



# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: LDCF

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## PART I: PROJECT INFORMATION

Project Title:	Ecosystem-Based Adaptation targeting vulnerable communities of the Upper Guinea Region		
Country(ies):	Guinea	GEF Project ID: <sup>1</sup>	t.b.d.
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5176
Other Executing Partner(s):	Ministry of Environment, Water and Forests	Submission Date:	April 5, 2013
GEF Focal Area (s):	Climate Change	Project Duration (Months)	7 years
Name of parent program (if applicable):	n/a	Project Agency Fee (\$):	760,000

### A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCA-2 – Increasing Adaptive Capacity: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level	LDCF	4,000,000	13,800,000
CCA-1 – Reducing Vulnerability: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level	LDCF	4,000,000	13,800,000
Total Project Cost		8,000,000	27,600,000

### B. INDICATIVE PROJECT DESCRIPTION SUMMARY

**Project Objective:** To reduce the vulnerability of local communities in the Upper Niger River Basin to the additional risks posed by climate change and build their general resilience through an ecosystem-based approach that focuses on watersheds, land-use practices and adaptive capacity.

Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Strengthening the resilience of vulnerable communities to climate in selected sites through an ecosystem-based approach	Inv / TA	<p>The climate resilience of natural resource dependent livelihoods in project sites is ensured by securing the continued stream of essential agro-ecological and hydrological services upon which they depend – <i>this will be evidenced by:</i></p> <ul style="list-style-type: none"> <li>- Surface of wetlands and natural pasture restored</li> <li>- Adaptive use of livestock movement to restore landscapes, and of resilient breeds to improve productivity and provide</li> </ul>	1.1 <u>Climate adaptive landscape planning for resilience</u> charts key ‘natural and social assets’, duly assesses climate-induced risk at the landscape level and provides the basis for securing a stream of essential ecosystem services under conditions of climate change, while also prioritising and costing actions on the ground needed for reducing people’s vulnerability: The landscape plan will cover	LDCF	6,400,000	21,800,000

<sup>1</sup> Project ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to the reference attached on the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

<sup>3</sup> TA includes capacity building, and research and development.

Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
		<p>protein to local communities</p> <ul style="list-style-type: none"> <li>- Reduction in wetlands siltation</li> <li>- Surface areas rehabilitated or enriched with grassed, herbaceous and wooded vegetation, reducing loss of top soil, protecting river banks and improving infiltration in critical areas</li> <li>- Changes in land use practices that reduce the incidence of undesired fire at the landscape level</li> </ul> <p>The effectiveness of adaptation measures promoted by project is duly documented; <i>this will be evidenced by:</i></p> <ul style="list-style-type: none"> <li>- Regular application of the Adaptation Monitoring and Assessment Tool (AMAT)</li> </ul>	<p>approx. 3 million hectares within the north-western part of the Upper Niger River Basin (see map of <a href="#">Project Zone</a>). No such plan has yet been prepared for the area. <i>[Indicative additional costs \$0.6M – 100% TA]</i></p> <p>1.2 <u>The institutional architecture</u> for implementing the Climate Adaptive Landscape Plan (resulting from Output 1.1) is strengthened and partnerships are forged in support of it: (i) local government staff in concerned sub-prefectures and villages are capacitated and equipped to plan and oversee the implementation of adaptation measures on the ground; (ii) local sub-basin committees, fire-brigades and agro-sylvo-pastoral groups, at communal and inter-communal levels, are organised and trained in ‘climate risk &amp; resilience at the landscape level’ and thereby engaged in planning and implementing adaptation measures in selected sites foreseen in outputs 1.3 and 1.4; (iii) partnerships with a relevant NGOs and rural development programmes are forged to facilitate the implementation of the project and for strengthen programmatic synergies with it. <i>[Indicative additional costs \$0.6M – 90% TA / 10% Inv]</i></p> <p>1.3 <u>Climate adaptive watershed rehabilitation</u></p>			

Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
			<p>is carried out in critical sites in the Upper Niger River sub-basin (from a baseline of limited and investments in watershed management that are often ‘climatically vulnerable’). The results of rehabilitation works will help balance social and economic needs of vulnerable riverine populations in the face of climate change, producing benefits both to future generations and further downstream. This will involve the following: (i) infiltration, riverbank protection and maintenance of base flow are ensured in small and critical water courses by removing stressors that impede gallery forest regeneration in at least 8,000 ha of critical meanders along the rivers of the Niger-Milo, Niger-Niandan and Niger-Mofou sub-basins; (ii) where shorelines are barren, climate-driven/exacerbated river bank erosion is controlled and prevented using nature-based techniques; (iii) small multi-purpose reservoirs and swales/bio-swales are built at critical points to respectively ensure optimal water storage and drainage during extreme climatic events (i.e. securing quality and quantity of water in times of drought and avoiding excess river siltation and damage to crops in times of flooding). [Indicative additional costs \$3.0M – 20% TA / 80% Inv]</p> <p>1.4 <u>Land-use practices are</u></p>			

Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
			<p><u>adapted to face climate change challenges</u> (from a baseline of generally resilient ecosystems being gradually degraded). This will secure the continued stream of services rendered by forests, wetlands and agro-pastoral resources in the project zone to vulnerable communities facing climatic challenges. It will imply the following: (i) savannah-forest habitats and crop-land mosaics in the periphery of major settlements and protected areas cross 90,000 ha of landscapes are proofed against climate-induced bushfires, by both changing harmful land-use practices that involve fire (e.g. re-educating farmers and herders on risks , creating incentives for change) and establishing a village-based fire warning network, where none exists; (ii) essential ecosystem services rendered by wetlands are rehabilitated in the project zone through climate adaptive re-wetting and control of in- and outflow of water, ensuring wetlands' continued natural ability to filter water, recycle nutrients, buffer excess flow and provide food and recreational services to people; (iii) grazing and livestock movement is carefully planned, on the basis of climatic analysis, and enforced through community-based mechanism, aiming at maximising both protein production</p>			

Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
			and landscape productivity in the face of climate change (ranges to be identified); (iv) climate adaptive livestock races/breeds are adopted by both sedentary and transhumant herders, for the stocks' disease resistance and natural resilience traits, and by learning from breeding techniques and economic models consolidated by the UNDP-GEF project PROGEBE <sup>4</sup> ) [ <i>Indicative additional costs \$2.0M – 10% TA / 90% Inv</i> ]			
2. Capacity building and information systems for integration of climate change adaptation into national / regional / local management plans, policies and practices	TA	<p>Climate adaptive management of agro-ecological and hydrological systems is integrated into local and regional planning and policy-making processes:</p> <ul style="list-style-type: none"> <li>- Sectoral strategies, plans and investment projects include specific actions and budgets for adaptation measures</li> </ul> <p>Adaptation capacity is developed:</p> <ul style="list-style-type: none"> <li>- Improved institutional capacity of central and local governments and of communities in targeted sites are strengthened to plan, monitor and enforce the climate resilient integrated landscape management system</li> </ul>	<p>2.1 <u>Climate risk management and resilience are integrated into natural resource management planning &amp; budgeting</u> carried out by relevant ministries, prefectures and sub-prefectures in the Upper Guinea Region, by climate-proofing development plans for at least 5 sub-prefectures, 10 rural communes and 2 protected areas; this ensures the sustainability of adaptation measures from Component 1 and the collaborative involvement of a wide range of relevant sectors (e.g. agriculture, livestock, forestry, nature protection, land cadastre, etc.)</p> <p>2.2 <u>A geographically based information system for Upper Niger River Basin</u> is established at and</p>	LDCF	1,225,000	3,900,000

<sup>4</sup> UNDP-GEF project *Sustainable management of globally significant endemic ruminant livestock of West Africa*. [PROGEBE] The project, which is regional and reaching its end in 2014, focuses on the establishment of sustainable models for the management and *in-situ* conservation of three priority species ruminant livestock that are endemic to West Africa – N'dama cattle, Djallonke sheep, and the West African Dwarf goat. These livestock local races are not only resistant to a number of tropical diseases, including trypanosomiasis, but also resilient to harsh climatic conditions and limited availability of quality fodder and water. Guinea harbours the largest populations of N'dama cattle.

Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
			<p>maintained through a partnership between the National Meteorological Directorate and the Ministry of Environment, Water and Forests, aimed at collecting, analysing and disseminating, through adequate products, key agro-meteorological, hydrological and ecological information and making it available to a large technical and non-technical audience for supporting informed decision-making and landscape management.</p> <p>2.4 <u>Local weather stations</u> in Faranah, Kouroussa, Kissidougou, Kankan and Mandiana are rehabilitated and are able to develop and disseminate early warning products to evaluate existing and new climate data.</p> <p>2.5 <u>Ecological, economic &amp; social benefits are documented</u> the project zone through learning and feedback, using modern, innovative and locally adapted means of communication.</p>			
		Subtotal			7,625,000	25,700,000
		Project Management Cost (PMC) <sup>5</sup>		LDCF	375,000	1,900,000
		Total Project Cost			8,000,000	27,600,000

<sup>5</sup> To be calculated as percent of subtotal.

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	Government of Guinea: central government budgetary allocations to this project and co-related initiatives; includes centrally financed infrastructural development, technical assistance, plus civil servants' staff time to implement and oversee the project*	Cash	16,000,000
Local Government	Local government in the Upper Guinea region: includes use of locally available infrastructure, plus labour and staff time to implement and oversee the project	In-Kind	1,000,000
GEF Agency	UNDP core funds	Cash	600,000
GEF Agency	UN Joint Programme for Kankan (UNICEF, UNFPA and UNDP), 2013 – 2017	Cash	10,000,000
<b>Total Cofinancing</b>			<b>27,600,000</b>

\* Funds from various sources entrusted to government and managed under applicable modalities. Funding that is classified as 'cash' is what it is and will be budgeted for on a current basis and projected for 2014-2019.

**D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) <sup>2</sup>	Total (\$) c=a+b
UNDP	LDCF	Climate Change	Guinea	8,000,000	760,000	8,760,000
<b>Total Grant Resources</b>				<b>8,000,000</b>	<b>760,000</b>	<b>8,760,000</b>

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

<sup>2</sup> Indicate fees related to this project.

**E. PROJECT PREPARATION GRANT (PPG)<sup>6</sup>**

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)<sup>7</sup></u>
• (up to) \$200k for projects up to & including \$10 million	200,000	19,000

**PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECTS ONLY**

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<sup>6</sup> On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>7</sup> PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

## PART II: PROJECT JUSTIFICATION<sup>8</sup>

### **A. PROJECT OVERVIEW**

#### **A.1. Project Description.**

##### Summary

1. The services rendered by ecosystems sustain the livelihoods of more than half a million people in the Upper Niger River Basin, where poverty is prevalent and the economy is based on agriculture. Ecosystems provide these local communities with food, shelter, fibre, firewood and medicinal plants. They also render regulating services linked to water flows and purification, soil retention, nutrient recycling and protection against storm surge. Climate change affecting the Upper Niger Basin will result in higher temperatures, increased evapo-transpiration and changes in the rainfall regime. These conditions will threaten the continued stream of benefits from ecosystem services, particularly with respect to water security. It will also increase the risk for bushfire. Communities, whose livelihoods depend on ecosystems services and who live close to fire-prone areas, are vulnerable. In the baseline scenario, investments in watershed management are limited and generally not ‘climate-proof’. Also, prevailing land use practices are gradually degrading ecosystems that are generally resilient—their function and structure has been maintained under the current level of threat. Although there is a strong baseline investment in rural development programmes, if climate change adaptation is not part of development efforts, this global-level threat will constitute an overriding stressor that will push ecosystems beyond their tipping point. **This project is slated to address the additional risk posed by climate change to vulnerable communities in the Upper Niger River Basin through an ecosystem-based approach.** It will enhance ecosystems’ resilience and strengthen their functionality across the landscape, as a climate change adaptation measure and with a clear additionality vis-a-vis the baseline. It will focus on watershed management and land-use practices on the ground. The project will also build the capacity of relevant stakeholders to change course and adapt to a climatically challenging future. In this manner, vulnerable beneficiary communities, who depend on ecosystem services for their livelihoods, will become more resilient to climate change.

#### **1) The global environmental problems, root causes and barriers that need to be addressed**

##### Context and issues

2. Guinea is among the poorest countries in the world in terms of its income per capita (\$1,020). With 10.9 million people (65% rural), adult literacy is low (59%), child mortality is high (125.8/1000 live births) and the country’s Human Development Index (0.355) ranks at 178 among 185 countries.<sup>9</sup> Although well endowed with mineral resources, the exploitation of this wealth has not translated in the past decades into improved welfare for the majority of the population. Guinea is also endowed with forests, fish, wildlife, water resources and high levels of biodiversity. Poverty is widespread and more pronounced in rural areas, where people’s livelihoods depend directly on ecosystem services for their survival. Virtually 90% of rural people in Guinea can be said to fall into this category. The mentioned services include the availability of water, pastures, firewood, productive soils, the provision of game and fish, NTFP, but equally flood regulation, nutrient and carbon cycling and primary production. All of these services will be impacted in one way or another by climate change.

3. In recent years, Guinea has experienced periods of political instability and social unrest. Since 2010, the country has embarked on a more certain path of democratisation and sustained economic growth, which reached 3.9% of GDP in 2012 (WB data). A number of structural reforms are being rolled out, but challenges remain, in particular with respect to national capacity and benefit sharing.

4. Guinea is divided into four regions: (1) Basse Guinée (or Guinée Maritime); (2) Moyenne Guinée; (3) Haute Guinée (or ‘Upper Guinea’ in English); and (4) Guinée Forestière [[Map 0](#)]. The regions are based on biophysical features, including climate and vegetation, but also predominant cultural features. With an elongated form in the north-south axis, the country is located in the southernmost ‘frontier’ of the transition zone between the dry Sahel and the wet, tropical forest belt that predominate in the coastal countries of the Gulf of Guinea. Certain

<sup>8</sup> Part II should not be longer than 5 pages.

<sup>9</sup> Sources: (1) income per capita is GNI per capita, PPP (current international \$), from WB Data 2011; (2) percentage of urban/rural population (*ibid.*); (3) literacy rate, adult total (% of people ages 15 and above) (*ibid.*); (4) mortality rate, under-5 (per 1,000 live births) is from WB Data 2010; (5) HDI is from UNDP Human Development Report 2012.



locations in Maritime Guinea receive up to 4000 mm of rainfall per year, while the drier interior receives 1000 mm or less [Map 1]. Average temperatures are also in sharp contrast, mostly due to the effect of altitude [Map 2]. The climate is naturally variable, as is the norm in Western Africa, due to the effects of oceanic forcing. Yet, this effect is less pronounced in Guinea than in Sahelian countries further north.

5. Climate change predictions in the NAPA (2007) show a sharp decrease in precipitation (-31% from the current average by 2050) and a moderate increase in temperature, spanning 0.5°C to 4.8°C increases (under a global scenario of +4.5°C in average by 2100). More recent and specific scenarios for the Niger Basin in Guinea extracted from the WB Climate Portal show, however, a different picture, with marginal changes in average precipitation (either positive, unchanged or negative) and mild increases in temperature.<sup>10</sup> Yet, disclaimers warn of uncertainty in the data, as downscaled models imply more uncertain in predictions. Some authors recommend practitioners to use nested models for the region and country.<sup>11</sup> Yet, these models are still under development.<sup>12</sup> In any case, the NAPA points out to the Upper Guinea region, as well as Maritime and Moyenne Guinea, as being the most susceptible to the negative impacts of climate change.

6. Based on indicators of vulnerability at commune level shown in the NAPA, and noting that other regions in the country have benefitted from other LDCF interventions, the of **Upper Guinea Region** has been selected to be the focus of this project, where an ecosystem-based approach has been prioritised with focus on the Niger River Basin.

### About the Project Zone

7. The Upper Guinea Region covers almost 40% of the country and is characterised by Sahelian savannah vegetation with dry interspersed forests and large floodplains formed by the river Niger and its many tributaries. It is the driest region in the country with an average precipitation between 1200 and 1800 mm per year and high temperatures of sometimes more than 40°C. According to the National Agricultural Policy, more than 80% of the population in the Region relies heavily on rainfed agriculture and ecosystem services for their livelihoods. The area is rich in biodiversity, though much of it has been lost in the past decades due to land-use change. Approximately 8% of Upper Guinea's land surface is still covered by forests. Most dwellers live in small, rural communities spread out along the meandering rivers. Small-hold subsistence agriculture of cash crops, such as rice near the riverbanks, groundnuts, onions and millet prevail. Commercial agricultural activities include cotton and coffee plantations, as well as some cattle farming. The area is also known for its gold reserves, which are mostly exploited through artisanal mining.

8. The Project Zone straddles a landscape with approx. 3 million hectares and it is located in the north-western part of the Upper Niger River Basin (see [Map 3]). It harbours forest clusters, a tight fluvial network, grasslands and mosaic-agro-pastoral landscapes, as well as four wetlands of international importance (RAMSAR sites<sup>13</sup>). Where formal protection is afforded (through protected areas), ecosystem services are better maintained. The Mafou Forest Reserve is a strict conservation zone with relatively intact forest swaths. The on-going establishment of the Haute Niger Park, where Mafou is core area, is a certain step in this direction.<sup>14</sup> Within the Project Zone, are also the capitals of the prefectures of Kankan, Faranah and Kouroussa, with an approximate total population of 300,000. In the rural areas, which are dotted with small villages, it is estimated that another 150,000-200,000 people live.<sup>15</sup> In common, people in the project zone, either urban or rural, have prevalent rural poverty and dependence on natural resources.

### The General Climate Problem and Related Vulnerabilities

9. High temperatures, the pre-existing variability of rainfall and the long dry season combined with prevalent conditions of poverty and dependence on natural resources, make rural communities the region of Upper Guinea

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<sup>10</sup> <http://sdwebx.worldbank.org/climateportal> (Basin 458/6193, scenarios A1b, A2 and B1, all indicators, all Global Circulation Models, periods 2030-2039 and 2050-2059), extracted on 25/03/13.

<sup>11</sup> <http://earthobservatory.nasa.gov/Newsroom/view.php?id=22431>, extracted on 25/03/13.

<sup>12</sup> See e.g. the Coordinated Regional Climate Downscaling Experiment ([CORDEX](#)) and [CORDEX Africa](#); or the Western Africa Monsoon Project ([AMMA](#)).

<sup>13</sup> (i) Niger-Mafou [1163]; (ii) Niger-Niandan-Milo [1664]; (iii) Niger-Tinkisso [1166]; (iv) Tinkisso [1168].

<sup>14</sup> Located in the north-eastern part of Guinea and with a planned size of at least 6,000 sq km (one tenth as core areas), the Haute Niger National Park is in the pipeline for full gazettal. The park aims to protect important tracts of forest and savannah, and is considered a conservation priority for West Africa as a whole.

<sup>15</sup> The latest census in Guinea is from 1983. The figures provided are based on estimates and extrapolations.

vulnerable from a socio-economic and geographic perspective in the current climatic regime. A major expected impact of climate change in Guinea, mentioned both in the NAPA and in the Initial National Communication (INC), is the exacerbation of the country's pre-existing climatic variability. These will result a higher frequency of extreme weather events such as droughts, storms and floods. Higher average temperatures are also expected and some degree of shift in the rainfall regime, though models differ on the general outcome for the latter. Still, under any model, temperature increases and changes in the rainfall regime are likely to be more pronounced in the north than in the south of the country.

10. Observations show that even small variations in the rainfall regime, which are expected in Guinea, can lead to either drought or floods. Both can contribute to the erosion of fertile soil and the sedimentation of riverbeds. Extreme temperatures and dry spells, which are also expected, will exacerbate the risk of uncontrolled bush fires, further contributing to the degradation of land, deforestation and loss of property and ecosystem services.

11. Hydrological systems are likely to be some of the most affected by climate change and the Niger River Basin will be very much impacted, with significant changes in water quality and availability across the entire watershed, increased siltation and river bank erosion. For river ecosystems, including gallery forests, higher ambient temperatures will likely lead to greater metabolic costs for a number of different living organisms. This will negatively affect biomass production, impacting tree growth, but also populations of freshwater fish. Climate change will very likely lead to possible changes in species density, distribution and community relationships. Species' ranges may shift and so will the composition of forests. Life history traits for a number of different freshwater species are affected by water quality and chemistry and seasonal flow regimes. These will likely be altered by climate change driven changes in precipitation and runoff.

12. As for the increase in the incidence and intensity of bushfires, these are certain effects of climate change in Africa region. However, it is difficult to predict the degree of these effects vis-a-vis climatic variables, unless through complex modelling. In the savannah biome, fire regimes are closely related to the amount of vegetation that varies in quantity and composition over space and time, e.g. according to topography, land use, pressure of herbivores and climatic variability. Yet, higher temperatures and overall increased evapo-transpiration will certainly create the conditions for bush-fires to spread out of control and impact larger areas. While people generally use fire for improving soil fertility and enhancing the regeneration of pasture, if out of season, out of control and too frequent, fire can have catastrophic impacts on livelihoods, notably because of the importance of pastoral and wild resources for the rural societies in question. With the current pressures on forest swaths from the expansion of cultivated lands adjacent to these forests, fires may more often than not become out of control and spread to settlements and agricultural landscapes. It may also undesirably destroy entire forest patches with significant economic loss, besides introducing untimely ecological disturbances.

## **2) The baseline scenario and any associated baseline projects**

### *The Baseline*

13. Development challenges in the project zone are being addressed through a number of programmes, projects and initiatives. Most of them focus on the various facets of rural livelihoods and attempt to provide communities with a myriad of benefits. These include increases in agricultural and livestock productivity, including through larger and small scale irrigation schemes, benefits in terms of education and health, which are often more challenging to provide in rural zones. Several programmes also focus on water as a key resource – e.g. by facilitating access to drinking water, providing sanitation or addressing the issue of water from a more holistic way through Integrated Management of Water Resources (IWRM). Notorious programmes were also set in place for the management of the Niger Basin as an international water body and through a concerted effort among riparian countries.<sup>16</sup> The Niger Basin Authority was established in the 1980 as a result of these efforts, but the entity remains challenged and poorly funded. There have also been—and there are—various efforts to tackle the issue of natural resource management, environmental challenges and landscape governance in various parts of the country. Guinea needs those programmes to lift its people out of poverty and produce development results. The government actively requests the international community for support. A sizable portfolio of projects and programmes, including some supported by UNDP, are currently active in the project zone and at the national level to address development challenges. Together, they provide a comprehensive baseline for the proposed project. More specifically, the

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<sup>16</sup> See e.g. [http://www.gwptoolbox.org/index.php?option=com\\_case&id=32&Itemid=40](http://www.gwptoolbox.org/index.php?option=com_case&id=32&Itemid=40) and the [full case study](#) file.

‘financial baseline’ for this project is composed by the following programmes:

- UN Joint Programme for the Kankan Region 2013 – 2017, supported by UNICEF, UNFPA and UNDP, under preparation, with approx. \$10 million (excl. GEF funds) from all three agencies. The Joint Programme is built around four intervention areas, all of which are in line with the UNDAF strategy for Guinea, in particular to address extreme poverty. To this effect, the joint programme is targeting vulnerable groups (women, youth) to strengthen their capacities in the food and agricultural production sector. Further, the programme aims to increase access to revenue with a focus on job creation for young people in rural areas and participation of women in local decision-making. Finally, the programme also aims to improve access to and quality of health services for vulnerable people.
- Projet de développement rural intégré de la Haute Guinée occidentale (PDRI-HGO), Dinguiraye-Kouroussa, funded by the Government of Guinea (Ministry of Agriculture) and the Islamic Development Bank, \$11.54 million, (2005 – 2013). The objectives of this programme are the improvement of living conditions, increased access to drinking water and better connection of production zones through rural infrastructure and transport corridors. Further, income will be generated through cashew plantations.
- Environmental Governance Capacity Building Program (USAID) and Regional Programme STEWARD (US Forestry Services International Programs), on-going with funding confirmed on a year-to-year basis, estimated at \$2 million for 2013-2016. The overall aim of the Environmental Governance Program is to facilitate the Guinean Ministry of Environment’s capacity to apply laws, regulations, codes and policies that strengthen natural resources management (NRM) and biodiversity conservation. The STEWARD is, in turn, a regional initiative with focus on forests and benefitting the Mano River Union countries with a long-term engagement vision. It aims at strengthening West African trans-boundary natural resource management, including through peace building, biodiversity conservation, knowledge sharing and policy harmonization. The current phase in Guinea focuses on continued capacity building of DNEF. Though not directly active in the project zone, the programme is producing relevant results at the national policies’ front, more recently with the revision of the National Agricultural Development Policy and Vision for 2015.
- Second Emergency Agricultural Productivity Support Project (PUAPA 2), World Bank financed: \$20 million (pipeline). The Government’s Priority Action Plan for Agriculture places a particular emphasis on the sector as an engine of growth with an initial focus on achieving food security and rice self-sufficiency results. The project’s goal is to increase smallholder productivity. Phase 2 involves consolidation of results and strengthening of self-reliance, as communities gradually move away from emergency agricultural support.
- Programme de productivité agricole en Afrique de l’Ouest (PPAAO)<sup>17</sup>, World Bank, Japan, budget: \$119 million regional (started in 2008 in other countries) and reserved approx. \$9 million for Guinea for 2011-2018. The objective of the first phase is to generate and accelerate adoption of improved technologies in the participating countries’ top agricultural commodity priorities, as outlined in the Economic Community of West African States Agricultural Policy (ECOWAP). The national component implies the creation of national capacities for disseminating agricultural techniques and technologies, with a view to improving productivity and it is active in Upper Guinea.
- IUCN supported Ecosystem Restoration Project in Guinea, running until 2013 with a budget of \$500K; other programmes in the pipeline. Restoration and payment for environmental services in the Tinkisso River basin. This project is implemented by IUCN, and part of the poverty reduction and environmental management initiative in West Africa (PREMI). A follow-on initiative of larger scope is under preparation with a foreseen budget of >\$15M.

14. Together, all of the above programmes, projects and initiatives either contribute to the rural economy or are building capacities for ecosystems and natural resource management in Guinea. Many are already producing results. Others are planning investments. Together, they constitute ‘**the baseline project investment**’ and sum up a solid **\$43-61 million**. They represent the current response to Guinea’s development challenges with respect to the management of ecosystems in the project zones. Yet, the majority of these interventions do not take the impacts of climate change into consideration.

15. In terms of institutional measures and reforms, policy responses and the development of capacity for enabling climate change adaptation, Guinea is undertaking efforts to strengthen technical and institutional capacities. On-the-ground experiences in dealing with climate change adaptation, however, 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. Overall, Guinea’s economy is highly vulnerable to climate change and the current weak institutional and technical capacities make climate change adaptation a national priority.

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<sup>17</sup> Or West Africa Agricultural Productivity Program (WAAPP) in English.

16. **The current ‘baseline scenario’** points out to ecosystems in the project zone still being generally resilient. They are maintaining crucial services to local communities in spite of the prevailing mal-adapted tendencies towards their gradual degradation. These tendencies are a result of direct threats to ecosystems and their functionality linked to land-use change. Yet, they will be clearly exacerbated by climate change. Also, in spite of widespread poverty, the livelihoods of local communities in the project zone are currently within the coping range, which allows them to continue using available natural resources without an immediate need to change prevailing practices. With the effects of climate change, ecosystems and people’s livelihoods may reach a tipping point. If left unaddressed, climate change may lead to a rapid—and perhaps irreversible—collapse habitats in the project zones in a cascading effect. It will be then too late to change course. Given the vulnerability of local communities both in terms of dependency on natural resources and poverty, this is likely to have a devastating effect on any development efforts achieved so far.

**3) The proposed alternative scenario, with a brief description of expected outcomes and components of the project**

*The preferred long-term solution (alternative scenario)*

17. Because of the uncertain nature of climate change, it is imperative to enhance the ability of ecosystems in Upper Guinea to absorb expected and unforeseen changes without disrupting the flow of goods and services that are so essential for securing livelihoods. The debate on the likely tipping points for ecosystem services is still ongoing and data to determine such points is not available. Still, it is safe to assume that the Upper Guinea Region ecosystems do not have the reserves required to cope with the additional stress emanating from climate change – unless resilience, adaptability and transformability are significantly boosted. At the same time, ‘resilience science’ is new and systematic approach to build ecosystems’ and people’s resilience needs to learn from practical, on-the-ground experiences. **The preferred solution** proposed by the project is to reduce vulnerability of local communities in the Upper Guinea Region by enhancing the functionality and resilience of ecosystems so they can withstand additional climate stressors and continue to supply a wide range of services under conditions of climate change.

<u>Climate change vulnerabilities</u>	<u>Alternative</u>	<u>Adaptation benefits</u>
<p><u>Water</u></p> <ul style="list-style-type: none"> <li>• River bank erosion and siltation patterns, affecting base water flows</li> <li>• Decreased availability and quality of ground and surface water</li> <li>• Sudden drops in the water table</li> <li>• Wetlands and springs desiccation</li> <li>• Fish stocks diminish as a result of changes in temperature and water turbidity</li> </ul> <p><u>Forests/savannahs</u></p> <ul style="list-style-type: none"> <li>• Increased incidence and intensity of bushfires</li> <li>• Decreased vegetation cover leads to soil compaction, degradation and decreased percolation, leading to further degradation and loss of land productivity in a vicious cycle where climate change is the pivot</li> <li>• Changes in overall climatic patterns will affect flora and fauna and ecosystem productivity in unforeseen ways, but likely leading to decreased availability of useful plants and animals (game, fruit, tubers, wood, fibers) and may even lead to the collapse of entire habitats by pushing them beyond tipping points</li> </ul> <p><u>Livelihoods and land-use systems</u></p> <ul style="list-style-type: none"> <li>• Overall decrease in food security due to the deterioration of soil quality and availability, to the impacts of floods/droughts on harvest, crop loss and further degradation of water and land-based ecosystems</li> <li>• Changes in cultivation period and in conditions of crop growth and harvest, leading to higher costs</li> <li>• Soil erosion, due to extreme weather events, and soil compaction, due to exacerbated degradation, lead to decreased</li> </ul>	<p>1) Strengthening the resilience of vulnerable communities to climate in selected sites through an ecosystem-based approach</p> <p>2) Capacity building and information systems for integration of climate change adaptation into national / regional / local management plans, policies and practices</p>	<ul style="list-style-type: none"> <li>- Capacity of local stakeholders in the project zones to perceive climate risk and to implement adaptation measures in natural resource management activities and livelihoods development will be significantly enhanced, in particular with respect to the management of water bodies, forests and savannahs, livelihoods’ options and land use systems.</li> <li>- The resilience of agro-ecological and hydrological systems results in the resilience of people who depend on them. National, regional and local capacity to mainstream climate change adaptation in key planning and practice frameworks is strengthened</li> <li>- Systems support</li> <li>- Adaptation learning will be enhanced through dissemination of climate adaptation benefits in</li> </ul>

<p>productivity and also higher costs</p> <ul style="list-style-type: none"> <li>• Atypical flooding of cultivated areas leads to harvest and income loss Expansion of the distribution area of vector- and water borne disease</li> <li>• Livelihoods generally in peril as agro-ecological and hydrological systems are not resilient</li> <li>• Encroachment, land-use conflicts, poaching and deforestation become more pronounced in protected areas and buffer zones.</li> </ul>		targeted areas to stakeholders
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18. Two sets of overarching barriers stand in the way of advancing towards the preferred long-term solution. These can be summarized in as follows:

Barrier #1. The tipping points of key ecosystems in the project zone are not partially known, but it is clear that climate change vulnerabilities are not being adequately addressed by the various baseline development interventions.

19. There are challenges linked to the ‘translation’ of climate models into concrete guidance that can be applied in sectoral or landscape level planning. Climatic predictions for the West Africa region bear a high degree of uncertainty, especially the finer the scale ones. This begs the question as to whether it is at all helpful to apply fine scale climatic models for landscape level planning. Yet, the core of the issue for the project zones is not so much to know specifically what the climate will be like in the upcoming decades, but to be able to plan on the basis of some key parameters that have been identified with respect to climate change, namely increased temperatures, decreased water availability and decreased surface runoff . It could be useful to know the likely frequency of atypical flooding or of fire incidence in forests, also as a result of climate change. What is therefore missing in the baseline scenario, besides practical experiences, is the availability of more hands-on tools for climate adaptive planning that can specifically be applied to the project zone.

20. At the same time, existing baseline interventions in the project zones face a major barrier in terms of addressing specific climatic vulnerabilities linked to ecosystems and communities’ dependence on them. The core issue is to identify existing coping strategies and integrate adaptation measures into them, including through baseline investments. It would equate to proposing no-regret or low-regret solutions to climate change. Currently there are is only one practical experience with ecosystem-based adaptation in Guinea that can demonstrate how this can be achieved. In is in its inception phase and focuses on mangrove ecosystems, hence with limited replicability in the project’s context. Furthermore, the effects of current ecosystem degradation are known in Guinea and they have been observed—but not adequately surveyed in the project zone. Yet, determining tipping points and designing actions that can steer course away from them remain a challenge. Extensive and demonstrative experience with climate adaptive techniques are needed at scale to have a transformational effect on livelihoods. A precautionary approach which includes the rehabilitation of ecosystem services is warranted.

Barrier #2. Knowledge and understanding of climate change impacts and adequate response measure is very limited among local communities and stakeholders in the project region, so climate resilience is not yet part of local resource use planning.

21. At the level of overarching policies, plans and strategies, Guinea has made some progress in mainstreaming climate change considerations into national and regional frameworks. This is providing a good basis for the implementation of national NAPA priorities through existing LDCF projects. It takes time to formulate new policies. Several sectoral policies (i.e. those with an overarching character vis-a-vis a sector) have a lifetime of 8-10 years. Even with state of the art analysis available on the possible impacts of climate change into different sectors, mainstreaming climate change risk, vulnerabilities and resilience into them is not a straight forward process. The work on sectoral mainstreaming needs therefore to find more operational ways of influencing policies and action on the ground. Local and regional development planning and financing frameworks offer a window of opportunity in this respect. These may requires climate modelling knowledge products as well as, analytical products with practical application combining climate predictions with landscape, resources and land use features as well as socio-economic data. The relevant data and information to address climatic vulnerability at the local level is scattered and managed by few individuals. Furthermore, having the tools and analyses available is not in and on itself enough. Practical application requires relevant stakeholders to have the capacity to use information and analysis. Currently, the capacity both at the national and local levels is very incipient.

### Expected outcomes and components of the project

22. The project focuses both on increasing people's adaptive capacity to respond to the impacts of climate change and on reducing their vulnerability to it. These are different, but complementary ways of addressing the climate problem in the project's target zone. Two components are proposed and outputs under those are thoroughly presented in a results-oriented manner in Part I, Table B. Component 1 is slated to produce demonstration results on-the-ground, while Component 2 will provide the 'means' to make this possible, by focusing on 'capacity & systems'. They read as follows and will produce the following outcomes:

#### **Component 1. Strengthening the resilience of vulnerable communities to climate in selected sites through an ecosystem-based approach**

The resilience of vulnerable communities will be ensured by enhancing the resilience of key ecosystems, upon which they depend. Climate adaptive landscape planning and an appropriate institutional architecture for its implementing will facilitate the implementation of activities on the ground. Selected sites will be located the catchment area of key sub-basins of the Upper Niger River in the face of climate change. These include rivers, forests, wetlands and agro-pastoral landscapes. The work will focus on habitat functions and productivity. Results from component 1 will be measured in terms of the resilience of ecosystems through a number of proxy parameter (surface of wetlands, pasture, forests, siltation levels and incidence of bushfire). Furthermore, the 'additionality' element of project results, and their distinction from plain 'development results', along with livelihoods' benefits, will be assessed through the application of the Adaptation Monitoring and Assessment Tool (AMAT).

#### **Component 2. Capacity building and information systems for integration of climate change adaptation into national / regional / local management plans, policies and practices**

The first component would remain incomplete, (i) if there was not a link to planning at different levels and within different sectors, (ii) if key systems were not in place to both monitor progress in adaptation, communicate them and to provide climate information services to project beneficiaries, and (iii) last, but not least, if there was not a notable improvement in capacity of stakeholders to make change happen and sustain it. Component 2 will therefore focus on providing these elements and on producing results in this regard (capacity & systems). Indicators will focus on the completion of proposed processes (e.g. specific actions and budgets for adaptation measures in sectoral strategies, plans and investment projects). It will also include a way to "map" and measure the various aspects of capacity in an objective manner (e.g. through an adapted version of the capacity development scorecard).

### **4) Additional cost reasoning and expected contributions from the baseline, the LDCF/SCCF and co-financing**

#### Baseline for Component 1 – Rural development on the ground

23. The issue of livelihoods and natural resources is addressed through a number of interventions in Upper Guinea. In particular, the following programmes, projects and initiatives provide the financial baseline for Component 1: the **PDRI-HGO**, the **PUAPA 3**, the **PPAAO-Guinea** and the **UN Joint Programme for Kankan**. With the exception of the UN Joint Programme, the other mentioned baseline initiatives can be categorised as 'rural development programmes'. They produce results in terms of increasing yields and income through improved cultivation techniques, enhancement of value-chains, access to machinery and improvements in infrastructure. Though it is reaching its end this year, the PDRI-HGO has contributed to improving living conditions in the project zone by facilitating access to drinking water, connecting production zones and developing cashew plantations. It has also built additional boreholes in the prefectures of Dinguiraye and Kouroussa, and improved hydro-agricultural management of floodplains. The PPAAO is having its inception in Guinea and the PUAPA2 will likely start in 2014. They focus respectively on cash and food crops. It is unclear exactly how two new these programmes will be rolled out on the ground, but they will certainly have an impact on arable land and income in the project zone, as many rural development interventions do. It will be important to ensure that WB environmental safeguards are upheld to avoid further deforestation and degradation, as often decisions on land allocation and land-use are made locally, and not where funding for agricultural activities are approved. The UN Joint Programme for Kankan builds on the programmatic niches of UNICEF, UNFPA and UNDP and supports communities with facing various challenges in a synergetic manner. It generally focuses on vulnerable groups such as women and youth, applying a 'right-based' approach to development. It also includes activities that favour the reduction of deforestation, improved fire management and protection of critical ecosystems, such as gallery forests. This will be

achieved through the creation of community forests and capacity building of local fire management. The expected scope of this latter activity is however limited.

24. Two other programmes active in the project zone are worth mentioning, but are part of the financial baseline of another UNDP-GEF LDCF project: The first is the PNAAF<sup>18</sup>, which is directly benefiting about 10,000 local farmers, many of which in Upper Guinea, and who are organised in three federations (CNOP) in the prefectures of Kankan, Kouroussa, Mandiana and Kissidougou. The second is the PDS Phase II<sup>19</sup>, which has a broader social and rural development focus and it is active in Kouroussa and Mandiana. A key element in it is the support to the establishment of the Economic and Social Development Fund, the promotion of local entrepreneurship, job creation, decentralization and good governance.

25. The various rural development programmes and the UN Joint Programme for Kankan provide a good entry point for the proposed LDCF project in terms of engaging with communities and local stakeholders in productive activities and in developing their capacity for resource governance. They are also promoting opportunities for sustainable NRM and diversification of income generating activities through agriculture, forestry, hunting and fishing. Several of the programmes are improving the access to water resources. In general, business-as-usual development efforts in the project zone are addressing problems of poverty, access to social services and capacity, but they are not taking fully into account the pervasive effects of climate change. Several programmes provide training. Yet, climate change impacts are not a specific topic in the various capacity building activities. In the baseline response, climate-driven vulnerabilities linked to *natural assets* (water bodies, forests, savannah pastures) and *social assets* (livelihoods and land use systems), are therefore not being sufficiently addressed.

➤ **The estimated amount of ‘the baseline project’ for Component 1 is \$36 million.**

*Additionality for Component 1 – Generating adaptation benefits in relevant natural and social assets by strengthening ecosystem resilience and securing the continued stream of services that they render to vulnerable people*

26. Without the adaptation project, the current baseline initiatives will not be effective in increasing overall resilience and in reducing climatic vulnerabilities for two reasons: i) inadequate consideration of climate change risks, ii) inadequate understanding of and capacity to manage these risks at the wider landscape level. Decreased surface runoff could become an ecological disaster and lead many water-based economic and social activities to collapse. Extended dry conditions for several months a year and the resultant lower sub-surface flow would lead springs and wells to dry. Lower water tables will mean higher borehole costs, reduced yields of many water sources, and severe water stress. Altogether, changes in the current climate will reduce the resilience and regenerative capacity of forest and savannah ecosystems. This will negatively impact on the availability of resources like timber, fuelwood, NTFPs, protein and fibre. It will also compromise the soil erosion and fire suppression control services rendered by these ecosystems. Riverine areas, wetlands and forests are particularly vulnerable. The Upper Niger River Basin drains more than 100,000 sq km in Upper Guinea, an area which is characterised by rough terrain in the highlands at the headwaters, making them particularly vulnerable to soil erosion.<sup>20</sup> While much of the current problem is due to the fact that vegetation cover has been reduced, climate change impacts, including more frequent extreme weather events, will exacerbate this problem. The hydrological system of the Upper Niger River Basin is not only of vital importance for the livelihoods of people in this area but changes in its hydrological flows will also have impacts on regions further downstream. Therefore the project is targeting key hydrological catchment areas with significance for down-stream populations. It is also targeting climate-adaptive ecosystem management, focusing on forests and savannahs, given that these areas are prone to climate change induced fire and degradation.

27. In the alternative scenario enabled by the LDCF project, the climatic vulnerability of key ecosystems will

<sup>18</sup> *Programme National D’Appui aux Acteurs des Filières Agricoles* (PNAAFA), funded by IFAD and Government of Guinea, \$48 million (2010 – 2016). The PNAAFA is a nationwide programme aimed at building the capacity of farmers’ organizations and developing value chains for small-scale farmers in subsectors with good economic potential. The programme pays particular attention to involving women and young people in its activities.

<sup>19</sup> *Upper and Middle Guinea Sustainable Social Development Project* (PDS) - Phase 2 (2010-2013), funded by AfDB, with a second phase budget of \$10.9 million. This project is implemented in the Middle, Upper and Forest Regions of Guinea. Kouroussa, Kérouané and Mandiana are targeted prefectures. The first phase of the PDS was aimed at: (i) supporting the decentralization and local governance through building capacities of stakeholders to participate in local development and democratic processes; and (ii) improving poor people’s access to basic socio-economic services by developing the productive capacity and setting up of a Social Development Fund. The PDS Phase II is meant to consolidate Phase I outputs and prepare tools and mechanisms to establish the Economic and Social Development Fund (ESDF), the instrument adopted to sustain outputs from PDS Phase I.

<sup>20</sup> See e.g. Andersen, I. et al. (2005): “*The Niger River Basin: A Vision of Sustainable Management*”, World Bank Publication.

be reduced and their resilience strengthened by adaptation measures in the Upper Niger River Basin. The aim is to demonstrate adaptation options in different landscapes at risk of the effects of climate change. Proposed measures are additional to the prevailing situation of gradual degradation, because the tendency imposed by climate change and variability will push these habitats beyond their tipping point, with catastrophic consequences for local livelihoods. Foreseeing tipping points is difficult. Hence, a precautionary approach that also includes well planned the restoration of structure, function and productivity of ecosystems is an adaptation measure that goes beyond the baseline. Under prevailing conditions in Guinea, the ecosystem approach has also good potential to be more cost-effective and sustainable than infrastructural-based adaptation solutions to climate change.

28. More specifically, the project will introduce, as no-regret/low-regret adaptation measures on-the-ground, a suite of techniques that will systematically help people adapt to climate change. It will be based on the participatory development of guidelines (e.g. biocultural community protocols) for the use and exploitation of services and resources in three ecosystem types (wetland, forest/savannah, river). The project will produce adaptation benefits on two fronts: first through planning and institutional frameworks; and secondly through concrete ecosystem-based adaptation measures. The latter will focus on watersheds and land-uses as programmatic entry points. These will include the rehabilitation of river banks, control and prevention of climate-driven erosion and preparedness for climatically extreme events. It will also include climate adaptive fire management across large fire-prone terrestrial landscapes with high biomass content. It will equally introduce innovative approaches to livestock and pasture management. The project will work towards demonstrating these as adaptation options, with a clear additional character vis-a-vis existing and planned interventions, which are not adequately dealing with climatic vulnerabilities in the Upper Niger River Basin or addressing climate vulnerabilities among local communities.

29. To start with, activities under Component 1 will benefit from a climate adaptive landscape planning covering the entire project zone (*Output 1.1*). The aim is to map ecosystem services and vulnerabilities at the landscape level, which is essential for prioritising and costing actions on the ground. It will build on and consolidate other mapping-like exercises produced by baseline interventions, but it will add nested climate change models. A product will be the Climate Adaptive Landscape Plan for the Upper Niger Basin Landscape.

30. In terms of the institutional architecture for implementing the Climate Adaptive Landscape Plan, the project will engage with stakeholders at various levels and forge partnerships to support on the ground activities (*Output 1.2*). Local government staff in concerned sub-prefectures and villages (i.e. rural communes) will be the object of training in 'climate risk & resilience at the landscape level', along with community members. The latter will be selected primarily from local leadership in sub-basin committees, fire-brigades and agro-sylvo-pastoral groups. Women and youth will be on focus. An estimated 200 decision-makers and 1000 local level stakeholders from project sites in the prefectures of Faranah, Kissidougou and Kankan will be trained. The training will facilitate the transition to climate adapted land-use practices and local people's engagement in watershed management. Furthermore, a number of non-governmental and rural development partners can play a synergetic role vis-a-vis project activities. Engaging them is important and will also be done.

31. The first set of ecosystem-based adaptation measures will focus on watersheds (*Output 1.3*), as the availability and quality of water across the landscape will be highly impacted by climate change. Sites will be selected within the sub-basin important Niger river tributaries. Among them are the Milo, Niandan, Mofou, Tombali and Tinkisso rivers, which form extensive sub-basins, parts of which straddle outside the project zone. Gallery forests in critical areas will be rehabilitated to play a key role in infiltration, riverbank protection and maintenance of base flow. This will be done by removing stressors that impede vegetation regeneration. A minimum target of 8,000 ha in critical river meanders will be positively impacted, mostly along banks. These measures will be combined by nature-based work on river banks to control and prevent climate driven erosion, including flood surges, and to counteract the effect of drought in the water bodies. Swales, bio-swales, check-dams and small multi-purpose reservoirs will be constructed where needed and according to studies that fully take the effects of climate change into account. The use of biodegradable fibre mats, logs, rip-rap, as well as geo-textiles and gabions as materials will be preferred.

32. The second set of ecosystem-based adaptation measures will focus on changing land-use practices (*Output 1.4*), but with a clear climate angle, i.e. securing the continued stream of services and benefits rendered to vulnerable communities by key ecosystems in the project zone. These are forest, wetlands and agro-pastoral lands. Adaptive bushfire management will focus on savannah and forest habitats in the periphery of major settlements and protected areas. Existing studies carried out in connection with the management plan for the Haute Niger National Park show



that the eastern flank of the park is particularly prone to fire.<sup>21</sup> The project will introduce climate-adaptive bush-fire management to various villages around the Mafou Gazetted Forest, within a landscape of approx. 50,000 ha in the Kouroussa-Cisséla axis and approx. 40,000 ha in the Kouroussa-Banfélé axis (total could near 100,000 ha), covering savannah-forest habitats and crop-land mosaics.<sup>22</sup> Action will be on fire-prone ‘climate hotspots’ to be identified through the landscape planning in Output 1.1. Action will also focus on changing land-uses that use fire in a harmful way. Training of pastoral and farmer groups will be an activity, to be complemented with the creation of incentives for changing land-uses. These remain to be identified. Bush-fire related activities may also strengthen the existing fire response mechanisms at community level, employing young people and mobile technology. As a result of activities, some 250 thousand hectares of savannah and forests will be protected against climate-induced bushfire, including the Mofou Forest core zone. Another set of activities under this output is the rehabilitation of selected wetlands, choosing at least 2 of the 4 Ramsar sites within the project zone. This will be done through climate adaptive re-wetting and control of in- and outflow of water. Nature-based materials will be equally used and, departing from hydrological and feasibility studies, combined with climate modelling. With respect to agro-pastoral resources, the project will disseminate techniques for controlled (or planned) grazing and livestock movement as climate change adaptation measure. These will be applied in a holistic manner for mimicking the functions of nature and restoring savannah grasslands.<sup>23</sup> The project will also promote the adoption of livestock breeds and races that are endemic to the region and display a number of resilience and resistant traits. The most prominent one, where direct experiences can be drawn from the on-going project PROGEBE, are N’dama cattle, Djallonke sheep, and the West African Dwarf goat (see footnote 4 for more details). The target range areas for livestock-related activities remain to be identified and coverage calculated.

- **The additional costs of generating adaptation benefits in Component 1 have been estimated at \$6.4M, with a co-financing of \$21.8M.**

#### Baseline for Component 2 - Development planning, landscape governance and capacity building

33. At the baseline, efforts to strengthen institutional and local governance, introduce new systems and ways of working and to incorporate sustainable management of natural resources in broader development frameworks. These include programmes, projects and interventions, some have national scope, other local. These include primarily the **USAID / US Forestry Service - Env & BD financed programmes** (including the NRM Governance Programme and the STEWARD) and the **IUCN Ecosystems’ programmes relevant for the area** (some projects ending soon and others in the pipeline). They are the most relevant ones for Component 2 to the extent that they include activities in development planning, landscape governance and capacity building, including to manage ‘systems’ to that effect. The **UN Joint Programme for Kankan** also falls into within this category due to its component on ‘mapping’ of development interventions and because it promotes governance in development planning. It is hence also part of Component 2 baseline.

34. The NRM and Environmental Governance Capacity Building Program, funded by USAID, aims to facilitate the Guinean Ministry of Environment’s capacity to apply laws, regulations, codes, and policies that strengthen natural resources management (NRM) and biodiversity conservation. Climate change is a concern expressed in programme documents, but activities are not explicitly allocating funding to adaptation. In turn, the STEWARD programme works in transboundary biodiversity and conservation zones. It aims to promote and strengthen West African capacity to manage regionally shared resources, including peace building and policy harmonization. Their focus is on integrated landscape management in forested and protected areas in Guinea and neighbouring countries. Although this regional initiative is strengthening capacities for natural resource management and governance, it is not extensively taking into account the specific impacts of climate change on natural resources at the current project stage. Along the same lines, the UN Joint Programme for Kankan provides an excellent entry point for this project, which may be integrated into Programme once CEO Endorsed. Until then, climate change

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<sup>21</sup> *Plan d’Aménagement du Projet Parc National du Haut Niger 1999-2003*. Programme régional d’aménagement des bassins versants du Haut Niger et de la Haute Gambie. Ministère de l’agriculture, des eaux et forêts, République de Guinée.

<sup>22</sup> Refer to the ‘pink triangle’ in the [Project Zone](#) map.

<sup>23</sup> See e.g.: (1) Neely, C., Bunning, S., Wilkes, A., eds. (2009). *Review of Evidence on Drylands Pastoral Systems and Climate Change: Implications and Opportunities for Mitigation and Adaptation*. Food and Agriculture Organization of the United Nations. 1-50; (2) O’Mara, F.P. 2012. *The Role of Grasslands in Food Security and Climate Change*. *Annals of Botany*. 110: 1263-1270; and (3) Stinner, DH, B.R. Stinner, E. Marsolf (1997). *Biodiversity as an Organizing Principle in Agroecosystem Management: Case Studies of Holistic Resource Management Practitioners in the USA*. *Agriculture, Ecosystems and Environment*. 62, 199-213.

adaptation remains absent from the UN Joint Programme for Kankan.

35. Baseline interventions for Component 2 are making a significant contribution to the overall landscape governance and capacity agenda. Their impact will likely be felt in many years to come, as these programmes are dealing with capacity issues at systemic, institutional and even individual levels. E.g., the UN Forest Services provide a few tertiary training opportunities through programmes related to STEWARD. The UN Joint Programme for Kankan is also focusing on decentralised governance and capacity building and infusing systems aid decentralised public administration. The USAID Environmental governance programme has focused interventions on landscape and resource governance through planning. This could potentially help expand the knowledge and understanding of climate variability and change-induced risks at the country level and in targeted vulnerable areas. Still, climate information services and systems remain largely fragmented, insufficient and dysfunctional for meeting local and national needs. Existing planning and investment frameworks that are relevant to the project zone have only partially taken climate change considerations into account. On-the-ground interventions proposed for Component 1 would definitely lack more decisive decision-making support with focus on climate change to become truly adaptive and ‘climate-proven’.

- **The estimated amount of ‘the baseline project’ for Component 2 ranges between \$7.5 million and 25 million.<sup>24</sup>**

*Additionality for Component 1 – Climate change mainstreaming into development planning & practices, adaptive capacities and systems*

36. The institutional and technical capacity to adequately manage and protect natural resources against the negative impacts of climate change in Guinea needs to be strengthened. Several programmes are addressing the issue of sustainable management of natural resources, biodiversity, water, land degradation and forestry, but so far there is no coherent response to include climate change adaptation concerns into the national and local planning concerned with the management of natural resources. Building on a baseline of initiatives to strengthen capacity at various levels and in relevant topics, this project will contribute to expanding capacity for tackling climate challenges at the various levels.

37. In the alternative scenario enabled by the LDCF project, capacity will be strengthened at various levels, but in particular at the local level and with focus on vulnerable groups. ‘Capacity’ means the ability of individuals, institutions and societies to perform functions, solve problems and to set and achieve objectives in a sustainable manner. In this project, capacity development will focus on people, organizations and society, and on how these different levels face the climate challenge to strengthen, create, adapt and maintain their capacity over time. Planning, practices and systems are key and additional elements in it.

38. First and foremost, capacity will be built through the inclusion of a climate risk management and resilience ‘layer’ into natural resource management planning & budgeting that is regularly carried out by relevant ministries, prefectures and sub-prefectures in the Upper Guinea Region (**Output 2.1**). This is currently not being done and it is an excellent entry point for raising awareness on climate change and supporting policy development and climate-sound decision-making. Relevant sectors to be targeted may include agriculture, livestock, forestry, nature protection, land cadastre, among others. As a minimum, development plans for at least 5 sub-prefectures, 10 rural communes and 2 protected areas will be climate-proofed.

39. An essential institutional stakeholder is the National Meteorological Directorate, which manages Local weather stations in Faranah, Kouroussa, Kissidougou, Kankan and Mandiana. Their capacity at the decentralised level remains low, but will be strengthened through the establishment of a geographically based information system for Upper Niger River Basin. Although it is recommended that data is to be stored remotely, stations will be key data handling and dissemination point. The system is aimed at scoping, managing and disseminating key agro-meteorological and hydrological information and making it available to a large technical and non-technical audience (**Output 2.2**). Weather stations and DNM offices will play an essential role in the project and may become loci for activity coordination at the site level. The project will support the upgrading of local weather stations according to an existing needs-assessment and funding and co-funding available (**Output 2.3**). Stations will count on systems to monitor and evaluate existing and new climate data with the objective of creating an early warning system for Upper

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<sup>24</sup> This is presented as a range because funding for IUCN interventions are still the pipeline and amounts are not yet confirmed.

Guinea for extreme weather events such as floods, storms and droughts, etc. In a second step, a distribution mechanism of climate information to local communities will be developed, thereby contributing to informed decision-making in local development planning and agriculture, concerning planting and harvesting dates, need for increased caution with regards to fire and other precautionary measures such as evacuation of people and livestock to secure areas in case of natural disasters (floods, fire, etc.). It is envisaged to create these systems using a participatory approach and drawing on lessons learned during the implementation of the climate information system under the second NAPA project on agro-forestry. The service should be available to all project beneficiaries using internet, mobile and radio technology, with the potential to roll out information services to other regions. Finally, innovation will also be infused in the documentation and communication of the project's ecological, economic & social benefits through learning and feedback and adaptive management, linking up to other learning mechanisms, such as the Adaptation Learning Mechanism ALM and other relevant networks (*Output 2.4*).

- **The additional costs of generating adaptation benefits in Component 2 have been estimated at \$1.2M, with a co-financing of \$2.9M.**

40. *Co-financing for components 1 and 2* will come from the government entities responsible for the agriculture, water and the rural development portfolio, from local government in the concerned prefectures and sub-prefectures, as well as UNDP and other UN Agencies involved in the Kankan programme. Local communities will contribute in-kind throughout the duration of the project. Funding from non-governmental and bilateral partners may be mobilised, but have not being included in the indicative co-financing table until proper consultations can be carried out.

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

[See matrix further up]

## 6) Innovativeness, sustainability and potential for scaling up

41. Innovation and sustainability is embedded in several activities proposed for the project. The **use of mobile technology** e.g. has become very widespread and accessible in Africa. It is transforming livelihoods throughout the continent and accelerating the delivery of benefits. It will be applied in bushfire management activities under output 1.4 and in communication and outreach activities under output 2.4. The **'nature-based solutions' for erosion control** under output 1.3 will use e.g. use of biodegradable fibre mats, logs, rip-rap, as well as geo-textiles and gabions, but equally the use of vegetation for improving percolation in catchment areas. With current research on new materials and species' properties, and by applying science and technology for "surgically" selecting sites and techniques, 'nature-based solutions' are rather innovative. It is equally sustainable and likely more cost effective, than infrastructural solutions. For livestock management, it is proposed that project should build on the results and models promoted by the highly successful UNDP-GEF project PROGEBE. **West African endemic ruminant livestock** is naturally resilient and has many advantages. One disadvantage is that it is often perceived as less productive. However, through innovation and science, PROGEBE is proving it otherwise and pointing out to replicable techniques for making use of this truly African genetic treasure. The same can be said about **the use of livestock movement for regenerating grasslands**, which is innovative and contrary to previous scientific assumptions on land degradation and climate change.<sup>25</sup>

42. **As for the sustainability and replicability of the project**, those elements are deeply linked with socio-economic benefits that the project is expected to generate and to the training and capacity building activities. Project results will ensure a transition to a more sustainable use of natural assets and the long-term maintenance of a stream of agro-ecological and hydrological services associated with it, including through adequate landscape-level planning and management frameworks. Collaboration with livelihoods-focused programmes will bring socio-economic benefits to local communities targeted by the project. Medium to long-term societal benefits catalysed by the project will include increased land productivity and yields for both cash and food crops, increased fish catch, availability of

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<sup>25</sup> See e.g. <http://www.savoryinstitute.com>.

water resources, more varied and expanded availability of forest resources, reduced fire risks, among others. Finally, 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.

## A.2. Stakeholders

Stakeholder	Relevant Role
National Directorate of Water and Forests	The executing agency of the project. Their role is to Coordination and implementation of project activities with regards to mainstreaming climate change adaptation into national planning processes.
Prefectures of Upper Niger River Basin	The Prefecture disseminates, executes and monitors national guidelines and policies, implements laws/regulations and maintains security; executes public expenditures within the Prefecture; animates/coordinates/controls all prefectural administrative directorates and their agents (gives opinions on transfer, promotion, secondment of public servants); exercises supervision over urban community and rural communities; promotes micro-projects and supports local governments, community groups, cooperatives, NGOs in the management of their projects; plans and promotes socioeconomic and cultural development within the prefectures (prefectural development plans). Then, the 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.
Regional divisions for rural development (agriculture, forestry, environment)	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 advisory support as well as to participate in the design and monitoring of the project activities. They will also form part of the capacity building activities under components 1 and 2.
Rural Communes (CR)	The CRs are deliberating bodies whose members are elected by the community. They are responsible 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 monitoring their implementation. They will participate in the design and coordinate the implementation and help monitor the project activities in each CR involved in the project.
National Directorate and Regional, Divisions of Meteorology in Upper Guinea	They will coordinate the activities of collection, processing, analysis of climatic data and production and diffusion of climate information. They will provide the basis to gather and analyse climate data and diffuse early warnings about extreme weather events to key local stakeholders.
Community based organizations and agricultural associations	They will be among the main beneficiaries of the project activities and will participate in the design, the implementation and the monitoring of the project activities. The project preparation phase will allow identifying the most relevant among them.
<i>Groupements Forestiers</i> (Community 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 project zones. They will participate in the consultation and project preparation as well as in capacity building activities. s

## A.3 Risk.

Risk	Rating	Management Strategy
Low capacity of local authorities and staff of decentralized institutions to support sustainable management of natural resources	M	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 programmes active at project site level on a plethora of sustainable livelihoods activities.
Low political will of Prefectures authorities to adjust adopt landscape governance through planning and policies, strategies and programmes	L	Involvement of key political players on both national and regional level to ensure opportunities and benefits from mainstreaming climate change adaptation into broader policy frameworks are understood and used accordingly. They will be trained and capacitated as a measure to instigate their interest in the project and foster support.

<b>Risk</b>	<b>Rating</b>	<b>Management Strategy</b>
Low commitment of targeted vulnerable rural communities	L	A participatory approach, including site-visits, interviews and consultations with local communities to identify needs and assess priorities will be applied to the project.
Guinea is currently recovering from several years of civil rests and political instability. While the situation is currently calm, the political and social situation is still fragile	M	First of all, the advice from UN Security in situations of tension and insecurity will be respected to the letter. The Regional Bureau for Africa within UNDP also steps in and supports Country Offices to assess project specific risk and propose measures. One recommendation may be to change the modality to direct implementation to avoid political interference in project matters.
Inadequate land and forest regulations could create disincentives to sustainable and long-term land-use planning at the community level and be an obstacle to the adoption of climate resilient management of natural resources	M	The project will support the development of community based forest and watershed management plans 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	H	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.

#### A.4. Coordination

<b>Programmes, Projects and Initiatives</b>	<b>Proposed collaboration</b>
Other UNDP-GEF/LDCF NAPA follow-up projects: (1) Increased Resilience and Adaptation to Adverse Impacts of Climate Change in Guinea's Vulnerable Coastal Zones; and (2) Strengthening Farmers Communities Livelihoods Resilience Against Climate Changes in the Guinean Prefectures of Gaoual, Koundara and Mali	Project 1 aims at supporting the mainstreaming of climate change into Guinean Integrated Coastal Zones Management, but also into development policies, strategies and plans at the local, prefectural and central levels, and those farmers implement adaptive farming systems in mangrove areas. Mangrove restoration is also a nature-based response to climate change, which is a guiding element in the current LDCF project. This project will learn lessons on the cost-effectiveness of the approach and also use the experience of Project 1 to develop a stakeholders and community mobilization strategy, an early warning system, and in the natural resources sector institutional analysis and capacity building. Project 2 aims to strengthen adaptive capacities of vulnerable populations in the prefectures of Gaoual, Koundara and Mali (GKM) to the additional risks posed by the increased intensity and frequency of drought by promoting climate resilient agro-forestry, strengthening Local Authorities to promote climate resilient local development and establishing climate information systems to guide climate resilient agro-forestry practices. The proposed LDCF project will coordinate with the agro-forestry project in order to identify best-practices in terms of stakeholder engagement and mainstreaming climate change adaptation into local development policies as well as draw upon lessons learnt from the support to the Meteorological Service in terms of specific needs and capacity gaps
FAO/UNEP-GEF: Fouta Djallon Highlands Integrated Natural Resources Management Project	The mentioned IWRM project is supporting management action in pilot sites and six watersheds in headwater regions of main transboundary rivers the design and implementation of community-based natural resources management plans. It is training and strengthening local community institutions, community-based organizations and other stakeholders in natural resource management and institutional development. It is also promoting income generating activities and developing people's 'capacity to interact with markets and identify new income-generating opportunities to improve the livelihoods of the population in the Fouta Djallon Highlands. Some of the challenges during implementation of this project arise from the fact that poor infrastructure services lead to high implementation costs. The

Programmes, Projects and Initiatives	Proposed collaboration
	proposed LDCF project will coordinate with the FAO-GEF project and share tools and strategies in its activities related to the training and strengthening of CBOs in natural resource management and climate change adaptation
UNDP-GEF Conservation of the Biodiversity of the Nimba Mountains through Integrated and Participatory Management	The LDCF project will in particular draw upon lessons from the Mont Nimba project with regards to management and use of natural resources in protected areas and buffer zones. Reaching its end in 2013 and having been affected by institutional vagaries of the prolonged period of instability in Guinea, the Monts Nimba project is a token of the challenges that may be faced in terms of integrating ecosystem management practices by applying participatory approaches in biodiversity and the sustainable use of natural. Capacity for adaptive management has been a major constraint. This will be taken into account in the design of the current project.
UNDP-GEF BD Regional Project West Africa Endemic Livestock - PROGEBE	The innovation element in PROGEBE has already been highlighted and will be the basis for collaboration with the proposed LDCF Project. PROGEBE succeeded in integrating environment sustainability with endemic ruminant livestock (ERL) genetic improvement. The project primes itself for stakeholder ownership and engagement. Guinea harbours the largest herds of ERL. Mainstreaming of ERL habitats/ecosystems conservation built on guidelines for strategic environment assessments, training on NRM indicators development and agro-pastoralists and institutional strengthening in NRM and livestock techniques. Through effective communication, outreach and a highly participatory approach, our stakeholders are actively engaged with the project. Results include: 1) implementation of an open nucleus genetic improvement system teaming multiplier agro-pastoralists and national research stations; 2) rehabilitation/construction of basic infrastructures with relevant management committees; 3) demarcation of livestock routes; 4) facilitation of access to financial and health services ; and 5) establishment of well trained and equipped bush fire control committees engaged in preserving their ecosystems and habitats from uncontrolled bush fire, and fighting against decline of destructive and illegal resource use. All of these are highly valuable lessons for the current propose project and will be exploited in full.
Several baseline initiatives in for components 1 and 2.	As baseline initiatives, a veritable collaborative planning and implementation approach will be applied by the current LDCF project for maintaining its additional character. Synergies and lessons learning are paramount and will be exploited in full, in particular with respect to rural development initiatives. Contact with project managers for the following programmes have either already started through preliminary consultations in connection with the preparation of this PIF, or will start soon during the PPG phase. The following programmes will be included: (i) PDRI-HGO; (ii) USAID / US Forestry Service - Env & BD; (iii) PUAPA 2; (iv) PPAAO-Guinea and (v) IUCN Ecosystems
UN Joint Programme for Kankan	Once approved and once the design of the Programme is completed, the proposed LDCF project will be integrated into the programme as part of the UNDP component of it. It will also count on dedicated core funding from UNDP for that matter, which counts as direct as co-financing managed under the same budgetary award as the project. This will allow for a more coordinated planning and synergetic implementation with other Joint Programme initiatives at the local level, mutually maximizing development and adaptation benefits and ensuring sustainability, innovation and cost-effectiveness.
Other relevant GEF financed initiatives not mentioned above	This includes the NBSAP project, the UNDP-GEF SLM capacities, the WB-GEF Community-based Land Management, the now completed WB-GEF IW project Niger River Basin and the CCM project under preparation Livestock CH4 Capture. Collaboration and synergies will be either through lessons-learning for on-going and completed programmes or through establishment of partnerships at the local level, where applicable.

## B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

### B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAs, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

#### NAPA alignment

43. The project is in line with the national NAPA priorities and is addressing the ideas contained in the NAPA concepts: development of appropriate technologies for adaptation, with a focus on anti-erosion practices (3.2.); development of an early warning system (3.8); promotion of [bush]fire management techniques (4.1.); integrated management and improvement of small hydraulic structures (7). 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.

44. 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 Sécurité Alimentaire** (PNIASA), which aims to develop a sustainable agricultural sector in Guinea and identifies the promotion of sustainable management of natural resources as one of the key priorities for action. The PNIASA's objectives are, among others, the development of a sustainable rice cultivation, diversification of food production, and improvement of sustainable agro-ecological and hydrological production systems impacted by climate change. The **National Environment Policy** (Politique nationale de l'environnement), adopted in 2012, addresses issues related to fight against 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 Action Programme to Fight Desertification** identifies several issues related to the management of soil and natural resources and aims to contribute to the sustainable management of land, forests and pastures through the implementation of various programmes. 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 'translated' into regional action plans of which the implementation is based on the decentralization and deconcentration. With the adoption of the local Government Code in 2006, the Government of Guinea has transferred to local governments the responsibility for promoting local development through land-use planning, agricultural development, environmental protection and sustainable management of natural resources. Local governments are also responsible for coordinating investments at their level, for inter-community affairs and decentralized cooperation. To this end, the implementation of measures relating to land-use and productivity fall under the responsibility of local authorities and need to be integrated into the local development planning processes at various levels. The project will also contribute to implementing the **National Biodiversity Strategy and Action Plan** (2002), which includes measures to achieve a sustainable use of natural resources and conservation of biodiversity and aims to establish good management and conservation practices as well as safeguarding biodiversity and ecosystems in Guinea. The NBSAP is being revised to be aligned with the Aichi Targets, several of which recognise the role that biodiversity and ecosystem services play in climate systems, and acknowledges the importance of well functioning ecosystems in sustainable development.

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

## **B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities**

46. Country ownership: Guinea has signed and ratified the UNFCCC in May 1993 and is currently included in the list of Least Developed Countries (LDCs). Guinea approved and submitted its National Adaptation Programme of Action (NAPA) in July 2007 and is currently in the process of implementing the priorities identified in it. Noting that other priorities have been addressed through previous LDCF projects, this project will address the following priorities identified by the Government and stakeholders in the NAPA,:

- Priority 5: Protection and restoration of fragile ecosystems
- Priority 2: Developing knowledge and good practices (with a focus on ecosystem and natural resources management);
- Priority 3: promoting adaptation-oriented technologies. Dissemination of soil conservation practices
- Priority 4: Promotion of bushfires management techniques
- Priority 9 : Rehabilitation of hydroagricultural system of plains and lowlands
- Priority 12: Promoting income-generating activities

47. The project proposal also draws on information from the Guinea First National Communication submitted to the Secretariat of the UNFCCC in October 2002. The Government of Guinea has developed this proposal, with the assistance of UNDP, and inputs of Ministry of Environment, Ministry of Agriculture, Ministry of Water

Resources and Meteorology National Directorate.

48. Compliance with LDC Fund policies: The proposed project constitutes a response to urgent and immediate adaptation needs (programme conformity) as identified by the Government of Guinea. It is designed to address the additional costs of priority adaptation measures identified in the NAPA (programme design), and it will also create the necessary capacity to sustain impacts after project completion (sustainability). The proposed project is consistent with the strategic objective of the LDCF fund to promote the LDCs' "climate compatible" development options and support the achievement of the MDGs in the face of climate change challenges.

49. Financing: The project is designed to reflect the additional adaptation costs of priority actions identified in the NAPA and builds on several other projects and programmes. During the project formulation phase, cost-effectiveness of the specific outcomes proposed in this project will be further examined in order to confirm that the adaptation measures that the Government of Guinea has selected represent the most cost-effective of viable alternative approaches. During implementation, coordination with related activities will ensure synergies and cost-efficiencies

50. Institutional synergies and support: The project is to be linked with other concurring projects, programmes and initiatives, including ongoing projects financed by LDCF. It complements rather than duplicates these other related development efforts. The project will be implemented by the Ministry of Environment, Water and Forests with support from UNDP. Implementation arrangements will be such that other ministries and national directorates (Agriculture, Mining, Meteorological Services, etc.) will participate in the project, ensuring the coordination and synergies with other projects, programmes and initiatives. Sub-national authorities, in particular the prefectures and sub-prefectures where project sites are located, will play a key role in implementation on the ground. Other groups, such as parliamentarians, civil society (women and youth associations, NGOs, media) and the private sector, will be equally important stakeholders of the project and will be provided with adequate space to contribute. Details of the institutional arrangements will be spelt out during the PPG phase.

51. Monitoring and evaluation: The implementation of the project's activities will reflect GEF monitoring and evaluation standards and procedures as well as UNDP guidelines on monitoring and evaluation of projects on adaptation policy. Details for monitoring and evaluation will be articulated during the project development phase.

### **B.3 The GEF Agency's comparative advantage for implementing this project**

52. UNDP has a long-standing history of supporting climate change adaptation, natural resource and land use management in the world, Africa and in Guinea. UNDP approaches the issues of natural resource and land use management from a land governance point of view. The agency's goal is to capacitate beneficiary countries to maintain and enhance the beneficial services provided by natural assets such as land, water, forests and wetlands to secure livelihoods, fight poverty and promote development. By providing policy advice, and by developing and implementing programmes that demonstrate sound land and resource use governance, UNDP is making a difference in this respect. UNDP's work on climate resilience is equally relevant. The ultimate goal of UNDP's is to build countries' capacity to face climatic challenges. This implies reducing vulnerability and risk linked to climate change and improving people's resilience with respect to the impacts of climate change. UNDP has significant experience from several parts of the world and across Africa supporting similar projects. UNDP supported the implementation of almost all the NAPA process in West Africa. UNDP is now supporting LDCF project implementation in as many as 20 countries in the sub-region.

53. In Guinea, UNDP has a very large programme of projects focusing on governance, decentralisation, local development, gender, environment and energy and HIV-AIDS. The UNDP Country Programme counts on several partnerships within and outside the UN System which are thoroughly described in the Country Programme Document (CPD). A new CPD for 2013-2017 was recently approved based on the UNDAF for the same period. It will foresee investments of at least \$36 million over five year with both secured and on-going mobilisation of funds. The Country Office in Conakry works actively with the government other donors to build national capacity in all of the mentioned domains. More specifically, the cluster Environment & Poverty Reduction is currently managing some 12 projects, including those financed by GEF.

54. The Poverty & Environment Cluster in the UNDP Country Office in Guinea counts on three dedicated environment programme officers, one of which is senior, plus support from operations and the Country Offices senior management staff. UNDP maintains well-developed working relationships with the key stakeholders for this project. This team is supported by UNDP/GEF Regional Coordination Unit (including a French speaking Regional




Technical Advisor and support staff assisting with M&E, delivery oversight among other tasks). UNDP's country-level coordination offers experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

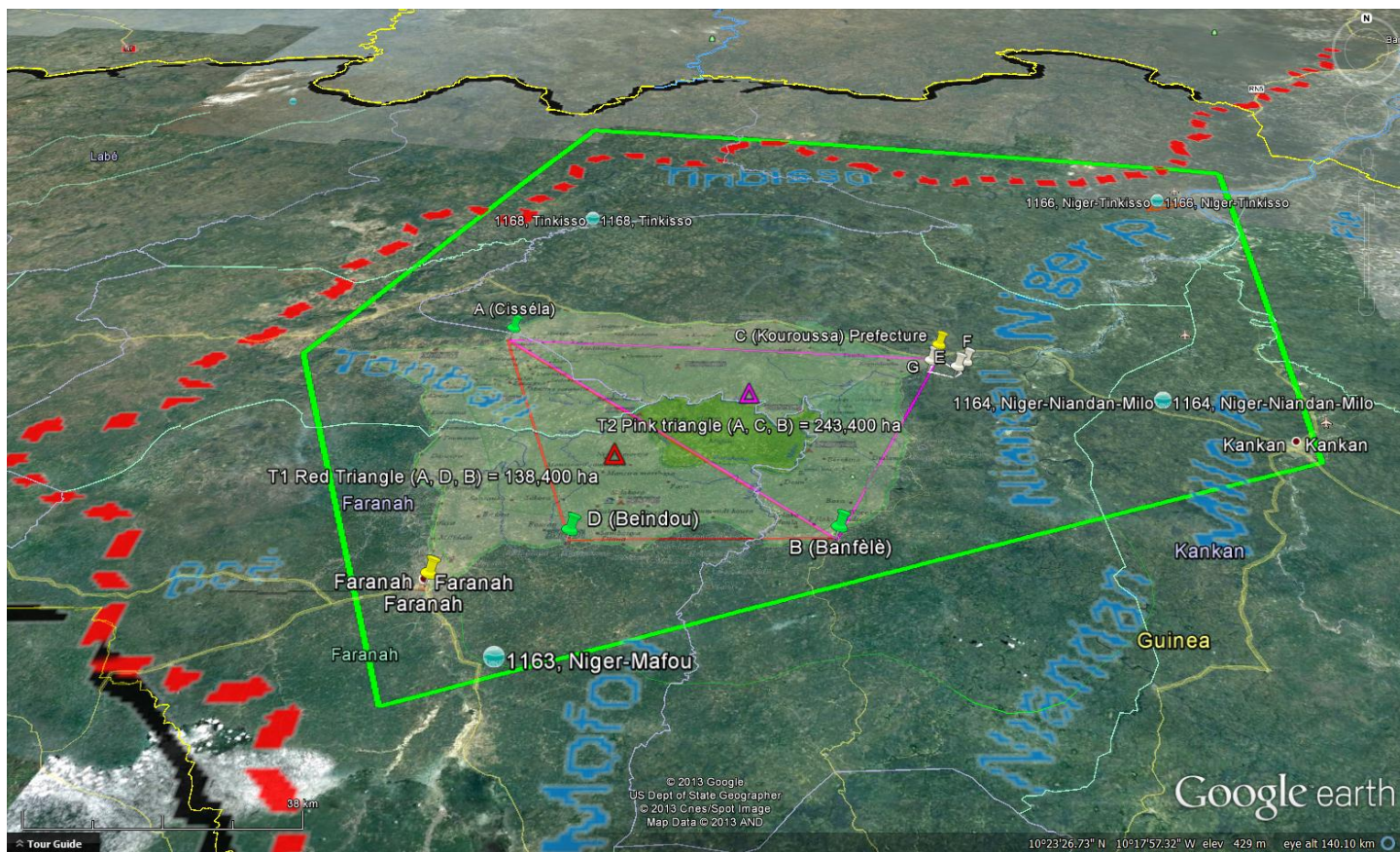
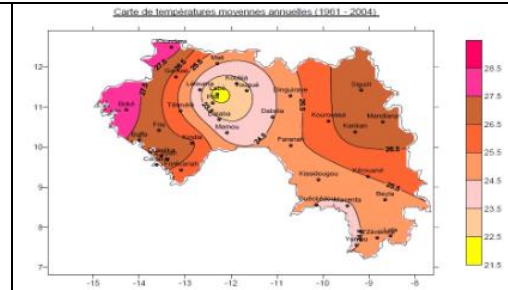
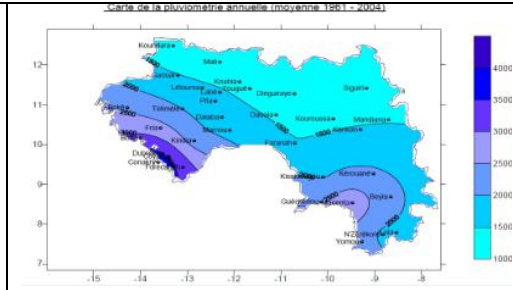
**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Ahmadou Seybourey Touré	Executive Director of Funds	Delegated Ministry of Environment and Forests	04/03/2013

**B. GEF AGENCY(IES) CERTIFICATION**

<b>This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.</b>					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Adriana Dinu Officer in Charge UNDP/GEF and Deputy Executive Coordinator		April 5, 2013	Fabiana Issler, Regional Technical Advisor, Ecosystems & Biodiversity, Africa, UNDP-GEF	+27-12- 3548128	<a href="mailto:fabiana.issler@undp.org">fabiana.issler@undp.org</a>

**MAPS [0, 1, 2 + (PROJECT ZONE) 3]**  
*click on figures to see maps online in larger size*



North-western limits of the **Upper Niger River Basin** / catchment area



**Focus zone for the project** (represented as a polygon to facilitate area calculation: approx 3.3 million hectares – see approximate location within Guinea below): (i) covers a portion of the north-western section of the Upper Niger River Basin featuring the rivers Milo, Niandan, Mofou, Tombali and Tinkisso, which are tributaries; (ii) includes 4 Ramar sites; (iii) features the



Haute Niger National Park, with various gazetted forests (primary focus of climate adaptive bushfire management is on the eastern part of it (circa the pink triangle) and secondarily on the western part (red triangle)).



**Ramsar sites:** wetlands of international importance.