



ADAPTATION FUND

AFB/PPRC.38/Inf.36
25 September 2026

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

PROPOSAL FOR GUINEA



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT
TECHNICAL REVIEW OF PROJECT PROPOSAL FOR
"STRENGTHENING CLIMATE RESILIENCE IN AGRICULTURE AND PRODUCTIVE
LANDSCAPES IN GUINEA (SRAG)"

Project Title **Strengthening climate Resilience in Agriculture and productive landscapes in Guinea (SRAG)**

Project ID **AF00000592**

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

Type **Single country project**

Stage **Concept**

Country **Guinea**

Implementing Entity **IFAD**

Financing Requested **USD 21,700,000.00**

Reviewer **Ahmad Ghosn**

Co-reviewer(s)

IE Contact Person

Ann Turinayo, Clarissa Conte, Fanny Minjauw, Marie-Aude Even, Paxina Chileshe, Pierre Yves Guedez, Wietse Michiels

Secretariat's Overall Comment

The project “Strengthening climate Resilience in Agriculture and productive landscapes in Guinea (SRAG)” aims to reduce the climate vulnerability of family farming and agropastoral communities in Upper Guinea and Forest Guinea.

The proposal includes a request for a project formulation grant of USD 150,000.

The first technical review raises several issues, such as clarifying/ revising project design; providing more details on the project components; specifying the USPs and clarifying related arrangements to comply with AF requirements; revising the project schedule; providing more details on the initial gender assessment; adding more related national plans/ strategies; providing list of national technical standards applicable to the project; adding more related projects and clarifying non-duplication / synergy/ lessons learned; providing more details/ clarification on the project learning and knowledge management elements; providing a summary table of the consultations; revising the project outcomes sustainability aspects for more clarity; revising the AF E&S checklist table in line with AF requirements; inclusion of total allocated grant amounts at AF outcomes and outputs levels; among other Clarification Requests (CRs), Corrective Action Requests (CARs) and notes raised in the review.

Country Eligibility

Is the country party to the Kyoto Protocol, or the Paris Agreement?

Response: Yes

Secretariat: Yes. Guinea is party to both Kyoto Protocol and Paris Agreement.

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

Response: Yes

Secretariat: Yes. Guinea climate change impacts such as rising sea level, severe erratic rainfall events, and frequent droughts imply adverse effects on agriculture, water supplies, and national economy.

Project Eligibility

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

Response: Yes

Secretariat: Yes. As per the Endorsement letter dated 23 July 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. However, please address the issues noted below.

CAR1: Project design:

1. Ensure consistency of the listed outputs in Tab 1 with those listed in Part IIA. (Note: change the term “subcomponent” in Part IIA to “output”).
2. Output 1.3 “Women’s empowerment, social inclusion and nutrition” in the current design of component 1 reads out of context as standalone output in relation the listed outcome and should be integrated within the activities of other inputs. Based on the discussions of subcomponent 1.1.3, it can be replaced with "Establishing emergency seed storage mechanisms".
3. The project design reads general/ generic and lacks coherence/ synergy among components outcomes and outputs, particularly for component 1. Therefore, It is recommended to divide component 1 into two or more components (with associated outcomes and outputs) to enable better project management control and monitoring/ evaluation of progress towards achieving component/s outcome/s and project overall objective.
4. Neither the components description in Part IIA, nor Part IIG discussions provide adequate details on the learning and knowledge management elements of the project. Therefore, it is highly recommended to include a dedicated component on “Learning and Knowledge Management” or highlight related elements with sufficient details if included in other project components.
5. Reflect any changes made based on the above across all related sections of the proposal

General guidance/ tips on project design:

A typical project structure/design usually includes:

1. Objective/ overall objective (sometimes specific objectives to realize the objective/ overall objective that align with project components outcomes are also listed, but this is optional);
2. Components (number will depend on the size of project and activities needed to achieve its objective and enable adequate monitoring and evaluation of related progress);
3. Outcome/s under each component (typically one outcome, but could be more in some cases);
4. Output/s under each outcome - typically 1-3 outputs depending on the number of activities needed to realize the outcome and should enable adequate monitoring and evaluation of related progress);
5. Activities under each output, discussed in sufficient detail (including targets) to demonstrate work involved and substantiate allocated budgets.

CR1: Please address the following:

1. Consider revising the project objective statement as a standalone statement “ The project objective is to reduce the climate vulnerability of family farming and agropastoral communities in Upper Guinea and Forest Guinea” followed by any additional text on how to achieve the objective.
2. Provide an introductory statement to the theory of change (ToC) and add figure number and title. Note: revise ToC as/ if needed based on the recommended revisions of the project components/ design, if considered.

CAR2: In Table 2 provide the month of the year and note that terminal evaluation should be with 9 months after project closing. Also, delete project completion row.

CR2: Neither the initial gender assessment annex nor the discussion under “Initial Gender Assessment”, p. 13, provide any related gender statistics. Please add some basic gender statistics on p. 13. Attach the annex and refer to it IF it contains any additional information beyond what is added on p. 13.

CR3: Please indicate in a brief paragraph at the end of Part I “after objectives” or as appropriate in Part IIA, the AF strategic objectives/ outcomes supported by the project (related information can be extracted from Part IIIA).

Editorial Notes:

1. Add table of contents, lists of abbreviations, and tables & figures. (will not count towards document length).
2. Add figures numbers and headings to all figures/ maps across the document (including theory of change).
3. Spell out abbreviations when first used and refer to figures, tables, annexes at related discussions.
4. Include references as footnotes in related discussion in the document, instead of a standalone section.
5. A round of editing/ proofreading is recommended after revising the document to address the review comments. Ensure that the document length remains within AF limits.

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: Yes. See Part IIA, pp. 18-21. Concrete actions include: the development of 1,276 ha of climate-sensitive hydro-agricultural infrastructure, restoration of 6,000 ha of degraded sub-watersheds, rehabilitation of 210 km of pastoral corridors, supporting 62 rural enterprises producing bio-inputs, training of 4,200 producers, etc. as broadly indicated in Part IIA discussions. However, the discussions in Part IIA are rather general and require providing more details among other issues noted below.

CAR3: Revise Part IIA discussions layout and structure to reflect the component, the outcome/s under the component, the output/s under each outcome and the list of activities under each output discussed in sufficient detail (including targets) to demonstrate the size of work and substantiate allocated budgets.

CAR4: The components description implies Unidentified Sub-Projects (USPs). Please specify these USPs and indicate which USPs will be identified at full proposal stage, if any, and others that will be fully identified during project implementation. For those that would be identified during implementation, please ensure/ confirm that they will be managed in accordance with related AF guidance found at: Guidance Document for Project/Programme with Unidentified Sub-Projects.

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: Cleared

Secretariat: Yes. Sufficient for CN stage. See Part IIB, pp. 21-24.

Is the project / programme cost effective?

Response: Not Cleared

Secretariat: Yes. See Part IIC, pp. 24-26. However, please address the below comment.

CR4: In column 1 of Table 3 (or in an additional column) please indicate outputs associated with the listed project interventions. Also, provide dollar estimates of the losses avoided and/ or gains, where/ as possible at this stage. A more detailed Cost-effectiveness analysis would be required at full proposal stage.

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: To a large extent. See Part IID, pp. 27-28. However, the project ecosystem/ land rehabilitation and/ or restoration interventions would also imply the relevance of related national plans/ strategies prepared under UNCCD obligations, among other related sectoral plans and national SDGs strategy.

CAR5: Please explore the relevance of UNCCD NAP/ strategy, if any, among other related sectoral plans including national SDGs strategy, and include in Part IID. Also, it is recommended to present the relevant plans in a tabulated form for more clarity. The table should include: The table should include: plan title and date, focus/ objective, and the project interventions/ outputs relevant to the plan/ strategy.

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: Unclear. See Part IIE, pp. 28-30. Most of the discussions could rather be utilized as needed in Part IIK and in related arrangements for USPs. The discussion in this section should list the national technical standards triggered by the project interventions.

CR5: Move/ utilize the current discussion in Part IIE and utilize as appropriate in Part IIK and related discussions on USPs in Part IIK and/ or Part IIA.

CAR6: In Part IIE, please provide in tabulated form the national technical standards applicable to the project. The table should include: the national technical standards (with dates), the project interventions/ activities they

apply to, and the arrangements to ensure compliance. Applicable standards may include building codes, water quality regulations, environmental requirements, and other sector-specific regulations relevant to the project interventions.

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

Response: Not Cleared

Secretariat: No. See Part IIF, pp. 30-31. However, more ongoing/ completed projects should be added to the list of related projects among other issues noted below.

CR6: The last paragraph in Part IIF states that “SRAG will seek operational coordination with other relevant donor-funded initiatives active in climate resilience, natural resource management, agroforestry, pastoralism, biodiversity conservation and rural development in Guinea”. Please include these initiatives/ projects in Table 4, among other completed/ ongoing projects, of any. Also, revise the contents of the last column of the Table to highlight synergies/ complementarities/ lessons learned for all listed projects.

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

Response: Not Cleared

Secretariat: Unclear. See Part IIG, pp. 31-32.

CAR7: The introduction of Part IIG states: “SRAG will establish a robust learning and knowledge management (KM) system to document, capitalize and disseminate lessons learned, good practices and innovation related to climate-resilient family farming systems, ecosystem restoration and climate adaptation in Guinea. The KM component will support adaptive project management, strengthen institutional learning, and facilitate the scaling-up of successful approaches within AgriFARM-2 and beyond”. However, Neither the project design includes a dedicated Learning and Knowledge Management component nor the components description in Part IIA details reveal L&KM elements (outputs/ activities) regarding the development L&KM system, etc. Please clarify and consider adding a dedicated L&KM component or amend other components to address the same.

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: Not fully addressed. See Part IIH, pp. 32-34 and consultation annex. More information is needed.

CAR8: In Part IIH, please include a summary table of all conducted consultations and refer to/ attach related annex, IF it contains further details. The table should include consultations dates, consulted entities/ local communities, participants number disaggregated by gender, topics discussed and outcomes, and how these outcomes are considered in project design.

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

Response: Not Cleared

Secretariat: Yes. See Part II"l", pp. 34-36. However, please address the below comment.

CR7: Add a brief paragraph at the end of Part II"l" to confirm that the project will deliver its outcomes and outputs solely based on the requested AF funding.

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

Response: Not Cleared

Secretariat: Yes. See Part IIIA, pp. 43-44. However, please address the below review comment.

CR8: In Table 7, add row rows to indicate totals of allocated grant amounts at both outcome and output levels. Total at each level should be equal to components cost (i.e.: USD 18,000,000).

Note: Please revise table for any changes in project components/ outcomes/ outputs, if any is made.

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

Response: Not Cleared

Secretariat: Not clearly presented. See Part IIJ, pp. 36-38. However, it is recommended to revise the related discussion and layout for more clarity.

CR9: Please revise Part IIJ narrative to address the key areas of sustainability, including but not limited to economic, social, environmental, institutional, and financial, under dedicated subheadings along with related arrangements and , taking into account sustainability of operation and maintenance of any infrastructure/ installation to be developed by the project. Also, highlight the potential replication/ scaling up of the project outcomes with other funds after its end.

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: Yes. See Part IIK, pp. 38-42. However, please address the issues noted below.

CR10: In Table 6, please address the following:

1. In column 2 , only indicate with a check mark (✓) the principles that do not require further assessment. (Note E&S principles 1, 4 and 6 always requires further assessment).
2. In Column 3 Specify the risks for all listed principles (note: only risk level is indicated) and clearly highlight

related mitigation measures. Also refer to USPs and related arrangements, and the initial gender assessment (if/as needed) at related E&S principles.

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. The implementing entity fee (USD 1,700,000) is 8.5% of the total project/programme cost (USD 20,000,000). Same applies to the PFG.

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

Response: Cleared

Secretariat: Yes. the execution costs (USD 1,900,000) are 9.5% of the total project/programme Cost (USD 20,000,000).

Eligibility of IE

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

Response: Cleared

Secretariat: Yes. IFAD is accredited by the AFB. Accreditation Expiration Date: 04 February 2031



CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT INFORMATION

Title of Project: Strengthening climate Resilience in Agriculture and productive landscapes in Guinea (SRAG)
Country: Guinea
Thematic Focal Area: Agriculture and rural development
Type of Implementing Entity: Multilateral Implementing Entity
Implementing Entity: International Fund for Agricultural Development IFAD
Executing Entities: Ministry of Agriculture
Amount of Financing Requested: 21.700.000 U.S Dollars
Project Formulation Grant Request (available to NIEs only): Yes ☒ No ☐
Amount of Requested financing for PFG: US\$ 150,000
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.

A. Project Background and Context:

Introduction

The Republic of Guinea is highly vulnerable to climate change due to its strong dependence on rainfed agriculture and climate-sensitive natural resources. Agriculture remains the backbone of the rural economy and the main source of food security and livelihoods for the majority of the population. However, agricultural systems are characterized by low productivity, weak infrastructure, limited access to irrigation, climate-resilient services and inputs, and increasing degradation of land and water resources.

Climate change is exacerbating these structural vulnerabilities. Rising temperatures, irregular rainfall, delayed rainy seasons, longer dry spells, floods and intense rainfall events are increasingly disrupting agricultural calendars, reducing crop yields, degrading soils and watersheds, and increasing water scarcity and climate-related losses. Women, youth and vulnerable rural households are particularly exposed because they have limited access to land, irrigation, climate information, finance and climate-resilient technologies. Without targeted adaptation investments, climate change is expected to further increase food insecurity, environmental degradation and livelihood vulnerability.

The proposed project SRAG therefore aims to strengthen the climate resilience of family farming systems and productive landscapes in Guinea through integrated ecosystem-based adaptation and climate-resilient rural development approaches. SRAG will support restoration of degraded watersheds and ecosystems, development of climate-resilient hydro-agricultural and pastoral infrastructure, improvement of integrated water management, promotion of agroecological and climate-smart agriculture, production and dissemination of climate-adapted seeds and bio-inputs, and support for diversification of climate-resilient livelihoods. By reducing climate vulnerability and strengthening adaptive capacity, SRAG will help stabilize rural livelihoods and productive systems under increasingly variable climatic conditions.

Geographic and environmental context

Guinea covers an area of 245,857 km² and is characterized by a high level of ecological and agro-climatic diversity, shaped by its latitudinal gradient, topography, and the influence of the West African monsoon system (USAID, 2018; World Bank, 2020). The country is traditionally divided into four main natural regions: Maritime Guinea along the Atlantic coast, Middle Guinea in the Fouta Djallon highlands, Upper Guinea in the savannah and river basin areas, and Forest Guinea in the humid forest zone of the southeast (Köttek, 2006; FEWS NET, 2013).



Map 1: Localization of the natural regions of Guinea

SRAG focuses on the south of Upper Guinea and Forest Guinea, two regions with contrasting but complementary agro-ecological characteristics. Upper Guinea is dominated by Sudanian savannah landscapes, with relatively low and variable rainfall, high temperatures, and extended dry seasons, making it particularly vulnerable to drought and land degradation. In contrast, Forest Guinea is part of the Upper Guinean forest ecosystem, one of the global biodiversity hotspots, characterized by high rainfall, dense forest cover, and complex mountainous terrain (CEPF, 2015; USAID, 2018).

Guinea is widely recognized as the “water tower of West Africa”, as the Fouta Djallon highlands and the Faranah prefecture host the headwaters of several major transboundary rivers, including the Senegal, Gambia and Niger rivers (Republic of Guinea, 2015; World Bank, 2020). These river systems play a critical role not only for national agriculture, irrigation, and hydropower production, but also for regional water security and food systems across West Africa.

The country’s natural capital is substantial, including over 6 million hectares of forest ecosystems, extensive inland water resources, and a coastline stretching more than 350 km. These ecosystems provide essential services such as water regulation, soil fertility maintenance, carbon sequestration, and biodiversity conservation, which are fundamental for sustaining agricultural production systems and rural livelihoods (USAID, 2018; CEPF, 2015).

However, these ecosystems are under increasing anthropogenic pressure. Rapid population growth, mining, expansion of cultivated land, unsustainable agricultural practices (including slash-and-burn agriculture), overgrazing, and fuelwood extraction are accelerating land degradation and deforestation processes. Between 2001 and 2024, Guinea lost approximately 2.29 million hectares of tree cover, representing about 28% of its forest cover compared to 2000 levels (Global Forest Watch / Hansen et al., 2024).

These pressures are particularly acute in the project intervention areas. In Upper Guinea, land degradation is driven by soil erosion, declining soil fertility, and increasing pressure on pastoral resources, exacerbating conflicts between farmers and herders. In Forest Guinea, deforestation combined with steep slopes and high rainfall intensity accelerates erosion, runoff, and landslide risks, threatening both agricultural productivity and rural infrastructure.

Climate change acts as a threat multiplier in this already fragile environmental context. Rising temperatures, increasing rainfall variability, and more frequent extreme events (droughts, floods, landslides) are accelerating ecosystem degradation processes and undermining the sustainability of agropastoral systems (AfDB, 2018; World Bank, 2020; Republic of Guinea, 2018).

Socio-economic and development context

Guinea remains among the least developed countries globally, facing persistent structural challenges in poverty reduction, rural development, and human capital formation. According to recent national and international estimates, more than 50% of the population lives below the national poverty line, with significantly higher rates in rural areas, particularly in regions such as Faranah and parts of Forest Guinea (INS, 2019; World Bank, 2020). Food insecurity remains widespread, affecting a substantial proportion of rural households, especially during the lean season (USAID, 2018).

Guinea’s Human Development Index (HDI) remains among the lowest worldwide, reflecting limited access to basic services, education, healthcare, and economic opportunities (UNDP, 2022). These development constraints are further exacerbated by demographic growth, low literacy rates, and limited employment opportunities for youth in rural areas (INS, 2019).

Although the country has experienced sustained economic growth in recent years, largely driven by the mining sector—which contributes significantly to GDP—this growth has had limited spillover effects on rural economies. Structural inequalities persist—and are even growing—between urban and rural areas, and between sectors. Agriculture—despite employing the majority of the population—remains undercapitalized and characterized by low productivity (World Bank, 2020; AfDB, 2018).

In the project intervention regions of Upper Guinea and Forest Guinea, these challenges are particularly acute. These regions are characterized by high levels of rural poverty, weak infrastructure, and limited market integration, which constrain economic development and access to services. In Upper Guinea, agro-pastoral systems are dominant but face increasing pressure from land degradation, climate variability, and farmer–herder conflicts. In Forest Guinea, despite relatively higher agro-ecological potential, structural constraints such as poor road access, post-harvest losses, and limited value chain organization hinder the transformation of agricultural potential into sustainable livelihoods.

Agriculture remains the backbone of the rural economy, employing the vast majority of households, and clearly highlighted as part of the Simandou 2040¹ development program. It is overwhelmingly based on family farming systems, which are generally small-scale, low-input, and highly dependent on rainfall. Access to key productive assets—including irrigation infrastructure, mechanization, quality seeds, fertilizers, advisory services and agrometeorological information—remains limited. As a result, agricultural productivity is low, with average yields significantly below regional and global benchmarks (FAO, 2017; World Bank, 2020).

Production systems are largely rainfed (estimated at around 97%), making them highly vulnerable to climate variability and extreme events such as droughts and floods (RoG, 2018). The lack of storage, processing, and marketing infrastructure further reduces farmers' incomes by increasing post-harvest losses and limiting market access.

Gender and youth inequalities represent critical structural barriers to inclusive development. Women play a central role in agricultural production, processing, and household food security, yet they face systematic constraints in accessing land, credit, inputs, training, and decision-making spaces (USAID, 2018). Similarly, rural youth encounter high levels of unemployment and underemployment, limited access to productive resources, and weak integration into agricultural value chains, which often drives migration toward urban centers or mining areas (INS, 2019).

These socio-economic vulnerabilities are further compounded by environmental degradation and climate change. Increasing pressure on natural resources—combined with declining soil fertility, deforestation, and water scarcity—reduces the resilience of farming systems and increases competition over land and water, particularly between farmers and pastoralists (AfDB, 2018; RoG, 2018).

In this context, strengthening the resilience of family farming systems in Upper Guinea and Forest Guinea requires a systemic approach that simultaneously addresses structural constraints (infrastructure, inputs, markets, governance), social inclusion (women and youth), and climate risks. The “Strengthening climate Resilience in Agriculture and productive landscapes in Guinea-SRAG” project is therefore designed to tackle these interlinked challenges by combining investments in climate-resilient infrastructure, sustainable natural resource management, and inclusive value chain development.

¹ Simandou 2040 is Guinea's major economic and social transformation program, launched by the Guinean authorities, which uses the revenues and infrastructure associated with the Simandou mining project as a catalyst to transform Guinea's economy over a 15-year period

Agriculture, natural resources, and structural vulnerabilities

Agriculture is a key sector of Guinea's economy, employing the majority of the population and contributing significantly to food security. However, agricultural systems remain structurally constrained and characterized by low productivity and limited intensification, particularly in key value chains such as rice and horticulture (World Bank, 2020; FAO, 2017).

Average yields for major crops remain well below regional and global benchmarks, and production growth is largely achieved through the expansion of cultivated land rather than productivity gains, reflecting limited access to improved inputs, irrigation, mechanization, and advisory services (RoG, 2018). This extensification model is particularly visible in Upper Guinea, where shifting cultivation and expansion into marginal lands are common coping strategies (USAID, 2018).

This pattern of agricultural expansion is a major driver of deforestation and land degradation, especially in Forest Guinea. Between 2001 and 2024, Guinea lost significant forest cover due to agricultural encroachment, fuelwood extraction, and unsustainable land-use practices (Global Forest Watch / Hansen et al., 2024). The resulting decline in forest ecosystems directly affects biodiversity, carbon storage, and the regulation of water and climate systems.

At the same time, the natural resource base underpinning agricultural production is increasingly degraded. Soil erosion, declining soil fertility, overgrazing, and watershed degradation are widespread across both Upper Guinea and Forest Guinea (AfDB, 2018; RoG, 2018). In Upper Guinea, the combination of high temperatures, fragile soils, and reduced vegetation cover accelerates soil degradation and desertification processes. In Forest Guinea, steep slopes and high rainfall intensity increase vulnerability to erosion, runoff, and landslides, particularly in deforested areas (World Bank, 2020).

These degradation processes are further exacerbated by climate variability and change, which disrupt hydrological cycles, reduce water availability during critical periods, and increase the frequency of extreme events such as droughts and floods (World Bank, 2020; USAID, 2018). As water resources become more variable and less predictable, pressure on land and water intensifies, particularly in agro-pastoral systems.

This situation contributes to increasing competition over natural resources, especially between farmers and herders. In Upper Guinea, where agro-pastoral systems are dominant, seasonal transhumance combined with shrinking grazing areas and agricultural expansion has led to recurrent conflicts over land and water access (RoG, 2018; AfDB, 2018). These conflicts are further intensified by climate stress, which reduces the availability of pasture and water resources. Recently, the eastern region of Forest Guinea has also been affected by these tensions, which are linked in particular to subregional pastoralism leading to border closures².

Smallholder farmers and pastoralists remain highly vulnerable to these combined pressures. Agricultural production systems are predominantly rainfed, making them extremely sensitive to rainfall variability and climate shocks (RoG, 2018). Access to irrigation infrastructure, climate information services, storage facilities, financial services, and improved technologies remains limited, particularly in remote rural areas (World Bank, 2020).

In addition, weak value chain organization and limited post-harvest infrastructure contribute to high levels of post-harvest losses and low market integration, further constraining farmers' incomes and their capacity to invest in adaptation.

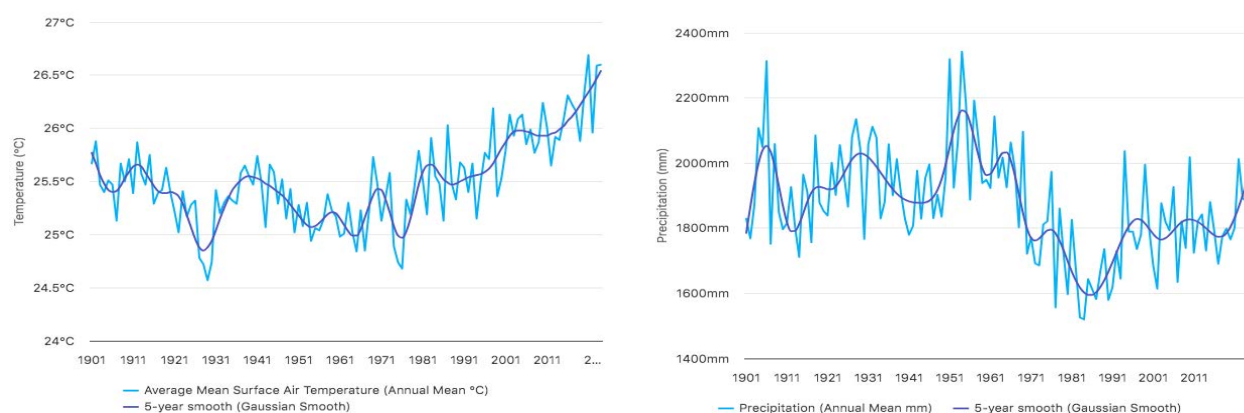
² IPAR Think Tank - <https://ipar.sn/transhumance-au-sahel-une-tendance-regionale-a-la-restriction-de-la-mobilite-pastorale/>

These structural constraints significantly reduce the adaptive capacity of rural populations, exposing them to recurrent shocks and limiting their ability to cope with and recover from climate-related stresses. As a result, agricultural systems in Upper Guinea and Forest Guinea are caught in a cycle of low productivity, environmental degradation, and increasing vulnerability, with climate change acting as a catalyst.

Climate change trends and projections

Guinea's climate is tropical, with a rainy season as long as the dry season and strong spatial gradients driven by relief and proximity to the ocean. The most recent national synthesis distinguishes four natural/climatic regions, of which Upper Guinea has a hot Sudanian climate with relatively low rainfall (about 1,100–1,700 mm/year) and a large thermal amplitude (17–43°C), while Forest Guinea has an equatorial humid climate with high rainfall (around 2,300 mm/year), more moderate temperatures (19–29°C) and persistently high humidity (>70%)³. These two project intervention regions therefore start from very different hydro-climatic baselines, but both are already experiencing a clear warming trend and increasing rainfall irregularity.

Observed trends (recent decades): National observations over 1901–2020 show a steady increase in temperature and a progressive decline in rainfall, with the rainfall decrease particularly marked in Middle and Upper Guinea.



Evolution of temperature (left) and rainfall (right) from 1901 to 2020 in Guinea (Source: World Bank Group – Climate change knowledge portal)

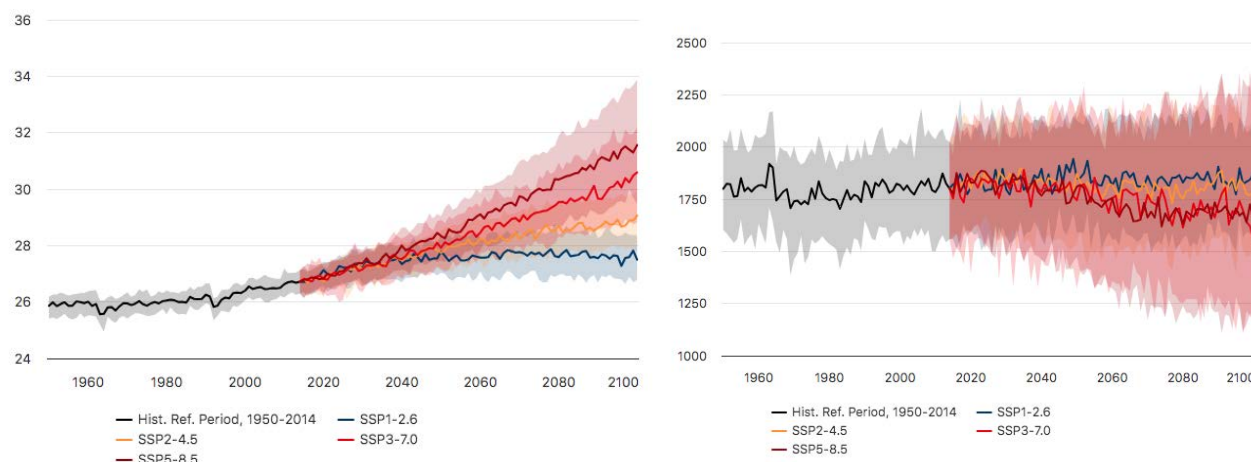
The same national source highlights a growing pattern of alternating very wet and very dry years, “early”/off-season floods, and a higher frequency of extreme events—signals that matter directly for rainfed rice systems, inland valley bottoms, and market gardening calendars⁴.

This is consistent with the broader adaptation planning narrative used by the Government of Guinea and partners, which links recent shocks to agricultural losses (e.g., severe droughts such as 2002 and major floods such as 2015) and emphasizes that climate hazards are already undermining agricultural yields and rural livelihoods.

National projections: The Third National Communication projects, by around 2050, an average warming of roughly +1.5°C relative to the 1971–2000 normal, alongside a moderate decrease in average precipitation of about 3% (while noting that land-use change—especially deforestation and uncontrolled fires—can worsen water scarcity locally).

³ 3rd National communication on climate change in Guinea, 2025.

⁴ 3rd National communication on climate change in Guinea, 2025.



Projected evolution of temperature (left) and rainfall (right) from 2020 to 2100 in Guinea (Source: World Bank Group – Climate change knowledge portal)

At the same time, earlier national planning documents (PANA, 2007⁵) used more pessimistic scenarios indicating larger rainfall deficits by 2050–2100, especially in northern parts of the country, which is a useful way to show the envelope of uncertainty and justify “no-regret” adaptation options that perform under both drier and more variable futures.

There is high confidence in continued warming, and strong evidence that rainfall will become less reliable (distribution, timing, and intensity), even where annual totals do not reduce uniformly.

Upper Guinea: hotter dry seasons, higher evaporative demand, and rising flood risk despite rainfall uncertainty. The Upper Guinea vulnerability study (AFD, 2021) provides regionally specific projections derived from a downscaled multi-model ensemble (CMIP5; SMHI database) under a high-emissions pathway (RCP8.5). It concludes that mean and maximum temperatures increase strongly by 2025 and even more by 2055, with the strongest signal in the dry season, which is critical for crop establishment, flowering stress, and water requirements for irrigated or supplemental irrigation systems.

The same analysis suggests that total rainfall (cumulative precipitation) tends to increase by 2025 and further by 2055 in Upper Guinea, but with changes that differ within the rainy season (greater uncertainty early in the rainy season; clearer increases later), meaning that the agricultural risk is less about “how much rain in total” and more about “when it falls and how intense it is.”⁶

Importantly for Upper Guinea geography, the study indicates rising hydrological extremes: the probability of a 10-year flood increases (median change +13% by 2025 and +30% by 2055 relative to 1990), which aligns with observed damage patterns on lowland rice perimeters, rural roads, and valley-bottom infrastructure.

Even where “dry spell” indicators show mixed or modest median changes, the climate vulnerability study stresses that higher temperatures aggravate drought impacts through increased evapotranspiration and soil moisture deficits.

⁵ A new and updated version of the National Adaptation Plan should be adopted by the end of 2026.

⁶ Climate change vulnerability study in Upper Guinea, 2021

Forest Guinea: sustained warming and stronger short periods of very heavy rain, erosion and landslide pressure on farming landscapes. Forest Guinea's baseline is wetter and more humid, but this does not translate into lower climate risk. National reporting describes Forest Guinea as increasingly affected by irregular and sometimes torrential rains that drive soil erosion and mudflows, especially given steep topography and already high rainfall intensity in many areas; it also highlights the compounding role of deforestation and land pressure, which reduces infiltration, destabilizes slopes, and accelerates runoff⁷.

Under a high-emissions scenario, it expects more frequent heavy rainfall events (and higher extreme precipitation indices such as very heavy rainfall days and maximum multi-day rainfall), translating into higher risks of flash floods and landslides in forested and mountainous zones, while also warning that higher temperatures increase evapotranspiration and can create seasonal water deficits even in humid regions.

Forest Guinea's main climate threat is not only seasonal drought, but the combination of (i) warmer conditions, (ii) more intense rainfall extremes resulting in floods, and (iii) degraded watersheds, which together undermine soil fertility, damage terraces/lowland developments, disrupt access roads, and increase post-harvest and market losses.

Local stakeholders' consultations about climate change impacts and adaptation priorities:

Local stakeholder consultations conducted in the project intervention areas of Upper Guinea and Forest Guinea in February-April 2026 reveal a strong and consistent perception that climate change is already significantly affecting agricultural systems, natural resources, and rural livelihoods. Communities report increasing disruption of seasonal patterns, characterized by greater rainfall variability, delayed onset of the rainy season, and more frequent intra-seasonal dry spells. These changes have led to growing uncertainty in agricultural calendars, making it difficult for farmers to plan sowing and harvesting periods and increasing the risk of crop failure. In parallel, stakeholders highlight a progressive decline in water availability, with the drying up of rivers, streams, and springs, which limits irrigation potential, reduces productivity in lowlands and market gardening systems, and creates serious constraints for livestock watering during the dry season.

At the same time, climate variability is associated with an increase in extreme events, particularly floods, which are becoming more frequent and intense. These floods, especially along major rivers such as the Niger and its tributaries, regularly destroy crops, erode agricultural land in lowland areas, and lead to losses of livestock. More broadly, stakeholders emphasize the accelerating degradation of ecosystems, including soil erosion, declining fertility, deforestation, and the deterioration of watersheds. These processes are further aggravated by bushfires, unsustainable exploitation of wood resources, and reduced fallow periods, all of which contribute to the weakening of ecosystem services essential for agricultural production.

These environmental changes are directly reflected in declining agricultural productivity. Farmers report reduced yields due to water stress, and difficulties in adapting existing crop varieties to changing climatic conditions. In addition, the emergence of new pests and the increased prevalence of crop diseases are identified as growing threats linked to changing climatic conditions. Livestock systems are also affected, with decreasing availability of pasture and fodder, the disappearance of certain forage species, and shorter grazing periods. This has led to increased reliance on tree fodder and has negatively impacted animal health, with higher incidence of diseases and reduced productivity in terms of milk and meat.

A major consequence highlighted by stakeholders is the intensification of conflicts between farmers and herders. As water and pasture resources become scarcer and more variable, livestock mobility

⁷ 3rd National communication on climate change in Guinea, 2025.

increases, often leading to crop damage and disputes over access to lowlands and water points. These tensions are exacerbated by the mismatch between shifting agricultural calendars and traditional transhumance patterns. Stakeholders also underline that these climate-related impacts are compounded by underlying structural factors, including deforestation, charcoal production, pollution of water bodies, weak watershed management, and the use of low-quality or poorly adapted agricultural inputs.

In response to these challenges, local stakeholders have identified a comprehensive set of adaptation priorities centered on improving water management, restoring ecosystems, transforming agricultural practices, and strengthening governance systems. A key priority is the development of hydro-agricultural infrastructure and irrigation systems to better control water, secure agricultural production, and support both crop and livestock systems. This includes the construction of boreholes, irrigation schemes, and water distribution systems, as well as the protection of water sources and integrated watershed management. The establishment and strengthening of water user associations are also considered essential to ensure sustainable and equitable resource management.

Ecosystem restoration is another major priority, with strong emphasis on reforestation of degraded areas, protection of riverbanks and watersheds, promotion of assisted natural regeneration, and implementation of measures to control bushfires. Rural stakeholders also stress the importance of promoting climate-smart agriculture and agroecological practices, including composting, use of bio-inputs, agroforestry systems, crop diversification, soil moisture conservation techniques, and improved water-efficient practices such as the System of Rice Intensification. The development and dissemination of climate-adapted crop varieties and the strengthening of local seed systems are also seen as critical to improve resilience.

For livestock systems, stakeholders prioritize the development of pastoral infrastructure, including water points and grazing areas, as well as the promotion of fodder production and storage, improved animal health services, and better integration between crop and livestock systems. Reducing conflicts between farmers and herders is identified as a key adaptation challenge, requiring land-use planning, zoning of agricultural and pastoral areas, establishment of transhumance corridors, and strengthening of local conflict management mechanisms and dialogue platforms.

Finally, stakeholders highlight the importance of strengthening capacities and access to information, including training on climate-resilient practices, development of farmer field schools, and improved dissemination of climate and weather information. They also emphasize the need to reinforce local governance through participatory resource management, secure land tenure arrangements, and inclusive decision-making processes. Complementary measures such as the diversification of income sources, support to value chains, and promotion of rural entrepreneurship—particularly for women and youth—are considered essential to reduce pressure on natural resources and enhance the overall resilience of rural communities.

Sectoral climate vulnerabilities

Climate change is expected to have systemic and cross-sectoral impacts in Upper Guinea and Forest Guinea, affecting key sectors that underpin rural livelihoods, including agriculture, water resources, ecosystems, and pastoral systems. These impacts are driven by increasing temperatures, rising rainfall variability, and a higher frequency of extreme events such as droughts and floods (World Bank, 2020; USAID, 2018).

Agriculture, which is predominantly rainfed, is particularly vulnerable to climate variability. Increasing uncertainty in the onset and distribution of rainfall is already disrupting cropping calendars, reducing the reliability of planting seasons, and increasing the risk of crop failure (RoG, 2018). In Upper

Guinea, prolonged dry spells and rising temperatures exacerbate water stress and reduce soil moisture availability, while in Forest Guinea, more intense rainfall events contribute to flooding, soil erosion, and crop losses. As a result, agricultural productivity is expected to decline, particularly for key staples such as rice and horticultural crops (World Bank, 2020).

Climate change is also expected to intensify the spread of pests and crop diseases. Warmer temperatures and changing humidity conditions create favorable environments for invasive species and pathogens, leading to increased crop losses and greater uncertainty in agricultural production (FAO, 2017). At the same time, declining soil fertility—driven by both climate variability and unsustainable land-use practices—further reduces agricultural productivity and resilience (AfDB, 2018).

Water resources are highly sensitive to climate variability and change. Alterations in precipitation patterns and increasing temperatures are expected to affect river flows, groundwater recharge, and seasonal water availability, particularly in key basins such as the Niger River system (RoG, 2015; World Bank, 2020). In Upper Guinea, reduced and erratic rainfall is likely to increase water scarcity during the dry season, affecting irrigation, livestock watering, and domestic uses. In contrast, Forest Guinea may experience increased rainfall intensity, leading to higher risks of flooding, sedimentation, and degradation of water infrastructure (USAID, 2018). These dynamics create a paradox of coexisting water scarcity and flood risks, both of which undermine agricultural production systems.

Ecosystems, which provide critical services for agriculture and water regulation, are under increasing stress from the combined effects of climate change and human pressure. Rising temperatures, irregular rainfall, and extreme events accelerate processes such as soil erosion and watershed degradation, reducing the capacity of ecosystems to regulate water flows, maintain soil fertility, and buffer climate variability (CEPF, 2015; USAID, 2018). In Forest Guinea, the degradation of forest ecosystems reduces infiltration and increases runoff, while in Upper Guinea, vegetation loss contributes to land degradation and reduced resilience to drought. These changes weaken the ecological foundations of agricultural production and increase vulnerability to climate shocks.

Livestock systems are also highly exposed to climate risks. Changes in rainfall patterns and increasing temperatures reduce the availability and quality of pasture and water resources, particularly in savannah zones of Upper Guinea (RoG, 2018). Shorter grazing seasons, degradation of pasture, and the loss of key forage species are already affecting livestock productivity. In addition, climate change is associated with increased prevalence of animal diseases, linked to changing ecological conditions and stress factors (FAO, 2017).

Overall, sectoral vulnerabilities in Upper Guinea and Forest Guinea are strongly interconnected. Climate change acts as a risk multiplier, amplifying existing structural weaknesses in agricultural systems, natural resource management, and rural livelihoods. Addressing these vulnerabilities requires integrated adaptation strategies that simultaneously strengthen climate-resilient production systems, restore ecosystem services, improve water management, and reduce resource-use conflicts.

Institutional and policy context for adaptation

Guinea has progressively strengthened its institutional and policy framework for climate change adaptation over the past two decades, aligning national priorities with international commitments under the United Nations Framework Convention on Climate Change (UNFCCC). The country has developed a set of key strategic instruments that guide climate action, including the National Adaptation Programme of Action (NAPA-2007), the ongoing National Adaptation Plan (NAP) process (the plan should be adopted by the end on 2026), and successive Nationally Determined Contributions (NDCs) (RoG, 2007; RoG, 2018; RoG, 2025).

The NAPA (2007) identified priority adaptation needs in highly climate-sensitive sectors such as agriculture, water resources, forestry, and coastal zones, with a strong focus on reducing vulnerability among rural populations. Building on this initial framework, Guinea has engaged in the development of its National Adaptation Plan, which aims to integrate climate change adaptation more systematically into national development planning and sectoral policies (RoG, 2018).

The updated Nationally Determined Contribution (NDC 3.0) for the period 2026–2035 further reinforces the country's adaptation ambitions by identifying priority sectors including agriculture, water resources, ecosystems, infrastructure, and coastal areas (RoG, 2025). The NDC highlights the need to strengthen climate resilience of agricultural systems, promote sustainable land and water management, and restore degraded ecosystems. It also underscores the importance of improving climate information services, strengthening institutional capacities, and enhancing community-based adaptation approaches.

Guinea's adaptation needs are estimated at approximately USD 1.7 billion, reflecting both the scale of climate risks and the structural vulnerabilities of its economy and ecosystems (RoG, 2025). However, access to climate finance remains limited, and significant gaps persist between identified needs and available resources, particularly at the local level where adaptation actions are most urgently required.

At the sectoral level, adaptation priorities are also reflected in key national policies and strategies, including the National Agricultural Investment Plan (PNIASAN) and the National Economic and Social Development Plan (PNDES), which emphasize sustainable agricultural intensification, food security, and resilience to climate change (RoG, 2017; RoG, 2021). These frameworks recognize the importance of improving water control, promoting climate-resilient agricultural practices, and strengthening value chains, particularly for rice and horticulture.

The Simandou 2040 Programme is a long-term national development strategy that integrates climate-related priorities within a broader framework of sustainable and inclusive economic transformation. It promotes economic diversification beyond mining, particularly through investments in agriculture, infrastructure, and services, to reduce vulnerability to climate and economic shocks. The programme emphasizes the development of resilient infrastructure systems, including transport, energy, and water, to support long-term sustainability. It also prioritizes human capital development and job creation to strengthen adaptive capacity. Finally, it supports improved natural resource governance and sustainable land use, contributing indirectly to climate resilience and adaptation efforts.

Institutionally, climate change coordination is led by the Ministry of environment and sustainable development, in collaboration with sectoral ministries such as agriculture, livestock, water, and territorial administration. While this institutional architecture provides a basis for integrated climate action, it faces several constraints, including limited technical capacities, insufficient coordination between sectors, and weak operationalization at decentralized levels (AfDB, 2018; World Bank, 2020).

At the local level, particularly in Upper Guinea and Forest Guinea, the implementation of adaptation policies is constrained by limited financial resources, weak technical support services, and insufficient integration of climate risks into territorial planning and natural resource management. Local governments and community institutions often lack the capacity and tools to effectively manage climate risks, despite being on the front line of climate impacts.

In addition, although participatory approaches and community-based natural resource management are increasingly recognized in policy frameworks, their effective implementation remains uneven.

Mechanisms for coordination between farmers, pastoralists, and local authorities—particularly in relation to land-use planning and conflict management—are often weak or insufficiently institutionalized (RoG, 2018).

In this context, there is a strong need to bridge the gap between national climate policies and local implementation, by strengthening decentralized governance systems, building the capacities of local stakeholders, and supporting integrated approaches to land, water, and ecosystem management.

The proposed project is fully aligned with Guinea's climate policy framework and directly contributes to the implementation of NDC priorities by promoting climate-resilient infrastructure, ecosystem-based adaptation, and inclusive governance of natural resources. It also supports the operationalization of adaptation strategies at the local level, particularly in vulnerable regions such as Upper Guinea and Forest Guinea, where climate risks intersect with structural socio-economic challenges.

Rationale for the Adaptation Fund intervention

The “*Strengthening climate Resilience in Agriculture and productive landscapes in Guinea-SRAG*” project responds to the combined effects of structural rural development constraints and increasing climate risks in Upper Guinea and Forest Guinea. Agriculture is the main source of livelihoods and food security in these regions, but it remains characterized by low productivity, weak value chain organization, limited infrastructure, and high dependence on rainfed systems (World Bank, 2020; FAO, 2017). At the same time, the natural resource base that supports agricultural production is under growing pressure from deforestation, soil erosion, declining fertility, overgrazing, and watershed degradation (USAID, 2018; CEPF, 2015; AfDB, 2018). While baseline rural development investments may support agricultural production, market access and value-chain development, the proposed Adaptation Fund intervention specifically focuses on addressing the additional climate-related vulnerabilities affecting these systems and the ecosystems on which they depend.

Climate change is exacerbating these existing vulnerabilities. Rising temperatures, increasing rainfall variability, and more frequent droughts and floods are disrupting agricultural calendars, reducing crop yields, degrading water availability, and increasing pressure on land and pasture resources (World Bank, 2020; RoG, 2018). In Upper Guinea, these dynamics intensify water stress, pasture degradation, and farmer–herder conflicts, while in Forest Guinea they increase erosion, flooding, and landslide risks in already fragile production landscapes (USAID, 2018; AfDB, 2018). Climate change also contributes to the spread of pests, crop diseases, and livestock health problems, further undermining rural livelihoods (FAO, 2017).

Without targeted adaptation support, smallholder farmers and pastoralists are likely to continue relying on unsustainable coping strategies, including expansion into marginal lands, overuse of natural resources, and reduced fallow periods, which further accelerate environmental degradation and deepen poverty (USAID, 2018; World Bank, 2020). Although Guinea has developed an increasingly strong policy framework for adaptation through the NAPA, the NAP process, and the updated NDC 2026–2035, important gaps remain in financing and implementation capacity at local level (RoG, 2007; RoG, 2018; RoG, 2025).

The Adaptation Fund intervention is therefore justified to cover the additional costs required to climate-proof agricultural systems, productive landscapes and rural livelihoods against increasing climate variability and extreme events. Rather than supporting conventional agricultural modernization alone, the project specifically aims to reduce climate vulnerability, manage climate risks, and strengthen the long-term adaptive capacity of vulnerable rural populations under increasingly uncertain climatic conditions. SRAG will strengthen resilience through climate-resilient hydro-agricultural and pastoral infrastructure, improved water management, restoration of degraded ecosystems, promotion of climate-resilient agricultural and livestock practices, and support to locally

adapted seeds and bio-inputs. In doing so, it will address both the immediate climate risks affecting production systems and the underlying structural factors that limit adaptive capacity. The project is fully aligned with Guinea's national adaptation priorities and will help vulnerable rural communities in Upper Guinea and Forest Guinea better withstand climate shocks while protecting the ecosystems on which their livelihoods depend.

The project does not aim primarily to maximize agricultural production, but rather to stabilize and secure rural livelihoods, food systems and ecosystem services under increasingly variable and uncertain climatic conditions. While improved productivity and market access may constitute indirect co-benefits, the primary objective of the intervention is to reduce climate vulnerability, strengthen adaptive capacity, and improve the resilience of family farming and agropastoral systems to droughts, floods, rainfall variability and ecosystem degradation.

Initial Gender Assessment

Women in Guinea are disproportionately affected by climate change because of their central role in rainfed agriculture, water collection, household food security, and natural resource management, while having limited access to productive assets, finance, climate information, and extension services. Increasing temperatures, erratic rainfall, prolonged dry spells, and more frequent floods reduce agricultural productivity and water availability, increasing women's unpaid care and domestic workloads. As water sources become scarcer and fuelwood resources decline, women and girls must travel longer distances to collect essential resources, reducing the time available for education, income-generating activities, and participation in community decision-making, while also exposing them to greater health and protection risks.

Structural gender inequalities further constrain women's adaptive capacity. Women have limited ownership and control over land and productive resources, lower access to agricultural inputs, credit, climate-resilient technologies, and market opportunities, and remain underrepresented in local governance and natural resource management institutions. High rates of poverty, early marriage, and lower educational attainment further reduce their ability to diversify livelihoods, adopt climate-smart practices, and influence adaptation planning. Although Guinea has strengthened gender mainstreaming in national policies, significant gaps remain in translating these commitments into gender-responsive adaptation investments and ensuring that women meaningfully participate in the design, implementation, and monitoring of climate resilience initiatives.

Target populations and vulnerability profile

SRAG will primarily target smallholder family farmers and agro-pastoral households in Upper Guinea and Forest Guinea, including women, rural youth, and their producer organizations. These groups are highly vulnerable to climate change due to their strong dependence on rainfed agriculture and climate-sensitive natural resources (World Bank, 2020; RoG, 2018).

Smallholder farmers face limited access to irrigation, inputs, finance, and advisory services, which constrains productivity and reduces their ability to cope with climate variability and recover from shocks (FAO, 2017). Agro-pastoral households are particularly exposed to pasture degradation, water scarcity, and increased conflicts over natural resources, exacerbated by climate change (AfDB, 2018; RoG, 2018).

Women and youth face additional structural constraints, including limited access to land, credit, training, and decision-making processes, which further reduces their adaptive capacity (USAID, 2018; UNDP, 2022). At the same time, youth represent a key opportunity for innovation in climate-resilient value chains.

Overall, vulnerability is driven by high exposure to climate risks, strong dependence on natural resources, and limited adaptive capacity. The project will target approximately 20,260 beneficiaries, with a focus on strengthening resilience, improving access to climate-resilient practices and services, and promoting inclusive participation.

Summary of the core problem

Guinea's rural economy is highly dependent on rainfed family farming systems that are increasingly vulnerable to climate variability, environmental degradation, and structural constraints such as low productivity, limited infrastructure, and weak access to inputs and services (World Bank, 2020; RoG, 2018; USAID, 2018). Climate change—through rising temperatures, irregular rainfall, and more frequent droughts and floods—is already disrupting agricultural production, degrading natural resources, and threatening food security and rural livelihoods, particularly in Upper Guinea and Forest Guinea (FAO, 2017; AfDB, 2018). Smallholder farmers and agro-pastoral households have limited adaptive capacity, and current coping strategies risk further accelerating ecosystem degradation. The proposed Adaptation Fund project will address these challenges by strengthening climate-resilient agricultural systems, restoring ecosystem services, and enhancing the adaptive capacities of vulnerable rural populations, in alignment with national priorities.

B. Project Objectives:

General objective:

To reduce the climate vulnerability of family farming and agropastoral communities in Upper Guinea and Forest Guinea by restoring ecosystem services, strengthening climate-resilient production systems, and improving adaptive capacities and climate risk management.

SRAG will achieve the stated objective through two complementary outcomes:

Outcome 1: Climate resilience of productive landscapes and agropastoral systems strengthened through improved watershed management, ecosystem restoration, water control, and climate-sensitive natural resource governance.

Outcome 2: Climate vulnerability of family farming systems reduced through climate-resilient agricultural services and climate-adapted input systems.

C. Project Components and Financing:

Table 1: Project components and financing

Project Components	Expected Outcomes	Expected Concrete Outputs	Amount (USD)
Component 1 Restoration of climate-resilient productive ecosystems	Outcome 1. Climate resilience of productive landscapes and agropastoral systems strengthened through improved watershed management, ecosystem restoration, water control, and climate-sensitive natural resource governance	Output 1.1. Sustainable management of climate-resilient productive sub-watersheds	11 736 800
		Output 1.2. Climate-resilient production practices and adaptation finance	3 663 600
		Output 1.3: Women's empowerment, social inclusion and nutrition	1 219 600
Subtotal Component 1			16 620 000
Component 2 Climate-resilient agropastoral services and value chains	Outcome 2. Climate vulnerability of family farming systems reduced through climate-resilient agricultural services and climate-adapted input systems	Output 2.1. Strengthening climate-resilient services for priority value chains	412 500
		Output 2.2. Production of climate-adapted inputs	1 067 500
Subtotal Component 2			1 480 000
Total project activity cost			18 100 000
Project Execution cost (9.5%)			1 900 000
Total Project Cost			20 000 000
Project Cycle Management Fee charged by the Implementing Entity (8.5%)			1 700 000
Amount of Financing Requested			21 700 000

D. Projected Calendar:

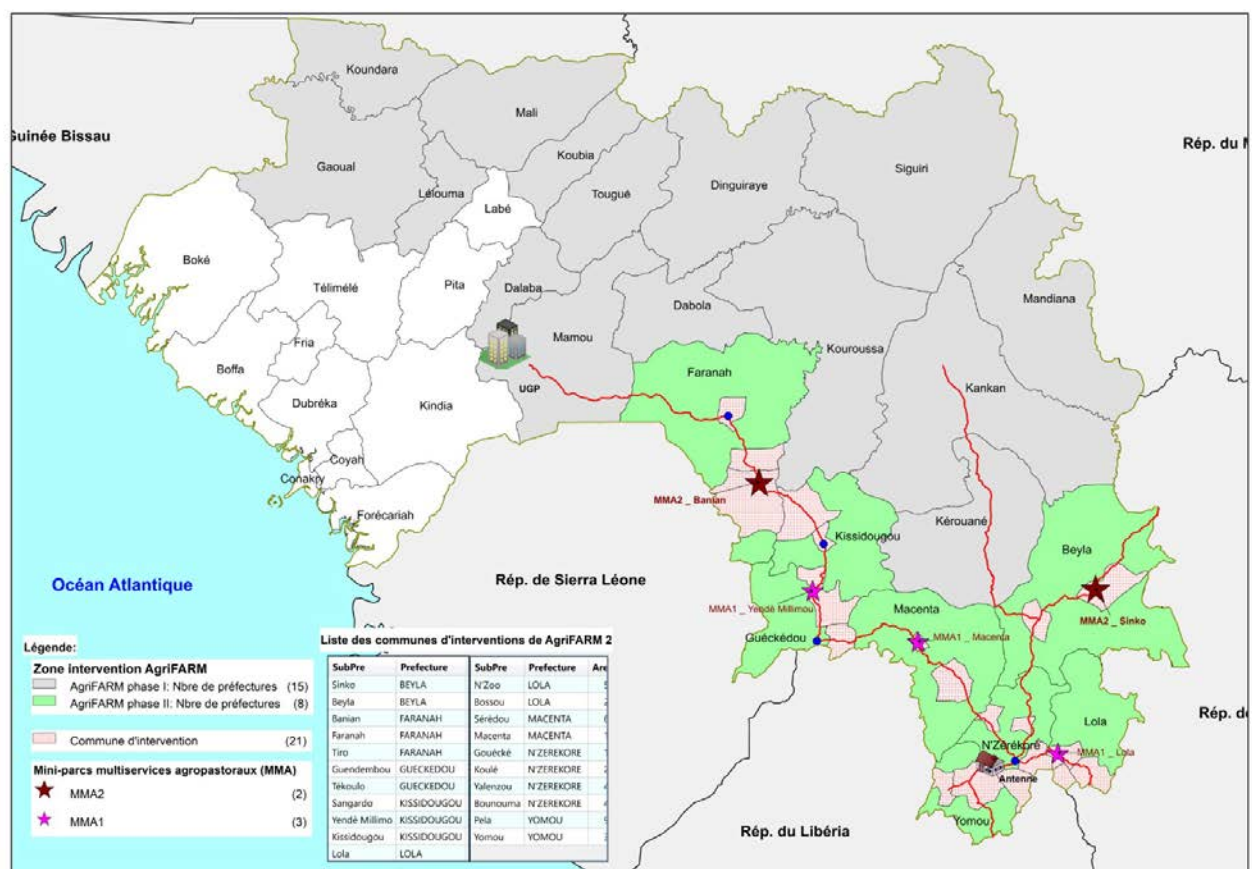
Table 2: Projected calendar

Milestones	Expected Dates
Start of Project Implementation	2027
Mid-term Review (if planned)	2029
Project Closing	2032 (6 years)

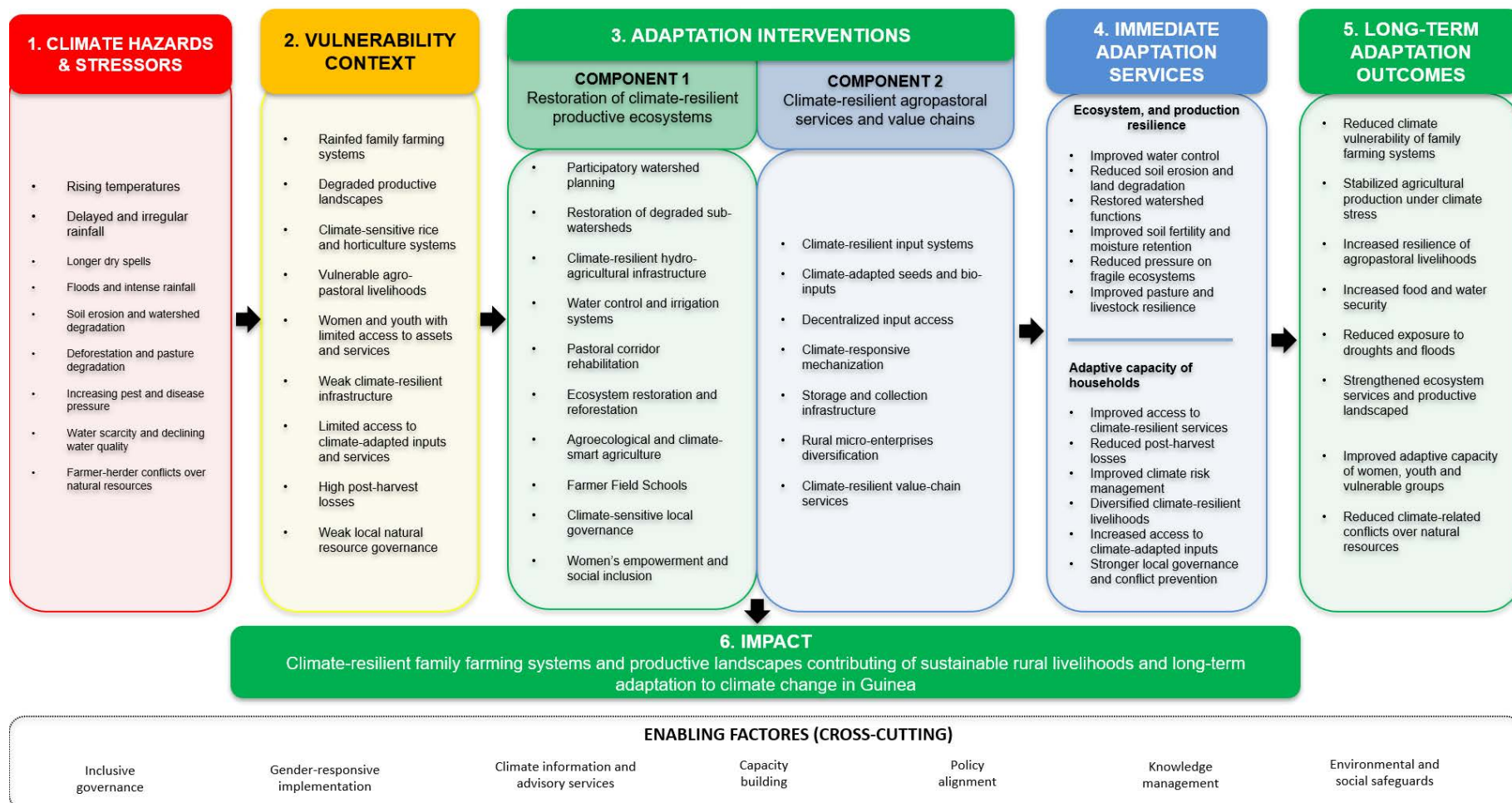
Project Completion	2032
Terminal Evaluation	2032

E. Project intervention area:

The project targets 21 municipalities in eight prefectures located in the administrative regions of Nzérékoré and Faranah, namely Beyla, Faranah, Guéckédou, Kissidougou, Lola, Macenta, Nzérékoré, and Yomou. However, four municipalities only will be concerned with the rehabilitation of pastoral corridors to ensure territorial continuity (Beyla, Bossou, Lola, N'zoo, and Sinko, in Beyla and Lola prefectures). These prefectures were selected based on their: (i) poverty index and high levels of food and nutritional vulnerability; (ii) potential for rice and vegetable production under irrigation and market opportunities; (iii) dynamism with the presence of structured economic actors (farmer organizations, private sector).



Theory of Change – Strengthening Climate resilience of family farming systems and productive landscape in Guinea



PART II: PROJECT JUSTIFICATION

A. Describe the project components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience.

The proposed project is designed as a concrete adaptation response to the climate risks affecting family farming and agropastoral systems in Upper Guinea and Forest Guinea. These regions face increasing rainfall variability, delayed rainy seasons, dry spells, floods, watershed degradation, declining soil fertility, pasture degradation and growing farmer–herder conflicts. SRAG therefore combines ecosystem-based adaptation, climate-resilient infrastructure, improved water and land governance, agroecological practices, climate-adapted inputs, and resilient value chain services. Its objective is to make production systems less dependent on uncertain rainfall, less exposed to climate shocks, and better able to recover when shocks occur while increasing production.

Component 1. Restoration of climate-resilient productive ecosystems

Component 1 addresses the biophysical foundations of climate vulnerability. In the project areas, lowland rice fields, market gardening sites and pastoral systems depend heavily on the health of watersheds, the availability of water, the stability of soils and the functioning of local ecosystems. Climate change is weakening these foundations through more irregular rainfall, stronger runoff, erosion, flooding, drying of water sources and degradation of grazing resources. Component 1 will therefore restore productive ecosystems, improve water control and establish climate-sensitive governance systems so that agricultural and pastoral production can continue under more variable climatic conditions.

Sub-component 1.1. Sustainable management of climate-resilient productive sub-watersheds

Under this sub-component, participatory land-use and watershed management plans will be developed to ensure that climate risks are integrated into local investment and natural resource management decisions. These plans will identify areas suitable for rice and horticulture, zones requiring restoration, critical erosion-prone slopes, water sources to be protected, pastoral corridors to be secured and areas where farmer–herder conflicts are likely to increase under climate stress. This planning process will help communities move from reactive crisis management to anticipatory adaptation. It will also reduce maladaptation risks, such as developing infrastructure in flood-prone areas without drainage, expanding cultivation into fragile slopes, or blocking pastoral mobility routes.

Water User Associations, natural resource management committees, Local Agro-Pastoral Committees and farmer–herder consultation mechanisms will be strengthened to ensure that climate-sensitive resources are managed collectively. These local organizations will support rules for water distribution, infrastructure maintenance, land access, restoration works, grazing management and conflict prevention. Their role is central to resilience because climate change increases competition over water, fertile lowlands and pasture. Without local governance mechanisms, new infrastructure and restored areas could become sources of conflict or be rapidly degraded. By strengthening inclusive governance, SRAG will improve the sustainability of adaptation investments and ensure that women, youth, farmers, herders and vulnerable groups are represented in decision-making. Natural resource management committees will be responsible for restoring local ecosystems, maintaining them, preventing bushfires and, in the medium term, for expanding forest and agroforestry plantations.

The development of 1,276 ha of climate-sensitive hydro-agricultural infrastructure is one of the project's most direct adaptation activities. In a context where rainfall is becoming less predictable, partial water control will reduce the exposure of rice and market gardening systems to delayed rains, intra-seasonal dry spells and drought periods. Effective irrigation and water management will enable producers to stabilise production during dry spells. Meanwhile, drainage and water control structures will minimise crop damage during periods of intense rainfall or localised flooding, while also reducing greenhouse gas emissions. The infrastructure will also support off-season horticulture, which diversifies production and income beyond the main rainy season. By targeting around 10,750 producers, including women, youth and vulnerable groups, the activity will directly reduce livelihood sensitivity to climate variability.

The project's approach to hydro-agricultural infrastructure is also climate-resilient because it includes technical studies, works supervision, land tenure intermediation and social engineering. This is important because poorly designed irrigation schemes can be damaged by floods, siltation or changing hydrological regimes. By integrating climate and environmental considerations into site selection, design and management, the project will improve the durability of infrastructure and reduce the risk that investments become obsolete under future climate conditions.

The restoration of 6,000 ha of degraded sub-watersheds, around hydro-agricultural infrastructures, will provide ecosystem-based adaptation benefits. Reforestation, assisted regeneration, protection of slopes, restoration of water sources and riverbanks, and bushfire prevention will reduce erosion, increase infiltration, improve soil moisture and help regulate runoff. These effects are essential for the long-term functioning of downstream lowlands and plains. Restored watersheds will reduce sedimentation of canals and lowland areas, protect hydro-agricultural infrastructure, improve groundwater recharge and preserve productive soils. The ratio of five hectares restored for each hectare developed creates a strong ecological buffer around productive infrastructure and helps ensure that irrigation investments are not undermined by upstream degradation.

The rehabilitation of 210 km of pastoral corridors will reduce the climate vulnerability of livestock systems and help prevent climate-induced conflicts. As rainfall becomes more irregular and pasture availability declines, herds are forced to move earlier, further or more frequently, increasing the risk of crop damage and disputes. By demarcating recognized corridors, developing night parks, vaccination corridors, water points, solar-powered boreholes, improved wells, livestock watering areas, access ramps to rivers, protected fodder crop areas and improved natural pastures, the project will make mobility safer and more predictable. This will reduce pressure on crop fields and fragile ecosystems, improve livestock access to water and feed during dry periods, and support healthier animals. The activity therefore contributes simultaneously to climate adaptation, conflict prevention and livelihood protection.

Sub-component 1.2. Climate-resilient production practices and adaptation finance

Under this sub-component, Farmer Field Schools will support the adoption of climate-resilient and agroecological practices. SRAG will directly train 4,200 producers, at least half of whom will be women, and these first learners will help disseminate good practices to about 40,000 additional producers. The Farmer Field School model is particularly relevant for adaptation because it allows producers to test, observe and compare practices under local climatic conditions. Training will cover soil fertility management, composting, crop association, water-saving practices, crop calendar adjustment, pest management, climate-sensitive rice and horticulture techniques, and other agroecological practices. These practices will improve water retention, reduce soil erosion, maintain productivity under stress, and reduce dependence on external inputs that may be costly or unavailable after climate shocks.

The promotion of climate resilient livestock practices along pastoral corridors will strengthen crop–livestock integration. Better control of stocking rates, valorization of fodder resources and use of animal manure will reduce overgrazing, improve soil fertility and increase the productivity of both crops and livestock. This is an important adaptation measure because climate change affects not

only crop yields but also pasture quality, water availability and animal health. By integrating livestock more effectively into agricultural systems, the project will transform crop residues and animal waste into resources, reduce pressure on natural pasture and support more circular and resilient production systems.

Support to rural micro-enterprises and producer organizations will contribute to strengthening the adaptive capacity and economic resilience of vulnerable households by diversifying livelihoods and reducing dependence on climate-sensitive rainfed agriculture. Climate variability, recurrent droughts, irregular rainfall and crop losses increasingly undermine the reliability of agricultural incomes for rural families. In this context, the project will support 2,100 individual and collective micro-enterprises in climate-resilient rice production, horticulture, agroforestry, small livestock, processing and related rural services as resilience diversification mechanisms that help households better absorb and recover from climate shocks. Diversified and climate-resilient income sources will reduce vulnerability to crop failure, seasonal production losses and climate-related economic disruptions, while improving food security, financial stability and long-term adaptive capacity of women, youth and vulnerable rural populations.

Sub-component 1.3. Resilience through social solidarity

This sub-component builds resilience through social solidarity. Grain solidarity stores will strengthen community-level resilience to climate shocks. When droughts, floods or crop failures occur, vulnerable households often consume or sell their seeds, leaving them unable to plant in the next season. By establishing seed solidarity mechanisms, including pilot stores and initial rice seed stocks reimbursed in kind after harvest, the project will create a local safety net for seed access. This will improve the ability of 3000 food-insecure households from communities to recover after climate-related losses and reduce dependence on unreliable external supply chains.

Component 2. Climate-resilient agropastoral services and value chains

Component 2 addresses the service, market and input constraints that limit the ability of producers to adapt to climate change. Even when production systems are improved, climate resilience can be undermined if farmers cannot access quality inputs, mechanization, storage, processing, transport or markets. In SRAG areas, high post-harvest losses, weak mechanization, limited processing capacity and unreliable input supply reduce incomes and prevent households from reinvesting in adaptation. Component 2 therefore strengthens climate-resilient value chain services through agropastoral multi-service mini-parks and local input systems. Although these investments contribute to economic development, their primary adaptation purpose is to reduce climate-related vulnerability of rural livelihoods and food systems. The component therefore prioritizes resilience and climate risk reduction over production intensification alone by strengthening the capacity of producers to cope with increasing climatic variability and climate-related production shocks.

Sub-component 2.1. Strengthening mechanization to reduce vulnerability

Mechanization services are justified as adaptation measures because climate variability is shortening and destabilizing planting and harvesting windows. Delayed rainfall onset, intense rainfall episodes and shorter workable periods reduce farmers' ability to complete critical agricultural operations on time. Climate-responsive mechanization therefore enables rapid planting, harvesting and land preparation during increasingly unpredictable climatic windows, reducing exposure to rainfall irregularity and climate-related production losses. Services such as ploughing, power tillage, harvesting, threshing, agricultural transport and animal feed production will allow farmers to complete time-sensitive operations more quickly. This is especially important when the start of the rainy season is delayed or when dry spells interrupt the cropping cycle. Mechanization also reduces labor burdens, which disproportionately affect women and youth, and helps increase productivity without

expanding cultivation into fragile ecosystems. Supporting 52 direct beneficiaries, including 50% women, will create a local network of adaptation service providers.

Sub-component 2.2. Production of climate-adapted inputs

This sub-component focuses on climate-adapted inputs, which are essential for sustaining productivity under changing climatic conditions. The project will support breeding, certification and decentralized production of rice and horticultural seeds adapted to local agro-climatic conditions. Improved and local varieties can help farmers cope with shorter seasons, water stress, disease pressure and changing rainfall patterns. Decentralized seed production will also reduce dependence on centralized distribution systems that may fail or arrive late, particularly in remote areas. By strengthening experienced seed multipliers, supporting access to foundation seed from IRAG (Agronomy Research National Institute), improving organization and training producers on seed production standards, SRAG will build a more reliable and locally rooted seed system.

Support to 62 rural enterprises producing bio-inputs will strengthen soil and crop resilience. Improved compost, biochar, biofertilizers and biopesticides produced from organic waste, agro-processing by-products and weeds will improve soil organic matter, fertility, water retention and biological activity. These soil improvements are central to adaptation because soils rich in organic matter retain more moisture during dry spells, resist erosion better during intense rainfall and support more stable yields. Biopesticides will also help address the increased pest and disease pressure associated with climate change. By using locally available biomass, the activity will reduce dependence on imported or costly chemical inputs and support circular rural economies.

The involvement of ANPROCA-FE, SENASOL (Guinea National Soil Service), DNPV (National Directorate for Plant Protection) and ISAV Faranah (Higher Institute of Agronomy and Veterinary Sciences of Faranah) will ensure that bio-input development is technically sound, quality-controlled and integrated into advisory services. ANPROCA-FE will train advisors on proper use of bio-inputs; SENASOL will analyze soil amendment and fertilization products; DNPV will assess plant protection bio-products; and ISAV Faranah will develop technical sheets and training materials. This institutional anchoring is important for scaling and sustainability, as it helps transform bio-input production from isolated pilot activities into a recognized adaptation service.

Finally, support to agricultural and environmental policy implementation will create enabling conditions for long-term climate change adaptation. By assisting the planning and statistics units of the Ministries of Agriculture and Environment to review and align policies such as PNDA and PNIASAN with climate risks and Simandou 2040 priorities, the project will help ensure that local adaptation measures are reflected in national planning. The project's climate performance will be assessed using an MRV process. This will support scaling up of seed systems, rice policy, bio-input development, climate-smart agriculture, natural resource governance and ecosystem restoration beyond the project area.

Overall, the two components are complementary. Component 1 reduces the ecological and territorial vulnerability of production systems by restoring watersheds, improving water control, securing pastoral mobility and strengthening local governance. Component 2 increases the adaptive capacity and economic resilience of producers by improving access to adapted inputs and mechanization. Together, they address the full adaptation chain: protecting ecosystems and water resources, reducing exposure to climate hazards, improving production practices, strengthening livelihoods, reducing post-harvest losses, and enabling vulnerable groups to invest in resilient futures.

B. Describe how the project 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 will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

SRAG will generate significant economic, social and environmental benefits for vulnerable rural communities in Upper Guinea and Forest Guinea, while ensuring compliance with the Adaptation Fund Environmental and Social Policy and Gender Policy. The Adaptation Fund's Environmental and Social Policy requires projects to identify, assess, avoid, minimize and manage environmental and social risks, while its Gender Policy requires equal participation, equal access to benefits, and gender-responsive implementation and monitoring.

Economic benefits

SRAG will strengthen the economic resilience of approximately 20,260 family farming households by improving agricultural productivity, reducing climate-related production losses, and increasing access to climate-resilient services and markets. The development of 1,276 ha of climate-sensitive hydro-agricultural infrastructure will improve water control for rice and off-season market gardening, reducing dependence on increasingly irregular rainfall and enabling more stable production. This will directly benefit around 10,750 producers, including women, youth and vulnerable groups.

Economic benefits will also come from the financing of 2,684 agricultural and rural micro-enterprises (5,400 people) in rice production, horticulture, small livestock and agroforestry. These enterprises will help diversify rural incomes, reduce dependence on climate-sensitive subsistence production, and create economic opportunities for women and youth. In addition, support to mechanization services for 175 beneficiaries, production of climate-adapted seeds and bio-inputs will reduce post-harvest losses, improve product quality and strengthen climate-resilient value chains. These activities go together with local green jobs creation, reduce dependence on costly external inputs, and improve the availability of locally adapted solutions for soil fertility and management, and crop protection.

Social benefits and benefits for vulnerable groups

SRAG specifically targets smallholder farmers, agro-pastoral households, women, youth, persons with disabilities and producer organizations, all of whom face high vulnerability due to dependence on rainfed agriculture, limited access to productive resources, weak market integration, and exposure to climate shocks. Women and youth are explicitly prioritized because they often face structural barriers to land, finance, training, inputs and decision-making, which limits their adaptive capacity.

The project will generate social benefits by improving access to productive assets, knowledge, services and governance mechanisms. Farmer Field Schools will directly train 4,200 producers, at least 50% women, and disseminate climate-resilient practices to approximately 40,000 additional producers. These practices will improve soil fertility, water retention, pest management and crop calendar adjustment, thereby strengthening household resilience to climate variability.

Social cohesion will also be improved through participatory land-use planning, Water User Associations, Local Agro-Pastoral Committees, and farmer–herder dialogue platforms. These mechanisms will help prevent conflicts over water, land, pastoral corridors and lowlands, which are increasingly exacerbated by climate variability, pasture degradation and water scarcity.

Environmental benefits

SRAG will deliver strong environmental benefits by restoring degraded productive ecosystems and strengthening ecosystem services essential for climate adaptation. The restoration of 6,000 ha of degraded sub-watersheds through reforestation, protection of slopes and riverbanks, fire prevention and sustainable environmental management will improve water infiltration, reduce runoff and erosion, restore soil fertility and protect downstream hydro-agricultural infrastructure.

The rehabilitation of 210 km of pastoral corridors with water points, fodder areas, improved pastures and livestock facilities will reduce pressure on fragile ecosystems and cultivated lands, while improving livestock access to water and fodder during dry periods. These activities will contribute to ecosystem-based adaptation by protecting watersheds, improving soil and water management, reducing degradation of grazing areas and supporting more sustainable crop–livestock integration.

Bio-input production will further strengthen environmental sustainability by promoting compost, biochar, biofertilizers and biopesticides from locally available biomass. These inputs will improve soil organic matter, enhance water retention, reduce erosion, and limit reliance on chemical fertilizers and pesticides, thereby reducing pollution risks and supporting more resilient agroecological systems.

Avoidance and mitigation of negative impacts

SRAG has been screened through IFAD Environmental and Social Management Safeguards (an environmental and social management framework and plan of the project was developed), which allowed to identify both positive and negative impacts associated with hydro-agricultural infrastructure, irrigation, agricultural intensification, value chain services and rural infrastructure. Key risks include land tenure conflicts, unequal access to benefits, exclusion of vulnerable groups, pressure on water resources, soil degradation, biodiversity impacts, potential pollution from agricultural inputs, occupational health and safety risks, and gender-based risks.

To avoid and mitigate these risks, the project introduces in its intervention approach a hierarchy of avoidance, minimization, mitigation and monitoring. Site selection and territorial planning will exclude ecologically sensitive areas, critical habitats, protected areas and zones with high conflict risks. Participatory land-use planning will be conducted before infrastructure works to clarify land access, identify landowners and users, formalize land access agreements, and ensure transparent and equitable allocation of developed land and infrastructure benefits.

For infrastructure activities such as hydro-agricultural schemes, specific Environmental and Social Impact Assessments and site-specific Environmental and Social Management Plans will be prepared where required. These instruments will be validated by the Guinean Environmental Assessment Agency (AGEE), and environmental licensing will be conditioned on the effective implementation of mitigation and compensation measures.

Environmental mitigation measures include sustainable water management, efficient irrigation design, monitoring of water use, erosion control, restoration of degraded areas, avoidance of invasive species, protection of biodiversity, safe management of construction sites and borrow pits, and promotion of organic inputs and integrated pest management. Pollution risks from pesticides and fertilizers will be reduced by prioritizing bio-inputs, training producers on safe use and storage of inputs, and strengthening advisory services.

Social mitigation measures include inclusive targeting, transparent selection criteria, grievance mechanisms, gender-responsive consultations, and specific measures to ensure access by women, youth, persons with disabilities and poorer households. 50% of the direct beneficiaries will be women and 30% will be young people. Project monitoring data will be disaggregated by sex, age and vulnerability category to track access to benefits and identify any exclusion risks.

SRAG also complies with the Adaptation Fund's Environmental and Social Policy principles, including compliance with national law, access and equity, protection of marginalized and vulnerable groups, gender equality and women's empowerment, core labour rights, protection of natural habitats, conservation of biodiversity, pollution prevention, public health, and land and soil conservation. To comply with the Adaptation Fund's policy on risk assessment and management, which is commensurate with the level of risk and includes monitoring and reporting during implementation, a biodiversity action plan will be developed at the full design stage.

Overall, SRAG is expected to generate substantial economic, social and environmental benefits while managing potential risks through the existing ESMF, site-specific safeguards instruments (ESMP), inclusive governance mechanisms (such as the water user associations), and gender-responsive implementation. This will ensure that adaptation benefits reach the most vulnerable communities without causing disproportionate adverse impacts on people, ecosystems or local livelihoods.

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

The proposed project is cost-effective because it concentrates Adaptation Fund resources on a coherent package of mutually reinforcing interventions that address the main drivers of climate vulnerability in Upper Guinea and Forest Guinea: degraded watersheds, weak water control, rainfed production systems, pasture degradation, farmer–herder conflicts, and limited access to climate-adapted inputs.

SRAG will reach approximately 20,260 vulnerable family farmers and agropastoral households with a total project cost of USD 20 million, equivalent to about USD 987 per beneficiary, or approximately USD 1,071 per beneficiary including IFAD's project management fee. Given the scale of expected benefits—including improved water control, restored ecosystems, strengthened local governance, improved access to climate-adapted inputs, and increased resilience of women and youth—this represents a relatively low unit cost for a comprehensive adaptation intervention. The project budget also prioritizes direct field investments, with USD 18.1 million allocated to project activities, mainly for ecosystem restoration, hydro-agricultural infrastructure, climate-resilient production practices, and value chain services.

Cost-effectiveness is first achieved through the integrated watershed approach. Rather than financing isolated irrigation schemes or stand-alone production activities, the project combines participatory land-use planning, water user associations, local natural resource governance, hydro-agricultural infrastructure, restoration of degraded watersheds, and rehabilitation of pastoral corridors. This reduces the risk that infrastructure is damaged by erosion, sedimentation, floods or upstream degradation. The restoration of 6,000 ha of degraded watersheds alongside the development of 1,276 ha of climate-sensitive hydro-agricultural infrastructure creates an ecological buffer that protects downstream investments and improves water infiltration, soil stability and long-term productivity.

SRAG is also cost-effective because it focuses on prevention rather than recovery. In the absence of adaptation investments, climate shocks would continue to generate recurrent losses through crop failures, damaged lowlands, degraded soils, livestock mortality, and conflicts over land and water. By improving water control, drainage, soil conservation and watershed management, the project reduces future costs linked to emergency response, rehabilitation of damaged infrastructure, and loss of agricultural production.

The Farmer Field School approach is particularly cost-effective because it combines direct training with farmer-to-farmer dissemination. The project will train 4,200 producers directly, with at least 50% women, who are expected to disseminate practices to around 40,000 additional producers. This multiplier effect reduces the average cost of capacity building while supporting broad adoption of agroecological and climate-resilient practices, including soil fertility management, water-saving practices, crop–livestock integration and climate-sensitive production techniques.

Cost-effectiveness is also strengthened through support to local input systems. The project will develop decentralized production of climate-adapted rice and horticultural seeds and support 62 rural enterprises producing bio-inputs such as compost, biochar, biofertilizers and biopesticides. This reduces dependence on unreliable or costly external input supply chains, improves soil organic matter and water retention, and creates local employment. Over time, these local systems are expected to reduce recurrent input costs while improving farmers' capacity to respond to changing rainfall patterns, pests and soil degradation.

The project's value chain investments are also cost-effective because they reduce losses after production. Mechanization services units will help farmers respond to shortened agricultural calendars, preserve product quality, reduce post-harvest losses and increase local value addition.

Compared with alternative approaches, the proposed project offers better value for money. A purely infrastructure-based approach would improve water control but would not address watershed degradation, land-use conflicts, soil fertility, input constraints or post-harvest losses. A purely training-based approach would be less costly but would not provide the infrastructure, finance and services needed for adoption. A purely value-chain approach would increase market opportunities but would not reduce climate exposure at production level. The proposed integrated approach is therefore more cost-effective because it addresses the full adaptation chain: ecosystems, water, production, inputs, services, finance and markets.

Finally, SRAG builds on AgriFARM project experience (Family Farming, Resilience and Markets Project in Upper and Middle Guinea, an IFAD funded project launched 2018), existing institutions and national implementation systems, which reduces transaction costs and improves sustainability. It uses established partners such as ANPROCA-FE, producer organizations, water user associations, technical services and local governance structures, while complementing the broader IFAD AgriFARM phase 2 programme (planned to start in 2027 for a duration of 6 years). This avoids duplication, increases implementation efficiency, and helps ensure that Adaptation Fund resources finance the additional climate-resilience measures that are required beyond baseline rural development investments.

Table 3: Cost-effectiveness and alternatives to project

Benefits generated – losses averted	Alternative to project
Component 1: Restoration of climate-resilient productive ecosystems	
The watershed of 21 municipalities is better managed, local communities better know the strengths and weaknesses of their surrounding ecosystem linked to agriculture area thanks to participatory land-use and watershed management plans. 6000 ha of restored watershed ecosystems contribute to support sustainable agriculture. They are maintained by Natural resource management committees. The rice and vegetable productions are less sensitive to drought and flow thanks to 1,276	In the 'business as usual' scenario, there is no watershed diagnosis or associated development schemes for these areas, which are becoming increasingly degraded due to poor agricultural practices (such as slash-and-burn) and limited attention from local communities. Soil erosion is increasing, low-land flooding is becoming more common and agricultural vulnerability is rising significantly. Without hydro-agricultural development, farmers and their families will remain heavily dependent on rainfall patterns, resulting in low yields and perpetuating shifting cultivation practices. This puts increased pressure on natural

ha of hydro-agricultural infrastructure (60 ha each on average). These infrastructures are maintained by 21 Water user associations with enhanced technical and governance aspects. The infrastructure enables a more productive agriculture; yield is increasing while slash-and-burn pressures decrease. Social tensions between farmers and herders decrease with the development of 120km of pastoral corridors in 5 municipalities. 4,200 farmers will be trained to adopt climate-resilient and agroecological practices, generating the good practices to 40,000 additional producers. 2,100 individual and collective micro-enterprises in climate-resilient rice production, horticulture, agroforestry, small livestock, processing and related rural services as resilience diversification mechanisms 80 Grain Solidarity Stores will support 3000 food-insecure households.	resources and makes local communities more vulnerable. Carrying out local consultancy committees on the needs of pastoralist herders and developing pastoral infrastructure help to prevent conflicts. An alternative 1 would be to develop hydro-agricultural lands without restoring the surrounding ecosystems. However, these infrastructure projects will be vulnerable to silting and sediment buildup. Water resources could gradually become scarcer. An alternative 2 would be to develop hydro-agricultural lands and restore the surrounding ecosystems without involving the local communities. The lack of local ownership and skills would jeopardise the long- and medium-term efficiency of these restorations, leaving local forests vulnerable to bushfires. An alternative 3 would be to develop water infrastructure and to restore ecosystem, without considering the specific needs of pastoral herders. Then conflict around access to water and forage would still be high, in particular in territories subject to pastoral corridors, leading to potential conflicts with farmers. Without micro-enterprises supported in the agricultural value chains, the vulnerability of the poorest to climate change and other risks and stay high. Without a variety of rural services, farmers and their families will remain isolated, and the potential for added value will be limited. Poor families face difficult and critical decisions when it comes to managing their grain during lean periods, in particular when there is no solidarity mechanism such as Grain Solidarity Stores. One alternative would be for the project to deliver these services and facilities directly to local communities. Although this approach could be considered efficient, it would limit the project's sustainability.
Component 2: Climate-resilient agropastoral services and value chains	
Rice yield increases thanks the access to selected seeds. Local farmers will be supported by 52 service providers (including 50% women) with mechanization services and feed supply. Soil, crop resilience and agroecological practices will be supported by 62 rural enterprises producing bio-inputs (new sub-sector in Guinea). The development of climate resilience practices and bio-inputs production will be supported by enabling policies	In the 'business as usual' scenario, farmers still struggle to access improved and adapted seeds. They are still overwhelmed by manual processes, which compromises the quality and productivity of their crops. They have no alternative but to use chemicals that are neither certified nor used properly. The value chain is still not organized, with limited actors and services. This situation makes them highly vulnerable to climate change. The use of chemicals contributes to affect ecosystem services, which in turn increases the climate vulnerability of households.

D. Describe how the project 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 strongly aligned with Guinea's national climate, agricultural, environmental and development policy framework. It directly supports the country's adaptation priorities by strengthening climate-resilient family farming, improving water and land management, restoring degraded ecosystems, reducing vulnerability of rural communities, and promoting inclusive rural economic development in Upper Guinea and Forest Guinea.

First, SRAG is fully consistent with Guinea's CDN 3.0 / NDC 3.0 for 2026–2035, which raises the country's adaptation ambition and identifies seven national adaptation commitments. Three are directly addressed by the project: sustainable management of water resources and natural ecosystems; strengthening resilience of agricultural, pastoral and fisheries systems; and supporting rural communities' adaptation efforts. The CDN 3.0 also emphasizes gender, youth, vulnerable groups, local governance, climate finance, community ownership, all of which are reflected in the project through women's empowerment, youth entrepreneurship, farmer field schools, local natural resource governance, and climate-resilient value-chain services.

SRAG is also consistent with Guinea's National Adaptation Action Plan (NAPA, 2007), which identified urgent adaptation needs in agriculture, livestock, water resources, forestry and rural livelihoods. The NAPA emphasized improved rural water access, agricultural and livestock productivity, protection of forest formations, awareness raising and community-based adaptation. The proposed project responds directly to these priorities through hydro-agricultural infrastructure, watershed restoration, pastoral corridors, climate-resilient production practices, seed systems and local capacity building.

SRAG further supports the ongoing National Adaptation Plan (NAP) process. Guinea's NAP process aims to strengthen evidence-based adaptation planning, improve coordination and monitoring mechanisms, and expand financing for adaptation. The project contributes to this agenda by operationalizing adaptation at territorial level through participatory land-use planning, water user associations, natural resource management committees, farmer–herder dialogue platforms, and locally grounded adaptation investments.

SRAG is consistent with Guinea's Third National Communication to the UNFCCC (2025), which documents the country's climate vulnerability and adaptation needs, including in agriculture, water resources, ecosystems and rural livelihoods. The project's focus on reducing exposure to droughts, floods, rainfall variability, soil erosion and watershed degradation directly responds to the vulnerabilities described in the third national communication.

SRAG also contributes to the objectives of Guinea's National Biodiversity Strategy and Action Plan (2016), which highlights the importance of biodiversity and ecosystem services for poverty reduction, climate resilience and sustainable development. Its ecosystem-based adaptation measures—restoration of 6,000 ha of degraded watersheds, protection of slopes and water sources, agroforestry, use of bio-inputs and improved natural resource governance—support biodiversity conservation while enhancing agricultural resilience.

At sector level, the project is aligned with national agricultural and rural development priorities, including the PNIASAN, by promoting sustainable agricultural intensification, water control, climate-resilient rice and horticulture value chains, improved access to inputs and services, mechanization, processing and market integration. The project also support the planning and statistics units of the Ministries of Agriculture and Environment review and align policies such as PNDA and PNIASAN with climate risks and Simandou 2040 Programme priorities.

SRAG is also coherent with the Simandou 2040 Programme, which provides a broader national transformation framework based on infrastructure, inclusive growth and sustainable development. Simandou 2040 identifies agriculture, food industry and trade as one of the five strategic pillars, with a focus on modernizing value chains and strengthening local transformation to create sustainable jobs. The proposed project contributes to this agenda by developing climate-resilient productive infrastructure, strengthening rural value chains, and creating green rural employment for women and youth.

E. Describe how the project 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.

SRAG will comply with Guinea's applicable national technical, environmental and social standards, as well as IFAD's Social, Environmental and Climate Assessment Procedures and the Adaptation Fund Environmental and Social Policy. Guinea's environmental assessment framework is based on the national Environmental Code, revised in 2019, and the national ESIA system, which requires environmental and social assessment for projects likely to generate impacts. Guinea's environmental assessment procedure, updated in 2023, distinguishes between detailed ESIA for higher-risk projects and simplified assessments for lower-risk projects, under the oversight of the Guinean Environmental Assessment Agency.

SRAG will therefore apply Guinea's environmental assessment requirements to all relevant investments, particularly hydro-agricultural infrastructure, pastoral water points, storage and processing facilities, micro-power units, access infrastructure and any works that may affect land, water, soils, biodiversity or communities. With the government of Guinea, and after field visits, potential sites have been already identified within the 21 municipalities of the project. At this stage, we can say that the project includes Partially Unidentified Sub-projects. The complete site selection should be finalized during the design of the full proposal project, enabling an environmental and social risk analysis. Where required, site-specific Environmental and Social Impact Assessments or simplified environmental and social notices will be prepared before works begin, complying with the Guinean legislation on ESIA. These analyses of the baseline environment, potential impacts, alternatives and measures to avoid, reduce, compensate or mitigate adverse impacts, will result in mitigation measures, Environmental and Social Management Plans, monitoring arrangements, responsibilities, costs and grievance procedures.

SRAG will also comply with relevant technical standards for rural infrastructure and water management. Hydro-agricultural schemes will be designed and supervised with the involvement of competent technical services, including the National Directorate of Rural Engineering, and will integrate climate-resilient design principles such as adequate drainage, erosion control, flood-risk consideration, sustainable water abstraction, sedimentation control and protection of upstream watersheds. Pastoral infrastructure, boreholes, livestock watering points, vaccination corridors, night parks, storage buildings and processing units will be designed in accordance with applicable national engineering, water, health, safety and construction requirements. Procurement documents and contracts will require contractors and service providers to comply with national technical specifications, environmental clauses, occupational health and safety requirements and labour standards.

For activities related to seeds, bio-inputs and crop protection, the project will comply with national agricultural, phytosanitary, seed certification and quality-control requirements. The involvement of IRAG, DNA, ANPROCA-FE, SENASOL, DNPV and ISAV Faranah will ensure that seed production, certification, bio-input formulation, soil amendment testing, biopesticide assessment and technical guidance are scientifically sound and aligned with national standards. This is particularly important because the project will support decentralized production of climate-adapted rice and horticultural seeds and 62 enterprises producing compost, biochar, biofertilizers and biopesticides.

SRAG will comply with the Adaptation Fund Environmental and Social Policy by screening all activities, identifying risks at the earliest possible stage, applying the mitigation hierarchy, and monitoring and reporting on safeguards implementation. The Adaptation Fund policy requires all projects to be screened for environmental and social impacts, categorized according to risk, assessed in proportion to the severity of risks, and accompanied by appropriate risk management measures. It also requires implementing entities to avoid, minimize or mitigate risks and to monitor and report on these measures during implementation.

At concept note stage, the project is expected to be classified as a moderate-risk project, as most activities are small to medium-scale and designed to generate positive adaptation, environmental and social benefits, but some activities may involve localized risks. These include land access and tenure issues, temporary construction impacts, pressure on water resources, soil erosion, sedimentation, pesticide or input misuse, occupational health and safety risks, unequal access to project benefits, and potential impacts on natural habitats if sites are poorly selected. SRAG concept note already identifies the need to manage risks through the existing AgriFARM2 program ESMF, site-specific safeguards instruments, inclusive governance mechanisms and gender-responsive implementation.

SRAG will also comply with the Adaptation Fund's environmental and social principles. Compliance with the law will be ensured through national ESIA procedures, environmental permits, procurement requirements and technical supervision. Access and equity will be addressed through transparent beneficiary selection, inclusive targeting and grievance mechanisms. Marginalized and vulnerable groups, including women, youth and persons with disabilities, will be specifically targeted through Farmer Field Schools, inclusive producer organizations and access to hydro-agricultural land and infrastructure. Gender equality will be promoted through women's participation in training, governance and enterprise support. Labour risks will be managed through contractual clauses on occupational health and safety, decent work and prohibition of child or forced labour. Natural habitats, biodiversity, land and soils will be protected through site screening, exclusion of sensitive areas (protected areas and Ramsar sites), watershed restoration, erosion control, bio-input promotion and sustainable land management. Given the exceptional rich biodiversity of Guinea, a Biodiversity action plan will be developed.

Potential involuntary resettlement will be avoided. The project will prioritize participatory land-use planning, land tenure clarification and voluntary agreements before any infrastructure development. Where land access is required for irrigation schemes, storage facilities, pastoral corridors or water points, the project will document land rights, users and agreements, and will avoid any activity causing physical displacement. The free, prior and informed consent of communities and individuals will be sought systematically.

SRAG will also apply a grievance redress mechanism accessible to communities, workers, women, youth and vulnerable groups. Information on project activities, risks, eligibility criteria, land arrangements, environmental measures and complaint channels will be communicated in accessible formats and local languages where appropriate. Monitoring will include sex- and age-disaggregated data, safeguards indicators, incident reporting and regular supervision missions.

Overall, SRAG meets national technical standards and the Adaptation Fund Environmental and Social Policy by combining compliance with Guinea's ESIA and permitting system, climate-resilient technical design, IFAD safeguards procedures, site-specific ESMPs, inclusive consultation, grievance management and continuous monitoring. This will ensure that project activities strengthen climate resilience while avoiding, minimizing and managing potential adverse impacts on people, ecosystems and local livelihoods.

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

The proposed project has been designed to complement and strengthen ongoing investments in agricultural development and rice value chain support in Guinea, while specifically addressing the climate adaptation gaps that remain insufficiently covered by existing programmes. No duplication of activities or financing is therefore expected. Instead, the project will generate strong complementarities and synergies with ongoing IFAD, World Bank and African Development Bank initiatives operating in the same intervention areas and value chains.

Table 4: Analysis of risks of duplication

Project name and main financial partner	project dates	Project brief summary	Risk of duplication
Family Farming, Resilience and Markets Project - AgriFARM-2 [IFAD]	2027-2032	AgriFARM-2 focuses on improving agricultural productivity, market access, value chain development and rural entrepreneurship for family farming systems, particularly in rice and horticulture value chains. This 6-year project will support input shops, storage facilities, collection centers, processing units and markets places, strengthening the value chain approach. It will also contribute to women's empowerment and social inclusion through functional literacy and the Gender Action Learning System (GALS) approach for 2,000 women, youth networking, and the distribution of 10,000 productive kits to vulnerable groups with technical support from ANPROCA-FE.	No risk of duplication. AgriFARM2 and SRAG have been designed to complement each other, with SRAG focused on climate-resilience and ecosystem-based adaptation.
Agricultural integrated development in Guinea – PDAIG [the World Bank]	2019-2023	One of the major agricultural investment projects financed by the World Bank in Guinea in recent years. Although it is not implemented in the same areas as SRAG, it serves as an interesting model, particularly in terms of hydro-agricultural planning, agricultural extension, and environmental management for the rice sector.	No risk. Project completed
Regional Resilient Rice Value Chains Development Program in West Africa – REWARD [AfDB]	2024-2030	REWARD is implemented in Guinea. Its objectives are to develop resilient rice value chains (rice sector competitiveness, seed systems, productivity improvement, regional value chains and dissemination of improved technologies). It includes the enhancement of the climate resilience of rice production systems.	REWARD is much more focused on the rice value chain, while SRAG will strengthen the long-term sustainability and resilience of investments in the rice sector

In line with IFAD and Adaptation Fund good practice, the project has been designed based on the principle of additionality. Adaptation Fund resources will exclusively finance activities generating clear climate adaptation benefits that are not already financed through existing baseline development programmes. This approach follows the full-cost adaptation reasoning commonly applied in IFAD/Adaptation Fund projects where AF financing complements baseline rural development investments by specifically addressing climate risks, ecosystem degradation and adaptation capacity gaps.

SRAG will seek operational coordination with other relevant donor-funded initiatives active in climate resilience, natural resource management, agroforestry, pastoralism, biodiversity conservation and rural development in Guinea. Coordination mechanisms will include participation in sectoral technical working groups, consultation with government technical services and development partners, joint supervision missions where feasible, information sharing, and geographic targeting coordination.

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

SRAG will establish a robust learning and knowledge management (KM) system to document, capitalize and disseminate lessons learned, good practices and innovation related to climate-resilient family farming systems, ecosystem restoration and climate adaptation in Guinea. The KM component will support adaptive project management, strengthen institutional learning, and facilitate the scaling-up of successful approaches within AgriFARM-2 and beyond.

The knowledge management approach will build on the implementation experience and lessons learned from AgriFARM phase 1⁸, ongoing IFAD operations, and other climate resilience initiatives in Guinea and West Africa. Particular attention will be given to documenting practical adaptation solutions related to climate-smart agriculture, sustainable watershed management, agroforestry, integrated rice and horticulture systems, irrigation management, farmer–herder conflict prevention, ecosystem restoration, and inclusive approaches targeting women and youth. The project will also capitalize on lessons emerging from the implementation of participatory land-use planning, water user associations, local agro-pastoral committees (CLAP), and community-based natural resource governance mechanisms.

Knowledge generation and learning activities will include:

- Baseline studies, thematic assessments and case studies on climate vulnerability, adaptation practices and ecosystem restoration;
- Documentation of good practices, success stories, and lessons learned throughout project implementation;
- Development of technical manuals, policy briefs, audiovisual materials and dissemination products adapted to local stakeholders;
- Farmer field schools, demonstration plots and peer-to-peer exchange visits between communities and producer organizations;
- Learning workshops at local, regional and national levels involving government institutions, producer organizations, technical partners and development partners;
- Exchanges and south-south learning with similar IFAD and Adaptation Fund projects in the region;
- Integration of lessons learned into annual work planning, monitoring and adaptive management processes.

SRAG will establish a participatory monitoring, evaluation and learning system allowing continuous feedback from beneficiaries and local stakeholders. Knowledge products and lessons learned will be systematically captured during implementation through regular field monitoring, participatory assessments, supervision missions and outcome surveys. Particular emphasis will be placed on documenting adaptation benefits, ecosystem restoration impacts, socio-economic outcomes, and gender and youth inclusion dimensions.

⁸ AgriFARM phase 1 was implemented from 2019 to 2026 in other areas of Guinea (Middle Guinea and the region of Kankan) with the same approach. SRAG provides innovations and changes: introduction of bio-inputs production and use, introduction of pastoral infrastructure, reduction of the size of hydro-agricultural infrastructure, reviewed activities on seed production and agricultural extension, reduction of the extended partnership with CNOP-G.

SRAG will collaborate closely with relevant national institutions, including technical services of the Ministry of Agriculture, ANPROCAFE, IRAG, SENASOL, producer organizations (and CNOP-G, its national confederation) and local authorities, in order to strengthen institutional capacities for climate adaptation knowledge management and dissemination. Partnerships with research institutions, universities and technical partners will also support the generation and dissemination of evidence-based adaptation practices.

Knowledge dissemination will rely on multiple communication channels adapted to different audiences, including workshops, radio programmes, community outreach activities, digital platforms, technical publications, and IFAD corporate knowledge-sharing systems. Lessons learned and innovative practices will also be shared through national policy dialogue platforms and coordination mechanisms involving development partners active in climate resilience, agriculture and natural resource management.

The KM system will contribute to scaling up successful adaptation approaches beyond the project intervention areas by informing future investments, government programmes and climate adaptation policies in Guinea. In line with Adaptation Fund and IFAD good practices, the project will therefore position knowledge generation and learning as a central pillar for strengthening long-term resilience and sustainability of climate adaptation interventions.

H. 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.

The preparation of the proposed project was based on an extensive and participatory consultation process carried out between February and April 2026 by the Government of Guinea, IFAD, the FAO Investment Centre and national stakeholders. The consultative process aimed to ensure that project design responds effectively to local climate vulnerabilities, socio-economic constraints, environmental risks, and the priorities of beneficiary communities, while complying with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

The consultation process combined national-level institutional consultations, regional and local stakeholder workshops, field visits, focus group discussions, and targeted consultations with vulnerable groups, including women, youth, smallholder farmers, agro-pastoralists and local producer organizations. The process also integrated SECAP (Social, Environmental and Climate Assessment Procedures) consultations and environmental and social screening exercises undertaken specifically for the Adaptation Fund proposal.

SRAG formulation missions were conducted from 26th of February to 7th of March and from 23rd of March to 10th of April 2026 and included consultations in Conakry, Mamou, Faranah and N'Zérékoré regions. An official project design launch workshop was organized on 24th of March of 2026 in Conakry under the leadership of the Ministry of Agriculture and the Ministry of Livestock, with participation from government institutions, technical services, producer organizations, civil society organizations and development partners.

Stakeholders consulted during project preparation included:

- Ministry of Agriculture;
- Ministry of Livestock;
- Ministry of Environment and Sustainable Development;
- National Directorate for Pollution, Nuisance and Climate Change (DNPNC);

- National agricultural research and extension institutions, including IRAG, ANPROCA-FE and SENASOL;
- Regional and prefectural technical services for agriculture, livestock and environment;
- Producer organizations and umbrella organizations, including CNOP-G and regional producer federations;
- Livestock federations and agro-pastoral stakeholders;
- Women's groups and women-led agricultural organizations;
- Youth groups and young rural entrepreneurs;
- Local communities and beneficiaries in project intervention areas;
- Civil society organizations and NGOs, including CODAPA, REGUIZOH, GUIDRE and Salinka;
- Development partners and technical agencies, including FAO, UNDP, WFP, World Bank, AFD and the European Union.

Field consultations were undertaken in the targeted intervention zones of Faranah and Forest Guinea, including Beyla, Faranah, Guéckédou, Kissidougou, Lola, Macenta, Nzérékoré and Yomou prefectures. Community consultations included site visits to agricultural lowlands, irrigation schemes, pastoral areas, and market gardening sites, as well as meetings with local authorities, water user associations, producer organizations, environmental NGOs and local conflict management structures.

Particular attention was paid to vulnerable groups and gender considerations throughout the consultation process. Women farmers, women processors, rural youth and vulnerable households were specifically consulted to identify barriers related to access to land, irrigation infrastructure, extension services, climate information, finance and market opportunities. Consultations highlighted the disproportionate vulnerability of women and youth to climate change impacts, food insecurity and declining agricultural productivity, as well as the need to strengthen their participation in decision-making and access to productive resources.

Consultations with agro-pastoral stakeholders and livestock institutions identified increasing conflicts between farmers and herders linked to climate change, degradation of pastoral resources, water scarcity and reduction of grazing areas. Stakeholders emphasized the importance of participatory land-use planning, local mediation mechanisms, pastoral infrastructure, and inclusive local governance structures involving farmers, herders, women and traditional authorities.

Environmental stakeholders, including the Ministry of Environment and Sustainable Development, UNDP and environmental NGOs, highlighted the importance of integrating biodiversity conservation, watershed restoration, agroforestry, sustainable land management and climate-smart agriculture into project design. Consultations also identified key environmental risks requiring mitigation measures, including deforestation, soil degradation, overuse of agrochemicals, pressure on water resources, and land-use conflicts.

The consultative process also informed the design of the project's environmental and social risk management measures and targeting strategy. Stakeholders stressed the importance of:

- ensuring equitable access to project benefits for women, youth and vulnerable households;
- strengthening local conflict prevention and grievance management mechanisms;
- clarifying land tenure arrangements before infrastructure investments;
- promoting participatory management of water and natural resources;
- reinforcing local institutional capacities on climate-smart agriculture and environmental management;
- integrating local knowledge and community priorities into adaptation planning.

SRAG design therefore incorporates several measures to ensure compliance with the Adaptation Fund Environmental and Social Policy and Gender Policy, including participatory planning approaches, inclusive governance mechanisms, gender-sensitive targeting, stakeholder engagement processes, grievance redress mechanisms, environmental and social screening procedures, and continued consultations during implementation. Women and youth will be specifically targeted through dedicated participation quotas (respectively 50% and 30% of the beneficiaries), capacity-building activities, access to climate-resilient livelihood opportunities and representation in local management structures.

Consultations will continue throughout project implementation through participatory monitoring systems, community feedback mechanisms, local consultation platforms and regular stakeholder engagement activities to ensure that project activities remain socially inclusive, environmentally sustainable and responsive to the needs of vulnerable communities.

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

The proposed Adaptation Fund financing is justified by the significant additional costs required to strengthen the climate resilience of family farming systems and productive landscapes in Upper Guinea and Forest Guinea beyond the scope of conventional rural development investments. While the baseline AgriFARM2 programme focuses on improving agricultural productivity, market access, and rural economic development, the Adaptation Fund resources will specifically finance the incremental measures needed to address current and projected climate risks affecting agricultural systems, ecosystems, and vulnerable rural populations in the project area. SRAG is independent from AgriFARM2 and will, in no way, depend on the IFAD project for the success of its activities as this would violate their full cost of adaptation rationale.

Without adaptation financing, investments in agricultural infrastructure, value chains, and rural services would remain highly vulnerable to increasing climate variability, including recurrent droughts, floods, rainfall irregularity, rising temperatures, erosion, and degradation of watersheds and pastoral resources. Climate change already undermines the productivity and sustainability of rainfed family farming systems in Guinea, which depend heavily on climate-sensitive natural resources and have limited adaptive capacity. The Adaptation Fund intervention is therefore necessary to ensure that rural development investments become climate-resilient and capable of delivering sustainable long-term benefits under changing climatic conditions.

SRAG applies a full cost of adaptation reasoning by distinguishing between: (i) the baseline development scenario, which would focus primarily on agricultural production and market development; and (ii) the alternative adaptation scenario enabled by Adaptation Fund financing, which integrates targeted climate-resilient and ecosystem-based adaptation measures to reduce vulnerability and strengthen resilience.

Under the baseline scenario, investments would likely include agricultural production support, market infrastructure, mechanization, and value chain development. However, these interventions alone would not sufficiently address the increasing climate risks affecting agricultural productivity and ecosystem sustainability. Existing infrastructure and production systems would remain exposed to water scarcity, floods, erosion, degradation of natural resources, and growing farmer–herder conflicts linked to climate stress.

The Adaptation Fund financing will therefore cover the additional costs required to climate-proof agricultural development investments through a combination of ecosystem-based adaptation, climate-resilient infrastructure, resilient production systems, and strengthened governance mechanisms. These additional adaptation costs include:

- Climate-resilient hydro-agricultural infrastructure designed to cope with increasing rainfall variability, floods, droughts, and sedimentation risks, including resilient irrigation systems, improved water control structures, drainage systems, and climate-sensitive engineering standards for lowlands and valley-bottom developments;
- Restoration of degraded watersheds and productive ecosystems through reforestation, assisted natural regeneration, agroforestry, erosion control, protection of riverbanks and water sources, and restoration of ecological functions critical for water regulation and soil fertility;
- Rehabilitation and climate-proofing of pastoral corridors and water points to address increasing climate-induced pressure on pasture and water resources, reduce conflict risks, and strengthen the resilience of agro-pastoral systems;
- Development and dissemination of climate-resilient agricultural and livestock practices, including agroecology, climate-smart agriculture, integrated soil fertility management, bio-inputs, water-efficient practices, resilient seed systems, fodder production, and improved crop-livestock integration;
- Strengthening decentralized governance and community-based adaptation systems, including participatory land-use planning, water user associations, local agro-pastoral committees, conflict management mechanisms, and climate-sensitive territorial planning;
- Improved access to climate information services, advisory services, farmer field schools, and technical support systems to help farmers and pastoralists adapt production calendars and practices to changing climatic conditions;
- Targeted adaptation support for vulnerable groups, including women, youth, and vulnerable households, whose adaptive capacities are constrained by limited access to land, finance, training, and productive assets.

Stakeholder consultations conducted during project preparation strongly confirmed that climate change is already affecting agricultural calendars, water availability, livestock systems, and ecosystem stability, and identified irrigation, watershed restoration, climate-smart agriculture, pastoral infrastructure, and conflict management as key adaptation priorities.

SRAG also addresses critical adaptation gaps identified during the formulation mission, including the need to strengthen ecosystem restoration, improve climate-resilient pastoral management, reinforce ANPROCA-FE advisory capacities on climate-smart agriculture, and integrate adaptation priorities into territorial planning and local governance systems.

The Adaptation Fund financing is therefore fully justified because it will finance the incremental investments required to transform conventional agricultural development into climate-resilient rural development. These adaptation investments generate benefits that go beyond immediate productivity gains by reducing long-term climate vulnerability, strengthening ecosystem services, protecting livelihoods, and enhancing the resilience of vulnerable rural populations and productive landscapes.

SRAG is particularly relevant in Guinea's context, where adaptation financing needs remain substantial despite the existence of national adaptation strategies and policies. The project directly contributes to Guinea's Nationally Determined Contribution (NDC), National Adaptation Plan process, and national priorities for climate-resilient agriculture, sustainable land management, and ecosystem restoration.

In line with Adaptation Fund principles, the project finances concrete adaptation measures that specifically address identified climate vulnerabilities and generate long-term resilience benefits for vulnerable communities and ecosystems.

Table 5: Baseline and alternative adaptation scenario the Adaptation Fund will help materialize

Business as usual scenario	Adaptation Fund additionality
Component 1: Restoration of climate-resilient productive ecosystems	
Droughts and floods are having an increasingly negative impact on farmers who exploit natural resources to excess. Conflicts with pastoral herders are becoming more common. The risk of shocks is increasing as there is no longer a social or ecological safety net.	21 municipalities are supported with hydro-agricultural infrastructures, backed by ecosystem diagnostic at watershed level and ecosystem restoration. Pastoral corridors are developed on five of them. 21 Water user associations, 21 Natural resources management committees and 5 local agri-pastoral local committees are responsible for maintaining the territories' key green and grey infrastructure. They are also familiar with budget management and technical solutions. The resilience of 6,000 hectares of ecosystems has been restored, including pastoral corridors. 1,276 hectares of hydro-agricultural infrastructure have been developed, enabling climate-resilient rice and vegetable production. In five municipalities, pastoral activities do not put pressure on farming and ecosystem (210km of developed pastoral corridors). Agriculture and livestock are more integrated, triggering new local business opportunity and contributing to soil health. 4,200 producers adopt climate-smart agricultural practices, and 20,260 family farming households have better access to climate-resilient infrastructure and services, stronger local governance of natural resources, reduced farmer–herder conflicts, and with priority to women, youth and vulnerable groups.
Component 2: Climate-resilient agropastoral services and value chains	
Extreme events such as droughts and floods are becoming increasingly frequent and intense due to climate change. This is putting agro-pastoral systems at risk due to decreasing fertility and increasing pressure on resources such as land and water. Vulnerable households and other farmers continue to practise agriculture using the same business-as-usual (BAU) models. (e.g. no adapted varieties, over use of chemical affecting health of both human and ecosystems, heavy work load putting households at risk), resorting to maladaptive practices such as slash-and-burn agriculture). This results in decreasing yields, accelerated environmental degradation, loss of livelihoods and possible outmigration/conflict.	52 direct beneficiaries, including 50% women create a local network of adaptation service providers, in particular dedicated to mechanisation. Rice and horticultural seeds adapted to local agro-climatic conditions are available to 10,750 producers. 62 rural enterprises produce bio-inputs and help strengthen soil and crop resilience. The public

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

The sustainability of the project outcomes has been a central consideration in the design of the “Strengthening climate Resilience in Agriculture and productive landscapes in Guinea” project. The

project has been designed not only to deliver short-term adaptation benefits, but also to ensure that climate resilience, ecosystem restoration, and livelihood improvements are sustained beyond the duration of Adaptation Fund financing through strengthened institutions, community ownership, sustainable production systems, and integration into national development processes.

First, SRAG promotes sustainability through a strong ecosystem-based adaptation approach that addresses the root causes of vulnerability affecting agricultural systems and rural livelihoods. Investments in watershed restoration, agroforestry, soil and water conservation, restoration of degraded lands, and sustainable management of productive ecosystems are designed to restore ecosystem services essential for long-term agricultural productivity and climate resilience, including water regulation, soil fertility, erosion control, and biodiversity conservation. By improving the ecological integrity of productive landscapes, the project seeks to generate lasting environmental benefits that will continue supporting rural livelihoods after project completion.

Second, SRAG emphasizes community ownership and participatory governance mechanisms to ensure the long-term management and maintenance of project investments. The design includes the participatory development of land-use and watershed management plans, the strengthening of water user associations, local agro-pastoral consultation frameworks, and community-based conflict management mechanisms between farmers and herders. These local governance structures are intended to build collective responsibility for the sustainable management of natural resources and climate-resilient infrastructure.

The consultations undertaken during project preparation highlighted the importance of involving local communities, producer organizations, pastoral organizations, local authorities, and decentralized technical services in the management of agro-pastoral infrastructure, water resources, and productive landscapes. Stakeholders specifically stressed the need for management committees for pastoral units and local conflict-resolution mechanisms to ensure sustainability and reduce tensions over natural resources.

Third, sustainability has been reinforced through institutional capacity strengthening at national, regional, and local levels. The project will strengthen the technical capacities of decentralized services from the Ministries of Agriculture, Livestock, and Environment, as well as producer organizations and local actors, on climate-smart agriculture, ecosystem restoration, sustainable pastoral management, and climate adaptation planning. The project also builds on existing national strategies and institutional frameworks related to climate change adaptation, sustainable agriculture, and territorial planning, thereby increasing the likelihood that successful approaches will be institutionalized and scaled up beyond the project duration.

SRAG further contributes to sustainability by promoting economically viable and climate-resilient livelihood systems. Investments in climate-smart agriculture, improved irrigation, sustainable rice and horticulture value chains, agroforestry systems, livestock integration, and improved post-harvest management are expected to increase productivity, strengthen incomes, and improve food security while reducing vulnerability to climate shocks. By generating tangible economic benefits for rural households, the project increases the incentives for communities to maintain and replicate sustainable practices after project completion.

Special attention has also been given to the sustainability of pastoral infrastructure and agro-pastoral systems. Lessons learned from previous experiences with pastoral units in Guinea were integrated into the project design following stakeholder consultations. The project will support participatory identification of sites, clarification of land tenure arrangements, involvement of livestock federations and local authorities, and establishment of management and maintenance committees to improve long-term sustainability of pastoral investments.

SRAG also incorporates social sustainability considerations by specifically targeting women, youth, and vulnerable groups, who are disproportionately affected by climate change and structural inequalities. By strengthening their access to productive resources, training, climate-resilient technologies, business management and economic opportunities, the project seeks to enhance social inclusion and reduce vulnerability over the long term. The project design foresees that women and youth will represent respectively 50% and 30% of the target group, while vulnerable households will receive targeted support to strengthen their adaptive capacities.

Financial and operational sustainability are further strengthened through the project's alignment with the broader AgriFARM2 programme and national development priorities, including the Simandou 2040 programme and Guinea's climate change strategies. The Adaptation Fund financing will complement larger IFAD investments and government programmes, thereby increasing the likelihood that successful approaches and infrastructure will continue receiving institutional support and financing after the project closes.

SRAG also integrates sustainability through knowledge management, learning, and scaling-up mechanisms. Good practices, lessons learned, and adaptation models generated during implementation will be documented and disseminated to technical services, producer organizations, local authorities, and development partners to support replication and policy uptake. Strengthening local technical capacities and farmer-to-farmer learning systems will contribute to the long-term adoption of climate-resilient practices.

Finally, environmental sustainability has been integrated through compliance with IFAD SECAP procedures and the Adaptation Fund Environmental and Social Policy. The project promotes nature-based solutions, sustainable land management, reduced ecosystem degradation, and improved resilience of productive landscapes while avoiding maladaptation and minimizing environmental risks associated with agricultural intensification. Stakeholder consultations repeatedly emphasized the importance of reducing unsustainable agricultural practices, promoting agroforestry, restoring forests and watersheds, and strengthening climate-smart approaches to ensure the long-term sustainability of agricultural development in Guinea.

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

SRAG is expected to generate substantial positive environmental and social impacts by strengthening climate-resilient family farming, restoring degraded productive ecosystems, improving water management, reducing pressure on natural resources, and increasing the adaptive capacity of vulnerable rural households in Upper Guinea and Forest Guinea. Its main expected benefits include improved resilience of approximately 20,260 family farming households, better access to climate-resilient infrastructure and services, stronger local governance of natural resources, reduced farmer–herder conflicts, and targeted support to women, youth and vulnerable groups.

At the same time, the project includes activities that may generate localized environmental and social risks, particularly hydro-agricultural infrastructure, irrigation, pastoral infrastructure, mechanization, processing units, seed production and bio-input production. At concept note stage, the project may therefore be considered a moderate-risk project, as most activities are small to medium scale and expected to generate positive adaptation outcomes, but several activities require further environmental and social assessment and management.

The main social risks identified relate to land access and natural resource governance. These include potential land tenure conflicts linked to access to developed land, infrastructure or expanded agricultural and pastoral activities; disputes over the delimitation of agricultural areas, pastoral areas

and transhumance corridors; possible restriction of access to land, water, pasture, wood or other natural resources; and the risk that more influential local actors may capture project benefits.

Additional social risks include possible exclusion or marginalization of vulnerable groups, especially women, youth, migrants, smallholder farmers, small herders and poorer households, in access to land, infrastructure, services, finance and economic opportunities. The project also identifies risks of unequal benefit sharing, tensions linked to women's increased economic role, increased workload for women, difficulties in collective management of agropastoral infrastructure, and possible financial management risks for rural micro-enterprises.

The main environmental risks concern water resources, soil, biodiversity and pollution. Identified major risks include the possible modification of local hydrological regimes and overuse of water resources linked to hydro-agricultural schemes and irrigation development; soil degradation, including erosion, salinization, waterlogging and compaction; increased pressure on natural resources; and loss or fragmentation of natural habitats and biodiversity if sites are poorly selected or agricultural and pastoral areas expand into sensitive ecosystems.

Moderate environmental risks include pollution of soil and water from inappropriate use, storage, transport or disposal of fertilizers and pesticides; introduction of unsuitable or invasive plant species in restoration, reforestation or agricultural improvement activities; and localized risks linked to construction materials, construction sites, waste management, dust, noise and occupational health and safety. Lower but still relevant risks include greenhouse gas emissions from mechanization, livestock and processing, genetic erosion linked to improved varieties, genetic contamination in seed production, nuisance or pollution from poorly managed composting, biochar or bio-input production, and excessive biomass extraction if sources are not sustainably managed.

This analysis is presented in Table 6 below. Consequently, the project's ESP risk categorization is B.

At the Concept Note stage, Sub-Projects are partially unidentified: all project activities have been identified, as described in Section A, but their specific locations are yet to be determined. The project will actually be implemented in 21 municipalities that have already been selected (see Part I, Section E – Project Intervention Area), but the sites for developing 1,276 hectares of climate-sensitive hydro-agricultural infrastructure have not yet been identified. A Project Formulation Grant is requested in order to finalise site selection and to conduct environmental analyses and elaborate a gender strategy.

These risks will be managed through the Project environmental and social management framework, site-specific ESIAs or simplified environmental and social assessments where required, and site-specific ESMPs for higher-risk infrastructure such as hydro-agricultural schemes. Activities specific ESIA and associated ESMP must be validated by the Guinean Environmental Assessment Agency, and that environmental licensing will be conditional on the implementation of mitigation and compensation measures.

In line with the Adaptation Fund Environmental and Social Policy, all activities will be screened, categorized according to risk, and managed through the mitigation hierarchy: avoid, minimize, mitigate and monitor. The project will give particular attention to compliance with the law, access and equity, marginalized and vulnerable groups, gender equality and women's empowerment, labour rights, involuntary resettlement avoidance, protection of natural habitats, biodiversity conservation, pollution prevention, public health, cultural heritage, and land and soil conservation. In particular, a biodiversity action plan will be developed to provide guidance to the project management unit and implementing partners.

Key mitigation measures include climate- and environment-sensitive site selection, exclusion of protected and critical habitats, participatory land tenure clarification before infrastructure development, transparent beneficiary targeting, gender-responsive consultations, grievance redress mechanisms, sustainable water-use planning, erosion control, integrated pest management, promotion of bio-inputs, occupational health and safety clauses in contracts, and continuous monitoring of environmental and social performance. Physical displacement will be avoided, and any potential economic displacement or restriction of access will be assessed and mitigated before works begin.

Table 6: Adaptation Fund Environmental and Social Checklist

Checklist of Environmental and Social Principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>ESP 1. Compliance with the Law</i>	Updated at FULL Proposal stage	Low risk The project includes irrigation schemes, pastoral infrastructure, agro-processing units and restoration works that require compliance with Guinean environmental and social legislation and Adaptation Fund ESP requirements. Risks will be reduced through systematic environmental and social screening, preparation of ESIAs/ESMPs where required, integration of E&S clauses into contracts, supervision by AGEE and technical services, and implementation of mitigation and monitoring measures through the ESMF.
<i>ESP 2. Access and Equity</i>	Updated at FULL Proposal stage	Low risk Risks of unequal access to project benefits may affect women, youth, remote communities, smallholders or pastoralists. These risks are reduced through the project's inclusive targeting strategy, transparent beneficiary selection criteria, participatory land-use planning, equitable water management mechanisms, dedicated support to vulnerable groups, gender-sensitive outreach, accessible grievance mechanisms, and monitoring indicators disaggregated by sex, age and vulnerability status.
<i>ESP 3. Marginalized and Vulnerable Groups</i>	Updated at FULL Proposal stage	Moderate risk Vulnerable groups may face barriers to accessing land, irrigation schemes, finance, training or governance structures. Risks are mitigated through targeted support measures for women, youth and vulnerable households, inclusive consultations, literacy-sensitive communication approaches, quotas and priority mechanisms for vulnerable beneficiaries, participatory natural resource governance, and conflict prevention mechanisms between farmers and pastoralists.
<i>ESP 4. Human Rights</i>	Updated at FULL Proposal stage	Low risk Risks could arise if access to land, water or natural resources is unintentionally restricted or if vulnerable groups are excluded from decision-making. The project minimizes these risks through participatory planning processes, free and informed consultations, transparent access rules for infrastructure and resources, protection of customary land-use rights, non-discrimination measures, and accessible grievance redress systems.
<i>ESP 5. Gender Equality and Women's Empowerment</i>	Updated at FULL Proposal stage	Moderate risk Women may face unequal access to land, irrigation, finance, training and leadership positions, and agricultural intensification could increase workloads. Risks are reduced through gender-sensitive targeting, support to women-led enterprises, GALS approaches (under IFAD supported activities), quotas for women's participation in producer organizations and governance structures, dedicated literacy and capacity-building activities, sex-disaggregated monitoring indicators, and integration of gender-based violence prevention and grievance mechanisms into project implementation.
<i>ESP 6. Core Labour Rights</i>	Updated at FULL	Moderate risk Infrastructure works and agricultural value-chain activities may create occupational health and labour risks. These risks will be mitigated

Annex 5 to OPG Amended in October 2017

	Proposal stage	through inclusion of labour standards and occupational health and safety requirements in all contracts, prohibition of child and forced labour, use of personal protective equipment, worker training, fair employment practices, workers' grievance mechanisms, and monitoring of contractors and service providers in line with national labour legislation and IFAD SECAP requirements.
<i>ESP 7. Indigenous Peoples</i>	X	No risk The project is not expected to affect Indigenous Peoples as defined under the Adaptation Fund ESP and international safeguard frameworks. In Guinea, there are no ethnic groups officially recognized as Indigenous Peoples with distinct collective attachment to ancestral territories, separate governance systems, or legal status requiring application of a specific Indigenous Peoples framework. The project areas in Upper Guinea and Forest Guinea are characterized by mixed rural populations and family farming systems involving different ethnic groups coexisting within the same socio-economic and institutional environment. Project interventions target mixed rural populations through inclusive and participatory approaches without discrimination or exclusion. No specific additional assessment is considered necessary.
<i>ESP 8. Involuntary Resettlement</i>	X	Moderate risk Large-scale displacement is not expected, but temporary land access restrictions or localized economic impacts may occur during irrigation or infrastructure works. Risks are minimized through site-specific screening, prioritization of already cultivated or voluntarily mobilized land, negotiated agreements, land tenure clarification before works, compensation or livelihood restoration measures where needed, and grievance mechanisms accessible to affected populations.
<i>ESP 9. Protection of Natural Habitats</i>	Updated at FULL Proposal stage	Moderate risk Irrigation development, infrastructure works and agricultural expansion may create localized pressure on wetlands, forests or sensitive ecosystems. Risks are significantly reduced through exclusion of protected areas and critical habitats, biodiversity-sensitive site selection, watershed restoration activities, reforestation with native or non-invasive species, sustainable sourcing of construction materials, and implementation of ESIs/ESMPs where required.
<i>ESP 10. Conservation of Biological Diversity</i>	Updated at FULL Proposal stage	Moderate risk Activities near sensitive ecosystems in Forest Guinea could generate localized biodiversity risks. However, the project integrates strong ecosystem-based adaptation measures including agroforestry, restoration of degraded lands, integrated pest management, avoidance of protected areas and Ramsar sites, promotion of sustainable production systems, biodiversity-sensitive planning, and environmental monitoring in coordination with environmental authorities.
<i>ESP 11. Climate Change</i>	Updated at FULL Proposal stage	Low risk Although some infrastructure and mechanization activities may generate limited emissions, the project is fundamentally designed as a climate adaptation intervention. Risks of maladaptation are reduced through climate-risk screening, climate-resilient infrastructure design, promotion of solar pumping and efficient irrigation systems, agroecological practices, bio-inputs, watershed restoration and avoidance of deforestation or unsustainable land-use change.
<i>ESP 12. Pollution Prevention and Resource Efficiency</i>	Updated at FULL Proposal stage	Moderate risk Risks may arise from agrochemical use, irrigation development, agro-processing waste and extraction of construction materials. These risks are mitigated through promotion of agroecological practices and bio-inputs, integrated pest management, training on safe agrochemical handling, prohibition of banned pesticides, efficient water-use technologies, waste management systems, erosion control measures, and monitoring of soil and water quality.
<i>ESP 13. Public Health</i>	Updated at FULL Proposal stage	Low risk Potential risks include agrochemical exposure, waterborne diseases around irrigation schemes, construction accidents, food contamination and gender-based violence risks linked to labour mobility. Mitigation

Annex 5 to OPG Amended in October 2017

		measures integrated into project design include occupational and community health and safety plans, safe pesticide handling protocols, drainage and sanitation measures, personal protective equipment provision, food safety measures, worker codes of conduct, gender-based violence prevention and grievance mechanisms, and awareness campaigns in collaboration with local health services.
<i>ESP 14. Physical and Cultural Heritage</i>	Updated at FULL Proposal stage	Low risk Although no direct impacts on known cultural heritage sites are expected, accidental disturbance of sacred sites or archaeological remains could occur during works. Risks are minimized through environmental and social screening, consultations with customary authorities, avoidance of culturally sensitive areas, inclusion of chance-find procedures in contracts, and awareness training for contractors and workers.
<i>ESP 15. Lands and Soil Conservation</i>	Updated at FULL Proposal stage	Moderate risk The project operates in areas already affected by erosion, declining fertility and land degradation. Risks linked to irrigation works, mechanization and agricultural expansion are mitigated through watershed-based planning, agroecological and climate-smart agriculture practices, agroforestry, contour planting, vegetative erosion control, integrated soil fertility management, proper irrigation drainage systems, restoration of degraded lands and continuous monitoring of soil degradation indicators.

PART III: IMPLEMENTATION ARRANGEMENTS**A. Demonstrate how the project aligns with the Results Framework of the Adaptation Fund***Table 7 : Alignment with Adaptation Fund Result Framework*

Project Outcomes	Project Outcome indicators	Adaptation Fund Outcome	Fund Outcome Indicator	AF Grant Amount (USD)
Component 1. Restoration of climate-resilient productive ecosystems				
Outcome 1. Climate resilience of productive landscapes and agropastoral systems strengthened through improved watershed management, ecosystem restoration, water control, and climate-sensitive natural resource governance	Number of hectares of productive landscapes under climate-resilient and sustainable land and water management practices Percentage of targeted communities reporting improved resilience of agropastoral production systems to climate-related shocks	Outcome 4.: Increased adaptive capacity with relevant development sector services and infrastructure assets	Indicator 4: Physical assets improved or constructed to withstand climate variability and change	16 620 000
Component 2. Climate-resilient agropastoral services and value chains				
Outcome 2. Climate vulnerability of family farming systems reduced through climate-resilient agricultural services and climate-adapted input systems.	Number of vulnerable producers adopting climate-resilient technologies, services or inputs Percentage increase in agricultural production and/or income among targeted beneficiaries benefiting from climate-resilient services and value-chain support	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	Indicator 2: Institutions with strengthened capacity to understand and better address climate risks and resilience	1 480 000
Project Outputs	Project Output Indicators	Fund Output	Fund Output Indicator	Grant Amount (USD)
Component 1. Restoration of climate-resilient productive ecosystems				
Output 1.1. Sustainable management of climate-resilient productive sub-watersheds	Number of hectares of watersheds, lowlands and pastoral landscapes restored or managed under climate-resilient and sustainable natural resource management practices	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management	11 736 800
Output 1.2. Climate-resilient production practices and adaptation finance	Number of producers adopting climate-resilient agricultural and livestock practices and benefiting from	Output 6.1: Targeted individual and community livelihood strategies strengthened in relation to climate	Indicator 6.1.1: People receiving targeted support for new and/or improved livelihoods to manage climate risk	3 663 600

	adaptation finance support	change impacts, including variability		
Output 1.3: Resilience through social solidarity	Number of women, youth and vulnerable households benefiting from improved resilience through social solidarity	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	Indicator 3.1.1: People participating in activities to improve awareness of climate risks and how to address them	1 219 600
Component 2. Climate-resilient agropastoral services and value chains				
Output 2.1. Strengthening climate-resilient services for priority value chains	Number of producers accessing climate-resilient mechanization services	Output 4.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	Indicator 4.1.1: Development sector services strengthened to respond to climate variability and change	412 500
Output 2.2. Production of climate-adapted inputs	Quantity of climate-adapted seeds and bio-inputs produced and made available to vulnerable producers	Output 6.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	Indicator 6.1.1: People receiving targeted support for new and/or improved livelihoods to manage climate risk	1 067 500

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

A. Record of endorsement on behalf of the government

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:

Madame Fatoumata Sangare Climate Change Adaptation Focal Point, Directorate General for Climate and Resilience	Date: 23 July 2026
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REPUBLIQUE DE GUINEE
Travail - Justice - Solidarité

**MINISTRE DE L'ENVIRONNEMENT
ET DU DEVELOPPEMENT DURABLE**



**DIRECTION GENERALE
DU CLIMAT ET DE LA RESILIENCE**

FONDS D'ADAPTATION

N° 0001 / MEDD/DGCR/AD-FA/2026

Conakry, le 23/07/2026

Letter of Endorsement by Government

DESIGNATED AUTHORITY

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

Subject: Endorsement for the Project Strengthening climate Resilience in Agriculture and productive landscapes in Guinea.

In my capacity as Primary Contact Point of the Designated Authority for the Adaptation Fund in Republic of Guinea, I confirm that the above national project 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 country.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the International Fund for Agricultural Development (IFAD) and executed by the Ministry of Agriculture.

Sincerely,



Madame Fatoumata SANGARE
Primary Contact Point of the Designated
Authority of the Adaptation Fund

B. Implementing Entity certification

Provide the name and signature of the Implementing Entity Coordinator and the date of signature.

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.

Provide also the project/programme contact person's name, telephone number and email address

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 certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project in compliance with the Environmental and Social 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.	
Mr. Pierre Yves, Lead Climate and Environment Funds, ECG Division  Implementing Entity coordinator:	
Date: 13 August 2026	e-mail: p.guedez@ifad.org
Mr Juan Carlos Mendoza Casadiegos Director, Environment, Climate, Gender and Social Inclusion Division	e-mail: juancarlos.mendoza@ifad.org
Project contact persons:	
Ms Paxina Chileshe Regional Climate and Environment Specialist	e-mail: p.chileshe@ifad.org
Ms Ann Turinayo IFAD Guinea Country Director	e-mail: a.turinayo@ifad.org



REPUBLIQUE DE GUINEE
Travail-Justice- Solidarité



ADAPTATION FUND

MINISTRE DE L'ENVIRONNEMENT
ET DU DEVELOPPEMENT DURABLE

DIRECTION GENERALE
DU CLIMAT ET DE LA RESILIENCE

FONDS D'ADAPTATION

Conakry, le 23/07/2026

N° 0001 /MEDD/DGCR/AD-FA/2026

Letter of Endorsement by Government

DESIGNATED AUTHORITY

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

Subject: Endorsement for the Project Strengthening climate Resilience in Agriculture and productive landscapes in Guinea.

In my capacity as Primary Contact Point of the Designated Authority for the Adaptation Fund in Republic of Guinea, I confirm that the above national project 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 country.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the International Fund for Agricultural Development (IFAD) and executed by the Ministry of Agriculture.

Sincerely,

Madame Fatoumata SANGARE
Primary Contact Point of the Designated
Authority of the Adaptation Fund

Revised PFG Submission Form
Project Formulation Grant (PFG)

Submission Date: August 2026

Adaptation Fund Project ID: [[TO CONFIRM]]

Country/ies: Guinea

Title of Project/Programme: Strengthening Climate Resilience in Agriculture and Productive Landscapes in Guinea (SRAG)

Type of IE (NIE/RIE/MIE): Multilateral Implementing Entity (MIE)

Implementing Entity: International Fund for Agricultural Development (IFAD)

Executing Entity/ies: **IFAD for the PFG;** Ministry of Agriculture for the project, in coordination with the Ministry of Environment and Sustainable Development (MEDD) and other competent institutions.

A. Project Preparation Timeframe

Start date of PFG	Upon approval of the concept note
Completion date of PFG	Ten months after approval of the concept note

B. Proposed Project Preparation Activities (\$)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US\$ Amount	Budget note
1. Integrated climate/territorial assessment, participatory community/site selection and technical-economic feasibility	Climate and territorial vulnerability diagnostic; GIS/ICT4D-supported mapping and selection criteria including; land/resource-access and farmer-herder analysis; biodiversity/protected-area etc. georeferenced pipeline of priority communities, sites and investments and a confirmed first implementation tranche; representative technical/hydrological feasibility, preliminary costs and operation/maintenance requirements; AF-specific economic/financial, cost-effectiveness, alternatives and adaptation-additionality analysis.	50,000	Specialist analytical and feasibility services: USD 35,000 Spatial/technical data, joint field verification and logistics: USD 15,000
2. Gender, stakeholder engagement and environmental & social safeguards package	Comprehensive and gender-responsive stakeholder consultations; Gender Assessment and Gender Action Plan; updated screening against the 15 AF principles and IFAD SECAP; environmental and social assessment and proportionate management instruments required by the final project configuration; labour/community-safety, pollution/IPM and grievance provisions.	35,000	Gender/social inclusion/E&S/biodiversity specialist services and instruments: USD 25,000 Targeted community consultations and fieldwork: USD 10,000

List of Proposed Project Preparation Activities	Output of the PFG Activities	US\$ Amount	Budget note
3. Institutional arrangements, AF results/M&E-MRV, capacity and practical ICT4D	AF results-framework alignment, baselines and indicators; budgeted monitoring, evaluation and adaptation/environmental MRV framework; Clarified roles and capacity needs of Agriculture, MEDD, Livestock and decentralized services; AF-specific implementation/risk arrangements; practical GIS/ICT4D options for targeting, participation, data collection and MRV, with ownership and recurrent-cost implications defined.	22,250	Institutional, results/MRV and ICT4D specialist inputs: USD 17,250 Government/technical working sessions and data/system design: USD 5,000
4. Full AF proposal preparation, financing harmonization, coordination, validation and quality assurance	Complete AF full proposal integrating the technical and safeguards outputs; harmonized theory of change, targets and results; clear AF-IFAD financing attribution and full-cost/adaptation-additionality rationale; national standards, complementarity, knowledge-management and sustainability sections; detailed AF budget and disbursement schedule; coordinated validation, editing and quality assurance.	30,000	Proposal integration/formulation and quality assurance: USD 23,000 National validation, editing/translation and submission support: USD 7,000
PFG preparation activities subtotal	-	137,250	-
IE Fee (8.5% of total)	-	12,750	-
Total Project Formulation Grant	-	150,000	-

Please describe below each of the PFG activities and provide justifications for their need and for the amount of funding required:

The PFG will finance the incremental preparation work required to build on the existing AgriFARM2 design package and develop an implementation-ready Adaptation Fund full proposal of SRAG. To provide a clear audit trail while retaining practical implementation flexibility, the budget is organized around four substantive preparation outputs rather than individual consultant contracts. Indicative expertise will be combined within each output as required. The work will build on existing IFAD design products and focus on AF-specific gaps, including spatial/site definition, technical and economic feasibility of the AF package, gender and safeguards requirements, institutional/MRV arrangements, financing attribution and full-proposal integration. GIS and ICT4D options will be considered where they add practical value for targeting, participation, monitoring or MRV and have a clear institutional owner and sustainable cost.

1. Integrated climate/territorial assessment, participatory community/site selection and technical-economic feasibility

Climate change adaptation/NRM, GIS and technical specialists will combine existing data, spatial analysis and targeted field verification to prioritize communities, sub-watersheds, lowlands, restoration areas and pastoral investments. The work will assess climate and ecosystem vulnerability, hydrology, biodiversity sensitivity, land and water uses, conflict risks, market access and implementation readiness; identify priority,

conditional/deferred and no-go sites; and confirm a first implementation tranche. Representative investments will then be subject to proportionate technical and hydrological pre-feasibility. A dedicated agricultural economist will use these technical parameters and the existing AgriFARM2 EFA to prepare the AF-specific economic/financial update, cost-effectiveness and alternatives analysis, operation and maintenance affordability, and adaptation-additionality/avoided-loss assessment where quantifiable.

2. Gender, stakeholder engagement and environmental & social safeguards package

A coordinated social/gender and environmental safeguards process will undertake the full-proposal consultations and prepare the AF-required gender and environmental/social package. The work will cover women, youth, marginalized and vulnerable groups, land and resource access, farmer-herder conflict, labour and community safety, biodiversity and protected-area interfaces, water/soil and pollution/IPM risks, and grievance arrangements. It will produce the Gender Assessment and Gender Action Plan, update screening against the 15 AF principles and IFAD SECAP, and prepare the environmental and social assessment and proportionate management instruments required by the final project configuration. Targeted consultations and fieldwork will be coordinated with the territorial/site-selection process to avoid duplication.

3. Institutional arrangements, AF results/M&E-MRV, capacity and practical ICT4D

Building on the existing AgriFARM2 governance and monitoring arrangements, the PFG will define the AF-specific results, monitoring and institutional package. This will include AF Results Framework alignment, baselines and indicators, a budgeted adaptation/environmental MRV approach, and clarified roles and capacity needs for Agriculture, MEDD, Livestock and decentralized services in site selection, safeguards, monitoring and reporting. Practical GIS/ICT4D options for community engagement, field data collection, spatial monitoring and MRV will be assessed and retained only where technically useful, affordable and institutionally owned. Existing IFAD implementation and risk arrangements will be adapted rather than recreated.

4. Full AF proposal preparation, financing harmonization, coordination, validation and quality assurance

A senior project/climate-finance formulation lead will integrate the thematic outputs into one coherent full proposal. This activity will harmonize the SRAG theory of change, targets and financing with AgriFARM2; clearly attribute AF and IFAD-financed activities and demonstrate the full-cost/adaptation-additionality case; complete the national standards, complementarity, knowledge-management and sustainability sections; and prepare the detailed AF budget and disbursement schedule. It will also coordinate national technical validation, editing/translation as required, quality assurance and the final submission package.

C. Implementing Entity

IFAD will be the Implementing Entity with fiduciary and technical oversight and will execute the PFG. The Ministry of Agriculture will be the Executing Entity of the project, in coordination with MEDD, the Ministry responsible for Livestock and other competent institutions as defined during full proposal preparation.

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	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Mr Pierre Yves Guedez, Lead, Multilateral Climate and Environmental Funds, ECG Division, IFAD		13/08/26	Mrs Paxina Chileshe, Regional Climate and Environment Specialist, IFAD	Mrs Chileshe +225 0797568605 (M Guedez) +393346459426	E-mail: p.chileshe@ifad.org E-mail: p.guedez@ifad.org

References:

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Dwomoh, F. & Wimberly, M., Fire Regimes and Their Drivers in the Upper Guinean Region of West Africa, 2017

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Murphy, D.J., Goggin, K., Paterson, R.R.M., Oil Palm in the 2020s and Beyond: Challenges and Solutions, 2020

Paterson, R.R.M. et al., World Climate Suitability Projections for Oil Palm to 2050 and 2100, 2017

Paterson, R.R.M., Longitudinal Trends of Future Climate Change and Oil Palm Growth in Tropical Africa, 2021

Paterson, R.R.M. & Meon, S., How Will Climate Change Affect Oil Palm Fungal Diseases?, 2013

Sarkar, S., Impact of Climate Change on Oil Palm Production, 2020

The preparation of the proposed project was based on an extensive and participatory consultation process carried out between February and April 2026 by the Government of Guinea, IFAD, the FAO Investment Centre and national stakeholders. The consultative process aimed to ensure that project design responds effectively to local climate vulnerabilities, socio-economic constraints, environmental risks, and the priorities of beneficiary communities, while complying with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

The consultation process combined national-level institutional consultations, regional and local stakeholder workshops, field visits, focus group discussions, and targeted consultations with vulnerable groups, including women, youth, smallholder farmers, agro-pastoralists and local producer organizations. The process also integrated SECAP (Social, Environmental and Climate Assessment Procedures) consultations and environmental and social screening exercises undertaken specifically for the Adaptation Fund proposal.

SRAG formulation missions were conducted from 26th of February to 7th of March and from 23rd of March to 10th of April 2026 and included consultations in Conakry, Mamou, Faranah and N'Zérékoré regions. An official project design launch workshop was organized on 24th of March of 2026 in Conakry under the leadership of the Ministry of Agriculture and the Ministry of Livestock, with participation from government institutions, technical services, producer organizations, civil society organizations and development partners.

Stakeholders consulted during project preparation included:

- Ministry of Agriculture;
- Ministry of Livestock;
- Ministry of Environment and Sustainable Development;
- National Directorate for Pollution, Nuisance and Climate Change (DNPNC);
- National agricultural research and extension institutions, including IRAG, ANPROCA-FE and SENASOL;
- Regional and prefectural technical services for agriculture, livestock and environment;
- Producer organizations and umbrella organizations, including CNOP-G and regional producer federations;
- Livestock federations and agro-pastoral stakeholders;
- Women's groups and women-led agricultural organizations;
- Youth groups and young rural entrepreneurs;
- Local communities and beneficiaries in project intervention areas;
- Civil society organizations and NGOs, including CODAPA, REGUIZOH, GUIDRE and Salinka;
- Development partners and technical agencies, including FAO, UNDP, WFP, World Bank, AFD and the European Union.

Field consultations were undertaken in the targeted intervention zones of Faranah and Forest Guinea, including Beyla, Faranah, Guéckédou, Kissidougou, Lola, Macenta, Nzérékoré and Yomou prefectures. Community consultations included site visits to agricultural lowlands, irrigation schemes, pastoral areas, and market gardening sites, as well as meetings with local authorities, water user associations, producer organizations, environmental NGOs and local conflict management structures.

Particular attention was paid to vulnerable groups and gender considerations throughout the consultation process. Women farmers, women processors, rural youth and vulnerable households were specifically consulted to identify barriers related to access to land, irrigation infrastructure, extension services, climate information, finance and market opportunities. Consultations highlighted the disproportionate vulnerability of women and youth to climate change impacts, food insecurity and declining agricultural productivity, as well as the need to strengthen their participation in decision-making and access to productive resources.

Consultations with agro-pastoral stakeholders and livestock institutions identified increasing conflicts between farmers and herders linked to climate change, degradation of pastoral resources, water scarcity and reduction of grazing areas. Stakeholders emphasized the importance of participatory land-use planning, local mediation mechanisms, pastoral infrastructure, and inclusive local governance structures involving farmers, herders, women and traditional authorities.

Environmental stakeholders, including the Ministry of Environment and Sustainable Development, UNDP and environmental NGOs, highlighted the importance of integrating biodiversity conservation, watershed restoration, agroforestry, sustainable land management and climate-smart agriculture into project design. Consultations also identified key environmental risks requiring mitigation measures, including deforestation, soil degradation, overuse of agrochemicals, pressure on water resources, and land-use conflicts.

The consultative process also informed the design of the project's environmental and social risk management measures and targeting strategy. Stakeholders stressed the importance of:

- ensuring equitable access to project benefits for women, youth and vulnerable households;
- strengthening local conflict prevention and grievance management mechanisms;
- clarifying land tenure arrangements before infrastructure investments;
- promoting participatory management of water and natural resources;
- reinforcing local institutional capacities on climate-smart agriculture and environmental management;
- integrating local knowledge and community priorities into adaptation planning.

SRAG design therefore incorporates several measures to ensure compliance with the Adaptation Fund Environmental and Social Policy and Gender Policy, including participatory planning approaches, inclusive governance mechanisms, gender-sensitive targeting, stakeholder engagement processes, grievance redress mechanisms, environmental and social screening procedures, and continued consultations during implementation. Women and youth will be specifically targeted through dedicated participation quotas (respectively 50% and 30% of the beneficiaries), capacity-building activities, access to climate-resilient livelihood opportunities and representation in local management structures.

Consultations will continue throughout project implementation through participatory monitoring systems, community feedback mechanisms, local consultation platforms and regular stakeholder engagement activities to ensure that project activities remain socially inclusive, environmentally sustainable and responsive to the needs of vulnerable communities.

Gender and youth inequalities represent critical structural barriers to inclusive development. Women play a central role in agricultural production, processing, and household food security, yet they face systematic constraints in accessing land, credit, inputs, training, and decision-making spaces (USAID, 2018). Similarly, rural youth encounter high levels of unemployment and underemployment, limited access to productive resources, and weak integration into agricultural value chains, which often drives migration toward urban centers or mining areas (INS, 2019).

Women in Guinea are disproportionately affected by climate change because of their central role in rainfed agriculture, water collection, household food security, and natural resource management, while having limited access to productive assets, finance, climate information, and extension services. Increasing temperatures, erratic rainfall, prolonged dry spells, and more frequent floods reduce agricultural productivity and water availability, increasing women's unpaid care and domestic workloads. As water sources become scarcer and fuelwood resources decline, women and girls must travel longer distances to collect essential resources, reducing the time available for education, income-generating activities, and participation in community decision-making, while also exposing them to greater health and protection risks.

Structural gender inequalities further constrain women's adaptive capacity. Women have limited ownership and control over land and productive resources, lower access to agricultural inputs, credit, climate-resilient technologies, and market opportunities, and remain underrepresented in local governance and natural resource management institutions. High rates of poverty, early marriage, and lower educational attainment further reduce their ability to diversify livelihoods, adopt climate-smart practices, and influence adaptation planning. Although Guinea has strengthened gender mainstreaming in national policies, significant gaps remain in translating these commitments into gender-responsive adaptation investments and ensuring that women meaningfully participate in the design, implementation, and monitoring of climate resilience initiatives.