

Funding Proposal

FP304: Enhancing Sustainable Land Management and Climate-Resilient Agri-food Systems in Côte d'Ivoire (LARACI)

Côte d'Ivoire | the CGIAR System Organization (CGIAR) | Decision B.45/08

23 July 2026



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Note to Accredited Entities on the use of the funding proposal template

- Accredited Entities should provide summary information in the proposal with cross-reference to annexes such as feasibility studies, gender action plan, term sheet, etc.
- Accredited Entities should ensure that annexes provided are consistent with the details provided in the funding proposal. Updates to the funding proposal and/or annexes must be reflected in all relevant documents.
- The total number of pages for the funding proposal (excluding annexes) **should not exceed 60**. Proposals exceeding the prescribed length will not be assessed within the usual service standard time.
- The recommended font is Arial, size 11.
- Under the [GCF Information Disclosure Policy](#), project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Accredited Entities are asked to fill out information on disclosure in section G.4.

Please submit the completed proposal to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“FP-[Accredited Entity Short Name]-[Country/Region]-[YYYY/MM/DD]”

List of acronyms

AF	Adaptation Fund
API	Application Programming Interface
BAU	Business as usual
CCAFS	CGIAR Research Program on Climate Change, Agriculture and Food Security
CH ₄	Methane
CIAT	International Center for Tropical Agriculture
CIF	Climate Investment Funds
CIS	Climate information services
CNRA	<i>Centre National de Recherche Agronomique</i>
CSA	Climate-smart agriculture
CSAIP	Climate-smart Agriculture Investment Plan
DST	Decision support tools
EE	Executing Entity
EIRR	Economic Internal Rate of Return
ESAP	Environmental and Social Action Plan
ESS	Environmental and social safeguards
FAA	Funded Activity Agreement
FAO	Food and Agriculture Organization of the United Nations
FIRCA	<i>Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles</i>
FIRR	Financial Internal Rate of Return
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GESI	Gender equality and social inclusion
GHG	Greenhouse gas
GIS	Geographic information system
ICT	Information and communications technology
IDP	Information Disclosure Policy
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
IPCC	Intergovernmental Panel on Climate Change
IRMF	Integrated Results Management Framework
ISFM	Integrated Soil Fertility Management
IWMI	International Water Management Institute
LARACI	Enhancing Sustainable Land Management and Climate-Resilient Agri-food Systems in Côte d'Ivoire
MEFB	Ministère de l'Economie des Finances et du Budget
MEL	Monitoring, evaluation and learning
MFI	Microfinance institution
MINADER PV	Ministère de l'Agriculture du Développement Rural et des Productions Vivrières



MINETE	Ministry of Environment and Ecological Transition
MRV	Measurement, Reporting and Verification
NDA	National Designated Authority
NDC	Nationally Determined Contributions
NDP	National Development Plan
NGO	Non-governmental organization
PICSA	Participatory Integrated Climate Services for Agriculture
PNIA II	National Agricultural Investment Program II
PSC	Project steering committee
RCP	Representative Concentration Pathway
SDG	Sustainable Development Goal
SEIS	Soil and environmental information services
SME	Small and medium enterprise
SMS	Short message service
SODEXAM	Société d'Exploitation et de Développement Aéroportuaire, Aéronautique et Météorologique
TA	Technical assistance
ToC	Theory of change
WRS	Warehouse receipt system

A. PROJECT/PROGRAMME SUMMARY				
A.1. Project or programme	Project	A.2. Public or private sector	Public	
A.3. Request for Proposals (RFP)	Not applicable			
A.4. Result area(s)			GCF contribution	Co-financers' contribution ¹
	Mitigation total		Enter number %	Enter number %
	☐ Energy generation and access		Enter number %	Enter number %
	☐ Low-emission transport		Enter number %	Enter number %
	☐ Buildings, cities, industries and appliances		Enter number %	Enter number %
	☒ Forestry and land use		35 %	36 %
	Adaptation total		Enter number %	Enter number %
	☒ Most vulnerable people and communities		21 %	19 %
	☒ Health and well-being, and food and water security		29 %	28 %
	☐ Infrastructure and built environment		Enter number %	Enter number %
	☒ Ecosystems and ecosystem services		15 %	17 %
	A.5. Expected mitigation outcome <i>(Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)</i>	606,212 tCO ₂ eq (end of project)	A.6. Expected adaptation outcome <i>(Core indicator 2: direct and indirect beneficiaries reached)</i>	147,000 direct beneficiaries
3,808,776 tCO ₂ eq (over project lifespan)		5% of population in the target regions for direct beneficiaries		14% of population in the target regions for indirect beneficiaries
A.7. Total financing (GCF + co-finance ²)	50,000,000 USD	A.9. Project size	Small (Upto USD 50 million)	
A.8. Total GCF funding requested	40,000,000 USD			

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

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

A.10. Financial instrument(s) requested for the GCF funding	☒ Grant <u>40,000,000 USD</u> ☐ Loan <u>Enter number</u> ☐ Guarantee <u>Enter number</u> ☐ Equity <u>Enter number</u> ☐ Results-based payment <u>Enter number</u>		
A.11. Implementation period	5 years	A.12. Total lifespan	20 years
A.13. Expected date of AE internal approval	8/29/2025	A.14. ESS category	C
A.15. Has this FP been submitted as a CN before?	Yes ☒ No ☐	A.16. Has Readiness or PPF support been used to prepare this FP?	Yes ☐ No ☒
A.17. Is this FP included in the entity work programme?	Yes ☐ No ☒	A.18. Is this FP included in the country programme?	Yes ☒ No ☐
A.19. Complementarity and coherence	Yes ☒ No ☐		
A.20. Executing Entity information	Africa Rice Center (AfricaRice) – an international organization with its headquarters in M'Bé, Côte d'Ivoire. Its membership comprises 28 countries. AfricaRice is one of 15 international agricultural research centers of CGIAR, a global research for development partnership for a food-secure future. Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles (FIRCA) – an Ivorian public-interest organization registered and established in Côte d'Ivoire. FIRCA is also a GCF accredited entity.		
A.21. Executive summary (max. 750 words, approximately 1.5 pages)			
1. Côte d'Ivoire is extremely vulnerable to climate change, and its impact is being felt across multiple economic sectors. The country is ranked at 139 out of 187 countries on the ND-GAIN Vulnerability Index³ in terms of its exposure, sensitivity, and ability to adapt to the negative impact of climate change. Current projections indicate a future worsening of the situation with warmer temperatures, greater rainfall variability, and more extreme weather events. Rainfall patterns are more intense leading to more frequent seasonal floods and droughts, as well as late onset and early end of rains. Temperatures are also rising, winds are stronger including reports of local tornadoes and more intense thunderstorms, and landslides are becoming more frequent. 2. Agriculture plays a key role in Côte d'Ivoire's economy, accounting for nearly 20% of GDP, about 80% of total export earnings, and 48% of employment⁴. Yet the agricultural sector remains characterized by low levels of productivity and weak value chains. Agriculture stands to be the sector most directly affected by climate			

³ Notre Dame Global Adaptation Initiative, University of Notre Dame (2023). ND-GAIN Country Index. [Online]. Available: <https://gain.nd.edu/our-work/country-index/>.

⁴ FAO, 2020. *Digital Agriculture Profile, Côte D'Ivoire*. Rome, 16p.

change, with overall crop production at risk of reducing by up to 16% by 2050.⁵ Climate inaction will have dire effects on food and nutrition security, with the pace of poverty reduction slowing down - preventing millions of people from escaping poverty in the same period.⁶

3. The central regions of the country, referred to as the old “cocoa belt”, have become particularly vulnerable to climate risks. While farmers in Côte d'Ivoire depend on cocoa for 74% of their income, its production has caused major deforestation over the last decades. This has resulted in biodiversity loss, soil depletion, pollution of water resources, and a reduced capacity to absorb carbon emissions. While this environmental degradation is not itself a climate hazard, it has reduced soil moisture retention, tree cover, and ecosystem resilience, thereby increasing exposure and sensitivity to climate shocks. As these devastating environmental effects are becoming evident, farmers and national stakeholders are looking for climate-adaptive strategies that shift away from vulnerable traditional methods toward resilient alternatives that improve livelihoods and protect food security by reducing farmers exposure to climate change in the long term.
4. The goal of this project is to initiate a paradigm shift towards climate-smart agriculture (CSA) for farmers and agribusinesses' improved resilience amid climate change. This transition will result in improved food and nutrition security and income generation for farming communities under future climate change scenarios. The project will also reduce the greenhouse gas (GHG) footprint of the sector. CSA interventions include: (i) production technologies and management practices, such as drought tolerant varieties, soil and water management, and integrated use of fertilizers with focus on agro-ecology; (ii) services such as weather advisories, extension; and (iii) post-harvest practices, such as husking and parboiling techniques and market access. The project aligns with the Government of Côte d'Ivoire's ambition to combine economic emergence with the implementation of its low-carbon strategy.
5. The project comprises three components. Component 1 will put in place (a) an actionable national agrometeorological advisory system, (b) an efficient CSA extension system, and unlock access to (c) CSA finance services and products. This national-level component will provide the information, institutional capacity, and enabling environment which is crucial in supporting Components 2 and 3 on-the-ground, in scaling out context-specific measures to directly address climate risks impacting rural communities in the central regions (N'Zi, Moronou, Iffou, La Mé, and Gbêkê) while shifting to a low emission development pathway. These components comprise tailored interventions that comprehensively address climate risks in the targeted central regions while offsetting the most significant drivers of GHG emissions. Component 2 ensures that producers and extension agents have access to location-specific recommendations on climate-responsive integrated soil fertility management (ISFM) and agroforestry systems that improve soil moisture retention, reduce erosion under intense rainfall, and enhance carbon sequestration. These measures directly reduce sensitivity to projected drought and rainfall variability while contributing to mitigation outcomes. Component 3 promotes scaling of proven and locally adapted CSA technologies and practices for enhanced productivity and incomes, food security, and social inclusion. Together, these components address the climate risks and emission footprints associated with three key value chains (rice, cassava, and yam) that have the potential to be relatively climate-resilient while being high-priority crops for food security.
6. For the implementation of this project, CGIAR System Organization, acting as Accredited Entity (AE) will engage two Executing Entities (EEs): *Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles* (FIRCA) and Africa Rice Center (AfricaRice).
7. The LARACI project's key strengths lie in its strong country ownership, institutional anchoring, innovation, and long-term financial sustainability. The project is fully aligned with Côte d'Ivoire's national climate and agricultural strategies and is embedded within national systems through close collaboration with FIRCA, a GCF Direct Access Entity (DAE). The project is designed to build durable public infrastructure through establishing a national agrometeorological advisory system, strengthening CSA extension services, and unlocking climate-smart finance. Moreover, its design leverages public-private partnerships, and digital climate information services, and promotes innovative financial mechanisms to mobilize private capital and reduce the financial risks for farmers, thereby enhancing financial sustainability. The combination of systemic capacity building, value chain targeting, and catalytic financing ensures strong additionality by addressing structural barriers that have previously limited CSA adoption at scale.

⁵ World Bank, 2023: *Country Climate and Development Report: Côte d'Ivoire*:
<https://openknowledge.worldbank.org/server/api/core/bitstreams/79b4732d-63a6-41ea-bfff-75f656a826f5/content>

⁶ Ibid

B. PROJECT/PROGRAMME INFORMATION

B.1. Climate context (max. 1000 words, approximately 2 pages)

8. Côte d'Ivoire is one of the countries most vulnerable to climate change due to its high economic dependence on agriculture and weak coping capacity. The country's climate change vulnerability index is among the highest in the world, ranked 139 out of 187⁷. Climate change shocks — including rising temperatures, delayed onset and early cessation of rains, increased rainfall variability, droughts, floods, and climate-induced pest and disease dynamics — are expected to increase yield variability and production risk, threatening the viability of rainfed systems in the central regions. This has raised serious concerns about future food and nutrition security.
9. Climate change is already being experienced in Côte d'Ivoire, with warmer temperatures, greater rainfall variability, and more extreme weather events.⁸ Studies by SODEXAM (*La Société d'Exploitation et de Développement Aéroportuaire, Aéronautique et Météorologique*)⁹ show that climate change also causes late onset and early end of rains, heat waves, and drought - particularly in the dry season. Moreover, there have been reports of local tornadoes, more intense thunderstorms, and more frequent landslides. During the period 1960-2010, temperatures increased by 1.6°C.¹⁰ Changing temperature and precipitation patterns have led to increased occurrence of pests and diseases¹¹, and have altered the suitability of crops to areas where they have typically been grown. See Annex 2 for more details.

Climate change projections for Côte d'Ivoire

10. Projections indicate that temperatures will continue to rise by about 1.3°C by 2030, 1.8°C by 2050, and 2.1°C by 2070, compared to 1960 (Figure 1). Temperatures will likely increase more in the north, east, and central regions, than in the south and west. Under the Representative Concentration Pathway (RCP) 4.5 scenario, temperatures could rise by 3°C in most of the country by 2100.¹²
11. For rainfall, projections indicate an average increase of total annual precipitation of 0.3% by 2050 and 1.2% by 2070. The highest increase would be in the north and west (Figure 2).¹³ However, in the central regions - targeted by this project - precipitation could decrease by about 3%. Annual precipitation patterns do not fully reflect the increased variability. Based on RCP 4.5, daily precipitation will likely decrease by about 8% during April to July by 2100¹⁴. Seasonal rainfall patterns continue to change, with rains starting later and ending earlier, making growing seasons shorter than historic norms with more intense rains which can be bad for crops.
12. The central regions of N'Zi, Moronou, Iffou, La Mé, and Gbêkê were prioritized by national stakeholders as the preferred project intervention zone (See Annex 2, section 4.2 and Annex 7). Gbêkê, Iffou, N'Zi, Moronou, and La Mé follow a clear north-to-south climate pattern. In the north, Gbêkê and Iffou are the warmest with average maximum temperatures between 30 °C and 33 °C and lower annual rainfall of 500 to 700 mm. The central areas of N'Zi and Moronou have intermediate temperatures of 29°C to 31 °C and 700 to 900 mm of rain. The southern region of La Mé is the coolest and wettest, with temperatures between 28 °C to 30 °C and over 900 to 1,000 mm of rain. By the middle of the century, all of these areas will get much warmer. Under a high-emissions scenario (SSP5-8.5), temperatures are projected to rise by 2.89 °C in Gbêkê, 2.72 °C in Iffou, 1.86 °C in N'Zi, 2.65 °C in Moronou, and 3.41 °C in La Mé. Rainfall changes will vary significantly across the regions. In the high-emissions scenario, northern and central areas like Iffou and N'Zi could see rainfall increases of 20 to 40 mm. However, southern areas like Moronou and La Mé are expected to see a drop in rainfall, with La Mé potentially losing up to 40 mm. These changes mean that while some areas might have more water, others will face a much higher risk of drought and heat stress for crops and workers (See Annex 2, Section 3.4).

⁷ ND-GAIN Country Index Ranking, 2023: <https://gain.nd.edu/our-work/country-index/rankings/>

⁸ Dje. K.B. 2014. *Document de stratégie du Program national Changement climatique (2010-2020)*; and MINSEDD, 2017. *Troisième Communication Nationale (TNC) à la convention cadre des nations Unies sur les Changements Climatiques*.

⁹ SODEXAM, 2022. *Étude des besoins et stratégie de développement des services climatiques dans le domaine de l'agriculture en Côte d'Ivoire*. LIVRABLE N°4/14 – V7, 233p.

¹⁰ Ramirez-Villegas, Julian, and Philip Thornton. "Climate Change Impacts on African Crop Production." Working Paper. Copenhagen, Denmark: CCAFS, University of Copenhagen, 2015.

¹¹ SODEXAM (n 9)

¹² FAO; ICRISAT; CIAT. 2018. *Climate-Smart Agriculture in Côte d'Ivoire*. CSA Country Profiles for Africa Series. 23p

¹³ FAO, 2018. *Climate-Smart Agriculture in Côte d'Ivoire*, CA1322EN/1/08.18 <http://www.fao.org/3/ca1322en/CA1322EN.pdf>

¹⁴ MINSEDD, 2017 (n 8)

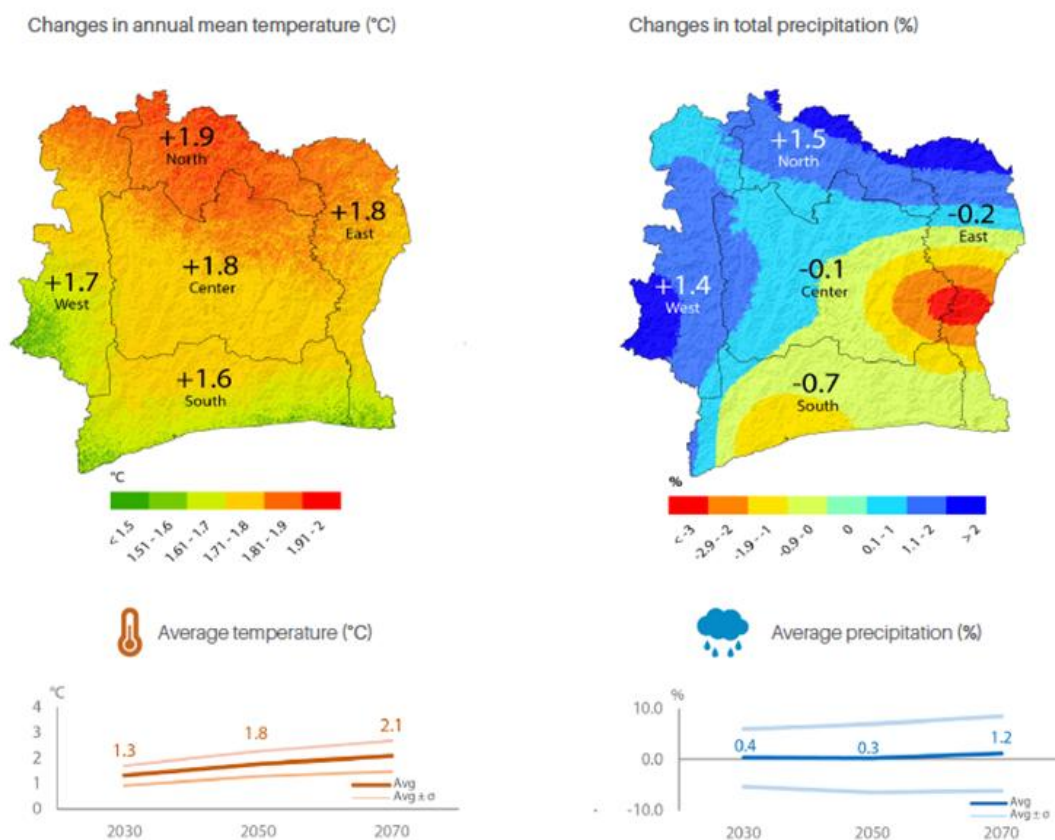


Figure 1: Projected changes in temperature and precipitation in Côte d'Ivoire by 2050.¹⁵

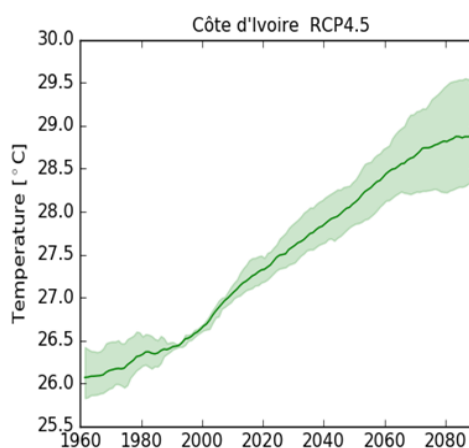


Figure 2: Regional climate model projections for temperature displayed as 20-year running mean. The line represents the ensemble mean while the shaded area represents the model spread. Projections are based on the emission scenario RCP4.5.¹⁶

¹⁵ FAO; ICRISAT; CIAT. 2018. (n 12)

¹⁶ Climate Analytics, 2020. Annual report 2019.

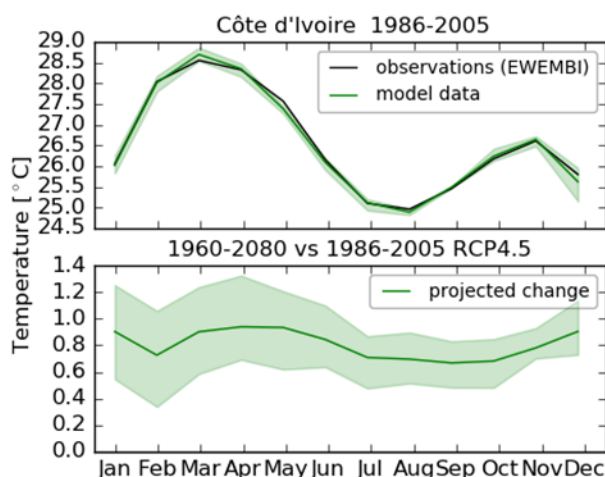


Figure 3: Top: Annual cycle of temperature for the period 1986-2005. Bottom: Changes in annual cycle 1960-2080 compared to the reference period 1986-2005. EWEMBI data is shown in black and regional climate model simulations in green. The green line represents the ensemble mean while the shaded area represents the model spread..¹⁷

Impact of climate change on the agri-food sector

13. Climate change is already increasing production risk and yield instability in Côte d'Ivoire, particularly in rainfed smallholder systems that are highly sensitive to rainfall timing and temperature extremes. The increasing intensity of downpours and flash floods in rainy seasons has led to crop destruction, soil erosion, infrastructure destruction, and loss of lives. The increased risk of water stress is expected to cause more regions to see more than 10% of their population facing water scarcity. Smallholder farmers are particularly vulnerable to drought and changing precipitation patterns. This disproportionately impacts the poor and most vulnerable, including women and youth, who have more limited access to resources, information, and finance. Women farmers in the center-eastern regions are disproportionately concentrated in rainfed production systems, operate on smaller and more marginal plots, face systematic exclusion from formal land tenure, and have significantly lower asset ownership and credit access than men, all of which reduce their capacity to absorb climate shocks and invest in resilience. Only approximately 10% of women own land, and women are disproportionately affected by already constrained access to finance due to limited collateral, low literacy, and distance from service points. Youth face a distinct but overlapping vulnerability profile, characterized by land insecurity and high dependency on agricultural day-labor, making them acutely sensitive to climate-induced disruptions to seasonal employment and income. These differentiated vulnerability profiles directly inform the targeting and design of CSA packages across all three project components (see Annex 8, Section 3.4.4 for region-specific vulnerability mapping).
14. In recent years, the project's targeted regions have experienced climatic disturbances that have had major consequences for agricultural production. For example, Ashap et al¹⁸ reported that climate change in this region between the present (1991-2020) and future (2050 and 2100) will entail a shift from a humid, to a semi-humid or even semi-arid climate, especially in the subtropical climatic zone, to the north of the N'Zi Basin. Such climatic shifts are likely to exacerbate drier conditions and heat stress, directly affecting the predominantly rainfed agricultural systems in these regions, where more than 90% of cropland is rainfed. All three staple crops are particularly vulnerable. Rice is highly sensitive to water stress during flowering and poor rainfall during growing seasons have caused drop in production. Current BAU yields stand at approximately 4.8 tons per hectare but are projected to decline to an average of 3.7 tons per hectare over the 20-year horizon without adaptation interventions. CSA adoption offers a pathway to stabilize and improve yields to approximately 5.53 tons per hectare. Yam productivity is also declining due to temperature variability and water stress, with 20 years average yields of approximately 3.7 tons per hectare representing only 55% of achievable potential under CSA adoption. Yet demand for yam is projected to double over the next 30 years, meaning that without CSA adoption, meeting this demand under BAU conditions would require significant expansion of cultivated areas, further accelerating deforestation and land degradation. Cassava is increasingly affected by climate-induced

¹⁷ Ibid.

¹⁸ Asaph Yahot et al 2023: « Impacts du changement climatique sur les régimes climatiques futurs en Afrique de l'Ouest: Cas du bassin versant du N'zi (Bandama, Côte d'Ivoire) », *Bulletin de l'association de géographes français*, 100-1 | 2023, DOI: <https://doi.org/10.4000/bagf.10813>

pest pressure, particularly whitefly infestations driven by rising temperatures. Financial analysis conducted under the feasibility study demonstrates a limited net present value for cassava farms under BAU within projected climate conditions, partially explaining declining smallholder interest in cultivation despite growing demand (see Annex 2, Section 4.4 and Annex 3). Post-harvest losses across all three value chains currently range from 30 to 40%, a figure expected to worsen as temperature and humidity variability disrupt harvest and drying periods, increase spoilage, and accelerate physiological deterioration of root and tuber crops. Together, climate hazards, including rising temperatures, increasingly erratic rainfall patterns, and shifting pest dynamics pose significant risks to crop yields, farm incomes, and future food security of households across the targeted regions. These central regions also face heightened vulnerability to climate change as a result of non-climate drivers such as rapid cropland expansion of cocoa and over-exploitation of forests, which have reduced ecosystem buffering capacity, thereby amplifying sensitivity to climate hazards. While farmers in Côte d'Ivoire depend on cocoa for 74% of their income, it has been a major cause of deforestation over the last decades, particularly in the project's targeted regions. National forest cover was reduced from 16 million ha in 1960, to 2 million ha in 2018.¹⁹ This has led to loss of biodiversity, soil depletion, and pollution of water resources, and a reduced capacity to absorb carbon emissions through forests. This environmental impact has left the agricultural landscape more vulnerable to climate change, thereby exacerbating climate impact with serious implications for farmers.

15. Historical production data for cassava and yam in Côte d'Ivoire document recurrent, climate-driven shocks directly relevant to the five target regions. The 1982-83 Sahel drought caused cassava production to contract from approximately 1.11 MT to 1.06 MT, a decline of 4.0%, while yam registered a steeper proportional loss from 2.68 MT to 2.56 MT, a decline of 4.5%, reflecting yam's greater sensitivity to soil moisture deficits during tuber bulking^{20, 21}. More recently, the 2015-16 agricultural drought across eastern Côte d'Ivoire, including zones overlapping with N'Zi and Moronou, caused a documented 22% contraction in cassava harvested area in 2016, while field-level studies in Moronou confirm that yam and cassava smallholders already operate below their technical efficiency frontier, with mean technical efficiency scores of 0.89 and 0.81 respectively, leaving limited buffer capacity to absorb external moisture shocks²². The 2022 season combined flooding with a jassid pest outbreak intensified by warm humid conditions, causing total food crop production nationally to fall to approximately 20.4 million tons²³. These documented shocks are consistent with projected trends: the total annual value of cassava, rice, and yam production across the five target regions currently exposed to combined climate hazards is estimated at approximately USD 478 million, of which yam represents USD 302.9 million, cassava USD 104.7 million, and rice USD 70.5 million²⁴.
16. National projections indicate that overall crop production could decline by up to 16% by 2050²⁵ under current climate trends (see Annex 2, section 3.4). The adverse impact of climate change on the main economic sub-sectors, combined with the lack of preparedness, means that nearly a million more Ivorians could be pushed into extreme poverty by 2030.²⁶ As these devastating environmental effects are becoming evident, farmers and national stakeholders are looking for more climate-resilient strategies to adapt to climate shifts and reduce farmers exposure to climate change, improving their livelihoods and food security in the long term. Under business-as-usual conditions, these trends will continue to worsen without targeted intervention. Existing national programs, including ANADER extension services and MINADER-PV value chain programs, address productivity constraints under stable climate conditions but are not designed nor resourced to deliver the climate-calibrated advisory services, CSA-specific financial products, and integrated land management systems required to close the adaptation gap in the five target regions. The CSA packages proposed under LARACI are directly matched to the identified hazard profiles: stress-tolerant varieties address drought and temperature stress specific to the target regions; ISFM and agroforestry address soil degradation and moisture retention capacity reduced by decades of deforestation; improved water management addresses flood and drought variability in lowland rice systems; and climate information services close the information gap that prevents farmers from adapting agronomic decisions in real time to shifting seasonal conditions.

¹⁹ UN REDD Côte d'Ivoire, 2019. *Rapport final Programme national*.

²⁰ Konate et al., 2023

²¹ Nweke et al., 2000

²² Casimir Tano, 2024

²³ Ministère de l'Agriculture, 2024

²⁴ CGIAR Africa Agriculture Adaptation Atlas, 2025; see Annex 2 Section 4.4

²⁵ World Bank, 2023: *Country Climate and Development Report: Côte d'Ivoire*:

<https://openknowledge.worldbank.org/server/api/core/bitstreams/79b4732d-63a6-41ea-bfff-75f656a826f5/content>

²⁶ WB, 2021. *Sustaining High, Inclusive, and Resilient Growth Post COVID-19. A World Bank Group Input to the 2030 Development Strategy*; Washington DC, 77p: <https://documents1.worldbank.org/curated/en/232621635224063141/pdf/Main-Report.pdf>

17. Table 1 presents a Climate Hazard, Value Chain Vulnerability, and Adaptation Response Matrix that systematically maps regional hazards and affected value-chain stages to specific at-risk groups and CSA interventions to define the mechanisms for risk reduction.

Table 1: Climate Hazard, Value Chain Vulnerability, and Adaptation Response Matrix

Region/zone	Climate Hazard	Affected crop/value chain stage	Most at risk group	CSA package elements selected	Expected risk reduction mechanism
Moronou and La Mé	Drought	• Input provision • Production • Post-harvest • Marketing	• Rainfed smallholders • Women processors (cassava value chain) • Low-input farmers	• Drought tolerant varieties • Improved seed systems • Cassava–legume intercropping • Smart-Valleys & SRI (rice)	Reduces sensitivity of crops to drought. Exposure to drought is also reduced by improving water control. This maintains yields under moisture stress, stabilizing supply and product quality across the value chain
Gbêkê, Iffou, and central N'Zi	Flooding	• Input provision • Production • Post-harvest • Marketing	• Farmers in inland valleys/lowlands • Processors • Traders dependent on rural infrastructure	• Smart-Valley's water management • Mid-season drainage (rice) • Soil and water conservation practices	Reduces exposure by improving water control, limiting flood damage, and maintaining product quality and market access
All project regions	Rainfall variability (erratic onset and cessation)	• Input provision • Production • Post-harvest	• Smallholders without access to CIS • Aggregators and processors	• Climate information services • Advisory tools	Reduces exposure by aligning production and processing decisions with seasonal conditions, stabilizing yields.
All project regions	Temperature variability including extreme heat	• Production • Post-harvest • Marketing	• Smallholder farmers • Agricultural laborers • Processors and traders	• Heat-tolerant varieties • Climate advisory services • Improved post-harvest handling and timing	Reduces sensitivity by improving tolerance to heat stress and reducing post-harvest losses through better timing, handling, and climate-informed decision-making

All project regions	Climate-driven pest & disease pressure	• Production	• Smallholders with limited pest and disease management capacity	• Climate-resilient varieties • Improved seed systems • Climate information and early warning systems	Reduces sensitivity and exposure by improving resistance and enabling timely, climate-informed pest and disease management
All project regions	Soil degradation & declining fertility (exacerbated by climate change)	• Production	• Low-input farmers • Farmers in degraded landscapes	• Cassava–legume intercropping • Gliricidia-based climate-smart staking • SRI + biochar + integrated soil fertility management	Enhances adaptive capacity by restoring soil health, improving nutrient cycling, and sustaining productivity and product quality under climate stress

Mitigation needs

18. Agriculture is one of the largest contributors to national GHG emissions in Côte d'Ivoire. Deforestation has reduced land and biomass carbon storage and sequestration, and over-exploitation of soil has caused fertility loss, erosion, and an increase in GHG emissions. The high emissions from rice cultivation largely come from methane (CH₄), a short-lived, but powerful GHG responsible for approximately a third of the warming we experience today. Moreover, nitrous oxide emissions from the use of synthetic fertilizers are a significant contributor to the sector's GHG emissions.²⁷
19. In its updated nationally determined contributions (NDC 3.0), submitted in 2025, Côte d'Ivoire committed to reducing its greenhouse gas emissions by 33.07% by 2035 relative to business as usual (BAU), or 74.29% with international support.²⁸

Related projects/interventions

20. The project falls within the framework of the Government's Abidjan Legacy Programme, the latest GCF Country Investment Program, and builds on and contributes to Côte d'Ivoire's Climate-Smart Agriculture Investment Plan (CSAIP).
21. The project builds on past and present investments in the country by the GCF and other actors. A list of these initiatives is included in the complementarity analysis in Annex 2.

B.2 (a). Theory of change narrative and diagram (max. 1500 words, approximately 3 pages plus diagram)

Goal and introduction

22. Existing investments in Côte d'Ivoire address adaptation, mitigation, and food security through separate, isolated initiatives. This fragmentation limits synergies and ability to manage trade-offs. To effectively tackle the identified climate hazards affecting the central regions, LARACI adopts an integrated systems transforming approach designed primarily to reduce exposure and sensitivity to climate risks and strengthen adaptive capacity. Productivity improvements arise as a result of these risk-reduction measures rather than as standalone development interventions.
23. The goal of this project is to initiate a paradigm shift towards CSA for farmers and agribusinesses' improved resilience amid climate change, and a reduced GHG footprint. This transition will result in improved food and nutrition security and income generation for farming communities under future climate change scenarios. The project identifies three components that define institutional and on-the-ground actions to promote CSA

²⁷ NDC Côte d'Ivoire, 2022: *Contributions Déterminées au niveau National. Version révisée*. March 2022.

²⁸ NDC 3.0 available at: <https://unfccc.int/node/650920>

interventions. These CSA interventions are designed to allow farmers and agribusinesses to increase agricultural productivity and value chain profitability by adapting to the climate risks outlined in section B.1; while simultaneously, and where appropriate, taking action to reduce GHG emissions. The LARACI project components have been designed based on needs and priorities voiced by national actors during the design phase stakeholder consultations (see Annex 7) as well as those informing the CSAIP prioritization²⁹. Beyond the geographic focus on the central regions, the project focuses on three agricultural value chains (cassava, rice, and yam) based on their relative contribution to climate resilience of the agrifood systems, and their potential when it comes to climate change adaptation and targeted mitigation actions.³⁰ These commodities are important for food security and nutrition and can effectively underpin the transition to a more diverse and climate-resilient agrifood system in these regions. In addition to CSA approaches, the project will address land degradation more broadly, including deforestation and unsustainable agricultural practices.

Barriers

24. Despite its potential, CSA adoption remains limited in Côte d'Ivoire due to several systemic barriers, grouped into the following five categories (See Annex 2, Section 5.2 for more detail):

• Technological Barriers

Agriculture in Côte d'Ivoire remains largely rainfed, exposing smallholder farmers to droughts, floods, and shifting rainfall patterns. Less than 1 % of cultivated land is equipped with irrigation facilities³¹, far below levels required to buffer climate variability and stabilize yields. Land degradation and desertification have resulted in reduction of arable land, affecting 60% of national territory.³² Poor farming practices deplete soil quality and limited access to technologies, including drought-resistant varieties and soil fertility strategies, hampers progress. Adoption of improved seed varieties in Côte d'Ivoire remains limited, particularly within staple value chains. While CGIAR's DIIVA database indicates that roughly 33% of rice area was planted with improved varieties as of 2009, a 2022 AGRA seed sector analysis found that Côte d'Ivoire produced only about 9% of its national rice seed requirement and reported no certified seed output for maize, yam, or cassava. Outdated meteorological infrastructure and inadequate information and communications technology (ICT) restrict access to timely climate data and advisories.

• Financial and Institutional Barriers

Côte d'Ivoire has pushed rural inclusion through 46 micro finance institutions (MFIs), 12 000+ bank agents and one of Africa's busiest mobile-money markets, raising adult account ownership to 51%. But CSA still struggles as insecure land titles block collateral; banks keep agri-loans short, costly, and not in line with agriculture production cycles; upfront costs of climate-smart gear outstrip farmers' cash-flow; and guarantee or weather-insurance schemes cover only a small portion of demand. Consequently, barely 14% of rural adults and fewer women, obtain formal credit. Therefore, concessional, risk-sharing capital is vital for any GCF project targeting CSA in the central regions. Financiers also point to the near-absence of up-to-date agronomic and climate data. A recent survey from JICA indicates that loan interest rates go up to 18% for certain agricultural lending products, with terms from 12 to 60 months.³³ The last full agricultural census dates to 2001, leaving lenders to load extra risk-premia onto already short, high-interest loans. At farm level, the steep up-front costs of climate-smart gear, together with still-low digital and financial literacy among rural smallholders (especially women), sharply curb demand and formal lending penetration.

• Gender Barriers

Although women represent 70% of the agricultural workforce, they face limited access to land, training, finance, tools, and markets. Women are formally allowed to own land. In practice, however, customary law systems dissuade female land ownership. Consequently, only 10% of landowners are women, restricting their ability to invest in productivity. Socio-economic barriers also limit women's access to ICT. To truly benefit women, CSA technologies need to be gender-responsive in addressing the specific needs, preferences, and conditions that women face. These technologies should hence be validated and delivered considering the input requirements, necessity to reduce women's drudgery, and their potential to provide food and nutrition security for households. Furthermore, interventions and support services need to be

²⁹ World Bank, Coat of Arms of Ivory Coast, Initiative for the adaptation of African agriculture, International Center for Tropical Agriculture (CIAT), Climate Change, Agriculture and Food Security Research Program (CCAFS), 2019: *Climate-smart Agriculture Investment Plan for Côte d'Ivoire (CSAIP)*; documents1.worldbank.org/curated/en/181591575308113164/pdf/Climate-Smart-Agriculture-Investment-Plan-for-Cote-d-Ivoire.pdf

³⁰ Prioritization criteria and score card in Annex 2: Feasibility study.

³¹ Andriano, L. 2024: *Agricultural droughts and under-five mortality in Côte d'Ivoire: Differential impacts across social and demographic groups*. *Population and Environment*. Volume 46, article number 28.

³² UNEP GRID-Geneva: <https://dicf.unepgrid.ch/cote-divoire/>

³³ JICA, The information of agricultural market in Côte d'Ivoire

tailored to ensure that women are able to access, effectively utilize, and maximize returns from the promoted technologies in terms of increasing production, income and overall empowerment.

- **Policy and Regulatory Barriers**

Although Côte d'Ivoire has adopted key climate and agricultural frameworks, including its Nationally Determined Contribution and National Agricultural Investment Plan, climate-smart agriculture is not yet operationalized in a coherent and systematic manner across institutions and territories. The primary regulatory constraint is not the absence of policy but limited institutional and extension capacity to translate policy into timely, field-level guidance. Public extension services remain overstretched and insufficiently equipped to provide climate-responsive technical advice at scale, while regulatory and supervisory systems lack the resources to effectively support quality seed control, input standards, and climate advisory services. High transaction costs, especially for women farmers, individually or as groups, and lack of incentives reduce CSA investment. Supportive policies, financial incentives, and public-private collaborations are needed to foster a conducive enabling environment.

- **Capacity Barriers**

There is a lack of expertise and extension services in Côte d'Ivoire, with one advisor per 4,800 farmers. Outdated forecasting tools and poor ICT uptake weaken climate advisory services. Investment in training and modern equipment tailored to the diverse needs of different farming communities, including the specific needs of women, and knowledge-sharing among stakeholders is vital to strengthening national climate resilience.

25. Table 2 maps these barriers to the corresponding outputs and activities outlined in the theory of change.

Table 2: Key barriers, evidence, outputs and activities related to CSA adoption in Côte d'Ivoire

Key Barrier	Quantitative baseline	Expected Output	Activities
Technological • Use of rainfed systems increases vulnerability to climate variability • Soil degradation • Limited access to improved varieties and climate-smart tools • Weak meteorological & ICT infrastructure	Less than 1% of cultivated land is equipped with irrigation systems 60% of territory affected by land degradation and desertification 9% of national rice seeds produced in Côte d'Ivoire while no material use of improved varieties for yam and cassava.	Farmers have increased access to CSA technologies and practices; increased access to timely and accurate climate information and advice	• Promote climate resilient planting material. • Promote soil fertility management, water-harvesting, and agroforestry • Strengthening agrometeorological and advisory systems
Financial & Institutional • Limited access to agricultural credit • Short-term, costly loans • Weak insurance coverage • Outdated agricultural data	14% of rural population obtain credit Up to 18% interest rates to smallholders	De-risked financing mechanisms for CSA; improved data for decision-making	• Build capacity to access financial services • Promote financial tools to reduce risk • Provide CSA-relevant data
Gender • Limited land ownership (≈10% of women) • Restricted access to finance, tools, ICT	Women represent 70% of agricultural labor and therefore most affected by lack of CSA Only about 10% of women own land	Gender-responsive CSA adoption increased; women farmers empowered	• Provide tailored training programs and access to finance • Promote women-led agribusinesses • Foster gender-sensitive policies
Policy & Regulatory • Weak CSA incentives • Limited capacity of extension and regulatory	Public extension services under equipped Regulatory and supervisory systems not providing climate advisory services	Enabling environment strengthened for CSA investment	• Strengthen extension-research communication • Reduce transaction costs

systems to provide timely advice • Limited public-private coordination			
Capacity • Few extension agents • Outdated forecasting tools • Low digital and financial literacy	Farmers under-served with extension agents: 1 per 4800 Outdated and malfunctioning forecasting tools	Enhanced institutional and farmer capacity for climate resilience	• Train extension agents and farmers in CSA and climate advisory services • Upgrade extension infrastructure and equipment

Theory of Change

26. The theory of change (ToC) diagram below (Figure 4) synthesizes how the proposed project will address the barriers above by linking three components. These components comprise five interlinked and mutually reinforcing outputs designed to contribute to the goal statement through the achievement of three outcomes. The underlying assumptions for addressing the identified risks and barriers are taken into account in the project design.
27. The ToC incorporates a reinforcing feedback loop whereby climate-resilient productivity gains reduce yield variability under climate stress, leading to greater income stability. This improved income stability enables farmers and agribusinesses to reinvest in CSA inputs and practices, thereby sustaining adoption over time and strengthening long-term adaptive capacity. In this way, economic co-benefits are directly linked to resilience outcomes. This feedback loop is premised on the assumption that productivity gains are sufficiently sustained and income improvements sufficiently stable to enable reinvestment, which requires that climate advisories are effectively translated into on-farm decisions and that input and output markets remain functional in the target regions.
28. The Economic and Financial Analysis (See Annex 3) indicates that CSA adoption leads to average yield increases of around 20%, improving farm-level cash flows and resilience to climate shocks. By combining productivity gains with risk-reduction instruments (e.g. index insurance, warehouse receipt systems) and improved data systems for credit assessment, the project strengthens farmers' creditworthiness and reduces lending risks for financial institutions. Integrating CSA into value chains for rice, cassava, and yam further enhances revenue stability and market access, creating conditions for gradual crowd-in of domestic financial institutions and private sector actors. In addition, leveraging FIRCA's national platform and its strong track-record in linking public systems, private sector actors, and financial institutions, supports scaling and facilitates sustained financial sector engagement beyond the project period.

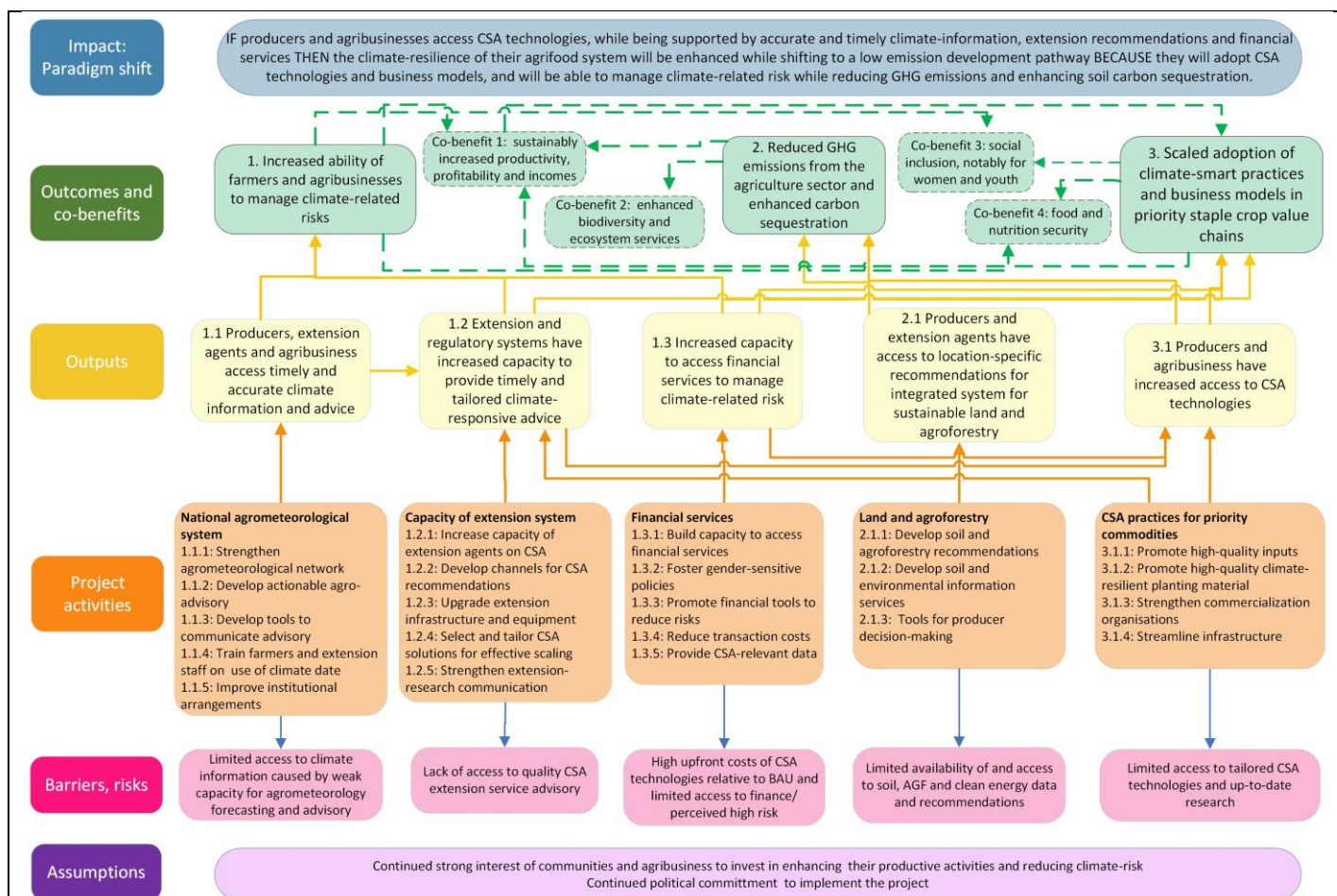


Figure 4. Theory of Change Diagram

29. The LARACI project will systematically address the barriers by combining institutional and on-the-ground actions that promote adoption of context-specific CSA solutions grounded in innovation and proven on-farm technologies. The project advances a holistic, transformative approach to climate-smart agricultural development while contributing to a shift toward a low GHG emission pathway. It prioritizes the inclusion of women and youth, to ensure their access to climate information systems, CSA practices and technologies in production and post-harvest processing, and in entrepreneurship. Women and youth are specifically targeted through tailored training programs and the promotion of women and youth-led agribusiness. This gender-intentional design ensures that women not only benefit from but also are empowered to actively participate in shaping the transition to a climate-smart agri-food system (see Annex 8 GESI assessment and action plan). The success of this approach is premised on the assumption that targeted service delivery, combined with the structural interventions in the GESI Action Plan (Annex 8), will progressively reduce the barriers related to land tenure, mobility, digital access, and social norms that have historically limited women's and youth's agency in the sector. The three components operate in a deliberate sequence and at distinct levels of the agricultural system. Component 1 is the enabling foundation; Components 2 and 3 are the on-the-ground delivery mechanisms that depend on and build upon the systems established by Component 1. This sequencing is reflected in the project's implementation timeline: Component 1 activities are prioritized in Years 1 and 2 to establish the institutional, informational, and financial conditions necessary for adoption at scale. Components 2 and 3 scale up progressively from Year 2 onward as these foundations become operational.
30. Component 1 is national in scope and designed to tackle system-wide barriers (paragraph 17) that need to be addressed to put in place the enabling conditions for large-scale adoption of appropriate CSA solutions, with particular attention to the project intervention area. Although implemented through national coverage, the project intervention zone will be earmarked as a priority across all actions under this component in order to effectively put in place the enabling environment for the on-the-ground activities rolled out under components 2 and 3. Component 1 specifically delivers three enabling outputs: improved and timely access to climate information and advisory services (Output 1.1); increased capacity of extension and regulatory systems to translate that information into field-level guidance (Output 1.2); and increased capacity to access financial services that de-risk CSA investment (Output 1.3). These outputs do not directly drive adoption, they create the

conditions under which adoption becomes viable and sustainable. These outputs comprise improved and timely access to climate information and related advisory services (output 1.1); increased capacity of extension and regulatory systems (output 1.2) which will ensure that farmers and agribusiness sustainably benefit from timely and tailored climate-responsive advisory); and increased capacity to access financial services (output 1.3). This logic assumes that financial institutions will proactively integrate these climate risk tools into their lending criteria, and that farmers will effectively translate climate advisories into actionable on-farm decisions.

Component 1 lays the foundation for enabling producers and agribusinesses to respond to and manage climate related risk (outcome 1) by ensuring their access to the appropriate information, tools, and services to make better decisions with increased capacity to adopt and invest in CSA. As these activities are national in scope, they provide indirect enabling environment benefits to the entire agrifood sector of Côte d'Ivoire, underpinning the paradigm shift potential for a transition to a more climate-smart sector, by providing the real-time information farmers need (e.g., agroclimatic information, access to tailored and context specific advisory), and access to the guidance, knowledge, and financial services needed to enhance CSA investments in the sector. This in turn generates climate-resilient productivity gains and improved profitability (co-benefit 1), as farmers apply climate-informed agronomic decisions, reduce climate-induced losses, and optimize input use. By reducing yield variability and avoiding climate-related crop failure, these gains improve income stability. Stable income enables farmers and agribusinesses to continue investing in CSA inputs, advisory services, and soil and tree-based systems, thereby reinforcing sustained adoption and strengthening long-term adaptive capacity. By reducing yield variability and avoiding climate-related crop failure, the enabling environment established by Component 1 generates climate-resilient productivity gains and improved profitability (Co-benefit 1), which in turn strengthens income stability and creates the conditions for sustained CSA investment over time.

31. Building on the enabling environment established by Component 1; Components 2 and 3 deliver distinct but mutually reinforcing on-the-ground results in the five target regions. Component 2 focuses exclusively on land management and agroforestry. Reinforced by climate information and advisory systems from Component 1, it provides producers and extension agents with location-specific recommendations on climate-smart ISFM and agroforestry (Output 2.1) that improve land management, reduce GHG emissions through enhanced carbon sequestration, and sustain agricultural productivity and ecosystem services (Outcome 2 and Co-benefits 1 and 2). Component 3 operates at the value chain level: leveraging both the enabling environment from Component 1 and the agronomic knowledge-base generated by Component 2. It promotes the scaling of proven and locally adapted CSA technologies and practices across the cassava, yam, and rice value chains (Output 3.1). This drives last-mile adoption by direct beneficiaries (Outcome 3), generating improvements in productivity, incomes, food security, and social inclusion (Co-benefits 1, 3, and 4). The distinction between Component 2 (land and ecosystem level) and Component 3 (value chain and farm level) is deliberate: together they provide comprehensive coverage of the adaptation and mitigation dimensions of the CSA transition in the target regions, without duplication. Beyond smallholder farmers, the project also supports a broader set of value chain actors, including producer organizations, agricultural SMEs, financial institutions, MFIs, and insurance providers, whose roles are critical in enabling CSA adoption and scaling.
32. A parallel distinction applies at the outcome level. Outcome 1 enhances the enabling environment: it captures the degree to which farmers and agribusinesses across Côte d'Ivoire have acquired the capacity, information systems, and financial access necessary to respond to climate risks. It does not, in itself, change the agrifood system, but puts in place the preconditions for that change. Outcomes 2 and 3 operate at a different level: they bring about the actual transformation of the cassava, yam, and rice value chains in the five target regions, as evidenced by sustained improvements in the climate resilience, emissions reduction, future food availability, and the economic well-being of producer and agribusiness households. Outcome 1 is therefore a necessary but not sufficient precondition for Outcomes 2 and 3. The enabling environment created at the national scale by Component 1 must translate into concrete, lasting shifts in how value chain actors produce, process, and market under climate stress. The results framework captures this causal distinction through differentiated indicators at each level. See Annex 2, Section 4.5 for a detailed discussion of the adaptation pathway from enabling conditions to on-the-ground CSA adoption across the three value chains.
33. Components 2 and 3 are mutually reinforcing and enable a transition to a more climate-smart agrifood system and a shift towards a low-emission development pathway in the targeted central regions. This transition will bring about enhanced productivity and reduce farmers' exposure to climate change, strengthening food security over the long term, as well as inclusive improvement in incomes. In this way, the project provides a comprehensive package that helps farmers and value chain actors in the target zone address the climate risks they face, as well as for them to offset the most significant drivers of GHG emissions associated with the selected value chains. Examples of approaches that will be part of this transition include the adoption of stress-tolerant crop varieties, agroforestry approaches, sustainable agricultural management practices that address water and soil conservation and tailored use of fertilizers, as well as improved post-harvest techniques (such as husking and parboiling of rice) (See Annex 2: Feasibility Study for detailed list). Adoption of these climate-smart

practices is expected to be high among direct beneficiaries, reflecting the project's integrated support package combining training, input facilitation, and continuous extension services. As detailed in Annex 3a, this assumption is consistent with evidence from comparable CSA interventions in West Africa. Sensitivity analysis across all value chains further confirms that project outcomes remain robust under reduced adoption scenarios, with no material impact on financial viability observed under moderate adoption reduction.

34. The strong interest of communities and agribusiness to invest in enhancing their productive activities and reducing climate risk, which was demonstrated during the stakeholder consultations informing project design (See Annex 7), will be key to effective delivery of results and the sustainability of the project in the long term. This support is expected to continue as the project actively engages in private sector-led business models that generate income to sustain their CSA investments, ensures consistent access to and enhanced use of climate information services and climate-smart innovations, delivered through robust e-extension systems. Continued active engagement with communities and agribusiness during project implementation based on the principles of transparency, accountability, inclusiveness, non-discrimination, and "do no harm" (see Annex 7: Stakeholder consultations and engagement plan) will also be key.
35. While the LARACI project is designed to catalyze systemic change, its theory of change acknowledges several systemic risks that could impact the delivery of results. Local financial institutions may face hurdles in expanding climate-friendly lending, and farmers may not adopt new technologies as quickly as expected due to economic pressures. Recognizing these variables, the project incorporates a robust risk management framework (see Section F) designed to monitor market trends and provide extra support to financial institutions. Addressing these risks transparently ensures the project remains resilient and credible in the face of external economic shocks. Additionally, the carbon credit aggregation pathway depends on the viability and stability of voluntary carbon markets, which remain subject to regulatory uncertainty and price volatility. Continued policy alignment and political stability over the project period are therefore treated as critical assumptions underpinning long-term sustainability, and are actively managed through PSC engagement, evidence-based advocacy, and the mainstreaming of project innovations into national reporting processes.
36. Stakeholder engagement in the design phase demonstrates a strong political commitment to implementing the project. This is crucial for the success of the project and will be fostered during implementation by consistent coordination and engagement with key actors, including through the project Steering Committee (PSC), and by providing clear evidence of the benefits of the implemented innovations — particularly their contributions to food security, climate adaptation, and mitigation. This includes support for the integration of these innovations into national policies and strategic plans, as well as their mainstreaming into national reporting processes. By fostering this high-level buy-in, the project aims to ensure continued policy alignment and political stability over time, a critical condition for the long-term sustainability of the transition.

B.2 (b). Outcome mapping to GCF results areas and co-benefit categorization

Outcome 1. Increased ability of farmers and agribusinesses to manage climate-related risks

Outcome 2. Reduced GHG emissions from the agriculture sector and enhanced carbon sequestration

Outcome 3. Scaled adoption of climate-smart practices and business models in priority staple crop value chains

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
Outcome 1: Increased ability of farmers and agribusinesses to manage climate-related risks	☐	☐	☐	☒	☒	☒	☐	☒
Outcome 2: Reduced GHG emissions	☐	☐	☐	☒	☐	☐	☐	☒

from the agriculture sector and enhanced carbon sequestration								
Outcome 3: Scaled adoption of climate-smart practices and business models in priority staple crop value chains	☐	☐	☐	☒	☒	☒	☐	☒

Co-benefit 1. Sustainably increased productivity, profitability, and incomes

Co-benefit 2. Enhanced biodiversity and ecosystem services

Co-benefit 3. Social inclusion, notably for women and youth

Co-benefit 4. Food and nutrition security

Co-benefit number	Co-benefit					
	Environmental	Social	Economic	Gender	Adaptation	Mitigation
Co-benefit 1: Sustainably increased productivity, profitability, and income	☐	☐	☒	☐	☐	☐
Co-benefit 2: Enhanced biodiversity and ecosystem services	☒	☐	☐	☐	☐	☐
Co-benefit 3: Social inclusion, notably for women and youth	☐	☐	☐	☒	☐	☐
Co-benefit 4: Food and nutrition security	☐	☐	☐	☐	☒	☐

B.3. Project/programme description (max. 2500 words, approximately 5 pages)

37. The project is structured around three components:

- **Component 1** is national in scope and focuses on the enabling environment needed for farmers and agribusinesses to be able to manage climate risks. It includes three sub-components: 1.1: establishing a functional national agrometeorological advisory system; 1.2: developing an effective CSA extension service; and 1.3: improving access to CSA financial services and products. This national-level component will deliver the essential information, institutional support, services, and enabling environment needed to scale-up targeted climate solutions under Components 2 and 3 and more broadly in the agrifood sector, reinforcing the project's potential for scaling and replication.
- **Component 2** focuses on reducing GHG emissions and enhancing carbon sequestration in the selected central regions of N'Zi, Moronou, Iffou, La Mé, and Gbêkê. This will be achieved by deploying integrated systems for sustainable land management and agro-forestry information. The component will develop

environmental information services and tools for producer decision-making to increase adoption of CSA technologies in the cultivation of the three selected crops.

- **Component 3** concentrates on promotion of CSA along the cassava, yam, and rice value chains to transition to more climate-smart agri-food systems. Similar to Component 2, it targets the selected central regions. Activities include promotion of high-quality inputs and high-quality planting material, strengthening of commercialization organizations, and streamlining of infrastructure.
38. The prioritization of selected crops is justified in Annex 2, section 4.3. This was based on an analysis of the most commonly grown crops in the target regions. Prioritization criteria, including potential contribution adaptive capacity, potential for achieving mitigation outcomes, contribution to food security, cultural and economic importance, and importance for social and gender balance were applied to all key crops. This multicriteria analysis led to prioritizing the three value chains for this project.

Component 1: Managing Climate Risks

Output.1.1: Timely access to accurate climate information and advice

39. This output aims to minimize climate-related risks by providing producers, extension agents, and agribusinesses with timely, accurate agrometeorological information, and surveillance systems as well as practical advisory on recommended adaptation measures. Building on existing efforts and achievements, this output will strengthen the infrastructure, capacity, and systems for SODEXAM³⁴ and other responsible stakeholders to improve their weather data, services, outreach, and relevance and/or impacts. It consists of the following activities designed to help overcome the relevant capacity and technological barriers outlined above:
- **Activity 1.1.1: Strengthen the agrometeorological network**
Optimize the national meteorological network to improve forecasting and pattern prediction by: (i) conducting site assessment and identification of locations on existing public land to install automatic agroclimatic stations; (ii) acquiring new automatic agroclimatic stations; (iii) rehabilitating existing agroclimatic stations; (iv) acquiring tools for data collection, processing, management, and dissemination; (v) installing, commissioning and ensuring maintenance of automatic weather stations; and (vi) training on use and maintenance of equipment.
 - **Activity 1.1.2: Develop actionable agro-advisory**
Translate data into immediately applicable information and recommendations, such as: (i) needs assessment for climate services for the three value chains; (ii) development of tools: seasonal calendar, agroclimatic stress map, forecasts and recommendations for agricultural production, agroclimatic modeling of pest and disease risks, information on CSA practices and technologies; (iii) integrated electronic system accessible to technical and financial partners including: (a) databases of beneficiaries, their activities, and their economic and financial results; (b) the SIM (Market Information System); (c) Dashboards, and (d) user training and dissemination; and (iv) monthly agrometeorological bulletins.
 - **Activity 1.1.3: Develop tools to communicate advisory**
Establish dissemination channels that are socially, culturally, and economically appropriate and inclusive for the advisories developed under Activity 1.1.2. These channels will include: (i) national and regional project advisory launch workshops; (ii) translation and broadcasting of messages in local radio stations in local languages; (iii) setting up an SMS-based information dissemination system; (iv) creating a GIS portal interface on FIRCA's website and social media messaging; and (v) production and dissemination of communication material (periodic newsletters, visibility panels, film and video capsules, posters).
 - **Activity 1.1.4: Train farmers and extension staff on the use of climate data**
Develop capacity of farmers on climate information services (CIS). This will specifically consist of: (i) diagnosis of current knowledge of agricultural stakeholders on climate, identify gaps in the use of climate services; (ii) instituting and conducting training packages for extension agents, MINETE agents, community leaders, and farmer beneficiaries (on the use of climate data and dissemination of weather information with a focus on addressing and address inequalities in farmers' ability to access CIS, CSA technologies, weather station maintenance, participatory integrated climate services for agriculture (PICSA) approach etc.); (iii) equipment of extension agents with communication tools, and (iii) monitoring producers and agricultural stakeholders on the use of CIS, and follow-up training.
 - **Activity 1.1.5: Improve institutional arrangements**
Set up institutional arrangements to bring together climate information providers, agricultural research and

³⁴ An Ivorian state company responsible for the management, operation and development of airports, meteorology and aeronautical activities in Côte d'Ivoire.

extension, national policymakers, and farmer representatives to complete Activities 1.1.1 - 1.1.4. This activity includes: (i) strengthening the national framework for climate services (consultation, updating, and development); (ii) creation of a multi-disciplinary working group to guide institutional arrangements, and creation of a local multidisciplinary working group to operationalize the agroclimatic information management and dissemination system; and (iii) incorporation of climate information and prediction into planning and policy.

Output 1.2: Increased capacity of extension and regulatory systems to provide timely and tailored climate-responsive advice

40. This output aims to minimize climate-related risks and increase farm productivity by developing climate-smart extension knowledge products to improve the quality and quantity of CSA-informed recommendations made to producers by farm advisors. It consists of the following activities:

- **Activity 1.2.1: Increase capacity of extension agents on CSA**
Train extension agents in cutting-edge CSA technologies and practices. This includes: (i) integration of a CSA module into ANADER (*L'Agence Nationale d'Appui au Développement Rural*)³⁵ and ADERIZ (*Agence pour le développement de la filière Riz*)³⁶ training centers' curricula - the module includes approaches to gender-sensitive CSA extension system, improving access for women, and helping to break gender barriers; (ii) training of trainers within agricultural training centers, and equipment of trainers; (iii) establishment of a continuous training system for extension agents to remain up to date with the latest research and developments on climate risks and CSA solutions; and (iv) capacity building on the use and maintenance of production and processing infrastructure specified in Activity 1.2.3.
- **Activity 1.2.2: Develop channels for CSA recommendations**
Bolster systems for dissemination of information to producers. This will focus on: (i) design of technical education tools and gender-sensitive dissemination material; (ii) training of extension agents on functional literacy to broaden reach; (iii) acquisition of data collection tools for technical services and zones of concentration, and integration of sex and age- disaggregated data collection into extension activities to inform needs prioritization; (iv) development and launch of multiple ICT dissemination channels, through startups/mobile phone companies; and (v) training of members of advisory satellite offices in each project zone on CSA techniques.
- **Activity 1.2.3: Upgrade extension infrastructure and equipment**
Take stock of needs and provide of equipment to ensure timely and customized delivery of climate information and farming advice. This includes: (i) inventory of infrastructure and equipment needs for research on climate information and effective agricultural advisory services; (ii) acquisition and installation of research equipment and infrastructure in universities and research institutions; (ii) provision of teaching kits to training centers along with updated CSA learning modules; (iii) provision of maintenance kits for agrometeorological stations; and (iv) provision of equipment for farm advisors and extension agents ICT communication tools and training in their use.
- **Activity 1.2.4: Select and tailor CSA solutions for effective scaling**
Review current CSA practices and adoption conditions by male and female farmers and develop new CSA technologies and solutions to fill gaps emerging over time. These new CSA solutions will be tested and validated to ensure they are effective and suitable for the project area. This includes: (i) assessment of existing CSA practices and conditions for adoption; (ii) stakeholder workshop to prioritize CSA practices that are applicable to the focus value chains in the targeted regions; (iii) validation tests of newly selected CSA technologies to contextualize and demonstrate their technical and economic efficiency and performance in the project intervention zones, and (iv) organization of field exchange visits for technology transfer and a workshop to present the results.
- **Activity 1.2.5: Strengthen extension-research communication**
Foster multi-way communication between research organizations and extension services to support demand-driven research and effective scaling of innovations. This includes: (i) consultation workshops on CSA for public and private stakeholders in research and extension; (ii) strengthening of national and local multi-stakeholder platforms, connecting them to existing regional multi-stakeholder platforms to facilitate access to information and policy decisions; (iii) experience-sharing trips for platform members to facilitate

³⁵ ANADER is Côte d'Ivoire's national agricultural extension agency responsible for providing advisory services, farmer training, and dissemination of agricultural technologies to support rural development.

³⁶ ADERIZ is the national agency responsible for coordinating the development and implementation of strategies to strengthen the rice value chain in Côte d'Ivoire.

information sharing between farmers and researchers; (iv) funding of multi-stakeholder and public-private platforms that promote the extension-research linkages for synergistic actions on the ground; and (v) establishment of a permanent mechanism for timely communication and dissemination of new technologies and information between research centers.

Output 1.3: Increased capacity to access financial services to manage climate-related risk

41. This output improves the capacity of agricultural producers to access and use financial products and services that enable climate adaptation and support sustainable productivity, by addressing the financial barriers that currently limit investment in CSA. Output 1.3 is structured around two clearly distinguished sets of interventions. The core financial intermediation components directly unlock access to finance: Activity 1.3.1 builds investment readiness across the spectrum from professional producer organizations to financial institutions and impact investors; Activity 1.3.3 deploys mutually reinforcing de-risking instruments (warehouse receipts, climate index insurance, and value chain finance) that make smallholder portfolios commercially viable for lenders; and Activity 1.3.4 reduces the transaction costs of last-mile service delivery through agent networks, mobile money channels, and bundled service models. These three activities constitute the primary implementation pathway. They are supported by two enabling elements that create the conditions for the core interventions to function: Activity 1.3.2 addresses gender barriers at the policy and product design level, with findings integrated into loan officer training and instrument design across the core activities; and Activity 1.3.5 builds the data and digital infrastructure that enables evidence-based underwriting by partner financial institutions.

The project also builds community level MRV capability to ensure accurate reporting of emission reductions associated with GCF-supported activities. Carbon related work under this output focuses exclusively on MRV readiness, data system strengthening, and professional producer organizations' capacity for emissions accounting rather than near term carbon credit revenue generation. These measures support Côte d'Ivoire's national carbon market governance framework and strengthen the foundations for future climate finance opportunities.

Together, these interventions create a pipeline of bankable professional producer organizations, and promotes de-risked financial products, and climate informed lending practices that can be directly financed through IGREENFIN³⁷ and other aligned financing vehicles. Building on achievements of the GCF-funded IGREENFIN initiative, the project provides targeted technical assistance to expand rural access to diverse financial services, supports the design of climate linked finance mechanisms around short term loans, and strengthens informal financial practices, transfers, and digital delivery systems. Coordination with IGREENFIN is ensured through a shared stakeholder platform, harmonized indicators on financial inclusion and CSA investment, and joint reporting to national authorities and GCF to ensure coherence, avoid duplication, and enable a smooth transition from readiness to downstream financing.

○ Activity 1.3.1: Build capacity to access financial services

This activity provides technical assistance to build investment readiness across the spectrum from smallholder farmers and 50 professional producer organizations to financial institutions and impact investors, addressing the structural mismatches that prevent climate-smart lending at scale. This includes: (i) embedding technical assistance (TA) in existing training and extension programs delivered through FIRCA's established cooperative networks to upgrade governance, accounting, and risk-management systems including budgeting, record-keeping, and loan management so they meet formal-lender requirements and training leaders of professional producer organizations in loan application preparation and collateral documentation; (ii) building capacity of loan officers and other finance staff at partner institutions including *Banque Nationale d'Investissement* (BNI), ADVANS Côte d'Ivoire and UNACOOPEC-CI, with additional partners confirmed during project inception through FIRCA's regional mapping, to understand and build smallholder farmer segmentation, diagnose constraints, tailor climate-smart and gender responsive products, and track portfolio quality with gender-disaggregated M&E that supports full loan recovery through the organization of three regional workshops; (iii) providing technical assistance to financial institutions to integrate dynamic risk scoring based on CSA practice adoption and MRV data into credit appraisal, building on verified emissions performance data from Activity 1.3.5 — enabling lenders to recognize verified CSA adoption as an indicator of borrower discipline and future climate finance eligibility, reducing risk premiums on climate-aligned portfolios; and (iv) providing technical assistance to local fund managers and impact investors to assess portfolio opportunities in smallholder agricultural systems, structure blended finance vehicles in which first-loss tranches absorb initial default risk and partial credit guarantees which cover a defined percentage of principal loss on climate-aligned agricultural loans and

³⁷ Green Climate Fund IGREENFIN project is a climate finance initiative that promotes climate-smart agriculture and improves access to sustainable financing for climate-resilient agricultural investments in Côte d'Ivoire. For a detailed analysis of the LARACI-IGREENFIN I synergy, including the demand-side and supply-side complementarity framework and coordination mechanisms, see Section 5.3 and Appendix 1 of Annex 2.

crowd in additional CSA capital, thereby facilitate connections to downstream financing instruments including IGREENFIN, building on the pipeline of investment-ready professional producer organizations established under sub-activity 1.3.1.1. Together, these actions improve the bankability of farmers by strengthening governance of professional producer organizations, improving lender capacity, and reducing information asymmetries that currently hinder rural credit markets.

○ **Activity 1.3.2: Foster gender-sensitive policies**

This activity fosters gender sensitive rural finance policies and regulatory support by strengthening policy instruments and financial products that make rural finance work equitably for women and men farmers and agribusiness SMEs. This includes: (i) conducting a persona-based needs assessment across rice, cassava, and yam value chains to capture women's agricultural roles, transaction sizes, and income patterns; mapping regulations and MFI lending practices that exclude women by design or effect, including collateral requirements and minimum loan sizes; (ii) co-designing gender-responsive financial products with partner MFIs including, BNI, ADVANS Côte d'Ivoire and UNACOOPEC-CI (with specific partners confirmed during project inception), based on the assessment findings including smaller-ticket credit, harvest-cycle aligned repayment schedules, savings-linked credit, and group-guarantee lending models that replace individual collateral requirements; (iii) providing technical assistance to the MINADER PV to incorporate gender-disaggregated indicators into its existing agricultural finance policy instruments and to design an agriculture disaster fund covering women-headed households; and (iv) developing a gender-inclusive financial services roadmap with partner MFIs and regulatory bodies aligned with the national Five-Year Financial Inclusion Strategy. Gender considerations identified through this activity are explicitly integrated into loan officer training under Activity 1.3.1 and de-risking instrument design under Activity 1.3.3.

○ **Activity 1.3.3: Promote financial tools to reduce risks**

The fundamental barrier to agricultural lending in Côte d'Ivoire is not farmer creditworthiness but the absence of appropriate risk instruments and collateral mechanisms that make smallholder portfolios viable for lenders. This activity addresses this gap through three mutually reinforcing de-risking tools that constitute the risk-sharing layer between farmers and lenders. This includes: (i) promoting warehouse receipt systems and off-take contract financing established with partner MFIs (including, BNI, ADVANS Côte d'Ivoire and UNACOOPEC-CI), enabling farmers to pledge physical stocks and forward contracts as collateral in place of land title, unlocking working capital across rice, cassava, and yam value chains; building on the recently launched Côte d'Ivoire's Agricultural Commodities Exchange (BMPA) in 2025, which provides the certified warehousing and regulatory infrastructure within which LARACI's warehouse receipt finance operations will be anchored; (ii) developing and promoting climate index insurance product co-developed with private insurers operating under the CIMA Code (building on existing index insurance feasibility studies and products already piloted in Côte d'Ivoire by Atlantique Assurances, Sanlam Allianz, and AXA Côte d'Ivoire in partnership with IFC's Global Inclusive Insurance Program), providing contextualized trigger design for each value chain taking into account minimum water requirements and other relevant metrics, with premium subsidy arrangements and three community-led literacy campaigns in local languages ensuring affordability, trust and uptake; and (iii) designing and implementing a value chain finance model in collaboration with private sector actors, structuring agriculture input (e.g. seeds, fertilizer) credit, off-take contracts, and repayment across agriculture input suppliers, producers, and off-takers with at least 50 beneficiaries enrolled in the scheme, with contract enforceability underpinned by the OHADA commercial law framework applicable across member states including Côte d'Ivoire. Together, these instruments convert investment-ready professional producer organizations from Activity 1.3.1 into bankable clients.

○ **Activity 1.3.4: Reduce transaction costs**

This activity reduces the high transaction costs that prevent commercially viable agricultural lending at scale through data systems and digital lending. This includes: (i) - strengthening rural financial agent networks through structured agent selection criteria and training curricula that combine agricultural value chain knowledge with financial service delivery skills; and redesigning agent and loan officer incentive structures to shift performance measures from transaction volume to portfolio quality and client retention thus reducing mis-selling risk, improving sustainability of client relationships, and addressing the risk aversion toward smallholder agricultural portfolios that currently limits rural lending; (ii) expanding the use of mobile money functionalities for agricultural finance through partnerships with licensed mobile money players like Orange Money Côte d'Ivoire, MTN Mobile Money, and Moov Money (to be formalized during project inception), building on the precedent of MTN's existing agricultural savings partnership with cooperatives, thus promoting over-the-counter banking agent services among rural retailers and input providers, and training agents on cross-selling of bundled financial solutions in underserved communities where physical branch infrastructure is not viable; and (iii) promoting bundled service delivery models in

which financial products are offered alongside agricultural inputs, insurance, and advisory services through the same agent touchpoint, reducing the time and information costs that currently discourage smallholder uptake of formal financial services.

○ **Activity 1.3.5: Provide CSA-relevant data**

This activity builds the data infrastructure and analytical capacity that enables climate and agronomic information to be systematically integrated into financial decision-making, moving rural lending from intuition-based risk assessment toward evidence-based underwriting. This includes: (i) linking APIs of national climate information systems supported through activity 1.1.3 with tools such as the African Agriculture Adaptation Atlas³⁸ to bank and MFI credit scoring systems, enabling integration of seasonal forecasts, drought indices, and agroclimatic stress data into lending decisions; (ii) linking national soil information system from Activity 2.1.2; (iii) leveraging alternative data sources, including mobile transaction histories, remote sensing, and digital farm records to build richer borrower profiles for clients lacking formal credit histories; (iv) delivering timely CSA-relevant data directly to producers through radio, mobile applications, and digital tools such as Rice Crop Manager, reducing information asymmetry and supporting climate-informed production and financial decisions at the farm level³⁹; and (v) developing standardized tools, and platforms for the collection, aggregation and analysis of emissions related data, strengthening CSA-relevant data systems and MRV capacity of local extension services, training of extension agents, and members of professional producer organizations on the use of data collection tools, and reporting for MRV preparedness. For clarity, all emission reductions generated within the project scope and reported to GCF under the LARACI results framework are fully attributed to the project and will not be separately issued as carbon credits or counted toward any other mitigation claim.

Component 2: Reducing GHG emissions and enhancing soil carbon sequestration

Output 2.1: Integrated system for sustainable land and agroforestry management

42. This output aims to provide producers and extension agents with location-specific information and recommendations on climate-smart ISFM and agroforestry, as well as the tools, products, partnerships, and policy environment needed to implement and enhance adoption of those recommendations. Adopting the recommendations will enhance climate resilience and productivity, while contributing to GHG emission reduction, thereby contributing to realizing the project's mitigation potential through enhanced soil carbon sequestration, reduced land degradation, and tree-based systems.

○ **Activity 2.1.1: Develop soil, and agroforestry recommendations**

Gather the foundational knowledge necessary to establish a high-resolution soil and agroforestry information system. This includes: (i) employing remote sensing technology and digital soil libraries (as available) to characterize soil properties at 1 km² scale in the project intervention zone; (ii) identifying relevant technologies, and validating and adapting those technologies to local conditions using optimization trials; (iii) identifying and selecting tools and products to support recommended soil management practices; and (iv) communicating recommended soil and agroforestry management practices specific to the relevant soil and landscape profiles, based on the results of (i)-(iii). These practices will support increased biomass, organic matter retention, and agroforestry tree cover, thereby increasing carbon stocks and reducing emissions from land degradation.

○ **Activity 2.1.2: Develop soil and environmental information services (SEIS)**

Develop and maintain a SEIS tool to identify priority areas and support producer management decisions. In line with this, establish a partnership platform around SEIS to serve as a crystallization point for knowledge exchange and business integration of diverse stakeholders. This includes: (i) identifying and training governmental staff dedicated to developing and maintaining a SEIS; (ii) generating publicly accessible SEIS, including digital soil and climate information based on the results of activity 2.1.1, and maintaining and updating SEIS regularly based on new research findings and user feedback; and (iii) establishing private industry and public sector partnerships (e.g., agribusiness, analysis laboratories, research facilities) to create or significantly increase availability of the tools and products recommended by research organizations to producers and extension agents.

³⁸ <https://adaptationatlas.cgiar.org/use-cases/world-bank-aiccr>

³⁹ Sadler, Marc Peter; Millan Arredondo, Alberto; Swann, Stacy A.; Vasileiou, Ioannis; Baedeker, Tobias; Parizat, Roy; Germer, Leah Arabella; Mikulcak, Friederike. 2016. Making climate finance work in agriculture (English). Washington, D.C.

○ **Activity 2.1.3: Tools for producer decision-making**

This activity leverages activities 2.1.1 and 2.1.2 by combining those insights obtained into practical decision support tools (DST) for farmers to be accessed either directly or with the help of extension agents. These actions are expected to incentivize agroforestry adoption and long-term investments that increase carbon storage and reduce emissions from unsustainable land use. This includes: (i) conducting gender-sensitive awareness trainings and public campaigns on best recommendations of soil and agroforestry management practices; (ii) developing gender-sensitive and practical decision-making support tools based on the SEIS and agroforestry knowledge base for use by producers and extension agents; and (iii) increasing male and female producer likelihood to invest in long-term soil health (e.g., strengthening property rights and registries to increase producer willingness to invest in their land, visits to demonstration trials, improved access to irrigation facilities).

Component 3: Adoption of CSA for climate-smart agrifood systems

Output 3.1 – Increase access to climate-smart agriculture technologies

43. This output promotes a transition of the agrifood system towards a more climate-resilient and low emission development pathway to ensure food security with a particular focus on the most vulnerable producers and groups. To this end, it focuses on three priority value chains - cassava, rice, and yam. This output adopts a gender-responsive approach to CSA with particular focus on addressing gender-related needs and constraints to uptake. In this way, it will ensure that the agrifood system can increase the climate-resilience of people (both women and men) and ecosystems, contribute to reduced vulnerability of farmers to climate hazards thus protecting food security and enhancing income, while reducing the GHG footprint.

○ **Activity 3.1.1: Promote high-quality inputs**

Ensure that climate-smart recommended technologies and varieties of cassava, yam, and rice are readily available for adoption by producers. This will include: (i) identification of beneficiaries (rice, yam, cassava producers, nursery operators, private seed producers, and women's groups); (ii) professionalizing women's associations in seed production and training of such community-based cooperative and agribusiness (SME) seed producers to improve access to seed production facilities and improved seed; (iii) providing technical support to new cooperatives and professional organizations in management and meeting minimum requirements for accessing financial services; and (iv) developing partnerships with agribusiness (SMEs), women's associations and community-based seed producers toward meeting the demands for high-quality yam, cassava, and rice agri-inputs and products.

○ **Activity 3.1.2: Promote high-quality climate-smart planting material**

Leverage CGIAR research to promote high-quality planting material. This includes: (i) identification and validation of climate-smart improved rice varieties for rainfed, lowland, and irrigated rice systems, improved breeds of fish for integrated rice-fish systems, and improved, climate-smart varieties of cassava and yam; (ii) deployment of locally appropriate, climate-smart optimized propagation techniques for cassava and yam, as well as climate-smart rice varieties for rainfed, lowland, and irrigated rice systems. This will be implemented jointly with the National Center for Agricultural Research (CNRA)⁴⁰ and leverage results of the CGIAR Research Program on Roots and Tubers to support CNRA, the National Center for Agricultural Research, in genome-wide characterization of genetic diversity for cassava and yam, filling gaps in landrace collections, creating natural reserves, conducting routine propagation, and distribution of disease-free planting materials.

○ **Activity 3.1.3: Strengthen commercialization organizations**

Strengthen the commercial processing of cassava, yam, and rice products by developing capacity of farmer organizations and SME agribusinesses to formalize relationships with private industry partners. This includes: (i) improving access to appropriate mechanization tools for processing; (ii) provision of training in new processing techniques to diversify value addition options and improve processing efficiency; (iii) conducting entrepreneurship training and mentorship programs (e.g., with private industry business partners) for professional producer organizations' participation in regional and national agricultural fairs; and (iv) strengthening of existing digital market information platform to facilitate sales.

○ **Activity 3.1.4: Streamline infrastructure**

This consists of: (i) rehabilitation of lowland areas in a way that makes them suitable for CSA technology adoption (including improvement of small scale land and water infrastructure (irrigation and drainage), where feasible within environmental and social safeguards (ESS) for category C, and rehabilitation of

⁴⁰ CNRA is the country's leading agricultural research institution responsible for developing improved crop varieties and sustainable agricultural innovations

irrigated perimeters and of aquaculture infrastructure; (ii) installation of rice, yam, and cassava processing and storage facilities, and provision of technologies to mechanize production processes; (iii) identification and training of cooperatives and professional organizations from the three value chains to use, manage, and maintain these infrastructures; and (iv) conducting environmental and social screening, and ensuring that recommendations are addressed.

B.4. Implementation arrangements (max. 1500 words, approximately 3 pages plus diagrams)

44. **Accredited Entity:** The CGIAR System Organization is the GCF Accredited Entity (**AE**) for this project. The CGIAR System Organization is an independent international organization established in 2012 under the agreement establishing the Consortium of International Agricultural Research Centers⁴¹, with its headquarters in Montpellier, France pursuant to the Agreement between the CGIAR System Organization and the Republic of France. The CGIAR System Organization was accredited to GCF in 2018 and signed the AMA in 2022.
45. CGIAR (formerly Consultative Group on International Agricultural Research) was established as a global partnership in 1971 for a food-secure future. CGIAR is dedicated to transforming food, land and water systems in a climate crisis, in order to reduce poverty and inequity, enhance food and nutrition security, and improve natural resources and ecosystem services. With over 10,000 staff with multi-disciplinary expertise in gender, climate, economics, policy, agronomy, biology, ecology, and sociology, CGIAR is the world's largest publicly funded agricultural research network. CGIAR is an integrated partnership consisting of 15 CGIAR centers (**CGIAR Centers**)⁴² and the CGIAR System Organization. Each CGIAR Center and the CGIAR System Organization are independent legal entities with their own governing board, governing instruments, and host country agreements. For the avoidance of doubt, none of the CGIAR Centers is an Affiliate (as defined in the AMA) of the CGIAR System Organization. CGIAR's research for development activities are carried out by the 15 CGIAR Centers in close collaboration with thousands of partners, including national and regional research institutes, civil society organizations, academia, development organizations, and the private sector (see Section 6.8 in Annex 2).
46. The project leverages CGIAR's 50 years of experience, and a portfolio of ready-to-scale CGIAR technologies and practices that can deliver adaptation benefits to smallholder farmers and mitigate GHG emissions. CGIAR brings world-leading technical capacity to enhance capacity and design integrated solutions that overcome structural, cultural, and economic barriers to climate adaptation and mitigation.
47. **Executing Entities:** The AE will implement the project through the following two Executing Entities (**EEs**) who together bring complementary strengths that uniquely position them as EEs for the LARACI project. The EEs will be engaged through Subsidiary Agreements.
 - **Africa Rice Center (AfricaRice):** AfricaRice Center is an international organization established on 4 September 1970 with its headquarters in Côte d'Ivoire and with privileges and immunities under its host country agreement with the Government of Côte d'Ivoire (*Accord de siège entre le Centre du Riz pour l'Afrique et le Gouvernement de la République de Côte d'Ivoire*), dated 14 November 2014. Today, its membership comprises 28 countries. AfricaRice assists its member states to achieve operational cooperation in the field of rice production, including increasing quality and quantity, researching production methods adapted to the local conditions, promoting and implementing effective phytosanitary controls and improving storage and processing facilities. It contributes to reducing poverty, achieving food and nutrition security and improving livelihoods of farmers and other rice value-chain actors in Africa by increasing the productivity and profitability of rice-based agri-food systems, while ensuring the sustainability of natural resources. As a CGIAR Center and pan-African research organization, AfricaRice brings to the project a strong track record in CSA innovation, with world-class expertise in developing, testing, and scaling context-specific technologies and practices for resilient, low-emission agri-food systems, particularly in rice-based systems, but also across diverse value chains. Its extensive scientific network, proven capacity to generate actionable climate information services, and experience in gender-responsive technology deployment ensure that the project innovations are both technically sound and

⁴¹ The legal name of the Consortium of International Agricultural Research Centers was changed to the CGIAR System Organization upon the amendment of the International Organization Agreement on 21 November 2016.

⁴² As of date, the following 15 research organizations are recognized as CGIAR Research Centers: Africa Rice Center, also known as AfricaRice, Bioversity International, Center for International Forestry Research (CIFOR), International Center for Agricultural Research in the Dry Areas (ICARDA), International Centre for Research in Agroforestry (ICRAF), also known as World Agroforestry Centre, International Center for Tropical Agriculture (CIAT), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), International Food Policy Research Institute (IFPRI), International Institute of Tropical Agriculture (IITA), International Livestock Research Institute (ILRI), International Maize and Wheat Improvement Center (CIMMYT), International Potato Center (CIP), International Rice Research Institute (IRRI), International Water Management Institute (IWMI), and International Center for Living Aquatic Resources Management (ICLARM), also known as WorldFish.

socially inclusive. AfricaRice operates five permanent field offices across West Africa and has an established track record of managing large-scale agricultural programs financed by the African Development Bank, World Bank, and Inter-American Development Bank. It brings proven expertise in GHG quantification, soil carbon monitoring, and the development of IPCC-compliant MRV systems for rice-based mitigation interventions, providing a strong technical foundation for the emissions monitoring and reporting requirements of the LARACI project. For the avoidance of doubt, AfricaRice is not an Affiliate of the AE. The AE will enter into a Subsidiary Agreement with AfricaRice in the form of a grant.

- **Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles (FIRCA):** FIRCA is a public-interest organization established in 2002 by Presidential Decree No. 2002-520, dated December 11, 2002, and titled “*Creating and organization of the Interprofessional Fund for Agricultural Research and Advice (FIRCA)*” (“Establishing Decree”). As set out in Article 2 of the Establishing Decree “*FIRCA is an agricultural development fund. It is a legal person of private law of a particular type recognized as being of public utility. The FIRCA has an establishment fund. Its assets are exclusively assigned to the exercise of its mission of agricultural development, as provided for by its purpose*” FIRCA supports the development of Côte d'Ivoire's plant, forestry, animal production, and fisheries sectors through the financing of programs of technical and economic research, knowledge dissemination, and capacity building. FIRCA became a GCF accredited entity in 2024 and signed its AMA with GCF in 2025. As a national institution with deep operational presence in Côte d'Ivoire, FIRCA has an established mandate to coordinate agricultural research, extension, and value chain development, and a proven ability to engage directly with farmers, agribusinesses, and key government institutions including MINETE and MINADER PV. Its strong relationships with national stakeholders, capacity to mobilize and manage resources, and experience in facilitating public-private partnerships provide the institutional leverage necessary to integrate CSA solutions into national systems and policies. Between 2011 and 2018, FIRCA has mobilized approximately USD 344 million in the context of its role as technical and fiduciary coordination agency for 16 projects. FIRCA currently manages an active portfolio of approximately USD 60 million. This track record includes direct experience in strengthening of professional producer organizations, value chain grant management, and large-scale extension-based program delivery, all of which are directly relevant to FIRCA's responsibilities under Output 3.1 of the LARACI project. A dedicated LARACI project team has been established within FIRCA to ensure continuity, institutional ownership, and effective day-to-day management of project activities throughout the implementation period⁴³. The AE will enter into a Subsidiary Agreement with FIRCA in the form of a grant.

48. For the implementation of the Project, AfricaRice will engage the following service providers “**Service Providers**” through collaboration agreements (i) that will deliver specialized technical services for specific project activities, and (ii) that will provide co-financing for such activities. For clarity, these Service Providers are not executing entities but are engaged to deliver clearly defined technical services to project activities that are under the full responsibility of AfricaRice, as the EE, which retains sole responsibility for implementation, decision making, reporting, and delivery of the relevant activities. These entities are also co-financiers to the Project:

- **The International Center for Tropical Agriculture (CIAT):** CIAT is an international non-profit organization established in Washington through an agreement dated May 28, 1986, between the World Bank and the United Nations Development Program, UNDP, with headquarters in Palmira, Colombia and governed in Colombia under Law 29 of 1988 which gives it privileges and immunities. CIAT is part of the Alliance of Bioversity International and CIAT since 1 January 2020, with an end-to-end comparative advantage in climate science and climate-smart agriculture. CIAT will serve as a specialized technical service provider to AfricaRice, responsible for delivering clearly defined technical services to the project's climate aligned finance, data systems, and land management activities. Under Output 1.3, CIAT will build investment readiness of professional producer organizations and partner financial institutions (under Activity 1.3.1), design and operationalize gender responsive financial products and policy instruments (1.3.2), develop and validate agricultural risk mitigation instruments including warehouse receipt finance, climate index insurance, and value chain finance (1.3.3), and deploy digital platforms, credit scoring tools, and MRV ready data systems that reduce transaction costs and enable climate informed underwriting (1.3.4 and 1.3.5). Under Output 2.1, CIAT will develop high-resolution soil and agroforestry intelligence, including field sampling, remote sensing, optimization trials, informing agro-advisories produced by IITA on the SEIS platform (2.1.1) and contribute to establishing and operationalizing the SEIS, providing the climate and weather related analytics which will be correlated with the soil analytics co-produced with IITA (2.1.2). CIAT will also provide expertise to support the design, validation, and long-term scientific robustness of

⁴³ See section 6.8 in Annex 2

producer facing decision support tools (2.1.3). Across all activities, CIAT's role is limited to the provision of specific technical deliverables such as tools, systems, methodologies, datasets, and capacity building. AfricaRice retains full accountability for implementation, financial management, and delivery of results as the Executing Entity for these activities.

- The International Institute of Tropical Agriculture (**IITA**): IITA is a leading African research-for-development organization, headquartered in Ibadan, Nigeria under the headquarters agreement between Nigeria and IITA, dated 7 June 1988, with operations in over 20 countries in sub-Saharan Africa. Under the headquarters agreement (Article 6), IITA is granted "*the same privileges as are accorded to other International Organizations in Nigeria in respect of Foreign exchange facilities.*" IITA is also granted privileges and immunities relating to its assets, taxes, customs and personnel under the Nigerian Diplomatic Immunities and Privileges (IITA) Order 1991. IITA will be engaged by AfricaRice to deliver technical services to Activities 1.3.2, 1.3.5, 2.1.1, 2.1.2, and 2.1 bringing expertise and innovations related to CSA and related services for cassava and yam, customized digital advisory tools, climate information services, and decision support tools. The technical services provided by IITA will focus on the value chains of cassava and yam. The services that will be provided include: producing Gender-Sensitive Maps to identify key constraints and solutions (under Activity 1.3.2); customizing the AKILIMO digital advisory to the conditions of Côte d'Ivoire (under activity 1.3.5); contribution to the assessment of the status of Climate Information Services (CIS) and the development of forecast models (under Activity 1.3.5); leading the selection of agronomic recommendations and the ensuing optimization trials for cassava and yam (under Activity 2.1.1); contributing to the SEIS platform aspects that are relevant to the development and maintenance of services around solutions for yam and cassava (under Activity 2.1.2); and lead the identification and packaging of recommendations as decision support tool (DST) for cassava and yam (under Activity 2.1.3). Across all activities, IITA's role is limited to the provision of specific technical deliverables such as tools, systems, methodologies, datasets, and capacity building. AfricaRice retains full accountability for implementation, financial management, and delivery of results as the Executing Entity for these activities.

49. During implementation, the EEs will also engage other collaborators/procured parties to support implementation of the project activities through a competitive procurement process in accordance with the AE's procurement policy and procedures. All processing and storage infrastructure assets acquired under the project will be transferred at project closure to designated beneficiary institutions, either professional producer organizations, community organizations, or relevant government entities, based on an asset-by-asset assessment conducted during the inception phase. To ensure long-term operability, beneficiaries will receive preventive maintenance training and a minimum stock of spare parts at handover, and FIRCA will maintain an advisory role in the post-project period to support asset management continuity.
50. Together, AfricaRice and FIRCA combine international scientific excellence with national implementation capacity, enabling the LARACI project to systematically address both the institutional and on-the-ground barriers to CSA adoption, while ensuring lasting impact through policy integration, stakeholder ownership, and sustained capacity building. The specific roles of the two EEs are defined in line with their respective comparative advantages. FIRCA is responsible for the delivery of outputs 1.1, 1.2, and 3.1, and AfricaRice is responsible for the delivery of outputs 1.3 and 2.1 (see
51. Table 3), for a more detailed table with responsibilities at activity level, see Annex 2 Feasibility Study, Appendix 2.

Table 3: The Executing Entities are responsible for the implementation of the following outputs

Component	Outputs	Executing Entity
1	Output 1.1: Timely access to accurate climate information and advice	FIRCA
	Output 1.2: Extension and regulatory system have increased capacity	FIRCA
	Output 1.3: Increased capacity to access financial services	AfricaRice

2	Output 2.1: Integrated system for land and agroforestry	AfricaRice
3	Output 3.1: Access to CSA technologies	FIRCA

52. **Flow of funds:** As the AE, CGIAR System Organization is responsible for administering the GCF proceeds, carrying out fiduciary oversight and supervision, and submitting APRs and financial information to GCF in accordance with the AMA and FAA. GCF Proceeds will be disbursed to the EEs in accordance with the terms outlined in their respective Subsidiary Agreements (see Figure 5).
53. The Government of Côte d'Ivoire will provide expected in-kind co-financing through MINETE support to the activities that FIRCA will implement as EE. AfricaRice, IITA, and CIAT will provide expected co-financing through grant and in-kind contributions to the project activities that AfricaRice will implement as EE.

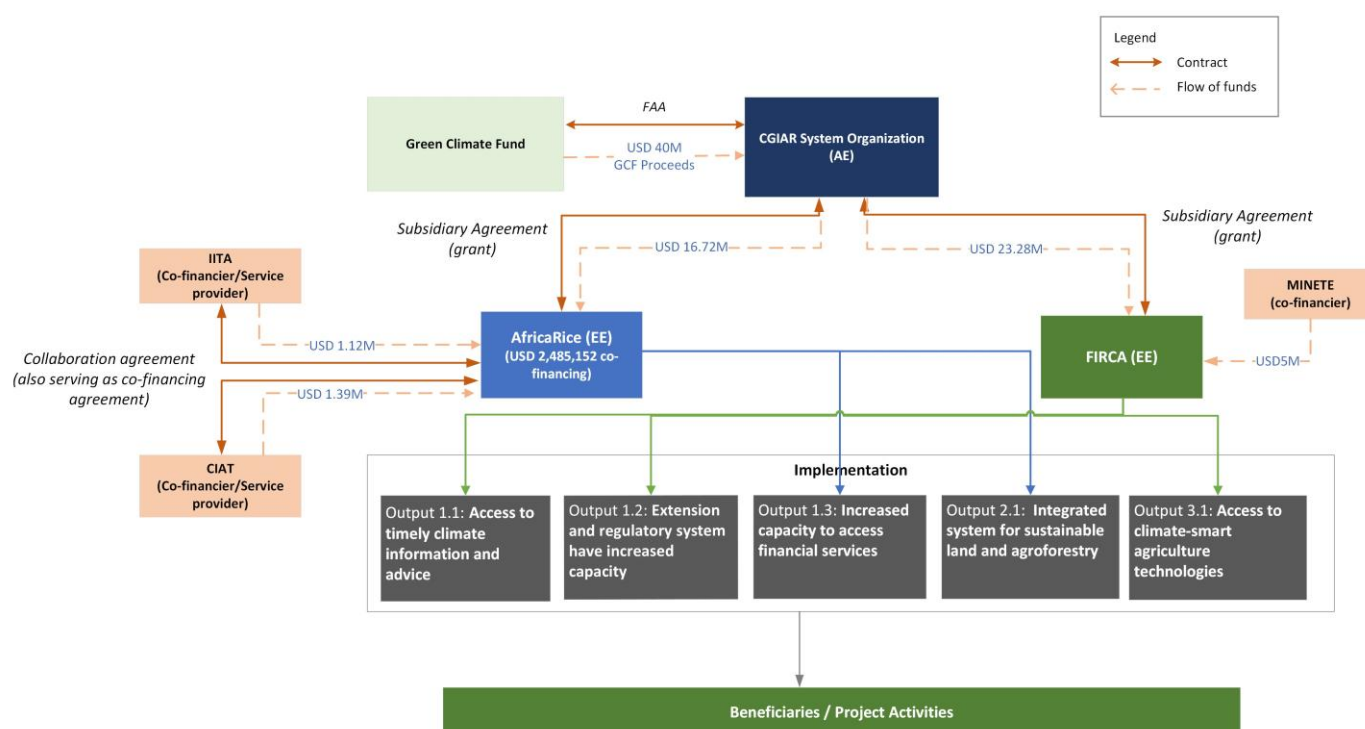


Figure 5: Diagram of the flow of funds and contractual arrangements.

54. **Project governance arrangement:** Several mechanisms will be put in place to ensure that the project is coordinated and managed efficiently and that it delivers the expected results using the financial resources as planned. The project falls under the administrative facilitation of Côte d'Ivoire's MINETE that will ensure strategic alignment with national policies. MINETE also hosts the NDA who plays a critical role in the reporting of climate impacts.
55. A Project Steering Committee (**PSC**) will be established and will include the Government of Côte d'Ivoire (chaired by MINETE as the NDA, including also the Ministry of Agriculture and Rural Development (MINADER PV) and other relevant line ministries), the CGIAR System Organization as the AE and co-chair, the EEs (AfricaRice and FIRCA), and other selected representatives e.g. from local governance, private sector, regional councils of the target zones, as well as key national institutions linked to the project. The PSC will provide strategic guidance and advice on the implementation of the project.
56. The roles and responsibilities of the PSC and PMU are further defined in Annex 2.

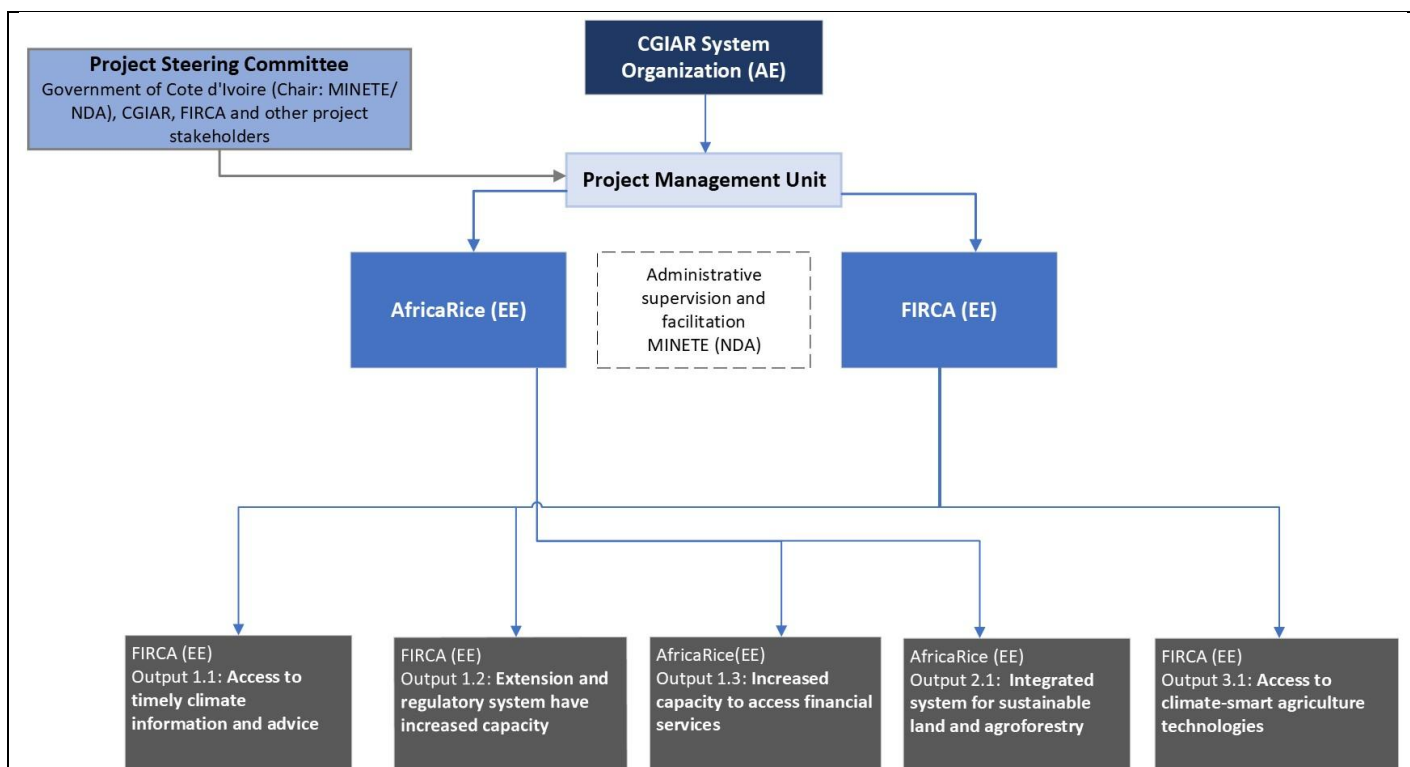


Figure 6: Project governance and implementation arrangements.

57. The CGIAR System Organization will put in place a **Project Management Unit (PMU)** through AfricaRice in charge of overall coordination (joint programming, preparation of overall project reporting - financial and technical - to GCF based on input from the two EEs, design and coordination of monitoring activities), financial oversight and provision of technical orientation to day-to-day implementation of all project outputs by the EEs. The role of the PSC and the PMU is further described in Annex 2, section 6.8.
58. **MEL function:** The MEL function will be key in generating information on the performance of the project, which in turn indicates the level of commitment and satisfaction of actors. The function will include involvement of the NDA (MINETE) on climate impact monitoring, disclosing Means of Verification and reporting on relevant indicators to establish pathways for integration in Côte d'Ivoire's national emissions inventory system. Lessons learned along the implementation steps will help guide orientation towards successful trajectories that will feed into the knowledge sharing system, while also enhancing the project's ability to adapt and improve based on experience and findings. The project mitigation impact will be mainstreamed into the country MRV system under development through contributing to the NDC mitigation targets and readiness to leverage carbon credit market opportunities. See Annex 22a, Section 9.4 for the detailed national MRV alignment strategy.

B.5. Justification for GCF funding request (max. 1000 words, approximately 2 pages)

59. In Côte d'Ivoire, climate change is already adversely affecting agricultural production. The country is a signatory to the UNFCCC Paris Agreement and has submitted its NDC, committing to take action both on adaptation and mitigation. The NDC of Côte d'Ivoire emphasizes the need to implement CSA strategies to enhance resilience among vulnerable populations. These strategies focus on improving soil fertility, conserving fragile ecosystems, and bolstering food security across rural, urban, and peri-urban areas. This project identifies specific climate-smart interventions that define on-the-ground actions consistent with Côte d'Ivoire's NDC and National Agricultural Investment Program II (PNIA II, 2017-2025) as well as its draft National Adaptation Plan (NAP). This GCF Grant will support the country's efforts to permit the agrifood sector to cope with climate change impacts, and foster sustainable livelihoods, climate resilience, and a reduced GHG footprint.
60. A transformation toward CSA depends on the adoption of sustainable agricultural practices and new technologies. As such, the transition is costly and cannot be met by the existing financial resources of the Government. Moreover, scarce government resources have been further strained by challenges including the COVID-19 pandemic and inflation. In developing countries where agriculture comprises a large portion of the national economy, the inherent risk and high volatility of the agricultural sector often translate into underperformance at the macroeconomic level.

61. Côte d'Ivoire's recent economic trajectory has shown stability, with real GDP growth expected to average 6.5% in 2024-25, slightly down from 6.7% in 2022, according to the World Bank. This modest decrease is attributed to rising import prices, escalating global and domestic interest rates, and a dip in external demand. Nonetheless, sustained public investment and robust domestic consumption are anticipated to be key drivers of stable growth in the coming years.

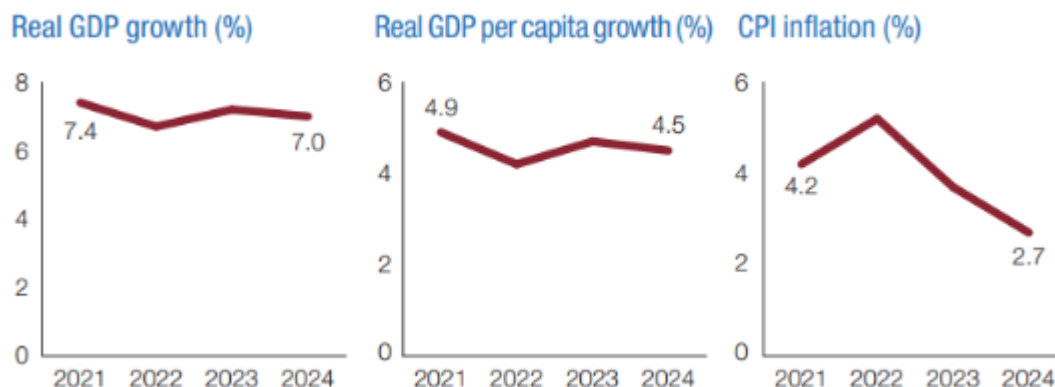


Figure 7: Real GDP growth trends and CPI inflation for Côte d'Ivoire, AfDB Country Outlook 2023⁴⁴.

62. Over the past two decades, while the agriculture sector has remained a cornerstone of Côte d'Ivoire's economy, its share of national employment has gradually declined and is projected to fall below 30% by 2025. Nevertheless, agriculture continues to dominate the country's export revenues. Côte d'Ivoire holds a prominent position in the global market for commodities such as cashew, coffee, rubber, and cocoa.
63. With respect to the private sector, the Ivorian Government has proactively implemented numerous policies that set the stage for private sector-led growth. The NDC aims to foster linkages between agriculture, agribusiness, and industry to support overall national economic development. Côte d'Ivoire has also received substantial international support, including USD 2 billion from the World Bank and the International Finance Corporation (IFC), under the Country Partnership Framework (CPF), to create better jobs through private sector-led agricultural growth. This includes support from the African Development Bank, World Bank, and the Economic Community of West African States. Therefore, the private sector represents an important opportunity for the implementation of important climate change adaptation plans and strategies such as the CSAIP, particularly in terms of private sector-driven service provision. In addition, both the National Development Plan (NDP) and the PNIA II seek to increase the private sector's role in boosting Ivorian agriculture. This GCF grant will build on these existing investments and build synergies by removing the key barriers to adaptation and placing private sector-led development in the agriculture sector on a low emission development pathway.
64. Highly unpredictable factors, such as weather and natural disasters, strongly affect agriculture and therefore, induce risk to financial services for Ivorian agricultural producers. Since 1991, three major public sector agricultural credit institutions have failed or been closed. Also, agricultural producers are geographically dispersed in sparsely populated regions, drastically reducing the potential for economies of scale. Ivorian agricultural producers are underrepresented among financial service clientele. In 2022, agriculture employed 48% of active adults and accounted for 20% of the GDP⁴⁵, yet only about 6% of bank lending and 10% of microfinance lending went to agricultural producers. Less than 10% of producers obtain credit from banks, professional producer organizations, or other financial service providers with disproportionate access for women. About 33% of producers hold a bank account, but many do not use or fully leverage this service; nearly 75% of producers hold their savings as cash at home. Producers' diverse needs require careful segmentation and customization of services, based on differences in decision-making and risk appetite between men and women. Despite efforts to increase financial inclusion and support the agricultural sector and smallholder farmers in particular, several challenges persist. Smallholder farmers face barriers in accessing microfinance credit due to stringent credit requirements and socio-economic factors such as low levels of education and lack of off-farm income activities. The short-term nature of deposits limits the ability of financial institutions to offer long-term loans needed for agricultural investments. This is crucial for infrastructure improvements in areas like irrigation and mechanization, which have long amortization periods. This project will provide technical assistance and training to help MFIs and their clients to improve traceability and certification, ensuring

⁴⁴ Côte d'Ivoire Economic Outlook | African Development Bank Group (afdb.org)

⁴⁵ FAO, 2020. (n 4)

sustainable production practices. Moreover, initiatives to incentivize banks through capacity building and reserve-grants for long-term credit lines will provide the agricultural sector with the necessary resources to invest, innovate, and grow sustainably, thereby supporting food security and economic stability.

65. Mobility of capital and de-risking approaches are crucial to agricultural development and transformation because they spur entrepreneurship, risk-taking, and innovation. Improving access to financial products and services enables agricultural producers and agribusinesses to leverage collateral, decrease transaction costs, and reduce risk. Producers and other value chain actors will consequently be more able and willing to invest in inputs and other technologies that increase productivity and resilience, such as improved seeds, soil amendments, diversification, agroforestry, value addition, and other CSA approaches.
66. In line with Côte d'Ivoire's Five-Year Financial Inclusion Strategy, this project will support financial sector restructuring, diversification of services, strengthened regulation, consumer education and protection, a more business-friendly environment, and expansion of financial services to marginalized populations. Additionally, the GCF grant will facilitate the adoption of CSA practices, promote nutritious crop development throughout the value chain, as well as provide green job opportunities for women and youth in the targeted regions.
67. An Economic and Financial Analysis was conducted during the project's feasibility and design phase to assess the viability and impact of proposed interventions across the selected value chains. The analysis evaluated three distinct scenarios: (i) a Business-as-Usual (BAU) scenario, in which current farming practices continue under existing and projected climate conditions; (ii) a market-based scenario, where smallholders independently finance climate adaptation measures to sustain or improve declining yields; and (iii) a GCF-supported scenario, where the GCF co-finances the adoption of CSA practices as outlined in this proposal.
68. In the absence of GCF support, the agricultural sector in Côte d'Ivoire's central regions will remain vulnerable to climate change. Under the BAU scenario, systemic barriers to CSA will persist indefinitely. Farmers will continue to rely on traditional, climate-sensitive practices, leading to a projected stagnation or collapse in yields for staples like rice, cassava, and yam. Without a catalytic driver, service delivery, particularly climate information and extension services, will remain fragmented and underfunded, leaving producers to make critical planting decisions based on increasingly unreliable historical patterns. Furthermore, access to finance will remain a strong issue as local financial institutions will continue to view smallholder CSA as high-risk, maintaining prohibitive collateral requirements that stifle private investment. This path leads to a missed transition, where land degradation, biodiversity loss, and deteriorating water quality become irreversible, compromising the nation's long-term food security.
69. The GCF contribution acts as the essential de-risking mechanism required to pivot the sector toward a low-emission, climate-resilient pathway. Unlike the market-based scenario, where high upfront costs deter individual adoption, the GCF-supported scenario provides the technical and financial bridge needed for widespread uptake. By co-financing the integration of climate risk tools into lending portfolios, the project transforms CSA from a perceived risk into a bankable opportunity, with estimated returns ranging between 20% and 39% per farm (compared to a BAU scenario ranging between 11% and 14%). GCF resources will modernize service delivery through robust e-extension systems, ensuring that tailored climate advisories reach the most vulnerable, who are currently excluded by structural barriers. This intervention does not merely provide a temporary boost; it establishes the institutional infrastructure and economic proof-of-concept necessary for a permanent, national-scale shift toward sustainable, high-productivity agri-food systems.
70. Alternative instruments, including self-financing, market-rate credit, and concessional debt, were considered and assessed against the financial ecosystem conditions documented above. The structured assessment, including sensitivity analysis of partial co-financing scenarios at 10%, 20%, and 30% farmer contribution levels, demonstrates that debt obligations would suppress uptake due to high climate-induced adoption risks, with FIRR for rice and cassava compressing toward or below the prevailing MFI lending rate of 18% under co-financing requirements, eliminating the financial incentive for adoption. The full assessment is presented in Annex 3a Section 6.4, and the financial institution engagement framework is documented in Annex 2 Section 6.10.
71. Finally, the GCF grant will help the Government of Côte d'Ivoire leverage additional co-financing. The Government of Côte d'Ivoire has committed to providing expected in-kind co-financing. In addition, AfricaRice and the CGIAR Service Providers (IITA and CIAT) will also provide in-kind and grant co-financing to project activities.
72. The implementation of the LARACI project will promote the adoption of low-emission, climate-resilient agricultural practices among 147,000 farmers (direct beneficiaries) across a total area of 110,600 hectares (Annex 23). This effort will reduce GHG emissions by 3,808,776 tCO₂eq over the lifetime of promoted technologies (606,212 tCO₂eq by the end of the project implementation) (see Annex 22) and contribute to the

GCF Strategic Plan for 2024–2027, specifically contributing to GCF’s updated Strategic Plan (USP-2) target 4 on Food, 5 on Ecosystems, and 9 on Adaptation.

73. Moreover, GCF operates across three interconnected dimensions through the LARACI project. First, the project deploys integrated CSA packages combining improved varieties, soil fertility management, agroforestry, and water management at scale across the rice, cassava, and yam value chains, enabling productivity improvements and yield stabilization that are not achievable under business-as-usual conditions. Second, the project specifically targets high-risk and underserved farmers, including women and youth, who face the highest climate vulnerability and the greatest barriers to accessing inputs, advisory services, and markets, and for whom the financial returns to CSA adoption under self-financing or market-rate credit remain insufficient to motivate uptake, as demonstrated by a BAU FIRR of 11%, 14% and 13% for the three crops, rising to 19%, 22% and 39% under the GCF-supported scenario. Sensitivity analysis indicates that partial co-financing by beneficiaries remains at the limit of viability up to approximately 10% of adoption costs while keeping FIRRs slightly above the prevailing MFI lending rate of 18%; above that threshold, the financial incentive for adoption is eliminated and uptake among the most vulnerable households, who represent the primary target group of this project, would be expected to decline significantly. A grant instrument, as proposed, is therefore most suitable for this project, as farmer-level FIRR shows that self-financing is not feasible. Third, the project strengthens national public goods, including climate information systems, extension platforms, and advisory services, embedding these capacities within public institutions such as SODEXAM and FIRCA to sustain impact beyond the project period without continued external financing⁴⁶. At the project level, the Economic Internal Rate of Return of 45% and Economic Net Present Value of approximately USD 696 million over 20 years driven by farmers incremental income and reduced vulnerability confirm that the full social return of the investment, incorporating GHG emission reduction benefits valued at a shadow carbon price of USD 35 per ton in addition to farmer income gains, substantially exceeds the cost of the intervention and provides a robust economic justification for GCF grant financing. Together, these three dimensions demonstrate that GCF support is not merely additive to existing investments but addresses a structural and climate-induced market failure that no other available instrument can resolve.

B.6. Exit strategy (max. 500 words, approximately 1 page)

74. The Climate-Smart Agriculture (CSA) approach highlights that investments that integrate climate change considerations can simultaneously increase productivity, sustainability, and resilience, while reducing emissions. The exit strategy has been designed to ensure full financial and institutional sustainability beyond GCF support by embedding CSA within national systems in Côte d'Ivoire. Recurrent costs related to CIS, extension platforms, SEIS maintenance, and advisory services will be progressively integrated into existing ministerial budgets and national extension mandates, complemented by cost-recovery mechanisms delivered through value chain actors and local financial institutions to ensure continued operational financing. Asset ownership of equipment, digital platforms, datasets, and related infrastructure will be transferred to and maintained by designated national institutions and executing partners, including SODEXAM and FIRCA, which will assume responsibility for operations and maintenance through established institutional mandates and budget lines. By strengthening public and private extension systems, facilitating access to climate-resilient seeds and inputs, and expanding access to tailored agronomic and climate advisory services, the project builds durable national capacity while reinforcing farmer-level incentives through low-cost, profitable CSA practices. Continued collaboration with CGIAR Centers further ensures sustained technical backstopping, innovation, and replication beyond the project lifecycle.
75. The exit strategy is anchored in four interlinked pillars:
- i. Institutionalization through Government Partnerships
 - The project has been co-designed with national ministries (particularly MINETE and MINADER PV), agencies, and local authorities to ensure alignment with policies and planning frameworks. This collaboration will continue throughout implementation to embed CSA practices within national strategies, thereby securing long-term government ownership. By institutionalizing technologies and approaches, the project ensures continuity beyond the funding period and contributes to broader systemic transformation.
 - ii. Multi-Level Capacity Building
 - Farmers and Local Organizations: Training and demonstration activities will provide proof of concept and clear livelihood benefits, encouraging continued adoption.

⁴⁶ Recurring costs for SEIS O&M and processing infrastructure O&M are detailed in Annex 2 Section 7.4

- National Institutions: Technical capacity will be developed to integrate CSA into planning, coordination, and monitoring, reinforcing accountability and responsiveness to community needs.
- Private Sector: Partnerships will build business models around CIS and CSA innovations, piloted through platforms such as SEIS. These will encourage long-term investment, joint ventures, and service provision beyond the project.
- iii. Strengthening the Enabling Environment
 - Policy recommendations, financing mechanisms, and public-private partnerships will remove barriers to CSA adoption. By embedding CSA into sectoral policies and financial systems, the project will enable entrepreneurship, innovation, and scale-up. Digital financial services, microfinance institutions, and rural banks will be strengthened, helping farmers access credit, build credit histories, and purchase inputs and insurance products. This integration into formal systems ensures sustained uptake of practices.
- iv. Scaling and Replication
 - With high potential for replication in countries facing similar challenges, the project's design promotes scale-up through knowledge sharing, regional partnerships, and proof of concept. Lessons learned will inform wider adaptation planning, multiplying the benefits of CSA across the region.

Sustainability of Investments

76. Component 1:

- Output 1.1 strengthens SODEXAM, the national meteorological authority, to manage and disseminate CIS sustainably. Farmer demand and institutional capacity will ensure long-term use.
- Output 1.2 establishes permanent mechanisms for extension and regulatory systems, closing research-extension gaps and ensuring continued access to CSA technologies.
- Output 1.3 enhances access to financial services and digital platforms, embedding a culture of investment and risk management that outlasts the project period. The project does not aim to fully replace concessional or public support for CSA investments. The transition envisaged under Output 1.3 is a shift toward improved financing conditions, achieved through three durable foundations: public goods including climate information systems sustained through government budgets and SODEXAM's mandate; institutional capacities within financial institutions that permanently reduce the perceived risk profile of farmers lending, especially those that have adopted CSA; and a pipeline of more investment-ready professional producer organizations whose improved productivity, income stability, and risk visibility attract financing from a combination of public, concessional, and commercial sources. A detailed financial institution engagement framework is provided in Annex 2 Section 6.10.

77. Component 2:

- Output 2.1 builds MINETE and community capacity in land and agroforestry innovations, fostering institutional and beneficiary ownership.

78. Component 3:

- Output 3.1 promotes adoption of CSA technologies to improve productivity and resilience. FIRCA, as national focal point, will continue to engage private sector actors and farmer organizations, ensuring monitoring and reinvestment in CSA solutions.

Contribution to Paradigm Shift

79. By embedding CSA in national systems, strengthening local and private sector capacity, and enabling access to finance and information, the project establishes the conditions for systemic transformation. This creates a self-sustaining model in which governments, markets, and communities collectively sustain and scale climate-resilient agricultural practices.

C. FINANCING INFORMATION						
C.1. Total financing						
(a) Reques ted GCF funding (i + ii + iii + iv + v + vi + vii)	Total amount			Currency		
	40			million USD (\$)		
GCF financial instrume nt	Amount	Tenor		Grace period		Pricing
(i) Senior loans						
(ii) Subordin ated loans						
(iii) Equity						
(iv) Guarante es						
(v) Reimbur sable grants						
(vi) Grants	40	N/A		N/A		N/A
(vii) Results- based payment s						
(b) Co- financin g informat ion	Total amount			Currency		
	10			million USD (\$)		
Name of institutio n	Financi al instru ment	Amount	Currency	Tenor & grace	Pricing	Seniori ty
AfricaRic e	In kind	0.42	million USD (\$)			
AfricaRic e	Gran t contr ibuti on	2.06	million USD (\$)			
IITA	Gran t contr	1.12	million USD (\$)			

	<u>ibuti on</u>					
CIAT	<u>In kind</u>	<u>0.65</u>	<u>million USD (\$)</u>			
CIAT	<u>Gran t contr ibuti on</u>	<u>0.75</u>	<u>million USD (\$)</u>			
Governm ent of Côte d'Ivoire	<u>In kind</u>	<u>5</u>	<u>million USD (\$)</u>			
(c) T otal finan cing (c) = (a)+(b)	Amount			Currency		
	<u>50</u>			<u>million USD (\$)</u>		
(d) Other financin g arrange ments and contribu tions (max. 250 words, approxi mately 0.5 page)	80. The Government of Côte d'Ivoire is providing USD 5 million in in-kind contributions to support the implementation of key activities under this project. These contributions are designed to complement GCF funding and strengthen national ownership, capacity, and sustainability of outcomes. The in-kind support will be directed toward critical areas aligned with the project's adaptation and mitigation goals, particularly through institutional support, tax abatement, and support to capacity building measures (see Annex 4 and Annex 13).					
	81. CGIAR is providing USD 5 million in grants and in-kind contributions (USD 3,930,931 in the form of grant contributions and USD 1,069,070 is in the form of in-kind contributions) from AfricaRice (USD 2,485,157), CIAT (USD 1,394,286), and IITA (USD 1,120,558) to the implementation of project activities, as well as towards the PMU and MEL Functions as detailed in Annex 4 and in Annex 13 through the co-financing commitment letters.					
	82. The Gates Foundation has contributed to the project preparation phase of LARACI through the Global Green Growth Institute (GGGI). The support provided by GGGI aimed to increase access to climate finance, in line with national priorities, for the agricultural and climate adaptation sectors, particularly from GCF. In this context, GGGI supported CGIAR with funding from the Gates Foundation in developing this project. In addition, the Gates Foundation will provide parallel finance through other committed investments to the CGIAR System Organization and CGIAR Centers in Côte d'Ivoire within the anticipated project period of approximately USD 5 million as detailed in their support letter (Annex 24).					

C.2. Financing by component

Component	Output	Indicative cost million USD (\$)	GCF financing		Co-financing		
			Amount million USD (\$)	Financial Instrument	Amount million USD (\$)	Financial Instrument	Name of Institutions
Component 1: <u>Managing climate-related risks</u>	Output 1.1: Access to timely climate information and advice	<u>8.30</u>	<u>6.05</u>	<u>Grants</u>	<u>2.25</u>	In-Kind	<u>Government of Côte d'Ivoire</u>
	Output 1.2: Extension and regulatory system have increased capacity	<u>8.15</u>	<u>6.82</u>	<u>Grants</u>	<u>1.33</u>	In-Kind	<u>Government of Côte d'Ivoire</u>

	Output 1.3: Increased capacity to access financial services	<u>5.75</u>	<u>4.73</u>	<u>Grants</u>	<u>0.69</u> <u>0.33</u>	In-Kind Grant	<u>CGIAR Centers</u> <u>CGIAR Centers</u>
<u>Component 2:</u> <u>Reducing GHG emissions and enhancing soil carbon sequestration</u>	Output 2.1: Integrated system for sustainable land and agroforestry	<u>12.05</u>	<u>8.99</u>	<u>Grants</u>	<u>0.09</u> <u>2.97</u>	In-Kind Grant	<u>CGIAR Centers</u> <u>CGIAR Centers</u>
<u>Component 3:</u> <u>Climate smart Agri-food systems</u>	Output 3.1: Access to climate-smart agriculture technologies	<u>11.62</u>	<u>10.20</u>	<u>Grants</u>	<u>1.42</u>	In-Kind	<u>Government of Côte d'Ivoire</u>
<u>Monitoring and Evaluation Function</u>		<u>1.45</u>	<u>1.20</u>	<u>Grants</u>	0.06 0.19	In-Kind Grant	<u>CGIAR Centers</u> <u>CGIAR Centers</u>
<u>Project Management Cost</u>		<u>2.67</u>	<u>2.00</u>	<u>Grants</u>	<u>0.23</u> <u>0.44</u>	In-Kind Grant	<u>CGIAR Centers</u> <u>CGIAR Centers</u>
Indicative total cost (USD)		<u>50</u>	<u>40</u>		<u>10</u>		

C.3 Capacity building and technology development/transfer (max. 250 words, approximately 0.5 page)

C.3.1 Does GCF funding finance capacity building activities?

Yes ☒ No ☐

C.3.2. Does GCF funding finance technology development/transfer?

Yes ☒ No ☐

83. The project will develop capacity across multiple levels: smallholder farmers, extension agents, public institutions, and local service providers. These trainings will enhance the knowledge of beneficiaries on CSA practices, climate data and digital agro-advisories use, knowledge on CSA technologies and improved varieties. The project will also support technology transfer based on CGIAR research and innovation for adaptation and mitigation and scale-up the use of innovative CSA technologies in the 5 selected regions of Côte d'Ivoire through promotion of stress-tolerant varieties, agronomic practices, and digital platforms for disseminating climate information and soil data. The total budget going towards training, workshops, and conferences is USD 5,840,586 as detailed in Annex 4.

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section refers to the performance of the project/programme against the investment criteria as set out in the GCF's [Initial Investment Framework](#).

D.1. Impact potential (max. 500 words, approximately 1 page)

84. The project approach responds to the GCF focus on reaching end-user beneficiaries, while contributing to a paradigm shift through structured institutional capacity building of key actors in the agricultural sector, including SMEs providing supporting services to farmers, national agricultural research systems and extension services developing and disseminating next-generation climate-smart technologies.
85. The project will contribute to GCF's fund-level adaptation paradigm-shift objective of increased climate-resilient sustainable development. Specifically, it will contribute to several indicative assessment factors in the GCF Integrated Results Framework to ensure impact in target regions. Methodologies for estimating direct and indirect beneficiaries are detailed in Annex 23. It is anticipated that the project will directly reduce vulnerability or increase resilience (to drought, flooding, water scarcity, heat stress, erratic rainfall, and changes in growing seasons patterns) of 147,000 direct beneficiaries and 588,000 beneficiaries in total (direct and indirect) by the end of the project. The share of direct beneficiaries of the total population in the target regions is approximately 5%, while total beneficiaries account for 19% of the total population in the same area, particularly the most vulnerable groups. The total number of beneficiaries includes about 441,000 indirect beneficiaries (representing 14% of the total population in the targeted regions). This target for GCF Core Indicator 2 will contribute to the GCF fund-level adaptation results A1.0 – increased resilience of most vulnerable people, communities and regions, A2.0 – improved health and well-being, and food and water security in the target regions, and A4.0 Increased resilience of ecosystems and ecosystem services.
86. The promoted integrated system for sustainable land use and agroforestry (Component 2) as well as the CSA technologies (Component 3) are expected to reduce, avoid, or sequester a total of 606,212 tCO₂e in emissions by the end of the project, and 3,808,776 tCO₂e by the end of the project lifespan contributing to GCF Core Indicator 1 and the fund-level mitigation result M4.0 Reduced emissions from land use, deforestation, forest degradation, and through sustainable management of forests and conservation and enhancement of forest carbon stocks. Details on the calculations of the estimated GHG emission reduction are provided in Annex 22. As it relates to Core Indicator 2, direct beneficiaries are defined as farmers and producer organizations who receive targeted technical assistance, inputs, or services supported under Components 1-3 and who adopt at least one CSA practice during the project period and who experience positive adaptation outcomes as a result of this support. Indirect beneficiaries are individuals within farming communities who benefit from technology diffusion without directly receiving project inputs. A detailed account of assumptions, adaptation benefits and the calculations behind the number of direct and indirect beneficiaries can be found in Annex 23.
87. The CSA innovations that will be promoted (See Annex 2, section 6.2) were prioritized based on their potential to enhance resilience to climate change and low cost and ease of implementation. The selected interventions can contribute to reversing the current and projected situation of climate change impacts and instead increase crop yields and improve farmers' incomes, while mitigating greenhouse gas emissions. Component 1 is essential in addressing the key barriers, such as access to climate information and advisory, capacity of extension and regulatory system, and access to finance, and creating the enabling environment for large scale adoption of the innovations scaled under Components 2 and 3. The adaptation impacts are further elaborated in Annex 23. The estimation of GHG emissions reduction is explained and provided in Annex 22.
88. In addition to the above-mentioned fund-level impacts, the project will contribute to four fund-level outcomes as presented below.
89. **A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development**
Through Output 1.2 (for descriptions of outputs see section B.3), the project will strengthen national institutions, particularly extension services and regulatory systems covering finance, markets and private sector to ensure effective climate-responsive planning and development. The achievement of this outcome will also be supported by Output 1.3.
90. **A.6.0 Increased generation and use of climate information in decision-making**
Through Output 1.1, the project will increase the use of CIS by value chain actors (individual farmers,

communities, extension service providers) to anticipate and prepare for minor and major weather events. The achievement of this outcome will also be supported by Outputs 1.2 and 1.3.

91. A.7.0 Strengthened adaptive capacity and reduced exposure to climate risks

Three project outputs will directly contribute to this outcome through promoting the use of tools, services, information and technologies by value chain actors and public sector services to respond to climate change and variability. This includes Output 1.3, Output 2.1, and Output 3.1. The achievement of this outcome will also be supported by Outputs 1.1 and 1.2.

92. M.9.0 Improved management of land or forest areas contributing to emission reductions

Output 2.1 and Output 3.1 will directly contribute to this outcome through contributing to the adoption of practices that mitigate GHG emissions from agriculture and land use through reduced GHG emissions, increased soil organic content and increased biomass.

D.2. Paradigm shift potential (max. 500 words, approximately 1 page)

93. Innovation: The project will capacitate stakeholders along the value chains with actionable knowledge on innovative CIS and CSA solutions. Moreover, it will use innovative extension systems (e-extension) to foster adoption of tailored CIS and context-specific climate-smart technologies and practices that will increase the resilience of the targeted value chain crops, institutions, and individuals to a changing climate, while reducing GHG emissions in their respective sectors. The innovations will also increase the productivity of value chain crops and generate income. Other innovations include the promotion of new financial tools and services, and market opportunities, as well as the creation of public-private partnership business models. These in turn serve to foster entrepreneurship and uptake of CSA innovations by end-users.

94. Potential for scaling up and replication: The project addresses structural barriers that cannot be resolved under business-as-usual conditions. The project will primarily build on and work with existing on-the-ground institutional public and private infrastructure (e.g., national extension services, departments of rural development, NGOs, SMEs) to ensure large-scale top-down and bottom-up uptake of the context-specific climate-smart innovations. The national level component of the project will play a key role in underpinning the potential for scaling up and replication building on proven public-private business models. Without GCF support, yields are projected to decline under climate change, while farm-level returns under such declining yields remain too low to incentivize investment. Only fourteen percent of smallholder farmers access formal credit, and lending rates reach up to eighteen percent, creating a clear barrier to CSA adoption. With GCF support, concessional finance restores financial viability by raising returns above lending rates and reducing risk. The innovative e-extension that will be developed through Output 1.2, the digital-led dissemination of agro-advisory services through Output 1.1 and the unlocked access to finance promoted under Output 1.3, will ensure not only large-scale uptake within the targeted regions through Components 2 and 3, but also for scaling and replication of the project outputs country-wide. Component 1 represents the main vehicle for scaling and replication as it addresses the main national barriers to adaptation (see section B.2(a)) and creates public-private partnerships that improve the enabling conditions and capacity to support a sector-wide paradigm shift to climate-resilience and a low emission development pathway. This component will support a wide range of projects to deliver climate impact (see synergies defined in Annex 2, section 5.3). Through this scaling up strategy, this project has the potential to benefit an estimated 2 million rural actors across the country. While CSA innovations are context-specific and not all directly replicable, their approaches, processes, and lessons learned can be adapted and applied in other settings. The potential for scaling-up is particularly high for countries with similar conditions and where the priority value chain crops are largely the same, such as Togo and Benin. The financial institution engagement framework and layered de-risking architecture supporting this shift are documented in Annex 2 Section 6.10. At the project level, EIRR is 38% and the 20 years ENPV is USD 442 million. At the farm level, IRRs with the GCF supported scenario range from 19% to 39% percent (a clear rise from the BAU range of 11% to 14%), with yield increases of around 24% for rice, 12% for cassava, and up to 26% for yam. This demonstrates that the financial and economic returns generated under GCF support create the proof of concept and institutional foundations necessary for scaling up CSA adoption country-wide and for replication in countries with similar agroclimatic and institutional conditions, confirming that the LARACI model is not only locally viable but structurally replicable.

95. Potential for knowledge and learning and contribution to creating an enabling environment: The project will develop and implement a robust MEL function, ensuring systematic management and documentation of achievements, lessons learned and outcomes. Beyond their large-scale dissemination and sharing, this will ensure that learning is incorporated through adaptive management and considered in the project exit strategy to ensure sustainability beyond the duration of the project. Furthermore, the project's sustainability will be supported by creating an enabling environment, removing key barriers to climate-resilient solutions through

strong private sector involvement, stronger public institutions, and the development of business models, financial services, markets, and supportive policies.

96. Contribution to the regulatory framework and policies for climate-resilient development pathways:

Innovative climate-smart regulatory frameworks and policies will be developed to create and strengthen incentives for investment. By expanding access to financial services, engaging private sector actors (e.g., micro-credit providers and banks), and informing regulatory measures (e.g., bank agents), the project will help integrate climate-resilient, low-emission pathways into national policies – contributing to a lasting enabling environment beyond the project's duration.

D.3. Sustainable development (max. 500 words, approximately 1 page)

97. Through focusing on CSA innovations, this project will increase productivity, resilience and mitigation, while also contributing to enhanced livelihood benefits, food security, and sustainability. Climate-smart economic investments can boost agricultural productivity and sustainability while delivering direct climate benefits including enhancing resilience and reducing emissions. Moreover, the project will directly contribute to the achievement of the Sustainable Development Goal (SDG) 2-Zero Hunger; and SDG 13- Climate Action. It will also indirectly contribute to SDG 1-No Poverty, and SDG 5-Gender Equality.

98. The project is expected to deliver the following sustainable development co-benefits:

99. **Economic co-benefits:** This project will positively influence and generate co-benefits for the country's overall economy through promoting the uptake and use of CSA along various value chains. By enhancing sustainable on-farm productivity and profitability, the project will result in increased income for all actors along the targeted value chains. An impact assessment conducted for the CSAIP showed that shifting economic incentives resulting from climate change could play out favorably for Côte d'Ivoire in some key commodities such as root crops like cassava and yam, as well as rice. Modelling of shared socioeconomic pathways (SSPs) with respect to society's ability to deal with climate change undertaken for Côte d'Ivoire shows that economically led and adaptation-friendly agricultural development would help improve trade balance. Supporting CSA investments in economic incentives to offset biophysical climate change impacts for some crops can help reduce the dependency on imports. For example, under SSP5, a scenario where Côte d'Ivoire agriculture grows and benefits from economically led and adaptation-friendly development, the growth in exports is about two-times greater than the growth in imports. These foresight scenarios suggest that under SSP5-style economic growth and good adaptation trajectories, investments that enhance productivity in key crops, anticipate crop and land use transitions, and facilitate sustained adaptation over the long term have the potential for substantial payoffs, therefore allowing for the agricultural economy to thrive.

100. **Adaptation co-benefits:** The value chain crops targeted by the project, in particular yam and cassava, have high nutritional values, which will increase the food and nutrition security nationally under future climate change scenarios. CSA practices will improve yields, reduce farmers' vulnerability to climate stressors, and enhance value chain efficiency. These improvements will enhance value chain efficiency and strengthen household incomes and assets bases, thereby increasing resilience to climate and health shocks. Moreover, the improved ecosystem services resulting from the project, such as improved groundwater quality, will ensure more reliable access to essential resources. The adoption of context-specific CSA innovations is also expected to reduce labor intensity and improve labor productivity, with particular adaptive co-benefits for women and youth.

101. **Environmental co-benefits:** The integrated land and agroforestry systems (Component 2) and the application of CSA technologies and practices along the value chains (Component 3) will improve soil quality, reduce soil erosion, improve water infiltration, recharge and quality, as well as improve the ecosystem biodiversity and other ecological functions.

102. **Gender-sensitive development impact:** Women face greater climate change risks due to inequitable access to productive resources, gender roles, economic disparities, and domestic responsibilities that limit adaptation opportunities. As climate extremes push, agriculture becomes more feminized with men seeking off-farm work, women's role in agriculture is expected to grow. The project will identify and address gender-specific barriers to accessing and benefiting from CSA approaches, using sex-disaggregated data to track progress. A gender-responsive framework will be adopted by the project to Reach, Benefit and Empower women⁴⁷. It will ensure a minimum of 40% of beneficiaries are women, aiming for at least 50%. Interventions will focus on improving women's access to information, finance, land rights, capacity building, and participation in decision-making. The project will also contribute to empowerment through creating job opportunities for women and youth through land restoration, sustainable agriculture, and climate-resilient livelihoods. This includes helping

⁴⁷ [Chapter 5: Gender Equality: Women's Empowerment for Rural Revitalization](#)

young artisanal miners shift to low-carbon income-generating activities; at least 30% youth will be reached. These efforts will enhance the production levels realized by women and youth, income and food security, improve resilience, and raise the quality of life for women and youth in rural communities.

D.4. Needs of recipient (max. 500 words, approximately 1 page)

103. The targeted central regions of the country are already heavily affected by the effects of climate change as well as widespread deforestation and associated environmental impact. These regions were an integral part of the initial national cocoa-coffee production, once prosperous and suitable for agriculture. However, the environmental impact of this production has been substantial, creating economic problems for local populations. In addition, these regions are confronted with soil degradation, pollution, and eutrophication of water, etc., resulting in shifting suitability of land area for important crops. This has led to a significant decline in agricultural yield, loss of income as well as the destruction of animal and plant biodiversity. Additionally, the local rural population lacks the necessary skills, knowledge and financial means to adapt to climate change resulting in increased poverty, food insecurity and migration from these areas, especially among the youth.
104. The local communities and authorities strongly stressed the relevance of the project to address the challenges they face and the importance of the proposed interventions in transforming the local agri-food systems during stakeholder consultations that were conducted during the project design period. They expressed their firm commitment to supporting the project and ensuring its success.
105. The women representatives emphasized the importance of developing the rice, and vegetable production value chains as well as yam, cassava, and banana. For rice and vegetables, they highlighted the potential to capitalize on the large potential of the inland valleys and using small-scale land and water development approaches. Their interest in addressing these two value chains was largely based on the experienced negative impacts of climate change as well as their relative profitability compared to cocoa and coffee production which is largely affected by illegal gold mining. For all priority value chains, the importance of accessing CIS to make climate-informed decisions for agricultural production, extension, and finance were also highlighted as strong needs.
106. The youth representatives highlighted a strong preference for agro-forestry systems (including production of cassava and yam), the large potential of the district in inland valleys, the need for the development of rice and vegetable value chains, livestock (pork, poultry, and fish), maize, and banana. Moreover, it was explained that youth are not organized in formal groups, a gap that can be addressed through targeted capacity building.
107. The project aims to support the Government's efforts to reduce the vulnerability of the targeted rural communities and decrease the trend of youth migration from these regions. The quality of life for women and youth in these rural communities will be significantly improved as they are primarily responsible for food security.
108. Overall, in terms of policy dynamics, the Government of Côte d'Ivoire has undertaken major reforms to bolster the business climate and improve financial management. Nevertheless, gaps between policy and implementation remain. For example, the country has benefited greatly from a robust regulatory framework regarding fertilizer import quality control and open regulation on private-sector, NGO and cooperative imports of the same. At the same time, registration is costly and implies protracted delays. Furthermore, cold-chain infrastructure is insufficient, and the services that do exist are prohibitively expensive. The near total lack of cold-chain infrastructure accessible to smallholders leads to large-scale post-harvest losses that have become a major challenge to developing the national agrifood sector. Most critically, there are virtually no alternative sources of financing to address these systemic constraints in Côte d'Ivoire. Commercial banks consider smallholders too risky, while concessional resources remain scarce and fragmented.
109. The project targets three priority value chains—cassava, rice, and yam—which are central to food and nutrition security in Côte d'Ivoire. Cassava, mainly produced by smallholders for household use, is facing declining yields and limited shelf life, yet demand for processed products is rising, particularly in urban and export markets, creating strong income opportunities for women. Côte d'Ivoire's local rice production covers only 54% of the demand, and the gap between production and consumption is covered by importation at the cost of 0.58 million USD annually,⁴⁸ prompting the Government's goal of self-sufficiency by 2030 amid growing consumption. The rice sector is constrained by input access, financing, and high logistics costs. Yam, culturally significant and nutritionally rich, faces challenges such as labor-intensive cultivation, low seed multiplication,

⁴⁸ Ibid

and yield variability, yet offers high profit potential and strong local demand. Yields average about 10 tons/ha, compared to potential yields of approximately 50 tons/ha.⁴⁹ Strengthening these value chains will enhance food security, create jobs — especially for women and youth — and unlock opportunities for climate-resilient agribusiness growth.

D.5. Country ownership (max. 500 words, approximately 1 page)

Contribution to national priorities and country ownership

110. This project contributes to Côte d'Ivoire's revised NDC and the draft NAP (currently under development). Programmatically, the project falls within the framework of the Government's Abidjan Legacy Programme, the latest GCF Country Investment Program and contributes to Côte d'Ivoire's CSAIP. The project has been designed in close partnership with FIRCA, MINETE as the NDA, and MINADER PV as a key line ministry responsible for coordinating agriculture sector projects in the country.
111. Côte d'Ivoire's revised NDC prioritizes the agricultural sector with planned mitigation and adaptation measures, and the project directly contributes to at least five of the planned adaptation interventions:
- enhancement of environmental & climate information system & access,
 - implementation of climate risk management systems,
 - promotion of sustainable soil management techniques,
 - building rural farm communities' capacity for climate resilience targeting young and women, and
 - promotion and support for climate resilient technologies for agriculture, livestock and fisheries.
112. The project promotes CSA, which has been identified as a key priority subsector with interventions planned in agroforestry and diversification, improved animal breeds and improved livestock management, drought and flood resistant varieties as well as integrated soil fertility and water management for climate change adaptation.
113. The project also strongly aligns to the NAP under completion. It addresses several of the adaptation options identified for the agriculture sector, notably: agroforestry, CSA, meteorological information systems, development and access to seeds of improved varieties, and soil fertility. Through implementing these options, the project will directly contribute to reducing vulnerability and increasing the resilience of several priority sectors of the NAP such as agriculture, forestry and land use, and water resources.
114. Additionally, the project supports seven out of the twelve investments and actions that were prioritized in Côte d'Ivoire's CSAIP50 with the main objective to boost crop resilience and enhance yields helping more than 2.2 million beneficiaries and their families to adapt to climate change. Eight drought-tolerant and/or climate-resilient crop and livestock investments were identified as priority for different regions of Côte d'Ivoire. During the series of stakeholder consultations informing the design of this project, stakeholders prioritized rice, cassava, and yam as the three value chains out of the eight prioritized investments due to their significant role in enhancing food and nutrition security in the country, their specific relevance to the targeted regions (in agropole 4), and for complementarity with other investments (such as ongoing GCF projects targeting cocoa). This was confirmed by a value chain prioritization exercise undertaken as part of the feasibility study as explained above (See Annex 2, section 4.3). By showcasing how the CSAIP can leverage transformative impact on the ground, this project will also enable and unlock further investments identified in the CSAIP in Côte d'Ivoire, as well as serve as an example for other countries that have developed CSAIPs. The CSAIP proposed development outcomes (PDOs) and beneficiary estimates for cassava, rice and yam are outlined in Annex 2: section 4.6.
115. The project idea was initially proposed by MINETE, which is currently boosting its efforts to mobilize financial resources for the implementation of the country's NDC. As part of the implementation of its funding mobilization strategy, around twenty priority projects have been designed, including the current project which falls within the Program for the Resilience of Territories and the Sustainable Strengthening of the Competitiveness of Agroforestry Operations part of the national climate Legacy Program. The Legacy Program was presented by MINETE at the COP15 of the United Nations Convention to Combat Desertification (UNCCD) in Abidjan, 2022. This multi-partner national initiative identifies land restoration as a solution at the forefront of the fight against climate change in Côte d'Ivoire. The program aims to contribute to the creation of jobs for youth and women, through land restoration and promotion of sustainable agriculture, with major climate, environmental, social and economic impacts including the reconversion of artisanal gold mine workers into low-carbon activities including climate smart agriculture. It is an innovative and holistic program that links land - agriculture - forest - waste and

⁴⁹ Ibid

⁵⁰ WB et al. 2019 (n 24)

the comparative advantages of the targeted regions which constitute the Agro-pole 4 as per the PNIA II definition.

116. Extensive and in-depth consultations with key stakeholders have been conducted between 2022 until the formal validation of the present Funding Proposal on 5 August 2025. This consultation and co-design process benefited from support from the GGGI with funding from the Gates Foundation and served to inform project design and ensure strong country ownership which is crucial for successful implementation and sustainability of project interventions. Key stakeholders consulted include relevant Government agencies, private sector, civil society, and expected beneficiary communities (see Annex 7).

D.6. Efficiency and effectiveness (max. 500 words, approximately 1 page)

117. The financial structure proposed for the LARACI project is based on GCF grant funding in support to technical assistance, climate-smart technology transfer, capacity building, CSA financing mechanisms, and climate-resilient value chain development, alongside Government and CGIAR co-financing contributions. GCF resources will primarily finance public goods and services (e.g., agrometeorological services, extension support, climate-smart advisory systems) and de-risk private investments into resilient and low-carbon agriculture.
118. Given the substantial climate vulnerability and financing gaps in Côte d'Ivoire's central regions (N'Zi, Iffou, Moronou, La Mé, and Gbêkê) — as outlined in Section B.5 — and the historically low levels of adaptation investment in agriculture, the proposed use of GCF resources is essential to catalyze a transformational shift in smallholder production systems. GCF support ensures the identified barriers to adoption of CSA technologies are addressed, in a way that unlocks private sector engagement without permanently subsidizing private actors.
119. The Economic and Financial Analysis of the project (Annex 3) showed an Economic Internal Rate of Return (EIRR) for the project of 38%, indicating the high economic viability of the intervention. The project is also designed to ensure that GCF proceeds are deployed with a high degree of efficiency and effectiveness, both in terms of cost of mitigation and adaptation. When it comes to mitigation, LARACI delivers strong value for money with cost standing at USD 3.42/tCO₂eq which is way below the shadow price of carbon in the region (USD 35/tCO₂eq) and firmly within the GCF range, falling below prices commonly used for REDD+ (USD 5-8 tCO₂eq). When it comes to adaptation, LARACI delivers adaptive capacity at a cost of USD 126 per direct beneficiary made climate resilient and at USD 27.7 per total (direct and indirect) beneficiary made climate resilient which is less than half of the unit cost for adaptation projects in the region. The project further brings over 110,000 Ha of land under climate resilient practice at USD 51/Ha which is notably efficient for practice-change CSA.

E. LOGICAL FRAMEWORK

E.1. Project/Programme Focus

- ☒ Reduced emissions (mitigation)
- ☒ Increased resilience (adaptation)

E.2. GCF Impact level: Paradigm shift potential (max 600 words, approximately 1-2 pages)

Assessment Dimension	Current state (baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	Despite the impacts of climate variability on the agriculture sector, the adoption of CSA technologies in Côte d'Ivoire remains fragmented and limited. Access to climate information, stress-resistant crop varieties, and other CSA inputs is restricted to a small proportion of farmers. Extension systems are under-resourced and widespread adoption has yet to be achieved. The project aims to reach 147,000 direct beneficiaries and bring 110,600 hectares of agricultural land under	<u>Medium</u>	A functional national agrometeorological network for climate-informed agriculture is established, with newly installed or refurbished weather stations capable of generating predictive climate data to inform farming decisions. 147,000 farmers across five key regions are trained in value chain-specific CSA technologies, leading to significant adoption across rice, cassava, and yam systems. Institutional frameworks and digital platforms are put in place to enable widespread dissemination of services and knowledge, laying the foundation for nationwide scale-up and long-term sustainability of CSA adoption across Côte d'Ivoire.	LARACI lays the groundwork for long-term resilience and transformation of the agriculture sector through institutionalized systems, capacity development, and infrastructure that will endure well beyond the duration of the project. The project supports transformative scale-up by delivering three integrated components: 1. National agrometeorological services and climate advisories, capacity of extension services and access to finance which will benefit farmers beyond the 5 targeted regions; 2. Reducing GHG emission and enhancing carbon sequestration through soil and agroforestry recommendations as well as environmental information services; and 3. CSA technology promotion which delivers access to adaptive technologies that improve yields in a climate change vulnerability context.

	sustainable management.			These components are implemented in a structured and integrated manner to create system-level change aligned with national climate targets and the country's CSA strategy.
Replicability	Successful CSA technologies and approaches remain localized, with limited cross-learning or formal mechanisms for replication across value chains or regions in the country, and even beyond. There is no standardized national CSA extension platform or knowledge-sharing system that provides recommendations based on soil or environmental information.	<u>Medium</u>	Agro-advisory services which incorporate soil and environmental information as well as financial models are developed and supported by real-time data collected through a functional agrometeorological network. Smallholder farmers are trained in the use of these services and in accessing financial services, with a focus on three value chains (rice, cassava, and yam) in the targeted central regions of Côte d'Ivoire. The process is documented through APRs, facilitating replication in other regions of Côte d'Ivoire and beyond.	The project delivers several scalable outputs with demonstrated impact, which can be replicated across other sectors, markets, regions, and countries facing similar climate and agricultural challenges: 1. Integrated agro-advisory service models: The development of agro-advisory services that combine real-time agrometeorological data, soil and environmental intelligence, and tailored financial models provides a replicable framework for climate-smart decision-making. These services enhance farmer resilience and productivity by delivering actionable insights and can be adapted for other value chains (e.g., maize, cocoa, or horticulture) and regions with similar agroecological conditions. 2. Operational agrometeorological network: The establishment of a functional and responsive agrometeorological network demonstrates how decentralized, real-time climate data can power adaptive agriculture. This infrastructure model is transferable to other geographical areas seeking to improve weather forecasting, climate

				risk management, and agricultural planning. 3. Capacity building for smallholders: The project strengthens farmer capacities to interpret and act on agro-advisories and to access appropriate financial services. This capacity-building model, particularly the integration of financial literacy with CSA training, provides a strong foundation for replication by extension services and rural development programs across sub-Saharan Africa. 4. Value chain-specific CSA approaches tailored to rice, cassava, and yam: These create a blueprint for sector-specific climate adaptation strategies. These value-chain approaches can be adapted and expanded to other staple crops and commodities important to food security and income generation in similar contexts. 5. Knowledge documentation through APRs: Systematic documentation of implementation processes, lessons learned, and impact through APRs ensure knowledge is codified and accessible. This supports learning, continuous improvement, and replication efforts both within Côte d'Ivoire and in other countries implementing climate-resilient agricultural strategies. 6. Resulting Outcomes for Replication: o Increased resilience of smallholder farmers to climate shocks.
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				- o Improved agricultural productivity and resource efficiency. - o Scalable climate information services tailored to rural communities. Strengthened institutional and community capacity to deliver CSA at scale. 7. A replicable framework for integrating CSA technologies with financial inclusion.
Sustainability	Côte d'Ivoire's agriculture sector faces persistent sustainability challenges, largely driven by limited national budget allocations for CSA, weak extension systems, and a broader lack of agro-advisory services accessible to smallholders. Many ongoing initiatives are time-bound and not fully integrated into national systems, limiting their long-term impact. The use of stress-tolerant crop varieties remains very limited, while increasing climate variability is reducing the commercial viability of staple crops. Land degradation has led to widespread	<u>High</u>	During the implementation of LARACI, FIRCA, as the national executing entity, enhances its institutional capacity to deliver and coordinate climate-smart agro-advisory services. These services are progressively integrated into national systems and linked with decentralized extension networks, public institutions, and private sector actors to ensure sustainability and broad access. Agro-advisory platforms are co-developed with technical partners and are maintained through a combination of national budgetary support, local innovation ecosystems, and community engagement. The project also strengthens the capacity of extension agents, local institutions, and farmer organizations to deliver tailored CSA information and services aligned with value chain needs. It also supports the establishment of governance mechanisms and digital infrastructure that enable long-term use,	The project delivers a set of interconnected outputs that establish the foundation for long-term sustainability of climate-smart agro-advisory services in Côte d'Ivoire. These outputs are embedded within national and local systems to ensure continuity and broad benefit beyond the project lifecycle. Key outputs include: 1. Operational agro-advisory platforms delivering real-time, localized agro-advisory services (including weather, soil health, and financial information) are established and linked to national meteorological and agricultural databases. 2. Sustainable financing and resource mobilization pathways strategies for financing ongoing service delivery. 3. Trained farmer networks and local champions: 147,000 farmers are trained in CSA practices, creating a core of knowledgeable producers who will sustain and spread innovation through farmer-to-farmer exchange.

	abandonment of agricultural plots, while the expansion of smallholder farming into new areas is contributing to rising deforestation rates.		adaptation, and scaling of agro-advisory tools and CSA practices beyond the project period. As a result, smallholder farmers across Côte d'Ivoire continue to benefit from reliable, timely, and actionable information that improves decision-making, enhances productivity, and builds resilience to climate change long after project completion.			
E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)						
GCF Result Area	IRMF Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final ⁵¹	
<u>MRA4 Forestry and land use</u>	<u>Core 1: GHG emissions reduced, avoided or removed/sequestered</u>	National Carbon Accounting AfricaRice reports on greenhouse gas emission inventory Independent Carbon Assessment (Terminal Evaluation) <i>Reporting frequency: annual</i>	0	208,667 tCO ₂ eq	606,212 tCO ₂ eq	• Migration patterns and other externalities do not drastically affect the demographics in the project area • Baseline emissions are determined by yields assessed during project design phase
<u>ARA1 Most vulnerable people and communities</u>	<u>Core 2: Direct and indirect beneficiaries reached</u>	Training and Extension Records	0	85,750 people, of which 40% women (direct	147,000 people, of which 40%	• Targeted project area is not impacted by external shocks

⁵¹ The final target means the target at the end of project/programme implementation period. However, for core indicator 1 (GHG emission reduction), please also provide the target value at the end of the total lifespan period which is defined as the maximum number of years over which the impacts of the investment are expected to be effective.

	<u>Supplementary 2.1: Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options</u>	Reports of MINETE Baseline/Midline/endline adoption surveys <i>Reporting frequency: annual</i>		beneficiaries) 52 257,250 people of which 40% women (indirect beneficiaries)	women (direct beneficiaries) 441,000 people of which 40% women (indirect beneficiaries)	• Agricultural land regime tenure remains stable • Beneficiaries are willing to adopt CSA technologies • For each direct beneficiary, three indirect beneficiaries who are not targeted by the project will adopt the innovations after having observed the benefits experienced by a peer direct beneficiary.⁵³
<u>ARA2 Health, well-being, food and water security</u>	<u>Core 2: Direct and indirect beneficiaries reached</u>	Project M&E beneficiary database		85,750 people, of which 40% women (direct beneficiaries)	147,000 people, of which 40% women (direct beneficiaries)	
	<u>Supplementary 2.5: Beneficiaries (female/male) adopting innovations that strengthen climate change resilience</u>	Reports of MINETE <i>Reporting frequency: annual</i>	0	257,250 people of which 40% women (indirect beneficiaries)	441,000 people of which 40% women (indirect beneficiaries)	
<u>ARA4 Ecosystems and ecosystem services</u>	<u>Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice</u>	Reports of MINETE Extension service records <i>Reporting frequency: annual</i>	0	64,517 ha	110,600 ha	

⁵³ The 3:1 indirect-to-direct diffusion ratio is conservative within the range documented in comparable contexts. Takahashi et al. (2019), reviewing technology adoption in developing-country agriculture, document farmer-to-farmer spillover effects ranging from 2:1 to 5:1 depending on technology observability and extension support intensity. The CGIAR ACAI project in Nigeria and Tanzania demonstrated adoption diffusion beyond direct participants exceeding 3:1.

	Supplementary 4.1: <u>Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under resoration and/or improved ecosystems</u>					
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E.4. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)					
Core Indicator	Baseline context (description)	Rating for current state (baseline)	Target scenario (description)	How the project will contribute	Coverage
<u>Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation</u>	Smallholder farmers, especially in the central regions of N'Zi, Iffou, Moronou, La Mé, and Gbêkê, have minimal access to stress-tolerant crop varieties, efficient irrigation systems, and improved post-harvest technologies. The uptake of innovations such as integrated soil fertility management, and biochar-based inputs is very low due to high upfront costs, limited extension services, and weak	<u>low</u>	<i>Under the LARACI project, smallholder farmers in the central regions of N'Zi, Iffou, Moronou, La Mé, and Gbêkê will have significantly improved access to climate-resilient technologies and innovations. Through targeted investments in technology transfer, extension infrastructure, and capacity building, the project will enable the widespread deployment of stress-tolerant crop varieties,</i>	The project responds to current and future climate risks by co-developing and adopting appropriate solutions, such as stress-tolerant crop varieties, integrated soil fertility management practices, efficient water management practices, and improved post-harvest technologies. Leveraging both public and private extension services, the project facilitates the dissemination of these innovations through upgraded extension	<u>National level (one country)</u>

	supply chains for climate-resilient inputs.		<i>efficient water management, integrated soil fertility management, biochar-enriched inputs, and climate-smart post-harvest technologies</i>	infrastructure, digital agro-advisory platforms, and strengthened farmer organizations, ensuring that technologies are accessible, context-specific, and scalable across the central regions of Côte d'Ivoire.	
<u>Core indicator 7: Degree to which GCF Investments contribute to market development/transformation at the sectoral, local, or national level</u>	In Côte d'Ivoire, climate-resilient agriculture remains underdeveloped as a market system. At the national level, there is limited integration of climate-smart agriculture (CSA) into agri-food value chains, and public and private investment in climate-resilient inputs, services, and technologies remains low. The central regions of N'Zi, Iffou, Moronou, La Mé, and Gbêkê — despite being key agricultural production zones — lack well-functioning markets for CSA inputs such as stress-tolerant seeds, and biochar fertilizers. Financial products tailored to the needs of smallholder farmers, particularly for managing	<u>medium</u>	<i>By the end of the LARACI project, a vibrant and inclusive market ecosystem for CSA will be established in Côte d'Ivoire's central regions, including N'Zi, Iffou, Moronou, La Mé, and Gbêkê. Farmers will have improved and sustained access to climate-resilient inputs and technologies through functional and competitive local markets. The availability and affordability of high-quality inputs — such as certified stress-tolerant planting materials, and biochar-based soil amendments - will increase, supported by demand-driven extension services, strengthened professional producer</i>	The LARACI project will catalyze market transformation by building functional linkages between climate-smart supply, demand, and enabling systems across the rice, cassava, and yam value chains. Specifically, the project will: (i) Stimulate Local CSA Input and Technology Markets by promoting the multiplication and distribution of certified stress-tolerant varieties, and biochar-enriched soil inputs . These will be made accessible through strengthened farmer professional producer organizations and local suppliers. (ii) Strengthen Commercialization	<u>Single sub-national area within a country</u>

	climate risks, are scarce, and uptake of insurance and credit remains limited. Extension and advisory services are fragmented, outdated, and not linked to market-oriented production systems.		<i>organizations, and coordinated supply chains</i>	Organizations and Aggregators through technical support, business development services, and linkages to off-takers and processors, enabling smallholders to access structured markets and negotiate better prices.	
<u>Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards</u>	In Côte d'Ivoire, knowledge generation and dissemination in CSA and use of CSA technologies is underutilized. There are few formal mechanisms for evaluating and sharing lessons learned from past CSA interventions, and the documentation on practices, methodologies, and performance is sometimes inconsistent, mainly due to the absence of integrated knowledge management platforms	<u>medium</u>	<i>By the end of the project, Côte d'Ivoire will have established a functioning national knowledge system for CSA, with strong linkages between extension services, and farmers. The generation and uptake of CSA-related knowledge - including validated practices, methodologies, and tools will be institutionalized within the national system with greater ownership by FIRCA</i>	The project will strengthen knowledge systems and learning processes by upgrading Extension Services with digital tools that translate complex climate and agronomic data into actionable advice	<u>National level (one country)</u>

E.5. Project/programme specific indicators (project outcomes and outputs)						
Project/programme results (outcomes/ outputs)	Project/programme specific Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final	
Outcome 1: Increased ability of farmers and agribusinesses to manage climate-related risks	Percentage of direct beneficiaries demonstrating improved capacity to manage climate-related risks through adoption of at least one project-supported risk management tool or practice <i>Reporting frequency: annual</i>	Extension agents field visit reports Supervision and monitoring mission reports Project M&E database	0%	30%	80%	Agrometeorological stations are functional, and Climate Information Services are disseminated to farmers across the 5 target regions of Côte d'Ivoire. Smallholders in the targeted regions are willing to adopt proposed technologies.
Output 1.1: Producers, extension agents, and agribusiness access timely climate information and advice	Percentage of users reporting improved planning of agricultural activities based on climate information	Extension service data / Digital Platform Logs	0%	40%	100%	Installed agrometeorological infrastructure is operational. Targeted beneficiaries (producers, extension agents and agribusinesses) have the capacity to access information through relevant devices and channels.
Output 1.2: Extension and regulatory systems have increased capacity to provide timely and	# extension agents and regulatory officers (female/male) trained and certified to deliver	Training attendance records and certification lists (disaggregated by sex and institution)	0	At least 200 extension agents and regulatory	At least 1,000 extension agents and regulatory	Extension and regulatory institutions have sufficient baseline human resources willing and

Output 2.1: Producers and extension agents have access to location-specific recommendations for integrated system for sustainable land and agroforestry	# of producers and extension agents (female/male) accessing and using location-specific recommendations for sustainable land management and agroforestry practices	Reports from Climate Advisory Services Platform Producers and Extension Agents surveys	0	At least 30,000 producers and extension agents (minimum 40% women) accessing location-specific recommendations by mid-term of project implementation	At least 100,000 producers and extension agents (minimum 40% women) accessing location-specific recommendations by project end	Location-specific recommendations for sustainable land management and agroforestry are technically sound, feasible, and adapted to the different agro-ecological conditions of the target regions No major external shocks (natural disasters, major conflict) disrupt extension service delivery or accessibility to farm-level technical support
Outcome 3: Scaled adoption of climate-smart practices and business models in priority staple crop value chains						Promoted CSA technologies improve beneficiaries' livelihood conditions under local socio-economic and agroecological conditions Farmers are willing to adopt promoted technologies No major disruptions (such as supply chain issues, political instability, or natural disasters) significantly hinder access to CSA inputs or services
Output 3.1: Producers and agribusiness have increased access to climate-smart agriculture technologies						

Project/programme co-benefit indicators						
Co-benefit 1: Sustainably increased productivity, profitability, and incomes	% change in agricultural yields for beneficiaries adopting adaptation practices	Baseline, mid-term and endline surveys	2.5% decrease per year	+2.3% increase compared to year 1	+8% increase compared to year 1	Climate change negatively affects agricultural yields.
	Total net income increase of all beneficiary farmers (USD/year) (disaggregated by gender and age)	Extension agent records	0	USD 40 million/year	USD 122.2 million/year	External market conditions (input costs, output prices) remain stable or improve, enabling farmers to capture increased income from productivity gains
	Annual increase in rice, cassava and yam production (tons/year) (disaggregated by gender and age)	Baseline, mid-term and endline surveys	(0,0,0)	(25,000t/y, 10,000 t/y, 55,000 t/y)	(65,100 t/y, 21,900 t/y, 113,600 t/y)	Value chains for targeted crops (rice, cassava, yam) remain functional, and farmers have access to markets for selling surplus production
		Annual crop production surveys (-MINADER PV/FIRCA); IITA crop monitoring data disaggregated by region				CSA technologies and practices promoted under the project are properly adopted and maintained by farmers
Co-benefit 2: Enhanced biodiversity and ecosystem services	Area of land under improved management to protect or enhance ecosystem services	Remote sensing imagery	0	64,517 ha	110,600 ha	No major climate-induced yield shocks
	Reduction in water usage in rice	Biodiversity baseline, mid-term and endline surveys				Producers and local communities are willing to maintain adopted CSA technologies and soil conservation practices beyond the project period

	cultivation (million m ³ /year) in project intervention zones (Source Annex 23, page 4)	Irrigation infrastructure monitoring records; AfricaRice water use surveys <i>Reporting frequency for area of land under improved management: annual.</i>	0	2 million m ³ /year	5.76 million m ³ /year	No major natural disasters (wildfires, droughts, floods) significantly undermine land rehabilitation gains Climate-smart water management practices adopted at scale
Co-benefit 3: Social inclusion, notably for women and youth	% of project beneficiaries who are women and/or youth accessing climate-smart agriculture technologies, services, or finance Increase in women and youth empowerment index score	Baseline, mid-term and endline surveys Extension agents' records <i>Reporting frequency: annual</i> Qualitative self-reported women and youth empowerment index score <i>Reporting frequency for % of women and/or youth accessing CSA: annual.</i>	0%	At least 40% women At least 30% youth Qualitative evidence of self-reported improvements in empowerment among women and youth beneficiaries	At least 40% women At least 30% youth A 10–20 percentage point increase in empowerment scores for women and youth, complemented by qualitative self-reports of improvement	Cultural and societal norms in the 5 regions of LARACI do not present insurmountable barriers to the participation of women and youth in project activities Extension agents adequately make use of communication and mobilization strategies to ensure inclusive outreach
Co-benefit 4: Food and nutrition security	Percentage increase in production of targeted food crops among direct beneficiaries	Baseline, mid-term and endline surveys Extension service production records Project Monitoring database	0%	30%	80%	No major shocks (e.g., prolonged droughts, pest outbreaks, market collapse) undo the agricultural productivity gains Beneficiaries are willing to adopt proposed CSA technologies

		Reporting frequency: annual				Climate variability does not further exacerbate food insecurity
E.6. Project/programme activities and deliverables						
Activities	Description	Sub-activities	Deliverables			
Activity 1.1.1: Strengthen agrometeorological network	Optimize the national meteorological station network	Sub-activity 1.1.1.1 Conduct site assessment and identify station installation locations on existing public land Sub-activity 1.1.1.2 Acquire new automatic agroclimatic stations Sub-activity 1.1.1.3 Rehabilitate the existing agroclimatic station network Sub-activity 1.1.1.4 Acquire tools for data collection, processing, management, and dissemination Sub-activity 1.1.1.5 Install, commission, and ensuring maintenance and upkeep of automatic weather stations Sub-activity 1.1.1.6 Conduct training on use and maintenance of equipment	1.1.1.1; 1.1.1.2; 1.1.1.4; 1.1.1.5: 20 automatic agroclimatic stations installed and maintained, and automated weather data collected in a database, further cleaned and consolidated with agricultural and phenological data for processing 1.1.1.3; 1.1.1.4; 1.1.1.5: 20 existing agroclimatic stations rehabilitated and maintained and automated weather data collected in a database, further cleaned and consolidated with agricultural and phenological data for processing 1.1.1.6: Training event on use and maintenance of equipment			
Activity 1.1.2: Develop actionable agro-advisory	Translate data into immediately applicable information and recommendations	Sub-activity 1.1.2.1 Conduct needs assessment for climate services for the 3 value chains Sub-activity 1.1.2.2 Develop tools: seasonal calendar, agroclimatic stress map, forecasts and recommendations for agricultural production, agroclimatic modeling of pest and disease risks, information on CSA practices and technologies	1.1.2.1: Needs assessment for climate services for the 3 value chains conducted 1.1.2.2: National agro-climatic tools developed (e.g., seasonal calendars, agroclimatic stress map, forecasts and recommendations for agricultural production, agroclimatic modeling of pest and disease risk and information on CSA practices and technologies.			

		Sub-activity 1.1.2.3 Develop, deploy and validate integrated electronic system accessible to technical and financial partners including: (i) databases of beneficiaries, their activities, and their economic and financial results; (ii) the SIM (Market Information System); (iii) Dashboards, (iv) user training and dissemination Sub-activity 1.1.2.4 Publish monthly agrometeorological bulletins	1.1.2.3: Integrated electronic system accessible to technical and financial partners deployed and 300 users trained 1.1.2.4 Monthly agrometeorological bulletin published
Activity 1.1.3: Develop tools to communicate advisory	Establish dissemination channels that are socially, culturally, and economically appropriate and inclusive for the advisories developed in Activity 1.2.2	Sub-activity 1.1.3.1 Organize national and regional project advisory launch workshops Sub-activity 1.1.3.2 Translate and broadcast messages in local radio stations in local languages Sub-activity 1.1.3.3 Set up an SMS-based information dissemination system Sub-activity 1.1.3.4 Create a GIS portal interface on the FIRCA website and social media messaging Sub-activity 1.1.3.5 Produce and disseminate communication material	1.1.3.1 One national and five regional project advisory launch workshops conducted 1.1.3.2; 1.1.3.3: Mobile (SMS, call) and radio broadcasting services developed and implemented in 4 local languages (Agni, Attié, Baoulé, Malinké) 1.1.3.4: A web-GIS portal developed, and 2 sponsored social media posts per year over 4 years 1.1.3.5: Communication materials (periodic newsletters, visibility panels, film and video capsules, posters) produced and disseminated
Activity 1.1.4: Train farmers and extension staff on use of climate data	Develop capacity of farmers on climate information services (CIS)	Sub-activity 1.1.4.1 Conduct a diagnosis of current knowledge of agricultural stakeholders on climate, identify gaps in the use of climate services Sub-activity 1.1.4.2 Institute and conduct training packages for extension agents, MINETE agents,	1.1.4.1: Needs assessment conducted 1.1.4.2: Training packages conducted for 50 (on the use of climate data and dissemination of weather information), 50 (trainers trained on CSA technologies), 75 (supervisors trained on CSA technologies) 120 (maintenance of weather stations),

		community leaders, and farmer beneficiaries (on the use of climate data and dissemination of weather information with a focus on addressing and address inequalities in farmers' ability to access CIS; CSA technologies; weather station maintenance; participatory integrated climate services for agriculture (PICSA) approach etc.) Sub-activity 1.1.4.3 Equip extension agents with communication tools Sub-activity 1.1.4.4 Monitor producers and agricultural stakeholders on the use of CIS, and training follow-up missions	125 (PICSA approach) participants and 1.1.4.3: Extension agents equipped with communication tools 1.1.4.4: Follow-up missions and monitoring of use of CIS conducted
Activity 1.1.5: Improve institutional arrangements	Set up institutional arrangements to bring together climate information providers, agricultural research and extension, national policymakers, and farmer representatives to complete Activities 1.1.1 to 1.1.4	Sub-activity 1.1.5.1 Strengthen the national framework for climate services (consultation, updating, development) Sub-activity 1.1.5.2 Create a multi-disciplinary working group to guide institutional arrangements, and a local multidisciplinary working group to operationalize the agroclimatic information management and dissemination system Sub-activity 1.1.5.3 Ensure incorporation of climate information and prediction into planning and policy	1.1.5.1: National framework for climate services strengthened 1.1.5.2: 2 multi-disciplinary working groups created, with 20 sessions organized over 2 years 1.1.5.3: Climate information and prediction incorporated into planning and policy
Activity 1.2.1: Increase capacity of extension agents on CSA	Train farm advisors in cutting-edge CSA technologies	Sub-activity 1.2.1.1 Conduct a diagnostic, and develop validated training modules on CSA approaches for integration into ANADER and	1.2.1.1: A standardized CSA module developed, validated and integrated into the formal curricula of ANADER and ADERIZ agricultural training

		ADERIZ agricultural training centers' curricula Sub-activity 1.2.1.2 Equip and conduct training of trainers within agricultural training centers Sub-activity 1.2.1.3 Establishment of a continuous training system for all extension agents to remain up to date with the latest research and developments on climate risks and CSA solutions Sub-activity 1.2.1.4 Build capacity in management and maintenance of production and processing infrastructure	centers with lesson plans, assessment tools, and a component on gender sensitive extension system, improving access for women, and helping to break gender barriers 1.2.1.2: 3 ToT sessions conducted within Agricultural Training Centers and trainers equipped with teaching kits 1.2.1.3: Extension agents trained on CSA and continuous training session developed 1.2.1.4: Extension agents capacity built on management and maintenance of production and processing infrastructure
Activity 1.2.2: Develop channels for CSA recommendations	Bolster systems for timely, accessible, and farmer-centered dissemination of climate-smart information and services through diverse, inclusive, and data-informed channels	Sub-activity 1.2.2.1 Design technical education tool kits on CSA and gender-sensitive dissemination material Sub-activity 1.2.2.2 Train extension agents on functional literacy techniques to broaden reach Sub-activity 1.2.2.3 Acquire data collection tools for technical services and zones of concentration and integrate sex and age- disaggregated data collection into extension activities to inform needs prioritization Sub-activity 1.2.2.4 Develop and launch multiple ICT dissemination channels through startups/mobile phone companies	1.2.2.1: 90 educational tool kits developed (toolkits, guidelines, and charts for on-farm implementation of CSA) 1.2.2.2: Training of Trainers for at least 100 extension agents in the 5 regions 1.2.2.3: Sex and age- disaggregated data collection tool acquired for technical services and zones of concentration 1.2.2.4: Launch of CSA radio programs and mobile SMS/voice advisory services, reaching farmers in pilot areas 1.2.2.5: Members of at least 3 new satellite advisory offices trained

		Sub-activity 1.2.2.5 Train members of satellite advisory offices in each project zone on CSA techniques	
Activity 1.2.3: Upgrade extension infrastructure and equipment	Take stock of needs and provide equipment that supports extension for tailored and timely dissemination of climate information and agro-advisories	Sub-activity 1.2.3.1 Conduct inventory of infrastructure and equipment needs for research on climate information and effective agricultural advisory services Sub-activity 1.2.3.2 Acquire and install climate-adapted research equipment in research institutes or universities for the delivery of agricultural services, with documented usage protocols, and organize training sessions on their use Sub-activity 1.2.3.3 Equip training centers with multimedia teaching kits (projectors and projection screens, demonstration kits: ZOPP suitcase, flipcharts), along with updated CSA learning modules Sub-activity 1.2.3.4 Provide maintenance kits for agrometeorological stations Sub-activity 1.2.3.5 Equip farm advisors and extension agents with tablets or smartphones preloaded with CSA content and data collection applications, and train them in their use	1.2.3.1: Inventory conducted on infrastructure and equipment needs for climate information research and effective agro-advisory. 1.2.3.2: Acquisition and installation of climate-smart research equipment in at least 3 research institutions or universities for agro-services delivery with documented usage protocols, and training sessions completed 1.2.3.3: 13 training centers equipped with multimedia instructional kits (projectors and projection screens, demonstration kits: ZOPP suitcase, flipcharts) along with updated CSA learning modules 1.2.3.4. 13 agrometeorological stations equipped with maintenance kits 1.2.3.5: 100 farm advisors and 100 extension agents equipped with pre-configured tablets or smartphones with CSA content and data collection apps and 8 training sessions conducted on their use
Activity 1.2.4: Select and tailor CSA solutions for effective scaling	Assess, adapt, and validate context-specific CSA practices to ensure their technical and economic effectiveness, promote adoption, and address	Sub-activity 1.2.4.1 Assess existing CSA practices and conditions for adoption	1.2.4.1: Existing CSA practices evaluated, gaps identified, and socio, technical, and institutional conditions for their adoption assessed

	emerging challenges identified over time by stakeholders	Sub-activity 1.2.4.2 Organize a prioritization workshop for CSA practices applicable in the project zones by value chain Sub-activity 1.2.4.3 Undertake validation tests of newly selected CSA technologies to contextualize and demonstrate their technical and economic efficiency and performance in the project intervention zone Sub-activity 1.2.4.4 Organize field exchange visits for technology transfer and a workshop to present the results of the technology tests	1.2.4.2: CSA practices applicable in the project zones by value chain prioritized with stakeholders 1.2.4.3: Newly selected CSA technologies validated and adapted based on the context-specific evidence of agronomic and economic efficiency and performance demonstrated from multi-site field testing, with stakeholder feedback and recommendations for scaling 1.2.4.4: 3 field exchange visits (1 per crop) and 1 workshop to present the results organized
Activity 1.2.5: Strengthen extension-research communication	Foster collaboration and multi-way communication between research organizations and extension services to support demand-driven research and effective scaling of innovations	Sub-activity 1.2.5.1 Conduct consultation workshops on CSA for public and private stakeholders in research and extension. Sub-activity 1.2.5.2 Establish and operationalize multi-stakeholder platforms at local and national level. Sub-activity 1.2.5.3 Organize experience-sharing trips for platform members to facilitate information sharing between farmers and researchers Sub-activity 1.2.5.4 Fund multi-stakeholder and public-private platforms that promote the extension-research linkages for synergistic actions on the ground Sub-activity 1.2.5.5 Establish a permanent mechanism for timely dissemination of new technologies	1.2.5.1: Four multi-stakeholder regional workshops held to establish joint workplans, share results, and evaluate progress. 1.2.5.2: Multi-stakeholder platforms at national and local levels established and operationalized 1.2.5.3: 3 experience sharing trips per annum organized. 1.2.5.4: Financial seed grant support provided to 5 multi-stakeholder/public-private platforms, with workplans focused on joint CSA extension-research activities and reporting mechanisms in place 1.2.5.5 Community of Practice established for quarterly communication on research innovations, delivery, and scaling results between research centers.

		and information between research centers.	
Activity 1.3.1: Build capacity to access financial services	Build investment readiness of 50 professional producer organizations and women's groups, and improve access to finance through capacity building of micro finance institutions (MFIs), agriculture lenders and impact investors	Sub-activity 1.3.1.1 Integrate technical assistance (TA) in existing training and extension programs from local MFIs for professional producer organizations and women's groups to upgrade governance, accounting, and risk-management systems including budgeting, record-keeping, and loan management so they meet formal-lender requirements and improve access to loans and other financial services Sub-activity 1.3.1.2 Build capacity of loan officers and other finance staff to respond to understand and build smallholder farmer segmentation, diagnose constraints, tailor climate-smart and gender responsive products, and track portfolio quality with gender-disaggregated M&E that supports full loan recovery Sub-activity 1.3.1.3 Integrate in partnership with financial institutions, dynamic risk scoring based on MRV data, to develop capacity for banks to invest in carbon markets Sub-activity 1.3.1.4 Strengthen capacity of local fund managers and impact investors to structure innovative vehicles including first-loss tranches and partial credit guarantees, and facilitate connections to	1.3.1.1: At least 100 agricultural cooperative leaders trained through updated modules integrated into existing training programs 1.3.1.2: 3 regional workshops conducted for loan managers and financial service providers 1.3.1.3: MRV-based credit scoring algorithm co-developed with commercial banks and micro finance institutions 1.3.1.4: 10 local fund managers and impact investors capacitated to structure climate-aligned investment vehicles and connect to downstream financing instruments

		downstream financing instruments including IGREENFIN	
Activity 1.3.2: Foster gender-sensitive policies	Strengthen policy instruments and financial products that make rural finance work for women and men farmers and agri-SMEs, especially those that are women-led, helping to overcome gender barriers	Sub-activity 1.3.2.1 Conduct a persona-based needs assessment across rice, cassava, and yam value chains to capture women's agricultural roles and map regulations and MFI lending practices that exclude women by design or effect Sub-activity 1.3.2.2 Co-design gender-responsive financial products with partner MFIs based on the assessment findings Sub-activity 1.3.2.3 Provide technical assistance to the MINADER PV to incorporate gender-disaggregated indicators into agricultural finance policy and to design an agriculture disaster fund Sub-activity 1.3.2.4 Develop a gender-inclusive financial services roadmap with partner MFIs and regulatory bodies	1.3.2.1: Needs, preferences, and behaviors of women farmers and entrepreneurs are established to inform engagement with financial institutions 1.3.2.2: Gender-responsive financial products are co-designed 1.3.2.3: Technical assistance is provided to the MINADER PV to incorporate gender-disaggregated indicators into agricultural finance policy and for the development of a climate-sensitive agricultural disaster fund 1.3.2.4: A roadmap for gender inclusive financial services is co-developed with finance partners, and regulatory bodies
Activity 1.3.3: Promote financial tools to reduce risks	This activity lowers the cost and risk of lending to smallholders and agri-SMEs by supporting the aggregation of stocks for warehouse receipts, the design and promotion of climate index insurance and a value chain finance model	Sub-activity 1.3.3.1 Promote warehouse receipt and value-chain finance together with MFIs so farmers can pledge stocks or off-take contracts as collateral and unlock working capital Sub-activity 1.3.3.2 Develop and promote climate index-insurance — co-develop products, secure premium subsidies/flexible payment options, and roll out community-led literacy	1.3.3.1: Warehouse receipt scheme improves capacity for access to finance 1.3.3.2: 1 index insurance product co-developed with private insurers, piloted, and promoted via 3 local-language outreach campaigns and community peer-learning sessions 1.3.3.3: 1 value chain finance model designed and implemented in collaboration with private sector

		and marketing campaigns in local languages Sub-activity 1.3.3.3 Design and implement, a value chain finance model in collaboration with private sector actors coordinating input credit, off-take contracts, and repayment across input suppliers, producers, and off-takers	actors, covering credit, off-take contracts, and repayment with at least 50 beneficiaries enrolled
Activity 1.3.4: Reduce transaction costs	Reduce transaction costs of payments and services for producers and agribusinesses	Sub-activity 1.3.4.1 Strengthen rural financial agent networks using behavioral science approaches to build confidence in smallholder lending Sub-activity 1.3.4.2 Conduct awareness campaigns of mobile money functionalities, promoting, among retailers and input providers, over-the-counter banking agent services, and training of rural agents on cross-selling of bundled solutions to enhance branchless banking that supports access to finance for inputs through partnerships with mobile network operators and MFIs Sub-activity 1.3.4.3 Promote bundled service delivery models combining financial products with agricultural inputs, insurance, and advisory services	1.3.4.1: Rural financial agent networks strengthened in underserved areas 1.3.4.2: At least 3 mobile or branchless banking solutions operationalized in underserved rural areas enhancing farmers' access to financial services 1.3.4.3: Bundled financial and agricultural service delivery models operational
Activity 1.3.5: Provide CSA-relevant data	Build data infrastructure and analytical capacity to integrate climate and agronomic information into financial decision-making and farm-level advisory services	Sub-activity 1.3.5.1 Leverage strengthened national CIS through systems from activity 1.1.3 to link application programming interface (API) of tools such as the African	1.3.5.1: A functional national climate information system linked to bank and MFI assessment systems, with real-time agro-climate data disseminated

		agriculture adaptation atlas⁵⁴, with banks and MFIs for credit scoring systems Sub-activity 1.3.5.2 Link national soil information system from Activity 2.1.2 Sub-activity 1.3.5.3 Leverage alternative data sources including mobile transaction histories, remote sensing, and digital farm records to build richer borrower profiles for clients lacking formal credit histories.⁵⁵ Sub-activity 1.3.5.4 Deliver timely CSA-relevant data to producers through radio, mobile applications, and digital tools such as Rice Crop Manager to support climate-informed production and MRV systems capacity for financial decision-making, through development of decisions Sub-activity 1.3.5.5 Develop standardized tools, and platforms for the collection, aggregation, and analysis of emissions -related data, strengthen CSA-relevant data systems and MRV capacity of local extension services, and conduct training of extension agents, and members of professional producer organizations on the use of data collection tools and reporting for MRV preparedness	1.3.5.2: A digital soil information platform (from activity 2.1.2) connected to financial institution platforms, including geo-referenced soil fertility and land-use data, for major agricultural zones 1.3.5.3: Alternative data sources operationalized to generate borrower profiles for clients lacking formal credit histories 1.3.5.4: 1 integrated advisory tool providing localized climate and soil-based agro-advisories producers, piloted and operational 1.3.5.4: An MRV system established, including standardized tools and platforms operationally used for financial decision-making 1.3.5.5: 25 public extension agents trained in MRV data collection and reporting
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⁵⁴ <https://adaptationatlas.cgiar.org/use-cases/world-bank-aiccra>

⁵⁵ Sadler, Marc Peter; Millan Arredondo, Alberto; Swann, Stacy A.; Vasileiou, Ioannis; Baedeker, Tobias; Parizat, Roy; Germer, Leah Arabella; Mikulcak, Friederike. 2016. Making climate finance work in agriculture (English). Washington, D.C.

Activity 2.1.1: Develop soil and agroforestry recommendations	Gather the foundational knowledge necessary to establish a high-resolution soil, and agroforestry information system	Sub-activity 2.1.1.1 Employ remote sensing technology and digital soil libraries (as available) to characterize soil properties at 1 km² grid scale in the project intervention zone Sub-activity 2.1.1.2 Identify relevant technologies, and validate and adapt these to local conditions using optimization trials Sub-activity 2.1.1.3 Identify and select tools and products (e.g., fertilizer blends, lab analyses, field test kits, hedge saplings, clean cover crop seed, soil amendments) to support recommended soil management practices Sub-activity 2.1.1.4 Communicate recommended soil and agroforestry management practices specific to the relevant soil and landscape profiles, based on the results of sub-activities 2.1.1.1-2.1.1.3	2.1.1.1: Digital regional maps of major soil characteristics that define soil fertility and suitability for our target crops made available on the SEIS website. 2.1.1.2: Documentation of the optimization trials outlining enabling and disabling factors of tested technologies 2.1.1.3: A contextualized guide of tools and products that support soil management practices 2.1.1.4. A set of extension materials developed and disseminated, communicating recommended practices tailored to local soil and landscape profiles
Activity 2.1.2: Develop soil and environmental information services (SEIS)	Develop and maintain a SEIS tool to identify priority areas and support informed producer management decisions.	Sub-activity 2.1.2.1 Identify and train governmental staff dedicated to developing and maintaining SEIS Sub-activity 2.1.2.2 Generate publicly accessible SEIS, including digital soil and climate information based on the results of activity 2.1.1, and maintain and update SEIS regularly based on new research findings and user feedback Sub-activity 2.1.2.3 Establish private industry and public sector	2.1.2.1: A trained team of at least 10 governmental staff members equipped with skills to develop, maintain, and operate the SEIS platform, with training materials and progress reports 2.1.2.2: Website and dashboard of SEIS available to the public with a tracking system on regular updates 2.1.2.3: A SEIS partnership (at least 15 members from 3 different sectors) formed with documented terms of

		partnerships (e.g., agribusiness, analysis laboratories, research facilities) to create or significantly increase availability of the tools and products recommended by research organizations to producers and extension agents (e.g., AfSIS, Africa; EthioSIS, Ethiopia; GhaSIS, Ghana; NiSIS, Nigeria; and TanSIS, Tanzania)	reference and self-governance rules established
Activity 2.1.3: Tools for producer decision-making	Leverage activity 2.1.1 and 2.1.2 by combining those insights into practical decision support tools (DST) for farmers to be accessed directly or with the help of extension agents	Sub-activity 2.1.3.1 Conduct gender-sensitive awareness training and public campaigns on best recommendations for soil and agroforestry practices (e.g., composting, biofertilizers, targeted fertilizer micro-dosing, location specific fertilizer recommendations, crop rotation, crop association, improved fallow, system of rice intensification, leguminous cover cropping, intercropping, agroforestry, improved harvesting, storage and parboiling techniques) Sub-activity 2.1.3.2 Develop gender-sensitive and practical decision-making support tools based on the SEIS and agroforestry knowledge base for use by producers and extension agents (e.g., mobile information system, call center, participatory training tools) Sub-activity 2.1.3.3 Increase male and female producer likelihood to invest in long-term soil health (e.g.,	2.1.3.1: At least 5 awareness training sessions and public campaigns conducted, reaching 300 producers across targeted areas, with materials distributed (e.g., brochures, posters) in local languages 2.1.3.2: For each crop: - At least 2 recommendations have been identified to be packaged as decision support tool (DST) - For each recommendation, the preferred format/packaging for practical use by farmers and/or extension agents identified and documented from a co-design process. - For each recommendation, the appropriate DST is accessible via the SEIS website. 2.1.3.3: A report on increased land investment behaviors with incentive mechanisms documented

		strengthening property rights and registries to increase producer willingness to invest in their land, visits to demonstration trials, improved access to irrigation facilities)	
Activity 3.1.1: Promote high-quality inputs	Ensure that climate-smart recommended technologies and varieties of rice, cassava, and yam are readily available for adoption by producers	Sub-activity 3.1.1.1 Identify beneficiaries (rice, yam, cassava producers, nursery operators, private seed producers, and women's groups) Sub-activity 3.1.1.2 Professionalize women's associations in seed production and training of such community-based cooperative and agribusiness (SME) seed producers, to improve access to seed production facilities and improved seed Sub-activity 3.1.1.3 Provide technical support to new professional producer organizations and organizations in management and meeting minimum requirements for accessing financial services Sub-activity 3.1.1.4 Develop partnerships with agribusiness (SMEs), women's associations and community-based seed producers toward meeting the demands for high-quality yam, cassava, and rice agri-inputs and products	3.1.1.1: Beneficiaries identified 3.1.1.2: Training manuals for the relevant seed production methods available on the SEIS website. At least 134 participants from women's associations, and community-based cooperative and agribusiness (SME) seed producers trained 3.1.1.3: Documentation of technical support needs of new professional producer organizations and training templates developed. 10 professional producer organizations receiving technical support, with 5 professional producer organizations successfully meeting financial requirements for accessing formal financial services 3.1.1.4: Partnerships formed with agribusiness, women's associations and community-based seed producers leading to the establishment of local supply chains for high-quality yam, cassava, and rice inputs supported with 134 nursery and seed production kits.
Activity 3.1.2: Promote high-quality climate-smart planting material	Leverage CGIAR research to promote high-quality planting material	Sub-activity 3.1.2.1 Identify and validate climate-smart improved rice varieties for rainfed, lowland and irrigated rice systems, improved breeds of fish for integrated rice-fish	3.1.2.1: Farmer participatory variety tests for rice, yam, and cassava for most promising variety candidates leading to the identification of 5 climate-smart rice varieties suitable

		systems, and improved, climate-smart varieties of cassava and yam Sub-activity 3.1.2.2 Deploy locally appropriate, climate-smart optimized propagation techniques for cassava and yam, as well as climate-smart rice varieties for rainfed, lowland and irrigated rice systems.	for rainfed, lowland, and irrigated systems; 2 improved fish breeds for integration into rice-fish systems, with trials established in targeted locations; and 2 climate-smart varieties of cassava and yam tested and ready for deployment 3.1.2.2: 3 varieties of rice, cassava, and yam largely disseminated and used by 75,000 farmers in project sites
Activity 3.1.3: Strengthen commercialization organizations	Strengthen the commercial processing of cassava, yam, and rice products by developing the capacity of farmer organizations, SME agribusinesses (with special focus on women and youth groups) to formalize relationships with private industry partners	Sub-activity 3.1.3.1 Establish access to appropriate mechanization tools for processing Sub-activity 3.1.3.2 Provide training in new processing techniques to diversify value addition options and improve processing efficiency Sub-activity 3.1.3.3 Conduct entrepreneurship training and support mentorship programs (e.g., with private industry business partners) for professional producer organizations' participation in regional and national agricultural fairs Sub-activity 3.1.3.4 Strengthen existing digital market information platform to facilitate sales	3.1.3.1: 40 mechanized agricultural service centers dedicated to processing cassava, yam, and rice established and equipped with appropriate mechanization tools for products. This includes equipping at least 5 women groups/processors with improved GEM parboiling equipment 3.1.3.2: Train 200 processors (with at least 60% women/youth participation) on 5 improved processing and packaging techniques for cassava and rice products 3.1.3.3: Entrepreneurship training sessions delivered and mentorship programs for participation of professional producer organizations in annual agricultural fairs at regional and national levels supported 3.1.3.4: Develop and deploy a functional digital platform
Activity 3.1.4: Streamline infrastructure	The activity aims to enhance climate-resilient value chains by developing or rehabilitating irrigated rice perimeters	Sub-activity 3.1.4.1 Rehabilitate lowland areas	3.1.4.1: 250 ha lowland areas rehabilitated in a way that makes them suitable for CSA technology adoption

	and aquaculture systems, upgrading processing and storage infrastructure for rice, yam, and cassava. It also strengthens sustainability by identifying and training cooperatives and producer organizations in the operation, management, and maintenance of their investments in these crops.	Sub-activity 3.1.4.2 Install rice, yam, and cassava processing and storage facilities and provision of technologies to mechanize production processes Sub-activity 3.1.4.3 Identify and train cooperatives and professional organizations from the three value chains to use, manage, and maintain these infrastructures Sub-activity 3.1.4.4 Carry out environmental and social screening and address recommendations	(including improvement of small-scale irrigation, drainage, and aquaculture infrastructure) 3.1.4.2: Processing and storage facilities installed 3.1.4.3: Cooperative and professional organizations trained on maintaining the infrastructure 3.1.4.4: Environmental and social screening conducted, and recommendations addressed.
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E.7. Monitoring, reporting and evaluation arrangements (max. 500 words, approximately 1 page)

120. The MRE system for LARACI will fully comply with CGIAR's internal standards for project monitoring, reporting, and evaluation. CGIAR, acting as the AE will ensure that both Executing Entities (EEs), AfricaRice and FIRCA, apply a common monitoring and measurement framework to track project progress, analyze causal pathways, quantify attributable climate and resilience results, and verify assumptions made in the Theory of Change. The MRE system will include: (i) a results-based monitoring system measuring outputs, outcomes, and climate impacts; (ii) a risk monitoring and management plan updated regularly; (iii) an evaluation plan to verify project efficacy, pathways to impact, and paradigm shift contributions; and (iv) a learning strategy enabling adaptive management, course corrections, and integration into the project's exit strategy.

- **Monitoring System:**

Project management, day-to-day monitoring, and supervision will be conducted by the Project Management Unit (PMU), hosted by CGIAR/AfricaRice, with operational data flow from FIRCA and Service Providers. Monitoring activities will ensure that: (i) deliverables align with the Results Framework (RF); (ii) project outputs lead to planned outcomes; (iii) risks are continuously tracked; and (iv) climate benefits, such as increased resilience and emission reductions, are being realized. Data collection tools will draw from the RF indicators and Annual Work Plans and Budgets (AWPBs), integrating digital platforms complemented by remote sensing and GIS tools for regional adoption monitoring to facilitate real-time reporting. Yield measurement will apply crop-cut methodology at sentinel sites established in each of the five regions, providing statistically representative estimates of yield performance under CSA and non-CSA conditions and enabling consistent longitudinal comparison across seasons and years. A special focus will be placed on sex-disaggregated data and differential impacts on vulnerable groups, notably women and youth. Farm-level impact will be tracked through a longitudinal panel survey methodology. A panel of participating households will be established using unique identifiers from the project registry, with baseline data collected at enrolment and repeated surveys conducted at mid-term and endline aligned with agricultural seasons. The panel surveys will assess CSA practice adoption, yield performance, income changes, and food security outcomes at household level, with within-household change analysis and where feasible quasi-experimental comparison groups using difference-in-differences methods to strengthen causal inference.

- Reporting Arrangements:
 - Inception Phase: A project inception workshop will be held within the first two months to validate the project timeline, an Operational Manual for the project, revised and finalized M&E Plan, agreed on reporting responsibilities, and a detailed first-year work plan. An Inception Report will be finalized within 2 months thereafter.
 - Annual Performance Reports (APRs): Submitted to the GCF annually, consolidating SAPRs and tracking the achievement of outcomes, climate results, and co-benefits, due within 60 days after the calendar year-end.
 - Financial Reports: Annual financial and co-financing reports from the EEs will be consolidated and submitted by the AE.
 - Project Completion Report: Submitted no later than three months after project closure.
- Evaluation and Impact Assessment Activities:
 - Baseline, interim, and endline impact assessment studies will be conducted using rigorous methodologies to document the adoption of the innovations, and their impact on rural livelihoods.
 - An Independent Interim Evaluation Report will be submitted within three years from the effective date assessing around project mid-point the relevance, effectiveness, efficiency, sustainability, and contribution to paradigm shift and enabling environment, rated on a three-point scale.
 - An Independent Final Evaluation Report will assess the project's achievements, impacts, scalability, and lessons learned and will be submitted within six months from the completion date. Both evaluations will follow GCF's Evaluation Policy and Integrated Results Management Framework. Baseline Surveys and participatory feedback mechanisms will be core inputs to both evaluations.
- Learning strategy:
 - Through its MEL Function, the project will include a robust learning component which will enhance the project's ability to adapt and improve based on experiences and findings. By focusing on continuous learning, the project can adapt to changes and challenges more effectively, ultimately leading to improved outcomes. This will support adaptive management and will facilitate better reporting and incorporation of lessons learned into the exit strategy.

F. RISK ASSESSMENT AND MANAGEMENT

F.1. Risk factors and mitigations measures (max. 3 pages)

121. The below risk assessment has been conducted for the LARACI project, outlining the key governance, financial, technical, and operational risks that might prevent the achievement of the project objectives. For each risk factor, both inherent risk and residual risk are assessed. This section feeds directly into the project Risk Register, which will be maintained and updated regularly throughout implementation by the PMU. In addition, this assessment, the Environmental and Social Action Plan (ESAP) in Annex 6 outlines potential environmental and social risks and describes the measures that will be implemented to mitigate and manage them effectively throughout the project lifecycle. There is a low risk of carbon leakage or reversal associated with the mitigation activities proposed under LARACI. The design ensures that emission reductions achieved through CSA and integrated land and agroforestry management are not displaced or undermined elsewhere in the value chains. The project includes strong incentives and enabling conditions for sustained adoption of improved practices, including clear economic and livelihood benefits for farmers and communities. These benefits (combined with robust institutional engagement, decentralized monitoring mechanisms, and participatory planning processes) contribute to long-term sustainability and resilience, minimizing the risk of reversal from unforeseen shocks such as natural disasters, major population movements, or market disruptions. The main risks identified for this project are summarized in the table below. In line with CGIAR's adaptive management approach, project risks are recorded and monitored through a Performance and Results Management System (PRMS). The system includes a risk management module for registering, tracking, and updating risks and mitigation actions. The risk management module includes a dashboard which facilitates monitoring, mitigating actions and overall status. The risks identified will be reviewed regularly throughout the project lifecycle to enable continuous learning and adjustment of implementation based on evidence, performance data, and changing contexts. Responsible teams implement mitigation measures as needed, including adjustments to implementation approaches, partnerships, timelines, or resource allocation. The detailed project specific procedures for risk monitoring and mitigation to be outlined in the Project Operations Manual.

Selected Risk Factor 1: Land tenure, land ownership or land conflict

Category	Probability	Impact
<u>Governance</u>	<u>Medium</u>	<u>Medium</u>
Description		
Land tenure remains a significant challenge in Côte d'Ivoire, especially in the LARACI target regions of N'Zi, Iffou, Moronou, La Mé, and Gbêkê. These challenges are characterized by outdated and fragmented land records, and sometimes limited access to land information for rural communities. Many smallholders rely on customary systems that are not yet fully recognized or integrated into the formal legal framework, leaving land rights insecure and prone to disputes. This insecurity limits farmers' willingness to make long-term investments in sustainable land management practices, such as agroforestry, irrigation infrastructure, and soil conservation measures — practices that are critical for building resilience to climate change. Whenever land ownership is uncertain or contested, beneficiaries would be more likely to prioritize short-term returns over sustainable land use, making it more difficult to operationalize climate mitigation and adaptation initiatives.		
Mitigation Measure(s)		
LARACI will address land tenure challenges in N'Zi, Iffou, Moronou, La Mé, and Gbêkê by implementing mitigation measures including: (i) putting in place a grievance redress mechanism that includes land dispute issues; (ii) promotion of gender equity that ensures women's access to land and integrates gender considerations into beneficiary selection; and (iii) community engagement aimed at educating communities about the land ownership process in support of the formalization of land rights, especially for women and youth.		
Residual risk: Low to Medium. The mitigation measures significantly reduce the probability of land disputes disrupting project activities. However, given the structural nature of land tenure insecurity in Côte d'Ivoire, a residual risk remains that some beneficiaries in contested areas may be unable to commit to multi-season CSA investments. This residual risk will be monitored through the project's grievance redress mechanism and annual risk reviews.		

Selected Risk Factor 2: Complexity of implementation arrangements and roles of different entities

Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>
Description		
There is a moderate risk related to the complexity of implementation responsibilities under LARACI. There is a potential risk that accountability for the delivery of specific activities and sub-activities may not be sufficiently clear. If roles and responsibilities are not precisely assigned and documented, this could lead to duplication of efforts, delays in delivery, gaps in implementation, or challenges in monitoring and reporting on performance. Such risks could ultimately affect the overall implementation of the project.		
Mitigation Measure(s)		
To mitigate this risk, a detailed Operational Manual will be prepared during project inception. This will outline clear accountabilities and responsibilities across outputs, project management and coordination and monitoring and evaluation of the two EEs responsible for implementation. Clear operational procedures, roles, and reporting lines have been established to ensure that all actors involved in the project, including the Service Providers, have clearly defined responsibilities. Regular coordination meetings and joint planning sessions will be institutionalized organized by the PMU to maintain alignment across EEs, Service Providers and other procured parties to ensure collaboration and that activities are implemented with a coordinated sequencing. The project steering committee will provide strategic oversight and guidance as a key part of the project governance arrangements. The Operational Manual will specifically define: (i) decision-making authority thresholds for each EE; (ii) escalation procedures for inter-EE disputes or ambiguities; (iii) asset management and ownership transfer modalities; and (iv) beneficiary selection criteria and procedures. The PMU will convene monthly meetings involving AfricaRice, FIRCA, CIAT, and IITA technical leads to align implementation activities and manage interfaces between outputs. Any unresolved coordination issues will be escalated to the PSC within 30 days. Residual risk: Low. The combination of a detailed Operational Manual, periodic coordination meetings, and PSC oversight reduces the residual probability of implementation fragmentation to low. The primary residual risk is delays in finalizing the Operational Manual during inception; this is mitigated by setting a binding deadline of 3 months post-inception for its completion.		

Selected Risk Factor 3: High upfront costs of CSA technologies relative to business-as-usual (BAU) and limited willingness by financial institutions to finance

Category	Probability	Impact
<u>Credit</u>	<u>Medium</u>	<u>Medium</u>
Description		
The project faces a moderate risk related to the high upfront costs of some CSA technologies compared to business-as-usual (BAU) practices. Some CSA technologies promoted under LARACI (such as improved water management, stress-tolerant seeds, biochar applications) require initial capital to invest in them. Smallholder farmers may find these costs prohibitive without access to affordable financing. However, financial institutions in Côte d'Ivoire currently demonstrate limited willingness to finance CSA investments, viewing them as high-risk due to unfamiliarity with the technologies, perceived low returns, and limited collateral offered by smallholders. Without appropriate financial solutions, there is a risk that adoption rates of some CSA technologies will remain low, undermining the achievement of project outcomes related to resilience, productivity gains, and emission reductions.		
Mitigation Measure(s)		
To address this risk, LARACI incorporates a dedicated output on CSA finance facilitation (Output 1.3). The project will engage directly with financial institutions to build their capacity to assess, finance, and de-risk CSA investments. Activities include the development of tailored CSA financing models, introduction of risk-sharing facilities, and partnerships with microfinance institutions and local banks.		

Residual risk: Low. These measures alleviate the risk, yet a residual risk remains that some financial institutions will be slow to adapt their lending practices to CSA-specific products, particularly in more remote areas of the target regions. This will be managed through adaptive management, with the PMU empowered to redirect financial capacity building resources toward the most responsive institutions if uptake lags.

Selected Risk Factor 4: Context Specific Technical and Market Risk

Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Medium</u>
Description		
There is a moderate technical risk that the CSA technologies promoted under LARACI may not perform uniformly across the different ecological and socio-economic contexts of the five targeted regions. Variations in soil quality, rainfall patterns, farming practices, and resource availability could impact the performance of proposed technologies. In addition, project success depends heavily on the functionality and reliability of the agrometeorological network. Failures in weather station operations, gaps in real-time data transmission, or limited farmer capacity to interpret and apply climate information services could undermine the effectiveness of climate advisory services and early warning systems, both critical for agricultural decision-making. Furthermore, price volatility or weak market access for targeted crops may affect farmers' income, potentially weakening long term adoption rates and the level of adaptive outcomes.		
Mitigation Measure(s)		
To mitigate these risks, LARACI will adopt a participatory and adaptive management approach, continuously informing and refining the deployment of new or complex CSA technologies based on learning captured through feedback mechanisms and analysis of Annual Performance Reports. The CSA technology packages will be tailored to fit the specific needs of different agro-ecological zones and farming systems, with adjustments made based on beneficiary needs and as evidence from the field emerges. For the agrometeorological network, redundancy and backup measures will be established to ensure uninterrupted data flow, while comprehensive capacity-building programs will strengthen farmers' capacity to access, interpret, and apply climate information. LARACI mitigates price volatility and weak market access risk through four reinforcing measures. First, the project promotes CSA adoption across three value chains, cassava, yam, and rice, with distinct price cycles, reducing single-commodity income exposure for participating households. Second, Activity 3.1.3 strengthens commercialization organizations and a digital market information platform, improving producers' ability to access aggregated markets, time sales, and negotiate better prices. Third, climate index insurance co-developed under Activity 1.3.3 provides a financial floor against catastrophic yield and income shocks, reducing the risk that a single difficult season permanently undermines adoption motivation. Fourth, extension support under Output 1.2 further equips farmers and advisors with agronomic guidance to adjust practices in response to both climate and market signals, reinforcing sustained adoption under variable conditions. Residual risk: Low. The primary residual risk is concentrated in the agrometeorological network, where access networks may reduce dissemination of climate information. This is partially offset by the multi-channel advisory delivery system, which allows climate information to continue reaching farmers through radio and SMS even when individual stations are temporarily offline.		

Selected Risk Factor 5: Monitoring, Evaluation and Learning System Risk

Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Low</u>
Description		
Inadequate performance monitoring could limit the ability of project stakeholders to practice adaptive management, leading to delayed identification and resolution of emerging challenges during implementation. Without timely and accurate data on progress and outcomes, the project may miss opportunities to refine its strategies, address underperformance, and capture lessons learned for scaling.		

Mitigation Measure(s)

To mitigate this risk, LARACI will establish a strong monitoring framework from the onset, which is aligned with the funding proposal result framework and indicators. A specific project function related to Monitoring, Evaluation and Learning (MEL) has been put in place and is budgeted as part of mitigating this risk. This will enable the project to collect real-time data relevant to MEL and aligned with the project targets and indicators as well as with the national MRV system. The project will also complete an Independent Interim Evaluation Report which will provide adjustments where required to the MEL function.

Residual risk: Low. The combination of digital data collection and an independent interim evaluation provide sufficient early warning capacity to detect and address MEL system weaknesses before they affect overall project performance.

Selected Risk Factor 6: Risk of money laundering, financing of terrorism and prohibited practices

Category	Probability	Impact
<u>ML/FT</u>	<u>Low</u>	<u>Low</u>

Description

Risk of Money Laundering and financing of terrorism and prohibited practices. The following mitigation measures would lower the risk and the probability even lower.

Mitigation Measure(s)

CGIAR, as AE, will establish appropriate fiduciary management and control measures to ensure that materials or technology procured under this project are used only for the purposes intended and are not diverted or misused for unauthorized, improper or other prohibited practices.

The CGIAR (AE) and all Executing Entities (EEs) will ensure no project funds are directly or indirectly used for ML/TF or by parties subject to UN Security Council (UNSC) sanctions. These requirements, and the substantive objectives of GCF's Policy on Prohibited Practices and AML/CFT Policy and CGIAR SO AML/CFT Policy, are passed down into all partner and third-party agreements.

Screening & onboarding:

- UNSC sanctions screening of all partners, suppliers and beneficiaries is mandatory.
- Automated CGIAR System Organization screening: all suppliers and partners are screened quarterly and whenever sanctions lists are updated.

Controls, due diligence & procurement:

- Risk based KYC: identify/verify counterparties, complete due diligence before entering into any contractual/financial relationship and conduct periodic reviews; screening includes the UNSC consolidated list.
- Maintain appropriate fiduciary controls and transparent, auditable procurement aligned with the Procurement Plan and the CGIAR System Organization's Procurement Policy.

Subsidiary Agreement Integrity Provisions (EE/partners):

- Maintain highest integrity; prevent, deter, disclose and remedy prohibited practices and conflicts of interest; maintain AML/CFT consistent policies and records; do not use funds for payments/imports prohibited by UNSC/GCF; ensure sanctioned parties do not participate; cooperate fully with AE and the GCF IIU (access to records/personnel); AE may suspend disbursements where ML/TF risks arise and terminate if the EE becomes subject to a UNSC financial sanction.

Reporting & oversight:

- Staff and contracted parties must report suspicious activity/red flags to the Director, Legal and Office Services (or via ethics@cgiar.org); failure to report may result in disciplinary action.

Residual risk: Low to non-existing. The combination of mandatory sanctions screening, risk-based KYC, fiduciary controls, and contractual integrity provisions across all tiers of the implementation chain reduces the residual ML/TF risk to low. The residual exposure is in cash-based transactions when procuring goods or services during field missions; this is mitigated by the project's preference for digital payment related to all procurement.

Selected Risk Factor 7: FX risk

Category	Probability	Impact
<u>Forex</u>	<u>Low</u>	<u>Low</u>

Description

GCF contribution will be disbursed in USD, while implementation of 58% of GCF funded activities will be paid primarily in XOF. The XOF is pegged to the Euro, which provides a stable exchange rate environment and further limits exposure to currency volatility. The Euro demonstrated more stability in the recent 5 years.

Mitigation Measure(s)

Grant tranches will be disbursed in USD and converted promptly to XOF upon receipt by the EE. The exchange rate applied in the financial model is conservative, reflecting the lowest observed USD/XOF level over the past ten years. This approach provides a prudent buffer and ensures that budget projections remain robust under adverse exchange rate scenarios. As such, no material residual currency risk is expected.

Selected Risk Factor 8: Risk of policy and institutional changes affecting sector priorities

Category	Probability	Impact
<u>Governance</u>	<u>Low</u>	<u>Low</u>

Description

Changes in national policies, institutional mandates, or leadership within key ministries may affect continuity of engagement and prioritization of project activities, potentially delaying implementation and weakening alignment with national strategies.

Mitigation Measure(s)

Implementation responsibilities under LARACI are embedded within permanent statutory institutions with legislated mandates that persist across leadership changes: SODEXAM for the agrometeorological network, ANADER and ADERIZ for extension, FIRCA for fiduciary management, and CNRA for agricultural research. Project activities are anchored in national policy frameworks, including the National Agricultural Investment Plan (PNIA) and the national climate services framework, ensuring alignment survives individual ministerial transitions. The PSC, chaired by the Government of Côte d'Ivoire through NDA/MINETE with participation of MINADER PV and other line ministries, and co-chaired by CGIAR, provides a multi-stakeholder governance buffer: if engagement from one ministry weakens, the PSC structure ensures programmatic continuity. Regular coordination mechanisms and multi-stakeholder platforms (Activities 1.1.5 and 1.2.5) further build constituency for continued engagement across political cycles.

Selected Risk Factor 9: Risk related to data quality, continuity, and reliability of climate information		
Probability	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Low</u>
Description		
Historical gaps in meteorological data, ageing equipment, and uneven maintenance of weather stations may affect the reliability of climate information services, potentially undermining climate responsive decision making and adaptation outcomes.		
Mitigation Measure(s)		
First, the project is planning to equip SODEXAM with new automated stations, which will strengthen SODEXAM capacity and the density of its network of automated weather station, to collect more weather and climate data. Second, SODEXAM will be equipped with new methods and tools for automated and timely data collection across their network. The above measures to improve the quality and quantity of meteorological data, coupled with the new approach to generating seasonal forecasts in West Africa and the Sahel promoted by AGRHYMET Regional Climate Center, will allow seamless predictions and improve the reliability and tailoring of climate information services. In addition, the multi-disciplinary working group established under Activity 1.1.5, comprising SODEXAM, extension services, research institutions, and farmer representatives, provides a permanent coordination mechanism between data producers and end-users, with a mandate to monitor data quality and relevance throughout the project lifecycle.		
Selected Risk Factor 10: Sustainability of services and benefits beyond the project period		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>
Description		
There is a risk that climate information services, extension platforms, and CSA advisory support may not be fully sustained beyond the project period if institutional ownership or recurrent financing is insufficient, potentially reducing long-term resilience and transformational impact.		
Mitigation Measure(s)		
Sustainability is built into LARACI's design from the outset rather than treated as an end-of-project concern. Key measures include: (i) automated weather stations and climate data infrastructure procured under Activity 1.1.1 will be formally transferred to SODEXAM under asset transfer agreements to be detailed in the Operational Manual, with recurrent maintenance costs incorporated into SODEXAM's operational budget from Year 3 onward; (ii) CSA training modules will be integrated into ANADER and ADERIZ curricula (Activity 1.2.1), embedding extension capacity within national systems independently of project staffing; (iii) the Soil and Environmental Information System (Activity 2.1.2) will be publicly hosted by a designated government institution with an identified recurrent budget line; and (iv) MFI capacity built under Activity 1.3.1 produces lasting institutional change, climate-smart lending products, once tested, become part of MFIs' commercial portfolios without requiring continued project support. The Government of Côte d'Ivoire's co-financing contribution is specifically allocated to support transition to national ownership. A formal exit strategy, developed from Year 5 and finalized in Year 7, will define handover protocols, residual financing responsibilities, and accountability arrangements for each output area post-project.		

G. GCF POLICIES AND STANDARDS

G.1. Environmental and social risk assessment (max. 750 words, approximately 1.5 pages)

122. Following the environmental and social screening, the LARACI project has been classified as Category C under the GCF Environmental and Social Safeguard (ESS) standards. This categorization reflects that the project is expected to have minimal to no adverse environmental and social risks and/or impacts. The rationale for assigning Category C includes:
- The project activities mainly involve technical assistance, training, digital platform development, CSA promotion, and small-scale demonstrations, none of which pose significant environmental or social risks.
 - No large-scale infrastructure is proposed. Physical activities, such as demonstration plots and small-scale irrigation infrastructure, are small in scale and localized.
 - No associated facilities (e.g., roads, energy systems, off-site processing facilities) are required for the project's viability.
 - No activities affect transboundary ecosystems, international waters, or shared natural resources. The project will not engage in extractive activities, large-scale water diversion, resettlement, or hazardous waste management. All activities are confined within Côte d'Ivoire's national boundaries and existing agricultural areas.
 - Low-intensity land use changes: The project promotes improvement of existing agricultural practices rather than expansion into new land areas, thereby avoiding risks related to land clearing, biodiversity loss, or significant land use changes.
 - Positive environmental impacts: The project is expected to have net positive environmental outcomes, such as improving soil health, enhancing water use efficiency, increasing carbon sequestration through agroforestry, and reducing greenhouse gas (GHG) emissions.
 - No adverse impacts on vulnerable groups: There is no risk of adverse impacts on indigenous peoples, marginalized groups, or vulnerable communities. Instead, the project promotes their inclusion and resilience.
 - Strengthening local environmental management capacity: By enhancing the knowledge and skills of farmers, extension agents, and institutions in climate-smart practices, the project contributes to long-term environmental stewardship.
 - Temporary and reversible minor impacts: Any minor environmental or social risks that could arise (such as from setting up demonstration plots) are localized, temporary, easily mitigated, and reversible.
 - No significant cumulative impacts: Given the small scale and dispersed nature of project interventions, there is no likelihood of significant cumulative or indirect environmental or social impacts.
123. Given the low-risk categorization, an Environmental and Social Action Plan (ESAP) has been prepared (See Annex 6). The ESAP is designed to guide environmental and social concerns during implementation to ensure ongoing compliance with ESS standards and provide mitigation measures for any unforeseen minor impacts during project implementation. The ESAP also outlines procedures for stakeholder engagement, grievance redress, monitoring, and reporting.
124. Indigenous Peoples Considerations: While the absence of formal recognition under national legislation alone is not sufficient to determine the absence of Indigenous Peoples, it is noted that no Indigenous Peoples are officially recognized within the LARACI project areas. To ensure compliance with the GCF Indigenous Peoples Policy, a screening was undertaken to assess whether any groups present in the project areas exhibit the key characteristics described in the GCF Policy (See Annex 6 ESAP). The screening identified seasonal presence of transhumant pastoralist groups. However, these groups do not demonstrate collective attachment to the specific project intervention sites where activities will be implemented. Their presence in the project area is seasonal and transitory, and they are not permanently settled within the intervention zones. Furthermore, project activities do not involve land acquisition, restrictions on access, or any interference with transhumance routes, grazing areas, or water points. Consistent with a precautionary and inclusive approach aligned with the GCF Indigenous Peoples Policy, the project will include pastoralist groups in stakeholder mapping and consultations where seasonally present; ensure that activities do not interfere with transhumance routes or access to shared natural resources; provide accessible grievance mechanisms for mobile populations; and integrate conflict-sensitive land-use planning measures in the ESAP and SEP.

G.2. Gender assessment and action plan (max. 500 words, approximately 1 page)

125. According to UNFCCC,⁵⁶ the adverse effects of drought, floods, and extreme rainfall events are often having a more severe impact on women than men as a result of systemic gender discrimination and societal expectations related to gender roles. Similarly in Côte d'Ivoire, women are particularly vulnerable to the negative consequences of climate change due to sociocultural and other constraints, including economic disparities and imbalances of hardship, and time dedicated to domestic tasks that penalize their opportunities for adaptation. High levels of gender inequality hinder the development of the agriculture sector in Côte d'Ivoire⁵⁷ and as women face constraints in accessing capacity building and extension programs, they become increasingly vulnerable to climate shocks.⁵⁸
126. LARACI provides an opportunity to improve the adaptive capacity and build resilience of rural communities in the Central-Eastern area of the country. The project is committed, through its design, to reducing sex and age-based discriminatory inequalities and practices regarding access to capacity building and extension, information, agricultural inputs, land and water, agricultural tools and equipment, labor and financial resources. This commitment should facilitate improved economic and social empowerment of women and young people in the agricultural sectors in the targeted areas.
127. The Gender and Social Inclusion assessment is carried out to support these objectives. It is an analytical process that is evidence-based and is informed by a review of the national socio, political, and environmental context as well as an understanding of the social organization of the target communities and the conditions of access to productive resources. It also considers the expectations of all stakeholders with the aim of promoting a fair distribution of the opportunities offered by the project.
128. The gender action plan comprehensively addresses the gender-responsive actions at each intended deliverable. The actions include: (1) a deeper understanding of gendered concerns through assessments that will inform, for instance, the design of gender-sensitive CIS communication channels, data systems, design of new CSA technologies, and financial tools and models; (2) embedding gender-sensitive curriculum development in training designed for extension agents, trainers, finance institutions, farmers and ensuring the participation of women/youth in training and continued engagement through approaches specifically designed to reach women farmers considering time constraints and mobility limitations; (3) developing gender and age disaggregated data collection tools to identify priority needs and monitoring technical and gender outcomes; (4) participatory engagement of women in the evaluation of existing CSA practices and technologies and in co-developing new adapted innovations including new varieties of rice, yam, and cassava; and (4) enhancing entrepreneurship capacity and returns through provision of processing equipment and related technologies. The project targets at least 40% women and 30% youth among the different categories of beneficiaries. At the policy level, the project will seek to align with the National Climate Services with gender strategies. Gender focal points will be designated to ensure that the institutional arrangements for improving adaptation to climate change are gender inclusive. To sustain the gendered impact, it is understood that the action will empower women and youth to make choices and influence decisions in their lives and communities and also extend to transformative actions which will address the gender structural limitations.

G.3. Financial management and procurement (max. 500 words, approximately 1 page)

129. As AE for the LARACI project, CGIAR System Organization will ensure that the financial management, procurement of goods and services, and disbursement of GCF resources adhere to CGIAR System Organization's established rules and regulations, as well as the relevant provisions of the Accreditation Master Agreement (AMA) signed with the GCF. These policies and systems were reviewed and deemed satisfactory by the GCF Secretariat and Accreditation Panel during CGIAR System Organization's accreditation process.
130. CGIAR System Organization employs a standardized chart of accounts, enabling clear tracking of incoming financial flows and expenditures by funding source, project, and activity, thus ensuring compliance with both internal management requirements and external donor reporting obligations.

131. Procurement of goods, services, and works will be managed by the Executing Entities, which will ensure that procedures conform with AE Procurement Policy. When awarding contracts for supplies/goods and services (including consultancy services) to be financed in full or in part from the GCF Proceeds under the relevant Subsidiary Agreement, each EE will be required to observe its own institutional procurement policies in a manner compliant with the policies and procedures of the CGIAR System Organization and the project's procurement plan. Procurement under the project will be conducted in line with CGIAR System Organization's Procurement Policy, which emphasizes principles of transparency, fairness, competitiveness, and best value for money. Where the EE's own procurement policies and procedures are more stringent than those of the AE, the EE shall apply its own policies. In all cases, procurement must comply with the principles of economy, efficiency, effectiveness, transparency, fairness, integrity, and accountability, and be consistent with applicable GCF policies and guidelines. A detailed Procurement Plan has been prepared and is included as Annex 10. This plan specifies the procurement packages, methods, timelines, and responsible parties, for the first 18 months of the project and will be updated periodically based on project needs and evolving market conditions, subject to prior review of thresholds agreed with the GCF.
132. Financial management and procurement by EEs, notably FIRCA and AfricaRice, will be supervised by the AE through regular project supervision missions and financial reviews. These oversight measures will be governed by legally binding subsidiary agreements between the AE and each EE. The EEs (FIRCA and AfricaRice) have completed an EE capacity assessment with no financial management or fiduciary gaps identified. FIRCA's two outstanding staff capacity items (staff qualifications and additional capacity plan) will be resolved before the subsidiary agreement is executed (p. 1 of FIRCA Capacity Assessment).

G.4. Disclosure of funding proposal

- ☐ No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.
- ☒ With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:
- full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity's disclosure policy, and
 - redacted copy for disclosure on the GCF website.

The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information.

H. ANNEXES

H.1. Mandatory annexes

- ☒ Annex 1 NDA no-objection letter [\(template provided\)](#)
- ☒ Annex 2 Feasibility study
- ☒ Annex 3 Economic and financial analyses in (a) narrative and (b) spreadsheet format
- ☒ Annex 4 Detailed budget plan [\(template provided\)](#)
- ☒ Annex 5 Implementation timetable with dependencies [\(template provided\)](#)
- ☒ Annex 6 Environmental and social action plan
- ☒ Annex 7 Stakeholder consultations and engagement plan
- ☒ Annex 8 Gender and social inclusion assessment and action plan [\(template provided\)](#)
- ☒ Annex 9 Legal due diligence
- ☒ Annex 10 Procurement plan [\(template provided\)](#)
- ☒ Annex 11 Monitoring and evaluation plan [\(template provided\)](#)
- ☒ Annex 12 AE fee request [\(template provided\)](#)
- ☒ Annex 13 Co-financing commitment letters [\(template provided\)](#)
- ☒ Annex 14 Term sheet

H.2. Other annexes as applicable

- ☒ Annex 15 Evidence of internal approval [\(template provided\)](#)
- ☒ Annex 16 Map indicating the location of proposed interventions
- ☐ Annex 17 Multi-country project/programme information [\(template provided\)](#)
- ☐ Annex 18 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- ☒ Annex 19 Procedures for controlling procurement by third parties or executing entities undertaking projects financed by the entity
- ☒ Annex 20 First level AML/CFT (KYC) assessment
- ☐ Annex 21 Operations manual (Operations and maintenance)
- ☒ Annex 22 GHG emission reduction in (a) narrative and (b) spreadsheet format
- ☒ Annex X Other references: Annex 23 Adaptation benefits in (a) narrative and (b) spreadsheet format; Annex 24: Gates Foundation support and parallel financing letter