.3, 4.2 and 4.4). Establish formal agreements and collaborations to reduce the impact of political changes on project continuity.
INNOVATION		
Institutional and Policy	Moderate	Context: TOC Risk 2) The absence of, or an ineffective multi-sectoral coordination structure/framework may hinder project implementation. Assessment and Mitigation Measures: Strengthen existing coordination mechanisms by clarifying roles and responsibilities across sectors and levels of governance (Output 4.1). Facilitate regular inter-sectoral meetings and joint planning sessions to ensure alignment (Outputs 1.3, 4.2, 4.3 and 4.4). Provide training to key stakeholders in coordination and integrated planning approaches (Output 4.1). During the PPG, when conducting in depth risk

		assessments, not only the assessment itself, but also the mitigation measures will be considered to the extent that they specifically relate to innovative approaches proposed through the project design presented herein and its viability in Guinea-Bissau.
Technological	Substantial	Context: TOC Risk 6) Lack of robust or reliable data for conducting comprehensive climate risk assessments. Assessment and Mitigation Measures: Establish partnerships with academic institutions, research organizations, and regional data-sharing platforms to access and co-develop robust datasets (Outputs 1.1, 4.2). Invest in local data collection initiatives to fill critical information gaps (Outputs 1.1, 1.3, and 4.4). Build local capacity for data analysis and interpretation to ensure continuous updates and application in decision-making (Outputs 1.2, 4.3). Similar to the Institutional and Policy risk, UNDP will consider how the risk and proposed mitigation measures specifically relate to any of the innovative approaches proposed through the project design in particular relating to the outputs mentioned herein.
Financial and Business Model	Substantial	Context: TOC Risk 5) Investment to finance or support effective adaptation efforts, in particular from co-financiers, is insufficient. Assessment and Mitigation Measures: Actively engage with co-financiers and potential investors, including private sector players and financial institutions, during the project design phase to secure commitments (Output 1.3, 2.2 and several other outputs). Develop partnerships to leverage additional funding streams and integrate innovative financing mechanisms (Outputs 4.2 and the roll out of mini-grants under Output 2.2). Create a clear business case for co-financiers by demonstrating the economic and social returns of adaptation investments. The proposed partnerships, as well as the financial and business models proposed under the project imply the risks herein described, including the innovative elements in them. Therefore, UNDP will carefully consider during the PPG the specific risks linked to project's innovative elements, including spatial planning tools, financing mechanisms, and the blue economy incubator, proposing suitable mitigation measures, consistent with the risk level as assessed.

EXECUTION

Capacity	Substantial	Context: TOC Risk 3) Responsible government entities and stakeholder organizations face limitations in terms of absorbing the project's capacity development efforts. Assessment and Mitigation Measures: Develop tailored capacity-building programs that consider the baseline capacities of stakeholders (Outputs 1.2, 4.3). Provide ongoing technical assistance and mentoring to ensure absorption and institutionalization of new skills (Outputs 1.3 and 4.1). Establish a feedback mechanism to adapt training programs as needed, based on participant progress.
Fiduciary	Moderate	Context: Fiduciary risk in the context of this project relates to financial management, governance, and institutional capacity challenges that may hinder the efficient and transparent use of project funds. Key risks stem from

		political and institutional instability, lack of coordinated governance structures, insufficient investment in adaptation efforts, and inadequate data availability for risk assessment. These risks could impact project implementation, financial accountability, and the achievement of intended outcomes. In National Implementation Modality (NIM) projects with the Guinea-Bissau Ministry of Environment, fiduciary risks are particularly pronounced due to governance, financial management, and institutional capacity challenges. Specific concerns include political instability affecting project continuity, inadequate coordination mechanisms, and difficulties in securing co-financing commitments. Assessment and Mitigation Measures: Creation of a Project Management Central Unit within the Ministry of Environment, Biodiversity and Climate Action (Output 4.4).
Stakeholder	Moderate	Context: TOC Risk 1) Stakeholders may lack understanding of the need for adaptation and resist the project's agenda. Assessment and Mitigation Measures: Conduct targeted stakeholder engagement and awareness-raising campaigns tailored to specific groups, emphasizing the urgent need for adaptation and the tangible benefits of the project. Incorporate participatory approaches in all planning and implementation activities to build ownership and trust, including through activities under Outputs 1.2, 1.3, 2.1 and 4.3. Establish clear communication channels to keep stakeholders informed and involved throughout the project lifecycle.
Other		
Overall Risk Rating	Substantial	The level of residual risk is “moderate” or “substantial” for all risk categories, and as a result the overall risk rating is determined to be “Substantial”. The Environment and Social Risk is “Substantial”, in line with the safeguard rating. The Mitigation strategies and robust project management practices implemented under the proposed project will reduce residual risks, ensuring effective delivery of outcomes.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

This project aligns with the GEF-8 Programming Strategy for the LDCF by directly contributing to the two relevant Indicative Focal Area Elements, CCA-1.1, CCA-1.2 and CCA-1.3:

- Under CCA-1.1 (*Supporting implementation of Climate Change adaptation solutions in priority themes*), the project will invest in vulnerability and risk assessments and adaptation measures (Output 1.1), build community

resilience to climate change (Output 1.2), implement no-regret adaptation measures and climate proofing (Output 2.1), as well as adaptation measures from spatial planning process (Output 2.3)

- Under CCA-1.2 (*Scaling up finance for adaptation*), the project will implement a low-value grant making scheme (Output 2.2) and enhance climate finance through public-private partnerships (Output 4.3)
- Under CCA-1.3 (*Strengthening innovation and private sector engagement*) will establish Blue Economy Incubators to foster private sector engagement (Output 4.2), implement institutional coordination mechanisms (Output 4.1)

The project further aligns with the three strategic priorities of the LDCF/SCCF by:

- **Priority Area 1: Scaling up finance**

The project will remove barriers to climate adaptation finance by leveraging innovative financial instruments and mobilizing co-financing. By engaging both public and private sectors, the project aims to create sustainable financial mechanisms that extend beyond the project's duration, fostering long-term resilience. This will be achieved through public-private partnerships, climate finance readiness (Output 4.3), and Blue Economy entrepreneurship (Output 4.2), among other outputs;

- **Priority Area 2: Strengthening Innovation and Private Sector Engagement:**

By strengthening innovation and private sector engagement, particularly in supporting locally-led adaptation initiatives, the project will empower communities to develop and implement context-specific solutions, enhancing adaptive capacities and fosters innovation at the grassroots level. This includes the promotion of inclusive, innovative solutions via gender-responsive grant-making (Output 2.2) and community-led adaptation;

- **Priority Area 3: Fostering Partnership for Inclusion and Whole-of-Society Approach**

The project will foster partnerships for inclusion and a whole-of-society approach, ensuring that adaptation efforts are participatory and equitable. By integrating diverse stakeholders into planning and implementation processes, the project promotes shared ownership and sustainability of adaptation outcomes, empowering women, youth, and marginalized groups to participate in decision-making structures (Outputs 3.3, 4.2) and ensuring that they benefit directly from adaptation investments.

Alignment with the following GEF strategy (GEF-8 Programming Strategy on Adaptation to Climate Change for the LDCF and SCCF and Operational Improvements for the Period 2022-2026): Project design addresses 4 out of 6 priority themes mentioned in the Strategy for the LDCF, and referring to programming directions relating to at least two of the LDCF Priority Areas – as follows:

- Theme 2) Water Resources Management: Improving water resource management to address scarcity and flooding risks.
- Theme 3) Disaster Risk Management: Strengthening preparedness and response mechanisms for climate-related disasters.
- Theme 4) Coastal Zone Management: Protecting and restoring coastal areas to mitigate the impact of sea-level rise and storms.
- Theme 5) Climate-Resilient Infrastructure: Developing infrastructure that can withstand climate-induced stressors, particularly in urban areas.
- Priority Area 2: Strengthening Innovation and Private Sector Engagement (with a more precise strategy to be developed during the PPG)
- Priority Area 3: Fostering Partnership for Inclusion and Whole-of-Society Approach

This integrated approach ensures the project delivers long-term, transformative resilience outcomes for vulnerable communities and ecosystems in Guinea-Bissau's coastal.

Alignment with national policies plans and priorities:

The proposed project is strongly aligned with Guinea-Bissau's national climate adaptation and development priorities, as outlined in key policy frameworks. The **National Adaptation Plan of Action (NAPA, 2006)** identifies coastal vulnerability and disaster risk reduction as urgent priorities, which this project directly addresses by strengthening climate resilience in coastal and urban areas. The project also contributes to Guinea-Bissau's commitments under the **Nationally Determined Contributions (NDC, 2022)** and its draft NDC-Adaptation component, by implementing nature-based solutions, disaster risk reduction strategies, and climate-resilient infrastructure to mitigate climate risks.

Additionally, the project aligns with the **National Strategy for Catastrophes' Risks Reduction (2010)**, supporting Guinea-Bissau's adherence to the Sendai Framework for Disaster Risk Reduction through improved early warning systems, spatial planning, and institutional capacity building.

It also complements the **Bissau-2030 Strategic Plan (2019)**, which prioritizes sustainable urban development, ecosystem preservation, and climate adaptation to enhance urban resilience. Moreover, the project supports the **National Development Plan (NDP) 2022-2023 (extended)** by contributing to socioeconomic resilience, environmental sustainability, and community-driven climate adaptation, all of which also link up to the Agenda 2030 at the global level.

Alignment with UNDP's Programming Frameworks:

The project aligns with the **UN Cooperation Framework (2021-2026) for Guinea-Bissau**, particularly **Strategic Priority #2**, which focuses on **economic development and the environment, biodiversity, climate change, disaster management**.^{[1]¹⁴} By integrating spatial planning, ecosystem restoration, and community-based adaptation, the project contributes to UNDP's mission to **strengthen resilience, promote sustainable livelihoods, and enhance environmental sustainability in Guinea-Bissau**.

[1] https://unsdg.un.org/sites/default/files/2021-11/GuineaBissau_Cooperation_Framework_2022to2026pdf.pdf.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: No

Provide a brief summary and list of names and dates of consultations

Stakeholder	Description	Expected role in the project
Ministry of Environment, Biodiversity and Climate Action (MABAC)	Implementing partner, responsible for environmental and climate-related policies.	Led the PIF process, coordinated stakeholders from the environmental sector, and provided some technical inputs.
National Climate Change Committee (NCCC) Not existing at the moment, to be revitalized with the NAP process	Multi-stakeholder advisory body on climate change policy and actions.	.
Institute of Biodiversity and Protected Areas (IBAP)	Responsible for conservation and protected areas management.	Provides biodiversity and conservation expertise. Potential co-financier as MABAC is implementing relevant projects, including on Bubaque island. They have experience with mangrove restoration and execute these activities, where required.
Minister of Public Works, Construction and Urbanism	Oversees infrastructure and urban planning. Responsible for setting standards on housing and construction in Guinea-Bissau.	Engaged in discussions on climate-resilient infrastructures and oversight of any activities that involve public works. They may be engaged in reviewing infrastructural codes in view of climate proofing and resilience and initiate pilot activities in climate smart housing
Ministry of Economy, Planning, and Regional Integration (MEPIR)	Leads national economic and regional planning.	They may contribute to policy alignment with economic plans, e.g. on urban development, climate smart agriculture and development of tourism sites at the islands
Ministry of Finance (MF)	Manages national budget and financing strategies.	To be consulted on project financing and sustainability, especially the development of financial instruments under Component 3.
Ministry of Transport and Communications & National Institute of Meteorology (INM)	Handles transport policy and meteorological services.	INM is expected to provide climate data for risk assessment and implement EWS system in the country, being a main beneficiary of any related training and provider of important EWS messages to areas of intervention
Ministry of Natural Resources and Energy & Directorate General of Water Resources (DGRH)	Manages natural resources and water governance.	Engaged in discussions on sustainable water management across all sites. Lack of updated water policies and plans. Potentially a co-financier.
Institutes/directorates for spatial planning, water resource management, and health (INASA)	Government agencies handling land use, water, and health policies.	Provide sector-specific insights and planning guidance. INASA providing climate change related health risks, exacerbation of vulnerabilities in Malaria, diarrhea and respiratory diseases
Local Government for Bissau's Autonomous Sector (SAB) and regional satellite communes	Administers urban and peri-urban areas of 'Greater Bissau'. Has interacted extensively with UN Habitat on the development of Bissau 2030 policy and plan.	Expected to be further engaged in local spatial planning and risk assessments, and in ensuring the effectiveness of these plans.

Stakeholder	Description	Expected role in the project
Local Governments in, Varela, Bubaque	Manage coastal and rural regions.	Varela was directly engaged during Concept Note stage, while others participated in the validation workshop. They will be important beneficiaries of the project, also protagonists in several actions expected in the implementation phase.
Various NGOs, CSOs, and CBOs (e.g., RENLUV, CVGB, GMF, Alerta Precoce / ECO Progresso, Ação para o Desenvolvimento, Amigos de Varela, plus local resident associations in urban and rural areas, etc.)	Civil society organizations are varied and many. Some are focused on gender, environment, climate action and others on community development. Cruz Vermelha da Guiné-Bissau (CVGB) focuses on disaster response. In Bissau, local associations included: - Associação de moradores de Antula - Associação de moradores de Diolo - Associação de mulheres de Cuntum Madina In Varela there are: - Associação de mulheres horticultoras de Varela - Associação de Pescadores e badeiras de peixe	NGOs, NGOs, CSOs, and CBOs will play an important role in the project. It is expected that they will be the beneficiaries of the grant-making scheme under Component 2. They will also be trained in adaptation and DRR matters. Some of them can also provide training and help amalgamate partnerships. Several of these organizations participated in consultations, with emphasis on gender and community-based solutions.
Wetlands International	International NGO focused on wetland conservation.	In Guinea-Bissau, Wetlands International is executing a project that is bringing spatial planning, resilience and mangrove conservation. They can provide expertise on wetland management and climate adaptation.
Academia (National Institute for Studies and Research - INEP, others)	Research institutions contributing to knowledge and studies.	Provide scientific insights and research support. Their exact role and capacities need to be assessed during the PPG.
Private Sector (to be further identified) ECO Progresso, SARL, Bissau, Tourism sector in Bubaque and Varela	Businesses that may contribute to adaption measures and other services in the project.	ECO Progresso produces environmental and social assessment studies, engages in RE energy solutions, improved cookstoves and bio-charcoal. Potential partners to implement small adaptation measures related to their touristic entities. Other private sector partners yet need to be engaged and expected to play a role in implementation. Refer to specific section on regarding the current stakeholder mapping for private sector players.
European Commission	Development partner supporting environmental and climate projects.	The EU Delegation in Guinea-Bissau is expected to collaborate with the project and provide support through synergies regarding projects and also co-financing.

Stakeholder	Description	Expected role in the project
UN Habitat (local, regional, and global reps)	UN agency focused on sustainable urban development.	Fully engaged in early discussions on climate-resilient urban planning. Can potentially play a role in the implementation of studies and other actions under Components 1 and 4
United Nations Capital Development Fund (UNCDF)	Potential Support through initiatives on financial inclusion and local development projects, a role to be confirmed during the PPG.	Consulted on potential financial mechanisms for project sustainability. May facilitate the process of derisking investments through their interactions with the financial sector in Guinea-Bissau.
Other relevant stakeholders (to be identified)	Any additional stakeholders contributing to project success.	To be identified and engaged as needed.

[EDAS1] I suggest to remove as it's about Jeta and Pecixe.

[JS2] I edited the text on their role (removed the sites and the co-financing), but kept them in the list of stakeholders consulted as they remain relevant.

Various institutional and community stakeholders were directly consulted in connection with the development of this PIF during the period Jul-2024 to end Feb-2025. Many of them were present during the PIF Validation Workshop, which took place in Bissau on 05-Feb-2025. Some stakeholders remain to be consulted and will be engaged during subsequent phases of project development (see the consultation report prepared during PIF development and uploaded on the GEF portal).

Community consultations took place in several locations across the country, reaching out to 191 people (128 women) between 28 January and 6 February 2025:

Consultations with Institutional stakeholders were also conducted. The main ones that were directly consulted through interviews (i.e. not including those present in the workshop, and including both online and in person interviews) are the following in alphabetical order:

- Associação de moradores de Antula
- Associação de moradores de Djolo (Gabuzinho)
- Associação de mulheres de Cuntum Madina
- Associação de mulheres de Varela e Autoridades locais
- Associação de pescadores, Varela
- Consultant IBAP (Justino Biai)
- Coordinator of WACA II Program, Mr. Leonildo Alves Cardoso, meeting at IBAP
- Directora regional adjunto de saúde de Bolama
- IUCN Representative, Mr. Jean Luis Sanca
- Membros das ONGs que operam de Bolama
- Minister of MABAC, Viriato Cassama; Chief of Cabinet, Elton; Communication Djiba Jao, Minister's advisers Idrissa Embalo and Vanessa, INA: J. Lona; Fundação Bio-Guiné: Dauda Sau; UNDP: Nelvina and Elisabete
- Pessoal dos Centros de Saúde de Cuntum Madina, Antula, Gabuzinho/Djolo, Bolama, Varela
- UN Habitat
- Secretario de Comité de Estado de Bolama
- Secretário Regional do Comité do Estado, Queba Sanha
- UN Habitat

- UNCDF, including at the regional level
- UNDP Bissau
- UNDP Bissau, wider environment team
- UNDP NCE (RTA)
- UNDP, Resident Representative and DRR (briefing and debriefing)

The above stakeholders interviewed / directly consulted count in total 253, of which 148 were women (53%). These numbers are an approximation, as there may be a small degree of double counting.

In view of the desired gender transformative approach, this project will adopt a positive gender bias in the selection of beneficiaries. Refer to [Core Indicators](#) section for details.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNDP	LDCF	Guinea-Bissau	Climate Change	LDCF Country allocation	Grant	8,932,420.00	848,580.00	9,781,000.00
Total GEF Resources (\$)						8,932,420.00	848,580.00	9,781,000.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

200000

PPG Agency Fee (\$)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNDP	LDCF	Guinea-Bissau	Climate Change	LDCF Country allocation	Grant	200,000.00	19,000.00	219,000.00
Total PPG Amount (\$)						200,000.00	19,000.00	219,000.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
Total GEF Resources					0.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CCA-1-1	LDCF	4,432,420.00	24000000
CCA-1-2	LDCF	2,250,000.00	9000000
CCA-1-3	LDCF	2,250,000.00	9000000
Total Project Cost		8,932,420.00	42,000,000.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Donor Agency	EC, International Partnerships	Grant	Investment mobilized	31250000
Recipient Country Government	Ministry of Environment, Biodiversity and Climate Action (MABAC)	In-kind	Recurrent expenditures	500000
Donor Agency	World Bank	Grant	Investment mobilized	10000000
GEF Agency	UNDP	Grant	Investment mobilized	250000
Total Co-financing				42,000,000.00

Describe how any "Investment Mobilized" was identified

Investment mobilized is expected to come from two EC funded interventions, namely the project titled "Improving urban governance and access to basic services for green and inclusive local development in Guinea-Bissau - Nô Misti Disinvolvimentu Local" (2023 – 2027) and the parent program "EU for green and inclusive cities" (2023 – 2031). Additionally, a new EU-funded program in Guinea-Bissau is under preparation and will aim to strengthen access to water and waste management and urban development through integrated solutions. Exact funding amounts to be confirmed during the PPG.

Funds tied to the project funded by World Bank also serve as Investment mobilized co-financing. The World Bank funds: WACA Resilience Investment Project 2 (WACA ResIP 2) in Guinea-Bissau, interventions related to coastal erosion, flood risk management, and ecosystem-based solutions to enhance climate resilience and protect vulnerable coastal communities.

UNDP's contributions through core funding is also considered investment mobilized since it is not tied to the baseline, but to the direct management of the project. It will be used to support the project. Funds can be front-loaded and will serve to buy vehicles for the project and pay for an M&E officer e.g., or to help set up a hybrid UNPD-Government Program Management Unit within MABAC.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	UNDP	4/22/2026	Nancy Bennet, Executive Coordinator		nancy.bennet@undp.org
Project Coordinator	UNDP	4/22/2026	Julien Simery, Technical Specialist		julien.simery@undp.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
João Lona Tchedna	Director General of National Institute of Environment	Ministry of Environment, Biodiversity and Climate Action	4/21/2026

ANNEX C: PROJECT LOCATION

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

Geo Name ID <i>Required field if the location is not an exact site</i>	Location Name <i>Required field</i>	Latitude <i>Required field</i>	Longitude <i>Required field</i>	Location Description <i>Optional text field</i>	Activity Description <i>Optional text field</i>
2374775	Bissau	N 11°51'49"	W 15°35'52"	Capital of Guinea-Bissau, the country's large, urbanized area.	See further down.
2374581	Ilha de Bubaque	N 11°15'00"	W 15°52'00"	Island, part of Bolama-Bijagós Archipelago. Protected.	See further down.
2368684	Varela	N 12°18'00"	W 16°34'00"	Varela village, 15 m altitude	See further down.

This project will consider the following locations as potential sites: the Autonomous Sector of Bissau, which includes the city and surroundings; Varela; and Bubaque Island.

Bissau and surroundings (500,000 inhabitants) is clearly the most important urban area of Guinea-Bissau and administratively governed through the **Autonomous Sector of Bissau**, which harbors approximately 30-35% of the Guinea-Bissau's population. It includes, besides the city of Bissau, the localities of Safim and Prabis in Biombo Region. No other urbanized area in the country has similar population density, which reaches 4,000 inhabitants per sq km in certain areas. Wedged between the Corubal river's canal to the sea, the Geba river to the north, the Oio river to the northeast, and São Martinho River to the southwest, the Autonomous Sector of Bissau is riddled with urban problems. The city is low-lying, and it has developed chaotically from the coast inwardly without regard for climate risks and in the almost total absence of urban planning. Urban and fluvial floods are the most important climate hazards. Like many other vibrant African cities, the metropolitan area of Bissau is also a hotbed of solutions that basically need to be incentivized to flourish. Many of these solutions stem from the communities themselves and young people thirsty for knowledge and innovation, among them

women. Special attention in this project will be paid to the climate change adaptation challenges faced by Bissau and surroundings.

Bubaque Island (approximately 7,000 inhabitants) has a tidal range of 3-4 meters and adjacent bathymetry of around 5 meters deep. The island is particularly vulnerable to coastal erosion and flooding, as the advancing sea threatens essential infrastructure critical for connecting the island to the mainland. The island faces ongoing risks from coastal processes that endanger their infrastructure and low-lying areas. These risks will be exacerbated by climate change, justifying the need for adaptation interventions.

Varela (population is < 1000 inhabitants) is a low-lying beach environment located in the northern region of Guinea-Bissau near the Senegalese border. As a small coastal village, the terrain has approximately 4 meters in elevation and an adjacent bathymetry of less than 3 meters deep. With a tidal range between 3 and 4 meters, this area is highly susceptible to coastline transgression and coastal erosion. Additionally, the region's rice fields extend until Djufunko area, cultivated in paddy-rice fields, are at risk due to saline intrusion, advancing sea levels, and the lack of maintenance of protective land dikes. The configuration of the Varela beaches, which have significant tourism potential yet to be realized, will be greatly affected by the impacts of climate change. In the absence of coastal protection measures, this potential may be lost.

NOTE: The female ratios for the population figure in each of the localities will be researched in the next stages of project development.

Box 2. Results from field level assessments and stakeholder consultations conducted in Feb-2025

Refer to content from local workshop:

https://drive.google.com/file/d/10_my_-cpNFIIHmsZJwiAU_98QEWalXXO/view?usp=sharing

In preparation for the project “Resilient Futures: Safeguarding Guinea-Bissau’s Coastlines and Urban Areas from Climate Risks”, fieldwork was conducted in February 2025 across several coastal and urban communities. The findings highlight the urgent need for climate adaptation interventions, as communities face increasing exposure to climate-related hazards.

1. Flooding in Bissau

- All groups interviewed confirmed a rise in both pluvial and marine flooding in recent years, identifying it as the number one concern across all sites.
- Flooding has caused widespread destruction of homes and agricultural lands, crop losses, reduced fish stocks, transportation disruptions, and a rise in diseases linked to humidity (e.g., malaria, diarrheal diseases, respiratory illnesses).
- Some communities, such as **Cuntum Madina** in Bissau, live in areas that are nearly permanently flooded.
- While fatalities due to strong water currents have occurred, there is no consistent record-keeping by Civil Protection authorities.

2. Lack of Potable Water and Water Contamination

- All coastal sites reported issues with access to clean drinking water, compounded by irregular public water supply services.
- Flooding events (both from rain and sea-level rise) regularly contaminate potable water sources, leading to severe public health issues such as diarrheal diseases and typhoid fever.
- Progress in malaria control is at risk of reversal if flood-related water contamination during the rainy season is not addressed.

3. Heatwaves

Refer to content from local workshop:

https://drive.google.com/file/d/10_my_-cpNFIIHmsZJwiAU_98QEWalXXO/view?usp=sharing

- Communities noted an increase in heatwaves (3–4 consecutive days with temperatures of 38–40°C), particularly in recent years, though historical patterns are irregular and based on perceptions.
- Consequences include insomnia, skin diseases (especially among children), dehydration, increased mosquito bites, and diarrheal diseases from poor-quality water.
- Agricultural impacts include damage to horticulture, water shortages for irrigation, disrupted flowering of mango and cashew trees, and reduced crop yields.

4. Strong Winds

- Most interviewees across all sites reported occurrences of strong winds, though these events have not shown a significant increase over time.
- Impacts include damage to homes (roofs and structural collapse), rain intrusion, wildfires that destroy cashew plantations, and negative effects on the flowering of mango and cashew trees.

5. Coastal Erosion Exacerbated by Sea-Level Rise

- Rising sea levels were observed in **Varela**, **Cuntum Madina**, and **Djolo**.
- In Varela, reports suggest continuous erosion since the 1970s, with an estimated loss of up to 2 km of beach (around 3 meters per year), although these figures are based on local perceptions rather than precise measurements.
- Consequences include loss of agricultural lands (bolanhas), subsistence farming means, homes, fishing ports, and other infrastructure. Tourism in Varela has also declined due to beach erosion.

6. Negative Health Impacts

- Increased malaria cases due to stagnant water from flooding, despite national efforts to reduce malaria incidence.
- A rise in diarrheal diseases, respiratory infections, pneumonia, and scabies during both the rainy season (due to floods) and the dry season (due to heatwaves and lack of clean water).
- Damage to health infrastructure and limited access to health centers due to floods and mobility issues further exacerbate health risks.

7. Gender-Specific Impacts on Women

- Women face disproportionate impacts from climate risks, including greater exposure to floodwaters while harvesting shellfish and smoking fish, reduced access to potable water, and increased costs for drinking water.
- Inundated agricultural lands shorten horticultural campaigns and reduce yields, leading to lower incomes and heightened vulnerability.
- These factors negatively affect women's ability to secure food, healthcare, and education for their children, exacerbating hunger and malnutrition.
- The scarcity of potable water forces reliance on contaminated sources, increasing the prevalence of diarrheal diseases and typhoid fever among women and their families.

These findings underscore the urgent need for targeted climate adaptation measures to safeguard vulnerable populations, infrastructure, and livelihoods in Guinea-Bissau.

Figure 4. Flood hazards illustrated for project sites, 0.4 cm sea-level rise [[Link to source](https://coastal.climatecentral.org/), at Climate Central, <https://coastal.climatecentral.org/>]

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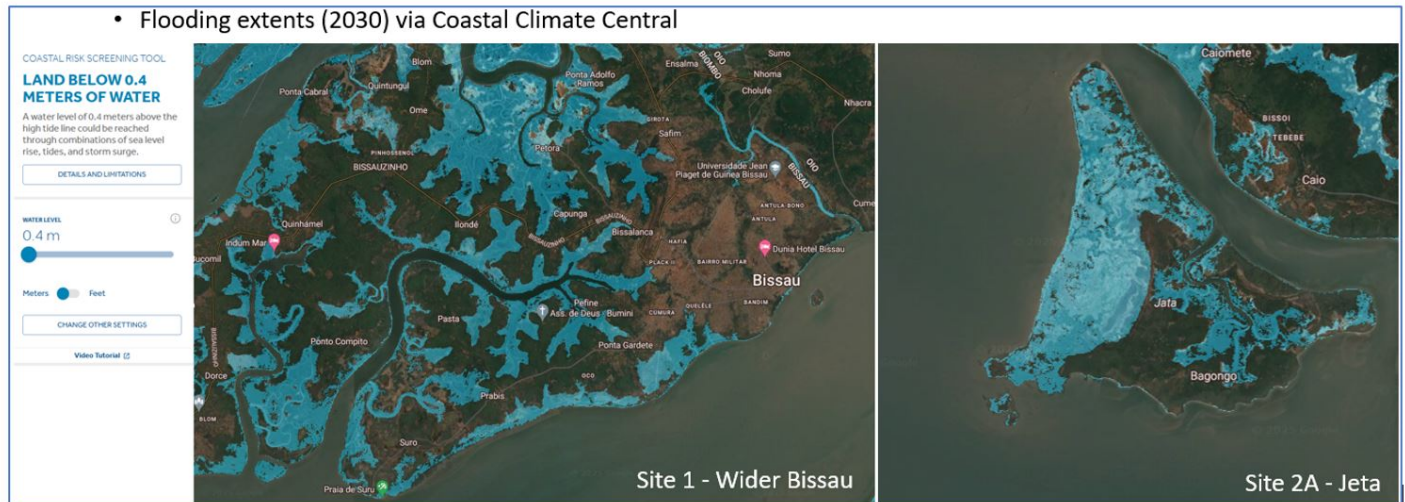




Figure 5. Coastal erosion in Guinea-Bissau, project sites

- Shoreline evolution rates (2000-2023)

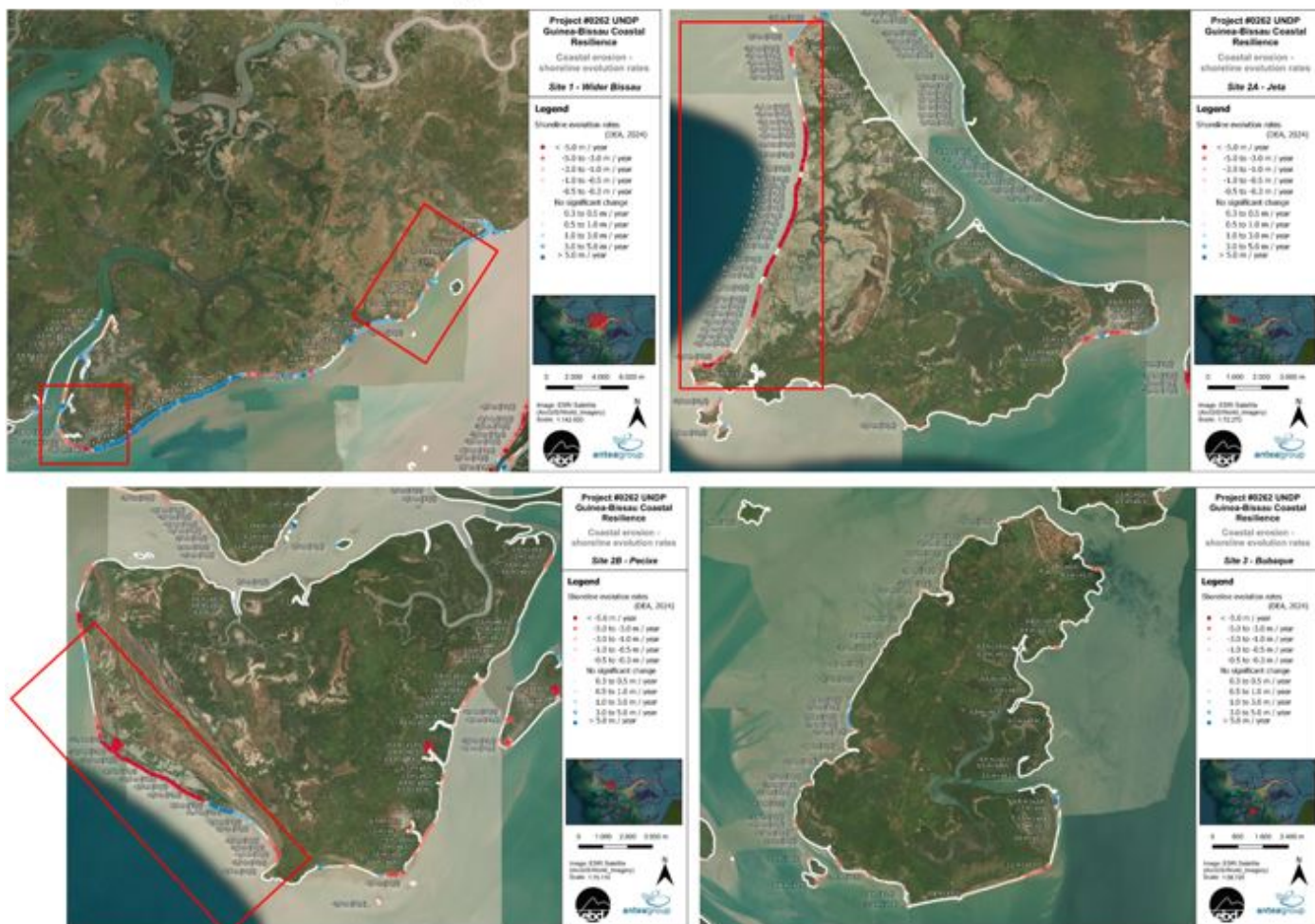
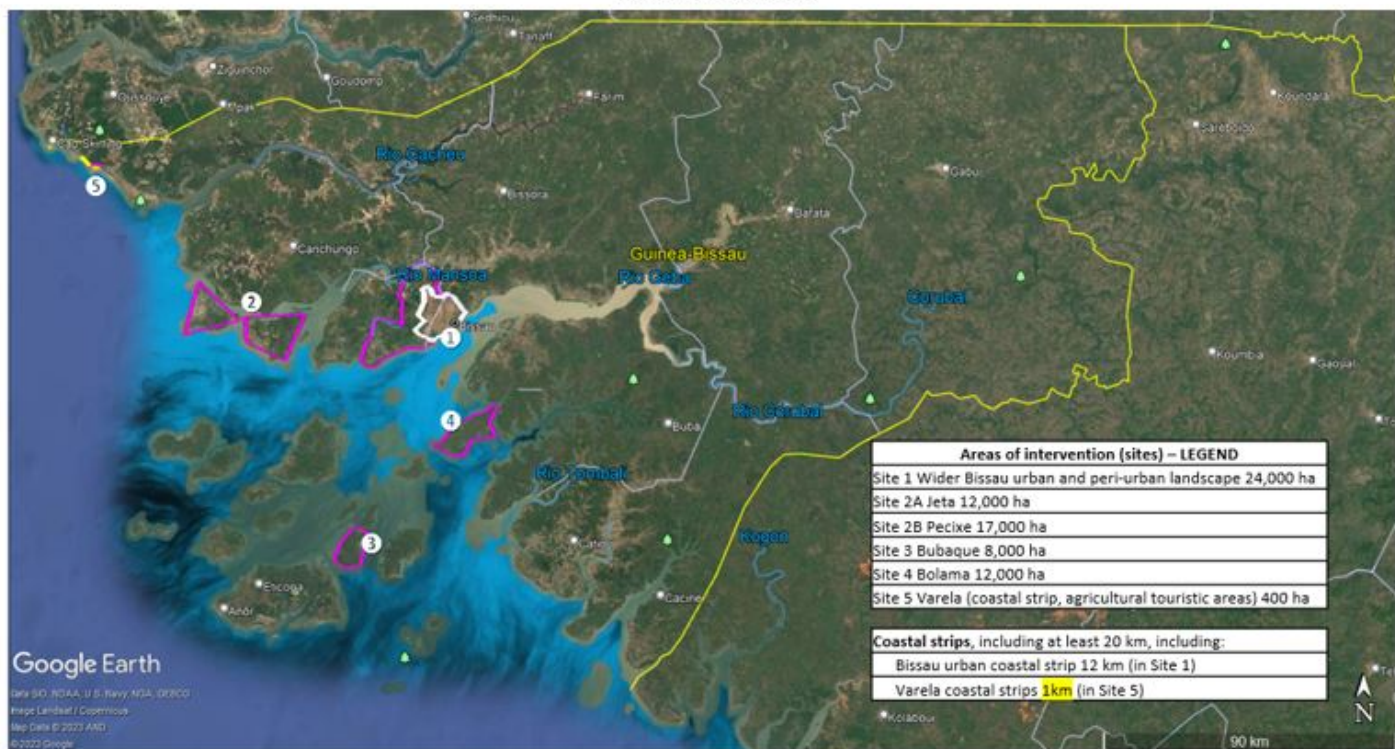




Figure 6. Project sites



ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

PIMS 10102_PRE-SESP_GBissau_Final 5 March

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
No Contribution 0	Principal Objective 2	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
Influencing models			
	Strengthen institutional capacity and decision-making		
	Convene multi-stakeholder alliances		
	Demonstrate innovative approaches		
Stakeholders			
	Private Sector		
		Financial intermediaries and market facilitators	
		SMEs	
		Individuals/Entrepreneurs	
	Local Communities		
	Civil Society		
		Community Based Organization	
		Non-Governmental Organization	
	Type of Engagement		
		Information Dissemination	
		Partnership	
		Consultation	
		Participation	
	Communications		
		Awareness Raising	
		Education	
		Public Campaigns	
		Behavior Change	
Capacity, Knowledge and Research			
	Capacity Development		
	Knowledge Generation and Exchange		
	Learning		
		Theory of Change	
		Adaptive Management	
	Knowledge and Learning		
		Knowledge Management	
		Capacity Development	
		Learning	
	Stakeholder Engagement Plan		
Gender Equality			
	Gender Mainstreaming		
		Beneficiaries	
		Women groups	
		Sex-disaggregated indicators	
		Gender-sensitive indicators	
	Gender results areas		
		Access to benefits and services	
		Capacity development	
		Awareness raising	
		Knowledge generation	

Focal Areas/Theme			
	Integrated Programs		
		Sustainable Cities	
			Municipal waste management
			Green space
			Municipal Financing
			Urban Resilience
	Biodiversity		
		Protected Areas and Landscapes	
			Terrestrial Protected Areas
			Community Based Natural Resource Management
	Forests		
		Forest and Landscape Restoration	
		Forest	
			West Africa
	International Waters		
		Freshwater	
			Aquifer
	Chemicals and Waste		
	Climate Change		
		Climate Change Adaptation	
			Least Developed Countries
			Small Island Developing States
			Disaster Risk Management
			Climate Resilience
			Climate information
			Ecosystem-based Adaptation
			Private Sector
			Livelihoods
		United Nations Framework on Climate Change	
			Nationally Determined Contribution