



ADAPTATION FUND

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Adaptation Fund Board
Project and Programme Review Committee
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Bonn, Germany, 19-23 October 2026

PROPOSAL FOR GAMBIA, THE



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT
TECHNICAL REVIEW OF PROJECT PROPOSAL FOR
"STRENGTHENING CLIMATE RESILIENCE HORTICULTURE VALUE CHAINS IN THE GAMBIA
THROUGH QUALITY INFRASTRUCTURE, ENERGY-SMART PRODUCTIVE SYSTEMS, AND
ADAPTATION FINANCE"

Project Title **Strengthening Climate Resilience Horticulture Value Chains in the
Gambia through Quality Infrastructure, Energy-Smart Productive
Systems, and Adaptation Finance**

Project ID **AF00000545**

Category **Regular size project (over \$1 million)**

Type **Single country project**

Stage **Concept**

Country **Gambia, The**

Implementing Entity **UNIDO**

Financing Requested **USD 15,000,000.00**

Reviewer **Alexandra Munoz**

Co-reviewer(s)

IE Contact Person

Christian Lasser, Fatou Haidara, Ganna Onysko, Karin Reiss, Mark Grigoryan, Natale Guarnaccia, Niels Schulz, Olga Gordiievska, Stefan Pahl

Secretariat's Overall Comment

The project Strengthening Climate Resilience Horticulture Value Chains in the Gambia through Quality Infrastructure, Energy-Smart Productive Systems, and Adaptation Finance aims to strengthen the adaptive capacity, climate resilience and livelihoods of vulnerable rural and peri-urban communities—particularly women and youth—by transforming climate sensitive staple and horticultural value chains into resilient, inclusive and market-oriented systems through integrated investments in climate-resilient production, adaptation-critical productive-use energy, quality infrastructure and adaptation finance.

The proposal includes a PFG of USD 150,000.

The initial technical review raises several issues, such as the need to revise the outcomes, outputs, and activities; the lack of quantitative estimates of the economic, social, and environmental benefits; the absence of consultations; and the need for a more detailed analysis of the technical standards relevant to the project, among others, as reflected in the Clarification Requests (CRs) and Corrective Action Requests (CARs) raised during the review.

Country Eligibility

Is the country a developing country particularly vulnerable to the adverse effects of climate change?

Response: Yes

Secretariat: The Gambia is highly vulnerable to climate change due to its low-lying geography, dependence on rainfed agriculture and climate-sensitive resources, and limited adaptive capacity. Rising temperatures, droughts, flooding, sea-level rise, salinity intrusion and rainfall variability are already affecting agricultural production, food security and rural livelihoods, particularly those of smallholder farmers, women and youth.

August 30, 2026.

Project Eligibility

Has the designated government authority for the Adaptation Fund endorsed the project/programme?

Response: Yes

Secretariat: As per the Endorsement letter dated 15 June 2026.

August 30, 2026.

Does the length of the proposal amount to no more than Fifty pages for the project/programme concept, including its annexes?

Response: Not Cleared

Secretariat: Yes.

The CN is 49 pages long, including annexes.

CR1: Please replace “Central Project Coordination Unit (CPCU) of the Ministry of Environment, Climate Change and Natural Resources (MECCNAR) supported for partial co-execution by UNIDO” with “Ministry of Environment, Climate Change and Natural Resources (MECCNAR), UNIDO” under Executing Entities on page 1.

CR2: Please address the following:

1. Please proofread the entire document. For example, in paragraph 4 on page 25, “storagecreate” is written incorrectly.
2. Please number all paragraphs.
3. Please provide a title for all tables included in the document.
4. Please follow the AF template. assigning a letter to each section of Part II. This means that the description of Outcomes, Outputs, and activities should be Section A, the description of benefits should be Section B, and so forth.
5. Please include a table of contents and a list of acronyms. In addition, please remember that whenever an acronym is used for the first time in the document, its full meaning should also be provided.

August 30, 2026.

Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?

Response: Not Cleared

Secretariat: Unsure.

Part II.A (pages 18–24). Part II.A provides a general description of the project components but does not explain the Outputs or the activities included under each of them. The proposed project is structured around 5 components, 5 outcomes, and 21 outputs. A coherent Theory of Change is presented; however, no Theory of Change diagram is included.

CR3: Please evaluate to include specific objectives (page 13) corresponding to each of the proposed project components.

CR4: Please remove from the component descriptions all paragraphs that provide background and contextual

information (such as the third paragraph on page 21). Please note that this information should be included exclusively in Part I.

CR5: Please include a Theory of Change (ToC) diagram covering the following elements:

1. The main problem.
2. The overall objective.
3. Outcomes, outputs, and activities.
4. Components as the solutions that contribute to addressing the main problem.
5. Assumptions and risks as cross-cutting elements across all of the above. These should be specific rather than generic.

The ToC should clearly describe the vertical logic of the proposed programme toward adaptation.

CR6: Please address the following in the Project/Programme Components and Financing table:

1. Indicate which outputs and corresponding amounts will be executed by each of the two EEs.
2. Number all outcomes. For example, the outcome under Component 2 is currently not numbered.

CR7: Please address the following to:

1. Note that some Outputs, based on the way they are currently phrased, correspond to Outcomes (for example, Outputs 2.1 and 3.2). Therefore, please rewrite them so that they comply with the definition of an Output, i.e., the direct deliverable product or service produced.
2. Ensure that component titles are consistent with their corresponding products and accurately reflect them. Likewise, review the titles of Outputs and Outcomes, ensuring they are concise and specific.
3. Evaluate whether some components could be merged into a single component. For example, under Component 3 (page 22), the document states "...Integrating these interventions with national adaptation priorities," which could potentially be incorporated under Component 5, which is related to LKM.

CR8: Please address the following in the description of the project components to:

1. Identify the Outcomes, Outputs, and activities (i.e., the actions required to produce each Output) included under each Component.
2. Clearly indicate what will be financed by the AF. This means providing a detailed and concrete description of each activity included in the project.
3. Identify all institutions that will be involved in the delivery of the Outputs.
4. Clarify whether any preliminary agreements are in place with the institutions involved in the implementation of the activities. For example, the description of Component 4 (page 23) refers to "Partnering with The Gambia Investment & Export Promotion Agency to establish a dedicated Adaptation Investment Pipeline."

CR9: Please note that, since the exact intervention areas and communities have not yet been defined, this project seems to include Unidentified Sub-Projects (USPs). As the use of USPs is intended for exceptional cases, it requires compliance with the relevant AF requirements. Please refer to the AF guidance provided in the link and provide a clear justification for the use of USPs, ensuring full compliance with the applicable AF requirements.

CR10: Please remove the last paragraph from the description of Component 1 (page 19). Please note that alignment with national strategies should be addressed exclusively in the corresponding section (pages 28–30).

August 30, 2026.

Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Not Cleared

Secretariat: Unsure.

Part II.B (pages 25–26). The proposal highlights broad economic, social, and environmental benefits of the project. However, it does not highlight the specific benefits for vulnerable communities, nor does it provide a sufficiently detailed description of the economic, social, and environmental benefits supported by quantitative or qualitative estimates.

CR11: Please move paragraph 3 on page 7 to the section describing project benefits.

CR12: Please explain the calculations used to determine the number of project beneficiaries. In addition, clarify the mechanism that will ensure that women account for 50% and youth for 20% of project participation.

CR13: Please include a table summarizing direct and indirect beneficiaries by Component, identifying the percentage of vulnerable groups, such as women and youth, for each Component.

CR14: Please highlight the specific benefits that the project will provide to the most vulnerable communities.

CAR1: Please refer to the Initial Gender Assessment.

CR15: Please provide a more detailed description of the economic, environmental, and social benefits. This should include quantitative estimates (or qualitative estimates where appropriate given the nature of the benefit) for each category of benefits. Please do not confuse benefits with results.

CR16: Please confirm and identify any potential negative concerns or risks of maladaptation associated with project implementation.

August 30, 2026.

Is the project / programme cost effective?

Response: Not Cleared

Secretariat: Unsure.

Part II.C (pages 26–28). The proposal provides an explanation of how the proposed programme ensures cost-effectiveness, outlining the rationale for each component. In addition, it presents alternative options for comparison with the interventions included in the proposed project. However, the proposal does not provide a quantitative comparison between the costs of the proposed project and those of the alternative options.

CR17: Please replace the two existing tables with a single table comparing the cost of each proposed Component with the cost of alternative options, in order to provide a clearer assessment of the project's cost-effectiveness. Specifically:

1. The first column should indicate the name of each Component.
2. The second column should explain the cost-effectiveness rationale and indicate the Component's budget.

3. The third column should describe alternative options to the project and indicate their respective costs.

CR18: Please move the last paragraph concerning alignment with the AF strategic outcomes to the project component description section (Part II.A).

August 30, 2026.

Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?

Response: Not Cleared

Secretariat: No.

Part II.D (pages 28–30). The proposed programme identifies ten national strategies; however, it does not provide their full names (acronyms are used without being defined) or indicate the time horizon covered by each strategy. In addition, the analysis does not include national development strategies or strategies aimed at reducing gender gaps and poverty, among other relevant areas.

CR19: Please address the following in the “Alignment Matrix” (page 29) to:

1. Review and include, where available, national development, food security, gender-gap reduction, poverty-reduction strategies, and energy efficiency strategies (it is unclear whether “energy priorities” refers to a national energy plan or strategy).
2. Strengthen the description of the overall objective of each identified strategy and the project's alignment with it.
3. Indicate, together with each acronym, the full name and the time horizon covered by each strategy.

August 30, 2026.

Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?

Response: Not Cleared

Secretariat: No.

Part II.E (page 30). The proposal does not identify any specific technical standards, stating instead that “During the PFG phase, a standards-mapping exercise will identify all standards applicable to project-supported infrastructure, quality infrastructure services and productive-use energy systems.”

CR20: Please include a table containing the following information:

1. Full name of the technical standard.
2. Relevance of the standard to the project and the specific Output affected by it.
3. Main steps to be taken to ensure compliance. This should include the main actions required to ensure compliance, together with the institutions responsible for ensuring it, such as those responsible for issuing sectoral permits.
4. Review and include relevant standards related to building codes and water quality. Please ensure that the list is comprehensive.

August 30, 2026.

Is there duplication of project / programme with other funding sources?

Response: Not Cleared

Secretariat: No.

Part II.F (pages 30–31). The proposal refers to several projects covering different areas, including finance and energy. However, the limited information provided on these projects does not allow for verification that there is no overlap or duplication with the proposed project.

CR21: Please include a table containing the following information:

1. Project title (full name), implementation period, and source of funding.
2. Lessons learned from the project analyzed, identifying the main lessons and the Output(s) in which they are reflected in the proposed project.
3. Synergies and complementarities between the project analyzed and the proposed project.
4. Justification of the lack of overlap.

Please ensure that the table is comprehensive.

August 30, 2026.

Does the project / programme have a learning and knowledge management component to capture and feedback lessons?

Response: Not Cleared

Secretariat: Unsure.

Part II.G (pages 31–32). The proposed project includes Component 5 on learning and knowledge management. The CN states that the expected results include case studies, technical guidelines, and toolkits. However, further details are required regarding the proposed LKM activities and their implementation.

CR22: Please provide a more detailed and concrete explanation of LKM. Among other aspects, clarify who will be responsible for tracking experiences and how this tracking will specifically be conducted. In addition, clarify whether assessments will be conducted during project implementation, specify the type and number of knowledge products to be used to disseminate experiences, and indicate whether any preliminary agreements are in place with relevant institutions.

August 30, 2026.

Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Not Cleared

Secretariat: No.

Part II.H (pages 32–33). The proposed project has not yet conducted a consultation process, stating that “During

the Project Formulation Grant (PFG) phase, a structured consultation process will be undertaken to support Full Proposal development.”

CAR2: Please clarify why no consultations have been conducted to date. In addition, explain how the relevance of the problem to be addressed and the proposed approach to addressing it have been determined if the affected communities have not yet been consulted.

CAR3: Please specify which organizations, institutions, associations, or other stakeholder groups will be consulted.

CAR4: Please indicate the methodology that will be used for the consultations to be conducted.

CAR5: Please clarify what consultations are planned to address gender- and/or youth-related issues, and what mechanisms will be used to ensure the participation of these groups in the consultation process.

CAR6: Please clarify whether consultations were conducted with members of the target communities and with more local-level organizations within the target areas.

CAR7: Please indicate whether additional consultations will be conducted throughout project implementation.

August 30, 2026.

Is the requested financing justified on the basis of full cost of adaptation reasoning?

Response: Not Cleared

Secretariat: Unsure.

Part II.I (pages 33–35). The CN analyzes the additional risks generated by climate-related hazards and explains why these cannot be adequately addressed under the baseline scenario. However, the document does not provide clear information on additional funding sources, and further details are required.

CR23: Please add a table showing, by Component, the scope of the objectives. The table should compare the baseline scenario with the proposed scenario with the project.

CR24: Please explicitly indicate whether the project includes co-financing. In addition, please clarify whether the Outcomes and Outputs can be achieved solely with AF funding.

August 30, 2026.

Is the project / program aligned with AF's results framework?

Response: Not Cleared

Secretariat: No.

Part III.A (pages 41–45). The proposed project includes an AF Results Framework table; however, the table does not identify the Project Outcomes or the corresponding Fund Outcome Indicators.

CR25: Please update the table on pages 43–45 in accordance with the latest AF Results Framework and Alignment Table template provided in: https://www.adaptation-fund.org/wp-content/uploads/2026/04/AF-SRF-Updated-templates_results-framework-table-and-results-framework-alignment-t. In particular:

1. Use the exact wording of the relevant AF Outcomes, Outputs, and Indicators.
2. Include the total grant amount at both the Outcome and Output levels.
3. Please note that Project Outcomes are not equivalent to Project Components.

August 30, 2026.

Has the sustainability of the project/programme outcomes been taken into account when designing the project?

Response: Not Cleared

Secretariat: No.

Part II.J (pages 35–36). While the proposed project provides general information on its sustainability, the lack of specificity regarding the proposed measures makes it difficult to assess how the sustainability of the project benefits will actually be ensured. In addition, the limited description of the activities in Part II.A and of the benefits in Part II.B makes it difficult to determine precisely which benefits and interventions need to be sustained after project completion.

CR26: Please provide a clearer, more detailed, and concrete explanation of how the sustainability of the project's benefits will be ensured. Among other aspects, this should explain how social benefits will be sustained, how the maintenance costs of the proposed infrastructure interventions will be financed (including what will happen if beneficiaries are unable to pay the required fee) and how evidence and lessons learned will be integrated into national and county-level adaptation policies. Please also clarify whether any preliminary agreements are in place for these purposes.

CR27: Page 36 states that “...Women and youth will be trained as operators, technicians and service providers wherever feasible.” Please clarify whether this training is included as part of the project. If so, indicate the corresponding Output. Furthermore, it is unclear how this training will ensure sustainability. What will happen to future generations of women who have not received the training? How will the project ensure that the training provided is sufficient? Will periodic follow-up or refresher training be conducted?

CR28: Please clarify how the Community Adaptation Committees will operate after project completion, including the process for selecting members, the duration of their terms, and how their training will be updated over time.

CR29: Please include information on how the adaptation benefits would enable replication and scaling up after the project has ended.

August 30, 2026.

Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Not Cleared

Secretariat: Unsure.

Part II.K (pages 36–40). The proposed project provides general information on environmental and social risks and classifies the project as Category B based on the screening process. Risks have been assessed against the 15 ESP principles. However, the risk level assigned to some principles is ambiguous, and, in some cases, the descriptions of the risks and their corresponding mitigation measures lack sufficient clarity and specificity.

CAR8: Please revise Table (pages 37-40) to:

1. Describe all potential impacts—direct, indirect, transboundary, and cumulative—and risks that could result from the project.
2. Revise the magnitude of the risks and impacts (low, moderate, or high), assigning only one risk level to each principle. Risks should be described using the format “There is a risk that...” and should be accompanied by mitigation measures using wording such as “Mitigation measures are...” or “To mitigate this risk, the project...”
3. Please remember that Principles 1, 4, and 6 always apply.
4. If no risk is identified for a given principle, provide a sound justification.
5. Explain how compliance with the applicable AF requirements will be ensured for the USPs.

August 30, 2026.

Resource Availability

Is the requested project / programme funding within the cap of the country?

Response: Cleared

Secretariat: Yes.

Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?

Response: Cleared

Secretariat: Yes.

All figures are rounded to whole numbers, and the Implementing Entity Management Fee is 8.5%. The PFG request is correct in size (USD 150,000).

August 30, 2026.

Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?

Response: Not Cleared

Secretariat: Unsure.

All figures are rounded to whole numbers and add up consistently across the tables throughout the CN. However, the amount to be executed by each of the two EEs is not specified.

CR30: As the IE will also act as an EE, please clarify whether the IE execution costs are limited to 1.5% of the cost of the portion of the project or programme executed by the IE (see <https://www.adaptation-fund.org/document/ie-and-ee-fees-calculator/>).

August 30, 2026.

Eligibility of IE

Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?

Response: **Cleared**

Secretariat: Yes.

United Nations Industrial Development Organization (UNIDO) is an accredited Multilateral Implementing Entity (MIE).

Accreditation Expiration Date: 30 October 2027.

August 30, 2026.



CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Strengthening Climate Resilient Horticulture Value Chains in The Gambia through Quality Infrastructure, Energy-Smart Productive Systems, and Adaptation Finance

Country: The Gambia

Thematic Focal Area: Agriculture

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: United Nations Industrial Development Organization (UNIDO)

Executing Entities: Central Project Coordination Unit (CPCU) of the Ministry of Environment, Climate Change and Natural Resources (MECCNAR), supported for partial co-execution by UNIDO

Amount of Financing Requested: 15,000,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes ☒ No ☐

Amount of Requested financing for PFG: 150,000 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>

Stage of Submission:

☐ This concept has been submitted before

☒ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: Click or tap to enter a date.

Please note that concept note documents should not exceed 50 pages, including annexes.

Project/Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic social, development and environmental context in which the project would operate.

Climate change is disrupting horticulture and staple food value chains in The Gambia through heat stress, rainfall variability, salinity intrusion, flooding, and power instability. These hazards reduce yields, increase post-harvest losses, shorten shelf life, damage storage and processing systems, and undermine the livelihoods of climate-vulnerable communities. This project proposes a USD 15 million, six-year Adaptation Fund intervention focused exclusively on reducing climate-induced losses and strengthening resilience across climate-sensitive nodes of horticulture and staple food value chains. All interventions are designed to address climate hazards rather than productivity, competitiveness, or market expansion.

- Climate-resilient production and water management.
- Climate-resilient processing and storage.
- Climate-informed quality infrastructure.
- Investment mobilization and access to adaptation finance.

These are supported by cross-cutting attention to gender, youth inclusion, environmental and social safeguards, monitoring, learning, and knowledge management.

UNIDO will implement the project based on its experience in climate-resilient productive systems, quality infrastructure for climate-sensitive sectors, and climate-risk management in agri-food value chains. UNIDO's role focuses on ensuring that adaptation investments are technically sound, climate-responsive, and supported by appropriate standards, safeguards, and institutional capacity.

The project integrates UNIDO's just energy transition approach by embedding energy-efficient and climate-resilient productive-use systems into adaptation planning for horticulture and staple food value chains. In this context, energy is positioned as a critical enabler of climate resilience—supporting irrigation, processing, cooling and storage, under increasing climate stress, while creating inclusive livelihood opportunities for both women and youth and other vulnerable groups.

The project specifically positions high quality, energy efficient and affordable productive-use energy systems as adaptation-critical infrastructure required to maintain water access, food preservation, processing continuity, and livelihood stability under increasing climate variability, heat stress, flooding, and power disruptions. In The Gambia, rising temperatures and unreliable rural energy access (approx. 34%) are increasing dependence on resilient decentralized energy systems for irrigation, cooling, storage, and processing. Without these systems, climate-induced post-harvest losses (30% to 50% for fruits and vegetables), food insecurity, and livelihood instability are expected to increase significantly. There is a need to protect the market from the influx of low-quality technologies and facilitate access to high quality affordable technologies.

The Productive and Equitable Enterprises for Resilience (PEER Enterprises) approach goes beyond conventional post-disaster recovery by strengthening the continuity of productive activities before, during and after climate shocks. It combines resilient enterprises, decentralized renewable energy solutions, and climate-informed planning to ensure that critical agri-food functions—such as irrigation, processing, cooling and storage—can continue operating during climate-related disruptions. By recognizing energy as an enabler of resilience and investing in local enterprises, technical capacities, and supply chains, PEER Enterprises reduces

dependence on external support, strengthens locally led adaptation, and enables faster recovery from climate shocks. Rather than restoring livelihoods only after a disaster, the approach helps communities sustain productive activities throughout climate disruptions, strengthening the long-term resilience, adaptive capacity, and inclusiveness of agri-food value chains.

The climate rationale is anchored in The Gambia's Second Nationally Determined Contribution (NDC2) (Government of Gambia, 2021), Third National Communication (TNC) (Government of Gambia, 2020), Long-Term Climate-Neutral Development Strategy 2050 (Government of Gambia, 2022), First Biennial Update Report (BUR1) (Government of Gambia, 2024), Agriculture and Natural Resources Policy (ANRP) (Ministry of Agriculture, 2017), and national agriculture transformation priorities. The NDC2 identifies adaptation as a top national priority and confirms that The Gambia is highly vulnerable to climate change despite contributing very little to global emissions. It projects annual mean temperature increases of 1.7°C to 2.1°C by 2050, sea-level rise of 19 cm to 43 cm by 2050, and uncertain but increasingly variable rainfall patterns. These changes are expected to intensify salinization and acidification of lowland soils, increase pressure on mangroves and forests, and negatively affect key crops such as millet, sorghum, maize and groundnuts. The NDC2 also identifies women and youth as highly vulnerable groups because poverty, limited access to resources and low access to risk-spreading mechanisms constrain adaptive capacity. The Strategic Programme for Climate Resilience further prioritizes climate-resilient land use planning, infrastructure and energy systems, and integrated rural resilience, providing a strong policy basis for the proposed intervention.

Climate change is already affecting The Gambia's agriculture sector through rising temperatures, erratic rainfall, droughts, floods, heat stress, salinity intrusion and land degradation. The Gambia's TNC indicates that, under progressively drier climate conditions, combined heat and soil moisture stress are expected to become major constraints to crop development and yields under rainfed systems. By 2050, yield changes are expected to range from -17% to 0% for millet, -25% to -15% for sorghum, -22% to 0% for maize, and around -18% for groundnuts, with losses potentially amplified by nitrogen stress. These impacts are particularly serious because smallholder crop production is central to household food security, rural income and national economic stability.

Agriculture is the principal source of livelihood for the rural population, providing employment for approximately 70 percent of the population while contributing about 24 percent of GDP. Rural poverty, food insecurity and malnutrition are closely associated with low agricultural productivity, especially in rainfed systems, and disproportionately affect women and youth. Sea-level rise and reduced rainfall have increased saltwater intrusion by 150–200 km inland, affecting crop yields, and droughts in 2011 and 2014 contributed to a 50 percent drop in crop output International Fund for Agricultural Development [IFAD], 2019).

The agricultural and natural resources sector is further constrained by long-standing structural weaknesses that climate change is intensifying. The ANRP identifies climate risks as major constraints across production, post-harvest handling, and storage systems. It highlights the need for climate-resilient seed systems, pest and disease management under changing climate conditions, and reduced post-harvest losses caused by heat stress and humidity. These priorities directly support the project's focus on climate-vulnerable horticulture and staple food value chains.

Horticulture is highly climate-sensitive due to heat stress, humidity, and rainfall variability, which accelerate spoilage and shorten shelf life. Climate-resilient processing and storage systems are therefore essential to reduce climate-induced losses and stabilize livelihoods for women and youth who dominate horticulture production and processing. Climate change affects not only

production but the entire agri-food value chain. Rising temperatures, heat stress, rainfall variability, flooding, salinity and water scarcity reduce crop productivity at farm level. However, the impacts continue after harvest through increased spoilage, shorter shelf life, contamination risks, quality deterioration, storage losses, transport disruptions, market gluts and income volatility. This is especially important for horticulture, which is highly perishable and is often produced, processed and marketed by women. The Gambia Agriculture Transformation Programme (ATP) (Ministry of Agriculture, 2019) notes that horticultural producers often market produce in unprocessed form through informal systems, where middlemen strongly influence producer prices. Because production is seasonal and produce is perishable, harvesting periods are characterized by market gluts, low prices and high post-harvest losses, followed by scarcity and high-priced imports. The programme therefore identifies appropriate processing and value-addition technologies as necessary for commercializing the horticulture sector and reducing economic losses.

Water insecurity is increasing due to reduced rainfall, salinity intrusion, soil acidification, and shifting water availability. These hazards threaten rice, vegetables, millet, sorghum, and other crops, and increase climate-induced post-harvest risks. Climate-resilient water management — including improved irrigation, rainwater harvesting, water retention, soil moisture conservation, and salinity management — is essential to maintain production under worsening climate conditions.

Energy access and reliability are also central to adaptation in climate-sensitive value chains. The existing concept note rightly positions high-quality, energy-efficient and affordable productive-use energy systems as adaptation-critical infrastructure required to maintain water access, food preservation, processing continuity and livelihood stability under increasing climate variability, heat stress, flooding and power disruptions. Rather than being treated only as a productivity input, productive-use energy is an adaptation enabler because it allows farming communities, cooperatives and MSMEs to continue irrigating, processing, cooling, storing and marketing agricultural products during droughts, floods, extreme heat and power instability. By improving the reliability, efficiency and resilience of these systems, the project will reduce climate-induced losses, strengthen food security, stabilize livelihoods and enhance adaptive capacity across the entire value chain.

Climate hazards directly disrupt energy-dependent agricultural functions. Extreme heat increases spoilage, drought increases irrigation demand, and storms cause grid outages that halt processing and cooling. The project therefore invests only in decentralized, climate-resilient energy systems that maintain essential value-chain functions during climate shocks. These systems are selected based on climate hazard profiles, not productivity or electrification objectives.

The need for resilient productive-use energy is particularly important as climate change increases demand for irrigation, cooling, storage and resilient processing. Rising temperatures accelerate spoilage, prolonged droughts increase dependence on irrigation, flooding disrupts productive activities and market access, and power instability undermines the continuity of value-chain operations. The concept note therefore treats climate-resilient energy systems—such as efficient motors and drives, solar-powered or hybrid pumping systems, cooling and near-cold storage, climate-resilient processing equipment and related service ecosystems—as adaptation-critical investments rather than mitigation investments alone. This approach is consistent with the BUR1, which notes the need to modernize energy systems and strengthen climate-responsive planning and investment across sectors.

The proposed project will prioritize a focused set of highly climate-vulnerable and nationally significant value chains within the USD 15 million financing envelope. These include vegetable horticulture, particularly vegetables highly exposed to heat stress, water insecurity, post-harvest losses and market volatility, and climate-resilient staple crops, particularly millet and sorghum. Millet and sorghum are important because they contribute to food security and are relevant in lower-rainfall production systems. The ANRP notes that sorghum performs well in areas where maize production is poor and risky, and highlights the need to expand improved varieties in low-rainfall areas (Ministry of Agriculture, 2017)

The project is structured around mutually reinforcing components, supported by a cross-cutting backbone on monitoring, learning, gender, and environmental and social safeguards in line with Adaptation Fund requirements. The proposed intervention places particular emphasis on women and youth because they are both highly exposed to climate-related risks and central to the horticulture sector's adaptive capacity. Horticulture provides livelihood opportunities across production, processing, aggregation, and marketing activities, yet women and youth frequently face barriers to land, finance and technology. Addressing these constraints is essential to ensuring that adaptation investments generate inclusive and sustainable resilience outcomes.

The proposed approach also contributes to the transition from stand-alone adaptation projects towards integrated, systems-based resilience building, providing a scalable model that can inform future adaptation investments within The Gambia and across other climate-vulnerable countries in West Africa. These value chains have been selected because they combine high climate vulnerability with high adaptation potential, strong livelihood importance, significant participation of women and youth, and opportunities to generate transformational adaptation through integrated investments in resilient production, quality infrastructure, productive-use energy systems, and adaptation finance. By combining climate-resilient physical investments with institutional strengthening, climate-responsive quality infrastructure, local technical capacity, and adaptation finance, the project establishes the enabling conditions for long-term resilience beyond the project lifecycle.

To respond to the scale of the Adaptation Fund financing envelope and to ensure that the proposed project delivers measurable adaptation impact, the project will adopt a focused geographic and beneficiary-targeting approach rather than spreading resources thinly across the whole country. The project will concentrate on selected climate-vulnerable production, aggregation, processing and market corridors where horticulture and climate-resilient staple food value chains are important for livelihoods, food security, women's economic participation, youth employment and local adaptation. The final selection of districts, communities, production clusters and value-chain nodes will be confirmed during the Project Formulation Grant phase through climate-risk screening, value-chain assessment, gender analysis, stakeholder consultations, environmental and social safeguards screening, and verification of complementarity with ongoing projects.

The geographic focus will be based on a corridor-and-node approach. This means that the project will not only support farm-level production sites, but will also strengthen the wider adaptation functions needed along the value chain, including water management, aggregation, storage, cooling, processing, quality assurance, productive-use energy and adaptation finance. This approach reflects the project's core adaptation rationale: climate risks affect the whole agri-food value chain, and production gains can be lost if post-harvest systems, energy access, standards compliance, processing capacity, storage and market linkages remain climate-vulnerable.

Indicatively, the project will prioritize selected areas within the Central River Region, North Bank

Region, Lower River Region, Upper River Region, and West Coast Region, together with selected peri-urban aggregation, processing, quality infrastructure and market nodes. Final project investments will be concentrated in a limited number of climate-vulnerable value-chain corridors and adaptation hotspots to ensure catalytic impact and cost-effectiveness within the available financing envelope. The proposed geographic targeting also reflects the differentiated pattern of climate risks across The Gambia. In the lower-central parts of the country, saline intrusion, flooding and the interaction of freshwater and saline water create significant risks for lowland production systems. In the western part of the country, including West Coast production and market areas, horticulture and lowland agriculture are exposed to salinity, heavy rainfall, land degradation, urban and peri-urban pressures, and market-linked post-harvest losses. In the eastern parts of the country, including parts of the Upper River Region, rainfall variability, drought, heat stress, shorter growing seasons and water scarcity threaten rainfed agriculture and staple food systems (IFAD, 2019). The project will therefore use a tiered geographic targeting framework during the PFG phase:

Target geography	Indicative relevance to the project	Main climate-resilience rationale
Vegetable and horticulture production clusters in selected regions, especially where women's production groups and cooperatives are active	Vegetable gardens, horticulture perimeters, smallholder production areas and women-led production groups	Reduce climate-induced losses from heat stress, water insecurity, unreliable irrigation, spoilage and limited storage
Millet and sorghum production areas in climate-stressed rainfed and lower-rainfall zones	Selected staple food production areas with strong food security relevance	Support drought-tolerant and climate-resilient staple crops, improved seed access, soil restoration and climate-smart cultivation
Aggregation, collection and post-harvest nodes linking production areas to markets	Collection centres, grading points, storage sites, cooling facilities and transport-linked aggregation points	Reduce post-harvest losses, quality deterioration and market disruption caused by heat, humidity, flooding and poor infrastructure
Processing and MSME clusters	Women- and youth-led processors, cooperatives, agribusiness MSMEs and service providers	Maintain income continuity under climate stress through energy-smart processing, quality systems and business support
Quality infrastructure and institutional nodes	TGSB, FSQA, metrology, certification, testing and inspection systems, and relevant public institutions	Strengthen climate-responsive standards, testing, certification, and inspection systems to reduce climate-induced quality failures (heat stress, humidity, contamination, spoilage) and protect food safety under worsening climate conditions.
Adaptation finance and investment nodes	GIEPA, financial institutions, MFIs, cooperatives and	Convert local adaptation needs into bankable

	MSME financing channels	investments and improve access to finance for resilient value-chain assets
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The West Coast Region and North Bank Region are expected to remain important for horticulture because the Gambia ATP identifies horticultural crops, especially fruits and vegetables, as concentrated in the Western and North Bank Regions. These regions are prioritized because they face severe climate hazards including salinity intrusion, heavy rainfall, heat stress, drought, and climate-induced post-harvest losses. However, the project will avoid concentrating benefits only in better-connected or already better-served areas. Selection will deliberately include poorer and more climate-vulnerable rural production zones, particularly where women and youth depend on climate-sensitive livelihoods and where previous investments have not fully addressed storage, processing, productive-use energy, quality infrastructure or adaptation finance gaps.

This targeting approach also responds to lessons from past agricultural financing and value-chain programmes. The Gambia ATP notes that previous matching grant support was heavily concentrated in the West Coast Region, which was not fully aligned with national objectives to reduce rural-urban migration and broaden rural opportunity (Ministry of Agriculture, 2019). The proposed project will therefore apply transparent geographic and beneficiary selection criteria to ensure that adaptation benefits reach climate-vulnerable rural and peri-urban communities. This project does not aim to increase productivity or competitiveness; it aims to reduce climate-induced losses.

The project's direct beneficiaries will include smallholder farmers, women's producer groups, youth-led enterprises, cooperatives, farmer organizations, processors, aggregators, service providers, MSMEs, and local institutions involved in climate-sensitive horticulture and staple food value chains. The concept note currently targets at least 10,000 direct beneficiaries, with at least 50 percent women and 30 percent youth, together with measurable improvements in resilience, post-harvest loss reduction and income stability. These targets may be refined during the PFG phase through baseline analysis, beneficiary mapping and gender-responsive targeting.

Preliminary beneficiary estimates are based on expected outreach through producer organizations, women's groups, cooperatives, MSMEs, value-chain service providers and community-level adaptation investments. Final beneficiary figures will be validated during baseline studies and beneficiary mapping undertaken during the PFG phase.

Priority will be given to the following beneficiary groups:

Beneficiary group	Rationale for prioritization	Indicative project support
Women smallholder farmers and vegetable growers	Women are central to horticulture, rice and local food systems but often face barriers to land, finance, irrigation, technology and markets	Climate-resilient production, irrigation, improved seed access, aggregation, processing, storage, and quality compliance.
Youth farmers, technicians and agri-entrepreneurs	Youth face limited employment opportunities and are vulnerable to climate-sensitive rural livelihoods and	Productive-use energy services, equipment operation and maintenance, climate-resilient value-chain

	migration pressures	services, digital tools, processing and support for climate-resilient enterprise continuity.
Smallholder producers of millet, sorghum and vegetables	These crops are important for food security, climate resilience and livelihood diversification	Climate-resilient seed systems, soil restoration, water management, extension, regenerative cultivation and climate-smart practices
Cooperatives and farmer organizations	Collective action is needed for aggregation, storage, quality control, finance access, climate-risk informed aggregation and storage management.	Governance and climate-risk management capacity for aggregation and storage systems, aggregation centers, storage, standards compliance and links to finance
Women- and youth-led MSMEs and processors	Processing can reduce climate-induced losses and stabilize incomes	Climate-resilient processing, cooling, packaging, quality assurance, certification, climate-resilient enterprise operations, and adaptation-finance readiness (ability to access climate-resilient investment capital)
Local service providers and technicians	Adaptation assets require local maintenance capacity and sustainable service ecosystems	Training in operation, repair and maintenance of irrigation, cooling, storage, processing and productive-use energy systems
Public institutions and quality infrastructure bodies	Standards, testing and certification are needed to reduce climate-related quality failures and improve climate-resilient market access	Support to TGSB, FSQA, metrology, inspection, laboratories, certification systems and climate-responsive standards
Financial institutions and investment intermediaries	Adaptation needs must be translated into bankable investments for sustainability and scale	Adaptation finance pipeline, de-risking tools, MSME investment readiness and engagement with MFIs/banks

Beneficiary selection will be based on transparent vulnerability and feasibility criteria. These will include: exposure to drought, salinity, flooding, heat stress and rainfall variability; dependence on horticulture or climate-resilient staple crops; poverty and food insecurity levels; women's and youth participation in production and value-chain activities; potential to reduce climate-induced post-harvest losses; availability of local organizations or cooperatives; feasibility of sustainable operation and maintenance; safeguards suitability; and potential for complementarity with ongoing initiatives. The PFG phase will confirm the final target districts, communities and value-chain nodes through the following process:

1. ***Climate-risk and vulnerability screening*** to identify areas most exposed to drought, heat stress, salinity, flooding, rainfall variability and post-harvest climate risks.
2. ***Value-chain mapping*** to identify priority horticulture, millet and sorghum production clusters, aggregation points, processing centres, market corridors and service gaps.
3. ***Gender and social inclusion analysis*** to identify barriers faced by women, youth, persons with disabilities and other vulnerable groups in accessing land, water, finance, technologies, markets and decision-making.
4. ***Stakeholder consultations*** with local communities, women's groups, youth groups, cooperatives, MSMEs, local governments, extension services, quality infrastructure institutions and financial institutions.
5. ***Environmental and social safeguards screening*** to ensure that sites avoid maladaptation, involuntary resettlement, land conflict, ecosystem damage, unsustainable water use or exclusion of vulnerable groups.
6. ***Complementarity assessment*** to avoid duplication with ROOTS, GIRAV, GAFSP, REWARD-AfricaRice, SPRING and other ongoing initiatives, while filling gaps in productive-use energy, storage, quality infrastructure, processing, enterprise readiness and adaptation finance.
7. ***Final geographic and beneficiary targeting matrix*** to be included in the full proposal, with selected regions, districts, communities, value-chain nodes, beneficiary categories, baseline values and sex-/age-disaggregated targets.

National Climate Risk Analysis

The Gambia is among the countries in West Africa most exposed to the impacts of climate change due to its low-lying geography, dependence on climate-sensitive sectors, limited adaptive capacity, and concentration of people and economic assets along the coast and the Gambia River corridor. Climate change is no longer a distant environmental issue in The Gambia; it is increasingly shaping economic performance, livelihoods, infrastructure resilience, food security, public health, and patterns of migration and poverty. The country's narrow geography, fragile ecosystems, high dependence on rainfed agriculture, and limited resilience of rural infrastructure and productive systems make it particularly vulnerable to droughts, flooding, extreme heat, sea-level rise, coastal erosion, saltwater intrusion, and changing rainfall patterns. These climate hazards increasingly interact to disrupt agricultural production, reduce water availability, damage infrastructure, increase post-harvest losses, and undermine the livelihoods of climate-vulnerable communities, particularly women, youth and smallholder farmers.

Recent assessments by the World Bank and the Global Center on Adaptation demonstrate that climate risks are intensifying across all regions of the country. Temperatures have increased steadily over the last four decades, while rainfall variability has become more erratic. Flooding events, especially in urban and coastal areas, have become more frequent and destructive, disrupting transport systems, damaging homes and public infrastructure, and affecting agricultural production. At the same time, prolonged dry spells and recurrent droughts continue to undermine crop productivity, reduce water availability, increase dependence on irrigation and climate-resilient productive systems, and weaken the resilience of rural livelihoods and agri-food value chains. Together, these climate trends are increasing production risks, post-harvest losses,

market disruptions and food insecurity, highlighting the need for integrated adaptation measures that strengthen resilience across the entire value chain.

Climate risks in The Gambia are increasingly systemic rather than isolated. Extreme weather events affect not only agricultural production but also irrigation, energy access, storage, processing, transport and quality assurance. As a result, adaptation interventions focused solely on production are insufficient. Building long-term resilience requires integrated investments that strengthen the entire agri-food value chain, supported by resilient infrastructure, adaptation-critical productive-use energy systems, quality infrastructure, institutional capacity and access to finance. This systems perspective underpins the design of the proposed project.

Without sustained adaptation investment, climate change is expected to increase rural poverty, reduce the competitiveness of agri-food value chains, and constrain inclusive economic development.

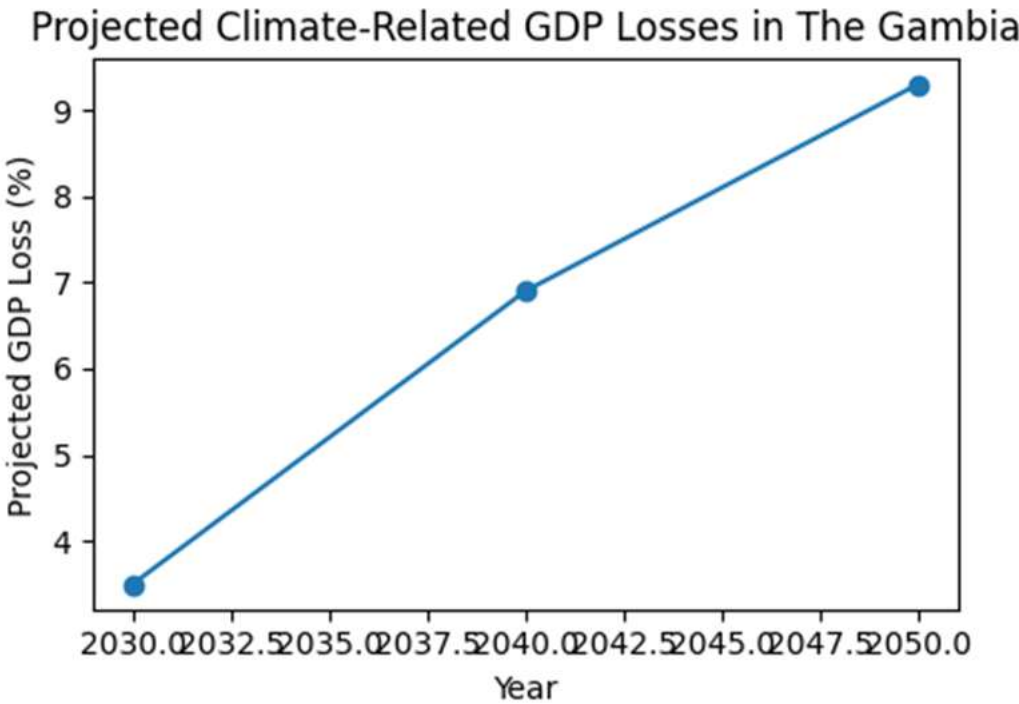


Figure 1. Projected climate-related GDP losses in The Gambia under high-risk scenarios.

Climate Trends and Emerging Hazards

The climate of The Gambia lies between a tropical savannah and a hot semi-arid climate. The country experiences a long dry season from November to May and a shorter rainy season from June to October, controlled largely by the movement of the Intertropical Convergence Zone (ITCZ). Historically, annual rainfall ranged between approximately 650 mm in the eastern regions and 1,100 mm in the western coastal areas, with a national average of around 800 mm annually.

However, climate observations indicate that temperatures have risen by almost 1°C since 1980, while rainfall patterns have become increasingly variable. These changes are altering the timing, intensity and predictability of climatic conditions, increasing uncertainty for agricultural production, water resource management and climate-sensitive value chains.

Extreme heat is becoming one of the defining climate risks in The Gambia. Inland regions are projected to experience dramatic increases in days above 40°C by mid-century, particularly under high-emission scenarios. The eastern part of the country, including Upper River Region and parts of Central River Region, is expected to face the most severe heat stress. Extreme temperatures threaten agricultural labour productivity, reduce crop quality and yields, increase livestock mortality, raise irrigation water demand, accelerate post-harvest deterioration, and reduce the effectiveness of storage and processing systems. These impacts disproportionately affect smallholder farmers and MSMEs that lack access to climate-resilient technologies, reliable energy systems and adaptive financing, highlighting the need for integrated adaptation measures across the entire value chain.

Flooding represents another major climate hazard affecting both rural and urban areas. Coastal flooding threatens the Greater Banjul Area (GBA), while pluvial flooding caused by intense rainfall events increasingly affects urban settlements such as Kanifing, Kotu, Bundung, and Brikama. Riverine flooding along the Gambia River corridor affects communities in Lower River Region, Central River Region, and Upper River Region, particularly around floodplain settlements. Sea-level rise compounds these risks by increasing tidal flooding and saline intrusion into freshwater systems and agricultural land. According to the World Bank (2024), annual losses from pluvial and coastal flooding in the GBA are projected to rise from US\$21.6 million in 2020 to US\$40.9 million by 2070. Without intervention, the population exposed to flood risk could increase from 198,405 to 655,000 over the same period, underscoring a growing climate-risk burden that exceeds the capacity of existing infrastructure and response systems. Beyond physical damage, flooding disrupts transport corridors, agricultural processing, storage facilities, climate-resilient market access and rural enterprises, leading to significant livelihood losses and increasing the need for resilient infrastructure, productive-use energy systems and climate-Drought conditions undermine rainfed agriculture, reduce pasture availability, increase food insecurity, accelerate land degradation, and intensify competition for increasingly scarce water resources. As irrigation demand grows and rainfall becomes more unpredictable, farmers and rural enterprises require climate-resilient water management systems, efficient productive-use energy technologies, drought-resilient crops and improved soil management to sustain production and livelihoods under changing climatic conditions. The agricultural sector, which employs around 70 percent of the labour force, is therefore highly exposed to both current climate variability and future climatic shifts.

These climate hazards do not occur independently. Increasingly, extreme heat, drought, flooding and changing rainfall patterns interact to create cascading impacts across agricultural value chains. Climate shocks reduce production, disrupt irrigation and water availability, increase post-harvest losses, damage processing and storage facilities, and reduce household incomes. This interconnected risk profile underscores the need for integrated adaptation interventions that strengthen resilience simultaneously across production systems, quality infrastructure, productive-use energy, market systems and access to finance, rather than addressing individual climate risks in isolation.

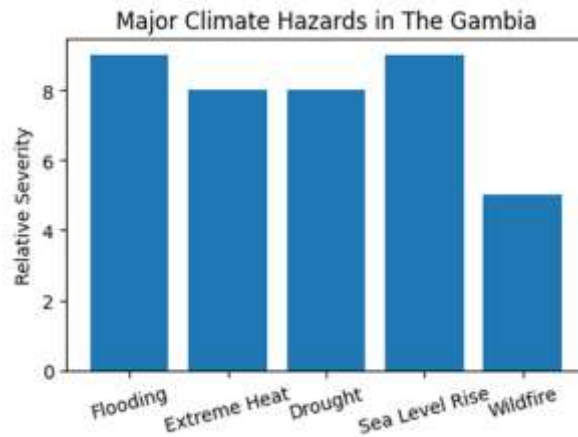


Figure 2. Major climate hazards affecting The Gambia.

Climate Risks, Vulnerability and Adaptation Rationale

The Gambia is highly vulnerable to rising temperatures, droughts, flooding, sea-level rise, salinity intrusion and increasing rainfall variability. These hazards threaten agricultural production, water resources, infrastructure, food security and livelihoods, particularly given the country's strong dependence on rainfed agriculture and climate-sensitive natural resources. Climate projections presented in the NDC2, Third National Communication and Long-Term Climate-Neutral Development Strategy indicate growing pressures on agricultural productivity, water availability and ecosystem resilience, with increasing risks for staple crops, horticulture and rural livelihoods (Government of The Gambia, 2020; Government of The Gambia, 2021; Government of The Gambia, 2022).

Climate impacts are not evenly distributed. Rural households, smallholder farmers, women, youth and MSMEs face disproportionate vulnerabilities because they rely heavily on climate-sensitive livelihoods and often have limited access to land, finance, irrigation, technology, market services and climate information. Women play a central role across horticultural production, processing and marketing systems, while youth face limited employment opportunities and high levels of informality, making both groups particularly exposed to climate-related economic shocks and livelihood disruptions (Government of The Gambia, 2021; Labour Force Survey 2022/23).

Climate risks also vary significantly across the country. Coastal and urban areas are increasingly exposed to sea-level rise, coastal erosion, flooding and heat stress, while riverine zones face recurrent flooding and salinity intrusion. Eastern regions are projected to experience higher temperatures, more frequent droughts, water scarcity and land degradation. These differentiated climate risks highlight the need for geographically targeted adaptation interventions that respond to local vulnerabilities while strengthening resilience across national agri-food systems (World Bank, 2024; IFAD, 2019).

Climate change increasingly affects entire agricultural value chains rather than production alone. Heat stress, droughts, flooding and changing rainfall patterns reduce yields and increase production risks, while weaknesses in storage, processing, transport, quality assurance and energy systems amplify post-harvest losses and income volatility. Low irrigation coverage, limited use of improved inputs and inadequate access to reliable energy further constrain adaptive capacity. Fertilizer use remains low at approximately 15.6 kg/ha, only around 4–5% of agricultural land is equipped for irrigation, and more than 75% of households rely on traditional biomass fuels,

increasing vulnerability to climate shocks (FAOSTAT, 2024; World Bank, 2023; FAO, 2022).

Without increased adaptation investment, climate change is expected to reduce agricultural productivity, increase food insecurity, exacerbate poverty and generate growing economic losses. The World Bank projects that climate-related GDP losses could rise substantially by mid-century under high-risk scenarios if resilience measures are not scaled up. At the same time, climate change is increasing the need for resilient irrigation, storage, processing, productive-use energy systems, quality infrastructure and adaptation finance to maintain food security, protect livelihoods and sustain market access (World Bank, 2024; Government of The Gambia, 2021).

The proposed project responds to these challenges through an integrated value-chain adaptation approach that combines climate-resilient production systems, water management, productive-use energy, quality infrastructure, institutional strengthening and adaptation finance. This approach is consistent with priorities identified in The Gambia's NDC2, the National Adaptation Plan process, the Strategic Programme for Climate Resilience and the Long-Term Climate-Neutral Development Strategy, while addressing the interconnected vulnerabilities that affect production, storage, processing, quality assurance and market systems across climate-sensitive value chains (Government of The Gambia, 2021; Government of The Gambia, 2022; UNIDO, 2023).

Project/Programme Objectives:

List the main objectives of the project/programme.

Objective: To strengthen the adaptive capacity, climate resilience and livelihoods of vulnerable rural and peri-urban communities—particularly women and youth—by transforming climate-sensitive staple and horticultural value chains into resilient, inclusive and market-oriented systems through integrated investments in climate-resilient production, adaptation-critical productive-use energy, quality infrastructure and adaptation finance.

Theory of change: These climate risks are compounded by structural constraints—including limited access to climate-resilient technologies, productive-use energy systems, quality infrastructure, finance, market services and institutional support—which reduce the adaptive capacity of smallholders, cooperatives and MSMEs, particularly those led by women and youth.

IF climate-vulnerable smallholders, cooperatives, women- and youth-led MSMEs and public institutions in selected horticulture and staple food value chains are supported to:

- (i) adopt climate-resilient production, water management and soil restoration practices;
- (ii) access reliable, energy-efficient and climate-resilient productive-use systems for irrigation, cooling, storage and processing;
- (iii) use climate-responsive quality infrastructure, standards, testing, certification and market-access systems; and
- (iv) mobilize de-risked adaptation finance for resilient agri-food infrastructure and enterprises;

THEN targeted value chains will experience lower climate-induced production and post-harvest losses, more stable food availability, improved income security, stronger climate-resilient market access and increased adaptive capacity for vulnerable communities, especially women and youth;

BECAUSE the project addresses the connected climate vulnerabilities that occur across the value chain—from water and production risks to energy disruptions, spoilage, quality failures, weak finance and institutional capacity gaps—rather than treating adaptation as only an on-farm

production issue.

A core design feature of the project is its whole-of-value-chain adaptation approach. Rather than focusing solely on climate-smart production, the project recognizes that climate risks materialize at every stage of the value chain—from access to water, inputs and energy, through processing, storage and transport, to product quality, certification and climate-resilient market access. Adaptation therefore requires integrated investments that strengthen the resilience of interconnected production, infrastructure, energy, quality and financial systems.

Within this framework, productive-use energy systems are treated as adaptation-critical infrastructure rather than solely productivity-enhancing technologies. Reliable and energy-efficient irrigation, cooling, storage and processing systems reduce climate-induced losses, maintain food quality and safety under increasing heat stress, and ensure continuity of productive activities during climate-related disruptions. Coupled with strengthened quality infrastructure, local technical capacity and innovative financing, these investments create the institutional and market conditions necessary for sustained adaptation beyond the project lifetime.

The proposed approach aligns with The Gambia's National Adaptation Plan process, the Strategic Programme for Climate Resilience and other national priorities, while creating inclusive livelihood opportunities for women and youth and establishing a scalable model for resilient agri-food transformation. By addressing climate risks through integrated systems rather than isolated interventions, the project aims to generate transformational adaptation outcomes that can be replicated across additional value chains and climate-vulnerable regions within The Gambia and beyond.

Project/Programme Components and Financing:

Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the attached instructions for a detailed description of each term.

For the case of a programme, individual components are likely to refer to specific sub- sets of stakeholders, regions and/or sectors that can be addressed through a set of well defined interventions / projects.

The project components are designed as an integrated whole-of-value-chain adaptation package. Each component responds to a specific set of climate hazards and value-chain vulnerabilities while reinforcing the other components. Component 1 reduces climate sensitivity at production level through resilient water, soil, seed and advisory systems. Component 2 reduces climate-induced post-harvest and market losses through processing, storage, quality infrastructure and market-access systems. Component 3 maintains irrigation, cooling, storage and processing functions under climate stress through adaptation-critical productive-use energy. Component 4 converts adaptation needs into bankable investments and strengthens access to resilience finance. Component 5 institutionalizes knowledge, learning and scaling mechanisms to sustain adaptation benefits beyond the project lifetime. Together, these components ensure that adaptation is not limited to farm-level practices but strengthens the full set of systems needed for climate-resilient agri-food value chains.

Project / Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
1. Closing yield gaps	Output 1.1: Digitally supported mechanization service centers established, including access to localized, precise farming weather forecasts Output 1.2: Regenerative, circular fertilizer production and cultivation techniques demonstrated in model farms, integrated pest management capacity realized, including digital support and extension services Output 1.3: Access to climate resilient, quality controlled and locally adapted seed varieties facilitated Output 1.4 Hub and spoke collection centers for resource aggregation, quality grading, and post-harvest food loss reduction set up.	Outcome 1: Climate-resilient production systems and water-management practices adopted, reducing climate-related yield losses and strengthening adaptive capacity.	3,000,000 Output 1.1: 900,000 Output 1.2: 750,000 Output 1.3: 600,000 Output 1.4: 750,000
2. Quality Infrastructure and resilient value chains	Output 2.1: National Quality Infrastructure institutions (TGSB, FSQA, metrology, conformity assessment, laboratory and certification services) strengthening through upgraded testing and laboratory capacity, climate-responsive standards, certification systems, inspection and verification services, and measurement systems for horticulture value chains. Support will include food safety testing, moisture and quality assessment, guidance for climate-adapted crops, harvesting practices, post-harvest management, and management of climate-related risks such as heat stress, humidity, spoilage, and aflatoxin contamination. Output 2.2: Climate-resilient horticulture value chain cluster upgrading plans developed and implemented for priority crops, integrating adaptation measures such as resilient crop varieties, adjusted planting cycles, improved sorting and grading, energy-efficient storage, and packaging solutions to reduce climate-related losses and stabilize livelihoods. Output 2.3: Producers, cooperatives, and	Climate-resilient horticulture value chains strengthened through improved quality infrastructure, standards compliance, testing services, certification systems, and climate-resilient market access, enabling producers and MSMEs to reduce climate-induced losses and preserve livelihoods under changing climatic conditions	3,000,000 Output 2.1: 1,200,000 Output 2.2: 800,000 Output 2.3: 1,000,000

	MSMEs-particularly women-led enterprises-receive technical assistance and capacity building to comply with climate-responsive quality standards, certification requirements, food safety requirements, and market specifications for priority horticulture products.		
3. Critical Productive Energy Systems and Just Energy Transition Pathways	Output 3.1: Energy-efficient, climate-resilient and reliable productive-use energy systems deployed across targeted agri-food value chains, including irrigation, processing, cooling, storage and other productive applications. Output 3.2: National enabling environment strengthened through Minimum Energy Performance Standards (MEPS), quality assurance, labelling, technology verification and compliance mechanisms for adaptation-critical productive-use energy systems. Output 3.3: Climate-resilient storage, cooling and processing systems established or upgraded to reduce climate-induced post-harvest losses and maintain food quality, safety and market continuity. Output 3.4: Women- and youth-inclusive technical skills and enterprise development programmes established to support the installation, operation, maintenance and servicing of climate-resilient productive-use energy systems. Output 3.5: Replicable business, financing and delivery models for decentralized productive-use energy systems developed, tested and documented to support public and private sector scale-up.	Outcome 3: Climate-resilient and energy-smart productive systems enable rural and peri-urban communities, cooperatives, and MSMEs to maintain irrigation, processing, storage, and market functions under climate stress, thereby reducing post-harvest losses, stabilizing food supply chains and livelihoods, and strengthening adaptive capacity through inclusive and just energy transition pathways.	3,000,000 Output 3.1: 900,000 Output 3.2: 450,000 Output 3.3: 900,000 Output 3.4: 450,000 Output 3.5: 300,000
4. Finance and investment mobilization	Output 4.1: A national Adaptation Investment Pipeline established with GIEPA, the Directorate of Climate Finance and financial institutions to identify and structure climate-resilient agri-food infrastructure and MSME investments. Output 4.2: Bankable climate-resilient investment projects prepared using UNIDO investment appraisal tools (including feasibility studies and COMFAR-based financial	Outcome 4: Public and private institutions mobilize and scale climate adaptation investments in resilient agri-food value chains, improving financial access and business	3,000,000 Output 4.1: 600,000 Output 4.2: 750,000 Output 4.3: 750,000

	modelling). Output 4.3: Women- and youth-led climate adaptation enterprises supported through technical assistance, business development services, and matchmaking with financial institutions and investors. Output 4.4: Financial institutions are capacitated to assess, structure, and disburse adaptation finance Output 4.5: Responsible business conduct and climate risk management advisory services established to support MSMEs in managing climate-related supply chain risks and maintaining climate-resilient market access.	resilience for women- and youth-led enterprises.	Output 4.4: 450,000 Output 4.5: 450,000
5. Knowledge, Institutional Capacity and Scaling of Climate-Resilient Value Chains	Output 5.1: Knowledge systems, digital tools and learning platforms established to document, disseminate and scale climate-resilient solutions across quality infrastructure, productive-use energy systems and adaptation finance. Output 5.2: Capacity of government institutions, technical agencies, MSMEs and financial institutions strengthened to design, implement and scale climate-resilient value chain investments. Output 5.3: Climate adaptation solutions, business models and investment approaches integrated into national policies, NAP implementation and sector strategies to support replication and scale-up. Output 5.4 Gender-responsive and youth-inclusive approaches institutionalized across value chains, strengthening equitable access to adaptation technologies, finance, skills, leadership and employment opportunities.	Outcome 5: National institutions, market actors, and support systems have strengthened capacity to generate, apply, and scale knowledge, ensuring that climate-resilient value chain approaches are institutionalized, inclusive, and sustained beyond the project lifecycle	1,087,128 Output 5.1: 271,782 Output 5.2: 380,494 Output 5.3: 217,426 Output 5.4: 217,426
6. Project / Programme Execution cost		737,757	
7. Total Project / Programme Cost		13,824,885	

8. Project / Programme Cycle Management Fee charged by the Implementing Entity (if applicable)	1,175,115
Amount of Financing Requested	15,000,000

Projected Calendar:

Milestones	Expected Dates
Start of Project/ Programme Implementation	01/04/2028
Mid-term Review (if planned)	01/04/2031
Project / Programme Closing	01/04/2034
Terminal Evaluation	01/08/2034

PART II: PROJECT / PROGRAMME JUSTIFICATION

Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

Component 1: Closing Yield Gaps

This component will address still remaining yield gaps, the difference between potential yields (under optimal inputs, technology and management practices) and currently observed crop production levels. While promoting a regenerative agriculture development strategy, to bring marginal lands back into production, this component will address structural factors in the current horticultural production system like low input use, limited access to quality seeds, insufficient irrigation infrastructure, limited access to extension services, research and farmer organizations; resulting in climate vulnerability and soil fertility decline.

Key activities include:

- Enhancing the mechanization of basic field preparation, planting, weeding, crop protection, intercropping, and harvesting, is still at a relatively low level in The Gambia. New digital business models for mechanization services allow to direct connection of farmers and machinery operators through mobile phone platforms to ensure broader adoption of mechanization services, while using machines more efficiently, and making the agricultural sector more attractive also to youth.
- Access to reliable and high-resolution weather data will allow farmers to make better decisions about the timing of cultivation activities, as part of the digital platform, to adapt to less predictable climate patterns.
- Regenerative, circular and local production of fertilizer and soil amendments from locally available residue materials like fish waste, will be promoted, to restore soil health while reducing dependence on imported fertilizers, subsidies for them, and exposure to global price shocks for such commodities. Integration with animal production systems (poultry farming, aquaculture, dairy production, etc.), crop rotation and intercropping are essential in this context, and practical guidance and extension services for related practices (like soil testing) can be promoted via the

digital platform.

- Preventive pest management strategies and crop protection systems will be promoted through the transfer of best practice technologies. Since early detection, correct identification, and spatial monitoring of pest pressures are crucial for integrated strategies, the integration of digital apps and platforms (with virtual access to experts) will be promoted.
- Access to improved, quality-controlled, and climate change-adapted seed systems (e.g., with different cultivation duration, pest and draught resistance) will be promoted.
- Hub and spoke connected collection systems between decentral producers, intermediary resource collection and service extension centres for sorting and grading, and final connection to agro-processing hubs will be essential to reduce post-harvest losses and integrate supply chain efficiencies. Also here the related digital platform will reduce information asymmetries between sellers and buyers, and enhance the entrepreneurial agency of farmers through digital payment (and credit) components.

How this is aligned with national strategies and development priorities: Leveraging the comparative advantage of water availability upcountry, to create employment in structurally weak parts of the country, aligned with the Trans-Gambia Corridor (TGC) Trade Infrastructure and Special Economic Zone Planning Study (MTI, Roads Authority, 24')

Component 2: Quality Infrastructure and resilient value chains

This component reduces climate-related post-harvest losses, food safety risks, spoilage and market exclusion associated with increasing heat, humidity and climate variability.

The component will strengthen climate-responsive standards, testing, certification and quality assurance systems while supporting producers and MSMEs to adopt climate-resilient production, storage and market practices. These measures will reduce climate-related spoilage, quality failures and market exclusion while supporting adaptation and livelihood resilience, particularly for women and youth.

This component recognizes that climate change is not only affecting production volumes but also product quality, safety, and compliance conditions, making quality infrastructure a critical adaptation mechanism for maintaining climate-resilient market access and protecting livelihoods under changing environmental conditions. This component operationalizes a “whole-of-supply-chain” resilience approach by strengthening The Gambia’s Quality Infrastructure System (QIS) and linking it directly to climate adaptation, quality improvement, and climate-resilient market access in the horticulture sector. It positions quality and standards as practical tools for adaptation, enabling producers, cooperatives, and MSMEs-particularly women-to respond to changing climatic conditions while protecting livelihoods, reducing climate-related income shocks and preserving economic resilience.

Climate change is already reshaping horticulture production systems. Irregular rainfall, prolonged dry periods, rising temperatures, and increased humidity are affecting not only yields, but also the types of crops that can be grown, their quality, and their marketability. Producers are increasingly required to shift planting cycles, introduce new or more resilient crop varieties, and adjust post-harvest practices. However, without clear standards, guidance, and market recognition, these adaptation efforts often fail to translate into stable income.

Quality Infrastructure plays a critical role in bridging this gap. By strengthening standards, certification, and measurement systems, the intervention ensures that new crops, adapted varieties, and climate-resilient production practices are aligned with market requirements. This allows producers to diversify into crops that are better suited to changing rainfall and temperature conditions-while still meeting buyer expectations in terms of quality, grading, and presentation. This way Quality Infrastructure becomes a bridge between climate adaptation and livelihoods

At the system level, the component supports the adaptation of standards and certification frameworks to reflect climate realities and evolving production systems. This includes integrating guidance for new crop varieties, adjusted harvesting and handling practices, and improved post-harvest management under higher temperatures and humidity. By making standards more responsive and accessible, producers are given a clear and realistic pathway to adapt their production while maintaining or improving climate-resilient market access.

At the value chain level, the focus is on practical, climate-responsive improvements that enhance both quality and resilience. These include better timing of harvesting, improved sorting and grading adapted to variable product quality, and simple but effective storage and packaging solutions that reduce deterioration under heat stress. Such measures are essential to ensure that even under more challenging climatic conditions, a larger share of production remains marketable.

Adaptation also requires diversification and value addition. As traditional crops become less reliable in certain areas, producers are supported to gradually introduce alternative or more climate-resilient crops, while ensuring these products meet recognizable quality standards. Improved aggregation, storage, and packaging allow these new products to be marketed effectively, reducing the risks associated with crop transition and enabling new income streams.

Why this is adaptation (not only competitiveness): under climate change, spoilage, and quality failures become a direct resilience threat—causing avoidable income shocks, health burdens, and market exclusion. Strengthening standards and assurance systems is an adaptation measure because it reduces climate-driven losses and protects nutritional security under worsening heat/humidity conditions.

Indicative adaptation results include:

- (i) number of climate-responsive standards, testing protocols and certification systems developed or strengthened;
- (ii) number of producers and MSMEs complying with climate-responsive quality requirements;
- (iii) reduction in climate-related spoilage, contamination and rejection rates;
- (iv) number of beneficiaries accessing climate-responsive quality infrastructure services.

Expected adaptation results include:

- reduced climate-related spoilage and contamination;
- improved resilience of value chains to climate variability;

- increased compliance with climate-responsive quality requirements;
- reduced market losses associated with climate-induced quality failures.

Component 3: Critical Productive Energy Systems and Just Energy Transition Pathways

This component safeguards irrigation, cooling, storage and processing functions that are increasingly disrupted by climate-related stresses and variability.

The primary objective of this component is to strengthen the adaptive capacity and resilience of climate-vulnerable agri-food value chains by deploying adaptation-critical productive-use energy systems that enable irrigation, processing, cooling, storage and climate-resilient market access under increasing climate stress. Investments are selected based on their demonstrated adaptation benefits, ensuring they reduce climate vulnerability, maintain productive functions during climate shocks, and strengthen long-term resilience rather than delivering mitigation benefits alone.

This component builds on UNIDO's Sustainable Energy and Just Transitions Unit (TCS/ECA/JET) and its extensive experience in accelerating the uptake of high-quality, affordable and energy-efficient technologies across Africa through the Energy Efficiency for Sustainable Livelihoods Programme. The project expands this proven approach by positioning productive-use energy as an adaptation enabler for climate-resilient agri-food systems, enabling vulnerable communities and MSMEs to access reliable, climate-resilient and affordable productive technologies at scale. In The Gambia, climate change is increasing demand for irrigation, cooling, storage and resilient processing while simultaneously exposing producers and MSMEs to unreliable energy supply, high operating costs and equipment failure. Rising temperatures accelerate spoilage, prolonged droughts increase dependence on irrigation, and flooding disrupts productive activities and climate-resilient market access. Strengthening climate-resilient productive-use energy systems therefore becomes essential for maintaining adaptive capacity, protecting livelihoods and ensuring continuity across agricultural value chains.

The component adopts a systems approach that combines technology deployment, quality infrastructure, enabling policies, local technical capacity, market development and innovative financing to ensure that productive-use energy systems remain reliable, affordable and sustainable throughout their lifecycle. The Industry Cleantech Platform (ICTP) will serve as the primary delivery mechanism, connecting technology providers, financial institutions, service providers, MSMEs and end users to accelerate the deployment, financing and maintenance of adaptation-critical productive-use energy systems.

Key activities include:

- Facilitating the deployment of energy-efficient, climate-resilient, and reliable productive-use technologies across targeted value chains (e.g., efficient motors and drives for milling, climate-resilient processing equipment, solar-powered or hybrid pumping systems, and resilient cooling and near-cold storage solutions for vegetables), through the establishment of a local Industry Cleantech Platform (ICTP), designed to operate effectively under heat stress, humidity, and power instability, thereby reducing post-harvest losses and ensuring continuity of productive activities.
- Strengthening enabling conditions for the performance and quality of adaptation-critical equipment through the development and/or application of Minimum Energy

Performance Standards (MEPS), labeling schemes, quality assurance systems, technology verification, and compliance capacity building, ensuring that productive-use technologies are efficient, affordable, reliable, and fit for purpose in climate-vulnerable settings.

- Establishing youth- and women-inclusive technical skills and service ecosystems for the installation, operation, maintenance, and repair of resilient productive-use energy technologies (including energy-efficient motors, solar pumping packages, and cooling/storage systems), creating local adaptation-linked livelihoods, reducing downtime, and ensuring long-term sustainability of investments.
- Piloting and documenting scalable business and delivery models for decentralized and resilient productive-use energy solutions, including approaches for demand aggregation, maintenance ecosystems, and investment de-risking, in coordination with Component 3 to support replication and scale-up through public and private financing.
- Integrating these interventions with national adaptation priorities on climate-resilient infrastructure and energy systems, as articulated in The Gambia's NDC2 and broader resilience frameworks, ensuring alignment with policy objectives and long-term sustainability.

Why this is adaptation:

Climate change is increasing the need for irrigation, cooling, storage and resilient processing while simultaneously exposing producers to heat stress, flooding, unreliable electricity and rising operating costs. Productive-use energy systems therefore function as adaptation-critical infrastructure by reducing climate-induced losses, maintaining food quality and climate-resilient market access, ensuring continuity of productive activities and strengthening the adaptive capacity of vulnerable communities and MSMEs. Coupled with quality infrastructure, local skills, inclusive financing and strengthened service ecosystems, these investments create lasting adaptation benefits while supporting a just and inclusive energy transition. Indicative adaptation results include:

- Number of adaptation-critical productive-use energy systems deployed or upgraded.
- Reduction in climate-induced post-harvest losses and equipment downtime.
- Number of MSMEs, cooperatives and producers accessing resilient productive-use energy systems.
- Number of women and youth trained or employed in productive-use energy services.
- Productive-use energy technologies meeting national quality and performance standards.

Component 4: Finance and investment mobilization

This component enables vulnerable farmers, cooperatives and MSMEs to invest in adaptation measures that would otherwise remain inaccessible.

This component operationalizes the transition from fragmented, project-based adaptation to structured and scalable adaptation investment by translating climate risks and value chain vulnerabilities into bankable, investment-ready opportunities aligned with national priorities. This component operationalizes the national objective to catalyze private sector engagement and increase adaptation finance, using UNIDO investment promotion, sustainable supply chain, and project preparation toolkits. It incorporates (i) finance ecosystem capacity building (including investment promotion agencies, development banks, private banks, intermediary institutions,

among others) and investment targeting methodologies; (ii) structured pipeline development and feasibility appraisal; and (iii) responsible business and due diligence support to embed climate resilience across supply chains. It ensures that adaptation is not limited to grant-funded interventions but becomes embedded in financial systems, private sector strategies, and long-term economic planning.

Key activities include:

- Partnering with The Gambia Investment & Export Promotion Agency to establish a dedicated Adaptation Investment Pipeline for resilient agri-food value chains, including standardized opportunity profiles and investor-ready packages for adaptation infrastructure (resilient storage hubs, climate-proof aggregation and processing sites, resilient energy solutions).
- Applying UNIDO's investment appraisal and project profiling methods (including COMFAR-oriented structuring and feasibility approaches) to develop a pipeline of bankable, climate-resilient MSME and meso-level investments that can be financed by domestic financial institutions and blended with donor support.
- Launching a targeted Women- and Youth-Led Adaptation Enterprise Facility combining technical assistance, business development services, and structured matchmaking with banks, impact investors, and value-chain off-takers-adapting the ecosystem-building logic from UNIDO's youth and women finance programming experience.
- Mobilizing national, regional and international financial institutions and capacitating them to assess, structure and disburse adaptation finance.
- Embedding responsible business conduct and climate risk diligence services (helpdesk-style) to help MSMEs comply with emerging sustainability requirements and manage climate-linked supply risks-reframed as adaptation because compliance and resilience reduce market exclusion shocks and protect livelihoods in climate-affected supply chains.

Why this is adaptation: The Gambia's adaptation planning explicitly calls for a shift toward coherent investment planning, with private sector engagement and adaptation finance as expected outcomes. This component converts adaptation needs into financeable projects and strengthens institutions to sustain and scale adaptation beyond grant funding.

Component 5: Knowledge, Capacity Building, and Scaling of Climate-Resilient Value Chains

Long-term climate resilience depends not only on physical investments, but also on the capacity of institutions, markets and communities to continuously learn, adapt and scale effective solutions. In The Gambia, limited institutional capacity, fragmented knowledge systems, weak coordination and insufficient integration of adaptation into planning and investment decisions constrain the long-term sustainability of adaptation efforts. This component addresses these systemic barriers by strengthening the institutions, knowledge systems and enabling environment needed to sustain and scale climate-resilient value chains beyond the project lifetime.

The component adopts a systems-based approach that strengthens the institutional, technical and market foundations required for transformational adaptation. It combines knowledge generation, institutional capacity development, policy integration, stakeholder coordination and learning mechanisms to ensure that successful adaptation solutions are continuously improved,

replicated and embedded within national systems. By linking directly with Components 1–4, it transforms practical project experience into national knowledge, strengthened institutions and scalable investment pathways.

Key activities include:

- Establishing structured knowledge and learning systems to document, systematize, and disseminate climate-resilient practices across quality infrastructure, energy-smart productive systems, and adaptation finance, including development of technical guidelines, toolkits, case studies, and digital knowledge platforms accessible to national stakeholders.
- Strengthening institutional and technical capacities of key actors-including government agencies, standards bodies, financial institutions, MSMEs, and service providers-to design, implement, and scale climate-resilient value chain interventions, with targeted training on climate risk integration, adaptation technologies, quality systems, and investment preparation.
- Supporting knowledge exchange, coordination, and peer learning among stakeholders at national and local levels, including platforms for collaboration between public institutions, private sector actors, and community organizations to accelerate uptake and replication of adaptation solutions.
- Implementing targeted communication and outreach strategies to increase awareness and adoption of climate-resilient practices among producers, cooperatives, and MSMEs, with a strong focus on inclusion of women and youth and on translating technical knowledge into practical, accessible formats.
- Integrating project-generated knowledge into national policies and planning processes, including the National Adaptation Plan (NAP), sectoral strategies, and quality and energy frameworks, ensuring that lessons learned inform long-term policy development, institutional strengthening, and investment planning.
- Developing and promoting scalable models and replication pathways, including documentation of business models, financing approaches, and service delivery systems that can be adopted and expanded through public and private investment beyond the project lifecycle.

Why this is adaptation:

Adaptation is not sustained by infrastructure alone. It depends on the ability of institutions, markets and communities to continuously learn, innovate and respond to evolving climate risks. In The Gambia, fragmented knowledge systems, limited institutional capacity and weak coordination constrain the long-term effectiveness of adaptation investments. By strengthening knowledge systems, institutional capacity and policy integration, this component ensures that successful adaptation approaches are continuously improved, financed, replicated and embedded within national systems. It therefore transforms individual project interventions into sustained national adaptation capacity.

Describe how the project/programme provides economic, social, and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

The proposed programme delivers integrated economic, social, and environmental benefits by strengthening climate-resilient horticultural value chains in The Gambia, with a strong focus on vulnerable communities, particularly smallholder farmers, women, and youth. Across five mutually reinforcing components, the programme addresses structural constraints, enhances adaptive capacity, and ensures that climate adaptation translates into sustainable livelihoods, while aligning with the Adaptation Fund's Environmental and Social Policy (ESP) and Gender Policy.

The programme's focus on women and youth is particularly important given persistent labour market vulnerabilities. Women engaged in horticulture face barriers to productive assets, finance, and climate-resilient technologies. Addressing these constraints will strengthen adaptive capacity while creating more resilient livelihood opportunities.

Component 1 (regenerative horticulture production) improves productivity and resilience by closing yield gaps through climate-adapted seeds, mechanization, irrigation, and digital advisory systems. Regenerative practices-including organic soil amendments, crop rotation, and integrated farming-restore soil health, reduce dependence on imported inputs, and enhance environmental sustainability. These interventions particularly benefit smallholders on marginal lands by stabilizing yields and incomes under increasing climate variability.

Component 2 (quality infrastructure and resilient value chains) ensures that adaptation translates into climate-resilient market access and income security. By strengthening standards, certification, and post-harvest management, producers can diversify into climate-resilient crops while maintaining quality and competitiveness. Improved aggregation and storage create employment opportunities-especially for women-in sorting, grading, packaging, and processing, while reducing losses exacerbated by heat and humidity.

Component 3 (energy-smart productive use) enhances resilience by ensuring reliable, efficient energy for irrigation, cooling, storage, and processing. Deployment of climate-resilient technologies (e.g. solar-powered pumping and cooling systems), combined with skills development for local service providers, reduces post-harvest losses, stabilizes operations, and creates jobs for youth and women. This component recognizes energy access as a key enabler of adaptation and livelihood protection.

Component 4 (adaptation finance and investment mobilization) translates climate risks into bankable investment opportunities. By developing an adaptation investment pipeline, strengthening financial institutions, and supporting women- and youth-led enterprises, the programme expands access to finance for resilient infrastructure and businesses. This reduces dependence on grant funding and embeds adaptation within sustainable economic systems.

Component 5 (knowledge, capacity building, and scaling) ensures long-term impact by strengthening institutional capacity, knowledge systems, and learning mechanisms. It supports government agencies, MSMEs, and communities to adopt, replicate, and scale climate-resilient practices, while integrating lessons into national policies and planning processes.

Collectively, these components generate economic benefits through increased productivity, reduced losses, diversified income streams, and job creation across value chains; social benefits through inclusive participation, skills development, and empowerment of women and youth; and environmental benefits through regenerative practices, improved resource efficiency, and ecosystem restoration.

The programme places strong emphasis on gender equality and inclusion, ensuring that women-

key actors in horticulture-have access to finance, training, technologies, and market opportunities. Targeted measures, such as dedicated enterprise support and capacity-building initiatives, enhance women's economic agency and resilience, contributing to household and community well-being.

Potential negative impacts are proactively addressed in line with the Adaptation Fund ESP and Gender Policy. The programme promotes environmentally sustainable practices that minimize chemical use and protect soil and water resources, while energy-efficient technologies reduce emissions and operational risks. Inclusive stakeholder engagement, cluster-based approaches, and accessible digital platforms reduce the risk of exclusion of vulnerable groups. Capacity building and awareness-raising ensure safe use of technologies and practices, while participatory mechanisms enable feedback and grievance redress.

Overall, the programme strengthens adaptive capacity by linking climate-resilient production, quality systems, energy access, finance, and knowledge. It ensures that adaptation is not only technically effective but also economically viable, socially inclusive, and environmentally sustainable, delivering lasting benefits for vulnerable communities across The Gambia.

Describe or provide an analysis of the cost-effectiveness of the proposed project/programme.

The proposed project is designed to be cost-effective by concentrating Adaptation Fund resources on high-impact, climate-resilience investments that address the main points at which climate change causes losses across horticulture and climate-resilient staple food value chains. Rather than spreading resources thinly across unrelated activities, the project targets a focused set of climate-vulnerable value chains, geographic corridors, institutions and beneficiary groups where adaptation benefits can be measured through reduced post-harvest losses, more reliable irrigation and processing, improved product quality under climate stress, strengthened income stability, increased access to adaptation finance, and improved resilience of women, youth, smallholders and MSMEs.

The cost-effectiveness rationale is based on the fact that climate risks in The Gambia affect the whole value chain, not only crop production. Thus, the most cost-effective adaptation response is an integrated value-chain package that reduces losses and vulnerability at multiple stages: production, water management, aggregation, storage, processing, productive-use energy, quality infrastructure, climate-resilient market access and finance.

The proposed project is cost-effective because it addresses major climate-induced losses across climate-sensitive horticulture and staple food value chains through integrated interventions in production, storage, processing, quality infrastructure, productive-use energy systems and adaptation finance.

Comparison of alternatives

The proposed whole-of-value-chain approach was selected because it offers stronger and more durable adaptation benefits than narrower alternatives.

Alternative considered	Potential advantages	Limitations	Cost-effectiveness conclusion
Alternative 1: Production-only	Lower implementation	Does not address post-harvest losses,	Not sufficiently cost-effective because

climate-smart agriculture support	complexity; direct support to farmers; easier to implement through extension systems	storage, cooling, processing, quality assurance, climate-resilient market access, energy reliability or finance barriers	production gains may be lost after harvest through spoilage, gluts, quality deterioration and weak market access
Alternative 2: Large centralized cold storage or processing infrastructure	Could reduce losses for products that reach the facility; may create commercial efficiencies	High capital cost; risk of underuse; limited reach for women and smallholders; high O&M costs; may not serve dispersed rural communities	Less cost-effective unless linked to production clusters, aggregation systems, energy services, O&M models and inclusive access arrangements
Alternative 3: Climate-resilient market access and enterprise development without climate-resilience investments	Supports competitiveness, business development and income generation	Weak adaptation rationale; does not reduce exposure to drought, heat, flooding, salinity, spoilage or energy disruptions	Not preferred because it risks being perceived as general development rather than concrete adaptation
Alternative 4: Stand-alone energy access intervention	Improves electricity access and can support productive uses	May be interpreted mainly as mitigation or energy development if not directly linked to irrigation, cooling, storage and processing under climate stress	Not sufficient alone; energy must be embedded in a wider adaptation package
Alternative 5: Proposed integrated value-chain adaptation approach	Addresses production, losses, water, energy, quality, finance, markets and institutions together; benefits women, youth, farmers and MSMEs; creates replication potential	Requires strong coordination and careful targeting	Most cost-effective because each investment reinforces the others and reduces climate vulnerability across the whole value chain

The integrated value-chain approach was selected because it provides stronger adaptation outcomes and greater sustainability than fragmented alternatives.

Component-level cost-effectiveness

The cost-effectiveness of the project is generated through five mutually reinforcing pathways.

Project component	Cost-effectiveness pathway	Expected adaptation return
Component 1: Climate-resilient production, water management and input systems	Uses targeted support for climate-resilient seeds, soil regeneration, water management, regenerative practices, mechanization services and advisory support	Reduces yield variability, improves soil moisture retention, lowers vulnerability to drought and rainfall variability, and stabilizes production under climate stress
Component 2: Climate-resilient processing, storage, quality infrastructure and climate-resilient market access	Targets the stage where major climate-induced losses occur after harvest	Reduces spoilage, quality deterioration, contamination risks, rejection and income loss caused by heat, humidity, poor storage and weak handling
Component 3: Adaptation-critical productive-use energy systems	Deploys energy systems only where they enable adaptation functions such as irrigation, cooling, storage and processing	Maintains value-chain continuity during drought, heat stress, flooding and power instability
Component 4: Adaptation finance and investment mobilization	Converts grant-funded pilots and local adaptation needs into bankable investments	Mobilizes additional capital, reduces dependence on grants, supports MSME resilience and increases scalability
Component 5: Knowledge, institutional capacity and scaling	Embeds project tools, standards, knowledge and practices in institutions and local service ecosystems	Reduces recurrent technical assistance costs and enables replication beyond the project sites

This component design is consistent with the Adaptation Fund Strategic Results Framework. The project contributes to Outcome 2 by strengthening institutional capacity to address climate-induced socioeconomic and environmental losses; Outcome 6 by strengthening livelihoods and avoiding income losses; Outcome 7 by integrating climate resilience into policies, standards and plans; and Outcome 8 by piloting and scaling innovations that support long-term adaptation

Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The proposed project is fully consistent with The Gambia's national climate change, agriculture, food security, energy, private-sector development, gender, youth and sustainable development priorities. It directly supports the country's transition from fragmented, project-based adaptation interventions toward integrated, systems-based, programme-level resilience building across climate-sensitive value chains. The project is particularly aligned with the NDC2, the ongoing National Adaptation Plan (NAP) process, the Strategic Programme for Climate Resilience (SPCR), the Long-Term Climate-Neutral Development Strategy 2050 (LTS), the ANRP the

Gambia ATP, the TNC, the BUR1, and ongoing agriculture and resilience investments such as ROOTS and GIRAV.

Alignment matrix

National strategy / framework	Relevant priority	How the project is consistent
NDC2	Strengthened adaptation section; vulnerability of agriculture, women and youth; transition to climate-resilient development; finance, technology and capacity-building needs	Supports climate-resilient horticulture and staple crops, women and youth, resilient infrastructure, productive-use energy, quality systems and adaptation finance
NAP process	Move from project-based adaptation to integrated adaptation across vulnerable economic sectors	Applies a whole-of-value-chain adaptation approach across agriculture, water, energy, quality infrastructure, finance and markets
SPCR	Integrated adaptation framework addressing policy, capacity, technology and finance barriers	Addresses these barriers through standards, institutional strengthening, productive-use technologies, finance pipelines and local capacity
LTS 2050	Climate-resilient food and landscapes; low-emissions and resilient economy; climate-resilient people	Strengthens resilient food systems, energy-smart productive infrastructure and inclusive livelihood resilience
National Climate Change Policy / LECRDS / TNC	Low-emissions climate-resilient development, climate-resilient food systems, institutional coordination and climate-proof infrastructure	Supports integrated adaptation, climate-resilient productive infrastructure, MECCNAR/CPCU coordination and institutional capacity
ANRP	Market-led, commercialized and sustainable ANR sector; food, income and nutrition security; women/youth participation; agro-processing and storage	Supports climate-resilient production, processing, storage, climate-resilient market access, women/youth inclusion and environmentally sustainable value chains
Gambia ATP	Agricultural modernization, horticulture, staple crops, post-harvest handling, value addition, women/youth agribusiness	Supports horticulture, millet and sorghum value chains, post-harvest loss reduction, processing, mechanization, quality and climate-resilient market access
ROOTS	Climate-resilient rice and vegetable value chains, women and youth, farmer	Complements ROOTS by strengthening downstream adaptation functions: storage,

	organizations, climate-resilient market access and finance	processing, energy, quality infrastructure and adaptation finance
BUR1 / climate finance architecture	NDC tracking, NAP development, Climate Finance Directorate, climate finance mobilization	Supports bankable adaptation investments, finance-readiness, institutional capacity and adaptation monitoring
Energy and renewable energy priorities	Renewable energy, energy efficiency and modernization of energy systems	Supports energy-efficient productive-use systems for adaptation-critical irrigation, cooling, storage and processing

Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

The programme enhances the competitiveness of The Gambia's horticulture sector through Output 2: Quality Infrastructure (QI) and support to QI institutions, ensuring compliance with national technical standards, environmental standards, and the Adaptation Fund's ESP and Gender Policy. By strengthening QI institutions, the programme enables producers, cooperatives, and MSMEs to meet food safety, grading, quality, and environmentally sustainable production requirements, including proper handling of inputs, waste management, and sustainable post-harvest practices. Certification systems linked to environmental and quality standards increase market access, buyer confidence, and trade competitiveness, particularly for domestic and export markets demanding sustainable and climate-resilient products. Inclusive capacity-building ensures women, youth, and vulnerable groups can actively participate, creating social, economic, and environmental co-benefits while embedding locally owned, sustainable, and verifiable standards compliance across the sector.

Relevant standards and regulatory frameworks applicable to the project include food safety requirements administered by the Food Safety and Quality Authority (FSQA), standards developed through The Gambia Standards Bureau (TGSB), national environmental assessment requirements, water-resource management regulations and applicable energy-sector technical standards. During the PFG phase, a standards-mapping exercise will identify all standards applicable to project-supported infrastructure, quality infrastructure services and productive-use energy systems.

Describe if there is duplication of project/programme with other funding sources, if any.

The proposed programme has been carefully designed to complement existing initiatives in The Gambia and avoid duplication. While several programmes target agricultural productivity, food security, horticulture, energy access, and youth and women empowerment, none provide the integrated, systemic approach that this programme offers across regenerative horticulture, QI, climate-smart energy, adaptation finance, and knowledge systems.

Key distinctions include:

- Agricultural productivity and value chains: Projects like GIRAV, GAFSP, ROOTS, REWARD-AfricaRice, and SPRING support productivity, climate-resilient market access, and resilience. The

proposed programme complements these by strengthening national QI systems, certification, climate-resilient standards, and post-harvest quality management, which directly improve market competitiveness and export readiness-areas not fully addressed by existing projects.

- Finance and entrepreneurship support: WIDU.africa and RB-VYWOSP provide financing and capacity building for women- and youth-led enterprises. This programme complements them by mobilizing adaptation finance linked to QI and productive-use energy investments, ensuring climate-resilient businesses and infrastructure are bankable and scalable.
- Energy and infrastructure: GESREP, The Gambia Infrastructure Project, and Banjul Port Expansion focus on electricity access, grid expansion, and transport. This programme builds on these investments by introducing climate-resilient, energy-efficient productive-use systems specifically for horticulture and agri-food value chains.
- Nutrition, fisheries, and food security: PROREFISH Gambia, P2-P2RS, and GAFSP target food security and livelihood resilience. The programme complements these by integrating QI, post-harvest loss reduction, and standards compliance, ensuring that adaptive measures translate into marketable, quality-assured products for vulnerable populations.
- UNIDO implemented the GEF-6 project on climate change resilience building of artisanal fisheries, which has a dedicated component on circularity and fish waste utilization. Pilot facilities for collection and transformation to poultry feed and fertilizer are being developed, and the here proposed project could connect to it as a complementary downstream / market development component.

By focusing on institutional strengthening, standards compliance, environmental safeguards, and market-linked adaptation, the programme fills systemic gaps, enhances synergies with existing initiatives, and avoids duplication. Local ownership is reinforced through partnerships with QI institutions, extension services, cooperatives, and financial institutions, ensuring that interventions are sustainable, scalable, and aligned with national priorities.

The project design was refined to focus on adaptation-critical gaps not comprehensively addressed by existing programmes. Particular emphasis is placed on quality infrastructure, climate-responsive standards, productive-use energy systems, adaptation finance and climate-resilient post-harvest management. These areas complement rather than duplicate ongoing interventions and will be further validated during the PFG phase.

If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

The programme embeds a robust learning and knowledge management (KM) component to capture, systematize, and disseminate lessons learned across all interventions. This component ensures that innovations, best practices, and adaptation solutions are documented, evaluated, and scaled effectively. Key features include:

1. Knowledge capture and systematization: All components-regenerative horticulture, Quality Infrastructure, climate-resilient energy, and adaptation finance-will generate technical, operational, and institutional insights. These will be consolidated into digital knowledge platforms, case studies, technical guidelines, and toolkits, providing structured resources for national stakeholders, producers, MSMEs, and QI institutions.

2. Capacity building and learning: Targeted training and peer-learning initiatives will strengthen the capacities of government agencies, financial institutions, cooperatives, QI institutions, and community organizations to adopt, adapt, and scale climate-resilient practices. Gender-sensitive approaches ensure women and youth participation in learning processes.
3. Dissemination and replication: Knowledge products will be widely shared through workshops, digital platforms, field demonstrations, and regional learning networks, enabling stakeholders to replicate successful practices. Continuous feedback mechanisms will allow the programme to adapt interventions in real time, fostering evidence-based decision-making.
4. Integration with policy and planning: Lessons learned will inform national adaptation frameworks, sectoral strategies, and investment planning, ensuring that successful approaches become institutionalized and sustainable beyond the project lifecycle.

Through this knowledge management system, the programme creates a learning ecosystem that strengthens adaptive capacity, promotes innovation, and supports scalable, locally owned climate-resilient solutions in The Gambia's horticulture and agri-food sectors.

Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

Initial consultations were conducted with MECCNAR/CPCU during concept development to identify priority climate risks, value chains, institutional arrangements, implementation opportunities and adaptation investment priorities. Preliminary exchanges were also undertaken with GAMWORKS, Sabab Lou Foundation and the Rural Development Organization (RDO) regarding potential implementation partnerships, agribusiness development, youth engagement and climate-smart agriculture capacity building.

During the Project Formulation Grant (PFG) phase, a structured consultation process will be undertaken to support Full Proposal development. Consultations will include:

- Women vegetable producer groups and women-led cooperatives;
- Youth organizations, youth entrepreneurs and technical training institutions;
- Smallholder farmers producing vegetables, millet and sorghum;
- Horticulture and staple crop cooperatives;
- Processors, aggregators and MSMEs;
- TGSB, FSQA and other Quality Infrastructure institutions;
- Financial institutions, MFIs and adaptation finance stakeholders;
- Local government authorities and community leaders;
- Climate-vulnerable rural and peri-urban communities;

- Civil society organizations;
- Persons with disabilities and other vulnerable groups.

Consultations will validate project design, beneficiary targeting, geographic selection, infrastructure siting, ownership arrangements, operation and maintenance models, adaptation priorities, gender actions and environmental and social safeguards measures.

Records of consultations including participant lists, meeting minutes, photographs, gender-disaggregated participation data and stakeholder recommendations will be documented and incorporated into the Full Proposal.

A preliminary gender assessment undertaken during concept development identified women as a priority beneficiary group due to their central role in horticultural production, processing, storage and marketing, combined with persistent barriers in access to land, finance, irrigation services, technologies and markets. These constraints increase climate vulnerability and reduce adaptive capacity. Gender-responsive measures have been integrated throughout the project design. A detailed Gender Assessment and Gender Action Plan will be prepared during the PFG phase.

Additionally, the project is fully consistent with the United Nations Declaration on the Rights of Indigenous Peoples (IP) (UNDRIP) and will ensure respect for Indigenous Peoples' rights throughout design, implementation, and monitoring. In particular, if IP are present in the areas where the project will be active, it will operationalize the principle of Free, Prior and Informed Consent (FPIC) in line with the Adaptation Fund's Environmental and Social Policy.

During the Project Formulation Grant (PFG) phase, a dedicated Indigenous Peoples assessment will be conducted to identify the needs, roles and priorities of Indigenous communities (if present). Based on this assessment, culturally appropriate consultation processes will be carried out in accessible formats and local languages, ensuring that Indigenous Peoples can meaningfully participate in decision-making and provide or withhold their consent to project activities.

During implementation, IP will be actively engaged as partners in adaptation actions through targeted capacity-building, participation in governance structures, and inclusion in community-based mechanisms. The project will ensure equitable access to benefits and incorporate traditional knowledge into climate resilient solutions. A culturally appropriate grievance redress mechanism will also be established.

Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

The funding requested is justified based on the full cost of adaptation principle, which recognizes that climate change imposes additional burdens on The Gambia's horticulture and agri-food systems that cannot be absorbed by existing resources or development budgets. Climate impacts including erratic rainfall, prolonged dry periods, rising temperatures, increased humidity, and post-

harvest losses—create new, climate-driven risks that threaten productivity, livelihoods, and climate-resilient market access.

Without Adaptation Fund support, climate hazards will continue to cause irrigation interruptions, spoilage, contamination, processing downtime, and storage failures across horticulture and staple food value chains. Existing development programmes do not address these climate-specific disruptions, and available financing mechanisms do not cover the incremental costs of climate-resilient irrigation, cooling, storage, processing, decentralized energy systems, or climate-responsive standards. Adaptation Fund financing is therefore required to cover the additional costs imposed by climate change and to ensure that vulnerable communities can maintain food security and livelihoods under worsening climate conditions.

The proposed programme addresses the incremental costs of adapting to these risks, including:

- Regenerative horticulture and soil restoration to close yield gaps and build climate resilience.
- Quality Infrastructure (QI) strengthening to enable compliance with climate-resilient standards, certification, and climate-resilient market access.
- Climate-smart productive-use energy systems for irrigation, storage, and processing under heat stress and power instability.
- Adaptation finance mechanisms to mobilize investment for resilient MSMEs and agri-food infrastructure.
- Knowledge, learning, and capacity building to institutionalize adaptation practices and ensure long-term sustainability.

These activities represent costs beyond normal development expenditures, as they specifically target the additional investments required to mitigate climate risks and enable sustainable, resilient, and inclusive value chains. Funding from the Adaptation Fund ensures that vulnerable communities, particularly women and youth, can access climate-resilient infrastructure, technologies, and financial services, preventing income losses, safeguarding food security, and enhancing long-term adaptive capacity.

Incremental adaptation cost rationale

Development baseline: Conventional production, storage, processing and market systems would be sufficient under historical climate conditions.

Climate change impacts: Increasing drought, heat stress, flooding, humidity, salinity intrusion, product spoilage and power disruptions create additional climate-related risks and losses.

Incremental adaptation investments financed through the Adaptation Fund:

- Climate-resilient seed systems, soil restoration and water management to manage drought and rainfall variability;
- Climate-resilient storage, cooling and processing systems to address heat stress, humidity and post-harvest losses;

- Climate-responsive quality infrastructure systems to reduce climate-related quality failures, contamination and market exclusion;
- Adaptation-critical productive-use energy systems to maintain irrigation, cooling and processing functions during climate disruptions;
- Adaptation finance mechanisms and institutional strengthening to sustain adaptation investments beyond the project lifetime.

Potential maladaptation risks include introduction of seed varieties or technologies that increase water demand, infrastructure placed in flood-prone areas, energy systems that are not maintainable locally, exclusion of women and youth from assets and finance, or private-sector models that increase inequality. These risks will be mitigated through climate risk screening of all infrastructure and productive-use energy investments, water-use assessments, drought- and heat-suitability screening of seed and crop packages, participatory site selection, gender-responsive beneficiary criteria, affordability analysis, O&M planning, and safeguards screening during PFG and full proposal development.

By covering the full cost of adaptation, this funding enables the programme to implement interventions at the scale and integration necessary to achieve durable, system-wide climate resilience, rather than piecemeal or short-term measures.

Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project/programme.

The sustainability of project outcomes has been integrated into the design through a combination of local ownership, institutional capacity-building, financially viable O&M systems, market-based service models, and integration with national climate, agriculture, quality infrastructure and finance systems. The project will not create stand-alone assets that depend on continued grant support. Each project-financed asset or institutional product will have a clearly identified owner or custodian, operator, O&M arrangement, revenue or budget source, and exit pathway before procurement, installation or construction is approved.

Productive infrastructure such as irrigation systems, water-retention assets, aggregation points, storage facilities, cooling systems, processing equipment and productive-use energy systems will be managed through the most appropriate model for each asset type. These may include cooperative management structures, Water User Management Units, village development committees, MSME operators, local government arrangements, energy-service companies, leasing models, public-private operating agreements or service-provider contracts. For assets that legally remain public property, such as certain water-management or institutional infrastructure, use and management responsibilities will be delegated through formal agreements with the relevant user groups, local authorities or public institutions.

O&M responsibilities will be established during full proposal development and confirmed before investment. Each infrastructure or equipment package will include an ownership or custody agreement, costed O&M plan, maintenance schedule, warranty and after-sales service arrangement, spare-parts plan, trained operators, and a financing mechanism for recurrent costs. Depending on the asset, recurrent costs will be covered through water-user fees, storage fees, processing charges, cooperative contributions, MSME revenue, leasing payments, service contracts, public institutional budgets or adaptation finance mechanisms. Where appropriate, dedicated O&M reserve accounts will be established to ensure that fees collected from users are

used for maintenance, repairs and eventual equipment replacement.

Quality infrastructure investments will be sustained by anchoring equipment, standards, testing protocols, certification tools and technical capacities within mandated national institutions such as the FSQA, The GSB, metrology institutions, laboratories and relevant inspection bodies. These institutions will be supported to integrate climate-responsive standards, testing and certification services into their regular workplans, fee structures, maintenance plans and institutional budgets. This will ensure that project-supported quality systems continue to support climate-resilient value chains after project closure.

Productive-use energy systems will be sustained through a lifecycle approach that combines technology quality assurance, local technician training, service contracts, leasing or fee-for-service models, supplier warranties and spare-parts supply arrangements. Women and youth will be trained as operators, technicians and service providers wherever feasible, creating local adaptation-linked livelihoods while reducing downtime and maintenance risks. Supported technologies will be screened to ensure they are affordable, reliable, fit for local operating conditions and resilient to heat stress, flooding, humidity, water scarcity and power instability. The adaptation finance component will strengthen sustainability by converting grant-supported interventions into investable models. The project will work with GIEPA, MECCNAR, the Climate Finance Directorate, financial institutions, cooperatives and MSMEs to establish an adaptation investment pipeline for resilient agri-food infrastructure and enterprises. This pipeline will help mobilize follow-on finance for storage, processing, cooling, productive-use energy, aggregation and MSME resilience investments beyond the Adaptation Fund grant period.

The project will also institutionalize knowledge and learning. Climate-resilient value-chain guidelines, training curricula, investment tools, safeguards tools, gender-responsive targeting approaches and knowledge products will be hosted by mandated institutions and integrated into extension, quality infrastructure, investment promotion, climate finance and training systems. This will reduce dependence on project-based technical assistance and support replication in additional regions and value chains.

To ensure accountability, the full proposal will include an asset governance framework covering asset registers, ownership agreements, O&M plans, maintenance reserve mechanisms, service contracts, beneficiary governance arrangements, safeguards screening, land-tenure verification and grievance redress. This will ensure that all physical and institutional assets are legally assigned, socially accepted, financially maintained, climate-resilient and accessible to the intended beneficiaries, particularly women, youth, smallholders, cooperatives and MSMEs.

Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

A comprehensive climate, institutional, financial, operational, and adoption risk assessment will be conducted during full proposal development. Risk mitigation measures will include climate-resilient infrastructure design standards, phased investment approaches, stakeholder coordination mechanisms, technical capacity strengthening, maintenance and service ecosystem development, and financial de-risking instruments where appropriate.

As per UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), this project has been categorized as a Category B project. As a standard requirement for Adaptation Fund projects, an Environmental and Social Impact Assessment (ESIA) will be carried out to examine the project's potential environmental and social impacts. This study will culminate in the

development of an Environmental and Social Management Framework (ESMF), given that specific interventions, sites, and beneficiaries will be identified during project implementation.

The ESMF will guide the identification, assessment, and management of potential environmental and social risks stemming from project interventions supporting:

- Sustainable crop production, access to improved seed varieties, and post-harvest collection and storage systems (Outputs 1.2, 1.3, 1.4).
- Quality assurance systems and horticulture value chain upgrading (Outputs 2.1 and 2.2).
- Climate-resilient post-harvest and energy infrastructure (Outputs 3.1 and 3.3).

For activities involving the selection of beneficiary MSMEs to receive targeted technical and financial support (Outputs 2.3, 3.4, 4.1, 4.2, 4.3 and 4.5), the ESMF will:

- Define clear eligibility and exclusion criteria for enterprises and financial beneficiaries.
- Require mandatory environmental and social screening of all prospective beneficiaries prior to the provision of business development services, investment facilitation, or financial support.
- Classify beneficiaries according to a proportional risk approach (low or moderate risk), with corresponding mitigation and monitoring measures applied.

Finally, the ESMF will:

- Require culturally appropriate consultation and the application of FPIC principles, in line with UNIDO ESSPP, before approving any activities that may affect customary land use, natural resources, or livelihoods.
- Ensure continuous stakeholder engagement, disclosure of relevant information in accessible formats, and inclusive participation at local level.
- Establish a project level grievance redress mechanism applicable to communities, workers, enterprises, and other stakeholders, including those participating in or affected by financial support mechanisms.

Checklist of environmental principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>	Further assessment required	Risk – Low. Project activities may require permits, approvals, and compliance with national laws and regulations. The project will screen activities for legal requirements, obtain necessary approvals, and monitor compliance throughout implementation. Further assessment will be undertaken during preparation of the full proposal and safeguard

		instruments.
<i>Access and Equity</i>	Further assessment required	Risk – Low. Women, youth, persons with disabilities, poorer households, and remote communities may face barriers in accessing project benefits, services, and opportunities. The project will apply transparent selection criteria, targeted outreach, and inclusive consultation processes to promote equitable access
<i>Marginalized and Vulnerable Groups</i>	Further assessment required	Risk – Low. Vulnerable groups may face challenges participating in project activities or benefiting from project investments. The project will identify vulnerable groups during project preparation and implement measures to ensure meaningful participation and equitable benefit sharing
<i>Human Rights</i>	Further assessment required	Risk – Low. No adverse human rights impacts are expected; however, project activities must be implemented in a manner consistent with national and international human rights principles. The project will apply a rights-based approach, ensure stakeholder participation, and monitor compliance throughout implementation
<i>Gender Equality and Women's Empowerment</i>	Further assessment required	Risk – Low to Moderate. Women play an important role in horticulture but often have less access to land, finance, technology, and decision-making opportunities. These barriers may limit their ability to benefit equally from project activities. A Gender Assessment and Gender Action Plan will be prepared to promote equitable access to project benefits and strengthen women's participation in adaptation activities.
<i>Core Labour Rights</i>	Further assessment required	Risk – Low. Project workers and contractors may face occupational health and safety risks or poor working conditions if not properly managed. The project will comply with national labour laws and ILO core labour standards, include labour requirements in contracts, and monitor compliance throughout implementation
<i>Indigenous Peoples</i>	Further assessment required	Risk – Low. Based on currently available information, Indigenous Peoples as defined under the Adaptation Fund Environmental and Social Policy are not expected to be present within project target areas. This assumption will be verified during the PFG phase through stakeholder consultations, ESS screening and the Indigenous Peoples assessment. Appropriate

		measures, including FPIC where applicable, will be implemented if Indigenous Peoples are identified.
<i>Involuntary Resettlement</i>	Further assessment required	Risk – Low. The project is not expected to cause physical displacement or involuntary land acquisition. However, site-specific investments will be screened during project preparation to ensure that project activities do not restrict access to land or natural resources. Any identified risks will be addressed through appropriate mitigation measures.
<i>Protection of Natural Habitats</i>	Further assessment required	Risk – Low to moderate. Irrigation, horticulture, and land restoration activities could affect natural habitats if implemented near environmentally sensitive areas. Environmental screening will be conducted to avoid sensitive habitats, and mitigation measures will be included where necessary
<i>Conservation of Biological Diversity</i>	Further assessment required	Risk – Low to moderate. Project activities could place localized pressure on biodiversity if not properly managed. The project will promote climate-smart and regenerative agriculture, integrated pest management, and biodiversity-friendly practices. Biodiversity considerations will be incorporated into environmental screening and safeguard measures.
<i>Climate Change</i>	Further assessment required	Risk – Low. The project is designed to strengthen resilience to droughts, erratic rainfall, flooding, and rising temperatures. However, extreme weather events may affect project activities, infrastructure, and sustainability of investments. Climate risk considerations and climate-resilient design measures will be integrated throughout project planning and implementation.
<i>Pollution Prevention and Resource Efficiency</i>	Further assessment required	Risk – Low to Moderate. Expansion of climate-resilient horticulture production and irrigation systems may increase demand for water and agricultural inputs if not properly managed. Improper handling of agricultural inputs could also affect soil and water quality. The project will promote efficient irrigation technologies, integrated pest management, sustainable input use, and water conservation practices.
<i>Public Health</i>	Further assessment required	Risk – Low. Construction activities, irrigation infrastructure, and agricultural operations may create temporary health and safety risks for workers and

		nearby communities. The project will implement occupational health and safety measures, promote safe handling of agricultural inputs, and conduct awareness activities where necessary
<i>Physical and Cultural Heritage</i>	No further assessment required	No impacts on known physical or cultural heritage resources are anticipated. Nevertheless, screening procedures will be incorporated into implementation arrangements to address any unforeseen discoveries during project implementation
<i>Lands and Soil Conservation</i>	Further assessment required	Risk – Low. The project aims to restore degraded lands and improve soil health through regenerative agriculture and sustainable land management. To avoid localized soil degradation, the project will promote soil conservation practices and monitor land management activities throughout implementation.

PART III: IMPLEMENTATION ARRANGEMENTS

Implementing Entity: UNIDO (MIE), accredited to the Adaptation Fund.

National coordination and execution: The Ministry of Environment, Climate Change and Natural Resources (MECCNAR), through its Central Project Coordination Unit (CPCU) will serve as the Executing Entity for the project, given its national mandate for coordinating climate change policy, environmental management, and implementation of adaptation initiatives in The Gambia. MECCNAR plays a central role in advancing the country's Nationally Determined Contribution (NDC) and National Adaptation Plan (NAP) processes and has experience implementing climate finance projects with international partners. Its institutional position enables effective coordination across key sectors involved in this project, including agriculture, energy, quality infrastructure, and private sector development. This role ensures strong alignment of the project with national climate priorities and facilitates integration of project outcomes into national adaptation planning and reporting processes.

UNIDO, as the accredited Multilateral Implementing Entity (MIE), will be responsible for overall project oversight, fiduciary management, quality assurance, safeguards compliance, results monitoring, evaluation and reporting to the Adaptation Fund.

In accordance with the Government Endorsement Letter, project execution will be undertaken through co-execution arrangements involving the Central Project Coordination Unit (CPCU) of MECCNAR and UNIDO.

Project execution will be undertaken through a co-execution arrangement between CPCU and UNIDO.

Across Components 1–4, project activities will comprise both nationally executed interventions and specialized technical activities and this will be split in half between UNIDO and MECCNAR. CPCU will lead the execution of national and field-level activities, including stakeholder engagement, beneficiary targeting, coordination with government institutions, field implementation support, and monitoring and reporting. UNIDO will execute specialized technical assistance and capacity-building activities related to climate-resilient productive systems, quality infrastructure, productive-use energy systems, adaptation finance, investment mobilization and technical quality assurance.

Component 5 will be executed by UNIDO in close coordination with CPCU and relevant national institutions.

Across all project components, CPCU will support stakeholder engagement, government coordination, beneficiary targeting, field-level implementation support, monitoring and reporting, and integration of project activities into national climate and development processes.

UNIDO will provide technical leadership, specialized expertise, quality assurance, safeguards oversight, monitoring and evaluation support, fiduciary supervision and technical implementation support across all project components.

CPCU will lead national coordination and day-to-day project coordination, stakeholder engagement, coordination with government institutions, integration with national adaptation processes and day-to-day project coordination.

UNIDO will provide technical implementation support and co-execution functions for specialized project components, including quality infrastructure, climate-resilient productive-use energy systems, adaptation finance, investment mobilization, monitoring systems, knowledge management and technical

quality assurance.

Detailed implementation responsibilities, reporting lines and coordination arrangements will be finalized during Full Proposal preparation and reflected in the Project Cooperation Agreement and Project Operations Manual.

The Ministry of Agriculture Livestock and Food Security could support the implementation of activities related to climate-resilient agricultural systems, including farmer outreach, irrigation management, and extension services for targeted value chains. The Food Safety and Quality Authority (FSQA) could lead actions related to food safety systems and compliance with climate-sensitive quality requirements along the value chain, while the The Gambia Standards Bureau (TGSB) could support the development and enforcement of relevant standards and quality assurance mechanisms. The Gambia Investment and Export Promotion Agency (GIEPA) and the Directorate of Climate Finance will facilitate the development of an adaptation investment pipeline and engagement with private-sector investors. GAMWORKS could support the delivery of climate-resilient infrastructure, including storage and market facilities, while the National Disaster Management Agency (NDMA) could contribute to the integration of disaster risk management and community preparedness measures into project activities.

Private sector and civil society: The project will work with MSME aggregators and processors (including structured engagement with sector associations and anchor firms), and with community-based organizations, women's producer groups, youth organizations, and horticulture cooperatives to ensure locally led implementation and gender-responsive participation. Particular attention will be given to identifying and addressing barriers related to land access, finance, technology adoption, and climate-resilient livelihood opportunities for women and youth. This is aligned with Adaptation Fund's emphasis on locally grounded adaptation and with national NAP governance approaches that require broad stakeholder engagement.

Legal context: The present project is governed by the provisions of the Standard Basic Cooperation Agreement between the Government of the Republic of the Gambia and UNIDO, signed and entered into force on 27 January 1994

Demonstrate how the project/ programme aligns with the Results Framework of the Adaptation Fund

The project will use the Adaptation Fund's Results-Based Management architecture, aligning outputs and indicators to the Adaptation Fund Strategic Results Framework (SRF) and core indicator methodologies, with gender-disaggregated reporting wherever people/household indicators apply.

Improved adaptive capacity of vulnerable populations through reduced post-harvest losses, more reliable processing and storage under climate stress, and more stable income opportunities for women and youth in target value chains. This responds to documented climate impacts on agriculture and the need to reduce value-chain volatility.

Strengthened institutional capacity to mainstream adaptation into standards, and investment planning—explicitly consistent with The Gambia's NAP objectives to strengthen governance and catalyze private sector engagement for adaptation.

Gender and youth focus: The project will be designed in compliance with the Adaptation Fund's Gender Policy and its updated implementation guidance, including a project-level gender assessment and gender action plan, gender-responsive consultation processes, and indicators disaggregated by sex and age where feasible. The intervention logic also reflects national policy recognition that women and youth are highly vulnerable to climate impacts and should benefit directly from resilience investments.

Project Objective(s) ¹	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Strengthen climate resilience and income opportunities for vulnerable rural and peri-urban communities—especially women and youth—through climate-smart, productive, and finance-ready staple and vegetable value chains.	- At least 10,000 direct beneficiaries (≥50% women, ≥30% youth) with improved resilience by project end (2033) - Post-harvest losses reduced by ≥30% in targeted horticulture value chains (baseline to be established in year 1) ≥ 20% reduction in climate-related income variability among supported households.	Outcome 1: Reduced exposure to climate-related hazards	- # of beneficiaries with reduced climate vulnerability - % of target population with improved adaptive capacity	13,087,128
Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
Closing yield gaps	- Crop yields increased by ≥25% compared to baseline established during project inception for targeted crops (millet, sorghum, vegetables) among supported farmers - At least 20,000 farmers adopting ≥2 climate-resilient practices (e.g. improved seeds, soil restoration) by 2033	Output 1: Risk reduction practices introduced	- ≥4 climate-resilient technologies/practices introduced and scaled - ≥50 mechanization service units / hubs operational	3,000,000

Quality Infrastructure and resilient value chains	- ≥40% reduction compared to baseline established during project inception in quality-related rejection rates in targeted value chains - At least 1,500 MSMEs and cooperatives compliant with climate-responsive standards by 2033	Output 2: Institutional capacity strengthened	- ≥3 national QI institutions upgraded (TGSB, FSQA, PPS.) with climate-responsive standards - ≥10 climate-adapted standards/guidelines developed or revised	3,000,000
Component 3: Adaptation-Critical Productive Energy Systems and Just Energy Transition Pathways Climate-resilient and adaptation-critical productive-use energy systems enable vulnerable rural and peri-urban communities, cooperatives and MSMEs to maintain irrigation, processing, cooling, storage and market functions under climate stress, thereby reducing climate-induced losses and strengthening adaptive capacity.	• ≥500 climate-resilient productive-use energy systems (irrigation, processing, cooling and storage) deployed or upgraded. • ≥30% reduction compared to baseline established during project inception in climate-induced post-harvest losses in targeted value chains • ≥10,000 producers, cooperatives and MSMEs accessing adaptation-critical productive-use energy systems (sex- and age-disaggregated). • ≥2 national MEPS/quality assurance mechanisms for productive-use energy established or strengthened. • ≥500 women and youth trained in installation, operation and maintenance of	Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors.	• Number of infrastructure assets strengthened or introduced to reduce climate risks. • Number of beneficiaries served by more climate-resilient infrastructure and services. • Number of sectoral systems applying climate-resilient technologies and practices.	3,000,000

	productive-use energy systems.			
Finance and Investment Mobilization	Number of risk-exposed communities within the horticulture sector gained access to Finance No. of people benefitting from the direct access and enhanced direct access finance modality			3,000,000
Component 5: Institutional Capacity, Knowledge and Scaling of Climate-Resilient Value Chains National institutions, market actors and support systems have strengthened capacity to generate, apply, institutionalize and scale climate-resilient value chain approaches, ensuring adaptation benefits are sustained beyond the project lifecycle.	• ≥5 national institutions integrating project approaches into policies, programmes or investment plans. • ≥10 knowledge products, technical guidelines or digital learning tools developed and applied. • ≥1 national knowledge and learning platform established and operational. • Climate adaptation approaches integrated into NAP implementation and at least three sector strategies. • ≥1,000 stakeholders (government, MSMEs, financial institutions and technical agencies) with strengthened capacity on climate adaptation (sex- and age-disaggregated).	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses.	• Number of institutions with strengthened capacity for climate adaptation planning and implementation. • Number of policies, strategies or institutional frameworks integrating climate adaptation. • Number of stakeholders applying climate adaptation knowledge and tools in planning and decision-making.	1,087,128

Final beneficiary figures will be validated during the PFG phase through beneficiary mapping, geographic targeting analysis and assessment of the scale and coverage of adaptation investments.

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government²

Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Ebrima Jawara Permanent Secretary Ministry of Environment, Climate Change and Natural Resources (MECCNAR) Complex, Abuko, Kanifing Municipality, The Gambia	Date: (June, 15 , 2026)
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B. Implementing Entity certification

Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (.....list here.....) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

⁶. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

<i>Name & Signature</i> Ms. Ganna Onysko <i>Ganna Onysko</i> Senior GEF, GCF, AF Coordinator Division of Funding Partner Relations Directorate of Global Partnerships and External Relations United Nations Industrial Development Organization - UNIDO Implementing Entity Coordinator	
Date: <i>July 28, 2026</i>	Tel. and email: g.onysko@unido.org
Project Contact Person: Christian Lasser, Industrial Development Expert, Division of MSME Competitiveness, Quality and Job Creation (TCS/SME)	
Tel. And Email: Tel: +43-1-26026-3527 E-Mail: c.lasser@unido.org	

References:

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Annex I: Letter of Endorsement by Gambian Government



Letter of Endorsement by Government



REPUBLIC OF THE GAMBIA
Ministry of Environment, Climate Change, and Natural Resources (MECCNAR)
MECCNAR Complex, Abuko, Kanifing Municipality

Ref: PB33/271/01 (05)

15th June 2026

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for “Strengthening Climate Resilience Horticulture Value Chains in The Gambia through Quality Infrastructure, Energy-Smart Productive Systems, and Adaptation Finance”

In my capacity as designated authority for the Adaptation Fund in The Gambia, I confirm that the above national grant proposal is in accordance with the government’s national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in The Gambia.

Accordingly, I am pleased to endorse the above grant proposal with support from the Adaptation Fund. If approved, the project will be implemented by the United Nations Industrial Development Organization (UNIDO) and co-executed by the Central Project Coordination Unit (CPCU), Ministry of Environment, Climate Change and Natural Resources (MECCNAR) of The Gambia and UNIDO.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ebrima Jawara".

Ebrima Jawara
Permanent Secretary





Letter of Endorsement by Government



REPUBLIC OF THE GAMBIA
Ministry of Environment, Climate Change, and Natural Resources (MECCNAR)
MECCNAR Complex, Abuko, Kanifing Municipality

Ref: PB33/271/01 (05)

15th June 2026

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c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

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Sincerely,

Ebrima Jawara
Permanent Secretary





Revised PFG Submission Form¹ (additions in red)

Project Formulation Grant (PFG)

Submission Date: July 2026

Adaptation Fund Project ID: AF00000545

Country: The Gambia

Title of Project/Programme: Strengthening Climate Resilience Horticulture Value Chains in the Gambia through Quality Infrastructure, Energy-Smart Productive Systems, and Adaptation Finance

Type of IE (NIE/RIE/MIE): MIE

Implementing Entity: UNIDO

Executing Entity/ies: United Nations Industrial Development Organization (UNIDO)²

A. Project Preparation Timeframe

Start date of PFG	January 2027
Completion date of PFG	December 2027

B. Proposed Project Preparation Activities (\$)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US\$ Amount	Budget note ³
To conduct Climate Risk and Vulnerability Assessment (CRVA) in the identified target districts in the Gambia	CRVA assessment report	10,000	National expertise and support staff: US\$ 7,000 National travel: US\$ 3,000
Geographic targeting and site selection assessment	Geographic targeting and site selection report identifying final beneficiary districts, value-chain corridors, project sites and	3,000	Use existing CRVA/Baseline Assessment resources by support staff: US\$ 3,000

¹ As presented in AFB/PPRC.33/40 Annex 1.

² The Central Project Coordination Unit (CPCU) in the Ministry of Environment, Climate Change and Natural Resources (MECCNAR) of The Gambia will be engaged as a service provider for select PFG activities. It will also be involved as an active counterpart throughout the entire project preparation phase. The Central Project Coordination Unit (CPCU) will serve as the national coordination and oversight entity during project formulation. CPCU will coordinate engagement with relevant ministries, agencies, local authorities and stakeholders; facilitate field missions and consultations; provide technical review and quality assurance of consultant deliverables; support collection and validation of data and information; ensure alignment with national climate change, agriculture and development priorities; coordinate validation processes; and liaise with national institutions throughout the preparation of the Full Proposal for submission to the Adaptation Fund.

³ The proposal should include a detailed budget with budget notes indicating the break-down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

	priority adaptation investment locations		
To prepare a baseline report for the proposed interventions and corresponding indicators and targets.	Baseline report including beneficiary mapping, baseline values for all project indicators and geographic targeting information	13,000	National expertise and support staff: US\$ 10,000 National travel: US\$ 3,000
To carry out detailed stakeholders' consultations at local and national level specifically on selected project sites, with local communities, vulnerable groups, women, youth and other relevant stakeholders, including verification of the presence or absence of Indigenous Peoples as required under Adaptation Fund and UNIDO safeguards.	Stakeholders' consultation report covering women producer groups, youth organizations, cooperatives, MSMEs, financial institutions, local authorities, vulnerable communities and relevant national institutions	10,000	National expertise and support staff: US\$ 5,000 National travel: US\$ 2,500 Meetings and workshop expenses: US\$ 2,500
To conduct Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Framework (ESMF).	As per UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), this project has been categorized as a Category B project. As a standard requirement for Adaptation Fund projects, an Environmental and Social Impact Assessment (ESIA) will be carried out to examine the project's potential environmental and social impacts. This study will culminate in the development of an Environmental and Social Management Framework	26,000	International/National expertise: US\$ 16,000 National travel: US\$ 5,000 Meeting expenses: US\$ 5,000

	(ESMF), given that specific interventions, sites, and beneficiaries will be identified during project implementation. The ESMF will guide the identification, assessment, and management of potential environmental and social risks stemming from project interventions supporting: • Sustainable crop production, access to improved seed varieties, and post-harvest collection and storage systems (Outputs 1.2, 1.3, 1.4). • Quality assurance systems and horticulture value chain upgrading (Outputs 2.1 and 2.2). • Climate-resilient post-harvest and energy infrastructure (Outputs 3.1 and 3.3). For activities involving the selection of beneficiary MSMEs to receive targeted technical and financial support (Outputs 2.3, 3.4, 4.1, 4.2, 4.3 and 4.5), the ESMF will: • Define clear eligibility and exclusion criteria for enterprises and financial beneficiaries. • Require mandatory environmental and social screening of all prospective beneficiaries prior to the provision of business development services, investment facilitation, or financial support. • Classify beneficiaries according to a proportional risk approach (low or moderate risk), with		
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	corresponding mitigation and monitoring measures applied. Finally, the ESMF will: • Require culturally appropriate consultation and the application of FPIC principles, in line with UNIDO ESSPP, before approving any activities that may affect customary land use, natural resources, or livelihoods. • Ensure continuous stakeholder engagement, disclosure of relevant information in accessible formats, and inclusive participation at local level. • Establish a project level grievance redress mechanism applicable to communities, workers, enterprises, and other stakeholders, including those participating in or affected by financial support mechanisms.		
To carry out an In-depth gender analysis in order to effectively mainstream gender issues into the design and formulation of the project.	Gender Assessment and Gender Action Plan completed and integrated into the Full Proposal, including implementation costs and monitoring indicators	14,000	National expertise: US\$ 6,000 National travel: US\$ 5,000 Meetings and workshop expenses: US\$ 3,000
Drafting of the full proposal and required annexes, preparation of the Adaptation Fund Results Framework, development of baseline methodology, target validation, monitoring and evaluation framework, safeguards integration, gender integration and exit strategy	Full Proposal package including Results Framework, baseline methodology, monitoring and evaluation plan, safeguard instruments and Gender Action Plan	14,743	National/international technical expertise: US\$ 14,743

UNIDO technical backstopping and formulation mission.	Mission report	12,506	International and national travel: US\$ 7,000 Technical Report: US\$ 5,506
To organize a validation workshop based on local consultations	Validation workshop report	15,000	Requested budget will cover the cost of logistical arrangements (venue, travel, communication materials).
Conduct HACT assessment of Project Executing Entities	HACT assessments of the Project Executing Entities completed.	20,000	Requested budget will cover the costs of engaging an external firm to undertake HACT assessments of CPCU and any additional Project Executing Entities in accordance with UNIDO fiduciary requirements
IE fee (support costs)	IE admin and technical support for project development, monitoring and supervision Compliance assurance	11,751	Technical and admin support services.
Total Project Formulation Grant		150,000	

Description of the required activity	Justification for the need and for the amount
To conduct a Climate Risk and Vulnerability Assessment (CRVA)	The Climate Risk and Vulnerability Assessment covers assessments of climate risks, climate exposure, sensitivity, and vulnerability and identification of adaptation measures for the target sector in the identified regions. Measuring the sector's vulnerability to climate change impacts is necessary to increase the sector's resilience. This assessment will be conducted by a national adaptation expert, with the support of a project assistant to facilitate related travel of the adaptation expert and coordination with various stakeholders
To conduct a baseline assessment	The baseline assessment will be conducted so that the data and information is provided to support the interventions proposed and indicators/targets aimed at. The methodology will be based on a participatory approach, collecting primary data at the local, community level and secondary data
To carry out detailed stakeholders' consultations at local and national level	Stakeholder consultation serves as a fundamental mechanism for collecting information, perspectives, and feedback from individuals involved in a project. This activity will serve to ensure further alignment of an engagement plan with the needs, expectations, and concerns of all relevant stakeholders. The stakeholders' consultations will target specifically selected project sites, involving local communities and vulnerable and potentially marginalized groups.

To conduct an Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Framework (ESMF)	This activity is an integral part of UNIDO Environmental and Social Safeguards Policy and Procedures, applicable to all UNIDO projects and programmes submitted to the AF. It requires that UNIDO projects and programmes undergo environmental and social risk (E&S) assessments which will help decide on the categorization of the project and identify environmental and social issues that should be addressed in its development and implementation. The ESMF, site-specific ESMPs (where required) and any additional safeguard instruments identified through project categorization will provide guidance on how to mitigate environmental and social risks during project implementation This activity will be conducted by a technical expert and will require local travel to the project sites
To carry out an In-depth gender analysis in order to effectively mainstream gender issues into the design	This activity will support the mainstreaming of a gender perspective, which is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making both women and men's concerns, experiences and aspirations an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that they benefit equally, and inequality is not perpetuated. This activity will be conducted by a national gender expert and will require travel to the project sites and consultations with various groups of beneficiaries. The assessment will result in a Gender Assessment and Gender Action Plan to be annexed to the Full Proposal
To carry out a monitoring mission by the backstopping officer of UNIDO	This travel is earmarked for the project manager of UNIDO who needs to contribute in terms of technical backstopping, supporting the mobilization of the endorsement letter and the stakeholders' consultations with key institutions and providing orientation on the project design, scope and budgeting. The fee of the project manager is covered by the support cost.
To prepare the full-fledged project proposal as per the requirements of the Adaptation Fund To organize validation workshops	This activity will gather the results of all the assessments conducted during the preparation of the full-fledged project proposal, following the template of the Adaptation fund and the requirements of UNIDO. The full-fledged proposal will be presented to all key stakeholders for validation during a national workshop. The drafting and compiling of the project proposal will be conducted by a national adaptation expert, supported by an internal expert in programming. A final validation workshop will bring key institutions together, presenting the final project document. The activity will also include preparation of the Adaptation Fund Results Framework, establishment of project baselines, validation of indicators and targets, and completion of all required annexes.
To conduct HACT Assessment of identified Project Executing Entities (PEEs)	Budget is required for hiring a company to conduct HACT assessment of the PEEs to ensure execution is possible.

Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Ms. Ganna Onysko Senior GEF, GCF, AF Coordinator Division of Funding Partner Relations Directorate of Global Partnerships and External Relations United Nations Industrial Development Organization - UNIDO Implementing Entity Coordinator	
Signature		Date: July 28, 2026
Project Contact Person	Christian Lasser c.lasser@unido.org Stefan Pahl s.pahl@unido.org Karin Reiss k.reiss@unido.org Niels Schulz n.schulz@unido.org	
Telephone	+43 1 26026 2527	
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Annex II: Preliminary Gender Assessment

Gender Context

Women are central to The Gambia's agricultural economy and play a particularly important role in horticulture, including vegetable production, nursery management, post-harvest handling, processing, marketing and household food security (FAO; GBoS, 2023). Women's participation in high-value agriculture, especially horticulture, has increased over time and they are now key actors in local food systems and rural livelihoods. (FAO; World Bank, 2023; National Gender Policy 2025–2034)

Despite their substantial contribution, women continue to face significant structural inequalities that constrain their economic opportunities and adaptive capacity. The National Gender Policy 2025–2034 identifies limited access to land, productive resources, finance, technologies, training and decision-making as major barriers to women's empowerment. Customary land tenure arrangements frequently restrict women's ownership and control of land and other productive assets, limiting their ability to make long-term investments in climate-resilient agricultural production. (National Gender Policy 2025–2034; Women's Act 2010)

These inequalities are reflected in broader development outcomes. The National Gender Policy highlights the continuing feminization of poverty and notes that women generally have lower incomes and fewer opportunities to accumulate productive assets than men. Female-headed households experience higher poverty incidence and greater economic vulnerability, particularly in rural areas where agriculture remains the primary livelihood source. (National Gender Policy 2025–2034; Integrated Household Survey)

Gender and Climate Change Vulnerability

Climate change amplifies existing gender inequalities. The National Gender Policy identifies women as one of the groups most vulnerable to climate change because vulnerability is closely linked to poverty, limited access to resources and reduced adaptive capacity. Women often have fewer financial and technological resources available to respond to climate shocks despite their central role in agriculture and food production. (National Gender Policy 2025–2034)

The Gambia is highly exposed to rising temperatures, droughts, flooding, salinity intrusion and rainfall variability. These climate hazards directly affect horticultural production systems and increase risks of crop failure, declining yields, water scarcity and post-harvest losses. Women are particularly exposed because they are heavily concentrated in climate-sensitive activities such as vegetable cultivation, food processing and local marketing of perishable produce. When climate shocks occur, women often experience income losses, reduced food security and increased household burdens. (FAO; World Bank, 2023; National Gender Policy 2025–2034)

Women's vulnerability is further compounded by limited access to irrigation systems, climate information, extension services, quality infrastructure, storage facilities and financial services. These constraints reduce their capacity to adopt climate-resilient technologies and practices. The National Gender Policy specifically recognizes the need to mainstream gender into climate change programmes and notes that effective climate action cannot be achieved without women's full participation in adaptation planning and implementation.

Gender Gaps in Horticultural Value Chains

A review of the horticulture sector identifies several gender-related barriers that are directly relevant

to the proposed project. Women frequently face insecure access to land and agricultural inputs, limiting investments in climate-smart production systems. Financial constraints remain significant because women often lack collateral required for formal credit and rely on informal financing mechanisms. Access to irrigation, modern technologies and productive infrastructure is also comparatively lower among women producers.

Women additionally remain concentrated in lower-value segments of horticultural value chains and face difficulties accessing processing facilities, cold storage, certification services and higher-value markets. Climate-induced spoilage and post-harvest losses therefore have a disproportionate effect on women's livelihoods because many women depend on highly perishable products for income generation. (FAO; World Bank, 2023)

At the institutional level, women continue to be underrepresented in leadership and decision-making structures. The National Gender Policy notes low representation of women across governance systems and emphasizes the importance of strengthening women's participation in planning, resource allocation and local decision-making processes. (National Gender Policy 2025–2034)

Project Implications and Gender-Responsive Approach

The proposed project is strongly aligned with the objectives of The Gambia's National Gender Policy 2025–2034, particularly those related to women's economic empowerment, climate resilience, agricultural value-chain development and rural women's development. The policy specifically calls for strengthening women's access to finance, addressing barriers to land access, supporting agricultural value chains, improving processing and storage infrastructure, and mainstreaming gender in climate change interventions. (National Gender Policy 2025–2034)

The project will contribute to these priorities by promoting women's access to climate-resilient irrigation systems, productive-use energy solutions, quality infrastructure services, improved storage and processing technologies, climate-resilient production practices and adaptation finance. It will also support women's participation in producer groups, cooperatives, enterprise development and climate adaptation decision-making processes. (FAO; UNIDO; National Gender Policy 2025–2034) During the Project Formulation Grant phase, a comprehensive Gender Assessment and Gender Action Plan will be undertaken in accordance with Adaptation Fund requirements. The assessment will establish gender baselines, analyse women's access to productive resources and adaptation services, identify barriers to participation and benefit-sharing, and develop measurable targets and indicators to ensure that project benefits are equitably distributed and contribute to women's long-term adaptive capacity. (Adaptation Fund Gender Policy; National Gender Policy 2025–2034)

Conclusion

Women are among the groups most affected by climate change in The Gambia due to their dependence on climate-sensitive livelihoods and unequal access to productive resources. At the same time, they are key actors in horticultural production and household resilience. Addressing barriers related to land, finance, technologies, infrastructure and decision-making is therefore essential for both gender equality and climate adaptation. The proposed project is well positioned to support these objectives while contributing directly to the implementation of The Gambia's National Gender Policy 2025–2034. (National Gender Policy 2025–2034; FAO; World Bank, 2023)

Initial consultations were conducted with MECCNAR/CPCU during concept development to identify priority climate risks, value chains, institutional arrangements, implementation opportunities and adaptation investment priorities. Preliminary exchanges were also undertaken with GAMWORKS, Sabab Lou Foundation and the Rural Development Organization (RDO) regarding potential implementation partnerships, agribusiness development, youth engagement and climate-smart agriculture capacity building.

During the Project Formulation Grant (PFG) phase, a structured consultation process will be undertaken to support Full Proposal development. Consultations will include:

- Women vegetable producer groups and women-led cooperatives;
- Youth organizations, youth entrepreneurs and technical training institutions;
- Smallholder farmers producing vegetables, millet and sorghum;
- Horticulture and staple crop cooperatives;
- Processors, aggregators and MSMEs;
- TGSB, FSQA and other Quality Infrastructure institutions;
- Financial institutions, MFIs and adaptation finance stakeholders;
- Local government authorities and community leaders;
- Climate-vulnerable rural and peri-urban communities;
- Civil society organizations;
- Persons with disabilities and other vulnerable groups.

Consultations will validate project design, beneficiary targeting, geographic selection, infrastructure siting, ownership arrangements, operation and maintenance models, adaptation priorities, gender actions and environmental and social safeguards measures.

Records of consultations including participant lists, meeting minutes, photographs, gender-disaggregated participation data and stakeholder recommendations will be documented and incorporated into the Full Proposal.

A preliminary gender assessment undertaken during concept development identified women as a priority beneficiary group due to their central role in horticultural production, processing, storage and marketing, combined with persistent barriers in access to land, finance, irrigation services, technologies and markets. These constraints increase climate vulnerability and reduce adaptive capacity. Gender-responsive measures have been integrated throughout the project design. A detailed Gender Assessment and Gender Action Plan will be prepared during the PFG phase.

Additionally, the project is fully consistent with the United Nations Declaration on the Rights of Indigenous Peoples (IP) (UNDRIP) and will ensure respect for Indigenous Peoples' rights throughout design, implementation, and monitoring. In particular, if IP are present in the areas where the project will be active, it will operationalize the principle of Free, Prior and Informed Consent (FPIC) in line with the Adaptation Fund's Environmental and Social Policy.

During the Project Formulation Grant (PFG) phase, a dedicated Indigenous Peoples assessment will be conducted to identify the needs, roles and priorities of Indigenous communities (if present). Based on this assessment, culturally appropriate consultation processes will be carried out in accessible formats and local languages, ensuring that Indigenous Peoples can meaningfully participate in decision-making and provide or withhold their consent to project activities.

During implementation, IP will be actively engaged as partners in adaptation actions through targeted capacity-building, participation in governance structures, and inclusion in community-based mechanisms. The project will ensure equitable access to benefits and incorporate traditional knowledge into climate resilient solutions. A culturally appropriate grievance redress mechanism will also be established.

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