

GEF-8 REQUEST FOR CEO ENDORSEMENT/APPROVAL

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General Project Information

Project Title

Climate-resilient Banjul: Enhancing Urban Resilience in the Greater Banjul Area (CLIMB)

Region

Africa

GEF Project ID

11532

Country(ies)

Gambia

Type of Project

FSP

GEF Agency(ies):

UNEP

GEF Agency Project ID

N/A

Project Executing Entity(s)

National Environment Agency (NEA)

Project Executing Type

Government

GEF Focal Area (s)

Climate Change

Submission Date

9/19/2025

Type of Trust Fund

LDCF

Project Duration (Months)

72

GEF Project Grant: (a)

12,544,037.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

1,128,963.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

13,673,000.00

Total Co-financing

25,444,194.00

PPG Amount: (e)

300,000.00

PPG Agency Fee(s): (f)

27,000.00

Total GEF Resources: (a+b+c+d+e+f)

14,000,000.00

Project Tags

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

Project Sector (CCM Only)

Climate Change Adaptation Sector

Taxonomy

Beneficiaries, Civil Society, Academia, Community Based Organization, Non-Governmental Organization, Local Communities, Public Campaigns, Communications, Awareness Raising, Strategic Communications, Behavior change, Stakeholders, Gender-sensitive indicators, Gender Mainstreaming, Gender Equality, Sex-disaggregated indicators, Women groups, Access to benefits and services, Gender results areas, Knowledge Generation and Exchange, Capacity Development, South-South, Knowledge Exchange, Capacity, Knowledge and Research, Training, Knowledge Generation, Workshop

Rio Markers

| Climate Change Mitigation | Climate Change Adaptation | Biodiversity | Land Degradation |
|---------------------------|---------------------------|-------------------------|-------------------|
| No Contribution 0 | Principal Objective 2 | Significant Objective 1 | No Contribution 0 |

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. (max. 250 words, approximately 1/2 page)

The Gambia is a small West African country situated within the low-lying, flood-prone Gambia River basin, rendering its population particularly susceptible to climate change impacts. These impacts are most evident in the Greater Banjul Area (GBA), a densely urbanized region with ~3,800 people per km² at an elevation of 5 metres above sea level.

Mean annual temperatures have increased by ~1°C since the 1960s, while rainfall has decreased from ~1,000 mm to ~700 mm, causing heat stress, water insecurity, and degradation of mangroves, wetlands, and forests. Coastal erosion averages ~2 m/yr since the 1990s, threatening densely populated areas and tourism infrastructure. Significant floods in 2022 impacted ~50,000 people. Despite national climate adaptation frameworks, rapid urbanization led to informal settlements in high-risk areas, infrastructure deterioration, and environmental degradation, disproportionately affecting women and Indigenous Peoples and Local Communities.

This project enhances climate resilience across Banjul, Kanifing, and Brikama Local Government Areas through urban Ecosystem-Based Adaptation (EbA) solutions. The project will: i) strengthen policy frameworks and develop gender-responsive adaptation strategy and Urban Resilience Master Plan; ii) restore priority ecosystems including mangroves and wetlands; iii) establish multi-use public green spaces for flood attenuation and heat dissipation; iv) pilot sustainable urban drainage systems, rainwater harvesting, and coastal defense infrastructure; v) support gender-responsive alternative livelihoods with focus on women's economic empowerment; and vi) enhance knowledge management through partnerships and community awareness campaigns.

The project will directly benefit 350,000 people (50% women), manage 3,000 hectares for climate resilience, mainstream climate resilience into 5 policies/plans, and provide training or awareness-raising to 301,500 people (50% women).

Project Description Overview

Project Objective

The objective of the proposed project is to enhance the climate resilience of communities in the Greater Banjul Area by scaling up investments in urban Ecosystem-based Adaptation (EbA) solutions.

Project Components

1. Strengthening the enabling environment for climate-resilient urban planning and sustainable development

| | |
|----------------------------|-------------------|
| Component Type | Trust Fund |
| Technical Assistance | LDCF |
| GEF Project Financing (\$) | Co-financing (\$) |
| 555,562.00 | 7,016,636.00 |

Outcome:

1. The regulatory and policy framework in the GBA supports and promotes gender-responsive, climate-resilient urban planning.

Output:

1.1. Gender responsive climate resilience training and sensitization programme designed and implemented for local government officials and urban planners in the GBA.

1.2. Community engagement and participation framework developed and implemented for inclusive and gender-responsive urban planning

1.3. Gender responsive policy briefs developed to enhance cross-sectoral coordination and mainstream gender-equitable urban resilience into existing institutional frameworks

1.4. Adaptation Strategy and gender-responsive Urban Resilience Master Plan (URMP) developed for the Greater Banjul Area

2. Increasing resilience through integrated ecosystem-based adaptation

| | |
|----------------------------|-------------------|
| Component Type | Trust Fund |
| Investment | LDCF |
| GEF Project Financing (\$) | Co-financing (\$) |
| 10,698,350.00 | 15,705,482.00 |

Outcome:

2. Urban resilience to climate change is strengthened through integrated EbA solutions and alternative livelihoods

Output:

2.1. Priority ecosystems and buffer zones restored and protected in selected urban areas in Banjul, Kanifing and Brikama

2.2. Multi-use public green spaces established in selected urban areas in Banjul, Kanifing and Brikama

2.3. EbA solutions piloted for enhanced urban drainage, water storage and coastal defense in selected urban areas in Banjul, Kanifing and Brikama

2.4. Gender responsive sustainable alternative livelihoods enhanced, with targeted support for women's economic empowerment

2.5. Financial mechanism for upscaling EbA solutions designed and established

3. Improving knowledge management and information dissemination

| | |
|----------------------------|-------------------|
| Component Type | Trust Fund |
| Investment | LDCF |
| GEF Project Financing (\$) | Co-financing (\$) |
| 539,125.00 | 940,983.00 |

Outcome:

3. Increased awareness and dissemination of project knowledge products

Output:

3.1. Gender responsive knowledge products and lessons learned generated through partnerships

3.2. Community awareness-raising campaign conducted to enhance access to information shared via the existing EbA information portal.

M&E

| | |
|----------------------------|-------------------|
| Component Type | Trust Fund |
| Technical Assistance | LDCF |
| GEF Project Financing (\$) | Co-financing (\$) |
| 301,000.00 | 508,883.00 |

Outcome:

Complete and accurate Monitoring and Evaluation information for adaptive management and lessons learnt.

Output:

Monitoring and Evaluation Framework developed and implemented.

Component Balances

| Project Components | GEF Project Financing (\$) | Co-financing (\$) |
|--|----------------------------|-------------------|
| 1. Strengthening the enabling environment for climate-resilient urban planning and sustainable development | 555,562.00 | 7,016,636.00 |

| | | | |
|----|---|----------------------|----------------------|
| 2. | Increasing resilience through integrated ecosystem-based adaptation | 10,698,350.00 | 15,705,482.00 |
| 3. | Improving knowledge management and information dissemination | 539,125.00 | 940,983.00 |
| | M&E | 301,000.00 | 508,883.00 |
| | Subtotal | 12,094,037.00 | 24,171,984.00 |
| | Project Management Cost | 450,000.00 | 1,272,210.00 |
| | Total Project Cost (\$) | 12,544,037.00 | 25,444,194.00 |

Please provide Justification

PROJECT OUTLINE

A. PROJECT RATIONALE

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

Global environmental problems and climate vulnerabilities

Temperature rise and shifting climate patterns

1. Global surface temperatures have increased by approximately 1.1 °C since the pre-industrial era, with recent decades showing accelerated warming trends of about 0.2 °C per decade.^[1] This warming is influenced by a range of factors, including increasing concentrations of greenhouse gases – of which a significant portion are human-induced – as well as natural climatic processes such as ocean-atmosphere oscillations, volcanic activity, and solar variability. While warming itself presents risks, it is the shifting climate patterns and increased frequency and intensity of extreme weather events that pose the most urgent challenges globally.

2. In many regions, including low-lying coastal and urban areas, communities are already experiencing more intense and frequent floods, prolonged droughts, devastating heatwaves, and wildfires, which are exacerbating vulnerabilities in densely populated and ecologically fragile zones. For example, the IPCC Sixth Assessment Report (2023) highlights that the probability of compound extreme events – such as heatwaves combined with drought – has significantly increased due to global warming, threatening food and water security, health systems, and infrastructure resilience across continents.^[2] These patterns are particularly critical for urban coastal environments, where both climate exposure and socio-economic vulnerability intersect sharply.

Sea level rise and coastal vulnerability

3. Global mean sea level has risen approximately 20 cm between 1901 and 2018, with current rates accelerating from around 2.3 mm/yr in the 20th century to roughly 4.6 mm/yr during 2013-2022. This rise, driven by a combination of thermal expansion of warming oceans and melting glaciers and ice sheets is outpacing any in the last 3,000 years.[\[3\]](#)³

4. For coastal and riverine communities, even modest sea level increases significantly elevate flood and erosion risks. Without adaptation, a 0.15 m rise in global sea level will expose 20 % more people to a 100-year flood, while 0.75 m rise doubles the affected population and 1.4 m triples it.[\[4\]](#)⁴ In addition, extreme sea level events, historically occurring once per century, are expected to become annual events in many locations by mid-century. Low-lying urban and peri-urban areas face amplified threats as inundation, saltwater intrusion, shoreline retreat, and increased storm surge frequency and intensity interact with failing infrastructure and rapid urban expansion.

Urbanization as a climate vulnerability amplifier

5. Rapid and often unplanned urban growth, especially in low- and middle-income countries, is increasingly contributing to heightened exposure to climate hazards. Between 2000 and 2015 alone, the number of people living in flood-prone areas in developing regions grew by 58-86 million, an increase of 34.1% despite global population growth being only 18.6% in the same period.[\[5\]](#)⁵ This trend has forced dense settlements into areas lacking adequate planning, infrastructure, or mitigation buffers, heightening risk from floods, heatwaves, and other extreme events.[\[6\]](#)⁶

6. Expansion into floodplains, wetlands, and ecologically fragile zones compounds these vulnerabilities. A World Bank study found that high-growth urban areas are twice as likely to be located in 1-in-100-year flood zones compared to low-growth areas (~50 % vs. ~27 %).[\[7\]](#)⁷ As cities rapidly build over natural buffers – such as wetlands and permeable land – stormwater retention drops dramatically, intensifying the frequency and severity of pluvial floods during heavy rainfall. Moreover, unplanned urban sprawl also often results in the removal of green space, further increasing flood risk and elevating urban heat islands, creating a feedback loop where climate events hit harder and recovery becomes more difficult. [\[8\]](#)⁸

Degradation of critical ecosystems and loss of natural buffers

7. Critical ecosystems such as mangroves, wetlands, and urban green spaces are under severe global pressure, eroding the natural buffers that protect communities from climate shocks. A 2003 analysis by UNEP World Conservation Monitoring Centre found that between 1996 and 2020, the world lost approximately 3.4% of global mangrove cover (about 5,245 km²) largely due to land-use changes driven

by aquaculture, agriculture, and coastal development.^{[9]⁹} Furthermore, nearly 50% of mangrove ecosystems are now classified as Endangered or Critically Endangered, placing them at immediate risk of collapse from rising sea levels, storms, and human pressures.^{[10]¹⁰}

8. Wetlands – often dubbed the “earth’s kidneys” – have been equally devastated, with an estimated 54-57% of global wetlands lost since 1900.^{[11]¹¹} These ecosystems naturally store and slowly release floodwaters, filter pollutants, and maintain biodiversity, yet modern drainage, pollution, and urban expansion have rendered them increasingly fragmented and impaired.

9. This ecosystem degradation directly undermines biodiversity and climate resilience. A 2019 UN assessment reports that 1 million species are now threatened with extinction, largely driven by land-use change and ecosystem destruction.^{[12]¹²} Collectively, the loss of these natural systems strips away vital “green infrastructure” that absorbs floodwaters, stabilizes coasts, cools cities, and supports pollinators and fisheries – making exposed communities, particularly in urban and peri-urban zones, more vulnerable to climate extremes.

Scaling Up Investment in Nature-Based Solutions and Ecosystem-Based Adaptation

10. Despite the growing evidence of escalating climate risks, the global response remains heavily skewed toward reactive, infrastructure-heavy adaptation measures. However, nature-based solutions (NBS) and ecosystem-based adaptation (EbA) offer a cost-effective, scalable, and co-benefit-rich alternative for enhancing resilience, particularly in urban and coastal environments. These approaches use natural systems – such as mangroves, green corridors, and restored wetlands – to reduce climate risks while simultaneously supporting biodiversity, livelihoods, and carbon sequestration.

11. While international policy frameworks and financing mechanisms increasingly recognize the transformative potential of NBS and EbA, only a small share of total climate finance is currently directed toward these approaches, highlighting the need for significant upscaling to close the adaptation gap. The widespread degradation of critical ecosystems and growing exposure to extreme events present a compelling case for accelerating investment in ecosystem-based solutions. By restoring, conserving, and integrating natural systems into urban and regional planning, countries can build more resilient, equitable, and sustainable societies. These measures offer not only protection against evolving climate hazards – from floods and heatwaves to coastal erosion – but also deliver lasting economic, social, and environmental benefits for present and future generations.

12. These global environmental challenges are clearly manifested in The Gambia, where low-lying coastal geography, rapid urbanization, and ecosystem degradation converge with intensifying climate hazards. These interlinked pressures reinforce the critical need to enhance urban climate resilience through integrated, ecosystem-based adaptation solutions tailored to the specific vulnerabilities of this region.

Country context

economic stability, with climate disruptions posing an increasing threat to growth and household welfare.^[17]¹⁷

16. The Greater Banjul Area (GBA), comprising the capital city Banjul, Kanifing, and parts of the West Coast Region, is the political and economic heart of the country. With a population density of ~3,800 people per km² and a rapidly growing urban population, the GBA represents over 50% of the country's total population.^[18]¹⁸ Geographically, the region features sandy beaches along the coastline and flat, flood-prone lands with an average elevation of ~5 meters above sea level (masl), extending into the interior and reaching a maximum of ~30 masl.^[19]¹⁹ While areas such as Banjul and the Tanbi Wetland are particularly low-lying and susceptible to flooding, higher elevations can be found in Kombo North and Brikama. Rapid urbanization, combined with inadequate spatial planning, has led to significant environmental pressures, including the degradation of coastal ecosystems and the expansion of informal settlements into high-risk flood-prone areas.

17. From an administrative perspective, the GBA encompasses three key Local Government Areas (LGAs): Banjul (26,460 people), Kanifing (379,350 people), and Brikama (1,151,130 people)^[20]²⁰. Banjul and Kanifing are designated as municipalities, governed by municipal councils headed by elected mayors, while Brikama is governed by an area council. These councils oversee urban planning, infrastructure development, and public service delivery across the region. Together, the Banjul and Kanifing municipalities, along with Kombo North, South, and Central districts in the Brikama LGA, make up the GBA – the project's target region (Figure 2).

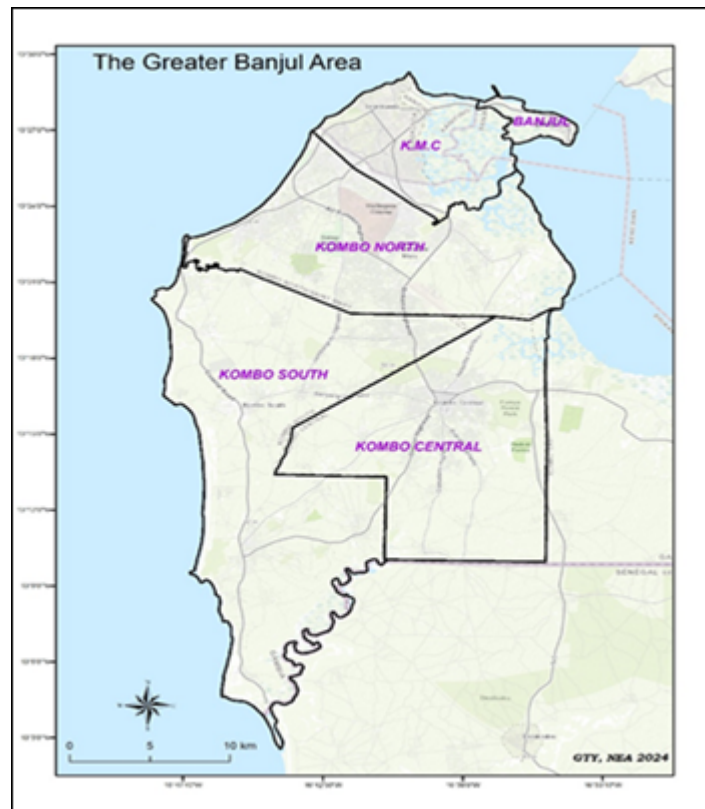


Figure 2. Map of the Great Banjul Area (GBA)

Climatic pressures and climate change impacts in The Gambia

Climate baseline

18. The Gambia has a Sahelian climate, characterized by warm temperatures throughout the year and alternating periods of rainfall and drought. The country's rainfall patterns are governed by the seasonal northward migration of the Inter-Tropical Convergence Zone (ITCZ)^[1], with peak precipitation occurring in August before the ITCZ shifts southwards^[2]^[3]. A long dry season spans from November to May, followed by a shorter wet season from June to October. At the national scale, average annual temperatures range from 18–30°C during the dry season and 23–33°C during the wet season (Figure 3).^[4]

19. At finer scales, The Gambia features two distinct Köppen-Geiger^[1] climate types: a tropical savanna climate (*Aw*)^[2] and a hot semi-arid climate (*BSh*)^[3]^[4]. The GBA falls within the tropical savanna zone (*Aw*) and experiences a mean annual temperature of 27°C, approximately 1,100 mm of rainfall per year, and around 70 rainy days annually (Figure 4).^[5]^[6]

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

20. Frequent climate-related hazards in The Gambia include floods, droughts, storms^[1], cold spells, heatwaves, intra-seasonal droughts, and erratic rainfall patterns^[2]. Due to its location within the Gambia River floodplain, the country is particularly vulnerable to seasonal river flooding between June and October, which affects an estimated 16,800 people annually.^[3]^[4] Additionally, drought conditions

persist for around three months each year, with the maximum number of consecutive dry days (CDD) exceeding 200 days annually.^[5]^[6]

Observed climate change

21. Over the past few decades, The Gambia has experienced notable changes in temperature, rainfall, and sea level, driven by a combination of natural variability and human-induced climate factors. These changes have led to increased flooding, droughts, and coastal erosion, with considerable impacts on livelihoods, water security, food security, and community health and safety – particularly in the low-lying, densely populated GBA.

Rainfall, floods and droughts

22. As shown in Figure 5, The Gambia has experienced a significant reduction in mean annual precipitation over the past century, with rainfall decreasing by approximately 150 mm between 1901 and 2020, from ~1,150 mm to ~1,000 mm^[1]. Wet season (July–August) rainfall also declined from ~780 mm during 1901–1930 to ~640 mm during 1991–2020, highlighting a clear downward trend in precipitation levels across the country.^[2]

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

23. In the GBA, rainfall patterns reflect national trends. Wet season rainfall decreased from an average of ~1,000 mm per year during 1945–1965 to ~700 mm during 1965–2005^[1]. This reduction has significantly impacted water availability, food security, and livelihoods, especially given the country's heavy reliance on rainfed agriculture (>90%) and limited access to formal water and sanitation services^[2]^[3]. Combined with rising atmospheric temperatures, these factors have contributed to an increase in the frequency and severity of droughts, with severe drought events recorded in 1990, 1993, 1998, 2002, 2009, 2014, and 2016–2018^[4].

24. Although overall wet season rainfall has decreased, evidence indicates that rainfall variability and intensity have increased, which has translated into more frequent and severe flood events in the GBA. While long-term rainfall averages show a declining trend, recent records highlight more intense short-duration rainfall episodes, consistent with global and regional studies on Sahelian hydroclimate. This has resulted in both pluvial floods (from intense local rainfall and inadequate drainage) and fluvial floods (from riverine overflow during peak rainfall). For example, in 2022, an extreme pluvial event with ~280 mm of rainfall over two days affected approximately 50,000 people in the GBA.^[5] This is in line with evidence from the CEPRASS study and national disaster reports, which indicate shorter return periods between flood events in recent decades, although this may partly reflect improved record keeping.

Sea level rise

25. Coastal erosion in The Gambia's coastal areas has persisted for decades, with an increasing rate and impact in recent years. In the southern coastal region, which includes the GBA, an average coastal recession^[6] of 2 meters per year (m/yr) has been observed since the 1990s, reaching 4 m/yr at Bijilo Beach. This recession is attributed to climate change-induced sea level rise (SLR), as well as anthropogenic drivers of coastal erosion such as coastal development and mangrove degradation^[7]. Rising sea levels and associated coastal erosion pose a considerable threat to densely populated regions in the low-lying GBA, impacting tourism, infrastructure and service delivery.^[8]

Temperature

26. In The Gambia, mean annual temperatures have increased by $\sim 1^{\circ}\text{C}$ since 1960, at an average rate of 0.2°C per decade (Figure 6). The rate of increase has been most pronounced in October, November and December, at 0.3°C per decade^[9]. Moreover, the number of days with a heat index of $>35^{\circ}\text{C}$ has risen from 0 to ~ 30 days per year (days/yr) between 1951 and 2020^[10].

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

27. Observed climate trends in The Gambia are expected to persist throughout the 21st century, with projections^[11]^[12] indicating an overall decrease in mean annual rainfall, increased rainfall variability, rising sea levels, and higher atmospheric temperatures. These changes are anticipated to result in more frequent and severe extreme climate events, further exacerbating existing vulnerabilities in the region. Such shifts will intensify pressures on ecosystems, infrastructure, and livelihoods, as detailed in the impacts section below.

Rainfall, floods and droughts

28. Projected changes in mean annual rainfall across The Gambia are characterized by high uncertainty. However, across all Representative Concentration Pathway (RCP) scenarios, models predict an overall reduction relative to the historical reference period (1995–2014). Under RCP 2.6, 4.5, and 8.5, mean annual rainfall is projected to decrease by approximately 1–25% by 2050 and 2–54% by 2100 (Figure 7)^[3]. These projected declines will directly affect water availability and agricultural productivity, with serious consequences for peri-urban farmers and household food security.

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

29. Additionally, flood risk in the GBA is projected to increase under future climate scenarios, resulting from greater inter-annual rainfall variability. Though total annual rainfall is expected to decrease, the intensity of rainfall events during the wet season (June–August) is likely to rise significantly. This shift in precipitation patterns means that fewer rainy days will deliver higher amounts of rainfall in a single event. Model outputs indicate that average one-day precipitation may increase by 58–62% by 2050 and 54–59% by 2100, leading to more frequent and severe flooding incidents^[1]. Such floods are expected to damage infrastructure, disrupt transport and services, and increase health risks for urban communities, as further discussed under climate impacts.

30. Projected changes in rainfall patterns will have significant implications for the Gambia River catchment area, which supplies water for agriculture and replenishes groundwater reserves critical to the GBA. Reduced annual rainfall and increased evapotranspiration are likely to decrease river flow and lower groundwater recharge rates, intensifying water scarcity during prolonged dry periods. Conversely, more extreme rainfall events are expected to increase the risk of flash floods along the river, exacerbating soil erosion, sedimentation, and damage to agricultural lands. These combined effects will pose serious challenges to agricultural productivity and water availability in both rural and urban areas, further increasing the vulnerability of communities dependent on these water resources.

31. Reduced annual rainfall, combined with lower humidity and rising atmospheric temperatures, is expected to enhance evapotranspiration rates, further decreasing soil moisture and aggravating drought conditions in the GBA. Mean annual potential evapotranspiration (PET)^[11] across The Gambia is predicted to rise by 9–29% by 2050 and 15–45% by 2100, representing an overall increase of 1,300–1,900 mm compared to the historical baseline (1995–2004)^[12]. Consequently, drought conditions, indicated by the Standardized Precipitation Evapotranspiration Index (SPEI), are expected to worsen. Nationally, the probability of drought^[3] is projected to increase from 0–40% in 2016 to 80–100% by 2050, while in the GBA, the probability is expected to rise from 0–25% to 40–60% during the same period^[4] (Figure 8).

Worsening droughts will reduce agricultural yields, increase food insecurity, and put additional strain on already limited water supplies.

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

32. At the national scale, mean annual temperatures in The Gambia are projected to increase by 1.7–2.1°C by 2050 and 3.1–3.9 °C by 2100, relative to the historical reference period (1950–2014), depending on the scenario applied. Under a low-emission scenario (SSP1–2.6), temperatures are expected to rise by ~1.7°C by 2050 and ~3.1°C by 2100, while under a high-emission scenario (SSP5–8.5), increases of ~2.1°C by 2050 and ~3.9°C by 2100 are projected (Figure 9)^[1]^[2].

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

33. On average, this represents an increase of approximately 0.6°C per decade, with the highest degree of warming expected during the winter months (December–February), coinciding with the long dry season^[1]. Moreover, by the end of the 21st century, the number of days with a heat index exceeding 35°C is projected to increase dramatically, from ~30 days per year in 2020 to ~160 days per year under the low-emission scenario (SSP1–2.6) and ~290 days per year under the high-emission scenario (SSP5–8.5). This trend indicates a substantial rise in the annual number of heatwave days^[2], with serious implications for human health, agriculture, and energy demand, and urban livability in the GBA.

Sea level rise

34. Current projections estimate a 19–43 cm increase in mean sea level by 2050 and a 26–98 cm rise by the end of the 21st century, depending on global greenhouse gas (GHG) emissions scenarios. As a low-lying country with a maximum elevation of approximately 60 meters above sea level (masl), The Gambia is highly vulnerable to rising sea levels. A one-meter rise in sea level could potentially inundate over 8% of the country's total land area and more than 50% of the capital city, Banjul^[3]. Within the GBA, key locations most at risk of coastal flooding and erosion under future climate scenarios include as shown in Figure 10 below include: i) Banjul City; ii) eastern areas of Oyster Creek; and iii) Banjul Port. This will have cascading consequences for coastal ecosystems, fishing, and tourism, which are already under pressure

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

Impacts of climate change

35. Climate change in the GBA is amplifying existing environmental, social, and economic challenges, with far-reaching consequences for ecosystems, infrastructure, and key livelihood sectors. These impacts threaten the region's long-term sustainability and disproportionately affect vulnerable populations, necessitating urgent adaptation measures.

Impacts of climate change on ecosystems

36. Climate change is significantly affecting the natural ecosystems in the GBA, with adverse impacts on coastal ecosystems, forests, and the ecosystem services they provide. These changes undermine the region's natural resilience, disrupt local livelihoods, and heighten vulnerability to climate hazards.

Coastal ecosystems: mangroves, marshlands, and wetlands

37. The GBA's coastal ecosystems – comprising mangrove forests, marshlands, and wetlands – are increasingly threatened by sea-level rise (SLR), saltwater intrusion, and rising atmospheric temperatures^[1]. Coastal mangroves, which play a crucial role in flood attenuation, shoreline protection, carbon sequestration, and biodiversity enhancement, are particularly vulnerable^[2]. Marshlands and wetlands, which act as natural buffers during floods, are also at risk of degradation. In addition to climate change, these ecosystems are heavily affected by human pressures such as fuelwood collection, agricultural expansion, rapid urbanization, and pollution from waste and agricultural runoff. These drivers remain the dominant causes of mangrove loss and wetland degradation, with climate change acting as an amplifying force that accelerates their impacts. The continued loss of mangroves and marshlands has cascading effects on both the environment and local communities. For example, mangroves provide critical nursery habitats for fish species that local communities depend on for food and income^[3]. As mangrove mortality increases due to a progressively drier climate and rising sea levels, local fisheries are likely to suffer significant declines, directly impacting food security and livelihoods. Furthermore, saltwater intrusion into low-lying wetlands is reducing soil fertility, which limits agricultural productivity and threatens peri-urban farming communities. Under current climate scenarios, large-scale mangrove mortality is highly probable, with severe consequences for the fishing and tourism industries, both of which rely on healthy coastal ecosystems. This degradation will also diminish the region's capacity for natural flood protection, leading to more severe impacts from coastal storms and flooding.

Forests and deforestation

38. The GBA's terrestrial forests, which provide critical ecosystem services such as soil stabilization, water retention, and biodiversity conservation, are being degraded by climate-related factors and human activity. Prolonged droughts and reduced rainfall are limiting forest regeneration, while rising demand for fuelwood – driven by widespread poverty – exacerbates deforestation^[4]. According to the African Energy Commission, fuelwood accounts for approximately 82% of the country's biomass energy consumption, making it the primary energy source for many households^[5]. This heavy dependence on fuelwood is a key driver of forest loss in peri-urban and rural areas. In addition, forest encroachment from expanding agriculture, settlements, and unplanned urban growth is accelerating degradation, fragmenting forest areas, and reducing their resilience. These pressures further reduce the availability of ecosystem services and increase vulnerability to climate change impacts. Deforestation not only diminishes the region's natural capacity to retain water and prevent soil erosion but also reduces carbon sequestration potential, worsening local climate conditions. Without alternative livelihood options and sustainable energy sources, the current trajectory of forest loss is expected to continue, further compounding the socio-economic challenges faced by vulnerable communities in the GBA.

Decline in ecosystem services

39. The combined impacts of coastal ecosystem degradation and deforestation are resulting in a significant decline in the ecosystem services that underpin the GBA's resilience to climate hazards. Key services being lost include:

- **Flood attenuation:** Degraded mangroves and marshlands are less effective at buffering floodwaters, increasing the risk of flooding in low-lying areas.

- **Shoreline protection:** As coastal erosion accelerates, the natural barrier provided by mangroves and marshlands is diminishing, leaving communities more exposed to storm surges.
- **Water retention and soil stabilization:** The loss of forests and wetlands is reducing the landscape's ability to retain water during droughts and stabilize soil, leading to increased soil erosion and reduced agricultural productivity.
- **Biodiversity:** The degradation of coastal and forest ecosystems is threatening species that depend on these habitats, including fish, birds, and small mammals. The decline in biodiversity directly affects local livelihoods dependent on fishing and eco-tourism.

40. The continued degradation of these ecosystems not only heightens communities' vulnerability to floods, droughts, and coastal storms but also threatens long-term socio-economic stability. Restoring and protecting these ecosystems through nature-based solutions (NbS) is essential to mitigate the impacts of climate change, enhance community resilience, and sustain local livelihoods.

Impacts of climate change on urbanization and infrastructure

41. Climate change in the GBA has intensified the impacts of rapid and unplanned urbanization, compounding existing infrastructure challenges. These climate-related impacts are particularly evident in flooding and drainage issues, urban heat islands (UHI)[\[1\]](#), water security, and public health risks. Together, these issues undermine the well-being of urban populations and heighten their vulnerability to climate-related hazards. At the same time, unplanned urban expansion is encroaching on wetlands, forests, and other urban fringe ecosystems, reducing their ability to provide essential services such as flood regulation, cooling, and water retention. This loss of natural buffers further amplifies the risks to both people and infrastructure.

Flooding and drainage issues

42. Frequent and severe flooding poses one of the greatest climate-related risks to urban centers in the GBA, particularly in Banjul, Kanifing, and Brikama LGA. For examples, in 2022, torrential rains and thunderstorms caused widespread flash flooding in the GBA, damaging approximately 7,000 houses, flooding around 48,000 hectares of land, including cultivated farmland, and affecting more than 208,000 people, which represents over 8% of The Gambia's total population[\[2\]](#). The flat, low-lying topography of these areas, combined with degraded or insufficient drainage systems, exacerbates pluvial and fluvial flooding during heavy rainfall events[\[3\]](#). Roads, which often serve as makeshift drainage channels, become impassable during floods, disrupting transportation, limiting access to essential services, and hindering economic activities. In addition to rainfall, SLR and coastal storm surges contribute to recurrent flooding in coastal areas, particularly Banjul City, which has an average elevation of less than one meter above sea level. Without adequate drainage infrastructure, floodwaters stagnate, increasing the risk of waterborne diseases. Moreover, unplanned urban expansion into flood-prone peri-urban zones has intensified flood risks, leaving many communities increasingly exposed to climate impacts.

Urban heat islands

43. Rapid urbanization in the GBA, characterized by dense built-up areas with minimal green spaces, has resulted in the formation of urban heat islands. Concrete and asphalt surfaces absorb and retain heat, leading to significantly higher temperatures in urban centers compared to surrounding rural areas. This exacerbates the frequency and severity of heatwaves, posing serious health risks, particularly for

vulnerable populations such as children, the elderly, and those with pre-existing health conditions[4]. The UHI effect[5] also reduces overall thermal comfort in urban areas, increasing the demand for cooling systems and electricity, which places additional pressure on already limited energy resources. Introducing urban greening initiatives, such as the development of parks and green corridors, can help mitigate the UHI effect by increasing vegetative cover, lowering local temperatures, and enhancing urban resilience to heat-related climate impacts.

Water security challenges

44. The GBA faces mounting water security challenges, driven by decreasing annual rainfall, rising temperatures, and groundwater salinization. Since 100% of The Gambia's domestic water supply is derived from underground aquifers, the salinization of groundwater due to SLR and saltwater intrusion poses a critical risk to potable water availability[6]. Boreholes, which supply water to two-thirds of Banjul's population, are becoming increasingly saline, further exacerbating freshwater scarcity. Most of this groundwater is consumed with only minimal treatment, meaning that salinity levels directly affect household water quality and safety. Additionally, reduced aquifer recharge during prolonged dry periods and increased evaporation rates have diminished water availability. Recharge is further constrained by land degradation and urban expansion, which lower infiltration rates, and by more intense rainfall events that produce higher surface runoff and reduce the proportion of rainfall percolating into aquifers. This has forced peri-urban and low-income communities to rely on unreliable water sources, increasing their vulnerability to climate-induced water shortages. Addressing these challenges requires investments in sustainable water management, including rainwater harvesting, improved drainage, and measures to prevent further groundwater contamination.

Public health risks

45. The combined effects of flooding, water insecurity, and heatwaves pose significant public health risks in the GBA. Inadequate drainage systems and poor sanitation infrastructure increase exposure to waterborne diseases, such as cholera, diarrhea, and malaria, particularly during and after flood events. Floodwaters often mix with untreated wastewater, creating hazardous conditions in densely populated areas without piped sewer systems. Heatwaves exacerbated by the UHI effect further increase the incidence of heat-related illnesses, including heat exhaustion and heatstroke. Vulnerable populations, such as the elderly and people with pre-existing health conditions, are particularly at risk. In addition, frequent climate-related disasters and displacement have a significant mental health impact on affected communities, increasing stress and anxiety, especially among displaced families. Investments in measures to improve sanitation, ensure access to clean water, and provide cooling solutions to mitigate heatwave impacts are critical for the reduction of these risks.

Impacts of climate change on economic activities

46. Climate change is disrupting key economic sectors in the GBA, including agriculture, fishing, and tourism, which collectively provide livelihoods for a significant portion of the population. These disruptions reduce income, exacerbate poverty, and increase socio-economic vulnerability, particularly in peri-urban communities that depend heavily on natural resources.

Agriculture

47. Agriculture remains a critical livelihood activity in peri-urban areas of the GBA, particularly in the Kombo districts of Brikama LGA, where small-scale farming of vegetables, fruits, and root crops is prevalent. However, climate change-induced hazards – such as decreasing rainfall, prolonged droughts, and soil salinization – are severely impacting agricultural productivity. Increased soil degradation due to

reduced rainfall and rising temperatures limits arable land availability and decreases crop yields. While most production in the GBA remains rainfed, peri-urban horticulture (especially vegetable and fruit farming) often depends on small-scale irrigation schemes, making these crops particularly sensitive to groundwater salinization. Root crops, by contrast, are largely rainfed but remain vulnerable to rainfall variability and drought. Groundwater salinization resulting from SLR and saltwater intrusion into aquifers has reduced the availability of fresh water for irrigation, forcing many farmers to abandon previously productive plots. Combined with increased soil moisture stress, these factors have led to a 50% reduction in national crop outputs during severe drought years, such as 2011^[7] and 2014, significantly disrupting local food supply chains and markets^[8]. These agricultural challenges disproportionately affect women and girls, who are often responsible for household food production and farm management^[9]. As access to reliable water sources and fertile land becomes increasingly constrained, many women face additional burdens in securing household food supplies, further compounding their socio-economic vulnerability. Without targeted adaptation measures food insecurity is likely to worsen, particularly in low-income peri-urban areas.

Fishing

48. Fishing is another essential economic activity in the GBA, particularly in coastal and riverine communities. The mangrove ecosystems along the Gambia River provide critical nursery habitats for fish and other marine species, directly supporting local fisheries. However, the degradation of mangrove forests due to rising sea levels, saltwater intrusion, and increased atmospheric temperatures, combined with human pressures such as overharvesting of fuelwood, unsustainable fishing practices, and pollution, has led to a decline in fish stocks, threatening the livelihoods of artisanal fishers. As mangroves die off and fish populations deplete, many fishing-dependent communities face reduced incomes and greater food insecurity. Furthermore, increased coastal erosion is damaging critical fishing infrastructure, further limiting the sector's productivity. Without sustainable management of coastal ecosystems and efforts to restore mangrove forests, the economic viability of the fishing sector will continue to decline, forcing many to seek alternative, often less sustainable, livelihoods.

Tourism

49. Tourism, an increasingly important sector for The Gambia's economy, is particularly vulnerable to climate change impacts. Coastal areas, including beaches and mangrove-lined estuaries, are key attractions for tourists, yet these areas are increasingly threatened by coastal erosion, flooding, and sea-level rise. In some locations, beaches are eroding at an alarming rate, significantly reducing the area available for tourism activities and damaging resorts and other tourism infrastructure. The tourism sector also faces indirect impacts from climate-related hazards, such as reduced water availability, increased heat stress, and a decline in local biodiversity. These factors not only diminish the overall tourist experience but also increase operational costs for businesses, particularly in regions dependent on a steady supply of water and electricity for cooling systems. If current trends continue, tourism revenue is likely to decline, threatening the livelihoods of many local communities who rely on the sector for employment and income generation. To mitigate these risks, initiatives like eco-tourism that integrate sustainable management of natural resources with local economic development should be promoted. Such initiatives will not only help protect critical ecosystems but also create new income-generating opportunities for communities, fostering a more climate-resilient tourism sector.

Identified vulnerable groups

50. Climate change in the GBA affects all sectors of society, but certain groups are more vulnerable due to their heightened exposure to climate-related risks and limited adaptive capacity.

Vulnerable groups by type

Women

Women in the GBA are particularly vulnerable to climate change impacts due to their significant roles in agriculture, trade, and household management. Many women manage small-scale agricultural activities, including crop cultivation and livestock rearing, which are increasingly threatened by changing rainfall patterns, droughts, and soil salinization. Additionally, women predominantly run market stalls, making them economically dependent on the smooth operation of local markets, which are frequently disrupted by floods and extreme weather events.

Gender disparities in access to resources, credit, and land ownership further limit women's ability to adapt to climate change^[4]. Traditional gender roles also mean that women bear a disproportionate burden of collecting water and caring for family members during crises, tasks that are made more difficult by recurrent flooding and water scarcity. Moreover, during displacement caused by climate-related disasters, women face heightened risks of gender-based violence (GBV) and sexual exploitation and harassment (SEAH), further compounding their vulnerability.

Children

Children, especially those from low-income households, are vulnerable to the health impacts of climate change, such as increased exposure to waterborne diseases during floods and heat-related illnesses during heatwaves. In peri-urban areas, recurrent droughts and reduced agricultural productivity threaten household food security, which can negatively affect children's nutrition and overall well-being. In addition, extreme weather events can disrupt education by damaging schools and displacing families, leading to higher dropout rates.

Youth

The Gambia's population is predominantly young, with over 60% under the age of 25^[2]. Youth are highly vulnerable to the socio-economic impacts of climate change, particularly in terms of employment opportunities. The agricultural, fishing, and trade sectors – which traditionally employ many young people – are increasingly threatened by droughts, floods, and ecosystem degradation. The lack of stable livelihoods, combined with the challenges posed by climate change, drives many young people to consider leaving the country as a way to seek better opportunities abroad. Targeted adaptation measures aimed at building resilience among youth, such as climate-smart agriculture and green jobs, are critical for reducing this vulnerability.

Elderly

The elderly are particularly susceptible to the health impacts of climate change, such as heatwaves and waterborne diseases. Limited mobility and access to healthcare services further increase their vulnerability during extreme weather events and displacement. Many elderly individuals in peri-urban areas also depend on subsistence farming, which is increasingly threatened by reduced rainfall and soil degradation.

People with disabilities

People with disabilities face significant barriers in adapting to climate change. Limited access to infrastructure, transportation, and healthcare makes it more difficult for them to evacuate during

emergencies or access basic services in the aftermath of disasters. Additionally, poverty rates tend to be higher among people with disabilities, which limits their ability to recover from climate-related shocks.

Vulnerable groups by locality

51. While the entire GBA faces risks from climate change, populations in low-lying, flood-prone localities are particularly exposed. These populations often consist of the vulnerable groups identified above whose risks are further heightened by the specific environmental and infrastructural challenges in the areas where they live. These high-risk localities include:

- **Residents of Banjul City:** With an average elevation of less than one meter above sea level, Banjul's population is highly susceptible to sea level rise, coastal erosion, and river flooding. Frequent flooding events disrupt livelihoods, damage homes, and limit access to basic services. Additionally, due to its dense urban layout and limited green spaces, Banjul experiences a pronounced Urban Heat Island (UHI) effect, leading to higher temperatures compared to surrounding areas. This exacerbates heat stress, particularly during prolonged heatwaves, with adverse effects on health and productivity, especially for vulnerable groups.
- **Communities in peri-urban areas of Brikama LGA:** Rapid urban expansion into peri-urban zones, often without comprehensive spatial planning, has led to the establishment of settlements in high-risk areas prone to flooding and drought. Many communities in these areas engage in small-scale farming and livestock rearing, making them highly vulnerable to changes in rainfall patterns, soil salinization, and droughts. Limited access to infrastructure and basic services further compounds their vulnerability.
- **Households in Kanifing Municipality:** Due to degraded or non-existent drainage and sanitation systems, households in low-lying areas of Kanifing face recurrent urban flooding. This heightens public health risks, particularly from waterborne diseases. The reliance on boreholes for water supply, combined with rising groundwater salinization, further jeopardizes water security for these communities.

52. The majority of the population in the GBA can be classified as Indigenous Peoples and Local Communities (IPLCs), particularly in peri-urban and rural areas where livelihoods remain closely tied to natural resources^[3]. Many IPLCs engage in small-scale agriculture, fishing, and informal trade, which are increasingly threatened by climate change. In these communities:

- **Agricultural livelihoods are at risk:** Small-scale farming, primarily involving vegetables, fruits, and root crops, is highly vulnerable to reduced rainfall, soil salinization, and droughts. Many farmers rely on rainfed systems, and erratic precipitation patterns have resulted in decreased crop yields, increasing food insecurity and poverty.
- **Fishing:** Artisanal fishing, a key livelihood for coastal communities, is directly affected by rising sea levels, ecosystem degradation, and declining fish stocks. These changes not only reduce household incomes but also undermine food security for many families dependent on fisheries for sustenance.
- **Women's role in trade and markets:** Women are heavily involved in local markets, where they sell agricultural produce, textiles, and imported goods. Climate-induced disruptions such as

flooding damage market infrastructure and limit access to goods, threatening their economic independence.

53. Traditional knowledge and practices play a significant role in IPLCs' adaptation strategies. However, increasing climate pressures and rapid urbanization are diminishing their capacity to manage natural resources sustainably. Strengthening local governance and empowering IPLCs through targeted adaptation measures will be critical for enhancing resilience.

Key climate impacts on vulnerable groups

Climate change disproportionately affects vulnerable groups by undermining key aspects of their livelihoods and well-being. The primary climate impacts experienced by these groups include:

- **Health risks:** Vulnerable groups, including children, the elderly, and people with disabilities, face significant health risks due to increased flooding, heatwaves, and the spread of waterborne diseases. For example, frequent floods heighten exposure to malaria and diarrheal diseases, while prolonged heatwaves exacerbate heat-related illnesses. The UHI effect in densely populated areas like Banjul intensifies these health impacts, particularly for individuals who lack access to cooling systems or healthcare services.
- **Livelihood disruption:** Women, youth, and peri-urban communities primarily rely on agriculture, fishing, and informal trade for their livelihoods. Erratic rainfall, rising temperatures, and soil degradation have reduced agricultural productivity, while ecosystem changes have disrupted fishing activities, leading to reduced incomes and increased poverty.
- **Food insecurity:** Decreasing agricultural yields and disruptions to local fisheries have worsened food insecurity in the GBA, particularly for low-income households. Women, who are typically responsible for household food provision, bear a disproportionate burden as they struggle to secure adequate food during periods of scarcity.
- **Access to water:** Groundwater salinization caused by rising sea levels and reduced aquifer recharge during droughts has made it increasingly difficult for communities to access clean water.
- **Social vulnerability:** Displacement caused by flooding and other climate-induced disasters increases the social vulnerability of affected communities. Displaced populations, especially women and children, often face heightened risks of GBV and SEAH in temporary shelters. People with disabilities encounter significant barriers during evacuation and resettlement due to inaccessible infrastructure and limited support systems. Additionally, the mental toll of displacement is significant, as families are often split during such events, leading to stress, anxiety, and long-term emotional trauma, particularly for children and elderly family members^[4].

Root causes of vulnerability

54. The proposed project focuses on enhancing urban resilience in the GBA by addressing key vulnerabilities and building on existing initiatives, such as the West Africa Coastal Areas Management Program (WACA), to foster synergy and facilitate landscape-level transformative change. The GBA is particularly vulnerable to climate-related hazards, including flooding, coastal erosion, droughts, and sea-level rise, due to a combination of environmental, socio-economic, and infrastructural factors^[5]. A flood

and coastal erosion risk assessment conducted under WACA identified several root causes of vulnerability within the target region, which are outlined below.

Widespread poverty in urban communities inhibits resilience to climate change impacts

55. Urban poverty undermines communities' resilience to climate change impacts, creating a negative feedback loop that exacerbates existing socio-economic challenges. This cycle is particularly evident in The Gambia, where extreme climate conditions and environmental degradation already pose significant risks. Climate-induced hazards, such as rising sea levels, erratic rainfall patterns, and land degradation, have adversely affected agriculture – one of the primary livelihood activities for a large portion of the population. These challenges directly threaten food security and hinder access to essential services, including clean water, shelter, healthcare, and quality education. Women, girls, and IPLCs are disproportionately affected by these climate hazards, as they often bear the primary responsibility for securing water, food, and maintaining household well-being. The increased burden on these groups further exacerbates their vulnerability and limits their ability to adapt. As climate-induced hazards continue to strain already scarce resources, poverty deepens, reducing the adaptive capacity of local communities and perpetuating a cycle where poverty heightens vulnerability to climate change impacts, which, in turn, worsens socio-economic deprivation[6]. Breaking this cycle requires targeted interventions that address both baseline poverty and climate resilience.

Limited and outdated urban infrastructure

56. Over the past 30 years, The Gambia has experienced rapid urbanization, with population density rising to approximately 280 people per km² in 2024 – a significant increase from around 120 people per km² in 1994[1]. However, the development and maintenance of urban infrastructure have lagged behind the country's population growth, leading to the proliferation of informal settlements. These areas are often characterized by inadequate infrastructure and limited access to essential services, such as clean water, sanitation, and arable land. The insufficient provision of services and outdated infrastructure heighten the vulnerability of urban communities to climate change hazards, particularly floods and droughts[2]. Without proper drainage systems, roads often become makeshift channels during heavy rainfall, exacerbating flooding and hindering mobility. Additionally, insufficient water storage and distribution systems further aggravate water scarcity during prolonged dry periods. The lack of climate-resilient infrastructure leaves residents in informal settlements particularly exposed, making it difficult for them to cope with or recover from the impacts of extreme weather events. Investing in resilient, modern infrastructure is therefore critical for reducing the vulnerability of these communities and ensuring long-term urban sustainability.

Topography and geographic location

57. By 2050, sea levels in The Gambia are projected to rise by 19-43 cm[3]. Due to the GBA's low-lying terrain and its geographic location between the Gambia River and the Atlantic Ocean, communities in Banjul, Kanifing, and the Kombos are inherently vulnerable to coastal storm surges and flooding. The flat topography and lack of sufficient natural drainage further exacerbate flood risks, turning even moderate rainfall into potential life-threatening events. Approximately 20% of The Gambia is covered by wetlands and swamps, which are particularly prone to flooding. This exposes local populations to recurring displacement, infrastructure damage, and heightened health risks due to waterborne diseases. Moreover, the GBA's proximity to the Atlantic Ocean presents significant challenges for urban development and land regeneration. Ongoing shoreline changes and persistent coastal erosion continue to reduce the availability of land for expansion[4], constraining urban growth and increasing competition for space in already densely populated areas. Given these geographic and topographic constraints, climate-resilient urban planning and the protection of

natural buffers, such as wetlands and mangroves, are crucial to reducing the vulnerability of local communities and ensuring sustainable urban development in the GBA.

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[2] GOTG. 2020. Third National Communication to the UNFCCC. Available at: <https://unfccc.int/sites/default/files/resource/The%20Gambia%20Third%20National%20Communication.pdf>

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[3] 2024 Population and Housing Census. Preliminary report available at: https://gambia.unfpa.org/sites/default/files/pub-pdf/2024-09/Preliminary%20Report%20of%20the%202024%20Census%20in%20The%20Gambia_0.pdf

[4] The mental aspect of displacement was highlighted during the PPG Inception Workshop held on 14 November 2024 in The Gambia and further reiterated during subsequent stakeholder consultations.

[5] Royal Haskoning DVG. 2021. Flood and coastal risk assessment and priority investment planning for Greater Banjul.

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[1] Man-made structures such as buildings, roads and other infrastructure absorb and re-emit radiant energy (heat) more than natural landscapes do. Urban areas, where these structures are highly concentrated and greenery is limited, become ‘islands’ with higher temperatures relative to outlying areas.

[2] ACAPS. 2022. The Gambia — Floods in the Gambia. Available at: https://www.acaps.org/fileadmin/Data_Product/Main_media/20220826_acaps_briefing_note_global_analysis_hub_the_gambia_floods.pdf
GoTG

[3] United Nations Office for Project Services (UNOPS). 2020. Planning for inclusive Greater Banjul. Available at: https://www.citiesalliance.org/sites/default/files/2021-02/CitiesAlliance_UNOPS_Report_Planning%20for%20Inclusive%20Greater%20Banjul_Gender_The%20Gambia%202021.pdf

[4] World Bank. 2024. The Gambia: Extreme heat. Available at: <https://thinkhazard.org/en/report/90-the-gambia/EH>

[5] Cities replace natural land cover with dense concentrations of pavement, buildings and other surfaces that absorb and retain heat.

[6] United Nations Office for Project Services (UNOPS). 2020. Planning for inclusive Greater Banjul. Available at: https://www.citiesalliance.org/sites/default/files/2021-02/CitiesAlliance_UNOPS_Report_Planning%20for%20Inclusive%20Greater%20Banjul_Gender_The%20Gambia%202021.pdf

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[2] Climate Change Knowledge Portal. 2021. The Gambia — Trends and Significant Change against Natural Variability. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/trends-variability-projections>

[3] GoTG. 2021. The Gambia 2050 Climate Vision. Available at: https://climate-laws.org/document/the-gambia-2050-climate-vision_f462

[1] SSP1–2.6 represents the best-case scenario, whereas SSP5–8.5 represents the worst-case scenario.

[2] GoTG. 2020. Third National Communication under the UNFCCC. Available at: <https://bit.ly/3rwvLCg>

[1] Potential evapotranspiration, or PET, represents the combined loss of water through i) plant transpiration; and ii) the evaporation of water from the earth's surface.

[2] GoTG. 2012. The Gambia's Second National Communication under the United Nation Convention on Climate Change Ministry of Forestry and the Environment, Banjul. Available at: <https://unfccc.int/resource/docs/natc/gamnc2.pdf>

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[2] The Gambia. Current Climate – Climatology. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical>

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[1] The Köppen climate classification system is one of the most common climate classification systems in the world. It is used to denote different climate regions on Earth based on local vegetation.

[2] Aw consists of a distinct wet season during summer and an extended dry season during winter, with average temperatures above 18°C. From: BCcampus. 2021. Appendix 2: Köppen Climate Classification System. Available at: [https://pressbooks.bccampus.ca/physgeoglabmanual1/back-matter/appendix-2-koppen-climate-classification-system/#:~:text=BSh%20is%20a%20semi-arid%20climate,C%20\(64%C2%B0F\)](https://pressbooks.bccampus.ca/physgeoglabmanual1/back-matter/appendix-2-koppen-climate-classification-system/#:~:text=BSh%20is%20a%20semi-arid%20climate,C%20(64%C2%B0F))

[3] BSh is a semi-arid climate found in the low latitudes, with average temperatures above 18°C. From: BCcampus. 2021. Appendix 2: Köppen Climate Classification System. Available at: [https://pressbooks.bccampus.ca/physgeoglabmanual1/back-matter/appendix-2-koppen-climate-classification-system/#:~:text=BSh%20is%20a%20semi-arid%20climate,C%20\(64%C2%B0F\)](https://pressbooks.bccampus.ca/physgeoglabmanual1/back-matter/appendix-2-koppen-climate-classification-system/#:~:text=BSh%20is%20a%20semi-arid%20climate,C%20(64%C2%B0F))

[4] Climate Data. Climate: Banjul. Available at: <https://en.climate-data.org/africa/the-gambia/banjul-2562/>

[5] Weather and Climate. 2023. Banjul, The Gambia Climate. Available at: <https://weatherandclimate.com/the-gambia/banjul>

[6] Climate Change Knowledge Portal. 2021. The Gambia. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical/#:~:text=The%20Gambia%20experiences%20a%20Sahelian,C%20during%20the%20wet%20season>.

[1] The ITCZ is an east-west oriented low-pressure region near the equator where surface Northeasterly and Southeasterly trade winds meet; sometimes referred to as the Inter Tropical Discontinuity (ITD). From: Ceesay O & Touray L. 2022. Precipitation Patterns in the Gambia from 1981–2020. *Geographica Pannonica*. Vol. 26, pp. 102–111. Available at: http://www.dgt.uns.ac.rs/dokumentacija/pannonica/papers/volume26_2_2.pdf

[2] Ceesay O & Touray L. 2022. Precipitation Patterns in the Gambia from 1981–2020. *Geographica Pannonica*. Vol. 26, pp. 102–111. Available at: http://www.dgt.uns.ac.rs/dokumentacija/pannonica/papers/volume26_2_2.pdf

[3] Climate Change Knowledge Portal. 2021. The Gambia. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical/#:~:text=The%20Gambia%20experiences%20a%20Sahelian,C%20during%20the%20wet%20season>.

[4] Climate Change Knowledge Portal. 2021. The Gambia. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical/#:~:text=The%20Gambia%20experiences%20a%20Sahelian,C%20during%20the%20wet%20season>.

Problem statement

58. Over the past 30 years, rapid and unplanned urbanization in the GBA has placed increased pressure on already limited natural resources, infrastructure and social services, with subsequent increases in multidimensional poverty and vulnerability to the impacts of climate change. As of 2024, ~60% of The

Gambia's urban population resides in unplanned peri-urban areas characterized by limited drainage systems, insufficient waste disposal, reduced arable land and limited water and sanitation services. Moreover, as a result of unregulated urban sprawl, communities have settled in high-risk, flood-prone regions along the Gambia River and Atlantic coastline. Consequently, housing and infrastructure are frequently damaged during seasonal floods, displacing vulnerable communities and hindering transportation – particularly during emergencies. Under future climate scenarios, rising sea levels and more severe fluvial floods are likely to exacerbate these challenges. Additionally, extensive land transformation in urban and peri-urban areas has resulted in large-scale ecosystem degradation and the creation of urban heat islands. This has, in turn, negatively impacted the provision of ecosystem services – including flood regulation, water infiltration and enhanced albedo^[1] – with subsequent negative impacts on climate change resilience, livelihood security and community health and safety. Under future climate scenarios, the impacts of floods, droughts and rising sea levels in the GBA are expected to intensify, necessitating enhanced focus on urban resilience. The problem tree in Figure 11 below provides a visual representation of the climate change and anthropogenic challenges communities in the GBA of the Gambia are currently facing.

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

Figure 11. Problem tree showing the impacts of climate change and anthropogenic factors on urban and peri-urban communities in the Greater Banjul Area of The Gambia

Simple future narratives

59. To explore potential trajectories for the GBA by 2050, the project has developed four future scenarios based on two critical and uncertain drivers: climate change and population growth. These drivers lie beyond the project's direct control but are expected to significantly influence its long-term impact and the resilience of communities and ecosystems. Climate change will shape the intensity and frequency of hazards such as flooding, sea-level rise, and heat stress – posing risks to both vulnerable populations and economic stability. At the same time, population growth, particularly rapid urbanization, will place increasing pressure on infrastructure, land use, and essential services, amplifying climate risks and challenging the capacity of local systems to adapt.

- **Climate change:** The IPCC estimates that in West Africa, sea levels will rise by 26-55 cm even in low-emission scenario.^[2] The temperatures will also have risen by +1,2 to +2 °C (SSP2-4.5 and SSP5-8.5, respectively).

Figure 12. The Gambia's projected average mean surface air temperature anomaly for 2040-2059^[3]

- **Urban population growth:** The Gambia's population is projected to reach approximately 4.3 million by 2050. While the rate of population growth is expected to decrease (2.22% in 2025 to 1.34% in 2050), a strong increase in urban population is projected. While currently 61% of the population lives in already dense cities, by 2050 it is expected to increase to 81.9%^[4], which will create even more pressure on resources and infrastructure in already dense urban and coastal areas, including in Greater Banjul Area.

NB: Figures 3 to 13 under this section are in the word version of the CEO ER.

60. The four scenarios below explore how different combinations of these two drivers might shape the future of the GBA. They provide plausible futures to stress-test the project design and validate its strategic relevance under a range of conditions. In all four cases, the project's interventions remain

meaningful: they invest in nature-based infrastructure, strengthen institutional capacities, and promote inclusive governance systems that can adapt and scale beyond the project period.

61. The quadrant maps four plausible futures for the Greater Banjul Area by 2050, based on two key uncertainties: climate change severity and urban population growth rates:

- **Scenario 1: Gradual Pressure** represents moderate climate impacts with controlled urban growth. Even under these favorable conditions, the GBA faces regular coastal flooding, urban heat stress, and ecosystem degradation requiring systematic adaptation responses.
- **Scenario 2: Crowded Vulnerability** shows how rapid urbanization (reaching 81.9% urban population by 2050) amplifies climate risks even under moderate physical climate changes. Informal settlements expand into flood-prone areas, overwhelming existing infrastructure and services.
- **Scenario 3: Nature Under Siege** explores severe climate impacts (higher sea-level rise, more frequent extreme events) with moderate population growth. Natural systems face maximum stress, testing the limits of ecosystem-based solutions.
- **Scenario 4: Compounding Crises** combines the worst of both drivers—severe climate change with rapid urbanization. This creates cascading failures across infrastructure, ecosystems, and social systems.

62. The project's integrated approach combining ecosystem-based adaptation, capacity building, sustainable land management, and enhanced governance remains strategically relevant across all four scenarios:

- **Nature-based solutions** (mangrove restoration, urban green infrastructure) provide coastal protection and urban cooling benefits regardless of whether pressure comes from climate or population growth
- **Capacity building and institutional strengthening** enables adaptive management whether responding to gradual change (Scenario 1) or crisis conditions (Scenario 4)
- **Gender-responsive and inclusive planning** ensures vulnerable communities can participate in and benefit from adaptation solutions across all contexts
- **Knowledge management systems** support evidence-based decision-making under any future conditions

The project's multi-functional approach means investments deliver value even when individual components face stress. Most importantly, the emphasis on building adaptive capacity rather than fixed solutions ensures the strategy can evolve as actual conditions unfold, making it robust regardless of which scenario materializes.

63. This scenario analysis informed project design choices, ensuring that proposed investments and reforms build foundational resilience regardless of how external conditions evolve.

referred solution

64. The proposed project will be implemented across the three Local Government Authorities (LGAs) of Banjul, Kanifing, and Brikama, which together constitute the Greater Banjul Area (GBA). Within

these LGAs, the WACA-led Flood and Coastal Risk Assessment identified multiple climate vulnerability hotspots, shown in Figures 5 and 6 (Annex 14: Project Sites and Potential Nature-based and Ecosystem-based Pilot Solutions). These hotspots are subject to multiple climate risks, particularly flooding, sea level rise, and coastal erosion. Complementary evidence from the Economic Impact Analysis of Climate Change and Adaptation Measures in The Gambia (Annex 12) highlights additional risks from heat stress and drought, which were not included in the WACA assessment but are highly relevant for urban resilience planning. Together, these assessments provide a robust basis for designing tailored adaptation measures for each hotspot.

65. To address the climate adaptation challenges described above, the preferred solution involves an integrated ecosystem-based adaptation approach that combines nature-based solutions with sustainable livelihood activities and, where feasible, complements them with grey infrastructure to strengthen climate resilience in urban and peri-urban areas of the GBA. This holistic approach ensures that both baseline socio-economic vulnerabilities and climate-induced risks in the GBA are effectively addressed, fostering sustainable and transformative change. By enhancing short- and long-term resilience, the proposed project aims to protect lives, improve livelihoods, and safeguard critical ecosystems. The integrated ecosystem-based approach will include the following key components:

- **Nature-based solutions**^[1] offer relatively cost-effective methods for adapting to the climate change impacts experienced by communities, primarily by enhancing ecosystem services. In The Gambia, the restoration and protection of wetlands, forests, mangroves, and other coastal and estuarine ecosystems will improve flood attenuation, water retention, and soil stabilization. Additionally, afforestation and urban greening efforts will help reduce soil erosion, increase albedo^[2], and support sustainable land use and livelihoods. By adopting an EbA and restoration-focused approach, the project aims to address key challenges related to unsustainable land use and ecosystem degradation. However, it is important to note that while NbS may take longer to deliver noticeable climate adaptation benefits compared to grey infrastructure solutions, they are more cost-effective and sustainable in the long term. Grey infrastructure may offer immediate benefits but often requires higher upfront investment and ongoing maintenance, with less environmental co-benefit. To ensure long-term sustainability, interventions must also address non-climate drivers of ecosystem degradation, such as unsustainable livelihood activities (e.g., charcoal production, logging, urban encroachment and unplanned expansion) and restore priority ecosystems. These measures will be closely aligned with Component 1 interventions, which focus on developing a gender-responsive Urban Resilience Master Plan and a community engagement framework to strengthen land-use regulation, planning, and compliance. Without such complementary measures, the risk of ecosystem degradation resuming after the project ends remains high. Beyond ecological benefits, NbS promote the equitable sharing of ecosystem service-derived benefits, providing women with increased opportunities for economic and social participation, thus fostering social inclusion. By focusing on community-led, sustainable practices, these solutions reduce the vulnerability of marginalized groups – particularly women and IPLCs – to climate impacts. Ultimately, NbS strengthen community resilience and ensure that both men and women actively contribute to, and benefit from, sustainable development efforts.

- **Livelihood diversification approach:** Introducing climate-resilient and gender-responsive sustainable livelihoods is an effective strategy for simultaneously addressing socio-economic challenges and climate change impacts in vulnerable communities, particularly women and youth. Many existing livelihoods in these communities depend heavily on natural resources, making them highly susceptible to climate-related risks. Promoting the adoption of income-generating activities that reduce pressure on ecosystems and enhance biodiversity conservation – such as eco-tourism, agroforestry, recycling, and biofuel production – will create sustainable economic opportunities while strengthening ecosystem services and long-term resilience to extreme climate events. This approach offers dual benefits: it reduces dependence on extractive industries, thereby alleviating pressure on degraded ecosystems, and fosters

sustainable economic growth. However, it is important to note that while livelihood diversification can significantly reduce further ecosystem degradation, it may not, on its own, be sufficient to fully reverse existing environmental damage in the short term. For this reason, it should be implemented alongside other ecosystem restoration and adaptation measures to maximize its impact. In addition to ecological benefits, this approach empowers women and youth by providing them with new income sources, promoting financial independence, and enhancing their roles within their communities. By actively involving marginalized groups in sustainable practices, livelihood diversification fosters social inclusion and encourages equitable resource distribution. This integrated strategy not only enhances community resilience to climate impacts but also contributes to a more inclusive and sustainable local economy.

- **Grey infrastructure approach:** A grey infrastructure approach involves constructing physical, engineered structures – such as sea walls, drainage systems, and retention basins – to directly address climate adaptation challenges. These structures provide immediate benefits by managing water flow, preventing flooding, and controlling erosion in high-risk areas. This approach is particularly relevant in densely populated urban environments, like the GBA, where rapid urbanization and inadequate infrastructure heighten exposure to climate hazards. In addition to flood management, there is an opportunity to integrate wastewater management into grey infrastructure development, particularly in low-lying areas prone to both flooding and wastewater spill-offs. The lack of proper wastewater treatment systems during flood events increases the risk of waterborne diseases, such as cholera and diarrhea, posing significant public health risks. While grey infrastructure offers immediate and tangible benefits, it comes with notable limitations. These systems often require substantial financial investment for construction and ongoing maintenance. Additionally, poorly planned grey infrastructure can disrupt natural ecosystems, reduce biodiversity, and create long-term sustainability challenges. For this reason, combining grey infrastructure with nature-based solutions, such as wetland restoration and urban greening, is essential for mitigating its environmental impacts and ensuring a more sustainable adaptation strategy.

66. The sustainability of the preferred adaptation solution – which integrates sustainable livelihoods, ecosystem-based adaptation, and grey infrastructure – will be ensured through targeted interventions that:

- Strengthen the enabling environment for climate change adaptation and urban resilience by enhancing policies, governance, and institutional capacities;**
- Support continued investment in successful adaptation measures beyond the project lifespan, ensuring long-term impact and scalability; and**
- Enhance knowledge management and information dissemination promote urban resilience and climate adaptation.**

Justification for preferred solution

67. The proposed project strategy is designed to tackle the complex climate and socio-economic challenges faced by urban and peri-urban communities in the GBA. To strengthen the rationale for the selected interventions, the following section provides a deeper analysis of their financial sustainability, cost-effectiveness, and alignment with existing institutional frameworks and policies.

Financial and institutional sustainability

- **Ecosystem-based Adaptation:** EbA interventions are cost-effective over the long term because they rely on natural processes that require less ongoing maintenance than engineered solutions. Engaging local communities in managing and monitoring these interventions further enhances financial sustainability by reducing dependence on extensive government funding. This community-driven model fosters ownership and long-term stewardship of natural resources. Additionally, these interventions are institutionally aligned with The Gambia's national priorities, including its National Climate Change Policy and National Biodiversity Strategy and Action Plan, ensuring continued government support and integration into broader development plans.
- **Sustainable livelihood activities:** Climate-resilient livelihood activities, such as agroforestry, ecotourism, and aquaculture, directly link economic opportunities to the preservation of natural resources. This approach ensures financial sustainability through income generated from these activities. The project will provide technical support, capacity building, and necessary inputs to promote these practices, aligning them with existing agricultural, tourism, and rural development policies. Institutional support from local authorities and key stakeholders will further enhance the integration and scalability of these livelihoods. Moreover, by fostering income diversification, these activities reduce economic vulnerability and enhance long-term resilience to climate shocks.
- **Financial mechanisms for upscaling:** To ensure the durability of results beyond the project lifespan, the project will explore and develop innovative financial mechanisms, including green bonds, climate resilience funds, and public-private partnerships (PPPs). Establishing such mechanisms will enable sustained financing for climate adaptation efforts, while also strengthening institutional frameworks to support ongoing maintenance and operation of project interventions. Furthermore, by embedding these mechanisms within urban planning and climate adaptation policies, the project ensures its results are scalable and replicable at both national and regional levels.

Cost-effectiveness

68. The proposed integrated approach balances short-term costs with long-term benefits by combining EbA solutions, sustainable livelihoods, and grey infrastructure. While EbA and sustainable livelihood activities may take longer to show tangible outcomes compared to grey infrastructure, they provide continuous socio-economic and environmental returns, thereby reducing future costs associated with disaster response and recovery. By investing in climate-resilient livelihoods and community-led adaptation measures, the project minimizes dependency on emergency relief and external aid in the long run. Additionally, the cost-effectiveness of the project is enhanced through the use of locally available materials and community labor for implementing EbA and grey infrastructure interventions. This approach reduces upfront costs while promoting local job creation and skill development, contributing to both immediate and long-term economic resilience.

Validation of assumptions through community engagement

69. To ensure that proposed solutions are context-specific, relevant, and desirable, the project engaged beneficiary populations throughout the project development process. Participatory assessments were conducted to understand vulnerabilities, needs, and livelihood challenges. The project employed workshops, focus groups, and stakeholder consultations to validate key assumptions regarding the viability of sustainable livelihood activities. This participatory approach allowed the project to tailor interventions that not only address immediate climate risks but also promote long-term economic empowerment. Moving forward, continued engagement with communities and stakeholders will be

prioritized during project implementation to monitor progress, gather feedback, and make necessary adjustments. This iterative process ensures that interventions remain relevant and impactful throughout the project lifecycle.

Relevance and impact

70. The relevance of the proposed solution is ensured by its direct responsiveness to the articulated needs and priorities of target communities, as identified through initial assessments and consultations. The integrated approach – combining EbA, sustainable livelihoods, and grey infrastructure – addresses both immediate and long-term climate risks, fostering social, economic, and environmental resilience. To maximize the durability of results and long-term impact, the project incorporates strategies such as institutional strengthening, by building the capacity of local and national institutions to ensure continued support for climate adaptation measures beyond the project’s duration. Knowledge management efforts, including targeted community awareness campaigns, training materials, and case studies, will help inform future adaptation initiatives and promote best practices. Policy integration ensures that project outcomes are embedded within urban planning, environmental management, and climate adaptation policies, increasing the likelihood of sustained investment and scaling. Finally, community ownership is fostered through active participation in project design, implementation, and monitoring, building long-term stewardship and reducing reliance on external actors.

Barriers to the preferred solution

71. Several barriers currently inhibit the effective implementation of climate resilience initiatives in The Gambia. The proposed project design will address each of these barriers, to enhance the long-term success of the proposed project and subsequent projects in the country. The main barriers to urban resilience in the GBA are identified and described below.

Barrier 1: Limited urban planning resulting from conflicting policy mandates and limited cross-sectoral coordination^[3]

72. Despite The Gambia's robust framework for climate change adaptation (CCA) and sustainable development, there is a considerable gap in implementation at the sub-national level. This disconnect stems from coordination challenges. For example, existing urban planning and CCA institutional frameworks are hindered by the disjointed and competitive nature of cross-departmental arrangements, often driven by departmental conflicts of interest over access to physical and financial resources. This is exacerbated by the non-compliance and insufficient enforcement of National Environment Agency (NEA) guidelines and regulations^[4]. In addition, the Agriculture and Natural Resource Working Group (ANRWG) – the primary entity responsible for cross-sectoral coordination – does not meet regularly and requires a revised mandate for learning and knowledge sharing on CCA and ecosystem-based adaptation (EbA) challenges. In these ways, conflicting policy mandates in climate-resilient urban planning diminish the adaptive capacity of urban systems and communities – including marginalized groups such as women and IPLCs – impairing their ability to withstand climate impacts. Addressing these challenges requires a comprehensive approach that includes revising and applying urban planning guidelines. In addition, there is a need for local capacity-building, the development of district-level urban resilience plans that are gender-responsive and enhanced coordination within and between communities.

Barrier 2: Limited financial resources to implement EbA interventions and establish climate-resilient infrastructure

73. In The Gambia, a critical barrier to developing climate-resilient urban infrastructure is the scarcity of financial resources, with vulnerable communities in the GBA having limited access to financial

resources, market support, and specialized knowledge in CCA and EbA. Additionally, a significant barrier to implementing innovative financing mechanisms for climate resilience in The Gambia is the underdeveloped regulatory framework. Current legislation does not fully support the flexibility required by innovative financing models such as green bonds or climate resilience funds. Strengthening these frameworks will involve not only revising existing laws but also ensuring that these new regulations are harmonized across sectors to facilitate easier access to capital for climate resilience projects.

74. This hinders the implementation, upscaling of adaptation projects and the growth of local enterprises that could bolster climate-resilient economic development. The limitation severely restricts the country's capacity to maintain existing infrastructure against the escalating threats of climate change or invest in new, more resilient solutions. As a result, vital adaptation projects cannot be initiated or upscaled, and the potential for local enterprises to contribute to a climate-resilient economy is considerably undermined. Addressing this barrier requires increased investment in adaptation initiatives and enhanced market support particularly for women-led organizations. Moreover, strengthening international and local partnerships will provide essential financial and technical support to community-based livelihoods, building local capacity for sustainable adaptation efforts.

Barrier 3: Limited public awareness and access to specialized knowledge related to climate change adaptation

75. There is a considerable gap in the public awareness and dissemination of information related to CCA and EbA strategies among the general population and relevant stakeholders of The Gambia^[5]. The situation is worsened for vulnerable groups such as women and Indigenous Peoples and local communities (IPLCs) who's access to information sharing technologies and literacy rates are limited. This limited awareness and access to specialized knowledge hinders the capacity of communities, policymakers, and practitioners to make informed decisions and implement effective adaptation measures. It also limits the capacity for local innovation and the development of context-specific solutions that address the unique challenges faced by The Gambia. Overcoming this barrier will necessitate introducing education and outreach programs, developing accessible information platforms, and strengthening the capacity of local institutions to generate and disseminate specialized knowledge on CCA. The design of education and outreach programs will consider gender inequities in access to technology.

Enablers for the preferred solution

76. To effectively implement the preferred solution of integrating ecosystem-based adaptation (EbA), sustainable livelihood activities, and grey infrastructure to enhance climate resilience in urban and peri-urban areas of The Gambia, several important enablers are essential, as described below:

- **Strengthened institutional frameworks and policy alignment:** A robust enabling environment is critical. This includes aligning policies across urban planning, environmental protection, and climate adaptation to support the project's integrated approach. Institutional strengthening will facilitate better coordination across government departments and agencies, ensuring that policies are effectively implemented and sustained.
- **Community engagement and empowerment:** Active participation of local communities, especially women and Indigenous Peoples and Local Communities (IPLCs), is vital. By involving communities in the planning and execution phases, the project ensures that interventions are culturally appropriate and directly address the needs of those most affected by climate impacts. Community ownership will also promote the sustainability of the project outcomes.

- **Capacity building:** Developing local capacities in technical, financial, and managerial aspects of climate resilience is crucial. Training and capacity-building initiatives will empower local stakeholders, including government personnel, community leaders, and civil society organizations, to manage and scale up climate adaptation efforts effectively.
- **Innovative financing mechanisms:** Access to sustainable and innovative financing is necessary to support the extensive needs of climate adaptation projects. This might include establishing local climate funds, leveraging international climate finance, and promoting public-private partnerships to fund both immediate and long-term adaptation strategies.
- **Infrastructure development and maintenance:** The construction of grey infrastructure should be complemented with ongoing maintenance and integration with natural systems to prevent ecological disruption. Investments should prioritize resilience and sustainability to handle future climate scenarios while supporting biodiversity.
- **Integrated data and knowledge management:** Developing a comprehensive knowledge management system that captures lessons learned and disseminates best practices is essential for replicating success and adapting strategies over time. This system should also support decision-making by providing timely and accurate data on climate impacts and adaptation efficacy.
- **Legal and regulatory support:** Adapting and enforcing regulations that support climate resilience activities, protect natural resources, and promote sustainable land use and building practices will solidify the gains from the project. Regulatory frameworks should facilitate rather than hinder adaptive responses to climate variability.

These enablers, if effectively leveraged, will ensure that the integrated approach proposed for The Gambia not only addresses immediate climate vulnerabilities but also builds a foundation for sustainable, long-term resilience in the face of ongoing and future climate challenges.

Governance Framework and Baseline Projects

77. Climate change governance in The Gambia involves a range of institutions operating at national, regional, and local levels, supported by coordination mechanisms to ensure coherent and effective implementation of climate policies and programmes. The Ministry of Environment, Climate Change, and Natural Resources (MECCNAR) leads the development and coordination of national climate policy and planning. The National Environment Agency (NEA) plays a central role in implementing climate change projects and serves as the national implementing entity for several international climate finance mechanisms. NEA has been instrumental in developing and launching climate resilience initiatives in the Greater Banjul Area over the years.

78. The National Disaster Management Agency (NDMA) oversees disaster risk reduction and emergency response, including responses to climate-induced hazards such as floods and coastal erosion. NDMA collaborates closely with local governments and community organizations to strengthen early warning systems and preparedness.

79. At the local level, institutions such as the Banjul City Council, Kanifing Municipal Council, and Brikama Area Council play critical roles in implementing climate adaptation measures within their jurisdictions. These bodies are responsible for urban planning, infrastructure development, and service delivery – each with important climate adaptation dimensions.

80. The Ward Development Committees (WDCs) serve as a vital interface between formal institutions and communities, facilitating participatory planning and decision-making at the grassroots level. Their role is particularly important for ensuring that local adaptation efforts are inclusive, responsive, and informed by community needs.

Baseline projects

81. Many of the institutions described above have played key roles in the design, implementation, and oversight of adaptation and resilience projects funded through international climate finance. The Gambia has accessed multiple sources of international climate finance to implement adaptation and resilience initiatives, with the Greater Banjul Area (GBA) benefiting from several major investments. To enhance project complementarity and minimize duplication of efforts within the target region, the proposed project will be closely aligned with ongoing and planned initiatives relevant to urban resilience, EbA, sustainable land management and broader climate change adaptation in The Gambia.

To this end, Table 1 outlines key baseline projects identified during the project preparation phase. Additionally, Table 2 summarizes key lessons learned and good practices from relevant climate change adaptation and urban resilience projects, which will inform the detailed design and implementation of the proposed project during the PPG phase.

Table 1. Overview of baseline projects and additionality of proposed LDCF project

| Baseline project information | Summary of project | Additionality of proposed LDCF project |
|---|---|---|
| (budget value, implementation period, Executing Entity, fund) | | |
| <p>West Africa Coastal Areas (WACA) Management Program^[1]</p> <p>US\$40 million</p> <p>2022–2027</p> <p>Ministry of Environment, Climate Change and Natural Resources (MECCNAR)</p> <p>World Bank</p> | <p>The WACA programme was developed to target populations exposed to the immediate risks of coastal erosion and flooding in the Gambia. Activities implemented under WACA combine: i) on-the-ground and capacity-building interventions; ii) physical and social investments; and iii) an ecosystem-based adaptation (EbA) approach. In 2019, a comprehensive flood and coastal risk assessment was completed for the Greater Banjul Area (GBA). This led to the identification of five hotspots and a list of priority risk reduction interventions. The WACA project is currently implementing interventions in the Kotu Stream area.</p> <p>Examples of flood risk reduction measures introduced under the WACA project include:</p> <ul style="list-style-type: none"> developing accessible green river parks; implementing and upgrading existing drainage systems; and improving secondary drainage systems such as retention ponds, tanks and wetlands. | <p>While the proposed project avoids direct geographic overlap with the WACA interventions to prevent duplication, it builds on the foundational work carried out under WACA, including the flood and coastal risk assessment that identified key hotspots across the Greater Banjul Area. The proposed project will target hotspots that WACA was unable to cover, enabling a scaling-up approach that extends the reach of integrated risk reduction across the region.</p> <p>Although the current project focuses on different locations (e.g. Bond Road, Kombo, Brikama Market, Salagi, Abuko, Jimpex-Kanifing), both initiatives employ ecosystem-based adaptation, flood mitigation infrastructure, and drainage upgrades. This creates opportunities for technical exchange, shared learning, and coordination of planning approaches. In particular, co-located and sequential interventions (e.g. drainage upgrades, natural buffer restoration, and community resilience activities) in separate but hydrologically or socially connected zones (e.g. Kotu Stream and Jimpex-Kanifing) could provide complementary adaptation benefits in addressing urban flooding, heat island effects, and degradation of natural</p> |

| | | |
|--|--|---|
| <p>Large-scale ecosystem-based adaptation in the Gambia River basin: Developing a climate resilient, natural resource-based economy^[2]</p> | <p>Other interventions for improving living conditions and promoting sustainable development in Kotu Stream include, <i>inter alia</i>, supporting waste management efforts and building the resilience of the communities through awareness campaigns.</p> <p>The primary objective of this ongoing project is to build the climate resilience of rural Gambia communities and facilitate the development of a sustainable natural resource-based green economy. This will be achieved by implementing large-scale EbA measures within agricultural areas, community-managed forest reserves and wildlife conservation areas. The project has been developed in response to ongoing concerns about droughts and floods reducing agricultural production.</p> | <p>buffers. Close coordination will also support shared monitoring, replication of successful models, and optimization of co-financing opportunities during project implementation.</p> <p>While the ongoing GCF-funded project focuses on rural communities and agricultural landscapes, the proposed GEF project will apply a complementary ecosystem-based adaptation (EbA) approach in urban and peri-urban settings of the Greater Banjul Area (GBA). This represents a spatial and sectoral expansion of EbA interventions to safeguard critical urban ecosystems and populations exposed to climate risks such as droughts, heatwaves, and flooding.</p> |
| <p>US\$20.5 million (GCF) and US\$4.9 million (co-financing)</p> | | <p>In addition, the proposed project will build on and expand the use of the EbA information portal developed under the GCF project. Under Output 3.1.2, targeted community awareness-raising campaigns will be implemented to enhance public access to the portal’s resources, including through user-friendly content, interactive events, and a new mobile application with offline capabilities. These efforts aim to scale the reach and utility of the portal beyond rural areas, supporting knowledge transfer and community resilience across urban and peri-urban settings.</p> |
| <p>2017–2025</p> | | |
| <p>UNEP</p> | | |
| <p>GCF</p> | | |
| <p>Landscape planning and restoration to improve ecosystem services, and livelihoods, expand and effectively manage protected areas^[3]</p> | <p>This ongoing project aims to conserve ecosystem services in productive and protected land- and seascapes across The Gambia through improved land use and marine spatial planning policies and management. Key objectives include addressing land degradation and biodiversity loss, enhancing sustainable land management (SLM) practices and expanding protected areas for biodiversity conservation. Main components of the project involve: i) improving planning and enforcement systems; ii) enabling frameworks for SLM; iii) implementing integrated land use management plans (ILUMPs); and iv) expanding protected area (PA) management. The project emphasizes gender mainstreaming, stakeholder engagement and capacity development for sustainable agriculture, forestry and natural resource management.</p> | <p>Furthermore, the proposed project could leverage market linkages established under the GCF project to promote sustainable livelihoods and green value chains in urban contexts. By aligning with existing platforms and distribution channels, it could facilitate access to buyers for natural resource-based goods and services produced in the GBA, thereby contributing to the scaling up of The Gambia’s green economy transition.</p> <p>The proposed project complements the ongoing GEF-LDCF landscape restoration initiative by investing in urban and peri-urban ecosystems in the Greater Banjul Area (GBA), whereas the baseline project focuses on rural and protected land- and seascapes across The Gambia. This clear geographic distinction allows both projects to jointly strengthen ecosystem resilience across multiple scales, from coastal and inland communities to densely populated urban zones.</p> |
| <p>US\$5.6 million (GEF) and US\$10 million (co-financing)</p> | | <p>Under Output 2.1, the proposed project will restore and protect urban ecological hotspots, including wetlands near major roads, degraded green spaces in densely built-up areas, and natural buffers adjacent to flood-prone communities. These are areas not targeted by the landscape project but critically important for delivering ecosystem services such as urban cooling, water retention, and localized flood protection.</p> |
| <p>2020–2027</p> | | |
| <p>UNEP</p> | | |

GEF-LDCF

Enabling the National Adaptation Plan formulation and implementation process and other adaptation planning processes in The Gambia^[4]

The main objective of this Readiness proposal is to create and enhance the enabling environment of the Gambia to facilitate the development of a National Adaptation Plan (NAP). In addition, the project will develop several sectoral adaptation strategies. The Readiness proposal has identified several challenges in the built environment and infrastructure sector, one of the target sectors for intervention. Ultimately, fulfilment of the NAP process will be achieved by: i) strengthening adaptation planning governance and institutional coordination; ii) producing an evidence basis to design adaptation solutions for maximum impact; iii) catalyzing private sector engagement in adaptation; and iv) establishing mechanisms to increase adaptation finance.

US\$3 million

2023–2028

UNEP

GCF

The proposed project could also benefit from planning tools, spatial data, and institutional arrangements developed under the landscape project, ensuring alignment between national-scale ecosystem governance and urban-scale implementation. This will contribute to a more cohesive and layered approach to climate resilience, land use, and biodiversity conservation across the country.

The proposed LDCF project will complement and reinforce the NAP formulation process by directly addressing key challenges identified in the built environment and infrastructure sector, one of the target sectors under the Readiness project. While the NAP Readiness project focuses on enabling frameworks and institutional capacity, the proposed project will generate location-specific data on urban vulnerability to extreme heat, flooding, and drought in the Greater Banjul Area, and help define urban adaptation priorities through stakeholder consultations, technical assessments, and piloted solutions.

Through activities such as climate resilience training (Output 1.1), participatory planning processes (Outputs 1.2–1.4), and the development of an Urban Resilience Master Plan, the project will contribute practical knowledge and planning tools that can feed into the NAP implementation monitoring framework. Furthermore, interventions such as market linkages (Output 2.2) and a dedicated EbA financing mechanism (Output 2.5) will support the NAP financing action plan, particularly in catalyzing private sector participation in adaptation.

By bridging national planning with urban implementation, the project will help ensure that the NAP is grounded in actionable, context-specific adaptation measures that reflect the needs of vulnerable urban populations. In addition, assessments on the cost and feasibility of urban EbA solutions to be undertaken during project implementation will be shared with the NAP coordination unit to help inform the integration of urban priorities, costs, and performance indicators into the NAP’s implementation monitoring framework and financing plan.

The proposed LDCF project builds on the groundwork laid by the Kanifing Environmental Transformation Programme by scaling up successful practices and expanding their geographic and thematic scope. While the Kanifing project focuses on ward-level interventions within one municipality, the proposed project introduces a more integrated urban resilience approach across the Greater Banjul Area (GBA), including Kanifing, Banjul, and Brikama.

Activities such as climate resilience training (Output 1.1.1), community engagement (Output 1.1.2), and awareness-raising campaigns (Output 3.1.2) will reinforce earlier

Kanifing Environmental Transformation Programme^[5]

This ongoing project seeks to enhance the environmental well-being of Kanifing municipality residents by: i) planting large scale trees in 19 wards across the municipality to improve urban resilience, enhance air quality and increase biodiversity, thus contributing to improved living conditions for residents; ii) developing community parks and community transfer stations for sustainable waste management constructed; iii) facilitating training programs focused on improving women’s knowledge and practices pertaining to biodegradable waste management; and iv) establishing community radio stations to promote sustainable living practices and encourage behavioral change.

- US\$3.3 million
- 2021–2026
- Peterborough City Council

- European Union

efforts in building community knowledge and promoting behavioral change through tools like community radio.

The project also expands on urban greening and biodiversity enhancement through the development of multi-use green spaces (Output 2.1.2), plastic waste reduction (linked to Outputs 2.1.4 and 2.1.5), and support for alternative livelihoods, particularly for women (Output 2.1.4). In this way, the proposed project does not duplicate but rather builds upon and institutionalizes select Kanifing approaches within a broader urban resilience and policy framework.

In addition, Kanifing Municipal Council has confirmed co-financing for the CLIMB project, supporting activities such as the creation of green zones, recreational parks, and integrated waste management systems. This co-financing will ensure continuity of baseline investments and enhance the durability and scale of urban resilience benefits

- City-Link Ostend-Banjul Sustainable City Development** [6]
- Banjul City Council (BCC in City LGA) in collaboration with the City-Link Ostend-Banjul secured funding for the implementation of five components that will contribute to strengthening urban governance in Banjul. These components include: i) facilitating the implementation of good governance in Banjul; ii) enabling the creation of a sustainable development center in Crab Island; iii) supporting a more effective and environmentally friendly city waste management systems; iv) sustainably greening the city by using local resources; and v) making healthcare and hygiene practices more accessible.
- US\$3.2 million
 - Banjul City Council (BCC)
 - 2019-2025

Lessons from the City-Link Ostend-Banjul project have informed the design of tree planting and greening activities under Output 2.1 and 2.2, particularly in terms of species selection, timing, and maintenance planning. Community-based maintenance strategies, including partnerships with schools and local groups, will be integrated to improve plant survival and ownership. Waste management activities under Output 2.4 also build on the need for integrated systems and strengthened municipal coordination, ensuring sustainability and alignment with local governance structures.

European Union

In addition, the proposed LDCF project will complement and scale up the City-Link Ostend-Banjul initiative through confirmed co-financing from Banjul City Council, which will be allocated across all four project components. This co-financing ensures continuity of investments initiated under the City-Link partnership while embedding them in a broader, climate-resilient urban planning framework for the Greater Banjul Area. By linking ward-level interventions with citywide and regional adaptation planning, the project enhances durability, cost-effectiveness, and replication potential of the baseline investments.

82. To ensure intervention efficacy, the proposed project will incorporate lessons learned from ongoing projects to inform the design and implementation of activities related to building local-level institutional capacity, enhancing capacity on applying ecosystem-based adaptation approaches, establishing safeguards against climate change impacts and ensuring widescale dissemination of knowledge products from the proposed project. By scaling up and building on successful interventions for improved

ecosystem management and sustainable, climate-resilient livelihoods, the project will maximize investment potential to create transformative change.

Table 2. Overview of past projects, best practices and lessons learned to be incorporated into the proposed LDCF project

| Baseline project information (budget value, implementation period, Executing Entity, fund) | Summary of project | Lesson learned and best practices | How lessons learned are reflected in the proposed LDCF project design |
|---|--|--|---|
| <p>Enhancing the resilience of vulnerable coastal communities to climate change in the Republic of Gambia^[7]</p> <ul style="list-style-type: none"> US\$8.9 million (GEF) and US\$39.5 million (co-financing) 2014–2020 UNDP GEF-LDCF | <p>As a result of the insufficient institutional capacity to systematically identify and address climate-driven changes in risk patterns, the Government of Gambia proposed a project to reduce the vulnerability of coastal communities to climate change-induced risks in five districts (Kotu, Tanji, Bintang, Darsilami and Tendaba). The project was based on the components below.</p> <p>Component 1: Policy and institutional development for climate risk management in coastal zones.</p> <p>Component 2: Physical investments in coastal protection against climate change risks.</p> <p>Component 3: Strengthening the livelihood of coastal communities at risk from climate change.</p> <p>The project utilised a feedback loop between these three components to enable successful community-based adaptation approaches in coastal areas. Additionally, the project was designed to reduce Gambia’s vulnerability to rising sea levels and the associated impacts of climate change by improving coastal defences and enhancing the adaptive capacities of coastal communities.</p> | <p>The points below indicate the main lessons learned from implementing the project’s activities:</p> <ul style="list-style-type: none"> A formal handover process of the soft engineering schemes and equipment to local communities needs to be established. The communities can only take responsibility once such ownership is handed over. The project needs to handover to local government with an official community stakeholder committee developed. The government should consider a tourist tax to pay for urban coastal area protection; and a national green tax to contribute to river ecosystem-based adaptation (EbA). A 10-year national mangrove | <p>The proposed LDCF project incorporates lessons from the coastal resilience project by explicitly strengthening local ownership and institutional handover processes. Output 1.1.2 establishes a community engagement and participation framework that will guide inclusive urban planning and support the formal transfer of responsibilities to local stakeholders. Output 2.1.4 includes capacity-building and entrepreneurship support targeting vulnerable groups, ensuring they are equipped to manage and maintain nature-based solutions implemented in their communities. Although the project does not introduce new taxes, policy briefs developed under Output 1.1.3 may inform future financing mechanisms for climate resilience, including environmental levies. Restoration of green and blue infrastructure under Output 2.1.1 will complement national-level ecosystem planning efforts, potentially contributing to long-term frameworks such as a national mangrove restoration plan.</p> |

| | | | |
|---|--|---|--|
| <p>Gambia Protected Areas Network and Community Livelihood Project (PAN)[9]</p> | <p>This project sought to strengthen the national protected areas network by focussing on the management effectiveness of several priority protected areas (PAs). Additionally, the project aimed to improve land and natural resource management in the target priority PAs and the adjacent communities by introducing biodiversity-friendly sustainable land and natural resource management practices.</p> | <p>restoration plan needs to be produced[8].</p> <p>The main lessons learned from the project are: i) ongoing collaboration with agricultural, rural development and environmental initiatives around the targeted PAs is required to sustain and replicate livelihood benefits to surrounding communities and reduce pressure on natural resources; ii) a systemic improvement approach that aims to build systemic capacity for biodiversity conservation and PA management to become self-sustaining is needed to break the lack of progress achieved from the projects[10].</p> | <p>The proposed LDCF project builds on the PAN project by adopting an integrated, cross-sectoral approach to ecosystem-based adaptation in urban and peri-urban areas. Under Output 2.1.1, the project promotes restoration and protection of priority ecosystems in the Greater Banjul Area through collaboration between environmental, agricultural, and local development actors. The design emphasizes long-term sustainability by embedding capacity development, awareness-raising (Output 3.1.2), and inclusive planning processes (Output 1.1.2) that support systemic institutional improvement and reduce pressure on natural ecosystems. Sustainable livelihood support under Output 2.1.4 also ensures that biodiversity protection is linked to economic opportunities for urban and peri-urban communities.</p> |
| <p>ACP-EU Natural Disaster Risk Reduction Program[11]</p> | <p>This project supported the development of standard operating procedures for disaster risk management, including preparedness, prevention, response, recovery and rehabilitation. The main activities of the project included: i) using geospatial tools, construct a historical database of six major hazards namely, droughts, floods, windstorms, oil spill, coastal erosion and wildfires over the past ten years; ii) compiling an inventory of existing studies, data, and national capabilities, as well as national disaster risk reduction (DRR) practices; and iii) carrying out a comprehensive study to assess capacities of partners at the central, regional, and local levels including public, private and non-government organizations/community-based organizations (NGOs/CBOs) to ascertain their level of preparedness and ability to form a productive partnership with the National Disaster Management Agency (NDMA).</p> | <p>The points below indicate the main lessons learned from implementing the project's activities:</p> <ul style="list-style-type: none"> An integrated approach to disaster risk reduction that considers various hazards, vulnerabilities, and capacities is more effective than addressing each element in isolation. This includes integrating DRR into development planning and policies. The dynamic nature of hazards and risks requires a flexible approach to disaster management. Continuous monitoring, evaluation, and updating of plans | <p>The proposed LDCF project incorporates a multi-hazard and integrated risk management approach in line with the lessons learned from the ACP-EU DRR Program. Under Output 1.1.4, a gender-responsive Urban Resilience Master Plan (URMP) will be developed for the Greater Banjul Area, integrating disaster risk reduction (DRR) into spatial planning and climate adaptation strategies. Additionally, the project supports ongoing collaboration with the NDMA to align with national emergency protocols and emphasizes data-driven planning, and through Output 3.1.1, where it will generate and disseminate knowledge products that support continuous monitoring, learning, and adaptation to evolving climate-related hazards in urban areas.</p> |
| <ul style="list-style-type: none"> US\$1.3 million (GEF) and US\$4.6 million (co-financing) 2014–2020 UNDP GEF TF | | | |

Integrated Coastal and Marine Biodiversity Management Project (ICAM) PHASE II [13]

- US\$985,104
- 2009–2012
- WWF
- GEF TF

The main objective of this project was to conserve and sustainably manage globally significant biodiversity in coastal, marine and wetland ecosystems in The Gambia. This was achieved through three components: i) strengthening of the National Conservation System and Network; ii) participatory conservation area management; and iii) capacity building and awareness promotion. Phase II of the project focused on sustainable land management and introducing training for modern oyster farming practices. In addition, the project spearheaded the establishment of community oyster groups within the GBA and supported micro-financing enterprises by providing seed funding to women's oyster communities for resilient building.

The points below indicate the main lessons learned from implementing the project's activities:

- Focusing on building the capacity of women oyster collectors was crucial for enabling women to create their own oyster farms annually without support.
- Facilitating partnerships between government conservation bodies and locally/regionally based international conservation NGOs can help lay the foundations for long term working relationships, which help promote ongoing capacity building and bring about long term conservation outcomes.
- Building strong partnerships between the government, local communities and other partners is a key element of

and strategies are necessary to adapt to changing circumstances and emerging threats.

- The outline of hazard-prone areas and the development of an internet mapping service is essential for the use and collection of data and technology in disaster management [12].

The proposed LDCF project integrates key lessons from ICAM II by strengthening local capacity and promoting community-based natural resource management. Specifically, under Output 2.1.4, the project will enhance sustainable alternative livelihoods with targeted support for women, which may include nature-based enterprises such as sustainable aquaculture, ecotourism, and waste-to-resource initiatives. The project also emphasizes strong partnerships between local authorities, community groups, and technical stakeholders, building on the success of participatory conservation and micro-financing approaches piloted under ICAM.

protected area
conservation^[14].

[1] <https://www.wacaprogram.org/country/gambia>

[2] <https://www.greenclimate.fund/project/fp011>

[3] <https://www.thegef.org/projects-operations/projects/9772>

[4] <https://www.greenclimate.fund/document/enabling-national-adaptation-plan-formulation-and-implementation-process-and-other>

[5] <https://www.pect.org.uk/projects/the-kanifing-environmental-transformation-programme/>

[6] <https://www.banjulcity.gm/index.php/projects/>

[7] <https://www.thegef.org/projects-operations/projects/4724>

[8] GEF Independent Evaluation Office. 2018. Enhancing Resilience of Vulnerable Coastal Areas and Communities to the Impact of Climate Change in the Gambia: Terminal Evaluation Report. <https://www.gefio.org/sites/default/files/documents/projects/tes/4724-terminal-evaluation.pdf>

[9] <https://erc.undp.org/evaluation/evaluations/detail/8890?tab=documents>

[10] <https://erc.undp.org/evaluation/evaluations/detail/8890?tab=documents>

[11] <https://www.gfdrr.org/en/gambia-national-disaster-risk-assessment-and-strengthening-national-disaster-management-agency>

[12] <https://www.gfdrr.org/en/gambia-national-disaster-risk-assessment-and-strengthening-national-disaster-management-agency>

[13] Implementation Completion Memorandum (ICM). 2014. Integrated Coastal and Marine Biodiversity Management Project (ICAM) Terminal Evaluation. Available at: <https://www.gefio.org/sites/default/files/documents/projects/tes/1067-terminal-evaluation.pdf>

[14] Implementation Completion Memorandum (ICM). 2014. Integrated Coastal and Marine Biodiversity Management Project (ICAM) Terminal Evaluation. Available at: <https://www.gefio.org/sites/default/files/documents/projects/tes/1067-terminal-evaluation.pdf>

[1] Nature-based solutions (NbS) are actions to protect, sustainably manage and restore natural and modified ecosystems, to address societal challenges effectively and adaptively — simultaneously benefiting people and nature.

[2] Albedo is a measure of the proportion of incident light or radiation that is reflected by a surface. Increasing the albedo of surfaces in urban areas helps reduce the urban heat island effect. The difference in surface albedo characteristics between urban areas and rural areas is a major contributor to the differences in temperatures between the two locations.

[3] Purcell R & Jallow BP. 2022. Development of strategic approach and workplan for mainstreaming EbA into domestic budgets in The Gambia: Scoping Report.

[4] Purcell R & Jallow BP. 2022. Development of strategic approach and workplan for mainstreaming EbA into domestic budgets in The Gambia: Scoping Report.

[5] Purcell R & Jallow BP. 2022. Development of strategic approach and workplan for mainstreaming EbA into domestic budgets in The Gambia: Scoping Report.

[1] Surface albedo is a property of the Earth's surface that provides an important climate regulating ecosystem service through the reflection of incoming solar radiation. Natural ecosystems have a higher albedo than man-made structures.

[2] <https://climatedata.imf.org/datasets/7cae02f84ed547fbbd6210d90da19879/explore>

[3] <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-projections>

[4] <https://www.worldometers.info/world-population/gambia-population>

[1] The Gambia. Current Climate – Climatology. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical>

[2] The Gambia. Current Climate – Climatology. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical>

[1] The ITCZ is an east-west oriented low-pressure region near the equator where surface Northeasterly and Southeasterly trade winds meet; sometimes referred to as the Inter Tropical Discontinuity (ITD). From: Ceesay O & Touray L. 2022. Precipitation Patterns in the Gambia from 1981–2020. *Geographica Pannonica*. Vol. 26, pp. 102–111. Available at: http://www.dgt.uns.ac.rs/dokumentacija/pannonica/papers/volume26_2_2.pdf

[2] Ceesay O & Touray L. 2022. Precipitation Patterns in the Gambia from 1981–2020. *Geographica Pannonica*. Vol. 26, pp. 102–111. Available at: http://www.dgt.uns.ac.rs/dokumentacija/pannonica/papers/volume26_2_2.pdf

[3] Climate Change Knowledge Portal. 2021. The Gambia. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical#:~:text=The%20Gambia%20experiences%20a%20Sahelian,C%20during%20the%20wet%20season.>

[4] Climate Change Knowledge Portal. 2021. The Gambia. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical#:~:text=The%20Gambia%20experiences%20a%20Sahelian,C%20during%20the%20wet%20season.>

Figure 5. Observed changes in average wet season (July–August) precipitation and annual precipitation in The Gambia (1901–2020)^[1]

[1] The Gambia. Current Climate – Climatology. Available at: <https://climateknowledgeportal.worldbank.org/country/gambia/climate-data-historical>

B. 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 guidance document. (Approximately 3-5 pages) see guidance here

83. This Theory of Change outlines the logic of the project in addressing the problems described in the previous section and achieving the intended impact.

84. As a result of rapid and unplanned urbanization and associated ecosystem degradation, communities in the Greater Banjul Area (GBA) are increasingly vulnerable to climate change and extreme weather events, including floods, rising sea levels, droughts, and heat waves. To address these challenges, the proposed project will take an integrated approach to strengthening urban resilience through three technical components: i) strengthening the enabling environment for climate-resilient urban planning and sustainable development; ii) facilitating the uptake of Ecosystem based Adaptation solutions; iii) improving knowledge management and information dissemination related to urban resilience and climate change adaptation. The overall objective of the proposed project is to enhance the climate resilience of communities in the Greater Banjul Area by scaling up investments in urban ecosystem-based adaptation (EbA) solutions.

85. The project adopts an integrated approach, deploying six interlinked levers to address systemic barriers that currently impede effective urban planning and climate adaptation in the GBA. These levers are: (i) Policy and Planning, (ii) Capacity Building, (iii) Community Engagement and Empowerment, (iv) EbA Solutions and Infrastructure, (v) Financing, and (vi) Knowledge and Awareness. The first lever, policy and planning, is designed to harmonize cross-sectoral mandates and integrate gender-responsive urban resilience into local institutional frameworks through strategic policy briefs and the development of an Urban Resilience Master Plan. The second lever, capacity building, focuses on enhancing the skills of local government officials and urban planners through tailored climate resilience training and sensitization programmes. The third lever, community engagement and empowerment, not only fosters inclusive, participatory urban planning but also strengthens sustainable alternative livelihoods – providing targeted support for women’s economic empowerment – to ensure that local communities are active agents in their climate adaptation journey. The fourth lever, EbA solutions and infrastructure, drives transformative change by protecting priority ecosystems, piloting innovative measures, and establishing multi-benefit public green spaces that serve as natural buffers against climate hazards. The fifth lever, financing, aims to unlock and mobilize private sector and institutional investments by designing and establishing innovative financial mechanisms to scale up EbA interventions. Finally, the sixth lever, knowledge and awareness, supports the creation of strategic partnerships for generating and disseminating best practices and lessons learned, ensuring that critical climate adaptation information is accessible to all stakeholders through targeted community campaigns and an enhanced EbA information portal.

86. Geographically, the project will be focusing on all LGAs across Greater Banjul Area (Banjul, Kanifing and Brikama). When it comes to EbA solutions and Infrastructure, the project will focus on a set of vulnerable areas identified through detailed studies and consultations (please see Component 2 for details). Those areas are Bond Road and Adjacent Tambi Wetlands, Kombo Coastal Wetland Zone, Abuko Reserve, Salagi Forest Park, Bijilo Forest Park, Brikama Market, and Fajara–Senegambia Coastal Corridor.

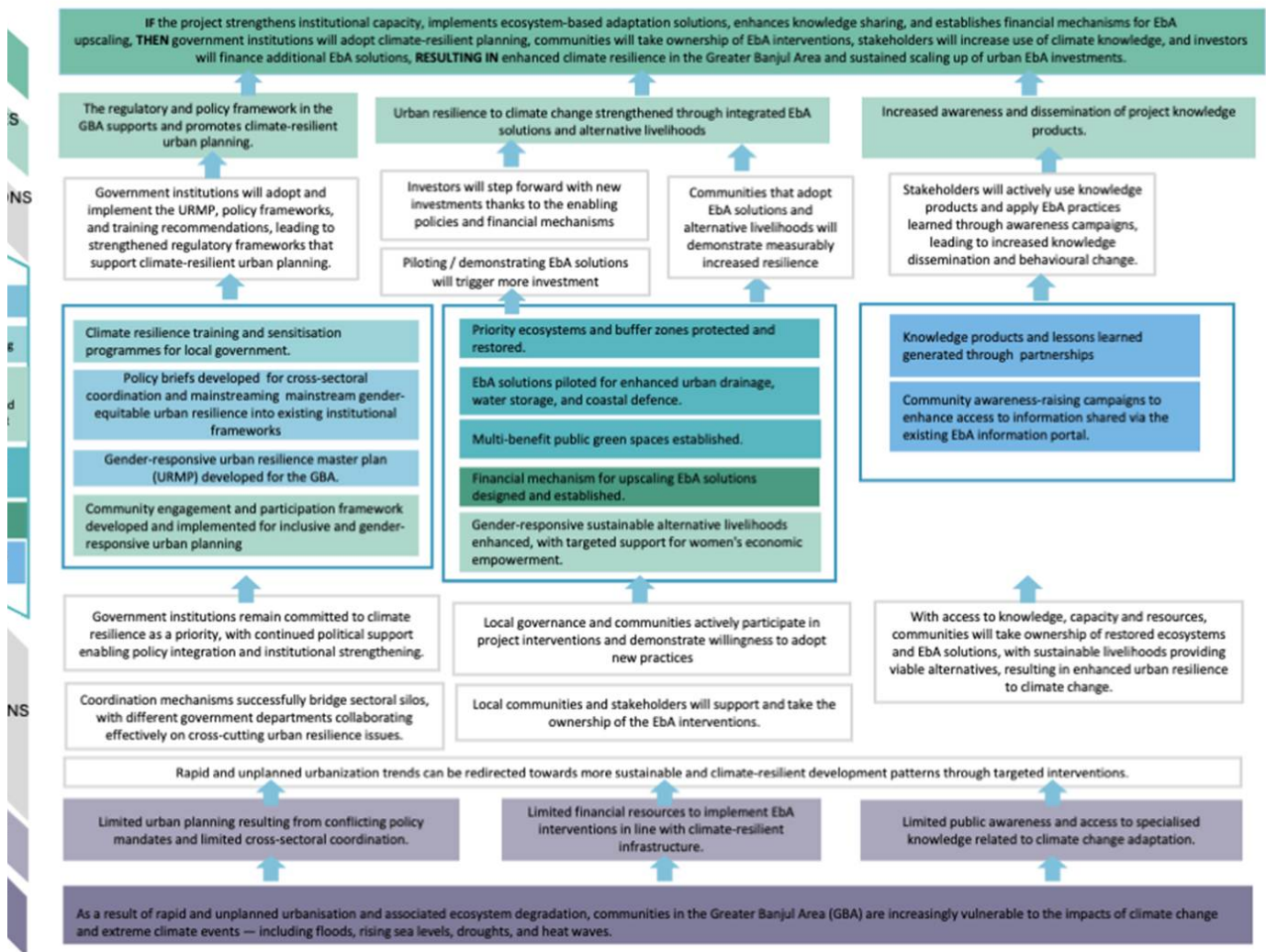
87. The project design is intended to maximize the project’s efficiency and effectiveness, resulting from the mutual reinforcement of the outcomes. The outputs related to institutional strengthening from and capacity building in Outcome 1, for example, will establish a platform to implement related activities under Outcome 2 effectively. The implementation of activities and solutions in Outcome 2 will be underpinned by the resilience plan developed in Output 1.4. Similarly, the financing mechanism developed under output 2.5 will be guided by the policy briefs and urban resilience master plan developed in Outcome 1, and lessons learned from the EbA solutions and livelihood activities piloted in Outcome 2. The finance mechanism will serve to generate domestic resources for adaptation. Outcome 3 will generate knowledge and lessons learned from the implementation of EbA in Outcome 3, as well as link to capacity building efforts under Outcome 1 through community awareness campaigns. Simultaneously, an M&E

system will be developed to track and monitor the outcomes, targets and indicators of the project and to support the internalization of lessons learned to promote improvements in future urban resilience projects.

88. As also outlined in Table 1 in the previous section, the proposed LDCF project strategically builds on and complements multiple ongoing initiatives across The Gambia. On policy and governance, it will align with and draw from the WACA Program and the NAP Readiness Project to strengthen integrated urban resilience planning, coordination, and financing mechanisms. On ecosystem-based adaptation and infrastructure, it expands the EbA approaches pioneered under the WACA, GCF EbA, and Landscape Restoration projects to urban and peri-urban settings, targeting new hotspots in the Greater Banjul Area. In terms of community engagement, livelihoods, and behavioral change, the project scales up successful practices and partnerships established under the Kanifing Environmental Transformation Programme and City-Link Ostend-Banjul initiatives. Finally, under knowledge management and capacity building, it will leverage tools and platforms developed through the GCF EbA and NAP Readiness projects to enhance data sharing, awareness, and adaptive learning across local and national institutions.

89. This theory of change demonstrates how well-designed and effectively implemented interventions can enhance urban resilience and ecosystem health, ultimately benefiting both the environment and communities in the Greater Banjul Area. By delivering the intended outcomes— such as strengthened policy frameworks, restored ecosystems, and improved knowledge management, the project aims to achieve transformative outcomes, including increased cross-sectoral coordination in urban planning, widespread adoption of ecosystem-based adaptation (EbA) practices, and enhanced community awareness and engagement. These outcomes will be driven by the integration of gender-responsive approaches, the demonstration of effective EbA solutions, and strengthened financial mechanisms to support scale-up efforts. Ultimately, these changes will contribute to a sustainable urban environment that mitigates the impacts of climate change, reduces vulnerability to flooding and other hazards, and enhances the well-being of communities in the GBA.

Theory of change for the proposed project



Assumptions

90. The project is based on several assumptions, that if not met can impact the effectiveness of the project interventions. These assumptions fall into two categories: i) those foundational to the design of activities and ii) those critical for transforming outputs into outcomes to achieve the desired impact.

91. Assumptions foundational to the design of the project scope:

- Rapid and unplanned urbanization trends can be redirected towards more sustainable and climate-resilient development patterns through targeted interventions.
 - Government institutions remain committed to climate resilience as a priority, with continued political support enabling policy integration and institutional strengthening.
 - Local governance and communities actively participate in project interventions and demonstrate willingness to adopt new practices

- With access to knowledge, capacity and resources, communities will take ownership of restored ecosystems and EbA solutions, with sustainable livelihoods providing viable alternatives, resulting in enhanced urban resilience to climate change.
- Coordination mechanisms successfully bridge sectoral silos, with different government departments collaborating effectively on cross-cutting urban resilience issues.
- Local communities and stakeholders will support and take the ownership of the EbA interventions.

92. Assumptions critical for transforming outputs into outcomes:

- Government institutions will adopt and implement the URMP, policy frameworks, and training recommendations, leading to strengthened regulatory frameworks that support climate-resilient urban planning.
- Investors will step forward with new investments thanks to the enabling policies and financial mechanisms.
- Piloting / demonstrating EbA solutions will trigger more investment
- Communities that adopt EbA solutions and alternative livelihoods will demonstrate measurably increased resilience.
- Stakeholders will actively use knowledge products and apply EbA practices learned through awareness campaigns, leading to increased knowledge dissemination and behavioural change.

Barrier Removal Strategy

93. A detailed overview of the strategic approaches incorporated within the project design to systematically address the barriers identified in Section A is provided in Table 3 below.

Table 3. Strategies for overcoming barriers to upscale climate-resilient urban development in the Greater Banjul Area in The Gambia.

| Barrier | Barrier Removal Strategy | |
|---|--------------------------------------|---|
| | Lever | Specific action |
| Barrier 1: Limited urban planning resulting from conflicting policy mandates and limited cross-sectoral coordination | Community engagement and empowerment | Enhancing the effectiveness and responsiveness of urban planning by creating mechanisms public participation in decision-making processes (Output 1.2). |
| | Capacity building | Developing training materials and policy briefs for enhancing cross-sectoral coordination for urban resilience and climate change adaptation in the GBA, based on a policy review and gap analysis conducted under the WACA initiative (Outputs 1.1 and 1.3). |
| | Policy and Planning | Developing and implementing a gender responsive urban resilience master plan (URMP) that incorporates specialist knowledge, insights from past and ongoing initiatives and inputs from local community members and local government officials (Output 1.4; Outputs 2.1.–2.4). |

| | | |
|---|--------------------------------------|---|
| | | Integrate findings from the project’s vulnerability assessment on extreme heat, drought, and flooding (Output 1.4), together with results from the WACA flood and coastal risk assessment, into the National Adaptation Plan (NAP) implementation process and the forthcoming national adaptation finance strategy. This will ensure that the costed ecosystem-based adaptation (EbA) options and investment priorities identified in the Urban Resilience Master Plan are reflected in national planning and budgeting frameworks. |
| Barrier 2: Limited financial resources to implement EbA interventions and establish climate-resilient infrastructure | Policy and Planning | Developing and implementing a budgeted gender responsive urban resilience master plan, which provides recommendations for the allocation of financial and human resources towards different investment options in hotspot areas (Output 1.4; Outputs 2.1–2.5). |
| | Community engagement and empowerment | Providing opportunities for the uptake of sustainable, natural resource-based income-generating opportunities that incentivize SLM and ecosystem protection, while enhancing livelihood security for local communities (Output 2.4). |
| | Community engagement and empowerment | Establishing gender responsive market linkages between producers and buyers (Output 2.1.2), to facilitate access to markets for sustainable products, potentially increasing income for local communities and woman led organizations and funding for EbA projects. |
| | Finance | Designing innovative financing mechanisms (Output 2.5) that looks into creating new funding opportunities, making it easier to finance and upscale EbA interventions and climate-resilient infrastructure. |
| Barrier 3: Limited public awareness and access to specialized knowledge related to climate change adaptation | Knowledge and awareness | Conducting gender responsive campaigns that educate the public on the environmental and health impacts of traditional fuel sources and the benefits of switching to biofuels and charcoal alternatives (Output 2.2). The awareness raising campaign will target women’s groups as well as IPLCs. |
| | Capacity building | Training and capacity-building activities associated with restoring ecosystems and developing sustainable alternative livelihoods serve as platforms for knowledge exchange, raising awareness about climate change impacts and adaptation strategies (Outputs 2.1 and 2.2). |
| | Community engagement and empowerment | Establishing market linkages (Output 2.2) to facilitate the exchange of knowledge about gender responsive sustainable practices and climate-resilient livelihoods among different stakeholders – including women's groups and IPLC’s |
| | Knowledge and awareness | Enhancing collaborative partnerships for the generation of knowledge, best practices and lessons learned (Outputs 3.1) and directly engaging with the target community through awareness campaigns that increase public understanding of climate change adaptation by disseminating user-friendly information through various mediums, such as the EbA information portal (output 3.2). |

Project Components

Component 1: Strengthening the enabling environment for climate-resilient urban planning and sustainable development

Baseline

94. In the GBA, urban planning and development processes are being increasingly challenged by climate change impacts such as sea-level rise, coastal erosion and urban flooding. Although a number of national-level policies and frameworks exist for integrating climate change into development – including, inter alia: i) The Gambia 2050 Climate Vision; ii) the Third National Communication of the Gambia under the UNFCCC; and iii) The Gambia’s Long-term Climate-neutral Development Strategy – a master land-use plan has not yet been developed for the Gambia and there is there is a paucity of municipal and local-level development plans that integrate climate change adaptation and climate-resilient urban

planning^{[1]21}. Consequently, conflicting policy mandates have resulted in inter-departmental conflicts over natural resource use at the municipal level, inhibiting land-use planning, sustainable development and the protection of important ecosystems within the GBA^{[2]22}. In this context, existing local governance structures, policy frameworks and planning mechanisms require further development to effectively address observed and projected climate change impacts and enhance urban resilience under future scenarios.

95. Many key government agencies face challenges related to inadequate technical expertise, insufficient funding, and a lack of logistical and operational resources. Staff are frequently overburdened and have limited access to training in emerging areas such as climate modelling, vulnerability assessment, and adaptive project design and implementation. Data and research systems are also weak, reducing the availability of reliable, context-specific information to support evidence-based policymaking.

96. Climate adaptation remains insufficiently integrated into urban development and sectoral planning frameworks in The Gambia. Although national awareness of climate risks has improved, adaptation measures are often treated as supplementary rather than embedded within mainstream planning and governance systems. Urban areas, particularly the Greater Banjul Area, face growing exposure to climate hazards such as flooding, sea level rise, and extreme heat. However, existing urban planning processes largely fail to incorporate climate risk assessments or future climate projections. Infrastructure projects frequently proceed without consideration for long-term resilience, while inadequate zoning regulations, poor drainage infrastructure, and unplanned settlements further exacerbate vulnerability.

97. Across key sectors including agriculture, fisheries, health, and public infrastructure, adaptation efforts tend to be fragmented and project-driven. Sectoral policies and strategies rarely integrate climate adaptation into core mandates, planning tools, or budget allocations. The absence of clear institutional roles and coordination mechanisms results in overlapping responsibilities, limited policy coherence, and inefficient use of resources. Capacity limitations also constrain integration efforts. Planning and technical institutions often lack access to climate data, risk mapping tools, and specialized training needed to apply climate information to development planning. At the local level, authorities are frequently under-resourced and lack the institutional frameworks to lead or coordinate community-level adaptation. Moreover, participatory approaches remain underutilized. The involvement of vulnerable and marginalized groups, such as women, youth, and persons with disabilities, is limited, reducing the social relevance and effectiveness of adaptation initiatives.

98. The multi-jurisdictional governance structure in GBA presents both opportunities and challenges for coordinated climate resilience planning. While each LGA maintains autonomy over local development decisions and resource allocation, the interconnected nature of climate risks and urban systems requires collaborative approaches that transcend administrative boundaries. The success of climate adaptation initiatives, including the CLIMB project, depends significantly on the capacity of these local government institutions to coordinate effectively and engage meaningfully with their constituent communities.

99. Local government capacity within the GBA varies considerably across the three LGAs, reflecting differences in resource availability, technical expertise, and institutional development. Banjul City Council, despite governing the national capital, faces significant resource constraints due to the city's small geographic area and limited revenue base. Kanifing Municipal Council, overseeing the most densely populated areas of the GBA, manages complex urban challenges including informal settlement development, infrastructure provision, and service delivery in rapidly growing communities. The

Brikama Area Council covers the largest geographic area within the GBA, encompassing both urban centers and rural communities, which necessitates diverse approaches to governance and development.

100. The Ward Development Committee (WDC) system represents a crucial link between formal local government structures and community-level governance. WDCs serve as the closest local government representatives to communities, playing essential roles in planning, decision-making, development, and administration of community affairs. These committees provide legitimacy and convening power for linking community needs with government resources and programs, making them critical partners in climate adaptation initiatives.

101. In addition to coordination needs, the assessment conducted during the PPG stage has revealed significant capacity gaps in specialized technical areas critical for urban resilience, including ecosystem-based adaptation design, climate risk assessment, and green infrastructure development. A gender-disaggregated analysis pointed to notable disparities in technical skills, with women reporting lower confidence levels in engineering-related competencies but higher scores in community engagement and the social dimensions of resilience. (See Annex: Community Engagement and Capacity Building Needs Assessment)

102. To date, the WACA project has initiated efforts to address these challenges by: i) conducting a comprehensive coastal erosion and flood risk assessment, which identifies hotspot areas for climate change adaptation in the GBA and provides investment options for climate change adaptation in these regions; ii) conducting a policy review to identify gaps and inconsistencies in the regulatory framework; and iii) developing training programmes for local government officials and stakeholders in the Kotu Stream area, to enhance their understanding of coastal management challenges and resilient infrastructure planning. While these efforts provide a strong foundation for climate change adaptation in the GBA, there is a need to upscale ongoing WACA interventions into hotspot areas outside of Kotu Stream, and additional training and sensitization programmes are needed to strengthen cross-sectoral coordination and capacity to implement climate change adaptation plans at all administrative levels.

Project approach

103. Component 1 of the proposed GEF project will focus on enhancing policy frameworks to address climate change adaptation and resilience in the GBA. Under this component, upon a dedicated assessment, regulatory mechanisms for climate change adaptation, urban resilience and sustainable development will be strengthened, ensuring alignment between local initiatives and broader national and district strategies to address challenges related to conflicting policy mandates and limited cross-sectoral coordination (Barrier 1). Additionally, the WACA flood and coastal erosion risk assessment will be used to inform the design of a gender responsive urban resilience master plan (URMP) that has mainstreamed the human rights approach. The URMP will identify and respond to critical climate risk areas and adaptation needs in the GBA, and respond to critical climate risk areas and adaptation needs in the GBA. The development of an URMP and policy briefs addressing gaps identified under the WACA investment will facilitate strategic resource allocation based on a comprehensive strategy that integrates community insights and scientific evidence, thereby ensuring an informed approach to climate resilience. Consequently, Component 1 will address barriers associated with the limited availability of financial resources for EbA and climate-resilient development (Barrier 2).

104. The component also focuses on delivering targeted capacity building to Targeted capacity building will be provided to institutions responsible for implementing the URMP and the adaptation strategy. A comprehensive needs assessment completed during the PPG phase informs the design of these interventions. The resulting recommendations are presented in the table below.

| Priority Level | Skill Area | Recommended Interventions |
|----------------|--|--|
| High | Mangrove nursery & planting techniques | Technical training, field demonstrations, peer learning from Department of Forestry |
| High | Ecosystem-based adaptation design | Expert-led workshops, case studies, design charrettes |
| High | Community engagement & facilitation | Participatory methods training, facilitation skills development, community mobilization techniques |
| Medium | Wetland restoration & management | Technical training, site visits to successful restoration projects, hands-on field exercises |
| Medium | Green infrastructure development | Technical workshops, design guidelines, pilot demonstrations |
| Medium | Climate risk assessment | Methodological training, data analysis skills, vulnerability assessment techniques |
| Low | Environmental education & awareness | Communication skills, educational material development, awareness campaign design |
| Low | Drainage system design & maintenance | Technical training for engineering staff, maintenance protocols |
| Low | Waste management | Best practices training, waste management system design |

[1] Stakeholder Consultations at the concept stage

[2] Purcell R & Jallow BP. 2022. Development of strategic approach and workplan for mainstreaming EbA into domestic budgets in The Gambia: Scoping Report.

OUTCOME 1: THE REGULATORY AND POLICY FRAMEWORK IN THE GBA SUPPORTS AND PROMOTES CLIMATE-RESILIENT URBAN PLANNING

105. Project interventions under Outcome 1 will focus on i) developing adaptation strategy and a URMP to address different climate scenarios to increase preparedness in case of climate-related shocks specifically for GBA, and ii) reinforcing existing institutional frameworks and integrating climate change adaptation into departmental policies, to strengthen the enabling environment for climate-resilient urban planning in the GBA. All outputs under this outcome will be delivered in a gender-responsive manner, promoting equal participation by men and women.

Output 1.1: Gender-responsive climate resilience training and sensitization programme designed and implemented for local government officials and urban planners in the GBA.

106. Under this output, a series of training and sensitization programmes will be delivered to local government officials and urban planners within the GBA, including representatives of Banjul City Municipal Council, Kanifing Municipal Council and Brikama Area Council, as well as Seyfos (traditional District Chiefs oversee multiple villages) and Alkalos (Village Heads) for districts, wards and villages within the GBA. Members of the existing Agriculture and Natural Resources Working Group (ANRWG) (a cross-sectoral working group chaired by the Permanent Secretaries of the Ministries of Agriculture, Fisheries and Water Resources and Ministry of the Environment, Climate Change and Natural Resources) will also be invited to attend training and sensitization events, to enhance coordination across local and national administrative levels.

107. Training materials and workshops developed under Output 1.1 will focus on, inter alia: i) reinstating quarterly meeting periods for cross-sectoral working groups; ii) introducing systems for more effective reporting and accountability; iii) providing a forum for coordinated urban planning and natural

resource management; iv) mainstreaming gender sensitivity into policies, plans and strategies; and v) enhancing knowledge management and dissemination.

108. Activities under this output are:

- **Activity 1.1.1: Conduct a needs assessment to determine specific training and sensitization requirements for each group.**
- **Activity 1.1.2: Develop and deliver comprehensive training modules and sensitization programmes focusing on climate resilience, urban planning, and natural resource management.**
- **Activity 1.1.3: Measure learnings and document lessons learned through post-training assessments, participant feedback, and evaluation reports to improve future training programmes.**

Output 1.2: Community engagement and participation framework developed and implemented for inclusive and gender-responsive urban planning

109. Under this output, the project will develop a framework for enhancing community engagement and participation in decision-making for urban resilience and sustainability projects. This framework will be developed in collaboration with Seyfos and Alkalos and will outline methods for effective communication with project beneficiaries, particularly women and vulnerable and marginalized groups including man, women, youth, persons with disabilities. By establishing forums for gathering community input on a regular basis, the proposed project will enhance the relevance, effectiveness and sustainability of adaptation interventions in the GBA, leading to more resilient urban communities.

110. Additionally, engaging local community members and gender experts under this output will ensure that interventions introduced under Outcome 1 support country ownership by leveraging locally endorsed committees and incorporating local knowledge into master urban resilience plans.

111. Activities under this output are:

- **Activity 1.2.1: Develop a structured community engagement framework that includes mechanisms for inclusive participation in urban planning and climate resilience strategies, with clear guidelines on gender-responsive approaches.**
- **Activity 1.2.2: Establish regular community forums and participatory workshops to gather local perspectives and ensure ongoing community involvement in decision-making processes.**
- **Activity 1.2.3: Develop tailored communication materials, including visual and local language content, to enhance understanding and engagement across diverse community groups.**
- **Activity 1.2.4: Integrate locally endorsed committees into urban resilience planning processes, ensuring that traditional governance structures and local knowledge contribute meaningfully to decision-making.**

Output 1.3: Gender responsive policy briefs developed to enhance cross-sectoral coordination and mainstream gender-equitable urban resilience into existing institutional frameworks

112. Drawing from insights gained through regular coordination meetings of the ANRWG, municipal council discussions, community engagement activities, and the existing policy review under the WACA project, this output will develop targeted, gender responsive policy briefs to enhance institutional

frameworks for urban resilience. The briefs will target national, municipal, and ward-level decision-makers across urban planning, water resources, natural resources and environment, agriculture, fisheries, public health, and infrastructure sectors to enhance institutional frameworks for urban resilience.

113. These policy briefs will particularly aim to resolve institutional fragmentation and conflicting priorities in urban resilience planning. They will provide concrete recommendations to embed resilience considerations into governance structures, enabling municipal and ward-level decision-makers to prioritize and integrate climate resilience into urban development strategies. The policy briefs will enhance the capacities of municipal- and ward-level decision makers to engage effectively with community-based organizations and community leaders, thereby addressing the disjointed nature of cross-departmental arrangements and conflicts of interest (Barrier 1). Furthermore, the briefs will focus on fostering collaboration among government entities, community-based organizations, and traditional leaders by promoting cross-sectoral coordination and gender-equitable approaches. This will ensure that urban resilience efforts are inclusive, participatory, and effectively aligned with local priorities.

114. Activities under this output are:

- **Activity 1.3.1:** In collaboration with the WACA project, conduct a review of existing policies and frameworks related to urban resilience, with a focus on cross-sectoral coordination and gender mainstreaming.
- **Activity 1.3.2:** Identify key institutional barriers and gaps that hinder effective urban resilience planning and coordination across departments.
- **Activity 1.3.3:** Organize stakeholder consultations, including ANRWG members, municipal councils, and community representatives to validate findings and ensure policy briefs reflect local needs and realities.
- **Activity 1.3.4:** Develop targeted policy briefs that provide clear recommendations for integrating urban resilience into institutional frameworks, emphasizing gender-responsive approaches.
- **Activity 1.3.5:** Disseminate policy briefs to municipal- and ward-level decision makers through workshops, policy dialogues, and online platforms to ensure accessibility and engagement.

Output 1.4: Adaptation Strategy and Gender responsive Urban resilience master plan (URMP) developed for the Greater Banjul Area

115. Under this output, the project will develop an Adaptation Strategy and a gender-responsive Urban Resilience Master Plan (URMP) for the Greater Banjul Area (GBA), integrating both specialist and local knowledge. While the adaptation strategy would set the vision, objectives, targets, and policy measures, Urban Resilience Master Plan would outline where and how to act on the ground, with mapped interventions and an investment schedule. The Adaptation Strategy would articulate the vision, objectives, targets, and enabling policy measures, whereas the Urban Resilience Master Plan will translate this direction into mapped and site specific interventions for the GBA.

116. The URMP will be informed by the “Flood and Coastal Risk Assessment and Priority Investment Planning for Greater Banjul” report developed in scope of the WACA project, ensuring that urban resilience planning accounts for climate risks and long-term sustainability.

117. The design of the URMP will be further supported by a vulnerability assessment focused on determining hotspot areas for exposure to drought and heatwaves, to supplement efforts undertaken by the WACA project. This assessment will be conducted in a participatory and gender-sensitive manner,

considering the differential impacts experienced by men and women within the target region. The assessment will also make use of gender-disaggregated data as well as surveys and focus group discussions (FGDs) targeted at men and women.

118. To ensure climate-informed urban planning, the URMP will incorporate adaptation plans tailored to different climate scenarios to enhance preparedness for climate-related shocks. This approach will help decision-makers identify and integrate measures that reduce exposure to future climate risks while safeguarding critical infrastructure, housing, and services within the GBA.

119. The framework for community engagement and participation (Output 1.2) will be adhered to during all stages of URMP and adaptation plan development, ensuring active community participation and securing local buy-in for long-term sustainability. The URMP will be the capstone of Outcome 1, synthesizing insights from ongoing and planned vulnerability assessment and policy integration efforts. This plan will lay out a strategic pathway for urban resilience in the GBA, including ward-level recommendations for the allocation of resources to different hotspot areas and specific targets for gender equity. Accordingly, the development of an URMP for the GBA will address challenges related to fragmented urban planning (Barrier 1) and the limited availability of financial resources for EbA and climate-resilient urban infrastructure (Barrier 2).

120. Activities under this output are:

- **Activity 1.4.1: Conduct a comprehensive review of existing climate risk assessments and planning frameworks to identify key gaps and integration opportunities.**
 - **Activity 1.4.2: Engage communities through participatory consultations as per the framework developed under Output 1.1.2 to incorporate local knowledge and lived experiences into the URMP and adaptation strategy.**
 - **Activity 1.4.3: Develop the Adaptation Strategy and Urban Resilience Master Plan (URMP), integrating climate change projections, scenario-based urban planning analysis, and risk assessments.**
 - **Activity 1.4.4: Finalize and disseminate the URMP and Adaptation Strategy to key stakeholders**

121. **Activity 1.4.5: Deliver training and capacity building to city planners and municipal agencies in charge of infrastructure planning, building and maintenance on implementing the URMP and the Adaptation Strategy.**

Component 2: Increasing resilience through ecosystem-based adaptation (EbA)

Baseline

122. As described in Section A above and in the annex Economic Impact Analysis of Climate change and Adaptation Measures in the Gambia existing environmental challenges faced by communities the GBA include the degradation of natural ecosystems resulting from unsustainable land management practices and the vulnerability of infrastructure to climate change impacts such as flooding and sea-level rise. These challenges highlight the urgent need for integrated approaches that combine sustainable land management (SLM), and ecosystem-based adaptation (EbA) to increase urban resilience.

123. The Greater Banjul Area (GBA) is highly vulnerable to a range of climate-related vulnerabilities that threaten its people, economy, and environment. This rise will intensify coastal flooding and erosion, directly endangering critical infrastructure such as Banjul's port, transport networks, and densely

populated urban neighborhoods. Another major concern is saltwater intrusion into the coastal underground water. Groundwater is the primary source of drinking water in the region, and salinization threatens its availability and quality for domestic use and agriculture. Extreme weather events compound these risks. Heavy rainfall, storm surges, and poorly developed drainage systems contribute to frequent urban flooding, which damages roads, bridges, homes, and businesses while disrupting essential services. Coastal ecosystems such as mangroves and wetlands, which naturally buffer against flooding and erosion, are also under threat. Degradation of these ecosystems through climate change and human encroachment reduces their protective function and harms biodiversity.

124. Economic livelihoods in the GBA are highly exposed to these climate impacts. The fishing industry faces disruptions from coastal erosion and changing fish migration patterns, while agriculture is affected by shorter rainy seasons, droughts, and unpredictable rainfall. The tourism sector, reliant on beaches and coastal attractions, risks significant losses due to erosion, flooding, and infrastructure damage. Public health risks are also rising, with increased flooding leading to outbreaks of waterborne diseases like cholera and higher temperatures contributing to heat stress and the spread of vector-borne diseases such as malaria.

125. Climate change is already having severe impacts on the Gambia's economy, especially in the GBA, where urban density, poor infrastructure, and coastal vulnerability converge. The key findings of the Socio-Economic assessment conducted at the PPG stage are:

- The most affected sectors are agriculture, fisheries, and tourism, with 67% of respondents reporting reduced income due to climate-related events.
 - Business-as-usual scenarios suggest up to a 16% loss in sectoral GDP, affecting over 3,500 tourism jobs and leading to rising food insecurity and fish spoilage rates of up to 50–60% under realistic assumptions.
 - Incremental adaptation measures (e.g., composting, shifting planting dates, use of irrigation) reduce economic losses by 30–40%, but remain insufficient for long-term resilience.
 - Transformative adaptation strategies deliver the highest impact, including:
 - 40% reduction in fish post-harvest losses,
 - ROI values of 75–300% in agriculture, 60–180% in fisheries, and 50–120% in tourism,
 - 30% greater community resilience when adaptation is equity- and inclusion-focused.
 - Access to basic services in the Greater Banjul Area remains uneven, especially in informal settlements. While most households have electricity and water access, many face frequent outages and reliance on unsafe water sources persist. Over 35% report climate-related illnesses despite high healthcare access, highlighting service gaps that increase vulnerability to climate risks.

126. According to the Flood and Coastal Risk Assessment and Priority Investment Planning for Greater Banjul conducted in scope of the WACA project, the combined Average Annual Damage (AAD) including 50% indirect economic damage (urban pluvial / coastal) for 2020 for the entire Greater Banjul area is USD 21.6 M per year. The AAD increases over time due to climate change impact to USD 28.6 M per year in 2040 (+32%) and USD 40.9 M per year in 2070 (plus 43% relative to 2040). The same assessment predicts that approximately 10,000 people will be affected by coastal flood events in 2040. This number is expected to reach 18,400 in 2070 due to further growth of population.

127. As a part of a comprehensive economic impact assessment conducted at the PPG stage, an analysis conducted on the return on investment (ROI) and cost-benefit analysis (CBA) of various EbA approaches

in the GBA on agriculture, tourism and fisheries sectors. by comparing upfront investment costs with estimated long-term benefits. The results highlight which interventions provide the best economic returns while enhancing resilience to climate shocks.

128. The analysis shown that many interventions suffer from late project implementation (after planting season or tourist peak periods). High operational costs (especially generator-fuelled cold storage) and redundancies or donor overlap due to poor coordination. The data clearly shows that adaptation activities often fail to meet timelines or planned implementation schedules. Less than 10% of respondents across all sectors confirmed that measures were fully implemented on time. Over 50% said they didn't know whether activities were implemented according to plan, pointing to poor communication and engagement.

129. The data suggests that some lower-cost alternatives could be more efficient. In agriculture, composting (10.21% adoption) shows higher adoption rates than more costly irrigation (4.12%). In fisheries, improved preservation techniques (like smoking and drying) are more widely accessible than cold storage. In tourism, nature-based solutions like tree planting have higher uptake rates (due to lower costs) than infrastructure hardening.

130. Respondents cited key barriers to efficiency. 75.13% lacked irrigation systems despite water scarcity. Inadequate financing for inputs, gear, or infrastructure (agriculture: 2.31%, tourism: 3.46%), Lack of technical expertise, especially in sustainable practices (up to 3.62% in tourism), Limited access to climate data for planning (reported across all sectors)., Logistical and infrastructure issues, such as poor roads and unreliable electricity (reported by 28.23% in tourism).

131. Below table outlines the performance of various ongoing EbA approaches. While the ROI and BCA would not be considered as the sole factor in identifying the EbA solutions to be piloted under the project, it provides a valuable aspect in identifying the most effective EbA solutions.

Table 4: BCA and ROI Overview of Baseline EBA Solutions in GBA Across Agriculture, Fisheries and Tourism Sectors.

| Sector | Benefit cost ratio | ROI percent |
|---|--------------------|-------------|
| AGRICULTURE | | |
| Agroforestry tree planting | 58.0 | 5,694 % |
| Agricultural insurance risk sharing | 19.1 | 1,806 % |
| Early warning systems | 6.18 | 518 % |
| Climate smart agriculture | 5.02 | 403 % |
| Rainwater harvesting irrigation | 4.33 | 333 % |
| Composting organic mulching | 2.21 | 121 % |
| FISHERIES | | |
| Improved fishing gear eco friendly | 28.9 | 2,792 % |
| Cold storage drying equipment | 7.87 | 687 % |
| Raised housing fish smoking structures | 3.7 | 270 % |
| Mangrove restoration marine conservation | 1.8 | 80 % |
| Community based early warning systems | 1.8 | 78 % |
| TOURISM | | |
| insurance business continuity planning | 2.4 | 140 % |
| Beach nourishment or coastal erosion control | 2.24 | 124 % |
| Climate risk assessments for tourism sites | 2.0 | 100 % |
| Emergency preparedness plans for tourists and staff | 1.87 | 87 % |
| Energy efficient hospitality technologies | 1.8 | 80 % |
| Eco friendly and climate resilient tourism infrastructure | 1.68 | 68 % |

132. Beyond these quantified financial gains, consultations with communities and stakeholders highlight several perceived benefits that cannot be fully captured in monetary terms. These include greater resilience to climate shocks, improved household food security, and reduced vulnerability to market fluctuations. Many respondents also emphasized the psychological and social value of increased confidence in long-term livelihood stability.

133. Finally, it is important to note that adaptation strategies often produce positive externalities that further strengthen the case for investment. Ecosystem restoration, biodiversity protection, improved public health outcomes, and reduced conflicts over scarce resources are among the broader co-benefits. While these outcomes may not be fully reflected in financial calculations, they play a critical role in enhancing sustainability and ensuring inclusive development in The Gambia.

Project approach

134. Component 2 of the proposed project will focus on bolstering the climate resilience of urban and peri-urban communities in the GBA by facilitating the uptake of ecosystem-based adaptation strategies to reduce the impacts of extreme climate events in high-risk areas outside of the WACA intervention area. Interventions introduced under Component 2 will leverage both natural systems and innovative infrastructure solutions to address existing gaps in ecosystem protection, infrastructure development and services provision resulting from limited urban planning (Barrier 1). Additionally, the promotion of sustainable livelihood options and the use of cost-effective EbA solutions will address challenges associated with limited financial resources for investment in climate-resilient urban development at both local and municipal scales (Barrier 2). In these ways, Component 2 will contribute significantly to the overall resilience and sustainability of urban and peri-urban areas in the GBA.

Identification of potential project sites

135. To ensure that project interventions are targeted, evidence-based, and aligned with the most urgent climate adaptation needs, the CLIMB project team adopted a structured and consultative approach to identify priority intervention sites for the project across the Greater Banjul Area.

136. A key input to this process was the comprehensive “Flood and Coastal Risk Assessment and Priority Investment Planning for Greater Banjul”^[1], conducted under the World Bank-led WACA project. This assessment provided a detailed analysis of flood hazards, pluvial, fluvial, and coastal, across different time horizons (2020, 2040, 2070), using high-resolution spatial modelling of inundation depths, average annual damages, and population exposure. Critically, it also included an analysis of social flood vulnerability, a critical measure of how socio-economic status affects communities' ability to recover from flood events. The assessment has sub-divided the GBA into 11 sub-areas based on topology, geography, and hydraulic behavior. Each sub-area was assessed individually to determine levels of hazard, risk, and the need of intervention. Using model simulations for recurrence intervals ranging from 0.4 to 200 years, the study mapped projected inundation extents and depths. The analysis revealed that most areas are predominantly affected by pluvial flooding, while low-lying zones such as Banjul City face added risks from coastal flooding due to storm surges combined with high tides.

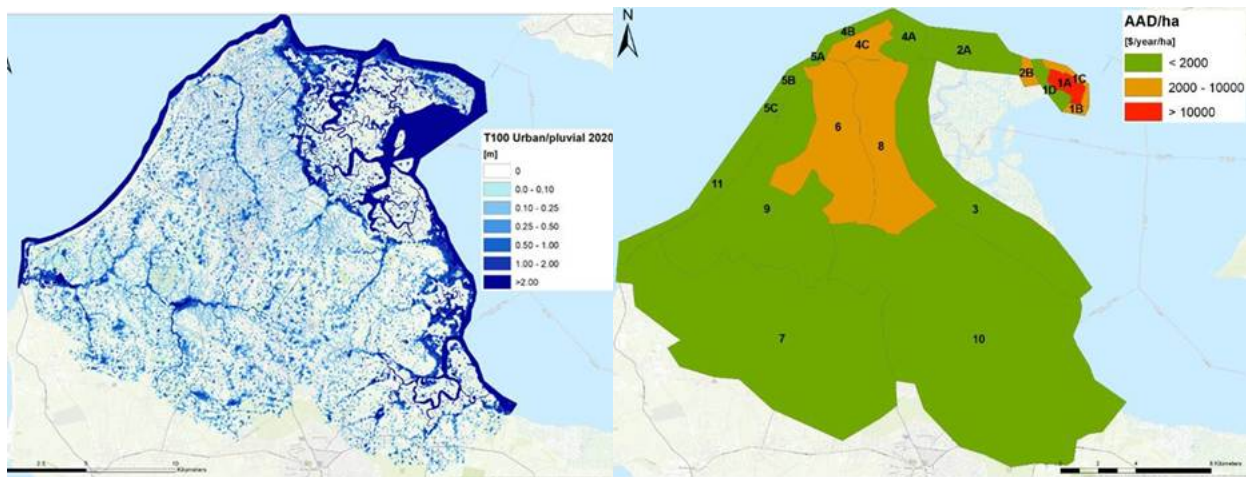


Figure 15: Left: Flood Hazard Expressed in Inundation Depth [M] Right: Economic Flood Risk Expressed in Average Annual Damage (Aad) [\$/Yr/Ha]

137. Based on the modelling, each area was categorized according to its economic and social flood risk (low, medium, or high) for each time horizon. From these 11 sub-areas, CLIMB project development team has identified a sub-set of sites throughout dozens of stakeholder consultations. This assessment has been further complemented by dedicated assessments conducted by the CLIMB project preparation team, namely Community Engagement and Capacity Building Needs Assessment (Appendix 12) and Economic Impact Analysis of Climate Change and Adaptation Measures in the Gambia (Appendix 11).

138. By combining these findings of the studies with the consultations, consideration of ongoing or planned development and/or construction projects, their high exposure to climate risks, significant population vulnerability, and strong potential for nature-based, inclusive, and sustainable adaptation measures, the following project sites have been identified:

1. Bond Road, Banjul City (Area 1A)
2. Fajara-Senegambia (Area 5A)
3. Urban areas inland East of Kotu Stream (Area 8) and Urban areas West of Kotu Stream (Area 9)

Table 5: Risk Overview of Selected Project Sites in the WACA assessment

| Area | Main risks | Economic risk | | | Social risk | | |
|--|---------------------------|---------------|------|------|-------------|------|------|
| | | 2020 | 2040 | 2070 | 2020 | 2040 | 2070 |
| Area 1A. Banjul City | Coastal/ pluvial flooding | MR | HR | HR | MR | HR | HR |
| Area 5A. Fajara to Kotu Stream | Coastal erosion | LR | MR | HR | LR | LR | LR |
| Area 5B. Kotu Stream to Senegambia | Coastal erosion | LR | HR | HR | LR | LR | LR |
| Area 8. Urban areas inland East of Kotu Stream | Pluvial flooding | LR | MR | MR | MR | HR | HR |
| Area 9. Urban areas inland West of Kotu Stream | Pluvial flooding | LR | LR | LR | LR | LR | LR |

Although Area 9 registers as low risk across modelled scenarios in the WACA assessment, its selection is justified by several factors. First, it is one of the most densely populated inland urban areas of the Greater Banjul Area, where even localized flooding and drainage failures affect large numbers of people and critical services. Second, the area has very high socio-economic vulnerability, with many informal settlements, limited access to reliable infrastructure, and households with reduced adaptive capacity. As highlighted during community-level consultations, residents consistently identified recurrent pluvial flooding, poor drainage, and waterlogging as priority concerns that disrupt livelihoods, increase health risks, and damage property. Finally, Area 9 represents an opportunity to demonstrate scalable adaptation measures in inland urban zones that are currently under-served by investment but face increasing risks under climate change scenarios such as prolonged heatwaves and drought, which were not captured in the WACA modelling but highlighted in the Economic Impact Analysis. Taken together, these factors make Area 9 a priority site despite its low modelled flood risk, ensuring the project addresses both hazard exposure and underlying vulnerability.

OUTCOME 2: URBAN RESILIENCE TO CLIMATE CHANGE IS STRENGTHENED THROUGH INTEGRATED EBA SOLUTIONS AND ALTERNATIVE LIVELIHOODS

139. Under this Outcome, the proposed GEF project will enhance communities' resilience to extreme climate events by: i) protecting and restoring priority ecosystems and buffer zones; ii) facilitating the uptake of sustainable livelihood practices that incentivize ecosystem protection; iii) establishing multi-use green spaces within urban areas – to serve as buffer zones during flood events, dissipate heat during heatwaves and provide socio-economic incentives for maintaining green corridors; v) piloting ecosystem based adaptation solutions for enhanced urban drainage, water storage and coastal defense; and vi) developing/scoping of a financial mechanism for upscaling EbA solutions. This integrated approach to sustainable land management and sustainable development will strengthen the ecological foundation of urban areas and enhance ecosystem services provision – particularly related to flood attenuation, coastal protection, water infiltration and reduced surface runoff – thereby reducing community vulnerability to climate change impacts and supporting the well-being of urban communities under future climate conditions. This outcome will be delivered via five outputs, described in more detail below.

Output 2.1: Priority ecosystems and natural buffer zones are restored and protected.

140. Activities introduced under Output 2.1 will focus on restoring or protecting priority ecosystems and natural buffer zones in the GBA – including, inter alia, mangrove forests, wetlands, seagrass meadows, beaches and terrestrial forests – to enhance the provision of ecosystem services that minimize the impacts of flooding, rising sea levels, droughts and heatwaves in hotspot areas.

141. To maximize the success of ecosystem restoration efforts in the GBA and ensure alignment with other EbA initiatives, the proposed project coordinate with the ongoing GEF project titled 'Landscape planning and restoration to improve ecosystem services, and livelihoods, expand and effectively manage protected areas' to upscale successful restoration interventions in hotspot areas identified by the WACA vulnerability assessment.

142. Protocols for ecosystem restoration will be outlined in the URMP (Output 1.4).

143. The target sites for ecosystem restoration interventions under Output 2.1 were identified during the project preparation phase, based on technical assessments and extensive consultations with local authorities and community stakeholders. Preliminary analysis has highlighted several priority areas where the restoration and protection of ecosystems and natural buffer zones could generate significant resilience benefits. Table 5 below outlines the rationale for site selection and presents a menu of nature-based solutions tailored to the specific needs and vulnerabilities of each location. While these proposed solutions reflect stakeholder inputs and expert recommendations, the final selection and design of interventions will be confirmed at the beginning of project implementation, in close coordination with

national and local partners. For further detail, please refer to the annex *Project Sites and Potential Solutions*.

Table 6. Potential Sites and Solutions for Output 2.1

| Proposed Site | Rationale for Selection | Potential Nature-Based Solutions |
|--|--|---|
| Bond Road and Adjacent Tambi Wetlands, Banjul City | Located along one of Banjul's busiest arteries, Bond Road experiences frequent flooding due to inadequate drainage. The site is directly adjacent to the ecologically sensitive Tambi Wetland (a Ramsar site), which is increasingly threatened by pollution and encroachment. The area presents a unique opportunity to integrate flood control, biodiversity conservation, and urban greening into a multifunctional public space, improving resilience and quality of life in one of the most vulnerable parts of the city. | <ul style="list-style-type: none"> • Buffer vegetation with native trees and shrubs to improve air quality and reduce noise. • Hydraulic design with floodable zones and elevated walkways. • Bioswales and infiltration trenches to improve roadside stormwater management. • Constructed wetlands for flood retention and water treatment. • Salt-resilient botanical garden for biodiversity and education. • Mangrove buffer strip along the coastal edge for wave attenuation and sediment control. • Living shorelines and vegetated embankments as sustainable alternatives to hard infrastructure. |
| Kombo Coastal Wetland Zone, Brikaama Area Council | The Kombo area is increasingly exposed to tidal flooding, storm surges, and erosion due to the degradation of natural mangrove buffers and tidal drainage channels. Urban expansion has reduced green cover and disrupted hydrological flows, heightening flood risks and reducing biodiversity. The site offers strong potential for wetland restoration and mangrove rehabilitation to protect ecosystems and enhance climate resilience. | <ul style="list-style-type: none"> • Mangrove buffering to reduce erosion and attenuate storm surges. • Wetland rehabilitation to restore drainage and flood retention. • Reforestation of degraded coastal areas. • Community co-management of restored ecosystems. |

144. Activities under this output are:

- **Activity 2.1.1: Identify and validate targeted EbA solutions for selected sites.**
 - **Activity 2.1.2: Implement targeted restoration interventions, including mangrove replanting and wetland rehabilitation to enhance coastal and urban resilience.**
 - **Activity 2.1.3: Establish protective measures for key ecosystems, such as reforestation of degraded terrestrial forests and erosion control on beaches and wetlands.**
 - **Activity 2.1.4: Develop and establish a community-led management system for restored ecosystems, ensuring local ownership and long-term stewardship under the supervision of government and municipal authorities, with clear roles and responsibilities.**
 - **Activity 2.1.5: Facilitate capacity building and training for local communities on ecosystem restoration and management, promoting knowledge transfer and sustainable practices.**
 - **Activity 2.1.6: Develop a land management plan, defining land use, access rights, and responsibilities for communities engaged in fishing, agriculture, and other ecosystem-dependent activities.**

- **Activity 2.1.7: Develop monitoring protocols and baseline indicators to track ecosystem health and the effectiveness of restoration interventions, ensuring community involvement in monitoring and evaluation.**

Output 2.2: Multi-use public green spaces established

145. This output will focus on the utilization of multi-use urban green spaces to support sustainable livelihoods, land management and urban resilience, which will also offer physical venues for community markets, where project beneficiaries can offload goods produced via livelihood activities enhanced under the proposed project.

146. The public green spaces will be established on unoccupied state-owned land, to prevent urban expansion into untransformed areas and better regulate land-use in urban and peri-urban settings.

147. Although public green spaces will double as recreational areas for target communities, the primary objective of their establishment will be to provide adaptation benefits related to flood attenuation, water retention and heat dissipation. To this end, multi-use public green spaces introduced under the proposed project will: i) incorporate indigenous vegetation and retention ponds, to enhance soil stabilization, increase water infiltration and reduce urban runoff during floods and extreme precipitation events; ii) contribute to urban greening for heat dissipation, to reduce the UHI effect ; iii) serve as green corridors for protecting biodiversity; iv) provide dedicated areas for small-scale urban agriculture and market gardening, to enhance food security and reduce pressure on natural ecosystems; v) serve as premises for community markets, where goods from sustainable alternative livelihoods can be offloaded; and vi) provide recreational spaces for urban and peri-urban communities, thereby providing opportunities for ecotourism and public green investment within highly urbanized areas.

148. Design of these multi-use public green spaces will integrate gender-responsive principles to address women’s safety and inclusion. Given that women represent a significant proportion of market sellers and are considered a vulnerable group, special attention will be given to creating safe and accessible environments. The project will draw from the findings and suggestions outlined in the from Cities Alliance and UNOPS report “ Planning for inclusive Greater Banjul”.

149. The target sites for multi-use public green space interventions under Output 2.1 were identified during the project preparation phase, based on technical assessments and extensive consultations with local authorities and community stakeholders. Preliminary analysis has highlighted several priority areas where the establishment of public green spaces could generate significant climate adaptation and socio-economic benefits. Table 6 below outlines the rationale for site selection and presents an illustrative menu of ecosystem-based and community-oriented solutions tailored to the specific needs and vulnerabilities of each location. While these proposed solutions reflect stakeholder inputs and expert recommendations, the final selection and design of interventions will be confirmed at the beginning of project implementation, in close coordination with national and local partners. For further detail, please refer to the annex *Project Sites and Potential Solutions*.

Table 7. Potential Sites and Solutions for Output 2.2

| Proposed Site | Rationale for Selection | Potential Nature-Based Solutions |
|---------------|--|---|
| Bond Road, | In addition to the challenges outlined under Output 2.1.1, Bond Road is surrounded by heat-retaining surfaces such as asphalt and concrete, contributing to the urban heat | Design of an eco-friendly recreational park that provides flood attenuation, urban greening, and recreational amenities. Nature-based solutions could include shaded walkways, native |

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| Banjul City | island effect. Vulnerable populations, particularly the elderly and children, are especially affected by extreme heat. The area lacks green space and suffers from poor air quality and flooding. | vegetation buffers, retention ponds, and educational zones for ecotourism. The park will offer multifunctional use including recreation, marketplaces, and climate adaptation, while promoting sustainable livelihoods. |
| Abuko Reserve | These three urban forest sites offer significant opportunities for climate adaptation, ecosystem restoration, and inclusive community development. Key rationale includes: mitigating the Urban Heat Island (UHI) effect; reducing flood risks through improved stormwater absorption; lowering air and noise pollution along major urban arteries; restoring habitats degraded by encroachment and quarrying; sequestering carbon; and stabilizing soils in erosion-prone areas. The proximity of these parks to residential areas makes them ideal for enhancing green infrastructure in the Greater Banjul Area. | The proposed interventions would support the establishment of urban green parks following sustainable operational models. Inspired by successful initiatives such as the Karura Forest in Nairobi, each park would offer safe recreational and educational spaces, promote environmental stewardship, and serve as hubs for eco-tourism and alternative livelihoods. Activities may include guided nature tours, school excursions, cycling paths, small event rentals, and kiosks for local businesses. These revenue-generating features would help fund long-term park management, create green jobs, and ensure conservation and community benefits are sustained over time. |
| Salagi Forest Park | | |
| Bijilo Forest Park | | |

150. Activities under this output are:

- **Activity 2.2.1: Design multi-use public green spaces, focusing on layout planning, land use regulation, and gender-responsive design principles.**
- **Activity 2.2.2: Establish public green spaces on unoccupied state-owned land, implementing the approved designs through landscaping, planting of indigenous vegetation, construction of amenities, and installation of infrastructure to support marketplaces, agriculture zones, recreational areas, and eco-friendly features like retention ponds and shaded community spaces.**
- **Activity 2.2.3: Develop infrastructure and facilities within green spaces to support community markets, small-scale urban agriculture, ecotourism, and public recreation, including market stalls, safe meeting areas, and visitor amenities.**
- **Activity 2.2.4: Engage local communities and stakeholders throughout the design, implementation, and maintenance phases, promoting ownership, inclusivity, and long-term sustainability of the green spaces.**

Output 2.3: EbA solutions piloted for enhanced urban drainage, water storage and coastal defense

151. This output will support urban resilience via piloting of ecosystem-based adaptation solutions for enhanced urban drainage during flood events, improved water harvesting and storage during droughts and increased coastal defence against SLR and coastal erosion. To ensure solutions are informed by generations of local environmental observations, enhance community ownership, and increase the likelihood of long-term adoption and maintenance, the output will seek to integrate traditional and local knowledge.

Sustainable Urban Drainage Systems

152. Under this output, sustainable urban drainage systems (SuDS) will be installed to manage stormwater more effectively, reduce flooding risks and enhance water quality in the GBA. SuDS use EbA principles to mimic natural processes related to absorbing, detaining and slowly releasing surface water, thereby reducing stress on conventional urban drainage systems. The details of the SuDS will be further refined during project implementation, to ensure alignment with the URMP (Output 1.1.4) and ongoing initiatives, such as the WACA project. All solutions will be subject to inspection and maintenance, to

ensure proper functioning, sustainability and preventing any exacerbating impact in case of flooding (for example, if a detention basin or drainage system is not properly managed, it can create a high risk of exacerbating the impact of flooding).

153. To maximize the effectiveness of climate-resilient water infrastructure in the GBA, this output will include awareness-raising and capacity-building activities that support local waste management organizations to strengthen plastic pollution management systems – including recycling and composting systems – to reduce the pollution of overburdened waterways and drainage systems.

154. Plastic pollution management interventions under this output will aim to limit the amount of solid waste entering and clogging drainage systems, which exacerbates pluvial flooding. Additionally, strengthened plastic waste management systems will contribute to reducing pollution, conserving resources, creating sustainable value chains and reducing pressure on limited natural resources. Examples of plastic pollution management interventions include: i) establishing or upscaling community-based recycling initiatives; ii) the collection of plastic for constructing ‘ecobricks’; and iii) collecting and using plastic pollution to fill gabions and coastal revetments, for enhanced protection against intense wave action and coastal erosion. In this regard, partnerships with the private sector companies and associations will be explored, such as recycling and waste management companies, as well as the Chamber of Commerce as gateway to broader business community.

Rainwater Harvesting Systems and Water Storage Infrastructure

155. Community resilience to droughts will be enhanced through the establishment of rooftop rainwater harvesting systems and water storage infrastructure – including communal tanks and cisterns – in public spaces. These systems will improve water security under increasingly dry conditions by enhancing access to freshwater for non-potable uses, such as irrigation and flushing toilets. This will reduce demand on municipal water supplies, particularly in areas prone to droughts. Additionally, rainwater harvesting infrastructure will increase capture and storage of runoff during extreme precipitation events, thereby reducing surface water flow and pressure on overburdened drainage systems in the GBA. In this way, enhanced rainwater harvesting and storage will also increase urban resilience to the impacts of flooding under future climate scenarios. The exact locations of rainwater harvesting systems and storage facilities will be detailed in the URMP (Output 1.4). Where feasible and possible, rainwater harvesting systems and water storage infrastructure will be linked to urban green spaces under Output 2.1.

Table 8. Potential Sites and Solutions for Output 2.3

| Proposed Site | Rationale for Selection | Potential Nature-Based Solutions |
|------------------------------------|--|---|
| Brikama Market | One of the most densely populated parts of the region, Brikama hosts key facilities such as banks, a hospital, council offices, and commercial hubs. Similar to the situation along Bond Road, inadequate drainage infrastructure leads to frequent water stagnation during heavy rainfall events, increasing the risk of infrastructure damage and the spread of waterborne diseases. Flooding disrupts daily life and commerce, with water often requiring removal by tanker trucks. While the market is a useful landmark, the intervention will target the broader area. | <ul style="list-style-type: none"> • Installation and upgrading of drainage infrastructure to reduce flooding and water stagnation. • Use of bioengineering solutions such as vegetated swales, retention basins, and filtration systems to enhance water quality and urban aesthetics. • Nature-based drainage improvements to reduce reliance on tanker trucks. • Integrated flood management measures to protect vital services and strengthen urban resilience. |
| Fajara–Senegambia Coastal Corridor | This critical stretch of coastline combines dense tourism infrastructure, residential settlements, and sensitive ecological zones. It faces severe coastal erosion, sea-level rise, groundwater salinization, and ecosystem degradation. Tourism assets, such as hotels and restaurants, are at risk from storm surges and flooding. The | <ul style="list-style-type: none"> • Hybrid seawalls with nature-based features (e.g., oyster beds, green terracing) for infrastructure protection. |

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| | <p>nearby Gambia River estuary and mangrove ecosystems offer opportunities for integrated nature-based coastal protection. Interventions here are essential to secure livelihoods, biodiversity, and infrastructure, while protecting The Gambia's economic and ecological assets from accelerating climate threats.</p> | <ul style="list-style-type: none"> • Expansion of mangrove belts in estuarine zones for wave attenuation and sediment capture. • Creation of coastal wetland buffer zones using salt-tolerant marshes. • Wastewater reuse systems to provide irrigation water and reduce pressure on freshwater sources impacted by salinization. <p>Offshore submerged breakwaters and eco-reefs to attenuate wave energy and stabilize beaches.</p> <ul style="list-style-type: none"> • Managed shoreline realignment and setback zones to allow wetland migration and reduce hard infrastructure exposure. • Dune restoration using native vegetation to provide storm surge protection. • Beach nourishment anchored with vegetative cover for erosion control. • Pilot rainwater harvesting infrastructure linked to urban green spaces to reduce runoff and provide supplementary freshwater resources. |
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156. Activities under this output are:

- **Activity 2.3.1: Conduct a comprehensive environmental, social and technological needs assessment to identify the concrete solutions to be implemented under the output.**
- **Activity 2.3.2: Develop and implement SuDS**
- **Activity 2.3.3: Develop and implement rainwater harvesting systems and water storage Infrastructure**
- **Activity 2.3.4: Develop and implement coastal defence and EbA solutions**
- **Activity 2.3.5: Establish plastic pollution management interventions**
- **Activity 2.3.6: Implement awareness raising and capacity building programs on plastic management**

Output 2.4: Gender responsive sustainable alternative livelihoods enhanced, with targeted support for women's economic empowerment

157. To further incentivize the protection of priority ecosystems and limit ecosystem degradation, activities under this output will provide technical support and inputs to local communities and stakeholders to facilitate the adoption of sustainable livelihood activities that are environmentally friendly and reduce pressure on natural resources. These may include activities such as agroforestry, horticulture, indigenous bivalve and crustacean aquaculture, kelp farming, apiculture (beekeeping),

ecotourism, biofuel production, and small-scale fish farming, among other market-oriented options identified during consultations.

158. In parallel, the project will work with communities to repurpose or develop physical spaces in and around ecologically significant sites, such as mangrove areas, to support these livelihoods and demonstrate community-based conservation models. These spaces may include nature information centers, guided eco-trails, and small community-run shops that sell locally made products such as soap, honey, or crafts. Women's groups, in particular, will be supported to lead workshops and small enterprises linked to traditional skills and sustainable product lines.

159. These multifunctional spaces will also serve as pilot sites to test integrated park management models that generate income for both communities and ecosystem stewardship. Documented results and lessons from these pilots will be used to attract additional investment from donors and private actors for scaling up sustainable livelihood initiatives and co-managed conservation approaches.

160. Notably, the promotion of biofuel production as a sustainable livelihood activity under Output 2.4 will be supported by awareness-raising activities that incentivize a transition to cleaner energy sources across all economic sectors, since large-scale deforestation for charcoal production contributes to altered water and sedimentation flows in the Gambia River basin, exacerbating the impacts of floods, rising sea levels and droughts in the GBA. Awareness-raising campaigns and capacity-building activities will specifically target women's groups and IPLCs. The mode for dissemination of awareness raising materials will be assessed during the PPG phase of the project and incorporated into a comprehensive communication plan, implemented under Outcome 3.

161. By providing targeted support through women's groups already involved in aquaculture and apiculture activities, Output 2.4 will enhance women's access to resources, skills, and opportunities, enabling them to engage in economically beneficial activities. This approach will not only diversify income sources but also strengthen women's roles in their communities, increasing their financial independence and decision-making power. Such empowerment is crucial for promoting gender equality and improving the overall economic health of local communities in the GBA. To ensure the approach is gender responsive, the project will engage men as allies through community dialogues, joint household decision making and financial planning, and mixed value chain trainings that promote equitable roles and prevent backlash, while keeping targets, resources, and direct benefits focused on women. This inclusive engagement supports cooperation at household and community levels and improves the uptake and sustainability of interventions.

162. Additionally, to ensure sustainable livelihood activities introduced under Output 2.4 are commercially viable in the long term, the proposed project will implement measures to enhance market linkages and establish long-term partnerships between local producers and consumers, thereby strengthening value chains for goods and services derived from sustainable livelihood practices. To this end, the project will build on the transactional networks and public-private partnerships (PPPs) already set up by the ongoing GCF EbA project, ensuring efforts are not duplicated but rather synergized to maximize impact and promote environmentally sustainable and economically viable value chains in areas like organic agriculture, sustainable fisheries, plastic pollution management and the crafting of goods from sustainable materials.

163. Activities under this output are:

- **Activity 2.4.1: Provide technical support and inputs to facilitate the adoption of sustainable livelihood activities, with a focus on women’s groups and disadvantaged communities.**
- **Activity 2.4.2: Implement targeted capacity-building and training programs for local entrepreneurs and community members, focusing on business management, sustainable production techniques, and market access strategies, to enhance entrepreneurial skills and economic resilience.**
- **Activity 2.4.3: Develop and execute awareness-raising campaigns to promote biofuel production as a sustainable alternative to charcoal, reducing deforestation impacts in the Gambia River basin. Campaigns will specifically target women’s groups and Indigenous Peoples and Local Communities (IPLCs).**
- **Activity 2.4.4: Engage women’s groups already involved in aquaculture and apiculture to enhance their access to resources, skills, and economic opportunities, strengthening their financial independence and decision-making power.**
- **Activity 2.4.5: Enhance market access for sustainably produced goods by leveraging modern digital platforms, trade fairs, and direct linkage programs, facilitating local and international market opportunities for sustainably produced goods.**
- **Activity 2.4.6: Establish long-term partnerships between local producers and consumers, building on public-private partnerships (PPPs) and transactional networks developed by the GCF EbA project, to strengthen value chains in organic agriculture, sustainable fisheries, and crafting goods from sustainable materials.**

Output 2.5: Financial mechanism for upscaling EbA solutions designed and established

164. Stakeholder consultations and assessments conducted during the PPG phase reaffirmed that limited access to finance remains a major barrier. Economic Impact Analysis of Climate Change and Adaptation Measures in The Gambia (Appendix 11) [\[TMU\]](#) identifies the shortage of financial resources for infrastructure maintenance and ecosystem restoration as the highest-priority constraint to implementing climate adaptation measures. At present, financing for climate adaptation in the GBA depends largely on government allocations and donor support, which have proven insufficient and unpredictable for sustaining adaptation efforts beyond individual project cycles.

165. The private sector’s potential to contribute to climate adaptation financing remains largely untapped, with CSR mechanisms and green investment opportunities yet to be systematically directed toward EbA initiatives in the GBA. There is currently no dedicated financial mechanism designed to support the scaling and sustainability of EbA solutions—representing a critical gap that this output seeks to fill.

166. Under this output, the project will develop and operationalize innovative financing mechanisms (IFMs) to enable the scaling up and long-term sustainability of ecosystem-based adaptation (EbA) solutions in the Greater Banjul Area. These mechanisms will address a critical barrier to sustained climate adaptation: the lack of financing for EbA infrastructure and nature-based solutions. By establishing these mechanisms, the project will create lasting pathways for continued investment in climate-resilient infrastructure, ecosystem restoration, and green businesses beyond its lifetime.

167. A variety of options will be considered for the IFMs including Corporate Social Responsibility (CSR) mechanisms, green bonds, certification schemes, climate insurance products, and enhanced access to climate funds. CSR mechanisms can channel private sector investments toward climate-resilient initiatives, aligning corporate goals with sustainable development objectives. Green bonds offer a means

to mobilize capital for environmentally beneficial projects, providing investors with credible returns on sustainable investments. Certification schemes can strengthen market access and generate premium prices for products sourced from sustainably managed ecosystems, incentivizing practices that enhance resilience. Climate insurance products can reduce financial risks associated with climate-induced disasters, enabling communities and businesses to invest more confidently in adaptation. Finally, leveraging national and international climate funds can supply the financial foundation needed for large-scale implementation of adaptation measures.

168. The design of the IFMs will be guided by a comprehensive feasibility analysis examining the investment landscape, regulatory environment, and institutional capacity in The Gambia. The study will evaluate and rank potential mechanisms based on criteria such as contextual suitability, scalability, financial sustainability, ability to leverage additional resources, alignment with gender and social inclusion objectives, implementation complexity, and the expected time to operationalization.

169. Following the assessment and selection phase, the design stage will develop detailed operational frameworks, including governance structures, eligibility criteria, application and approval processes, risk management protocols, gender-responsive investment criteria, and monitoring and reporting systems.

170. The establishment of the financial mechanisms will follow a phased approach, ensuring they are technically robust, contextually appropriate, institutionally supported, and fully functional prior to project closure.

171. Activities under this output are:

- **Activity 2.5.1: Conduct a detailed assessment to identify most suitable financing mechanisms to upscale EbA solutions, including CSR mechanisms, green bonds, certification schemes, climate insurance, and access to climate funds.**
- **Activity 2.5.2: Design and establish the financial mechanisms**

172. Table 9 summarizes the main elements of Component 2, linking specific climate hazards to their impacts, the underlying causes of vulnerability and the interventions proposed to mitigate these challenges. The proposed interventions are designed to address both the symptoms and root causes of vulnerability to climate hazards, leveraging sustainable land management practices and ecosystem-based adaptation (EbA) to enhance urban resilience. Private sector has significant potential to act as both an implementation partner and financier of scalable, market-linked adaptation solutions, particularly in facilitating urban EbA-related enterprises and the management of green infrastructure. This engagement is reflected across several outputs under Component 2. Under Output 2.3, partnerships are envisaged with private companies and related associations on waste management, including collaboration with the Gambia Chamber of Commerce. Output 2.4 builds on these linkages through the promotion of commercially viable livelihood models and long-term partnerships between producers and consumers, drawing on existing public-private partnerships and transactional networks established under the ongoing GCF EbA project. Output 2.5 further involves the private sector as both a beneficiary of innovative financial mechanisms and a source of investment for scaling up EbA interventions. Table 9 also provides a detailed overview of potential private sector investment opportunities associated with each intervention under Component 2.

Table 9: Main elements of Component 2

| Climate hazard | Impacts | Underlying causes of vulnerability | Proposed interventions | Private sector investment opportunities |
|------------------------------------|--|--|---|---|
| Sea level rise and coastal erosion | Land degradation | Limited coastal defence infrastructure | Mangrove reforestation and wetland rehabilitation (Output 2.1) | Highly amenable Coastal protection projects can attract investment from tourism and real estate sectors |
| | Damage to infrastructure | Rapid urbanisation into low-lying coastal areas | Adoption of sustainable livelihood practices that incentivise ecosystem protection (Output 2.4) | Scale-up through innovative financing mechanisms, potentially through partnerships with the government and international development partners. with government and international backing (Output 2.5) |
| | Saline intrusion | Reduction in natural barriers such as mangroves and wetlands | Coastal defence infrastructure (Output 2.3) | |
| | Coastal ecosystem degradation | Limited protective ecosystem management | Living shorelines and vegetated embankments (Output 2.3) | |
| | Beach erosion | Inadequate natural coastal defences | Dune restoration and stabilization with native coastal vegetation (Output 2.3) | |
| | Wave impact on shoreline | Lack of offshore protection | Offshore submerged breakwaters/eco-reefs (Output 2.3) | |
| | Wetland habitat loss | Limited space for ecosystem migration | Managed shoreline realignment and setback zones (Output 2.3) | |
| | Agricultural productivity decline | Saltwater intrusion to irrigation water | Water reuse for agricultural irrigation (Output 2.3) | |
| | Limited financing for coastal adaptation | Insufficient investment mechanisms | Climate insurance and certification | |

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| Flooding | Damage to property and infrastructure | Location within The Gambia River Basin | schemes (Output 2.5) Restoring ecosystems and natural buffer zones and promoting sustainable land use (Output 2.1 and 2.2) | Amenable Infrastructure projects have potential for PPPs Plastic pollution management can attract private investment in recycling and energy recovery Scale-up with investment and leveraging climate adaptation funds, as well as insurance (Output 2.5) |
| | Health risks | Rapid urbanisation into low-lying, flood-prone terrain | Sustainable urban drainage systems (SuDS) installation (Output 2.3) | |
| | Water contamination | Limited drainage systems | Plastic pollution management systems to reduce drainage blockage (Output 2.3) | |
| | Ecosystem degradation | Deforestation and reduction in natural ecosystems and buffer zones | Hydraulic design for floodable zones and elevated pathways (Output 2.3) | |
| | Stormwater management challenges | Impermeable urban surfaces Inadequate roadside drainage | Bioswales and infiltration trenches for roadside stormwater management (Output 2.3) | |
| | Water quality degradation | Limited natural water treatment systems | Constructed wetland pockets for floodwater retention and treatment (Output 2.3) | |
| | Community flood vulnerability | Limited community preparedness and | Community-led ecosystem management and | |

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| | | infrastructure | monitoring (Output 2.1) | |
| | Economic losses from flood damage | Lack of climate-resilient livelihoods | Enhanced market linkages for sustainable livelihood products (Output 2.4) | |
| | Limited long-term flood resilience | Insufficient financing for resilience infrastructure | Innovative financing mechanisms including CSR and green bonds (Output 2.5) | |
| | Soil erosion and degradation | Degraded quarry environments and unstable slopes | Soil and water bioengineering techniques for soil stabilization (Output 2.3) | |
| Drought | Reduced water quality and availability, impacting water security | Unsustainable land and water management | Promoting small-scale urban agriculture in public green spaces (Output 2.2) | Amenable Establish public-private partnerships (PPPs) for technology transfer and financing models that include microfinancing for smallholders including women and marginalised groups Organising community markets in public green spaces to enhance access to buyers of sustainably produced goods and services generated under Output 2.4 |
| | Reduced agricultural production at regional scale, with impacts on food prices and food security in urban areas | Dependence on groundwater | Promoting sustainable livelihood practices that incorporate water-saving practices (Output 2.4) | Certification schemes for businesses that meet sustainable water-use criteria CSR mechanisms and financing products for upscaling EbA solutions (Output 2.5) |
| | Degradation of priority ecosystems | Deforestation and subsequent reductions in water infiltration | Limited water harvesting and storage infrastructure | Installing rooftop rainwater harvesting and enhanced water |

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|-----------|---|--|---|---|
| | Pressure on freshwater aquifers | Over-extraction of groundwater resources | storage systems (Output 2.3) Water reuse for agricultural irrigation to reduce pressure on freshwater sources (Output 2.3) | |
| | Reduced ecosystem services provision | Ecosystem degradation and limited restoration efforts | Priority ecosystem restoration including mangrove replanting and wetland rehabilitation (Output 2.1) | |
| | Community vulnerability to water scarcity | Limited community-led management systems | Establish community-led management systems for restored ecosystems (Output 2.1) | |
| | Economic impacts on women's livelihoods | Limited access to climate-resilient livelihood options | Gender-responsive sustainable alternative livelihoods including aquaculture and apiculture (Output 2.4) | |
| | Limited financing for adaptation | Lack of innovative financing mechanisms | Design and establish financial mechanisms for upscaling EbA solutions (Output 2.5) | |
| Heatwaves | Increased heat stress and associated health risks | Urban heat island effect Limited public green space | Establishing multi-use green spaces and restoring ecosystems to reduce UHI effect (Output 2.1 and 2.2) | Partly amenable Green space development offers CSR opportunities for local businesses Multi-use recreational areas provide opportunities for ecotourism Urban tree canopy expansion along major corridors (Output 2.3) |

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| Reduced labour productivity | Inadequate urban cooling infrastructure | Promoting alternative energy sources to reduce deforestation for charcoal (Output 2.4) |
| Ecosystem degradation | Deforestation for fuel production | Buffer vegetation installation along major roads (Output 2.3) |
| Air quality deterioration | Limited pollution filtering infrastructure | Bioswales and green urban drainage infrastructure (Output 2.3) |
| Building heat gain | Limited building cooling systems | Vertical greening using trellises and climbing plants (Output 2.3) |
| Food security impacts | Heat stress on agricultural systems | Urban agroforestry and food gardens (Output 2.3) |

Component 3: Improving knowledge management and information dissemination

Baseline

173. In addressing Component 3 of the Greater Banjul Area urban resilience project, it is critical to understand the current landscape of knowledge management and information dissemination related to climate change adaptation in The Gambia. Historically, the target region has faced challenges in accessing and sharing information on climate impacts and adaptation strategies, largely resulting gaps in systematic data collection, analysis and dissemination. This scenario hampers effective adaptation planning and implementation, limiting community and decision-maker capacities to respond aptly to climate vulnerabilities.

174. As the Economic Impact Analysis conducted at PPG stage outlines in detail, there are significant knowledge and capacity gaps in climate-smart practices—over 80% of respondents have not received training in adaptation or sustainable agriculture.

175. The ongoing WACA and GCF EbA initiatives have already introduced several efforts to mitigate these challenges. Among these initiatives are comprehensive data collection and analysis activities focused on coastal erosion, sea-level rise and other climate threats. WACA has also prioritized capacity building

through training sessions and workshops for stakeholders at various levels, enhancing understanding and engagement around climate change impacts and ecosystem-based adaptation approaches. Additionally, WACA has fostered information sharing across West African countries via platforms designed to facilitate the exchange of knowledge, experiences and best practices in coastal resilience and climate adaptation. Moreover, an EbA information portal has been established under the GCF EbA project entitled ‘Large-scale ecosystem-based adaptation in the Gambia River basin’ (2017–2025). The planned LCDF project will leverage these investments to support increased awareness and dissemination of project knowledge products - specifically those related to adaptation in an urban setting.

Project approach

176. Component 3 of the proposed initiative is designed to overcome challenges related to limited public awareness and restricted access to specialized knowledge on climate change adaptation (Barrier 3). This component acknowledges the important role that informed and active communities play in the effective implementation of climate resilience strategies. By utilizing innovative communication strategies, modern technology and strategic partnerships, Component 3 will promote the collation and dissemination of relevant information, best practices and lessons learned generated under the proposed project via a single outcome (Outcome 3). Enhanced knowledge management under Outcome 3.1 will foster widespread understanding of the impacts of climate change and the need for adaptation interventions among target community members and stakeholders, thereby encouraging collective action towards a more resilient future.

177. Under Component 3, the project will develop a comprehensive suite of audience-specific knowledge products to ensure effective knowledge transfer and uptake across diverse stakeholder groups. For municipal authorities and planners, the project will produce technical guidance manuals on implementing the Urban Resilience Master Plan (URMP) and integrating EbA into urban planning processes, complemented by policy implementation toolkits that provide step-by-step procedures for enhancing cross-sectoral coordination. Women's groups will receive targeted visual guides and infographics on sustainable livelihood opportunities such as aquaculture, apiculture, and biofuel production, delivered in local languages alongside business development materials that focus specifically on market access strategies for women entrepreneurs. Indigenous Peoples and Local Communities (IPLCs) will benefit from traditional ecological knowledge integration frameworks that respect and incorporate existing local practices, community-based ecosystem restoration guides that build on indigenous knowledge systems, and participatory monitoring tools that enable communities to track ecosystem health using both traditional indicators and scientific methods. For broader community engagement, the project will develop mobile-friendly content on climate risks and adaptation options with offline accessibility, interactive materials for community forums, and storytelling multimedia content that communicates EbA benefits through local narratives and culturally relevant examples. All knowledge products will incorporate gender-disaggregated data and be available in multiple formats (visual, audio, digital) and languages to ensure accessibility across different literacy levels and cultural contexts, while facilitating peer-to-peer learning and knowledge exchange between community groups through dedicated platforms and forums.

178. The scope and specifics of the knowledge products will consider the detailed community needs assessment conducted during the PPG phase of the project. (See Annex: Community Engagement and Capacity Building Needs Assessment).

OUTCOME 3: INCREASED AWARENESS AND DISSEMINATION OF PROJECT KNOWLEDGE PRODUCTS

Output 3.1: Gender responsive knowledge products and lessons learned generated through partnerships

179. Under this Output, the project will establish partnerships with local and international organizations, academic institutions, government entities and Project Steering Committees (PSCs) from past and ongoing climate change projects in The Gambia, to facilitate knowledge-sharing related to the proposed project interventions. Collaboration with a broad range of institutions and industry specialists will foster the exchange of knowledge regarding urban resilience, climate change adaptation and EbA technologies, such that cutting-edge research, innovative solutions and practical lessons in climate resilience are communicated and tailored to fit the specific needs of the target population. The output will also explore opportunities that would engage the University of Gambia students, and young local entrepreneurs to develop and demonstrate a suite of urban EbA solutions in the local context - this could take the form of innovation challenges.

180. The output aims to ensure that the knowledge products include gender-disaggregated data, where applicable. In addition, the project will utilise knowledge products generated by both men and women, communication, and public education material developers, to ensure diversity of perspectives and approaches is reflected.

181. Activities under this output will be captured via a comprehensive communication plan. This plan will include urban ecosystem-based adaptation and locally led innovation mechanisms as thematic options in the learning, partnership and knowledge exchange programme. By implementing these measures, the proposed project will strengthen the existing database of resources for EbA and climate-resilient development in The Gambia, ensuring they are accessible to all stakeholders involved.

182. Activities under this output are:

- **Activity 3.1.1:** Establish partnerships with local and international organizations, academic institutions, government entities, and Project Steering Committees (PSCs) to facilitate knowledge-sharing related to urban resilience, climate change adaptation, and EbA technologies.
- **Activity 3.1.2:** Conduct studies and publishing peer-reviewed research papers in collaboration with the University of The Gambia, to enhance the country's long-term research on EbA, arrange internships within local government institutions, to ensure institutional knowledge is transferred to future cohorts.
- **Activity 3.1.3:** Develop gender-responsive knowledge products for various stakeholders (including policymakers, public and private sector, communities and the civil society), incorporating gender-disaggregated data, traditional and local knowledge, and ensuring diversity of perspectives by engaging both male and female contributors in content development.
- **Activity 3.1.4:** Host joint workshops, conferences and seminars for various stakeholders in collaboration with partners to train stakeholders on how best to use EbA information portal established under the project entitled 'Large-scale ecosystem-based adaptation in the Gambia River basin' (2017–2025)
- **Activity 3.1.5:** Disseminate knowledge products through existing platforms, including academic networks, industry forums, and public education channels, to ensure broad accessibility and effective knowledge transfer.

Output 3.2: Community awareness-raising campaigns to enhance access to information shared via the existing EbA information portal

183. Under Output 3.2, targeted community awareness campaigns will be launched to boost engagement with the existing EbA information portal – a central repository of resources and tools designed to support the implementation of EbA strategies in The Gambia and other comparable settings. These public awareness campaigns will employ a variety of communication channels – including social media, radio broadcasts, community workshops and educational materials – to ensure that valuable information reaches a broad audience, including rural communities outside of the project target region and those with limited internet access.

184. Activities under this output include:

- **Activity 3.2.1: Develop user-friendly, multimedia content tailored to diverse audiences, highlighting the benefits of EbA practices and how individuals and communities in urban and peri-urban areas could adopt them**
- **Activity 3.2.2: Organize interactive sessions, such as community forums and question and answer (Q&A) sessions, to provide hands-on guidance and address common questions or concerns about climate resilience and integration of traditional and local knowledge on EbA.**
- **Activity 3.2.3: Launch a mobile application to facilitate easier access to the EbA information portal, offering offline capabilities for users that do not have continued access to internet in remote areas.**

Sustainability

35. The project's sustainability lies in the inclusive, locally led processes it will establish, particularly through the development of the Urban Resilience Master Plan (URMP) and associated policy instruments. Rather than treating these as static outputs, the project emphasizes how they are developed, through multi-stakeholder collaboration, capacity building, and institutional alignment, ensuring long-term uptake and ownership at both national and local levels. This process directly supports the project's Theory of Change drivers, especially institutional integration and strengthened local capacity. Community engagement frameworks, climate training programs, and knowledge platforms will further embed climate adaptation into everyday decision-making. On the financial side, the project will pilot tailored mechanisms, such as local climate funds and co-certification schemes, to enable ongoing investment in nature-based and low-risk infrastructure solutions. These will be embedded in policy frameworks to ensure continuity beyond the project's lifespan.

Uptake

36. The project is designed to catalyze broader transformation in urban climate resilience by demonstrating the benefits of integrated EbA solutions in highly vulnerable urban and peri-urban settings. Through hands-on piloting of drainage improvements, coastal defences, and multifunctional green spaces, the project will serve as a proof-of-concept that will encourage other municipalities and sectors to adopt similar approaches. Strategic knowledge-sharing through partnerships with the University of The Gambia, local councils, and regional climate platforms will facilitate learning and inspire replication.

Replicability and scale-up potential

37. The project promotes replicability by embedding flexible and scalable design features into its core interventions. By integrating cost-effective and locally adaptable EbA models, such as green corridors and community-driven ecosystem restoration, the project lays the groundwork for their uptake in other

urbanizing regions across The Gambia and West Africa. These interventions are designed with simplicity, using local materials and skills to reduce entry barriers for replication.

188. During the project lifespan, targeted EbA interventions will be implemented in at least three climate hotspot areas across the GBA. These sites were prioritized based on their high exposure to climate hazards such as flooding, drought, sea-level rise, and urban heat – and collectively represent a significant but partial coverage of the adaptation needs within the GBA. Recent vulnerability assessments (e.g., under the WACA program) have identified more than 20 critical hotspots in the GBA where urgent adaptation measures are needed.

89. To close this gap, the project has been designed as a demonstration model for future replication at scale. Through its South-South collaboration strategy, particularly with countries participating in the WACA program, and through structured documentation of lessons learned, the project will promote regional replication. Tailored replication guidelines, policy briefs, and peer-to-peer learning exchanges - alongside integration of traditional knowledge - will ensure that methods remain culturally and contextually relevant. These outputs will support the uptake of proven EbA solutions in additional hotspot areas, both within The Gambia and across similar urban coastal regions in West Africa.

Innovativeness

90. While EbA has been applied in The Gambia through rural initiatives – such as large-scale mangrove replanting, watershed management, and small-scale coastal protection in community-based projects - its application in urban and peri-urban settings remains nascent. Existing urban resilience efforts have typically focused on sectoral or single-purpose infrastructure investments, such as upgrading drainage systems or planting trees, often without integrated planning or long-term sustainability strategies.

91. This project introduces a novel, multi-dimensional approach by uniting three traditionally separate domains – EbA, climate-resilient infrastructure, and sustainable livelihoods – into a cohesive and locally adapted urban resilience strategy. What sets this approach apart is the intentional co-design of multifunctional spaces that simultaneously deliver flood mitigation, biodiversity conservation, social cohesion, and livelihood opportunities.

[41] Flood and Coastal Risk Assessment and Priority Investment Planning for Greater Banjul

Final Project Report, World Bank, 2021. Shared by the World Bank with CLIMB project team during PPG phase.

[TM1] But in the Appendices, Appendix 12 is [Economic Impact Analysis of Climate Change and Adaptation Measures in The Gambia](#)

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this project, including financial management and procurement. If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

192. UNEP will serve as the GEF Implementing Agency for the project through its Climate Change Adaptation Unit (Climate Change Division) at the UNEP headquarters in Nairobi. The National Environment Agency (NEA) will act as the Executing Entity (EE) and will be responsible for the complete execution of the project under a contractual arrangement with UNEP, with GEF funds flowing from UNEP to NEA. As the EE for the

project, NEA may sub-contract qualified service providers for the execution of specific activities where specialized expertise is required according to their own rules, ensuring the highest standards of quality and transparency. NEA will also provide all necessary information to the evaluation experts for the mid-term review and terminal evaluation, ensuring that the project's progress and outcomes are thoroughly assessed and reported.

Project Management Unit

193. The EE will designate internally, or recruit directly, project management personnel to form the Project Management Unit (PMU). The PMU will be hosted by the EE and will consist of Project Coordinator, Finance and Administrative Officer, Procurement Officer, Chief Technical Advisor, Gender and Safeguards Expert, Communication and Knowledge Management Expert, and M&E Expert. The PMU will be responsible for the day-to-day oversight and coordination of project execution according to the agreed work plan. Additionally, the PMU will manage and coordinate all project activities carried out by external service providers. The PMU's function will conclude once the final terminal evaluation report and all other required documentation have been completed and submitted to UNEP, including the operational closure of the project.

The PMU's consolidated responsibilities will include:

- Execution of project activities;
- Recruiting and managing national and international consultants;
- Facilitating collaboration with stakeholders, donors, the IA, relevant national agencies, and the private sector;
- Managing project procurement, financial resources, and annual work plans;
- Organizing and leading project coordination and stakeholder meetings;
- Monitoring project progress and ensuring timely submission of reports, including progress reports, GEF Project Implementation Reports (PIRs), and annual work plans to UNEP;
- Addressing project delays or challenges by informing UNEP to ensure timely support or corrective actions.

194. In managing these responsibilities, the PMU will also take into consideration potential time lags that may arise from procurement processes, permitting requirements, and other necessary administrative approvals. To mitigate these risks and maintain progress toward project objectives, the PMU will integrate buffer periods into the work plan, allowing flexibility to address such procedural delays without significantly impacting the overall schedule.

Project Steering Committee

195. A Project Steering Committee (PSC) will be established at the beginning of the project to ensure effective oversight, maintain coherence, and promote institutional ownership, while providing advisory input on key project topics. The PSC will function as an advisory body, offering operational guidance and facilitating high-level coordination essential for the project's successful implementation. Chaired by NEA and co-chaired by the UNEP Resident Representative, the PSC will meet annually to assess project progress and approve the workplan for the following year. Proposed members of the PSC are the GEF Operational Focal Point (OFP), Ministry of Environment, Climate Change and Natural Resources (MECCNR), Banjul City Council (BCC), and additional stakeholders to be selected during the Inception Phase of project execution. Additional stakeholders from relevant organizations and institutions may be invited to join the PSC at the project's commencement.

Key functions of the PSC include:

- Approving the annual workplan and budget;
- Enhancing synergies between the GEF project and other relevant initiatives;
- Authorizing significant changes to project outputs or workplans in response to evolving needs, ensuring these modifications align with the approved project document, GEF policies, and UNEP regulations;
- Providing strategic advisory services to optimize project outcomes and ensure alignment with broader environmental and sustainability goals.

The EE will act as the secretariat for the PSC, reporting on project progress and aiding in the implementation of the committee's decisions.

196. UNEP, as the GEF Agency for the Project, will provide project cycle management and support services as established in the GEF Policy. As the GEF Agency, UNEP holds overall accountability and responsibility to the GEF for delivering project results. In this role, UNEP will utilise the GEF Agency Fee to deploy different actors within the organisation to support the project. UNEP's responsibilities as a GEF Agency will include:

- Administrate and disburse funds from GEF in accordance with the rules and procedures of UNEP
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, and other rules and procedures of UNEP
- Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned.
- Conduct at least one supervision mission per year.
- Report to the GEF Secretariat and Evaluation Office through the annual Project Implementation Report (PIR), the Mid-Term Review (MTR), the Terminal Evaluation (TE) and the Project Closure Report on project progress.

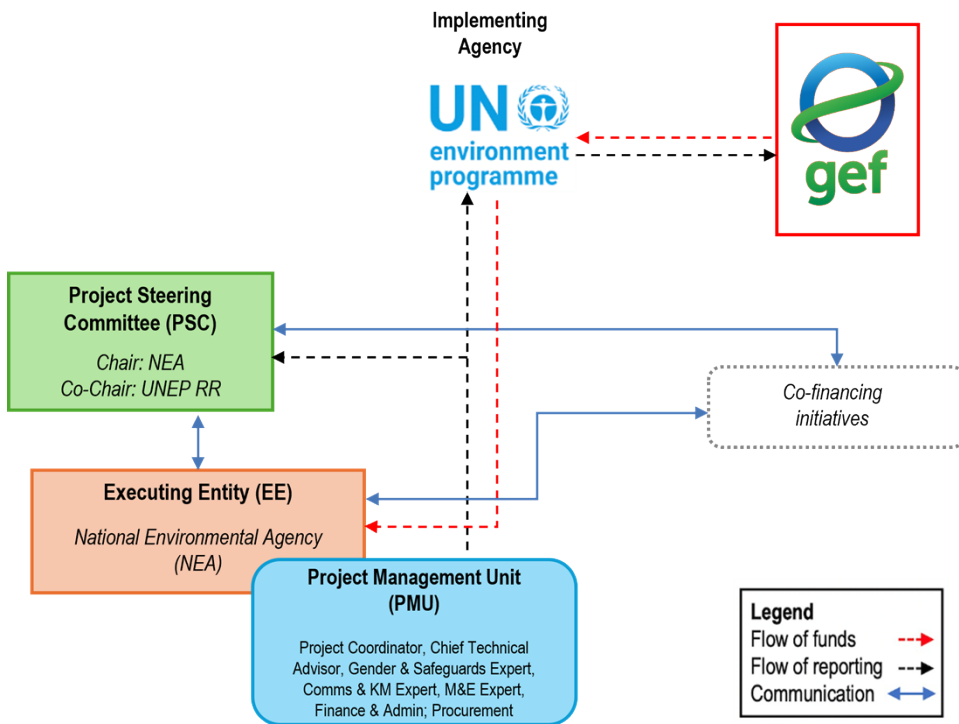


Figure 16. Project organigram

Procurement, ownership, and transfer of project assets

197. Assets, including equipment procured with the project budget by the EE, shall remain under the ownership of the EE until they are formally transferred to designated national counterparts, project beneficiaries, or other entities. The EE shall maintain a comprehensive inventory of all assets purchased under the project and coordinate with UNEP to determine the timing and conditions for the transfer of ownership, which may occur during project implementation, one year after purchase, or at another agreed-upon time, ensuring that all transfers align with project objectives. Assets under this project are envisioned to be acquired through co-financing to the extent possible. The EE shall ensure that all project equipment is sufficiently insured and maintained while under their ownership and require any equipment recipients to maintain minimum insurance on the equipment during the lifetime of the project. The costs associated with the maintenance and insurance of the equipment have been carefully considered and incorporated into the project budget to ensure seamless implementation.

198. The risks presented in below were initially identified during the PIF stage and subsequently refined and validated throughout the PPG phase. This iterative process included stakeholder consultations, technical expert input, and review of lessons learned from related adaptation and resilience projects in The Gambia. Risks were categorized according to GEF guidelines, covering context, innovation, execution, and sustainability dimensions. Each risk was assessed for its potential likelihood and impact, and mitigation measures were developed in alignment with UNEP’s Environmental, Social, and Economic Sustainability Framework (ESESF). Input from the NEA, as the executing entity, and other relevant government and civil society stakeholders, helped ensure the risks were context-specific and grounded in local implementation realities.

Will the GEF Agency play an execution role on this project?

If so, please describe that role here and the justification.

Not Applicable

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 (max. 500 words, approximately 1 page)

The project will ensure close coordination and cooperation with complementary initiatives and stakeholders to enhance synergies, avoid duplication, and leverage existing expertise and infrastructure. Opportunities will be explored for co-location of activities, knowledge-sharing, and coordination on regulatory, technical, and institutional efforts.

Core Indicators

Indicate expected results in each relevant indicator using methodologies indicated in the GEF-8 Results Measurement Framework Guidelines. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

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 |
| Is this project LDCF SCCF challenge program? false | | |
| This Project involves at least one small island developing State(SIDS). false | | |
| 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). true | | |
| 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 | 50.00% |
| Climate information services | 0.00% |
| Coastal zone management | 0.00% |
| Water resources management | 0.00% |
| Disaster risk management | 50.00% |
| Other infrastructure | 0.00% |
| Tourism | 0.00% |
| Health | 0.00% |
| 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 false | Increased climatic variability true | Natural hazards false |
| Land degradation false | Coastal and/or Coral reef degradation false | Groundwater quality/quantity true | |

CORE INDICATORS – LDCF

| | Total | Male | Female | % for Women |
|--|----------|------------|------------|-------------|
| CORE INDICATOR 1 | | | | |
| Total number of direct beneficiaries | 350,000 | 175,000.00 | 175,000.00 | 50.00% |
| CORE INDICATOR 2 | | | | |
| (a) Area of land managed for climate resilience (ha) | 3,000.00 | | | |
| (b) Coastal and marine area managed for climate resilience (ha) | 0.00 | | | |
| CORE INDICATOR 3 | | | | |
| Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation | 5.00 | | | |
| CORE INDICATOR 4 | | | | |
| Number of people trained or with awareness raised | 301,500 | 150,750.00 | 150,750.00 | 50.00% |
| CORE INDICATOR 5 | | | | |
| Number of private sector enterprises engaged in climate change adaptation and resilience | 10.00 | | | |

SUB INDICATOR 1

| | Total | Male | Female |
|--|-------|------|--------|
| 1.1 Number of direct beneficiaries from more resilient physical and natural assets | 0 | | |

| | | | |
|--|---|--|--|
| 1.2 Number of direct beneficiaries with diversified and strengthened livelihoods and sources of income | 0 | | |
| 1.3 Number of direct beneficiaries from the new or improved climate information services including early warning systems | 0 | | |
| 1.4 Number of youth (15 to 24 years of age) benefiting from the project | 0 | | |
| 1.5 Number of elderly (over 60 years of age) benefiting from the project | 0 | | |
| 1.6 Increased income, or avoided decrease in income (per capita in \$ across all relevant beneficiaries) | | | |

SUB-INDICATOR 2

- 2.1 Hectares of agricultural land
- 2.2 Hectares of urban landscape
- 2.3 Hectares of rural landscape
- 2.4 Hectares of forests
- 2.5 Hectares of marine area
- 2.6 Hectares of freshwater area
- 2.7 Number of residential houses
- 2.8 Number of public buildings
- 2.9 Number of irrigation or water structures
- 2.10 Number of fishery or aquaculture ponds or cages
- 2.11 Number of ports or landing sites
- 2.12 Km of road
- 2.13 Km of riverbank
- 2.14 Km of coast
- 2.15 Km of stormwater drainage
- 2.16 Number of new adaptation technologies supported

SUB INDICATOR 3

- 3.1 Number of policies/plans developed and strengthened that will mainstream climate resilience (regional, national, sub-national)
- 3.2 Number of systems and frameworks established for continuous monitoring, reporting and review of climate adaptation impacts
- 3.3 Number of national climate policies and plans enabled, including national adaptation planning processes
- 3.4 Number of institutional partnerships or coordination mechanisms established or strengthened
- 3.5 Number of institutions with increased capacity to plan, implement, monitor, and report for climate adaptation
- 3.6 Number of institutions with increased capacity to attract, and manage climate adaptation finance
- 3.7 Number of local community organizations benefitting from and/or engaged in institution strengthening, partnerships, or financing
- 3.8. Number of climate risk and vulnerability assessments conducted

SUB INDICATOR 4

| 4.1 Number of people trained or made aware of climate change impacts and appropriate adaptation responses | Total | Male | Female |
|---|-------|------|--------|
| a) National government | 0 | | |
| b) Local government | 0 | | |
| c) Local community organizations | 0 | | |
| d) Extension services | 0 | | |
| e) Hydromet and disaster risk management agencies | 0 | | |
| f) School children, university students, and teachers | 0 | | |
| g) Youth | 0 | | |

SUB INDICATOR 5

| | Total | Male | Female |
|---|-------|------|--------|
| 5.1 Amount of investment mobilized (US\$) from private sector sources | | | |
| 5.2 Number of entrepreneurs supported for climate adaptation or resilience | 0 | | |
| 5.3 Total financial value of lines of credit and/or investment funds | | | |
| 5.4 Number of MSMEs incubated/accelerated with technical assistance, financial matchmaking, and/or direct financing | | | |

Key Risks

| | Rating | Explanation of risk and mitigation measures |
|---------|----------|--|
| CONTEXT | | |
| Climate | Moderate | Increasing variability: Unforeseen natural hazards, such as floods, droughts and landslides, could potentially render adaptation measures ineffective, particularly if these hazards occur during construction or implementation. Mitigation strategy: Project investments will be climate-proofed – in terms of their locations, designs and capture capacities – to ensure they can withstand forecasted climate stresses. EbA measures and infrastructure designs will be based on projected temperature and rainfall predictions from the worst-case |

| | | |
|---------------------------------|-----------------|---|
| | | <p>(RCP 8.5) climate scenario. Detailed hydrological assessments based on peak flows will also be undertaken during the implementation phase in the development of the URMP.. These assessments will be used to size and cost proposed water management interventions, such as storage and diversion infrastructure, to ensure they are adequately climate resilient. To minimize the impact of drought on EbA activities, active ecosystem restoration interventions will be timed to occur during the wet season, such that water availability for plants is maximized. Conversely, grey infrastructure will be built during the dry season to prevent potential damages from flooding or landslide events during construction.</p> |
| <p>Environmental and Social</p> | <p>Moderate</p> | <p>Environmental risks: Interventions associated with water mobilization and storage infrastructure have the potential to lead to unanticipated environmental impacts. Gender-equitable access: Men and women may not benefit equally from the results of project activities — for example, improved access to water and other natural resources. Conventional gender roles may also limit women’s participation in community consultations and decision-making processes during project implementation. Mitigation strategy: An Environmental and Social Management Framework (ESMF) was prepared during the PPG phase to: i) identify potential environmental risks; and ii) inform the design of project activities to ensure they mitigate or prevent these impacts. Gender-equitable access: Men and women may not benefit equally from the results of project activities — for example, improved access to water and other natural resources. Conventional gender roles may also limit women’s participation in community consultations and decision-making processes during project implementation. Mitigation strategy: A Gender Assessment and Action Plan (GAAP) has been developed. Further to this, a Gender Specialist will monitor project interventions during implementation to ensure gender is mainstreamed throughout project design and implementation.</p> |
| <p>Political and Governance</p> | <p>Moderate</p> | <p>Limited resources in local government: Municipal councils may have limited resources and capacity to engage fully with the project Mitigation strategy: The project interventions have been designed to be responsive to district and local government capacity needs and will fill gaps to ensure enough resources are available for project implementation. Regular engagement between municipal councilmembers and the NEA will safeguard against any impacts to the project implementation. Outputs 1.1, which focuses on climate resilience training and sensitization programs for local government officials, will build local capacity and empower municipal councils to engage more effectively with project activities. Additionally, the development of an Urban Resilience Master Plan (URMP) under Output 1.4 will provide a strategic framework that aligns with local capacities and resource availability. Outputs 4.1 and 4.2, which establish partnerships for knowledge generation and enhance community awareness, respectively, also support the strengthening of local government capacities by facilitating access to best practices, lessons learned, and shared information resources. These combined efforts ensure that local governments are not only better equipped to participate in the project but also</p> |

| | | |
|------------------------------|----------|--|
| | | benefit from enhanced resource allocation and capacity building facilitated through strategic partnerships and co-financing arrangements. |
| INNOVATION | | |
| Institutional and Policy | Low | Changes in national priorities: If The Gambia's national priorities shift during the project development process, there may be a misalignment between national goals and project objectives by the time project implementation begins. Mitigation strategy: The project has been designed to fit within The Gambia's well-established, long-term strategies; therefore, changes to short-term policies will not impact project success. Additionally, the design of activities during the PPG stage will be responsive to community and institutional needs, and can, therefore, be adjusted to reflect national priorities at the time. Close collaboration with government institutions (the NEA) will further ensure the project is responsive to national- and regional-level strategies, while also responding to community needs. The development of policy briefs (Output 1.3) to enhance cross-sectoral coordination and the creation of an Urban Resilience Master Plan (URMP) for the GBA (Output 1.4) are key in ensuring the project's objectives remain integrated with national frameworks, regardless of short-term policy changes. The establishment of partnerships for enhanced knowledge generation (Output 4.1) and the implementation of innovative financing mechanisms (Output 3.2) will further ensure the project's adaptability to national and community needs. These outputs, along with ongoing collaboration with government institutions like the National Environment Agency (NEA), equip the project with the necessary flexibility and responsiveness to align with both current and evolving national priorities, mitigating the risk of misalignment and ensuring project success. |
| Technological | | |
| Financial and Business Model | Moderate | Financial sustainability: Adaptation interventions may not be financially sustained after project termination. Mitigation strategy: The proposed project will incorporate a financial management and procurement strategy – developed during the PPG phase – that leverages insights gained from the recent micro-Harmonized Approach to Cash Transfer (HACT) assessment conducted for the NEA, the executing entity. This strategy will include establishing clear financial management protocols and capacity-building efforts specifically designed to enhance the NEA and other stakeholders' abilities in efficient financial planning, management and procurement processes. Training will be tailored to ensure that project beneficiaries and implementing agencies are well-equipped with the necessary skills for sustainable financial oversight, procurement practices and the strategic reinvestment of profits generated from enhanced livelihood activities and value chain development under Outputs 2.2 and 3.1. |
| EXECUTION | | |
| Capacity | Moderate | Limited technical capacity: Limited on-the-ground technical expertise for implementing project interventions could result in the ineffective implementation of interventions or project delays. Mitigation strategy: The |

| | | |
|-------------|----------|--|
| | | <p>capacity of relevant implementation partners will be strengthened via on-the-ground training, to ensure project activities are implemented and monitored effectively. Under Output 1.1, specialized climate resilience training and sensitization programs will be developed for local government officials, incorporating modules on the technical aspects of project interventions. Output 2.2's focus on enhancing sustainable alternative livelihoods will include skill development and technical training for community members in sustainable practices. Additionally, the development of the Urban Resilience Master Plan (URMP) under Output 1.4 will involve training sessions for planners and implementers on integrating resilience into urban planning. For Outputs involving infrastructure, such as Output 2.4, technical training will ensure that local engineers and technical staff are equipped with the necessary skills for construction, maintenance, and monitoring. Each of these activities will be supported by on-the-ground training sessions, technical oversight by UNEP staff and/or advisors, and the involvement of international experts to facilitate knowledge transfer, all scoped and detailed during the PPG phase.</p> |
| Fiduciary | Moderate | <p>Micro-HACT assessment showing moderate risk overall. We will develop a fiduciary risk management plan during the inception phase of the project. This will include a robust financial management system to be established, including regular audits, transparent procurement processes, and continuous monitoring by a dedicated financial oversight team. Training for all stakeholders involved in financial transactions will ensure adherence to best practices in financial management.</p> |
| Stakeholder | Moderate | <p>Limited and uneven community engagement: Without a coordinated, inclusive, and well-resourced stakeholder engagement process, there is a risk of insufficient community ownership, limited participation from marginalized groups, and fragmentation across implementing partners. This could undermine the effectiveness, equity, and sustainability of project interventions. Mitigation strategy: The project has embedded stakeholder engagement as a cross-cutting priority. Under Output 1.3, a framework for inclusive community engagement will be developed and implemented to guide participatory decision-making throughout the project. This framework will include clear roles, coordination mechanisms, communication protocols, and dedicated conflict resolution procedures to prevent fragmentation and address tensions proactively. To overcome participation barriers, including capacity gaps, accessibility issues, and resource constraints, the project will provide targeted support and tailored facilitation techniques to ensure inclusive participation, especially of vulnerable or marginalized groups. To mitigate risks of stakeholder fatigue and unrealistic expectations, the project will streamline engagements, coordinate across components, and maintain transparent communication about project scope, timelines, and decisions. Power imbalances will be addressed by promoting safe spaces for dialogue, ensuring diversity in consultations, and amplifying underrepresented voices through targeted outreach and facilitation. Throughout implementation, stakeholder engagement efforts will be subject to adaptive management, with regular</p> |

| | | |
|---------------------|----------|--|
| | | reviews and adjustments based on community feedback. Community-based organizations, local authorities, and cooperatives will be supported to take a leading role in maintenance and monitoring, ensuring ownership and sustainability beyond the project’s duration. |
| Other | Low | High turnover: High staff turnover in relevant government departments and implementing agencies may result in the loss of institutional knowledge, reduced familiarity with project details and project delays. Mitigation strategy: PMU staff will be recruited competitively. They will be responsible for transferring technical knowledge to new staff within government departments and implementing agencies over time. The proposed mitigation strategy will be directly supported by several project outputs. Output 4.1, focusing on establishing partnerships for enhanced knowledge generation, will play a crucial role in institutionalizing technical knowledge through structured partnerships and collaborations. This will be reinforced by Output 4.2, which involves community awareness-raising campaigns and will also extend to government departments and implementing agencies, ensuring widespread understanding and access to project insights. Under Output 1.1, training and sensitization programmes for local government officials will establish a broad base of knowledge that remains within institutions despite staff changes. Additionally, a project-specific knowledge management system will be developed during the project implementation stage, to archive lessons learned and best practices, ensuring that institutional memory is preserved and accessible even as personnel change. Through these integrated activities, the project aims to mitigate the impact of high staff turnover. |
| Overall Risk Rating | Moderate | The overarching risk to this project is Moderate. Close monitoring of the identified risks and effective implementation of mitigation measures will ensure that the risks do not adversely impact the success and durability of the project. |

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

Explain 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.

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.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this. (max. 500 words, approximately 1 page)

199. The proposed project is closely aligned with LDCF programming priorities as follows:

Table 11. Alignment with GEF LDCF Strategic Priorities

| GEF/LDCF Priority Area | Project Alignment |
|------------------------|-------------------|
|------------------------|-------------------|

| | |
|------------------------------|---|
| LDCF Programming Priorities | <p>The project aligns with LDCF priorities in the areas of:</p> <ul style="list-style-type: none"> i) agriculture, food security and health; ii) water; and iii) nature-based solutions <p>These priorities are addressed through EbA approaches within an urban context.</p> |
| GEF's Long-Term Vision | <p>Supports GEF's long-term vision of a nature-positive world by 2030, and one that is carbon neutral and pollution-free by 2050. The project contributes through urban greening, EbA, and sustainable infrastructure.</p> |
| LDCF Transformational Levers | <p>Lever 1: Policy coherence and mainstreaming – Component 1 integrates climate adaptation into national and subnational policies, plans, and budgets.</p> <p>Lever 2: Strengthened governance for adaptation – Capacity building and training (Component 1) improve adaptation planning at all levels of governance.</p> <p>Lever 3: Knowledge exchange and collaboration – Component 3 promotes the dissemination of best practices and lessons learned in adaptation solutions</p> |

200. Scaling up finance for adaptation

The proposed GEF project will explore opportunities to leverage sustainable finance to scale up investment in climate change adaptation measures. This approach aligns with the LDCF's priority of increasing the availability of adaptation finance and supports the implementation of The Gambia's National Adaptation Plan (NAP), particularly its financing action plan. While the project will implement EbA interventions in a few identified climate hotspot areas across the Greater Banjul Area (GBA), these cover only a subset of the over 20 high-risk urban zones identified through recent assessments.

201. To address this wider need, the project will test scalable models, such as the development of tailored financial instruments, local market linkages, and partnerships with the private sector, that could inform replication in other urban settings. These financing approaches may also contribute to a broader enabling environment for investment in urban climate resilience, by demonstrating practical entry points for community-driven solutions and potential avenues for public-private collaboration. This strategy is intended to lay the groundwork for wider systemic change, without creating dependency on continuous external funding.

202. Innovation, technology transfer and private sector engagement

The project brings forward a novel approach by integrating EbA, climate-resilient infrastructure, and sustainable livelihoods into a unified urban resilience strategy – a first in The Gambia. It could pilot locally adapted solutions such as multifunctional green spaces, nature-based drainage systems, and sustainable market-linked livelihoods tailored to the urban context.

203. Technology transfer may include low-cost green infrastructure such as bioswales, permeable pavements, and constructed wetlands, supported by targeted training for municipal and community stakeholders.

204. In parallel, the project could promote private sector engagement by strengthening market linkages and exploring sustainable financing models to scale adaptation benefits. Knowledge-sharing through the existing EbA information portal and new outreach tools will support replication and inform future projects, in line with LDCF priorities.

Whole-of-society approach

15. The proposed project adopts a whole-of-society approach to enhance climate resilience by engaging actors across government, civil society, communities, and the private sector. This will be operationalized through Component 1 by strengthening the enabling environment for gender-responsive, climate-resilient urban planning and sustainable development. The Ministry of Environment, Climate Change and Natural Resources, the National Environment Agency, and relevant municipal and area councils, including Banjul City Council, Kanifing Municipal Council, and Brikama Area Council, will play central roles in implementation and policy integration.
16. Component 2 will drive this approach further by increasing direct community engagement in ecosystem restoration and sustainable land management initiatives, ensuring strong local ownership and uptake. This will be supported by the project's Stakeholder Engagement Plan, which sets out tailored strategies for involving marginalized groups, including women, youth, and informal settlement dwellers, throughout the project lifecycle.
17. Under Component 3, the project will promote partnership-based knowledge generation and dissemination through collaborations with local NGOs, academia, and media outlets. This participatory structure ensures that knowledge flows are multi-directional, capturing community insights while also transferring best practices across sectors. By enhancing institutional capacities, facilitating cross-sectoral coordination, and ensuring community buy-in, the project will foster a culture of collaboration and shared responsibility for climate action across all levels of society.

Alignment with national and regional priorities

208. The proposed GEF project is also well aligned with national and regional priorities and strategies. This alignment is evident across several dimensions, including environmental sustainability, economic development and social well-being, reflecting a comprehensive approach to tackling climate change's challenges within the framework of national development goals and regional commitments to sustainability and resilience

Alignment with national priorities and strategies

- a) National Development Plan (NDP):** The project supports The Gambia's National Development Plan, which prioritises environmental protection, sustainable urban development and climate change adaptation. By focusing on urban resilience in the GBA, the project directly contributes to the NDP's goals of reducing vulnerability to climate-related hazards and ensuring sustainable urban growth that is resilient to climate change impacts.
- b) Nationally Determined Contributions (NDCs):** The main objectives of The Gambia's NDC is to reduce greenhouse gas emissions, enhance climate resilience in key sectors such as agriculture and water resources, and promote sustainable land use practices. The proposed project contributes to the NDC's objectives to adopt specific enabling conditions so that The Gambia can transition to a low-emissions, climate-resilient development pathway.
- c) National Adaptation Programme of Action (NAPA):** The Gambia's NAPA outlines the country's strategy for addressing the urgent and immediate adaptation needs to climate change. It focuses on identifying

and implementing priority adaptation projects and measures to build resilience and reduce vulnerability at the community level. The urban resilience project aligns with these plans, highlighting the importance of adaptive urban planning, infrastructure advancement, and ecosystem-focused strategies to alleviate the negative impacts of climate change and build the adaptive capacity of local communities.

d) National Adaptation Plan (NAP): The Gambia is currently progressing with its NAP, supported by UNEP, the Green Climate Fund, and other development partners. The NAP readiness project, which is about to start implementation, aims to develop a costed adaptation strategy, strengthen institutional arrangements, and mainstream adaptation across vulnerable sectors and levels of government. The proposed project will align with and build upon the NAP by integrating urban resilience, coastal ecosystem interventions, and inclusive community engagement, thereby contributing directly to the NAP's goals and ensuring coherence in adaptation efforts.

e) Long-Term Climate-Neutral Development Strategy 2050 (LTS): Alignment with The Gambia's LTS is evident in the emphasis on gender-responsive climate resilience, sustainable land management (SLM), ecosystem-based adaptation (EbA), sustainable finance and knowledge management. The LTS focuses on reducing greenhouse gas emissions and enhancing climate resilience across key sectors, including energy, agriculture, waste management, transport, and land use, which are integral to achieving The Gambia's climate neutrality goal by 2050.

f) National Climate Change Policy: The Gambia's National Climate Change Policy outlines strategies for adaptation, mitigation, and resilience-building across key sectors. The urban resilience project is in harmony with these strategies, emphasizing the importance of adaptive urban planning, infrastructure development, and ecosystem-based approaches to mitigate the adverse effects of climate change.

g) National Gender Policy: The Gambia's National Gender Policy (See the Gender Dynamics subsection) aims to promote gender equality and empower all genders through strategic interventions across various sectors to ensure equitable access to resources and opportunities. Integrating gender considerations in the Urban Resilience Master Plan and awareness raising material of the proposed project directly aligns with the overarching objective of the National Gender Policy.

h) Vision 2020 and Beyond: Vision 2020 outlines The Gambia's long-term development objectives, including environmental sustainability and improved living standards. The proposed project aligns with the Vision's extension towards building a resilient and sustainable future. It addresses critical aspects such as urban planning, green infrastructure and community-based adaptation efforts, which are pivotal for achieving the vision's goals.

i) Third National Communication (TNS): The proposed GEF-8 project for The Gambia aligns well with the climate change strategy and priorities detailed in the country's Third National Communication (TNC) under the UNFCCC. This document emphasizes The Gambia's commitment to addressing climate change through mitigation and adaptation measures, sustainable land management, the promotion of gender-responsive policies and the leveraging of sustainable finance for climate change efforts, which the proposed project design directly supports.

j) Gambia UNSDCF: The proposed project aligns with strategic priority 1: Green resilient and inclusive livelihoods through activities under component 2 and 3 of the project related to increasing resilience of urban communities to the effects of climate change. Strategic priority 1 of the UNSDCF focuses on ensuring that women, children, displaced people, youths, and persons with disabilities (PWDs) in rural and urban disaster and conflict-prone areas are resilient to climate-related and other shocks and have access to sustainable food, health, and water, sanitation, and hygiene (WASH) systems. The project will also contribute to strategic priority 2: human development, social inclusion, and people centered governance, through activities under

component 1 of the project which relate to institutional strengthening, capacity building and inclusive planning.

k) Gambia Common Country Analysis: The proposed project aligns with the key opportunities highlighted in the Gambia CCA through promoting private sector initiatives that will promote diversification and resilience, programmes for skills development and job creation, and supporting The Gambia's participation in and accessing regional and international climate change financing adaptation which has been highlighted as a critical area of concern.

l) Alignment with urban planning priorities in The Gambia: Although The Gambia currently does not have a formally adopted comprehensive urban development plan for the Greater Banjul Area, the need for improved, climate-responsive urban planning has been consistently identified as a critical national priority. One of the key barriers confirmed during the PPG stage is the lack of coordinated, forward-looking urban planning frameworks, stemming from fragmented policy mandates and limited cross-sectoral coordination. The proposed project directly addresses this gap through Outcome 1, particularly Output 1.4, which focuses on the development of a gender-responsive Urban Resilience Master Plan. This URMP will integrate climate risk information, land-use considerations, ecosystem-based adaptation options, and inclusive community input to provide a comprehensive, climate-informed planning framework for the GBA. By establishing this foundation, the project aligns with national priorities for sustainable urban development and strengthens the enabling environment for resilient, coordinated urban growth.

209. Alignment with regional priorities and strategies.

a) Economic Community of West African States (ECOWAS) Policy on Disaster Risk Reduction: The project aligns with the ECOWAS policy on disaster risk reduction, which emphasizes the need for resilient infrastructure and urban planning to mitigate the impacts of natural disasters, many of which are exacerbated by climate change.

b) Strategic Program for Climate Resilience (SPCR): The proposed GEF-8 project will contribute to the SPCR's climate proof urban planning and plastic pollution management priority area by promoting climate-resilient urban planning and increasing ecosystem restoration activities and sustainable livelihood promotion.

c) African Union Agenda 2063: The proposed project supports the African Union's Agenda 2063 – particularly its aspirations towards inclusive growth, sustainable development and enhanced resilience of African countries to climate change impacts. By implementing sustainable urban resilience practices, the project contributes to the realization of these continental goals.

d) West African Coastal Areas Management Programme (WACA): The initiative complements the WACA programme's objectives to address coastal erosion, flooding and other climate change-related challenges in West African coastal cities. Through targeted interventions in the GBA, through targeted interventions in the GBA, the project contributes to regional efforts to protect vulnerable coastal communities and ecosystems.

Alignment with UNEP Programme of Work

210. The proposed LDCF project contributes directly to the following 5 outcomes under the Climate action subprogramme of UNEP's Programme of Work for 2022-2023: 1.1 Policy/decision-making for climate action is informed by the latest science-based analysis and data generation; 1.4 Sectoral partnerships and access to technologies and solutions for decarbonization, dematerialization and resilience are enhanced; 1.5 Private and public financial flows are aligned with the goals of the Paris Agreement; 1.6 The private sector and financial markets apply sustainability and climate-friendly standards and norms as core values of the economy; and 1.7 Public support and political engagement for climate action are catalyzed and linked with other agendas (for

example, restoration). In addition, the project contributes to 4 outcomes under the Nature Action Sub-programme (Outcomes 2.1, 2.2, 2.3 and 2.7).

UNEP comparative advantage

211. UNEP has been present in the Gambia as an Implementing Agency in the adaptation sphere since 2011. Strengthening of The Gambia's Climate Change Early Warning Systems funded by the LDCF and the AF, with a grant of USD1,028,500 with national coverage, focusing on end users of climate information in the Gambia and the main national climate information provider in the country, the National Meteorological and Hydrological Services (NMHS) in the Meteorology Division of the Department of Water. A follow on early warning systems project was approved by GEF in 2014 with a LDCF grant of USD5 million. In 2017, Large-scale Ecosystem-based Adaptation in The Gambia: Developing a Climate-Resilient, Natural Resource-based Economy was approved by the Green Climate Fund, for a grant of USD20 million. In 2023, GCF approved a National Adaptation Planning project for a grant of USD3 million, with UNEP as Delivery Partner.

212. UNEP's comparative advantage centers around its position as the lead agency for environmental issues within the UN family, with a mandate to provide guidance for the world on environmental issues and assist with environmental best practices in the UN. As such, it is well positioned to implement this project focusing on Ecosystem-based Adaptation approaches given its experience in The Gambia and globally and is in fact currently supporting over 45 EbA-focused projects around the world. This extensive experience means that UNEP can effectively build on a wealth of lessons learned across its portfolio of projects, and continuously improve performance in its projects to bring greater efficiency and effectiveness in implementation.

Alignment with UN coordination approach

213. Coordination and capacity-building efforts under the proposed GEF-8 project will provide a robust framework for engaging with the UNEP Regional Coordinator (RC) and the UN Country Team (UNCT). This engagement is crucial for ensuring the project's alignment with joint UN processes and regional coordination strategies, thereby enhancing its effectiveness and sustainability.

214. Ways in which the proposed project will support alignment with the UN coordination approach are detailed below.

a) Project alignment with UNEP and UNCT objectives: All project components are aligned with the priorities and objectives of both UNEP and the UNCT in The Gambia, particularly those related to climate change adaptation, biodiversity conservation, sustainable land and water management. The UNCT in The Gambia has prioritized climate resilience, environmental sustainability, and inclusive development under its current Cooperation Framework, and the proposed project will contribute to these efforts through ecosystem-based and locally driven solutions that strengthen institutional and community capacity.

b) Collaborative planning and implementation:

During the PPG phase, consultations with the UNCT and RC helped with the identification of synergies with existing UN initiatives and programmes in The Gambia and West African region. By coordinating efforts, the project can leverage additional resources, avoid duplication of efforts and ensure a unified approach to addressing climate change and sustainable development challenges.

c) Joint advocacy and awareness-raising: During project implementation, the PMC will collaborate with the UNCT to conduct joint advocacy and awareness-raising campaigns. This will involve promoting the benefits of sustainable land management practices, the importance of climate-resilient infrastructure and the role of sustainable finance in climate change adaptation. Joint campaigns will reach a broader audience and amplify the project's messages, contributing to increased public and stakeholder engagement.

d) Regional coordination and knowledge sharing: Under Component 3 of the proposed project, UNEP's RC will be engaged to facilitate knowledge sharing and regional coordination on climate change adaptation and sustainable development in The Gambia and West African region. This will involve participation in regional forums, workshops and networks to share project experiences, lessons learned and best practices. Regional coordination will also help identify opportunities for scaling up successful project interventions and fostering cross-border collaboration on environmental and climate issues.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment

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

Yes

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

Yes

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

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

Yes

Improving women's participation and decision-making; and/or

Yes

Generating socio-economic benefits or services for women.

Yes

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

Yes

Stakeholder Engagement

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

Yes

Select what role civil society will play in the Project

Consulted only;

Member of Advisory Body; Contractor; **Yes**

Co-financier;

Member of project steering committee or equivalent decision-making body ; **No**

Executor or co-executor; **Yes**

Other (Please explain)

Private Sector

Will there be private sector engagement in the project?

Yes

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

Yes

Environmental and Social Safeguards

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification

| PIF | CEO Endorsement/Approval | MTR | TE |
|-----------------|--------------------------|-----|----|
| Medium/Moderate | Medium/Moderate | | |

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted and an anticipated timeline for delivery of relevant outputs has been provided.

Yes

Socio-economic Benefits

We confirm that the project design has considered socio-economic benefits to be delivered by the project and these have been clearly described in the Project Description and will be monitored and reported on during project implementation (at MTR and TER).

The proposed GEF project will enhance communities' resilience and address key needs with regards to water availability, flood water drainage, urban heat reduction and adapted livelihood production in vulnerable areas of Banjul thereby benefitting health, educational outcomes and livelihoods outcomes. The project will do this by: i) protecting and restoring priority ecosystems and buffer zones; ii) facilitating the uptake of sustainable livelihood practices that incentivize ecosystem protection; iii) establishing multi-use green spaces within urban areas – to serve as buffer zones during flood events, dissipate heat during heatwaves and provide socio-economic incentives for maintaining green corridors; v) piloting ecosystem based adaptation solutions for enhanced urban drainage, water storage and coastal defense; and vi) developing/scoping of a financial mechanism for upscaling EbA solutions. This integrated approach to sustainable land management and sustainable development will strengthen the ecological foundation of urban areas and enhance ecosystem services provision – particularly related to flood attenuation, coastal protection, water infiltration and reduced surface runoff – thereby reducing community vulnerability to climate change impacts and supporting the well-being of urban communities under future climate conditions.

The project will provide for a comprehensive and integrated urban resilience strategy in the Greater Banjul Area (GBA) that will address urban planning issues and exposure to slow on-set climate change and extreme weather events. The project will promote inclusive adaptation planning to include women, youth, and persons with disabilities groups often disproportionately affected by climate change yet frequently excluded from decision-making processes.

The project will directly benefit 350,000 people (50% women), manage 3,000 hectares for climate resilience, mainstream climate resilience into 5 policies/plans, and provide training or awareness-raising to 301,500 people (50% women).

ANNEX A: FINANCING TABLES

GEF Financing Table

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 (\$) |
|------------|------------|---------------------------------|------------|----------------------|-------------------|-----------------------|----------------|--------------------------|
|------------|------------|---------------------------------|------------|----------------------|-------------------|-----------------------|----------------|--------------------------|

| | | | | | | | | |
|---------------------------------|------|--------|----------------|-------------------------|-------|----------------------|---------------------|----------------------|
| UNEP | LDCF | Gambia | Climate Change | LDCF Country allocation | Grant | 12,544,037.00 | 1,128,963.00 | 13,673,000.00 |
| Total GEF Resources (\$) | | | | | | 12,544,037.00 | 1,128,963.00 | 13,673,000.00 |

Project Preparation Grant (PPG)

Was a Project Preparation Grant requested?

true

PPG Amount (\$)

300000

PPG Agency Fee (\$)

27000

| GEF Agency | Trust Fund | Country/ Regional/ Global | Focal Area | Programming of Funds | PPG(\$) | Agency Fee(\$) | Total PPG Funding(\$) |
|------------------------------|------------|---------------------------------|----------------|-------------------------|-------------------|-------------------|--------------------------|
| UNEP | LDCF | Gambia | Climate Change | LDCF Country allocation | 300,000.00 | 27,000.00 | 327,000.00 |
| Total PPG Amount (\$) | | | | | 300,000.00 | 27,000.00 | 327,000.00 |

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 |

Focal Area Elements

| Programming Directions | Trust Fund | GEF Project Financing(\$) | Co-financing(\$) |
|------------------------|------------|---------------------------|------------------|
| CCA-1-1 | LDCF | 11,159,241.00 | 22635287 |
| CCA-1-2 | LDCF | 1,164,398.00 | 2361854 |
| CCA-1-3 | LDCF | 220,398.00 | 447053 |

| | | | |
|---------------------------|--|----------------------|----------------------|
| Total Project Cost | | 12,544,037.00 | 25,444,194.00 |
|---------------------------|--|----------------------|----------------------|

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

| Sources of Co-financing | Name of Co-financier | Type of Co-financing | Investment Mobilized | Amount(\$) |
|------------------------------|---|----------------------|------------------------|----------------------|
| Recipient Country Government | Department of Parks and Wildlife Management | In-kind | Recurrent expenditures | 500000 |
| Recipient Country Government | National Disaster Management Agency (NDMA) | In-kind | Recurrent expenditures | 333000 |
| Recipient Country Government | The National Environment Agency (NEA) | In-kind | Recurrent expenditures | 17300000 |
| Recipient Country Government | Kanifing Municipal Council | Grant | Investment mobilized | 2089552 |
| Recipient Country Government | Kanifing Municipal Council | Public Investment | Investment mobilized | 171642 |
| Recipient Country Government | Banjul City Council | Grant | Investment mobilized | 2000000 |
| Recipient Country Government | Banjul City Council | In-kind | Recurrent expenditures | 50000 |
| GEF Agency | UNEP | Public Investment | Investment mobilized | 3000000 |
| Total Co-financing | | | | 25,444,194.00 |

Please describe the investment mobilized portion of the co-financing

Description of 'investment mobilized :

Kanifing Municipal Council will mobilise investments for tree-planting — as part of their municipal beautification campaign — as well as the construction of a multi-functional recreational park (buffer zone), bypass feeder roads in Kanifing Municipality and sustainable integrated waste management systems;

Banjul City Council will mobilise grant funding for tree-planting, ecotourism development, circular waste management systems and ecosystem rehabilitation;

UNEP co-financing is derived from the implementation of NAP readiness programmes;

World Bank co-financing is derived from the WACA project, which the proposed LDCF project will scale up

Description of in-kind co-financing:

NEA

Office space and associated infrastructure to house the project (\$9.8 million): The provision of office space, meeting halls, and necessary infrastructure by the NEA facilitates the effective coordination and management of the CLIMB project. This in-kind contribution not only supports the day-to-day operations of the project team but also underscores the NEA's commitment to providing substantial logistical support, thereby enhancing project implementation and stakeholder engagement.

Support services and oversight functions for project implementation (\$7.5 million): The comprehensive support services offered by the NEA, encompassing internal auditing, procurement, communications, administration, and personnel management, are invaluable to the CLIMB project. These services ensure efficient project management, enhance transparency and accountability, and support the engagement of communities, CSOs, and private sector enterprises.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

| GEF Agency Type | Date | Project Contact Person | Phone | Email |
|------------------------|-----------|------------------------|-------|----------------------|
| Project Coordinator | 9/19/2025 | Jessica Troni | | jessica.troni@un.org |
| GEF Agency Coordinator | 9/19/2025 | Ersin Esen | | ersin.esen@un.org |

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

Please attach the Operational Focal Point endorsement letter(s) with this template.

| Name of GEF OFP | Position | Ministry | Date (MM/DD/YYYY) |
|-----------------|----------|----------|-------------------|
| | | | |

ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also paste below the Project Results Framework from the Agency document.

| | Indicator(s) | Baseline | Targets and Monitoring Milestones | Means of verification | Assumptions & risks | UNEP MTS ref & PoW outcomes | Relevant SDG indicators |
|---|--------------|----------|-----------------------------------|-----------------------|---------------------|-----------------------------|-------------------------|
| <p>UNEP MTS:</p> <ul style="list-style-type: none"> • Strategic objective: Climate stability-Countries increasingly transition to low-emission economic development pathways and enhance their adaptation and resilience to climate change • Sub-programme outcome: Government and non-government development actions are compatible with the long-term mitigation and resilience goals of the Paris Agreement. | | | | | | | |

- Sub-programme: Climate Action- Outcome 2: Countries and stakeholders have increased capacity, finance and access to technologies to deliver on the adaptation and mitigation goals.

PoW Indicators

- Number of national, subnational, and private-sector actors that adopt climate change mitigation and/or adaptation and disaster risk reduction strategies and policies with UNEP support.
- Amounts provided and mobilized in \$ per year in relation to the continued existing collective mobilization goal of the \$100 billion commitment through to 2025 with UNEP support.
- Positive shift in public opinion, attitudes and actions in support of climate action as a result of UNEP action.

Objective: Enhance the climate resilience of communities in the Greater Banjul Area by scaling up investments in urban ecosystem-based adaptation (EbA) solutions

Core Indicators:

- CI 1: Total number of beneficiaries: 350,000 (178,500 women, 178,500 men)
- CI 2: Area of land managed for climate resilience (ha): 3,000
- CI 3: Total number of policies/plans that will mainstream climate resilience: 5
- CI 4: Number of people trained or with awareness raised: 301,500 (50% women)
- CI 5: Number of private sector enterprises engaged in climate change adaptation and resilience action: 10

Component 1: Strengthening the enabling environment for climate-resilient urban planning and sustainable development

| | | | | | | | |
|--|--|---|--|---|--|--|----------|
| <p>Outcome 1: The regulatory and policy framework in the GBA supports and promotes climate-resilient urban planning</p> | <p>Number of regulatory and policy instruments adopted to integrate climate resilience that enhance urban planning decisions based on climate risk information.</p> <p>Existence of a gender-responsive URMP</p> | <p>No master plan; policy gaps; no URMP</p> | <p>Mid-point target: 1 regulation and 1 policy brief; draft URMP circulated</p> <p>End target: 2 policy and regulations adopted; URMP approved</p> | <p>Government gazettes, policy brief distribution logs, URMP adoption records</p> | <p>Cross-departmental coordination maintained, government and stakeholder buy-in</p> | | <p>—</p> |
| <p>Output 1.1: Gender responsive climate resilience training and sensitization</p> | <p>Number of officials & planners and council representatives, as well as representatives</p> | <p>0</p> | <p>Mid-point target: 200 people trained, at least 30% women, 70% of participants</p> | <p>Attendance lists, pre-/post-assessment reports</p> | <p>Participants available; resources adequate</p> | | <p>—</p> |

| | | | | | | | |
|---|---|--------------------------------|---|---|----------------------------------|--|---|
| programme designed and implemented for local government officials and urban planners in the GBA | of Seyfos (traditional District Chiefs oversee multiple villages) and Alkalos (Village Heads) for districts, wards and villages within the GBA trained (gender disaggregated) | 0 | demonstrating increased capacity End target: 500 people trained, at least 30% women, 70% of participants demonstrating increased capacity | | | | |
| Output 1.2: Community engagement and participation framework developed and implemented for inclusive and gender-responsive urban planning | Framework developed (y/n) | No framework developed | Mid-point target: Participation framework designed End target: Participation framework developed | Participation framework report, integration protocols, meeting attendance lists | | | |
| Output 1.3: Gender responsive policy briefs developed to enhance cross-sectoral coordination and mainstream gender-equitable urban resilience into existing institutional frameworks | Number of briefs drafted and disseminated to raise awareness and promote engagement into urban EBA strategies | 0 | Mid-point target: 8 drafts End target: 8 final briefs | Brief documents, project reports | Quality inputs from stakeholders | | |
| Output 1.4: Adaptation Strategy and gender-responsive URMP | URMP and adaptation strategy, policies and regulations are completed and adopted on the ministerial | No URMP or adaptation strategy | Mid-point target: Draft URMP available, Draft Adaptation Strategy available | URMP document, official records on endorsement of the adaptation | Government support and buy-in | | — |

| | | | | | | | |
|---|---|---|---|--|--|---|---|
| developed for the GBA | and municipal levels. | | End target: URMP & strategy, policies and regulations formally adopted | strategy, project reports | | | |
| Component 2: Increasing resilience through ecosystem-based adaptation (EbA) | | | | | | | |
| Outcome 2: Urban resilience to climate change strengthened through integrated EbA solutions and alternative livelihoods | Number of people with increased resilience across hazards including flooding, drought, heatwaves, coastal erosion with documented risk reduction effects through the priority ecosystems and natural buffer zones, multi-use public green spaces, EbA solutions piloted, targeted support on livelihoods, and financial mechanisms. | 0 | Mid-point target: 100,000, 30% women End target: 240,000, 30% women | Project reports, pilot assessment reports | Solutions are available and applicable in selected project sites | | — |
| Output 2.1: Priority ecosystems and natural buffer zones restored and protected | Area (ha) of ecosystems restored/protected | 0 | Mid-point target: 1,000, 30% women End target: 3,000, 30% women | GPS monitoring, community management records | Community stewardship | — | — |
| Output 2.2: Multi-use public green spaces established | Number of green spaces created | 0 | Mid-point target: 3 End target: 7 | Site plans, completion certificates | Land allocation assured | | — |
| Output 2.3: EbA solutions piloted for enhanced urban drainage, water storage and coastal defense | Number of EbA solutions piloted | 0 | Mid-point target: 3 End target: 6 | Project reports | Suitable EbA solutions available within project budget | | |

| | | | | | | | |
|--|--|---|---|---|--|--|----------|
| <p>Output 2.4: Gender responsive sustainable alternative livelihoods enhanced, with targeted support for women's economic empowerment</p> | <p>Number of people provided targeted support on alternative livelihoods enterprise, disaggregated by gender</p> | <p>0</p> | <p>Mid-point target: 500 people, 30% women in at least 5 enterprises</p> <p>End target: 1000 people, 30% women in at least 10 enterprises</p> | <p>Project reports, training reports</p> | <p>Stakeholder cooperation and interest</p> | | |
| <p>Output 2.5: Financial mechanism for up-scaling EbA solutions designed and established</p> | <p>Number of financial mechanisms designed and operational within the project duration</p> | <p>0</p> | <p>Mid-point target: At least 1 financial mechanism designed</p> <p>End target: At least 1 financial mechanism operational</p> | <p>Project reports, partnership protocols</p> | <p>Financial institutions are available and capable of introducing dedicated instruments</p> | | <p>—</p> |
| <p>Component 3: Improving knowledge management and information dissemination</p> | | | | | | | |
| <p>Outcome 3: Increased awareness and dissemination of project knowledge products</p> | <p>Increased awareness of climate change risks and integrated EBA solutions and increased motivation to act</p> | <p>Baseline to be determined through a survey at inception.</p> | <p>Mid-point target: 15% of target stakeholders demonstrate increased awareness</p> <p>End target: 30% of target stakeholders demonstrate increased awareness</p> | <p>Publication records, Web analytics</p> | <p>stakeholder interest in access to knowledge products</p> | | <p>—</p> |
| <p>Output 3.1: Gender responsive knowledge products and lessons learned generated through partnerships</p> | <p>Number of knowledge products developed and disseminated to various stakeholders</p> | <p>0</p> | <p>Mid-point target: 3</p> <p>End target: 7</p> | <p>Project reports</p> | <p>Partners are interested</p> | | |

| | | | | | | |
|--|--------------------------------|---|--|------------------|-----------------------------------|---|
| Output 3.2: Community awareness-raising campaign conducted to enhance access to information shared via the existing EbA information portal | Number of campaigns launched | 0 | Mid-point target: 1 campaign; 100,000 people reached, 30% women; 15,000 app downloads End target: 301,500 people reached, 30% women, 30,000 app downloads | Campaign reports | Media access; device availability | — |
| | Number of participants reached | | | App analytics | | |
| | Number of App downloads | | | | | |

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

| Project Preparation Activities Implemented | GETF/LDCF/SCCF Amount (\$) | | |
|--|----------------------------|----------------------|-------------------|
| | Budgeted Amount | Amount Spent To date | Amount Committed |
| 300000 | 300,000.00 | 121,527.00 | 177,323.00 |
| Total | 300,000.00 | 121,527.00 | 177,323.00 |

ANNEX E: PROJECT MAP AND COORDINATES

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

| Location Name | Latitude | Longitude | GeoName ID |
|---------------|----------|------------|------------|
| Banjul City | 13.45535 | -16.575645 | |

Location Description:

Activity Description:

| Location Name | Latitude | Longitude | GeoName ID |
|---------------|-----------|------------|------------|
| Kombo | 13.470062 | -15.490047 | |

Location Description:

Activity Description:

| Location Name | Latitude | Longitude | GeoName ID |
|---------------|-----------|------------|------------|
| Abuko Reserve | 13.395833 | -16.645556 | |

Location Description:

Activity Description:

| Location Name | Latitude | Longitude | GeoName ID |
|--------------------|-----------|------------|------------|
| Salagi Forest Park | 13.376667 | -16.711944 | |

Location Description:

Activity Description:

| Location Name | Latitude | Longitude | GeoName ID |
|--------------------|-----------|------------|------------|
| Bijilo Forest Park | 13.432778 | -16.726389 | |

Location Description:

Activity Description:

| Location Name | Latitude | Longitude | GeoName ID |
|----------------|----------|-----------|------------|
| Brikama Market | 13.2714 | -16.6494 | |

Location Description:

Activity Description:

| Location Name | Latitude | Longitude | GeoName ID |
|------------------------------------|----------|------------|------------|
| Fajara–Senegambia Coastal Corridor | 13.47 | -16.696389 | |

Location Description:

Activity Description:

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.

| 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> |
|--|---|--|---|---|---|
| | Banjul City | 13°27'11.4"N | 16°35'18.6"W | Bond Road and Adjacent Tambi Wetlands, Banjul City | See Table 6 and 7 |
| | Kombo | 13°27'46.9"N | 16°41'55.3"W | Coastal Wetland Zone, Brikama Area Council | See Table 6 |
| | Abuko Reserve | 13°27'11.4"N | 16°35'18.6"W | | See Table 7 |
| | Salagi Forest Park | 13°22'40.2"N | 16°42'44.7"W | | See Table 7 |
| | Bijilo Forest Park | 13°26'9.1"N | 16°43'32.7"W | | See Table 7 |
| | Brikama Market | 13°16'21.1"N | 16°38'57.0"W | | See Table 8 |
| | Fajara–Senegambia Coastal Corridor | 13°28'30.4"N | 16°41'38.3"W | | See Table 8 |

ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

Attach agency safeguard datasheet/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts (as applicable).

Title

The Gambia_UNEP_LDCF PIF_SRIF_271125

11532_CLIMB_ESMF_211125

ANNEX G: BUDGET TABLE

Please upload the budget table here.

Annex G: Budget Table

| Expenditure Category | Detailed Description | Component (USDeq.) | Total (USDeq.) | Responsible Entity |
|-----------------------------|-----------------------------|---------------------------|-----------------------|---------------------------|
| | | | | |

| | | Comp onent 1 | Comp onent 2 | Comp onent 3 | Sub- Total | M& E | PM C | | (Exec uting Entity receivi ng funds from the GEF Agenc y)[1] |
|--|--|-----------------------------|-----------------------------|-----------------------------|-----------------------|---------------------|-----------------|---------------------|---|
| | | Outco me 1.1 | Outco me 2.1 | Outco me 3.1 | | | | | |
| Procur ement of equip ment for pilots | Equipment for mangrove replanting and wetland restoration (Output 2.1) | | 190,000.00 | | 190,000.00 | | | 190,000.00 | NEA |
| | Equipment for protective measures (reforestation and erosion control (Output 2.1) | | 260,000.00 | | 260,000.00 | | | 260,000.00 | NEA |
| | Equipment for the multi-use green spaces and community market areas (Output 2.2) | | 950,000.00 | | 950,000.00 | | | 950,000.00 | NEA |
| | Equipment for SuDS (Output 2.3) | | 2,019,000.00 | | 2,019,000.00 | | | 2,019,000.00 | NEA |
| | Equipment for rainwater harvesting systems and water storage Infrastructure (Output 2.3) | | 1,200,000.00 | | 1,200,000.00 | | | 1,200,000.00 | NEA |
| | Equipment for coastal defence and EbA solutions (Output 2.3) | | 3,073,300.80 | | 3,073,300.80 | | | 3,073,300.80 | NEA |
| | Equipment for plastic pollution management interventions (Output 2.3) | | 800,000.00 | | 800,000.00 | | | 800,000.00 | NEA |

| | | | | | | | | | |
|---------------------------------------|--|-----------|------------|--|-------------------|--|--|-------------------|-----|
| Contractual Services – Company | Services to develop communication materials and translation to local languages (Output 1.2) | 50,000.00 | | | 50,000.00 | | | 50,000.00 | NEA |
| | Services related to the review of policies and development of policy briefs (Output 1.3) | 85,000.00 | | | 85,000.00 | | | 85,000.00 | NEA |
| | Services to develop URMP and adaptation strategy, and deliver trainings to planners and municipal agencies (Output 1.4) | 95,000.00 | | | 95,000.00 | | | 95,000.00 | NEA |
| | Services related to develop and implement the mangrove replanting and wetland rehabilitation (Output 2.1) | - | 60,000.00 | | 60,000.00 | | | 60,000.00 | NEA |
| | Services related to protective measures for key ecosystems, such as reforestation of forests and erosion control on beaches and wetlands (Output 2.1). | | 85,000.00 | | 85,000.00 | | | 85,000.00 | NEA |
| | Services related to development of community-led ecosystem management systems (Output 2.2) | | 135,000.00 | | 135,000.00 | | | 135,000.00 | NEA |
| | Comprehensive environmental, social and technological needs assessment needs assessment for pilots (Output 2.3) | | 150,000.00 | | 150,000.00 | | | 150,000.00 | NEA |
| | Training for communities on ecosystem restoration and | | 125,000.00 | | 125,000.00 | | | 125,000.00 | NEA |

| | | | | | | | | | |
|--|--|--|------------|--|-------------------|--|--|-------------------|-----|
| | management (Output 2.1) | | | | | | | | |
| | Develop a land management plan, as well as monitoring protocols (Output 2.1) | | 85,000.00 | | 85,000.00 | | | 85,000.00 | NEA |
| | Services related to capacity building for entrepreneurs and women's groups on market access and business management (Output 2.4) | | 95,000.00 | | 95,000.00 | | | 95,000.00 | NEA |
| | Services related to designing and establishing financial mechanism (Output 2.5) | | 100,000.00 | | 100,000.00 | | | 100,000.00 | NEA |
| | Biofuel awareness campaign implementation and material (Output 2.2) | | 85,000.00 | | 85,000.00 | | | 85,000.00 | NEA |
| | Services related to design and establishment of the multi-use green spaces and community market areas (Output 2.2) | | 170,000.00 | | 170,000.00 | | | 170,000.00 | NEA |
| | Services related to develop and implement SuDs (Output 2.3) | | 180,000.00 | | 180,000.00 | | | 180,000.00 | NEA |
| | Services related to develop and implement rainwater harvesting systems and water storage Infrastructure (Output 2.3) | | 100,000.00 | | 100,000.00 | | | 100,000.00 | NEA |
| | Services related to develop and implement coastal defence and EbA solutions (Output 2.3) | | 150,000.00 | | 150,000.00 | | | 150,000.00 | NEA |
| | Services related to plastic pollution management | | 90,000.00 | | 90,000.00 | | | 90,000.00 | NEA |

| | | | | | | | | | |
|--|--|--|-----------|-----------|------------------|-------|-----------|------------------|------|
| | interventions (Output 2.3) | | | | | | | | |
| | Insurance, repair and maintenance for equipment of pilots (Output 2.3) | | 35,000.00 | | 35,000.00 | | | 35,000.00 | NEA |
| | Services to develop awareness raising and capacity building content for plastic management (output 2.3) | | 35,000.00 | | 35,000.00 | | | 35,000.00 | NEA |
| | Services to develop multimedia content for EbA portal (output 2.3) | | | 35000 | 35,000.00 | | | 35,000.00 | NEA |
| | Services related to development of collaborative research studies and peer-reviewed publications (in partnership with the University of The Gambia) (Output 3.1) | | | 20,000.00 | 20,000.00 | | | 20,000.00 | NEA |
| | Services to develop and launch the mobile app (Output 3.2) | | | 70,000.00 | 70,000.00 | | | 70,000.00 | NEA |
| | External mid-term result verification exercise | | | | - | 35000 | | 35,000.00 | UNEP |
| | | | | | - | | | - | |
| | Baseline Study (M&E) | | | | - | 40000 | | 40,000.00 | UNEP |
| | Mid-Term Evaluation | | | | - | 35000 | | 35,000.00 | UNEP |
| | Terminal Evaluation | | | | - | 40000 | | 40,000.00 | UNEP |
| | Annual Financial Audit of Project | | | | - | | 48,000.00 | 48,000.00 | NEA |

| | | | | | | | | | |
|---|--|--------------------|------------|------------|-------------------|------------|-----------|-------------------|------------------|
| Consultants | Project Coordinator | 53,524.80 | 107,049.60 | 53,524.80 | 214,099.20 | | 53,524.80 | 267,624.00 | NEA |
| | International Chief Technical Advisor | 80,000.00 | 92,000.00 | 80,000.00 | 252,000.00 | | | 252,000.00 | NEA |
| | Eba and Climate Resilience Expert | | 80,000.00 | | 80,000.00 | | | 80,000.00 | NEA |
| | Sustainable Livelihoods Expert | | 70,000.00 | | 70,000.00 | | | 70,000.00 | NEA |
| | ESMP Expert | 25,000.00 | 25,000.00 | 25,000.00 | 75,000.00 | | | 75,000.00 | NEA |
| | Gender Specialist | 20,000.00 | 20,000.00 | 20,000.00 | 60,000.00 | | | 60,000.00 | NEA |
| | Monitoring and Evaluation Specialist | | | | - | 144,000.00 | | 144,000.00 | NEA |
| | Communications & Knowledge Management Expert | | | 165,600.00 | 165,600.00 | | | 165,600.00 | NEA |
| | Communications and Awareness Raising Expert | 25,000.00 | 25,000.00 | 25,000.00 | 75,000.00 | | | 75,000.00 | NEA |
| | Community Engagement Expert | | 80,000.00 | | 80,000.00 | | | 80,000.00 | NEA |
| | Finance and Procurement Expert | | | | - | 144,000.00 | | 144,000.00 | NEA |
| | Senior Project Assistant | | | | | 126,000.00 | | 126,000.00 | NEA |
| | Trainings, Workshops, Meetings | Inception Workshop | | | | - | 15,000.00 | | 15,000.00 |
| Closing Workshop | | | | | - | 15,000.00 | | 15,000.00 | NEA |
| Trainings on climate resilience, urban planning, and natural resource management (Output 1.1.1) | | 15,000.00 | | | 15,000.00 | | | 15,000.00 | NEA |

| | | | | | | | | | |
|---|---|-------------------|----------------------|-------------------|----------------------|-------------------|-------------------|----------------------|-----|
| | Regular community forums and participatory workshops (Output 1.1.2) | 50,000.00 | - | | 50,000.00 | | | 50,000.00 | NEA |
| | Workshops and policy dialogues (Output 1.1.3) | 15,000.00 | | | 15,000.00 | | | 15,000.00 | NEA |
| | Trainings on URMP implementation | 35,037.00 | | | 35,037.00 | | | 35,037.00 | NEA |
| | Trainings/ capacity building sessions on sustainable livelihoods (Output 2.1.4) | | 20,000.00 | | 20,000.00 | | | 20,000.00 | NEA |
| | Workshops (Output 3.1.1) | | | 15,000.00 | 15,000.00 | | | 15,000.00 | NEA |
| | Organize forums on EbA solutions (Output 3.1.2) | | - | 15,000.00 | 15,000.00 | | | 15,000.00 | NEA |
| | Innovation challenge events (Output 3.1.1) | | - | 8,000.00 | 8,000.00 | | | 8,000.00 | NEA |
| | Steering Committee Meetings | | | | - | | 15,000.00 | 15,000.00 | NEA |
| Travel to meetings, project sites, workshops etc | Travel (Local travel and supervision missions) | 7,000.00 | 7,000.00 | 7,000.00 | 21,000.00 | 7,000.00 | 12,500.00 | 40,500.00 | NEA |
| Office and other operating costs | Office Supplies | | | | - | | 14,975.20 | 14,975.20 | NEA |
| | Printing costs | | | | - | | 6,000.00 | 6,000.00 | NEA |
| Grand Total | | 555,561.80 | 10,698,350.40 | 539,124.80 | 11,793,037.00 | 301,000.00 | 450,000.00 | 12,544,037.00 | |

Please explain any aspects of the budget as needed here

ANNEX I: RESPONSES TO PROJECT REVIEWS

From GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF.

| Council or STAP Comments | Agency's Response Comments |
|--|---|
| <p>Council Comment from Germany</p> <p>The document frequently mentions grey infrastructure as both an alternative and complement to green infrastructure, which entails the EbA measures and innovative component of the project. Germany asks for further clarification on the guiding principle for selecting of the type of infrastructure proposed for the interventions, as well as on the anticipated percentage of grey infrastructure.</p> | <p>The project prioritizes nature-based solutions as a first response, with grey infrastructure considered only where essential to safeguard critical assets or enhance EbA effectiveness. The guiding principle follows a “green-first, hybrid-if-needed” hierarchy: site-specific technical, hydrological and environmental assessments will determine the appropriate mix of interventions at the inception phase. Where grey infrastructure is introduced (e.g., stormwater conveyance systems or road-adjacent drains), it will be explicitly designed to complement EbA approaches (e.g., bioswales, wetlands, or retention ponds). The total footprint of grey infrastructure is expected to remain very low, primarily in urban drainage and coastal protection contexts where full reliance on green infrastructure is not viable.</p> |
| <p>Council Comment from Germany</p> <p>Germany suggests that the project's benefits, as clearly highlighted by the problem tree and its potential contribution to biodiversity conservation and the prevention of land degradation, should be included in the project description. Additionally, mechanisms and targets for monitoring should be established.</p> | <p>The project description has been updated to reflect the project's contribution to biodiversity conservation and the prevention of land degradation, consistent with the problem tree analysis. In addition, the project includes a dedicated results framework with mechanisms and measurable targets for monitoring, ensuring that these benefits are systematically tracked and reported throughout implementation.</p> |
| <p>STAP Comment</p> <p>Under Component 1, the outcome should have a stronger focus on: a) developing adaptation strategies and plans to address different climate scenarios and increase preparedness in case of climate-related shocks that are specifically tailored to the context of the Greater Banjul Authority</p> | <p>The comment has been addressed by introducing a dedicated output (1.1.4) on the development of an Adaptation Strategy and a gender-responsive Urban Resilience Master Plan (URMP) for the Greater Banjul Area. The Adaptation Strategy will define objectives, targets, and policy measures for different climate scenarios, while the URMP will translate these into mapped, site-specific interventions and investment priorities. The output also includes training and capacity building for city planners and municipal agencies to ensure climate-informed infrastructure planning, building, and maintenance.</p> |

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| <p>(GBA), and b) building the technical capacity of city planners and municipal agencies in charge of infrastructure planning, building and maintenance.</p> | |
| <p>STAP Comment</p> <p>Under Component 2, the project was not specific about the alternative livelihoods (AL) options that are available in the local context of the GBA and can be implemented realistically and effectively within the project's lifetime.</p> <p>More inputs would be needed from the community engagement expert on the ground on what would be the most suitable alternative livelihoods. This list is taken from the project concept note and further elaborated upon stakeholder consultations.</p> | <p>Preliminary livelihood options identified during the project preparation phase include urban gardening, compost-based fertilizer production, eco-tourism services, mangrove-based aquaculture, and upcycling of organic and plastic waste. These were derived from stakeholder consultations and community-level engagements held during the PPG phase. During project implementation, these options will be further validated and tailored through participatory planning sessions and market assessments. In line with the project's adaptive management approach, the final menu of livelihood interventions will be site-specific, market-driven, and designed for feasibility within the project timeline, ensuring both ecological and economic sustainability.</p> |
| <p>STAP Comment</p> <p>Under component 3, the proposal presents a good analysis of the need for and barriers to the diffusion of knowledge related to Climate Change Adaptation (CCA) and Ecosystem-based Approaches (EbAs).</p> <p>However, it should be more specific about the type of knowledge products it can and should develop for different audiences, including women and Indigenous People, & Local Communities (IPLCs).</p> | <p>The project will develop tailored knowledge products to serve the needs of different stakeholder groups and enhance uptake of EbA solutions. These will include:</p> <p>Illustrated guides and video tutorials for community-based ecosystem restoration, adapted to different literacy levels and languages;</p> <p>Toolkits for local authorities and municipal planners on integrating climate resilience into urban development plans;</p> <p>Gender-sensitive awareness materials targeting women's cooperatives and youth groups; and</p> <p>Digital resources (mobile-friendly and offline-accessible) to broaden reach through the existing EbA information portal.</p> |
| <p>STAP Comment</p> <p>The justification for the proposed solution should provide a more detailed explanation of why the proposed approach will ensure cost effectiveness, relevance, and impact. The proponent should also explain how the project will ensure the durability of results and impact beyond the lifetime of the funded activities.</p> | <p>The justification has been expanded to demonstrate how the proposed approach ensures cost-effectiveness, relevance, and lasting impact. The project combines EbA, sustainable livelihoods, and complementary infrastructure to deliver long-term socio-economic and environmental benefits while reducing future disaster costs. By embedding interventions in national policies and urban planning frameworks, developing financing mechanisms, and fostering strong community ownership, the project will ensure durability of results beyond its lifetime.</p> |
| <p>STAP Comment</p> <p>The proposal identifies three main barriers, which are well described, and a clearly delineated strategy to overcome them. The description of the barriers is well aligned with</p> | <p>A comprehensive barrier removal strategy has been prepared outlining how levers of change and specific project interventions (as detailed as output level) would address those barriers.</p> |

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| <p>the issues identified under the 'project rationale' and 'problem' sections, which it complements well by adding further granularity and detail. The strategy for overcoming the barrier is generally good. However, it could be improved in a couple of places, such as barriers 2.3 and 2.4, which were too generic and did not provide a clear idea of what the project would do, and barrier 3.2, which did not provide any details or options about the type of AL that could be developed and did not explain how developing AL options would foster knowledge exchange or raise awareness about climate change impacts.</p> | |
| <p>STAP Comment</p> <p>Conduct a “livelihood analysis” to identify whether any preferred AL options fit the project's objectives, are feasible within its lifetime and resource availability, and can deliver desirable gender and development outcomes.</p> | <p>A comprehensive livelihood analysis was conducted during the PPG phase through the Economic Impact Analysis of Climate Change and Adaptation Measures in The Gambia. Drawing on household surveys, focus groups, and cost-benefit analysis in agriculture, fisheries, and tourism, the study assessed sectoral vulnerabilities, identified feasible adaptation strategies within the project's scope, and examined their potential gender and development outcomes. The findings informed the selection of livelihood activities under the project, ensuring that they are realistic, aligned with objectives, and responsive to community needs. Further details are provided in Appendix 12.</p> |
| <p>STAP Comment</p> <p>Our screening also revealed a minor inconsistency between the text used to describe the second assumption in the narrative and that used in the diagram. It is STAP's opinion that the correct definition is that used in the diagram. The narrative description of the components was comprehensive and provided a good overview of the proposed interventions and underlying rationale by bringing together and clearly labelling the baseline, project approach, outcome and outputs for each component.</p> <p>Provide a “hypothesis statement” describing the logical pathway underpinning the ToC.</p> | <p>An updated ToC diagram created to i) better demonstrate the logical pathways, ii) introduce the levers to better demonstrate these inter-linked drivers of change. The text is also further enhanced to provide the “hypothesis statement”, logical pathways and linkages to address STAP comment.</p> |
| <p>STAP Comment</p> <p>Provide a stronger explanation of how the project will aim to overcome and mitigate any potential adverse effects that could occur if the assumptions are not realized.</p> | <p>The Assumptions section in the ToC section has been further elaborated. This also reflected on the Risks section.</p> |
| <p>STAP Comment</p> | <p>Component 3 has been designed to generate and disseminate a diverse suite of knowledge products tailored to different stakeholder groups. These include technical manuals and policy toolkits for planners and municipal</p> |

| | |
|--|---|
| <p>Identify a range of knowledge products that can be developed by the project during its lifetime and disseminated effectively, ensuring that these include options that are accessible to disadvantaged social groups such as women and IPLCs.</p> | <p>agencies, visual guides and business development materials for women’s groups, and ecosystem restoration guides and participatory monitoring tools for IPLCs. In addition, mobile-friendly, multimedia content will be produced in local languages to ensure accessibility across literacy levels and disadvantaged groups. All products will be gender-responsive and culturally appropriate, with further details provided in Component 3 and the annex on community engagement and capacity building needs.</p> |
| <p>STAP Comment</p> <p>As The Gambia has adopted the Gender and Women Empowerment Policy for 2010–2020, the envisaged urban resilience master plan should align with this policy. It is essential to reflect on concrete actions that can be made to empower women, considering the potential resistance to change.</p> | <p>The development of both, the Adaptation Strategy and gender-responsive Urban Resilience Master Plan (URMP) for the Greater Banjul Area (Output 1.1.4) has been designed to align with national gender priorities, including The Gambia’s Gender and Women Empowerment Policy (2010–2020). The URMP will incorporate gender-disaggregated data, participatory consultations with women and men, and targeted focus groups to ensure that women’s needs and priorities are fully reflected.</p> |