Increased resilience and adaptive capacity of the most vulnerable communities to climate change in Forested Guinea

Part I: Project Information

GEF ID
10160

Project Type
FSP

Type of Trust Fund
LDCF

Project Title
Increased resilience and adaptive capacity of the most vulnerable communities to climate change in Forested Guinea

Countries
Guinea,

Agency(ies)
UNDP,

Other Executing Partner(s)	Executing Partner Type

National Directorate of Water and Forests, under the Ministry of Environment, Water Resources and Forests (MEFF), in collaboration with relevant rural communes and technical agencies (Direction Nationale de l'Environnement, Centre Forestier de N'Zérékoré, Centre de Gestion des Monts Nimba et Simandou –CEGENS, Direction Nationale de la Météorologie, Direction Nationale de l'Hydraulique) / organizations	Government

GEF Focal Area
Climate Change

Taxonomy
Focal Areas, Influencing models, Gender Equality, Capacity, Knowledge and Research, Stakeholders, Local Communities, Civil Society, Non-Governmental Organization, Community Based Organization, Private Sector, Financial intermediaries and market facilitators, Individuals/Entrepreneurs, SMEs, Beneficiaries, Climate Change, Climate Change Adaptation, Least Developed Countries, Strengthen institutional capacity and decision-making, Gender Mainstreaming, Gender-sensitive indicators, Capacity Development

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 0

Climate Change Adaptation
Climate Change Adaptation 2

Duration
60 In Months

Agency Fee($)
840,750

Submission Date
4/1/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	LDCF	8,850,000	26,600,000
	Total Project Cost ($)	**8,850,000**	**26,600,000**

B. Indicative Project description summary

Project Objective

Reduce the vulnerability of communities in Forested Guinea to the additional risks posed by climate change through the adoption of climate smart agro-sylvo-pastoral strategies

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
1) Frameworks for promoting a Climate Smart Agricultural Model	Investment	Outcome 1: Climate resilience of vulnerable communities (at least 14,000 people) of Forested Guinea area achieved by the introduction of Climate Smart Agriculture (CSA) practices on at least 10,000 ha of agro-sylvo-pastoral lands. Key results and metrics will be captured through the application of the AMATT.	1.1) A CSA development platform (involving government authorities, farmers, the private sector, research entities) is formed to guide the formulation and the implementation of CSA investments and support their implementation. 1.2) Context-specific CSA technology packages are implemented in sylvo-agropastoral landscapes covering an area of at least 10,000 ha and benefitting to 14,000 people. 1.3) A sustainable CSA inputs supply system established in the targeted communities in Kokota, Samoe, Koule, Bignamou and Dieké. 1.4) A sliding 5-year investment plan for the scaling up of the CSA is developed and embedded into the local development plans of target communities in Kokota, Samoe, Koule, Bignamou and Dieké.	LDCF	4,950,000	14,280,000

2) Access to climate finance	Investment	Outcome 2 Access of communities members, CBOs, CSOs, and local authorities to adaptation finance is enhanced in Forested Guinea. Results will be measured through adequate and gender disaggregated metrics on access to finance, coupled with the independent evaluation of micro-projects' success.	2.1) Microfinance institutions, local Banks and specialized NGOs (at least one in each prefecture) are supported to develop and submit one climate finance project for accessing financial resources for partial credit guarantee and/or line of credit for CSA investments. 2.2. Training packages on adaptation business models and investments delivered to at least 5,000 people, and at least 100 staff of Microfinance institutions, local banks and specialized NGOs on how to assess CSAs investments credit requests. 2.3) Finance for climate smart agro-sylvo-pastoral technologies extended to up to 1,500 small businesses, farmers and households 2.4) The institutional and policy frameworks developed to enable local communities and authorities access to finance for CSA and other adaptive practices in the sector of agriculture.	LDCF	1,500,000	5,320,000

3) Climate information & mainstreaming adaptation into local practices	Technical Assistance	Outcome 3. Climate information products and services for the development of CSA are developed and available for the communities and institutions. This will be confirmed by: - Number of communities and gender-disaggregated beneficiaries in targeted areas have access to climate information, enabling them to: (i) prepare and respond effectively to extreme weather events; (ii) plan and adopt sustainable and climate-smart agro-sylvo-pastoral practices; - Number of local governments in Forested Guinea that: (a) actively uses climate information to make informed and climate-smart decisions on development options, priority economic sectors (e.g. mining, agribusiness, ecotourism, etc.) and public infra-structure (schools, roads, health centers); and (b) advanced measures to climate-proof local Land Use Plans.	3.1. Climate risk informed agro-ecological zoning of the different productive landscape of Forested Guinea developed. 3.2 A training program on how to use climate information products and services delivered to the local authorities, NGOs / CSOs, and farming communities. 3.3) Tailored Climate information products and services are produced and disseminated to the end-users. 3.4) Local Development Plans for at least 4 of the 7 region's prefectures include climatic data on potential impacts, hazards and risks, and incorporate in the planning climate change adaptation measures that are discussed with the full participation of key stakeholders, including vulnerable beneficiary groups.	LDCF	1,980,000	6,000,000
				Sub Total ($)	8,430,000	25,600,000

Project Management Cost (PMC)

	LDCF	420,000	1,000,000
	Sub Total($)	**420,000**	**1,000,000**
	Total Project Cost($)	**8,850,000**	**26,600,000**

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Government	Government of Guinea through co-related baseline initiatives	In-kind	Investment mobilized	12,000,000
Government	Government of Guinea through co-related baseline initiatives	In-kind	Recurrent expenditures	3,000,000
Government	Government counterpart finance (central government indicative budgetary allocations)	In-kind	Investment mobilized	480,000
Government	Government counterpart finance (central government indicative budgetary allocations)	In-kind	Recurrent expenditures	120,000
Government	Local government in the Forested Guinea region	In-kind	Investment mobilized	800,000
Government	Local government in the Forested Guinea region	In-kind	Recurrent expenditures	200,000
CSO	La Maison Guinéenne de l'Entrepreneur (MGE) - in connection with the Sara Project (in partnership with GRET and AFD, partner-managed contribution)	In-kind	Investment mobilized	120,000
Private Sector	SOGUIPAH (partner-managed contribution)	In-kind	Investment mobilized	100,000
Private Sector	MGE - in connection with the new Coffee Ziama upscalling and climate-proofing initiative (partner-managed and leveraged contribution)	In-kind	Investment mobilized	100,000
GEF Agency	UNDP core funds	Grant	Investment mobilized	400,000
GEF Agency	UN Joint Programme for the Forested Guinea region (UNICEF, WFW, FAO, IFAD, UNFPA and UNDP) 2018-2022	Grant	Investment mobilized	9,280,000
			Total Project Cost($)	**26,600,000**

Describe how any "Investment Mobilized" was identified

THE INVESTMENT MOBILIZED WAS IDENTIFIED FOLLOWING CONSULTATIONS WITH THE PROJECTS IMPLEMENTING PARTNERS AND CONFIRMATION FROM THE IMPLEMENTING PARTNER THAT THE INVESTMENTS IDENTIFIED AS CO-FINANCING WILL CONTRIBUTE TO THE ACHIEVEMENT OF THE PROJECT OBJECTIVE

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	LDCF	Guinea	Climate Change		8,850,000	840,750	9,690,750
				Total GEF Resources($)	**8,850,000**	**840,750**	**9,690,750**

E. Project Preparation Grant (PPG)

PPG Amount ($)	PPG Agency Fee ($)
200,000	19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
				Total Project Costs($)	0	0

Core Indicators

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	8,400			
Male	5,600			
Total	14000	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

1.1 The adaptation problems, root causes and barriers that need to be addressed

Context and Issues: Climate Change Challenges

1. Studies carried out in the context of the First National Communication to the UNFCCC and as part of the preparation of the National Adaptation Plan of Action (NAPA 2007) have shown that, the main climatic risks that will impact the Forested Guinea are related to the disturbances of the rainfall patterns, the stormy rains for all Forested Guinea, increase of the recurrence and intensity of flash floods (Kissidougou and Gueckedou) and droughts (Beyla, Lola and Kissidougou). An analysis of the rainfall data shows stronger irregularities for the period 1991-2014, reflecting more irregular rainfall patterns. In addition, the peak of rainfall is moving from September to August. This irregularity in the rainfall regime, especially during the season between March and September, often leads to water stress that affects the yields of crops grown in Forested Guinea notably rice, maize, coffee, and hevea.
2. Average monthly temperatures in Forested Guinea recorded for the period 1991-2014 are higher than those for 1961-1991. Insolation and rising temperatures, in addition to direct effects on soil and water reserves, affect the yields of perennial plants. Some producers in the region have attributed the decline in coffee and oil palm yields on their plantations tothese observed changes in climate conditions. The prefectures of Gueckedou, Kissidougou and Beyla, located in the northern part of Forested Guinea, have been the most affected.
3. These climate trends and their effects will intensify in the coming years according to climate forecasts. According to the NAPA projections, in Forested Guinea in 2100, temperature rise will vary on average from 0.2 to 1.8 ° C for sensitivity 1.5 ° C; 0.3 to 2.7 ° C for sensitivity 2.5 ° C and 0.4 to 3.9 ° C for sensitivity 4.5 ° C; and the rise in temperature will be accompanied by a decrease in rainfall of around 15%. According to the NAPA and National Communications, surface and groundwater resources will be substantially affected, agriculture seasons disturbed, crop diseases and pests spread, biodiversity reduced. This will consequently negatively impact food security and social stability. The poorest populations will likely to be affected the most.
4. The combination of factors that relate to the region's underlying vulnerabilities, along with its unquestionable agro-ecological importance, places Forested Guinea high on the priority scale for urgent adaptation needs. The acuteness of the region's socioeconomic and gender vulnerabilities and pressures on its ecosystems amplify the impacts of climate change in Forested Guinea. As the agriculture sector provides livelihoods for 80% of the population, large numbers of people are exposed to chronic food insecurity and malnutrition as climate conditions become less favorable. According to the WFP's detailed survey of food security and vulnerability, about 600,000 people located mostly in N'Zerekore and Kindia, Labe regions suffer from severe food insecurity, while an additional 1.7 million are considered at-risk.

Major factors of vulnerability

5. Guinea is ranked 12th place (out of 178) of the world's most fragile countries in 2016, having occupied the 10th place in 2015. According to the fragility-analysis carried out by the recent National Plan for Economic and Social Development (PNDES, 2017), several deep-rooted factors explain the vulnerability of the Forested Guinea communities. These factors, in abridged form, are the following: (i) the poverty, the poverty incidence in Forested Guinea is the highest in

the country (66,9%) against a national average of 56,88% ; (ii) poor levels of capacity and technical expertise of the farming communities and the institutions mandated to support the rural development; (iii) rain fed agriculture (97,2% of cultivated lands are rainfed); is the main source of livelihood and food for a majority of the population, (iv) poor agriculture/land management practices that contribute to increase agricultural landscapes vulnerability to climate change and have negative effects on the overall productivity, this includes: shortened fallow periods; increased (and sometime abusive) forest and tree cover clearing and slash and burn practices; and forest and shrubbery fires that prompt conflicts between agricultural producers and livestock breeders over arable versus grazing land. ; (v) weak farmers' financial capacity and difficult access to credit to finance required adaptation investments such as resilient seeds (only 4.5% of land cultivated by men and 3.8% of land farmed by women use improved seeds and plant material including short-cropping cycle varieties and hybrids), machinery, efficient irrigation systems, farming fields fences and protection against heavy winds and/or finance resilient alternative livelihoods;; (vi) Livestock breeding is extensive and based on free grazing and forest clearing and fire to create new pasture areas and the strong increase in animal numbers leads to overgrazing and the multiplication of conflicts between farmers ; (vii) gender imbalanced access to productive lands impedes women access to more productive lowlands where there is abundance of water throughout the rainy season, women tend to only gain access to lowland areas after the rainy season, once the rice is harvested, limiting their production to pulses (cowpeas, pigeon peas) and sometimes peanuts, as well as vegetable gardening on lowlands during the dry season. This contributes to make them more vulnerable than men; (viii) the lack of enforcement and integration of climate change in the land and forest management and regulations to prevent shifting land-use, slashing and burning agriculture and non-environmentally friendly livestock practices.
The long-term strategy strategy/solution

6. The long-term strategy for sustainable and climate resilient regional development will be to improve the livelihoods of the most vulnerable communities, who would otherwise be those most threatened and impacted by climate change.

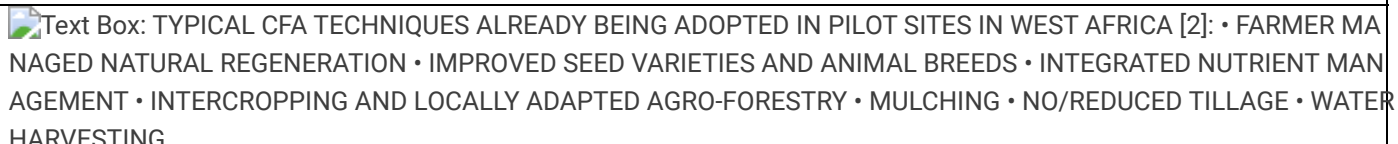
7. To this end, the climate resilience of the agro-sylvo-pastoral activities/practices on the ground on needs to be reinforced, resulting in the accelerated adoption of techniques and approaches that constitute Climate Smart Agriculture (CSA). This reinforcement can be accomplished through the management of multipurpose productive landscapes (lowlands, hillsides, plains) with the help of innovative technologies adapted to a more variable climate and the local context including an optimization between adopted practices/strategies and the agro-ecological suitability of soils and landscapes.

8. The strategy above depends on the existence and availability of reliable and usable information about the current and changing conditions of the regional hydrological, meteorological conditions and of the agro-ecological suitability of soils and landscapes. Informational products and the risks and benefits of their application in the rural sector need to be presented to both decision-makers and local communities in way that is understandable and useful in terms of their respective fields of activity. The results of such information tools are to be effectively integrated into Land Use Plans, which in turn are used to inform decision-making and local planning tools such as the Local Development Pans that identify and determine priority community investments. These development plans are linked to specific Climate Investment Plans that identify the necessary investments to cover the additional costs of adapting the projects in the LDPs so as to render them resilient to climate change.

9. At the same time, priority investments to enhance climate resilience both at community as and household level will need to be adequately financed. Local administrations will have access to the necessary financial means for covering the adaptation costs of community projects, and individual households and organizations will have access to microfinancing to cover the adaptation costs of their activities and also to insurance against climate-related risks. Extensive and demonstrative experience with climate adaptive techniques are needed at scale to have a transformational effect on livelihoods. Scaling-up of such approaches depend on availability and accessibility of adequate financing to support their uptake.

10. What is described further up – and in the Info Box on CSA – is an integrated long-term vision whose pillars are closely and synergistically inter-related. There are, however, three main barriers that need to be overcome before this long-term vision can materialize.

INFO BOX ABOUT CLIMATE SMART AGRICULTURE (CSA) – SEE PIF ANNEX D FOR MORE DETAILS



CSA encompasses a variety of context-specific approaches and innovative approaches that do not need to be technologically advanced, sophisticated or even electronic to be "innovative". To the contrary, CSA is built upon a technical foundation that largely already exists and a range of cornerstone agricultural approaches that include sustainable agriculture, sustainable intensification and conservation agriculture. In addition, the focus of CSA on food security, adaptation and mitigation (where possible) is always context-specific and so actual solutions must also be tested based on financial accessibility, user-friendliness, gender sensitivity, general conditions in the field and potential for scaling up. In the case of Forested Guinea, such solutions would revolve around the following points: (i) Soil management, (ii) Crop management, (iii) Water management, (iv) Livestock management, (v) Agroforestry, (vi) Aquaculture and (vii) Energy management.

The Agricultural Organization of the UN (FAO) defines CSA as “agriculture that sustainably increases productivity, enhances resilience (adaptation), reduces/removes GHGs (mitigation) where possible, and enhances achievement of national food security and development goals”. In this definition, the principal goal of CSA is identified as food security and development, while productivity, adaptation, and mitigation are identified as the three interlinked pillars necessary for achieving this goal.*[1]*

Approaches guided towards the short-term need to give way to a long-term vision based on Land Use Plans supported by sufficiently detailed mapping of the agricultural suitability of this territory that takes current and projected climate change into consideration. Land-Use Plans need to be accompanied by guidance on and access to innovative and climate resilient technologies that would fit under the umbrella term of Climate Smart Agriculture (CSA).

See otherwise Annex D for a list of examples of possible strategies. Agricultural research and advisory services will need to be strengthened to support the introduction and dissemination of these techniques, especially in regard to the small-holders’ farms that predominate in the region.

Sources: [1] https://csa.guide/; [2] https://ccafs.cgiar.org/flagships/climate-smart-technologies-and-practices

11. Three main barriers that need to be overcome so that the project's long-term vision to materialize:Barrier #1) Inadequate agro-forestry systems and production methods in relation to climate change and the agro-ecological characteristics of the territory12. Paradoxically, the region with the most important agricultural export sectors (coffee, cocoa, hevea, oil palm, cola, and banana) is also where the poverty is most acute. The profits generated by these cash crops do not, in most cases, trickle down to the most vulnerable. The intensification of poverty can be directly related to the low productivity of the agricultural and livestock sectors, which constitute their main sources of subsistence. This low productivity is attributed to the common production techniques, which are obsolete, extensive and environmentally unsustainable. According to the 2015 ANASA surveys, agricultural holdings are 90% manual and cultivate areas varying between 1 and 5 ha, nearly 60% of food crops are grown on plateaus cleared through slash-and-burn, and yields are low and highly dependent on the natural fertility of the land, which is highly variable from place to place. At the same time, humid tropical soils are naturally acidic and need to be treated to become more fertile. Not always are agricultural inputs such as lime available locally. In addition, tropical soils are highly susceptible to water erosion caused by excess rainfall. Mainstream techniques for improving soil fertility in Forested Guinea tend to include the burning of organic matter, instead of composting and incorporation of carbon and other micro-nutrients into soil. In addition, cultivation in steep slopes often leads to intense soil erosion under heavy rainfall. Yet, few are the cases where ancient techniques such as terracing and gravity irrigation are used in Forested Guinea. Rather, the shortening of fallow cycles and encroachment on forested areas are at times recommended (or allowed) by technical services as solutions to the locally experienced population pressure on land resources. Fallows and slash-and-burn are typically the only solutions available to disenfranchised family farmer for restoring soil fertility in their smallholdings and for creating new grazing areas. In the past, fallow periods ranged 10-15 years. Now, they are down to 5 years or less in Forested Guinea. Thus, land degradation is becoming more pronounced each year, leading to lower agro-pastoral productivity and even greater poverty. Soil management is central to effective climate-resilient agriculture, and one of the basics of sound fertility management is to ensure suitability of the different soils to the selected crops and cultivation methods.13. The mainstream paradigm in agriculture proposes the adoption of artificial fertilizers and pesticides as typical ways of improving yield. As in the rest of Guinea, the greatest barrier for the adoption of improved agricultural techniques is the price and limited availability of mainstream inputs such as fertilizers and pesticides in the national market. The same applies to the mechanization of agricultural practices. Tractors e.g. are scarce and generally not affordable to smallholders in Forested Guinea. However, alternative (and more promising) approaches to mainstream agriculture are emerging under CSA. Their adoption requires an analysis of local conditions and potentialities by expert advisors, which is lacking.Barrier #2) Limited financial capacity and limited access to credits for the adoption of innovative and resilient technologies 14. In general, Guinea displays one of the least developed financial sectors in the world in absolute terms, as well as relative to many other poor countries. Various factors contribute to a very low degree of financial inclusion in Guinea, especially in its most peripheral regions. As bank branches and service points (e.g., ATMs) are concentrated in urban areas, a lack of physical access to banking services represents a significant barrier to financial inclusion, exacerbate by the country's weak transport infrastructure. 15. Other obstacles include the lack of financial awareness and basic education and ability to meet formal requirements. Those who may wish to establish formal bank accounts and access credit from financial institutions often the lack of enforceable legal collateral because of the high proportion of rural residents without land title or with informal land rights. The lack of official personal documentation (required to establish formal bank accounts) and cultural practices also prevent use and access to certain types of banking services.16. Microfinance institutions are facing structural challenges and have been significantly affected by the Ebola crisis. Although microfinance is a key channel to expand access to financial, the sector serves only a small fraction of the demand for services from the low-income population and shows low standards of governance and weak loan repayment performance, having led the government to suspend a development program . Moreover, the few existing financial products do not include the risks linked to climate change: drought, flooding, crop failure and other types of damage caused by climate change and associated extreme weather events. Barrier #3) Insufficient integration of hydro-meteorological and agro-ecological information into the decision-making processes related to local development 17. Hydrological, meteorological and agro-ecological data are little or not at all used to inform decisions. Decentralized public services and research centers face enormous operational difficulties due to lack of human, financial and material resources. Apart from a few private weather stations operated by SOGUIPAH, state-run hydro and meteorological stations in Forested Guinea have been abandoned and are currently inoperable. Consequently, there is in Forested Guinea no adequate statistical hydro-

meteorological data collection, no systematic forecasting of climate hazards, no risk analysis or a weather event warning system. Also crucially for the rural sector, the absence of a national environmental database reduces the potential to use weather and climate information for decision-making. To greater or lesser degree, and with a few exceptions (such as the meteorological services at the Conakry airport) this situation characterizes not only Forested Guinea but the national reality of Guinea as a whole, negatively affecting all its productive sectors.18. Along the inadequacy of current practices described in barrier 1, the main drivers of deforestation in the region (i.e. the expansion of farmed areas and extensive pastoralism) are also caused by lack of zoning-based planning and decision-making. In other words, local and regional governance is currently unable to effectively plan and enforce where specific practices should take place according to the natural suitability of the territory. This is related to the absence of an effective legal, institutional and technical framework for managing land-use at various levels. Therefore, the integration of climate and agro-ecological outputs in decision-making also needs to take place (at least) at two different levels. Regional and local authorities will need to integrate such information into climate-proofed Land-Use Plans and Local Development Plans (LDPs). The first pertains to the spatial allocation of land-use, i.e. socioeconomic activities with spatial implications, and will take into consideration climate information, projected climate change scenarios and the agro-ecological suitability of the territory. LDPs define and identify development priorities and projects. When renewed, they will need to integrate climate change into consideration. The climate proofed Land-Use Plans will also constitute an important decision-making support tool to guide the reformulation of the LDPs. Local authorities would also be able to emit early warnings in case of forecasted extreme weather events. And secondly, individual farmers, sector-based associations or enterprises will need those climate and agro-ecological information products to plan and carry out their agro-sylvo-pastoral activities in more climate resilient and adapted ways.1.2 The baseline scenario and associated baseline projects

19. Development challenges in the project zone are being addressed through a number of programs, projects and initiatives. Most of them focus on poverty reduction and the development of the agro-sylvo pastoral sector, aiming at the provision of a wide range of benefits to rural communities. These include e.g. increases in agricultural and livestock productivity, benefits in education, health, and access to finance. A sizable portfolio of projects and programs, including some supported by UNDP, are currently active at the national level and in Forested Guinea to address development challenges. Other funders include World Bank, IFAD, AFD, IFAD, EU, the UN System and the Government of Guinea, among others. Refer to Annex F for a complete list with descriptions.20. Together, all of the baseline programs, projects and initiatives — with varying degrees of directness, scope and scale — contribute to the rural economy of Forested Guinea and thus to the development of the local communities that depend on the region's agro-sylvo-pastoral sector and on the state of associated ecosystems. Some span across West Africa covering only parts of Forested Guinea. Others are national, regional or local. These projects aim at developing sustainable agriculture, capacities and skills of the Forested Guinea farming communities and the agriculture productivity in Forested Guinea. These projects aim, among other activities, at disseminating best agriculture practices and best available technologies, in substitution of the current forest clearing and slash and burn practices that contribute to impoverish and reduce productivity of Forested Guinea agriculture landscapes. Many are already producing results, while others are pipeline investments. Together, they constitute 'the baseline project investment' summing up a solid $161.3 million, summarized below and broken down as follows: Component 1 (with focus on Agriculture and/or Forestry) with $98.4 million in baseline investments; Component 2 (Finance, including local finance) with $44.8 million; and Component 3 (Local decision-making and Land-use planning) with $18.1 million (see Annex F for details):

Program title (short)	Baseline Programs (title, topic, duration, amounts)	Relevance to project's Components	Baseline Amounts considered ($ millions
PPAAO-Guinea 2nd phase	*Programme de productivité agricole en Afrique de l'Ouest* (PPAAO), World Bank, Japan, budget: $119 million regional (started in 2008 in other countries) and reserved approx $5 million for 2019-2022.	1	$24.0
PACV 3	*Programme Appui aux Collectivités Villageoises* (PACV 3) World Bank, IFAD, AFD, budget: € 23.9 million national, or $28.2 million equivalent (2016- 2020)	2 and 3	$28.2
PADAG	*Projet d'Appui au Développement Agricole du Pôle G* (PADAG) FADD (73%), Guinean Gov. (20%), Beneficiaries (7%), with a budget of $38,4 million (2017/8-2023/4)	1 and 2	$38.4
Innovative Pisciculture Development	*Projet de Développement de la Rizi-Pisciculture en Forested Guinea* (PDRP-Forested Guinea) , financed by AFD and the EU for € 18 million (2018-2023) – for both an amount of $10 million was considered for the baseline calculus	1	$10.0
SARA	Project "*Sécurité Alimentaire, Résilience et Agroécologie*" (SARA) EU, CCFD-TS, CFSI, Fondation de France, with a budget of € 3.7 million (2016-2019), implemented by GRET, MGE, CCFD-TS and FPFD	1 and 2	$3.7
WRDPSEM-NRB 2	Water Resources Development Program and Sustainable Ecosystems Management of the Niger river basin (WRDPSEM), World Bank and NBA, with a budget of $186 million (2012- 2021), of which $30 million is considered as baseline for both phases.	1	$30.0
	TOTAL (of which approx. $15.1 million is expected to contribute to co-financing)		**$134.3**

21. Although an estimation, this baseline investment represents the current response to the region's fragile economy and developmental needs. Some of the mentioned projects may contribute to reducing vulnerability, but the great majority of these interventions do not take the specific impacts of climate change into consideration. Much more needs to be done in this regard to improve the resilience and adaptation capacity of local communities.

22. Yet, it is worth noting that Guinea is undertaking several efforts to strengthen technical and institutional capacities for enabling climate change adaptation. They pertain to institutional measures and reforms, policy responses and the general development of capacity. Many are facilitated through the following initiatives: (i) other LDCF projects; (ii) bilateral initiatives to support climate data collection and analysis; and (iii) GEF projects in other focal areas,

which relate in different ways to the project's theme. (i) With respect to the first group, Guinea has implemented one NAPA follow-on project with UNDP and is in the process of implementing another three. These four NAPA projects and respective status of implementation / results are described in Annex G.

23. Further to this, a UN Joint Program for the Forested Guinea region is currently under development and it will involve UNICEF, WFW, FAO, IFAD, UNFPA and UNDP (2018-2022). UN Joint Program will have relevance for the following topics on focus in the project's strategy: (1) Agriculture and/or Forestry; (2) Finance, including local finance; and (3) Local decision-making and Land-use planning. The UN Joint Program will be an important source of co-financing to the project and the project will also serve to leverage it.

24. Regarding bilateral initiatives to support climate data collection and analysis we should mention the project "Observation Spatiale des Forêts de l'Afrique Centrale et Occidentale (OSFACO), AFD, budget: $5.9 million (2016-2018)". Funded by the AFD, the OSFACO project creates a framework for supporting and financing projects that aim to improve knowledge of past and current land use and land-use change dynamics in several countries of Central and Western Africa through spatial observation tools. The OSFACO project will strengthen and expand local expertise and ownership of satellite imagery in the design, implementation and monitoring of sustainable public policies of the territory. Guinea submitted 13 project proposals among which two were approved: "Cartographie de la végétation et de la disponibilité des terres agricoles à l'échelle régionale : le cas de la Guinée Maritime" and "Intégration et suivi de 20 forêts communautaires à caractère sacré dans le système de gestion durable de la biodiversité du Bassin du Haut Niger en République de Guinée". Although OSFACO projects may not primarily target climate change, monitoring the dynamics of these territories is a key priority in mitigation and adaptation to climate change.

The alternative scenario

25. The long-term strategy for sustainable and climate resilient regional development will be to improve the livelihoods of the most vulnerable communities, who would otherwise be those most threatened and impacted by climate change. To this end, land-use and socioeconomic activities need to be more productive and sustainable under current climate-change scenarios. The main way to accomplish this is through the large-scale adoption of Climate Smart Agriculture as the dominant approach to a resilient rural economy. Component 1 refers to the development and implementation of such innovative agro-sylvo-pastoral technologies. Components 2 and 3 are the enabling components of 1. Component 2 seeks to enable the necessary financial mechanisms for climate-specific investments that are needed to mainstream climate change adaptation into the rural economy of Forested Guinea. Component 3 focuses on mainstreaming climate risks and adaptation options into planning tools and decision-making.

Expected outcomes and components of the project

Component 1. Frameworks for promoting a Climate Smart Agricultural Model

Baseline

26. The PPAAO-Guinea 2 (2019-2024), the PADAG (2017/8-2023/4), National Pisciculture Dev. (2018-2023), and WRDPSEM-NRB 2 (in preparation) aim to improve livelihoods and broadly conditions for rural development. Expected results of these projects include improved access to agriculture machinery and infrastructures, improved cultivation techniques, increasing in yields and income, enhancement of value-chains. As well, the AFD funded National Pisciculture Development Project and PDRP-Forested Guinea extension phase aim to promote and consolidate the rural development, poverty alleviation and food security in Forested Guinea through the development of integrated rice-fish farming. The development of integrated rice-fish farming is being promoted as one of the strategic responses to the threat of food insecurity and incomes reduction caused by the degradation of agricultural land and reduction of the agriculture productivity in the lowlands, agriculture being, traditionally and until to now, the main sources of incomes and food in the region. However, as stated above, the development of agriculture, the main source of livelihoods and food security in Forested Guinea is highly vulnerable to forecasted climate risks. Farming communities are not prepared to face to the impacts of climate risks such as shift of the rainfall patterns, flooding, increase of heat and others. And this can

negatively impact the productivity of the investments made by these projects and the development of the agriculture sector in Forested Guinea. Also, the success of integrated fish-rice farming, in the context of the totally rain-fed rice farming in Forested Guinea, is threatened by the erratic rainfall patterns that doesn't guaranty the irrigation of the paddy fields with the required quantity of water during the different phases of the vegetative cycle of the rice that will allow an optimal rice. Similarly, the success of the fish farming will depend on the permanence of the optimal quantity of water in the fish ponds after the rice harvesting that allow an optimal growth of the fish individuals and stocks. But, the increase of length and intensity of the dry periods forecasted for Forested Guinea will likely result to an increase of the evapotranspiration and the premature drying-up of the fish ponds that will negatively impact the productivity of the fish farming. And the successful uptake and scaling up of this strategy will highly depend on the success of the rice-fish farming demonstration by these projects.

27. Additionally, two ongoing private sector initiatives that compose the baseline (and potential co-financing) stand out: (1) SOGUIPAH that is an agro-industry company processing hevea and oil palm. The company works with the farmers of Guinea Forestry under a concession scheme where they farm hevea and palm oil that the company commits to purchase. In order to improve farmers' food security and resilience against international markets shocks, prevent clandestine migration, the SOGUIPAH supports the farmers to develop integrated rice-fish farming in complement to the oil palm and hevea growing. This is the case, for example, in the rural commune of Diecke, where SOGUIPAH supports the farmers and its laborers to exploit 80.000 ha of rice-fish farms. Within this system, the rice and fish production aims at securing rice and proteins and additional incomes to the hevea and oil palm incomes and increase farming communities resilience to the commodity markets shocks . Also the fish ponds, in top of providing proteins and income to communities, are expected to contribute to stabilize the groundwater availability, humidity and the fertility of the soils for the plantations. Currently, the SOGUIPAH is the largest scale fish-farming operator in the whole of Guinea. This landscape approach includes also the concept of "colline écologique" (ecological hill), small protected forest (700 ha) on slopes and along watercourses, designed to provide to hevea, and palm oil farming ecosystem services such as control of drought and flood, soils humidity and fertility . (2) The Ziama Macenta coffee is still a nascent rural development initiative in Forested Guinea, The Ziama operates also with the farmers of Guinea Forestry under a concession scheme where they farm the coffee that the company commits to purchase. The estimated co-financing contribution of 'the baseline project' for Component 1 is $14,280,000 million.

Additionality

28. Component 1 is focused on the development and implementation of context-adapted innovative and climate resilient technologies that would fit under the umbrella term of Climate Smart Agriculture (CSA). See Annex 1 for an overview of such measures. The project preparation phase will carry out the identification, costing and feasibility of the CSA measures the project will support. These measures will aim at increasing the resilience and reducing the carbon foot print of development projects named above and pursuing the development of agriculture activities, the improvement of food security and livelihoods of Forested Guinea farming communities. The successful implementation of the CSA measures should lead to a situation in which the climate resilience of at least 14,000 people of Forested Guinea area is strengthened by the introduction of Climate Smart Agriculture (CSA) practices on at least 10,000 ha of agro-sylvo-pastoral lands.

29. Building upon the baseline projects mentioned above, the proposal will support, under the Output 1.1, the establishment of a CSA development platform that will guide the implementation and expansion of CSA in the targeted municipalities and other municipalities of Forested Guinea. A range of technological, institutional, and policy options for climate-smart interventions, and that have varying environmental and economic impacts and costs can be considered. Identifying appropriate interventions requires tradeoffs across levels from farmers to sub-national and national policy makers and consideration by decision-makers about what is appropriate for given contexts. Consultative mechanism, including the farmers associations, community representatives, the local authorities, Forested Guinea agriculture research Institute, the private sector (SOGUIPAH , commodity traders, hotels associations, microfinance institutions) and other interested key stakeholders, is therefore needed to support the development of the CSA. This CSA framework will assist relevant stakeholders to jointly prioritize appropriate strategic decisions to improve the resilience, adaptability and efficiency of agriculture and rural livelihoods in the face of climate

change and attract required investments and financing for scaling up the practice of CSA in Forested Guinea. Targeting and prioritizing approaches narrows an extensive list of possible practices, services, and policies down to a range of the options with high scalability potential, and which may serve to attract investment and funding. The CSA development support platform will be set up through a joint agreement between the interested parties The CSA support framework will have the responsibility to support the formulation of CSA development investment plan (under Output 1.4) and the implementation of the plan.

30. Under the output 1.2, the proposal will finance the implementation of the CSA technology package in 10,000 hectares of multipurpose agro-sylvo-pastoral landscapes and benefitting approximately 14,000 people with a positive bias towards women. The CSA package will aim at supporting a landscape management approach and will include: i) sustainable land and water management strategies to support the integrated rice and fish farming systems to cope with the rainfall patterns disturbances and the increased intensity and the length of the dry period that can negatively impact the productivity of these systems; ii) the use of resilient seeds; iii) the integration of tailored climate information in the farming decision making processes; iv) agroforestry strategies combining crops, indigenous trees species and livestock; v) the resilient management of pasture lands and other innovative agro-sylvo-pastoral practices to improve agriculture supporting ecosystem services. The implementation of the CSA technology package will entail: i) supporting the Forested Guinea Agriculture Research Institute (IRAG-GF), specialized in tropical wetlands agro-forestry production systems , to lead the development and the rolling-out of the CSA technology package diffusion (including trainings) to the 14,000 targeted farmers; ii) providing the most vulnerable farmers with the improved seeds and seedlings, livestock breeds and other small equipment ; iii) the development of a sustainable extension system, including CSOs, community members and governmental extension units, (iv) financing community-based sustainable land and water management investments (cover crops, reforestation, water harvesting infrastructure on farms (weirs, small dams, ponds, etc.), infrastructure for delivering water to plots, low costs flood control systems. The project preparation phase will identify and develop the CSA technology packages, assess the conditions for the uptake of these technology packages, identify the required community investments to support the CSA in the targeted communities and design the sustainable extension system.

31. Under the output 1.3, the LDCF proposal will support the development of a sustainable CSA inputs supply system in Forested Guinea in order to ensure the timely availability of affordable and quality CSA inputs. In Forested Guinea, most farmers practice low-input agriculture. Only 4.5% of land cultivated by men and 3.8% of land farmed by women use improved seeds . To support Guinea Forestry farmers to respond to climate change, the IRAG-GF has successfully piloted climate resilient seeds, but because of the lack of a relevant demand from the farmers, the local seeds supply system has not yet invested in the supply of these seeds to the farmers. Among the causes of the demand of the resilient seeds from the farmers, one can identify the lack of awareness of the farmers of the benefits of these varieties, the, weak financial capacity of the farmers and the lack of knowledge to efficiently use these inputs. In order to better address the barriers for use improved seeds by the farmers, the project preparation phase will undertake a thorough analysis of the reasons of the low uptake of improved seeds in Forested Guinea. Through this output, the LDCF project will support the seed supply system in Forested Guinea through : (i) strengthening the capacity of the IRAG-GF in the production of foundation seed; (ii) support to community-based seed production systems to better organize and to access to credit for investments, and to private sector actors operating in the seed production ; (iii) construction of storage and packaging infrastructure; (iv) promoting the use of selected resilient seeds; (v) strengthening of seed associations and inter-professional organizations; (vii) support for innovative mechanisms of seed marketing; and (viii) strengthening seed policy and institutional support to the national seed control and certification agency. This seeds supply system support will focus on the seeds for the crops identified by the communities.

32. Under the output 1.4, the project, under the steering of the CSA development framework, will support the development of a sliding 5-years CSA investment plan and its integration into the Forested Guinea chapter of the national agriculture investment plan and local and regional development plans of targeted municipalities. Building upon the lessons learnt from the implementation of the CSA supported through the output 1.2 and other CSA development supporting initiatives, the plan will delineate the required investments and technical support for the scale up of the CSA in the targeted municipalities and other municipalities of Forested Guinea. It will determine, based on the communities farming objectives (food security and /or commodity trading and types of crops), targeted markets, the required infrastructures, the required update and improvement of the CSA technologies packages supported by the project, the training programs and the required advisory support mechanisms to facilitate the use of the technologies, the support infrastructures (water access and water

control systems, storages, systems, climate information), the required resources for the upscale beyond the immediate beneficiaries of the project and complementary resource mobilization strategies.
Component 2. Access to climate finance

Baseline
33. Limited access to finance, is one of the bottlenecks for farmers in Forested Guinea to make necessary on-farm investments required for adoption of agricultural practices leading to climate smart outcomes. Several barriers impede the Microfinance institutions and banking system to finance agriculture and adaptation investments. With small loans and few borrowers, the financial thresholds are too low and the transaction costs associated with lending are high. However the financial institutions are more interested in sizeable loans and increasing the loans and the number of borrowers can therefore be more attractive. Also, income streams from small-scale farming are too erratic and unreliable. Security of repayment from the borrower is a central factor for the lender. Erratic income streams for farmers are already largely a function of climate variability, and the impacts associated with climate change exacerbate these risks. Finance institutions often do not understand the investment possibilities that come with climate adaptation and can also be concerned about external factors that could put the loan at risk, for example an extreme climatic event could damage the asset severely enough to require additional finance to repair or replace it. Addressing these barriers is critical for improving farmers' access to climate finance, one of the key element for achieving transformational change in the agro-sylvo-pastoral system in Forested Guinea.
34. There are currently 2 projects supporting the development of financial mechanisms for rural development: the PACV 3 (2016-2020), PNAAFA (2011-2017), and the SARA (2016-2019). Yet, none of them are explicitly considering the needs for climate change adaptation in their strategy (SARA project excepted, but with limitations). Climate finance rarely trickles down to the local level in Guinea.
35. The PACV3 is supporting the establishment of a Local Investment Fund (LIF) aiming to finance a series of small investments (sub-projects) in the form of Sub-grants in selected CRs. The LIF is the mechanism for transferring funds to CRs and once transferred will be managed by the local communities. A total of 170 CRs with their specific types of small investments were selected based on the following criteria: (a) need to complement past investments in micro-projects and natural resources management; (b) incidence of the Ebola Epidemic; and (c) need to develop partnerships between CRs and mining companies. A second objective of the PACV relevant for this component is to set up sustainable mechanisms for long-term local development financing and community participation, by supporting policy dialogue and the necessary studies concerning: (i) the creation and operation of a National Fund for Local Development (FNDL); (ii) the creation of a national government agency (EPA) to manage the FNDL and to provide technical assistance to CRs; and (iii) the transfer of adequate financial resources from the national to the local level. Although the PACV3 aims to support investment in natural resources management, there are visible gaps vis-à-vis climate change adaptation considerations in the investments supported by the LIF. Furthermore, the FNDL is targeting to support the financing of the business as usual development investments of the local development plans. The second relevant initiative supporting access to finance in Forested Guinea is the Project SARA. This project supports upstream and downstream actors in the agricultural value chains of the rice and palm oil sectors to access to microfinance institutions. This support includes providing micro-grants and helping them to elaborate credits requests to the microfinance institution. Again, the SARA project does not provide communities with grants neither support them to develop credit requests to finance adaptation investments. Also, any of these 2 baseline projects support the microfinance institutions operating in Forested Guinea to develop tailored climate micro-finance products and build their capacity and their awareness to accept credit requests to finance adaptation investments.
36. The estimated co-financing contribution of 'the baseline projects' for Component 2 is $5,320,000 million.

Additionality:
37. Component 2 seeks to enhance Forested Guinea communities 'members, CBOs, CSOs and local governments access to climate finance to undertake relevant climate smart agriculture investments while also priming innovation and favoring women, youth and vulnerable groups, and by working together with

partners in Forested Guinea. The project will support the access to climate finance by: (i) building the capacity of financial intermediaries; (ii) exploring the use of instruments such as portfolio partial credit guarantee and/or line of credit to encourage participation of lenders such as commercial banks and microfinance institutions, in CSA finance; (iii) identifying and addressing critical bottlenecks (supply, demand, and delivery issues) that limits agricultural credit flow in Forested Guinea; iv) raising awareness and training of different stakeholders. The ultimate goal is to provide access to finance and thereby build up the resilience of the rural sector and support the effective up-scaling of CSA approaches to agro-sylvo-pastoral activities.

38. Output 2.1 will focus on supporting at least 5 microfinance institutions or local Bank or specialized NGO (one per targeted municipality) to develop and submit to development banks or other relevant IFIs one climate finance projects for accessing financial resources for partial credit guarantee, and/or line of concessional credit for CSA investments. Lending institutions want to know their risks are covered before they will lend the money they manage. The project preparation phase will allow to identify the qualified microfinance institutions and local banks (that meet pre-identified criteria, such as access to vulnerable, rural populations or demonstrated ability to manage, disseminate and collect finance that is demand driven), appropriate IFIs, support the Government of Guinea to engage consultations with these IFIs with the perspective of supporting the microfinance institutions and local banks to submit funding requests for financial de-risking and to draft climate finance applications.

39. The output 2.2. will support the development and the delivery of a training package on how to elaborate business case for CSA investments credits to 5,000 community members (with at least 50 % of women) and to 100 staffs of microfinance institutions, local banks and specialized NGOs on how to assess CSAs investments credits. Having had little exposure to formal financing mechanisms, potential beneficiaries such as microenterprises, and individuals with low income, often have little knowledge of how loans work, how these differ from social grants, and how to manage or increase their incomes to enable repayment. The output 2.2, therefore, will provide community members training and advisory support for the development of business cases to access to credit, raise awareness on saving and the adaptation possibilities that go along with building climate resilience and the possibility to access to credits, support and build capacity of local governments on the integration of climate change investments in their international cooperation agreements, and provide training to the MFIs on how to integrate climate risks and solutions in their financial products.

40. The Output 2.3 will support up to 1,500 farmers, small business and householders with a bias towards women (at least 60% of beneficiaries) and disabled actors to access to finance for investing on smart agro-sylvo-pastoral technologies and businesses opportunities. It will be about helping them to identify required CSA investments to make their activities more resilient (irrigation system, field fencing, machinery and other farming equipment, solar powered agriculture and livestock products processing equipment; access to markets…), to identify CSA related business opportunities (seeds production and commercialization, CSA extension services; business management advisory services, photovoltaic systems, …) and develop solid credit request dossiers, provide advisory services for business management.

41. The output 2.4 will focus on strengthening the institutional and policy frameworks, as well as the capacity of the different actors needed for supporting enhanced access to climate finance. Building on the lessons learnt from the outputs 2.1, 2.2 and 2.3, this output will support the development of policies and regulation addressing the barriers identified for the expansion of the climate finance in Forested Guinea. This will include policies to authorize local authorities to access to the financial market, regulatory definition of microfinance and microcredit, definition of collateral for small holders, clients protection, determination of appropriate loan terms, regulatory transform NGOs MFIs into licensed intermediaries, minimum deposit, and other prudential and non-prudential regulations.

Component 3. Climate information & mainstreaming adaptation into local practices

Baseline

42. The production of hydro-meteorological data in Forested Guinea is, currently, very limited. The national directorates of meteorology and hydrology (DNM-DNH) have only few hydrometeorology stations in the region and most of them being currently out of service. Besides that, there are few additional operational meteorological stations owned and managed by SOGUIPAH to support their operations are monitoring weather in Forested Guinea. In this context, the farming communities in Guinea do not access to relevant climate information and early warning systems products and services that could inform climate resilient

livelihoods. Furthermore, the existing agro-ecological zoning of Forested Guinea, dividing the region in 13 homogeneous agro-ecological zones, has been developed by the Agronomic Research Institute of Guinea, in collaboration with CIRAD in the late 1990s and did not take climate change into consideration. Although it is not considered as part of the financial baseline, the GEFID 8023 project "Strengthening Climate Information and Early Warning Systems for Climate Resilient Development and Adaptation to Climate Change in Guinea" will be essential to fill this major gap. The GEFID 8023 project will strengthen the capacities of the national hydrometeorological departments (including the Regional Divisions of the Forested Guinea) for monitoring extreme weather events and climate change and develop and disseminate climate information products and services (CIPS) tailored to the need of the key stakeholders. Although the GEFID 8023 has a national scope in terms of hydrometeorological coverage and capacity development, the production of tailored CIPS will be restricted to specific regions other than the Forested Guinea Region because of budget constraints. The GEFID 8023 project will support the upgrade of the weather and water monitoring and forecasting network for the Forested Guinea and this additional LDCF project will support the development of specific CIPS requested by the Forested Guinea farmers communities, CSOs and actors of the private sector, and required for the mainstreaming of climate risks in the local development plan and the agro-ecological zoning. This new LDCF project will also use the CIPS dissemination mechanisms (including the National Climate Data Center) that will be developed by the GEFID 8023 to ensure that the CIPS produced reach the targeted end-users of the Forested Guinea.

43. The PACV3 and the PADAG are supporting Forested Guinea municipalities to improve local developing planning by identifying and integrating in the local development plans (LDPs) the priority investments required to foster agriculture development, food security and poverty reduction, land use planning, natural resources management. However, the absence of tailored CIPS doesn't allow to integrate climate risks and appropriate adaptations investments in the process of the development of the LPDs. Furthermore, no provision has been made to integrate into these LPDs the required investments to support the development of climate smart agriculture.

44. The estimated co-financing contribution of 'the baseline project' for Component 3 is $6 million.

Additionality

45. Component 3 will build upon the GEFID 8023 project and will focus on mainstreaming key climate risks and adaptation into planning tools and decision-making. Its successful implementation will result in the use of climate information and products services (CIPS) identified by the end-users and developed thanks to the GEFID 8023 in the management of climate vulnerable economic activities and into local development and planning processes. This refers both to the decision-making of local administration through climate-proofed Land-Use Plans and LDPs and to the decision making of local producers. Through Output 3.1, climate informed agro-ecological zoning of the different productive landscape of Forested Guinea is developed to determine the long-term agro-ecological suitability of the different productive landscapes of the Forested Guinea. This tool is intended to help decision makers in land-use planning. In other words, this prepares the ground by providing a much-needed description of the present and projected agro-ecological suitability of target areas which will serve at the same time as the GEO-referenced basis for planning adaptation measures in the project zones, making fine resolution data available to project beneficiaries. Output 3.2 will focus on strengthening the capacity of local public, private and community-based entities to make use of agro-meteorological services and products. Therefore, resources under this output will finance the elaboration and delivery of training packages to farmers, local authorities, CSOs and other individuals in Forested Guinea, on how to use climate information products and services. Output 3.3 consists of the production and dissemination of appropriate climate information products and services (CIPS) requested by the end-users. To this end, the project development phase will consult with the key stakeholders to determine their CIPS needs: CIPS needs for the climate smart agriculture, for the local development planning, for the private sectors such products are a necessary step to render climate data useful to decision-makers and beneficiaries. Under Output 3.4, agro-ecological and the climate data (including the contribution of the information products of the previous output) will be integrated in medium-term local Land-Use Plans in the project's targeted communes, thereby taking into account the needs and measures relating to climate change adaptation.

1.5 Global environmental benefits (GEFTF, NPIF) and/or adaptation benefits (LDCF/SCCF)

Climate change vulnerabilities	Alternative	Adaptation benefits

Three aspects are on focus: Inadequate agro-forestry systems and production methods in relation to climate change and the agro-ecological suitability of the territory. This includes both livelihoods and natural assets, which are under threat from climate change: Threats to food and water security due to: (i) the deterioration of soil quality and availability; (ii) changes in cultivation period and in conditions of crop growth and harvest; (iii) crop loss resulting from floods and droughts; and (iv) degradation of water and land-based ecosystems due to changes in insolation levels and rainfall patterns; Encroachment, land-use conflicts, poaching and deforestation become more pronounced in protected areas and buffer zones; River bank erosion and siltation patterns, affecting water courses and increasing flood risks and impacts; Decreased availability and quality of ground and surface water; Destructive effects of more frequent and intense extreme weather events. Limited financial capacity and limited access to agricultural credits for the adoption of innovative and climate resilient technologies; and Insufficient integration of useful hydro-meteorological and agro-ecological information into the decision-making processes related to local development	The strategy will focus on three fronts: Component 1 – Frameworks for promoting a Climate Smart Agricultural Model. The development and dissemination of CSA practices strengthen the resilience of vulnerable communities to climate in selected sites, leading to tangible and replicable changes in land-use practices that sustain critical ecosystem services for the rural economy in scenarios of climate change. Key focus is on climate resilient agro-forestry, livestock management, aquaculture and the cultivation of subsistence and cash crops; Component 2 - Access to climate finance. Financial mechanisms provide the means for key investments for climate resilience, both directly to beneficiaries and to the authorities of rural communes; Component 3 - Climate information & mainstreaming adaptation into local practices. Through the generation of adequate climate and agro-ecological information and adequate integration of such information in the decision-making of beneficiaries and local authorities (CR and Prefectures).	Land-use and the activities of the rural sector are more adapted and resilient to climate change and better equipped to guarantee food security and the livelihoods of communities under the influence of climate change, while preserving and restoring the resilience of local and regional ecosystems. The resilience of landscapes and ecosystem services results in the resilience of the communities who depend on them. Regional and local capacity to mainstream climate change adaptation in key planning and practice frameworks is strengthened. Systems provide information and data in a targeted way for enabling climate change adaptation. Adaptation learning will be enhanced through dissemination of climate adaptation benefits in targeted areas to stakeholders.

1.6 Innovativeness, sustainability and potential for scaling up

46. Innovation and sustainability are embedded in the core of the project concept, since it aims to innovate and adapt rural practices towards more sustainable and climate resilient approaches informed by the umbrella concept of Climate Smart Agriculture (C1). To enable this, it will develop and promote innovative financial mechanisms (C2) and innovate decision-making by mainstreaming planning and decision support tools (LUPs and LDPs), including useful climate and agro-ecological informational products (C3). In particular the establishment of the Climate Investment Fund (CIF) with national scope but regional and local rolling out mechanisms would constitute a pioneer initiative in Guinea.47. As for the sustainability and replicability of the project, it aims to promote resilient rural development in a way that will extend well beyond the project's duration. First of all, the CSA development mechanism is expected to remain after the project and its coverage expand beyond the targeted municipalities to the entire Forested Guinea. It will continue to support the development of the CSA sliding multiyear investment plans and support also the mobilization of resources for the implementation of the investment plan. The project legacy will also endure in the new or mainstreamed LDPs (including the multi-year Climate Investment Plans). These are tools that once put in place will be continuously updated and improved by the climate and agro-ecological informational products. Beneficiaries and decision-makers will grow the habit and capacity to include climate resilience and adaption in their decisions and activities. Since CSA should also lead to medium term increases in productivity, food security and revenue, this by itself will constitute an important motor for CSA uptake and dissemination. By training local stakeholders and decision-makers, and by focusing on women and young people as key development protagonists, project beneficiaries have the best chances of becoming multipliers and of securing benefits beyond the direct investment. Part of the long-term strategy is for such approaches to be replicated in other parts of Forested Guinea beyond those directly targeted by the project and also in the other Guinean natural regions. Finally, one of the long-term objectives of the national development policy is for profits derived from the mining industry to be invested in the rural economy (PNDES, 2017). If well succeeded, this strategy would in the long term generate important financial means to promote the expansion of CSA in Guinea with less dependency on foreign aid for development.

1b. Project Map and Coordinates

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

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above,please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

Stakeholder	Relevant Role
National Directorate of Water and Forests (DGEF), under the Ministry of Environment, Water Resources and Forests (MEFF)	The executing agency of the project. Its role is to coordinate and implement project activities with regards to mainstreaming climate change adaptation into national planning processes. The Directorate will also ensure the engagement of relevant line ministries/government entities responsible for the agriculture, water and rural development portfolio. These entities will play a key role in both securing the co-financing for the project and in ensuring the complementarity between baseline initiatives and this LDCF project. DGEF will is expected to implement the project in collaboration with relevant rural communes and technical agencies and technical organizations. These may be specialized technical bodies in the government, CSOs (NGOs and CBOs) and, in certain instances, even the private sector (to work and services can be tendered). Such arrangements are due to the complexity of the project strategy and the generally limited capacity of national institutions. Yet, the general project is to build this capacity exactly by involving national entities in implementation. Exact arrangements will be confirmed during the PPG.
Prefectures of targeted areas (to be finalized during the project development phase)	Among other tasks, prefectures disseminate, execute and monitor national guidelines and policies, implement laws/regulations and maintain security; execute public expenditures within the Prefecture; animate/coordinate/control all prefectural administrative directorates and their agents; exercise supervision over urban and rural communities; promote micro-projects and support local governments, community groups, cooperatives, NGOs in the management of their projects; and plan and promote socioeconomic and cultural development (though the prefectural development plans). Therefore, the relevant prefectures will participate in the design and the monitoring of the field activities of the project and ensure that the project activities are in line with and contribute to the implementation of the prefectural development plans. Most importantly, and together with the rural communes at the level of sub prefectures, they will have a most important role in the development of Land Use Plans (LU

	Ps) and in the mainstreaming of the new generation LDPs. The latter operate at CR level, b ut such plans have to interrelated and harmonized.
Regional divisi ons for rural de velopment (agr iculture, forestr y, environment) of Nzérékoré a nd Faranah Ad ministrative Re gions	The regional technical divisions are responsible for the implementation of the government policies at the regional level. Their role is, among others, to coordinate the implementation of regional action plans. Their role in this project will be to provide rural communes with ad visory support as well as to participate in the design and monitoring of the project activitie s. In this regard, it is worth noting that the natural region of Forested Guinea belongs mostl y to the Nzérékoré Administrative Region with the exception of the Prefecture Kissidougou that belongs to the Faranah Administrative Region. For this reason, the regional divisions of Faranah are also included among the relevant stakeholders.
Rural Commun es (CR)	The CRs are deliberating bodies whose members are elected by the community. They are r esponsible for defining local public policy in their respective territorial units in accordance with the laws of the Republic and the national development guidelines as well as for monit oring their implementation. They will participate in the design and coordinate the implemen tation and help monitor the project activities in each CR involved in the project. Together wi th the prefectural authorities, CRs will have a most important role in the development of La nd Use Plans and in the mainstreaming of the new generation LDPs. LDPs operate at CR le vel
National Direct orate and Regi onal, Divisions of Meteorology of Nzérékoré a nd Faranah	They will coordinate the activities of collection, processing, analysis of climatic data and pr oduction and diffusion of climate information. They will provide the basis to gather and an alyze climate data and diffuse early warnings about extreme weather events to key local st akeholders.
Specialized ag encies for the r ural sector	These include: Institut de Recherche Agricole (IRAG), Agence Nationale de la Promotion et du Conseil Agricole (ANPROCA), Agence Nationale des Statistiques Agricoles (ANASA), Co mité de Suivi de l'Environnement (COSIE). These specialized agencies will be privileged par tners for developing CSA approaches that are well adapted to the specific contexts of the p roject target areas as they may provide their accumulated data and expertise about the loc al specificities of the target areas to improve the fit between proposes practices and conte xt. They will also be instrumental for assistance in producing output 3.1 (a study of the agr o-ecological suitability of target areas) and creating LUPs. Also, since they are future "user s" of the planned climate agro-ecologic informational products related to output 3.2, these agencies will have an important role in shaping the format and contents of such products.
Community ba	They will be among the main beneficiaries of the project activities and will participate in th

sed organizati ons and agricul tural associati ons	e design, the implementation and the monitoring of the project activities. The project prepa ration phase will allow identifying the most relevant among them. A prototype of a registry for locally-active CBOs will be developed during the PPG phase.
Groupements F orestiers (Com munity Forest Committees)	The community forest committees are managing the use of community forests and play an important role in identifying sustainable practices for natural resources management in pro ject zones. They will participate in the consultation and project preparation as well as in ca pacity building activities.
Convention foc al points	Focal points for UNFCCC will play an active role in networking and information sharing vis-à-vis the project and will be invited to participate in the project steering committee.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

1. During the project preparation phase, gender-based vulnerability assessments will be made in the different targeted villages and regions in order to point out the specific climate information needed to address gender related vulnerabilities. In the same line, the climate information needs assessment will give a special emphasis to identify the needs for vulnerable women and develop specific tools to allow their easy access to the information they need to strengthen their resilience to climate change. The results of this assessment will inform the identification and development of gender-sensitive adaptation measures and strategies to be supported by this LDCF in order to address the identified gender-related climate risks and vulnerabilities. These adaptation strategies will be technically specified (including the required specific capacity building and financial support) and their cost-effectiveness vis-à-vis alternatives approaches clearly demonstrated. The design phase of the project will include consideration of gender specific indicators as well as allocation of budget resources to ensure that gender concerns are comprehensively dealt with.

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

closing gender gaps in access to and control over natural resources; Yes

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

1. The project will promote CSA which will seek to partner with investors and private sector entities through an investment plan. Two private sector initiatives have been identified during PIF stage and could lead to potential co-financing and explore avenues to support target beneficiaries. Further discussions will be necessary to reach out to the private sector during the preparation of the CSA investment plan.
2. The Climate Investment Fund is another important tool from this project that will require close engagement with the private sector and open up new opportunities for access to climate finance. As climate finance is a new concept for most in Forested Guinea, the project aims to raise awareness on the opportunities available to relevant entities, including from the finance sector. The project aims to build the capacity of private entities, among others, to make use use of agro-meteorological services and products. This will support financial schemes to be piloted in this project (mutual granting or mutual savings and climate-indexed insurance) and could increase their adoption in the country.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Risk	Management Strategy
Low capacity of local authorities and staff of decentralized institutions to support the development of CSA practices, financial mechanisms and sustainable management of natural resources (*Medium*)	The project intends to strengthen capacities of local authorities through training and will invest, where possible and through implementing partners, in awareness raising campaigns, building local capacities, introducing alternative technologies and production methods. The project will work with other projects and programs active at project site level on a plethora of sustainable livelihoods activities.
Low political will of Prefectures authorities to create/ adjust planning tools (*Low*)	Involvement of key political players on both local and regional levels to ensure opportunities and benefits from mainstreaming climate change adaptation into local decision. They will be trained and capacitated as a measure to instigate their interest in the project and foster support.
Low commitment of targeted vulnerable rural communities (*Low*)	A participatory approach, including site-visits, interviews and consultations with local communities to identify needs and assess priorities will be applied to the project.
Inadequate land and forest regulations could create disincentives to the adoption of CSA practices (*Medium*)	The project will support the development of LUPs and the adjustment of LDPs that will regulate the access and use of natural resources. These custom laws will compensate the absence of appropriate land and forest regulations. Also the experience and knowledge generated from their application could promote the strengthening of the regulation framework at national level necessary to promote sustainable and long-term land-use planning at the community level. Finally, the project will collaborate with other initiatives focusing on the policy reform.
Guinea is a least developed country and among the ten poorest countries in the world. This means that there are only very limited financial resources available. Combined with bad infrastructure, this increases overall project delivery costs and poses extra challenges (*High*)	The project will need to allocate sufficient funds to the implementation of specific activities and manage the project in such a way that these challenges will be addressed without jeopardizing the overall success.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

Other UNDP-GEF/LDCF NAPA follow-up projects: (1) “EBA Upper Guinea Region”; and (4) “Early Warning System” (refer to the full description of the baseline for more info)

1. The EBA Upper Guinea Region that started in 2017 covers all of the Guinean part of the Upper Niger River Basin through an ecosystem-based approach that will enhance ecosystems‘resilience and strengthen their functionality across the landscape as a climate adaptation measure. It includes the prefecture of Kissidougou in Forested Guinea and borders the rest of the Northern Forested Guinea. Particularly in Kissidougou, where there both projects may overlap, their articulation needs to be carefully managed.
2. Also, the Guinea has submitted for GEF CEO endorsement a project titled: GEFID 8023 “Strengthening climate information and early warning systems for climate resilient development and adaptation to climate change in Guinea”. The goal of the GEFID 8023 project is to strengthen the capacities of climate monitoring and early warning and information systems to respond to climate shocks and plan climate change adaptation in Guinea. To achieve this goal, the project will strengthen the capacities of the national hydrometeorological departments for monitoring extreme weather events and climate change, develop climate information products and services (CIPS) tailored to the need of the key stakeholders and ensure that the CIPS are accessible and used efficiently and effectively to produce warnings for the producers, and medium and long-term climate-resilient development plans are drafted. The LDCF project “Early Warning System” has a national scope and therefore includes Forested Guinea (see above). Component 3 of the present project deals precisely with the integration of climate (and agro-ecological) information in planning tools and decision-making in general and includes outputs related to the translation of the respective data into useful forms or informational products that can be effectively used by decision-makers and communicated to local communities. This is an area of interface between the two projects that will need to be carefully planned and articulated by the project management.
3. Several baseline initiatives for components 1, 2 and 3: As baseline initiatives, a collaborative planning and implementation approach will be applied by the present LDCF project for maintaining its additional character. Synergies and lessons learning are paramount and will be exploited in full, in particular with respect to initiatives related to rural development. Contact with the managers of baseline initiatives and co-financiers will be made during the PPG phase, and in due course will be invited to participate in the project board / steering committee and to appoint ‘planning focal points’ to be part of the project’s concerted planning efforts. In this manner, the project will institute a well-defined forum for exchanging information, data and mutually influencing planning and implementation of relevant development initiatives in the project zone.
4. Other relevant recently closed or ongoing GEF projects in Guinea have also contributed and continue to support the strengthening of technical and institutional capacities at various levels. The most relevant one is the AfDB-GEF multifocal (CC, LD, IW) Program for the Integrated Development and Adaptation to Climate Change in the Niger Basin (PIDACC/BN) 2017- 2022. In Guinea, it targets a total of 10 prefectures among which Kissidougou and Beyla in Forested Guinea. Other relevant projects are in the focal areas of (a) biodiversity (e.g. the completed Monts Nimba, NBSAP), (b) land degradation (e.g. the completed phase 2 of WB-GEF Community-based Land Management (PACV 2) and phase 2 of the UNEP-GEF Fouta Djallon INRM, 2015 - 2021), and (c) the multi-focal area (BD, LD, IW) GEF project Mano River IWRM that began in 2017 and which on the Guinean side of the Mano River will target the livelihoods of the riverside communities in Forested Guinea. Depending on the project intervention areas to be defined, there is therefore the possibility of geographical overlap with the present project. Collaboration and synergies will be either through lesson-learning for on-going and completed programs or through establishment of partnerships at the local level, where applicable.
5. With the help of these GEF projects, as well as the baseline programs mentioned further up, national capacities are being gradually strengthened through hands-on experience. In spite of these efforts, on-the-ground experiences in dealing with climate change adaptation have so far remained limited in scope and number. Given the high dependence of Guinea’s economy on primary sectors and the fact that increased exploitation of natural resources such as minerals are

likely to aggravate the degradation and impacts of climate change on local populations, the current baseline response does not sufficiently consider the full effects of climate change impacts. This especially true in the case of Forested Guinea, a region overwhelmingly dependent on the rural sector and which at the same holds mineral deposits with potential global importance. Overall, the rural economy of Forested Guinea is highly vulnerable to climate change and the current weak institutional and technical capacities make climate change adaptation a regional and national priority. Without addressing climate change the deteriorating effect of land-use practices may reach a tipping point and lead to a rapid collapse of regional ecosystems and of the livelihoods they sustain. Given the vulnerability of local communities, both in terms of dependency on natural resources and acute poverty, this is likely to have a devastating effect on any development gains achieved so far.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

- National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC
- National Action Program (NAP) under UNCCD
- ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury
- Minamata Initial Assessment (MIA) under Minamata Convention
- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD
- National Communications (NC) under UNFCCC
- Technology Needs Assessment (TNA) under UNFCCC
- National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD
- National Implementation Plan (NIP) under POPs
- Poverty Reduction Strategy Paper (PRSP)
- National Portfolio Formulation Exercise (NPFE) under GEFSEC
- Biennial Update Report (BUR) under UNFCCC
- Others

NAPA alignment

1. The project is in line with the national NAPA priorities and is addressing the ideas contained in the NAPA concepts: 3.1) *Realization of micro-dams with multiple goals*; 3.2) *Realization of hill reservoirs*; 6.3) *Extension of anti-erosive practices for soil protection*; 6.5) *Development of an early warning system for securing agricultural productivity*; 8.2) *Promotion of vegetable crops*; and 9.1) *Valuing positive endogenous knowledge and practices*. The project will contribute to the implementation of adaptation priorities in Guinea through a programmatic approach that is addressing the common goal of sustainable development while achieving climate resilience for crucial ecosystem services, enabling the livelihoods of local communities.

Alignment with other Strategies, Plans and Reports

2. Accordingly, this project is country-driven and the project's concept is consistent with, and supportive of, national development strategies such as:

· The Plan National d'Investissement Agricole et de Securité Alimentaire (PNIASA), aiming to develop a sustainable agricultural sector in Guinea has, among others objectives, to support the development of sustainable rice cultivation, the diversification of food production, and the improvement of sustainable agro-ecological and hydrological production systems impacted by climate change.

· The National Environment Policy (Politique nationale de l'environnement) addresses issues related to climate change, where cost-effective action on the ground that builds on local communities' own ability to implement solutions, is to be promoted. The policy also highlights the importance of conserving biodiversity and ecosystem services, and of sustainably managing natural resources.

· The National Policy for Agricultural Development (Politique Nationale de Développement de l'Agriculture, Vision 2015) aims to reduce poverty and increase food security in Guinea. The PNDA has been transposed into regional action plans, the implementation of which is based on decentralization and deconcentration. The central government has transferred to local governments the responsibility for promoting local development through land-use planning, agricultural development, environmental protection, sustainable management of natural resources and investment coordination.

· The National Plan for Social and Economic Development (PNDES) 2016-2020 has an overall strategy that consists in: (i) developing the agro-sylvo-pastoral and fisheries sector, making it a real lever for poverty reduction and food insecurity; (ii) to promote a manufacturing industry incorporated in the primary and mining sectors, making it possible to exploit all the value chains of their respective sectors; (iii) integrating the mining sector into the rest of the economy through the promotion of competitive SMEs / SMIs in the provision of domestic goods and services to mines, and investing a significant proportion of mining into the rural and sector.

3. Finally, the project is in line with the general guidance that emanates from the various national policies, while adding elements that are crucial to address issues related to the impacts of climate change on livelihoods in Forested Guinea.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

1. The project has a dedicated knowledge management component of its own: Component 4: Implementation of a system for monitoring and evaluation, communication and dissemination of knowledge. Dedicated activities of supervision, monitoring and review will be organized during the execution of the project. A framework for monitoring and evaluation (M&E) will be developed early in the implementation of the project to identify relevant indicators and monitoring procedures. The information collected in the context of M&E will feed into activities for knowledge management and identification and dissemination of good practices, identify problems and constraints and promote the continuous improvement of the project and its contribution to local strategies for the development and the scaling up of CSA.
2. In particular, this LDCF project will help to develop and consolidate the knowledge of beneficiaries (including individual producers, production associations and prefecture, sub-prefecture and village-level administrators) in regard to the climate adaptation of the rural sector, including knowledge about practical measures of CSA, access to available climate-specific financial products and the adequate integration of mainstreamed planning tools in decision-making.
3. Project management will also resort to the regular application of the Tracking Tool for Adaptation to Climate Change (AMAT) and other indicators to be defined during the PPG.

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Ahmed Sebory TOURE	Directeur Général du Fonds de Sauvegarde de l'Environnement	Ministère de l'Environnement, des Eaux et Forets	3/25/2019

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place