REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat
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ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	REGULAR PROJECT
Country/ies:	CÔTE D'IVOIRE
Title of Project/Programme:	**Increasing local communities' adaptive capacity and resilience to climate change through improving climate-smart agriculture, water and energy access in the Bandama watershed of Côte d'Ivoire**
Type of Implementing Entity:	MIE
Implementing Entity:	African Development Bank Group (AfDB)
Executing Entity/ies:	Ministry Of Urban Sanitation, Environment And Sustainable Development; Ministry of Agriculture and Rural Development; Ministry of Petroleum, Energy and Renewable Energy Development
Amount of Financing Requested:	(in U.S Dollars Equivalent) **9,866,905**

Project / Programme Background and Context:

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

Introduction

Global context

The Republic of Côte d'Ivoire is located in West Africa and shares borders with Liberia and Guinea in the West, Ghana in the East, Mali and Burkina Faso in the North, and the Atlantic Ocean to the south. The country covers an area of 322,463 km^2, including 318,003 km^2 of land and 4,460 km^2 of water.

The decentralization policy organizes the national territory around 2 autonomous districts (Yamoussoukro and Abidjan), 12 districts, 30 regions, 95 departments and 498 sub-prefectures. The country's population, estimated at 15.4 million in 1998, increased to 22.7 million in 2014 (RGPH, 2014), with an average annual growth rate of 2.6% in 2014 (against 3.8% in 1975). The Ivorian population is young with 77% of people aged below 35 years old. Approximately half of the population (50.3%) lives in urban areas and this proportion is increasing (from 32% in 1975 to 42.5% in 1998). This

Figure 1: Administrative divisions of Côte d'Ivoire

demographic dynamic has led to increasing pressure on the country's natural resources, especially in the forested areas, where the large majority of the population lives (75.5% compared to 24.5% for the savannah zone).

The long political-military crisis that lasted from 2002 to 2011 has led to a very high economic and social impact on the country. The poverty rate is estimated at 46% (INS 2015) and the country ranked 172nd (out of 188) in the UNDP's 2015 Human Development Index (HDI). Since 2012, Côte d'Ivoire has experienced a favorable GDP growth rate estimated at 8.3% in 2014.

Within the framework of the preparation of Côte d'Ivoire's nationally determined contributions (NDCs), a series of consultations and studies were made to prioritize vulnerable sectors into two categories: sectors with high vulnerability and medium or low vulnerability. Among the five sectors identified as being of high vulnerability are agriculture, water resources and energy, in order of importance. The interconnection between these three sectors in rural areas is of paramount importance in achieving the objectives of the National Development Plan for Côte d'Ivoire (2016-2020).

According to the Technology Needs assessment for Adaptation (TNA, 2013), agriculture continues to provide for over 30% of GDP, 70% of export earnings and more than 60% of jobs. Unfortunately, this sector is highly vulnerable to climate change thus leaving rural people in a precarious state.

With regards to the water resources sector, the studies carried out in the framework of the Third Nationally Communication show that the highest rainfall deficits are observed in Boundiali (21%), in the extreme north and in Grand- Lahou (24%) in the extreme south on the coast, both located in the Bandama Watershed. Moreover, the consecutive deficits are practically of the same order and vary from 46% at Tortiya station in the center to 56% at the station of Tiassale in the south towards the river outlet. Deficits seem to increase with the amount of annual average discharge observed and the area covered by the hydrographic network in the watershed. The dependence of agriculture on water raises the issues related to low productivity in rural areas.

Irrigated areas depend on groundwater or river runoff (through pumping systems). Lower precipitation levels have affected the quantity and quality of water available for irrigation, negatively impacting local food markets and increasing malnutrition rates in poverty-affected areas. Selecting appropriate small-scale irrigation technologies and selecting crops that are tolerant of drought and salinity are useful ways to minimize risks and improve productivity and farm incomes.

In terms of energy, the EBT (2013) report indicates that, at the level of energy sources, biomass is the most used energy source in Côte d'Ivoire. According to the prospective forestry sector study in Africa (FOSA) carried out in Côte d'Ivoire in 2000, energy biomass represented 47.90% of the energy balance. It consists of wood, coal, agricultural and agro-industrial residues.

Macroeconomic context of Côte d'Ivoire

With a gross domestic product (GDP) of about US $ 31 billion and a growth rate of 9% in 2013, Côte d'Ivoire is the second largest economy in West Africa after Nigeria, and the largest economy in the West African Economic and Monetary Union[1]. Despite a decline in GDP to 8.4% in 2015, economic activity continues to grow at a sustained pace, leading to strong aggregate demand and an increase in both private and public investment[2]. About 85% of all economic activity is concentrated in the southern part of the country. Small and medium-sized enterprises represent 61% of companies in Côte d'Ivoire.

The Ivorian economy is considered to be well diversified. All export products from Côte d'Ivoire are directly or indirectly based on natural resources (either raw or processed products, from extraction and processing equipment). There are three main economic sectors which are the agriculture, forestry and mining industries.

Agriculture is the main driver of the economy, accounting for 66% of export earnings, 27% of GDP, and with agro-industry, supporting nearly two-thirds of the country's population (PNIA[3], 2010). According to the latest UNEP report (2015), the principal cash crops produced and exported are: Cocoa (the world's largest producer), which currently represents 38% of the country's export value (US $ 4.16 billion). In addition, Côte d'Ivoire is the largest producer of natural rubber in Africa and the seventh largest producer in the world with an annual production estimated at 400 000 tonnes in 2011 and expected to reach 600 000 tonnes by 2025. For palm oil, the production increased from 288 000 tonnes to 400 000 tonnes between 2007 and 2011. In 2011, palm oil production was valued at US $ 174 million, almost 1% of national GDP. Cashew nuts, introduced as a reforestation tree in the early 1980s, are grown mainly in the northern part of the country. Côte d'Ivoire is the third largest producer in the world and the second largest exporter of raw cashew nuts. In 2010, cashew nuts accounted for 1.5%

[1] Banque mondiale. (2011). Le pays en bref: la Côte d'Ivoire. Banque mondiale: Washington, D.C.
[2] Banque mondiale. (2016). Le pays en bref: la Côte d'Ivoire. Banque mondiale: Washington, D.C
[3] Programme National d'Investissement Agricole 2010-2015

of total Ivorian exports, for a total of $ 170 million. In the case of tubers, from 2002 to 2010, yams represents 49% of national food production, more than plantain and cassava, and play a particularly important role in ensuring farmers' food security and income.

In recent years, **the forestry sector** (including the timber industry) formerly the country's third largest export sector has seen its decrease in share in the country's economic growth due to the demand for agricultural land, particularly for cocoa and coffee. Exports of lumber decreased from 700,000 m^3 in 2007-2009 to 315,500 m^3 in 2010 (DEIF[4]), and sawing volumes decreased from 32,600 m^3 in 2004 to 5,300 m^3 in 2010, resulting in the closure of several processing plants, and a general decline in the sector. In 2012, the timber industry represented about 12,000 direct formal jobs and 50,000 in total with indirect jobs and 1.0% of GDP (Louppe and N'klo, 2014).

According to the Readiness Preparation Proposal (2014) under REDD+ in Côte d'Ivoire, the consumption of wood energy in the form of firewood and charcoal would entail annual pressures equivalent to the loss of about 92 200 ha even if the actual loss does not seem as dramatic. Nevertheless, the pressure exerted by the demand for biomass energy contributes to deforestation and land degradation and inhibits regeneration processes on deforested or degraded lands. This increased consumption concomitant with demographic growth could have enormous consequences on the remaining forests.

The Ivorian climate and sectors vulnerable to climate change

- **Climate and agro-climatic zones**

Regarding its climate, the country is influenced by the monsoon, wet equatorial air mass and harmattan, a dry tropical air mass with its drying wind.
According to HALLE and BRUZON (2006), climate and vegetation divide the country into two main parts. In the south, the forest area covers approximately 139 000 km^2, and in the north, the savanna zone is about 183 000 km^2. Four (4) agro-climatic zones were identified, based on the precipitation regime from 1971-2000.

-*Sub-Saharan Côte d'Ivoire* (zone 1): the climate is a tropical transition called "Sudanese" climate, characterized by a single rainy season (June-October), a long dry season spread out over 7 to 8 months. The annual rainfall, highly variable, is between 900 and 1400 mm, with a water deficit in excess of 500 mm / year.

- *Pre-forest Cote d'Ivoire* (zone 2): this zone has an attenuated transitional equatorial climate with 2 rainy seasons (May to July and October-November) and 2 dry seasons (December-April and August- September). The annual rainfall is between 1000 and 1500 mm, with a water deficit ranging from 300 mm to 500 mm / year.

- *The average forest Côte d'Ivoire* (zone 3): here the attenuated transitional equatorial climate is marked by an annual rainfall varying from 1200 to 1600 mm and by the alternation of two rainy seasons (April to July and October- November) and two dry seasons (December to March and August to September), with a water deficit between 100 and 300 mm.

[4] Direction de l'Exploitation et des Industries Forestières

- *Lower Forest Côte d'Ivoire (zone 4)*: The climate is a pure equatorial transition type, characterized by an annual rainfall superior to 1600 mm, and by the alternation of two rainy seasons and two dry seasons (except in the mountainous area of Man where the second dry season is almost non-existent), with a water deficit less than 100 mm.

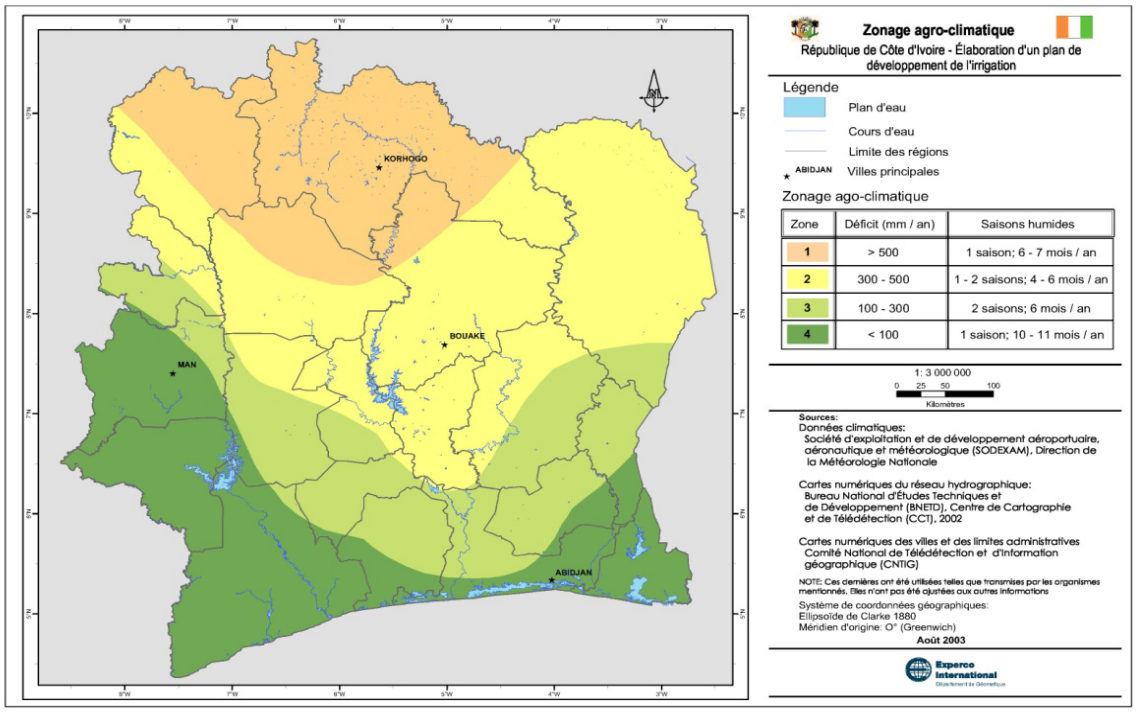


Figure 2: Agro-climatic zones in Côte d'Ivoire (MINAGRI, 2003; MINESUDD, 2013)

- **Vulnerability to climate change**

According to the 2015 Nationally Determined Contributions (NDCs), the main impacts of climate change in Côte d'Ivoire include floods, storms, landslides, drought-heatwaves, wildfires, declining river flows and diminishing surface water volumes, the shortening of the average length of periods of vegetative growth shortening the average length of growing seasons and the increased exposure of plants to water stress, the low growth of plant biomass, the reduction of the productive potential of ecosystems, the reduction of arable land due to their degradation, coastal erosion up to 3 meters per year reaching 6 to 12 meters during storms and the attenuation of the phenomenon of *seasonal upwelling*.

Unfortunately, Côte d'Ivoire's socio-economic activities are heavily dependent on weather conditions and highly vulnerable to climate change. The overexploitation of natural resources and the difficult socio-economic context weaken Côte d'Ivoire's adaptive capacity. The effects of climate change are reflected in particular by an increased frequency of floods, storms, landslides, drought-heatwaves, wildfires, but also through declining river flows and diminishing surface water volumes, the shortening of the average length of periods of vegetative growth shortening the average length of growing seasons and the increased exposure of plants to water stress, the low growth

of plant biomass, the reduction of the productive potential of ecosystems, the reduction of arable land due to their degradation, coastal erosion and the attenuation of the phenomenon of seasonal upwelling.

Eleven sectors were identified as particularly vulnerable in the context of a perception study and participatory workshop in 2015 and validated in the CPDN: (i) Agriculture / Livestock / Aquaculture; (ii) Land use; (iii) Forests; (iv) Water resources; (v) Energy; (vi) Coastal zones; (vii) Fisheries; (viii) Infrastructure (habitats); (ix) Transport (roads); (x) Public health and (xi) gender.

- **The agricultural sector**

Agriculture contributes significantly to national wealth, yet the sector is highly vulnerable to climate change. Vulnerability to climate change measures the degree to which a system is likely to be affected by the adverse effects of climate change (UNFCCC 2007). It depends on two key factors. The first is the degree of exposure to climate risk and the second relates to the degree of sensitivity to risk. We therefore need to study the extent to which Ivorian agriculture is affected by the adverse effects of climate change on soils, water resources and crops.

Agriculture in Côte d'Ivoire is heavily dependent on rainfall, either directly or indirectly (irrigated). It is also dependent on air temperature, heat waves, and winds, parameters needed to be significantly modified in the coming years / decades. The agricultural sector was ranked first in terms of vulnerability to climate change. It has been shown that the climate deviations observed in recent decades have affected not only rainfed agriculture, through rainfall irregularities, but also irrigated agriculture (Center régional agrhymet, 2010, Environmental Action Plan, 1995). Indeed, the late start of the rainy season has induced late water inflows in dams, with a water deficit for irrigation during critical agricultural periods.

The expected impacts of climate change on agriculture are as follows: changes in start and end dates of the rainy season, causing a fluctuation in the length of the rainy season, resulting in delays in the installation of the season as well as premature rainfall stops; the modification, for agriculture and food, cycles of plant growth, with harmful influences on crops ; changes in the distribution and area of arable land, resulting in accelerated deforestation on a large scale; decreased crop yields; food insecurity issues, which should then constitute a major constraint, with consequent worsening of poverty.

These climate disturbances impact cropping schedules and expose the agricultural sector to significant declines in food crop yields. On the other hand, the destruction of crops by floods during periods of heavy rainfall and the persistence of periods of drought that exacerbate bush fires, jeopardize the country's food security. These uncertainties also affect animal and fisheries resources by reducing breeders' incomes, the emergence of disease epidemics, the losses of productivity and the reduction of water sources, as well as the reduction in the potential of aquaculture. Climate change

has several impacts on fishing activity. The rise in average temperature, a major frequency of storms, a more and more violent sea and eroding ocean coastlines, lead to a steady decline in fish production.

Besides the problems associated with reduced precipitation/water resources and high temperatures recorded, the agricultural sector faces other challenges and constraints which will be accentuated and exacerbated due to climate change such as: the impoverishment and progressive degradation of soils; annual losses of arable land reaching several tons per hectare in some areas; increased pests (depredators); strengthening of locust invasions ; increasing economic cost of mobilizing water resources for irrigation (pumping for irrigation expensive because the level of the water tables is deep and the price of combustibles increasingly high); intensification of extreme events (heat waves, floods) ; the lack of modern agricultural equipment for plowing and pumping water; the lack of skills, knowledge, information and technological know-how.

Despite the fragility of the agricultural sector, the analysis of alternative sources of growth show that:
- Agriculture will remain the main source of growth and poverty reduction at both national and rural levels over the next 10-15 years[5];
- A continuation of recent growth trends in the agricultural sector would reduce the national poverty rate by only 4.7 percentage points by 2015 compared to its 2008 level for the country (48.9%);
- Isolated growth strategies targeting yams, cassava, plantains or forestry products show significant potential for poverty reduction.
- The potential for poverty reduction could be greater if the growth strategy were broadly diversified in both the agricultural and non-agricultural sectors.

Analysis of the effects of agricultural growth on other sectors of the economy shows that the contribution of agricultural growth to poverty reduction would be much higher than that due to non-agricultural growth. Studies have found that poverty reduction of 1% at rural and national levels can be attributed to 73% to the growth in the agricultural sector and only 27% to the growth in non-agricultural sectors. These results can be explained by the fact that a large part of the population depends directly or indirectly on agricultural activities and that poverty is mainly located in rural areas. Consequently, the effects of agricultural growth would be best felt in rural areas rather those in other sectors. In sum, agriculture is the main source of poverty reduction.

- **Land use**

Cultivated areas in Côte d'Ivoire increased exponentially (from 5 489 778 ha in 1969 to 12 828 239 ha in 2000)[6]. On the other hand, in the savannah regions, agricultural holdings of cash crops such as cotton and cashew nuts and other crops have

[5] Programme national d'Investissement Agricole (2010-2015) de la Côte d'Ivoire. 2010.
[6] Plan Investissement Forestier de la Côte d'Ivoire (PIF)

contributed greatly to the change in land use. Par ailleurs, dans les régions de savanes les exploitations agricoles des cultures de rentes telles que le coton et l'anacarde et les autres cultures ont grandement contribué au changement d'affectation des terres. Regarding for human settlements (road network and habitat), the annual growth rate was estimated at 1.6% with an increase of 521 ha per year in human settlements. However, there are no data on wetlands and other lands.

- **Forests**

Côte d'Ivoire is 400 km from the equator and enjoys a generally warm and humid climate, ranging from 20 ° C to 33 ° C. The forest area of Côte d'Ivoire is part of the larger region of the Upper Guinea Forest (FHG) of West Africa, extending from Guinea to Togo. These forests are home to an exceptional variety of habitats rich in plant species- there are 2,800 forest vascular plants, of which 23% are endemic and are home to one of the largest varieties of mammals in the world. However, since 2000 the FHG region is officially one of the most sensitive areas in the world for biodiversity conservation because of the very high deforestation rate it has experienced (80% of its original size).

Precisely in Côte d'Ivoire, forest areas are subject to much pressure under the combined effect of extensive slash-and-burn agriculture, rapid urbanization linked to high population growth, infrastructure development (construction of roads, hydroelectric and agricultural dams) and climate change. The uncontrolled forest exploitation for firewood, including classified forests and, to a lesser extent, protected areas, highlights the importance of governance in the management of forest resources and mining, including gold mining and wildfires. Climate change is expected to result in prolonged periods of drought that worsen forest degradation and increase the risk of fires. All this represents a threat to biodiversity and agricultural activities.

- **Water resources**

Côte d'Ivoire has a very diversified water resource. There is an abundance of surface water and groundwater. Surface waters consist of rivers and reservoirs spread over the entire territory and lagoons located in the coastal zone. The hydrographic network of Côte d'Ivoire mainly includes:
- Four large basins distributed from west to east in the following way: the Cavally, the Sassandra, the Bandama and the Comoé;
- Small coastal rivers, the most significant of which are Tabou, San Pedro, Niouniourou, Boubo, Agneby, Me, Bia and Tanoé;
- The tributaries of the Niger, notably Gbanhala (Kouroukélé), Baoulé, Dégou, Kankélaba and Bagoué;
- A few tributaries of the Black Volta, namely the Koulda, Gbanlou, Gougoulo and Kohodio.

There are no lakes or ponds with particularly remarkable on Ivorian territory. Indeed, all the large inland water storage areas are artificial reservoirs, and Côte d'Ivoire has about

572 reserves for agro-pastoral and / or hydroelectric purposes, The storage capacity is approximately 37.2 billion cubic meters, with 36.8 billion m^3 for hydroelectric power and 0.4 billion m^3 for the others. Côte d'Ivoire also has several lagoon complexes covering a total area of 1,400 km^2, with more than 1,500 km of shoreline.

Regarding groundwater, they are available throughout the Ivorian territory, but under very variable conditions of storage and accessibility. These underground waters are divided into the following three hydrogeological provinces:
- The granite-gneiss base whose altered zone is characterized by an average depth of 57.2 m, a thickness of 21.3 m, a static water level of 10.5 m and an average yield per drilling of 3 m3 / h;
- The former metamorphosed (predominantly schist) sedimentary for which the average depth, the thickness of the altered zone, the static water level and the average yield are respectively 63 m; 28.4 m; 17.4 m and 3.3 m3 / h;
- The coastal sedimentary basin or general aquifer is lithologically divided into clayey sand, medium sand, coarse sand and fine sand in descending order. The depth of the aquifer, the static level and the yield per borehole are respectively 50.1 m, 21.7 m and 9.6 m3 / h. The thickness of the aquifer varies from 50 to 150 m under the plateau area and more than 200 m under the Ebrié lagoon and the coastal zone.

The groundwater resources of Côte d'Ivoire are as follows: (i) in the basement area, groundwater resources are estimated at 78 billion m^3 whose 35 billion m^3 are considered as renewable resources. At this level, the slices of fractures are captured by boreholes and the alterite slices by wells; (ii) in the coastal sedimentary basin, resources are estimated at 9.9 billion m^3, with an annual renewal of 2.7 billion m^3. Ultimately, the groundwater potential of Côte d'Ivoire is estimated at about 87.9 billion m3 of which 37.7 billion m3 is renewable.

As shown in the map below, the river system consists of four major watersheds oriented north- south (Comoé, Bandama, Sassandra and Cavally) that drains most of the country. They are relatively powerful but are non-navigable due to many jumps and seasonal drying in the North. Two of them carry hydroelectric dams (Buyo on the Sassandra and Kossou on the Bandama).

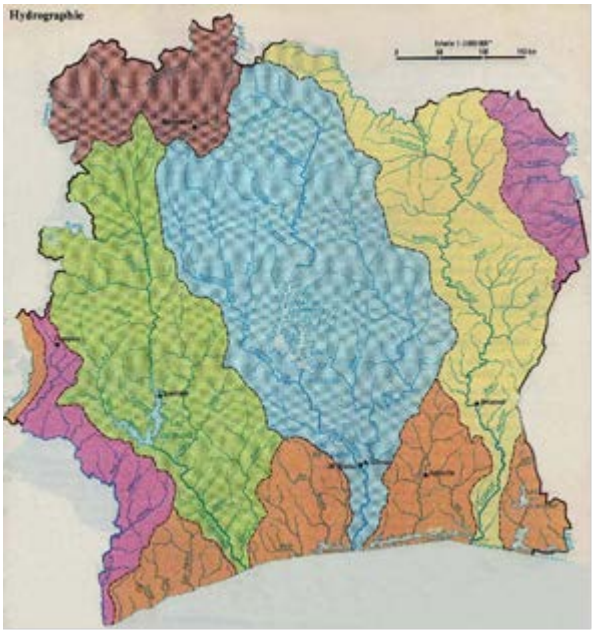


Figure 3: Map of watersheds

Source : Atlas de Côte d'ivoire, JA, 1983

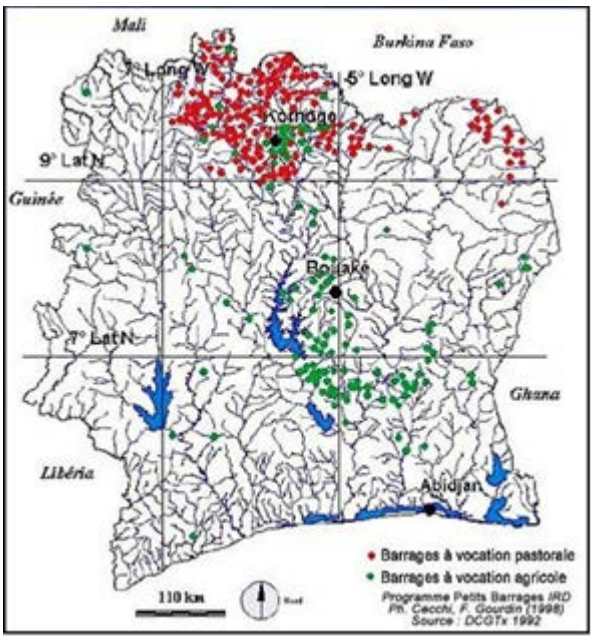


Figure 4 : Hydro-pastoral water points

Source : FROMAGEOT, 2006

Water is a strategic element of rural development (crops, forests, drinking water); with the sea, it is the good fishing areas, a very important activity for the food security of the country, whose population increasingly appreciates fish as animal proteins. Irrigation which consumes high quantities of fresh water is practiced, but not to its full potential (475,000 ha covered, including 175,000 ha of lowlands, 200,000 ha of plains and 100,000 ha of coastal marshes[7]), except in peri-urban crops for market gardening. Its development can have local consequences on pumped reserves and cause tension over land access between farmers, or between farmers and livestock owners. The map above shows the areas with high water deficit and densely populated areas (and therefore weakly forested) where the water points are the most numerous (V Baoulé, North of the country).

The irrigation sub-sector accounts for about 7% of GDP. Apart from irrigated export and industrial crops such as bananas and pineapples generally produced by private operators, irrigated food production, mainly rice and market gardening, accounts for only 3% of GDP. This low contribution of irrigation in the Ivorian economy is explained by the rainfall regime which favors a wide spread of rainfed crops in the forest zone and the marginalization of irrigated crops caused by the development of rain-fed rice crops that absorb human, financial and land resources. The lower the ratio of water consumption to requirements, the more the water deficit weighs on the yield of irrigated crops.

In general, unlike the arid Sudano-Sahelian countries to the north, the abundance of water means that water is not a strategic constraint for the forest sector in RCI

[7] CERCAM, Fiches de synthèse Agriculture, 2014.

(plantations, if the species used are adapted) and for the development of the country (industrial and domestic consumption). It is not a source of conflict between the various users (hydroelectricity, industries, domestic needs, irrigation, livestock, fishing, etc.) and is likely to be no short-medium term.

In the medium-long term, however, the development of the country, and particularly of the agricultural and forestry sector, can predict future constraints:

- in savannah, modern large-scale farming may require irrigation of crops in dry areas and demand for supplies from groundwater whose potential may be reduced or difficult to access ;
- The biological pollution of drinking water through contamination by household waste is generally compensated by rapid filtration thanks to natural aquatic agents, and the water of the rivers is thus frequently consumed by the riparian populations; in the vicinity of major cities, sanitation is often failing and is a priority for urban development;
- Chemical pollution by contamination by agricultural inputs dissolved in the slices and which reach the waterways through the direct washing of used pesticide cans in waterways, or by the use of pesticides for catching fish, or by the effluents produced by the processing of minerals… leads to the degradation of the water consumed by the riparian populations;
- the invasion of the river by aquatic plants (water hyacinth, water lettuce and fresh freshwater fern), which reduce the oxygen and light available in the water, may endanger the local fish production and promote water-borne diseases(such as malaria and bilharzia);
- The evacuation of rainwater plays an important role in the sustainability of road infrastructures (adequate slope of the rolling surfaces, presence of ditches with sufficient gauge and maintained, dimensioning and strength of the crossing structures and dykes, respect of rainfall barriers on dirt tracks)

Other studies carried out by the Water Resources Department of the Ministry of Water and Forests (TOZAN, 2014) indicate, through climate models, a very significant decrease in the availability of surface water resources confirmed by Table 1.3 below

Table 1: Decreases in river levels in 2030 using climate models

Climate Models	**Rivers**		
	Bandama	**Sassandra**	
GFD3	-22 %	-8,35 %	-6,86 %
UK89	-21 %	-6,45 %	-5,10 %

Source: TOZAN (2014) Personal communication

Besides, projections for a reduction of groundwater recharge in the range of 7 to 14% by 2030 to 2040 and 49 to 70% in the period from 2090 to 2100, respectively, are expected in relation to climate variability, in particular due to the decline in rainfall. Thus, the combined effects of rainfall variability in volume (decrease) and frequency of precipitation, as well as the average temperature rise of 1.6 ° C (average over the last

50 years) throughout Côte d'Ivoire (Yao et al., 2013) are likely to induce disturbances in the availability and quality of water resources in the short, medium and long term. The effects of climate change will also occur in coastal areas with increasing levels of erosion.

Water resources in Côte d'Ivoire are also highly vulnerable to climate uncertainty, through the reduction of rainfall, which results in disturbances in the availability and quality of water resources. Moreover, a study conducted by the Water Resources Department of the Ministry of Water and Forests indicates a very sensitive decrease in the availability of surface water resources. The marine waters are also impacted by the increase in ocean temperature, and in particular, the rise in the level of the Atlantic Ocean, which is reflected in the sea's advance on firm land, particularly at the outfall level and especially in the department of Grand Lahou. Marine waters are also impacted by climate change through increasing ocean temperatures and, in particular, the rise in the level of the Atlantic Ocean, which is reflected in the sea's advance on firm land. The phenomenon is very striking in Côte d'Ivoire and especially in the Department of Grand Lahou where the village of Lahou Kpanda has almost disappeared.

In conclusion, water is an indispensable resource for the development of the country, but without any challenge in the RCI if we consider only its abundance. On the other hand, considering its distribution and annual supply variations, it becomes a critical strategic resource in the marked dry season zones (northern half of the country) for plantations and for the health of populations using it as drinking water, because of the risks of pollution from biological and chemical effluents.

- **Energy**

The energy sector is very vulnerable given its dependence on hydroelectric infrastructures. Climate projections indicate a decline in medium and long-term rainfall, which would affect the production of electricity from hydropower. However, Côte d'Ivoire has always integrated energy at the heart of its development strategy, innovating through its regulatory framework. As early as 1952, the State Electricity Company of Cote d'Ivoire (EECI) had the concession of an integrated monopole on the three market segments such as production, transport and distribution of electricity. With a ratio of 605-kilowatt hours (kWh) per agent and 105 subscribers per employee, EECI was among the best performing energy companies in sub-Saharan Africa[8]. The drought of 1983 and the public financial crisis after the oil crisis in 1979 brought to light certain limits of public electricity management.

The Law of 1985 then provided the framework for the EECI integrated concession, by providing for the entry of independent producers. In 1988, the EECI concession was sold to the Ivorian Electricity Company, a private operator with a transmission and distribution of electricity monopole. In 1994, the Ivorian Company of Electricity Production (CIPREL) signed the first agreement for the construction, operation and

[8] « *Privatisation de l'électricité en Côte d'Ivoire : évaluation et interprétation des premiers résultats* », P. Plane – Université d'Auvergne, CNRS 1997

retrocession (BOOT) of a thermal power plant. The economic model adopted stipulates that the supply of fuel is the responsibility of the State, which must make it available to CIPREL. The latter is only responsible for its transformation into electricity. The annual production is guaranteed by a "Take or Pay" contract. The second independent producer, AZITO Energy, will enter in 1997 for the installation of a thermal power plant, with a sensibly identical economic model. The third operator, AGREKKO, will enter in the market on the load shedding of 2010, which will lead the State to contract the leasing of thermal capacities[9].

From 1960 to 1983, the State will have deployed an installed capacity of 668 megawatts to 90% hydroelectric, then a capacity of 990 megawatts exclusively thermal from 1984 to 2012, including 890 megawatts by the independent producers of electricity, including the capacities signed in 2012. There are still 68 isolated thermal power stations totaling 7.8 megawatts.[10]

The starting point for an energy policy is to make a case to combat climate change, reduce hydrocarbon imports, promote employment and growth and thus provide safe and affordable energy to consumers. Essentially hydro powered originally, the electricity produced by Côte d'Ivoire is also thermal. This contributes greatly to the depletion of fossil natural resources and to an increase in greenhouse gases (GHG). Despite the efforts undertaken by the Institute for Research on New Energies (IREN), solar energy use, for which significant potential has been recognized, is very limited in Côte d'Ivoire.

According to SNCC 2010, total emissions from the energy sector in 2000 were estimated at 66.6 Mt Eq-CO2. The industrial energy sector is the largest emitter, accounting for 86.53% of emissions. Other major sectors contributing to GHG emissions are the oil and natural gas sectors (8.66%) followed by the transportation sector (3.31%). It should be noted that energy sector emissions increased by 1676% (62.84 Mt Eq-CO2) between 1990 and 2000 and 1302% (61.84 Mt Eq-CO2) between 1994 and 2000. This increase is mainly due to the operation of various natural gas-fired power plants.

- **Infrastructure - transport - health – gender**

The infrastructure (habitats), transport (roads), public health and gender sectors have also been identified as vulnerable to climate change.

Gender is an important crosscutting issue for adaptation to climate change; however, the attention given to this issue is still insufficient. It can be observed that in Côte d'Ivoire most women are involved in food production, water supply and energy for heating and cooking. As the impacts of climate change are felt, these tasks become more difficult and women are exposed to various risks. Their strategies for coping with climate variability often remain an untapped resource.

[9] « *Production d'électricité en Côte d'Ivoire : la convention Aggreko prorogée* »- Ministère des Mines du Pétrole et de l'Energie, 15/02/2012.
[10] Ministère des Mines et de l'Energie, 2009.

In this context, it is important for Côte d'Ivoire to integrate climate change adaptation into planning and budgeting at the national, sectoral and local government levels in order to cope with the impacts of climate change through the PNA process. Dans ce contexte, il est important pour la Côte d'Ivoire d'intégrer l'adaptation au changement climatique dans la planification et la budgétisation au niveau national, sectoriel et dans les collectivités territoriales, afin de pouvoir faire face aux impacts du changement climatique à travers le processus PNA. Thus, the objective of the PNA process will be (Decision 5 of COP 17):

- Reducing the vulnerability of the country to the impacts of climate change by building adaptive capacity and resilience;
- Facilitate the coherent integration of adaptation to climate change into relevant policies, programs and work, new or ongoing, in particular development planning processes and strategies, in all relevant sectors and at different levels, as appropriate.

The PNA process in Côte d'Ivoire is designed to facilitate different approaches and fully integrate climate change-related challenges into planning and decision-making processes.

Presentation of the Bandama river basin (project implementation area)

The watershed of the Bandama, entirely located in Ivorian territory, occupies an area of 97,500 km^2. The Bandama watershed is located between 3 ° 50 'and 7 ° West longitude and 5 ° and 10 ° 20' North latitude. In UTM coordinates (Zone 30 N), the watershed is between 0 and 400000 m West and 540000 m and 1140000 m North.

Figure 5: Geographical location of the Bandama watershed

The Bandama Watershed is the only national watershed. Within the framework of Côte d'Ivoire's NDCs, this zone was the subject of a vulnerability study to climate change.

In terms of vegetation, the Sudanese area of the watershed is covered by clear forests and the savannahs that are derived from it. Depending on the forest stand, the savanna

evolves towards to a woody, timbered, shrub or grassy type on the drained soils. Dense woodlands form forest blocks and gallery forests (Levêque et al., 1983). The mesophilic sector (Baouléen Climate) corresponds to a pre-forest savanna zone in the north, which contrasts with a forest zone with savannas included in the south. The pre-forest zone occupies the central part of the basin while forests galleries tend to develop along the rivers. The forest zone is formed by wet dense forests, semi-deciduous and swamp forests, which grow on periodically flooded hydromorphic soils of Lower Bandama.

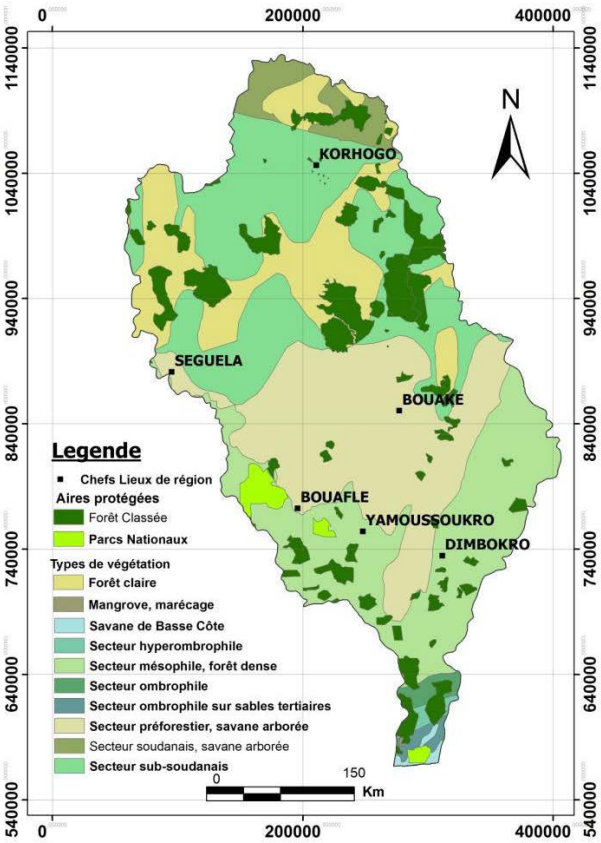


Figure 1: Vegetation of the Bandama watershed

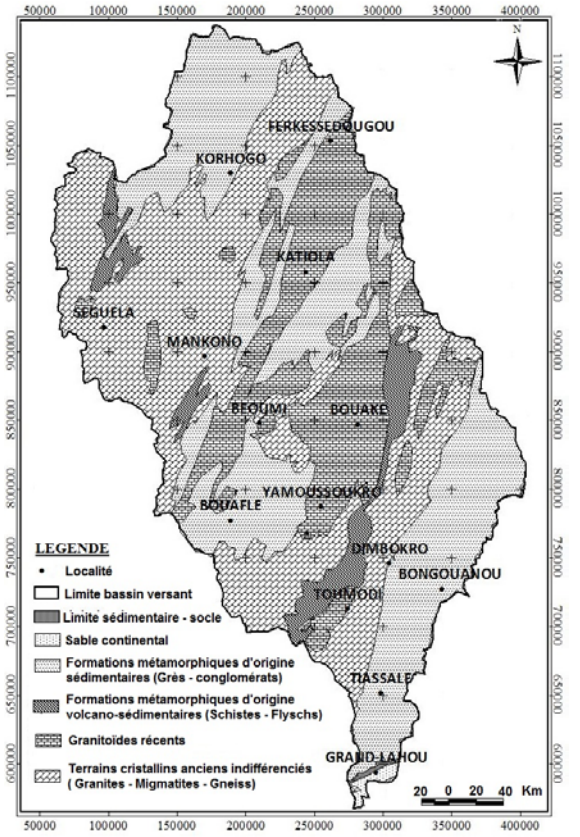


Figure 2: Geological Map of the watershed of Bandama

The Bandama basin is located in the Intertropical Front (FIT) swing zone, which separates the southwest humid air masses of oceanic origin (monsoon), and dry air masses from continental origin and northeastern sector (harmattan). The movements in the latitude of the Intertropical Front (FIT) lead to alternations of dry and wet seasons described in detail by Eldin (1971). Three main climate zones are distinguished according to the latitude. The characteristics of the climate zones are given in Table 2.

Table 2: Characteristics of the climate regimes of the Bandama watershed

Climate type	Annual precipitations (mm/an)	Seasons
Soudanien	1000 - 1700	2 seasons (dry, rainy)
Baouléen	1500 - 2200	4 seasons (2 dry, 2 rainy)

Attiéen	1300 - 2400	4 seasons (2 dry, 2 rainy)

Source: SODEXAM

Project / Programme Objectives:

List the main objectives of the project/programme.

As part of its Nationally Determined Contributions (NDCs), Côte d'Ivoire aims to reduce its development's carbon footprint by favoring mitigation options with high "co-benefits"; strengthen the country's resilience to climate change; to harmonize its sectoral policies and to strengthen its implementation mechanisms and tools to facilitate the attainment of these objectives; and to mobilize resources to this end, in particular national and international financing.

The project contributes to the implementation of Côte d'Ivoire's NDCs by strengthening the multi-dimensional vulnerability and adaptive capacity of the populations living in the Bandama catchment area. This project also serves as a first phase in the national adaptation plan process, the results of which will serve as pilot projects to be capitalized on a national scale.

More specifically, the project aims to: (i) improve agricultural production techniques for vulnerable populations in the Bandama watershed; (Ii) improve food security through sustainable management of water resources in the Bandama watershed; (Iii) combat poverty through access to electricity and clean energy sources; and (iv) empower women and enhance the resilience of vulnerable households.

Project / Programme Components and Financing:

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

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

Project/Programme Components	Actions	Activities	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Reducing vulnerability and increasing resilience to the impacts of climate change in the agricultural sector	1.1. Developing the agro-ecological approach in the Bandama watershed	1.1.1. Identify and train farmers in good agro-ecological practices 1.1.2. Train producers in the management of soil fertility and the use of organic manure 1.1.3. Set up a fertilizer subsidy system for agricultural cooperatives while ensuring the sustainability of the means of acquiring fertilizer by the end of the project 1.1.4. Encouraging agropastoralism in cashew production	- Rural populations are equipped with new agricultural techniques and good practices - Agricultural yields are higher through access to fertilizers	Agricultural techniques are more effective and responsive to climate change	3,560,000 USD
	1.2. Improving agricultural production techniques	1.2.1. Develop and disseminate a manual on agricultural techniques 1.2.2. Train farmers to use and adopt good farming practices adapted to the effects of climate change 1.2.3. Support farmers in the use of mycorrhizae to increase the resilience of species to abiotic and biotic stresses	- the production techniques are improved - Mycorrhizal fungi are used to increase resilience in agriculture	70% of agricultural producers in the project area adopt new climate-friendly techniques	

	1.3. Promoting and popularizing crops resilient to climate change	1.3.1. Establish a training field for the learning and initiation of young people and women in the cultivation of improved species resilient to climate change 1.3.2. Organize awareness sessions on the use of climate resilient species 1.3.3. Subsidize the acquisition of seeds of resilient species 1.3.4. Supervise farmers and cooperatives in the use of species through their application on test areas in the cultivation of resilient species	-Farmers adopt new agricultural techniques - Young and vulnerable people have access to sustainable and climate-resilient production technologies -Agricultural cooperatives benefit from monitoring species and agricultural seeds adapted to the effects of climate change	Agriculture is resilient to climate and contributes to poverty alleviation and food security	

	1.4. Develop seasonal forecasts that enhance the climate change resilience of cropping practices	1.4.1. Propose a detailed agricultural calendar using climate modeling based on in situ and satellite data, use of remote sensing drones and Geographic Information Systems (GIS) in the framework of scientific research 1.4.2. Establish and disseminate periodically a cultural calendar for the rural populations of the Bandama watershed	-A study on climate modeling is available and capitalized in other activities related to access to climate information -Farmers have climate information	Agriculture no longer suffers from the vagaries of the climate leading to the modification of the agricultural calendar	
2. Improving access to water and resilience of vulnerable groups in Bandama	2.1. Develop and implement the management plan for the Bandama Watershed	2.1.1. Create a hydrometric measurement network in the basin 2.1.2. Implement infrastructure to meet the water needs of all users 2.1.3. Secure drinking water and improve access to it on a sustainable basis for the center of the southern and central regions 2.1.4. Assess the various uses of water resources in the watershed	-A hydrometric measurement network is established - Access to drinking water is guaranteed to all target households	A management plan for the watershed is implemented	2,000,000 USD

	2.2. Implementing smart agriculture in the face of climate with the participation of small farmers (irrigation, improved plant material, sustainable value chain)	2.2.1. Develop smart agricultural products that farmers can easily use in the face of climate change 2.2.2. Rehabilitate and/or enhance existing water infrastructure	- Products derived from climate smart agriculture are used by the peasants in terms of access to water	Climate-smart agriculture is implemented in the water sector	
	2.3. Strengthen the technical and logistical capacities of farmers and other land users, particularly women, in irrigation techniques, rainwater and flood recovery	2.3.1. Identify suitable irrigation techniques 2.3.2. Organize practical training sessions on advanced irrigation techniques 2.3.3. Installing solar-powered hydraulic pumping systems 2.3.4. Establish a water conservation system in rural areas for off-season agriculture	- Irrigation and water conservation techniques for off-season agriculture are implemented - Water pumping systems using solar energy are installed in the pilot zones	Water is available and accessible to vulnerable populations in all seasons for consumption and agriculture Water-borne diseases are less frequent	

3. Improving access of vulnerable populations to electricity and clean energy sources	3.1. Enhancing rural energy efficiency through the introduction of a photovoltaic system for 5,000 households	3.1.1. Organize awareness-raising campaigns for the presentation and explanation of the advantages of using the photovoltaic system (popularizing the photovoltaic system) 3.1.2. Installing photovoltaic lighting systems in areas of insecurity in villages 3.1.3. Train 100 idle youth in the installation and maintenance of photovoltaic systems 3.1.4. Subsidizing the acquisition of photovoltaic equipment for each of the 5,000 households	-the populations are sensitized on the use of photovoltaic systems -the pilot zones benefit from lighting -the young people are given adequate relevant training	Development of alternative activities to agriculture and increase in income of target populations Reduction of the rural exodus of young people	2,110,000 USD
	3.2. Reinforcing agricultural waste recycling capacity for the production of thermal energy	3.2.1. 3.2.1. Organize capacity building sessions for women on domestic and cooking energy alternatives 3.2.2. Identifying and valuing agricultural waste recycling techniques for the production of thermal energy	- Women are made aware of the energy alternatives for cooking -Techniques for the recovery and recycling of agricultural residues are identified and implemented	The modes of consumption of domestic energy are clean	

	3.3. Increase the production capacity of fuel briquettes from agricultural and forestry waste in the Bandama valley	3.3.1. Involve the various forestry and agricultural stakeholders in the production process 3.3.2 Building new briquette production units and improved cooking energy managed by cooperatives	Rural cooperatives enjoy new activities and fight against deforestation and pollution	Income-generating activities are available Women are involved in the fight against degradation of forest cover	
4. Project management and capitalization of lessons learned and good practices in the resilience of vulnerable populations	4.1. Capitalizing on lessons learned	4.1.1. Conduct a full project feasibility study in agriculture, energy and water access actions for another vulnerable group 4.1.2. Set up a system for effective communication, information and dissemination of project actions and results	-A project document to be carried out in another area of the watershed is available -Information about the project is disseminated	Lessons learned from the project are available and accessible	560,000 USD
	4.2. Project management	4.2.1. Provide effective and efficient management support for project implementation, including project management and coordination 4.2.2. Monitoring and evaluation	- The project has a management unit	The project is managed effectively	
		6. Project/Programme Execution cost			863,922 USD
		7. Total Project/Programme Cost (USD)			9,093,922 USD
		8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			772,983 USD
		Amount of Financing Requested (USD)			9,866,905 USD

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2019
Mid-term Review (if planned)	December 2021
Project/Programme Closing	2023
Terminal Evaluation	2023

PART II: PROJECT / PROGRAMME JUSTIFICATION[11]

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

The project has three main components and one component dealing with project management and lessons learnt. These components contain overlapping activities due to the integrated and multi-sectoral nature of this project.

In the Bandama watershed, agriculture and water resources are strongly linked. The issue of energy remains a strategic issue for the conservation of forest cover and access to electricity is essential for poverty reduction. Agricultural techniques in the northern part of the basin as part of the project include irrigation and water supply techniques such as the use of photovoltaics in water pumping systems to feed vulnerable populations. The components of the project include: (i) reducing vulnerability and increasing resilience to the effects of climate change in the agricultural sector; (ii) improving access to water and resilience of vulnerable groups in the Bandama watershed; and (iii) improving vulnerable populations' access to electricity and clean energy sources.

The beneficiaries of the project are the people living in the Bandama Watershed. Their selection was made after a first phase of consultations with relevant government technical teams and research centers which already have completed several studies on population vulnerability in the watershed. Agricultural activities considered by the project

11 It is important to note that this section will better be articulated into components after the consultation process during the project preparation. It is envisaged the full proposal preparation will employ a three steps process: 1. Consultations with stakeholder to determine the scope and focus of the project, including target pilot area ; detailed community level consultations in the pilot areas, including with men and women groups, vulnerable groups within the communities and key community informants, as well as, national consultations in each of the target countries to obtain stakeholder support and validation of the project design

will be target rural communities and cooperatives whose activities proven to be affected by the impacts of climate change. With regards to field-school projects for the use of new irrigation and cropping techniques, priority will be given to youth associations or cooperatives (this will help reduce the rural exodus of young people) and women groups thus improving gender-specific and socio-economic indicators.

During the consultative phases as part of full project preparation, further studies will enable the formulation of a project with components that are well-integrated. The four components of the projects are further developed here below.

Component 1: Reducing vulnerability and increasing resilience to the impacts of climate change in the agricultural sector

The agricultural sector plays a predominant role in the Ivorian economy and in the reduction of social inequality. On this basis, the main challenge is to make Ivorian agriculture more competitive and profitable for producers, while ensuring food security for all populations.

Climate change, however, due to its effects on temperature and rainfall, contributes to increasing the vulnerability of agriculture and water resources in Côte d'Ivoire. The direct effects on agriculture are a shortening of the average duration of the vegetative growth periods (a shift in the beginning of the growing season), a low biomass growth and a reduction in the productive potential of the ecosystems (degradation, increased exposure of plants to water stress and reduced surface water volume in most regions).

At the agro-climatic level, according to a study on the vulnerability of the agricultural sector to climate change in Côte d'Ivoire (MINESUDD, 2013), the shift and shortening of rainy seasons combined with coastal erosion particularly affect the agricultural populations and fishing communities.

In response to these changes and impacts, a number of climate change adaptation initiatives are implemented by MINAGRI through various projects:

- The West African Agricultural Productivity Program (WAAPP) implements climate change adaptation actions, including priority program 1 (which aims to broaden the range of adapted varieties (resistant and highly productive) in the different ecological zones of plantain cultivation through an appropriate selection scheme), and priority program 2 (which aims to develop knowledge of the biology of parasites and pests and their temporal fluctuations with a view to favoring those most appropriate methods).

- The Agricultural Sector Support Project (PSAC), through four sub-components, seeks to: (i) support sustainable cocoa productivity (ii) improve productivity through access to adapted plant material and seeds for primary producers of rubber tree and palm oil (Iii) improve agricultural productivity in cotton-based production systems, and (iv) improve the productivity of cashew. Among other things, this project aims to strengthen the fight against cocoa diseases, design and implement an early warning system for cocoa diseases and a pest

management plan (PMP), and facilitate access to improved plant material and support for the replanting of about 20,000 hectares of aging and affected orchards. It also seeks to provide agricultural research and extension services in the cotton sub-sector, provide research programs to develop and expand improved plant material (large nuts and high-yielding varieties) in the cashew sub-sector.

- The Inter-professional association of the rubber tree sector (APROMAC) within the framework of the PSAC and with the financial support of the World Bank and the Agence Française de Développement (AFD), has a mechanism in place for producers to access improved seeds. This is also the case of the Inter-professional Association of the Palm Oil Sector (AIPH), which, as part of the implementation of the sector development plan, also has a mechanism to mobilizing resources both internally and externally. The procedures and methods behind this mechanism will enable decision-makers to validate all the projects that will be identified before considering the mobilization of resources for their financing.

In complementarity with the above initiatives, Component 1 of this project presents four major actions that will be carried out in the Bandama Watershed. It reinforces the framework for the implementation of the roadmap of the Paris Climate Agreement, validated 8 April 2016, with all the national stakeholders but also contributes to operationalizing the NDCs at the national level.

Action 1.1. **Developing the agro-ecological approach (practices of soil fertility management and the use of organic fertilizers and compost from household waste, the agriculture-livestock association) in the Bandama watershed.**

Activity: 1.1.1. *Identify and train farmers in good agro-ecological practices*

Activity: 1.1.2. *Train producers in the management of fertility and the use of organic manure*

Activity: 1.1.3. *Set up a fertilizer subsidy system for agricultural cooperatives while ensuring the sustainability of the means of acquiring fertilizer by the end of the project*

Activity: 1.1.4. *Encouraging agropastoralism in cashew production*

Action 1.2. **Improve production technologies through access to improved inputs adapted to the effects of climate change (drought-resistant food, fodder, silvicultural seeds, animal genes bank, quality fry, manure and compost management to improve soil fertility).**

Activity: 1.2.1. *Develop and disseminate a manual on agricultural techniques*

Activity: 1.2.2. *Train farmers to use and adopt good farming practices adapted to the effects of climate change*

Activity: 1.2.3. *Support farmers in the use of mycorrhizae to increase the resilience of species to abiotic and biotic stresses*

Action 1.3. Promoting and popularizing crops resilient to climate change

Activity: 1.3.1. *Establish a training field for the learning and initiation of young people and women in the cultivation of improved species resilient to climate change*

Activity: 1.3.2. *Organize awareness sessions on the use of climate resilient species*

Activity: 1.3.3. *Subsidizing the acquisition of seeds of resilient species*

Activity: 1.3.4. *Supervise agricultural farmers and cooperatives in the use of species through the use of test areas for the cultivation of resilient species*

Action 1.4. **Develop seasonal forecasts that enhance the climate change resilience of cropping practices**

Activity: 1.4.1. *Propose a detailed agricultural calendar using climate modeling based on in situ and satellite data, use of remote sensing and Geographic Information Systems (GIS) in the framework of scientific research*

Activity: 1.4.2. *Establish and disseminate periodically a cultural calendar for the rural populations of the Bandama watershed*

Component 2: Improving access to water and resilience of vulnerable groups in the Bandama watershed

Surface water is estimated to be 39 billion cubic meters in the whole country. The influence of precipitation on surface water is so important that the hydrological regime is similar to the precipitation regime. Concerning groundwater, its total quantity corresponds to about 87.9 billion cubic meters, of which 37.7 billion cubic meters is renewed on a regular basis because of the very favorable storage conditions (national topography) combined with the existence of three (3) main hydrogeological formations.

Despite the aforementioned quantity numbers, water resources in Côte d'Ivoire are very vulnerable to climatic hazards due to changes in rainfall patterns and precipitation quantity, which result in disturbances in the availability and quality of water resources. According to Coulibaly KA and Dje KB (2009), climate change will eventually lead to a reduction in surface water availability (between -2.10% and -22%) and a sharp drop in

groundwater recharge (between 7% and 70%) due to an increase in annual precipitation and isohyet change. The combined effect of the warming of watercourses due to the impacts of climate change and the high incidence of human activities will affect the quality of surface water by decreasing its nutrient concentration in the surface layers, including prolonged oxygen depletion in the deep layers.

Access to water in rural areas is essential for the survival of vulnerable populations who depend heavily on them for both human and animal consumption and for agriculture. The fragility of the Bandama watershed means that concrete actions must be taken to improve access to agriculture and to satisfy consumer needs.

Action 2.1. **Develop and implement the management plan for the Bandama Watershed**

Activity 2.1.1. *Create a hydrometric measurement network in the basin*

Activity 2.1.2. *Implementation of infrastructures to meet the water needs of all users (population, livestock breeders, farmers ... .. etc)*

Activity 2.1.3. *Secure drinking water and improve access to it on a sustainable basis for the center of the southern and central regions*

Activity 2.1.4. *To take stock of the various uses of water resources in the watershed*

Action 2.2. **Implementing smart agriculture in the face of climate with small farmers (irrigation-improved plant material-sustainable value chain)**

Activity 2.2.1. *Develop smart agricultural products that farmers can easily use in the face of climate change*

Activity 2.2.2. *Rehabilitate works and maintain water control works*

Action 2.3. **Strengthen the technical and logistical capacities of farmers and other land users, in particular women in irrigation techniques, rainwater and flood recovery**

Activity 2.3.1. *Identify suitable irrigation techniques*

Activity 2.3.2. *Organize practical training sessions on advanced irrigation techniques*

Activity 2.3.3. *Installation of solar powered hydraulic pumping systems*

Activity 2.3.4. *Establish a water conservation scheme in rural areas for off-season agriculture*

Component 3: Improving Access to Electricity and Clean Energy for Vulnerable Populations

Action 3.1. **Enhancing rural energy efficiency through the introduction of a photovoltaic system for 5000 households**

Activity 3.1.1. *Organize awareness-raising campaigns for the presentation and explanation of the advantages of using the photovoltaic system (popularizing the photovoltaic system)*

Activity 3.1.2. *Installing photovoltaic lighting systems in areas of insecurity in villages*

Activity 3.1.3. *Train 100 idle youth in the installation and maintenance of photovoltaic systems*

Activity 3.1.4. *Subsidizing the acquisition of photovoltaic equipment for each of the 5,000 households*

Action 3.2. **Reinforcing agricultural waste recycling capacity for the production of thermal energy**

Activity 3.2.1. *Organize capacity building sessions for women on domestic and cooking energy alternatives*

Activity 3.2.2. *Identify and develop techniques for the recycling of agricultural residues for the production of thermal energy*

Action 3.3. **Increase production capacity of fuel briquettes from agricultural and forestry wastes in the Bandama valley**

Activity 3.3.1. *Involve the various forestry and agricultural stakeholders in the production process*

Activity 3.3.2. *Building new briquette production units and improved co-operative homes*

Component 4: Project management and capitalization of lessons learned and good practices in the resilience of vulnerable populations

Action 4.1. **Capitalizing Lessons Learned**

Activity 4.1.1. *Conduct a full feasibility study of the project's main agricultural, energy and access actions for another vulnerable population group*

Activity 4.1.2. *Set up a system for communication, information and dissemination of project actions and results*

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

Components	Co-benefits
Component 1 : Reducing vulnerability and increasing resilience to climate change in agriculture	**Economic :** - Stimulating productivity and wealth creation - Enhanced yields and farm incomes - Stimulating the creation of light agricultural industries in rural areas - The project will contribute to achieving food self-sufficiency through improved yields but also to increase the incomes of vulnerable populations. In addition, it will allow for a reduction of dependency on imports and improvement of agricultural exports
	Social : The project will establish a solid foundation for the fight against poverty and maintaining social peace by improving the purchasing power of rural communities, the creation of jobs and the empowerment of women in rural areas.
	Environment : The agro-ecological techniques proposed in the project are a way of designing production systems that rely on the functionalities offered by ecosystems. It amplifies them while aiming at reducing pressures on the environment (e.g. reducing greenhouse gas emissions, limiting the use of synthetic fertilizers and plant protection products as much as possible) and preserving natural resources (water, energy, mineral elements, etc.). The aim is to make the most out of nature as a factor of production by maintaining its renewal capacities.[12] Given that agriculture is a GHG emitting sector, the project aims to contribute to achieving emission reductions as envisaged in the NDCs of Côte d'Ivoire, which is 6.82% of the level in 2012.
Component 2 :	**Economic :** The irrigation techniques of the project will increase farmers' incomes and also allow off-season agriculture, which costs farmers more.

[12] http://agriculture.gouv.fr/sites/minagri/files/concept-agroecologie.pdf

Strengthen the technical and logistical capacities of farmers and other land users, especially women in irrigation and flood recovery techniques	**Social :** The availability of drinking water for rural populations is a necessity to ensure social development in rural areas. Integration techniques for solar-powered hydraulic pumps are implemented to ensure access to water through an improved village hydraulic system. By allowing pumping to access quality water, electricity reduces, for example, the time spent looking for it, but especially the prevalence of illnesses linked to unsafe water.
	Environment : The project will enable the rational management of water resources and the fight against floods in the rainy seasons.
<u>Component 3</u> **:** Improving vulnerable populations' access to electricity and clean energy sources	**Economic:** Access to electricity and clean household energy will lead to poverty reduction by generating new income-generating activities. The emergence of new opportunities to work after daylight and improve their productivity through mechanization and transformation. Electrification also makes it possible to irrigate crops and increase the number of crops, to reduce losses and increase marketing opportunities. Lastly, lighting reduces insecurity.
	Social: Component 3 of the project will produce benefits in the areas of education, health and commerce. It also has many advantages: improving the level of education of children, conditions of study, schooling of girls, living conditions of teachers, adult literacy during the evening. On the other hand, electricity offers families' access to the media and information, health, development, equal rights ... In the field of health, the lighting of dispensaries and delivery rooms makes it possible to reduce infant and perinatal mortality.
	Environment : Access to electricity and clean domestic energy generates little or no waste and polluting emissions; it allows to: - Reduce GHG emissions, including CO2 emissions - Reduce pressure on natural resources.

Accounting for two-thirds of the agricultural workforce, women are involved in subsistence agriculture and small-cattle breeding, processing and marketing of by-products. However, the income generated by their agricultural activities is very little since its production is not always valued or accounted for as it is mainly intended for family subsistence. In addition, women's ownership and access to land remains a serious issue despite the issuance of Act No. 98 - 750 on December 23rd, 1998. This law on rural land ownership (Article 1) stipulates that all Ivorian natural persons are entitled to be landowners and therefore should ensure equal access to land between men and women of Ivorian nationality. However, in practice, Ivorian women rarely access property, particularly in rural areas because of socio-cultural perspectives arising from traditional values and practices and/or due to lack of awareness about land ownership rights and laws.

Against this backdrop, women often gain access to land through the customary law system, which excludes the woman's ability to practice perennial cropping on the land transferred to them. Given these challenges, women's access to land amounts to less than 10% of the national surface, regardless of the acquisition method. Furthermore, problems linked to access to land are compounded by difficulties in accessing main

factors of production (land, inputs, water, credit, capital and adapted technologies) due to lack of technical and financial means to acquire it.

The project team is aware of these problems, and will support and contribute to women empowerment at all stages of the project; this includes (i) discussing the need to integrate women into projects with village elders and other leaders; (ii) strengthening their role in the relevant institutions on climate change in the region and (iv) promoting their participation in addressing broader land and water management issues which are traditionally led by men. At the national level, the Project Management Unit (PMU) will also strive to include qualified women in the project team to ensure that women's perspectives from target communities are taken into account and addressed as much as possible. Therefore this project shall also contribute to women empowerment throughout its preparation and implementation in Ivory Coast.

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

A description and analysis of the cost-effectiveness of the proposed project/programme will be provided upon recruitment of the consultant who will assist in the development of this concept note into a full proposal. This analysis will be included in the full project proposal.

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

The project aims to support the implementation of the Nationally Determined Contributions. The project also builds on national plans and strategies that seek to contribute to sustainable development in Côte d'Ivoire. These policies, strategies, plans or programs are entry points for the fight against climate change. They include:

- Perspective 2040: Côte d'Ivoire, through its Ministry of Planning and Development, examined the future of the country and future generations by undertaking its fourth national perspective study entitled Côte d'Ivoire 2040 (ENP CI 2040). The aim of the study is to enable the country, in all its diversity, to agree on the major problems for which Côte d'Ivoire will have to provide long-term solutions in order to ensure its sustainable development. This project addresses these problems.

- National Development Plan (NDP) 2012-2015 and 2016-2020: The National Development Plan 2016-2020 seeks to accelerate the country's march towards emergence by 2020. In addition, the NDP ensures intergenerational equity through the promotion of environmentally sound resource management consistent with the needs for mitigation and adaptation to climate change. The Plan takes into account the

Sustainable Development Goals (SDGs), Agenda 2063, and ECOWAS' Vision 2020 as outlined in the Community Development Program (CDP) and the Regional Economic Program (REP 2012-2016) of the Economic and Monetary Union of West Africa (UEMOA).

- The Business Plan for Climate in Africa (BPCA): the plan aims to raise awareness and accelerate resource mobilization for priority initiatives that promote resistance to climate change and low carbon emission in Africa. It includes initiatives promoted by the International Development Association (IDA), which will capitalize, to the extent possible, the support that it receives from of other parts of the World Bank Group, IFC and MIGA, in particular.

- National Sustainable Development Strategy (NSDS) 2012-2015: The objective of the strategy is to identify measures and to agree on means to integrate the principles of sustainable development into policies and programs and reverse the current trend of loss of environmental resources while taking into account national realities. The strategy seeks to achieve socially equitable economic progress while preserving the resource base and the environment for future generations. This project will contribute to ensuring the sustainability of the objectives of the NSDS.

- National Strategy for Combating Climate Change 2015-2020: the objective of this strategy is to put in place by 2020 a framework for sustainable socio-economic development that integrates the challenges of climate change in all the sectors in Côte d'Ivoire while contributing to improving both the living conditions of the populations and their resilience. The Strategy, adopted in November 2014, (i) reviews the state of the climate at global and national scales and the sectors most vulnerable to climate change in Côte d'Ivoire, (ii) presents Côte d'Ivoire's major challenges in the face of climate change, (iii) proposes broad strategic orientations and government priorities according to the main risks faced by the various components of society in the face of climate change and (iv) proposes government actions to increase the resilience of Ivorian society to climate change.

- Nationally Determined Contributions for the post-2020 climate agreement: Through its NDCs, Côte d'Ivoire, intends to: (i) demonstrate its will to reduce the carbon footprint of its development by favoring mitigation options with high "co-benefits"; (Ii) strengthen the country's resilience to climate change, (iii) align its sectoral policies and strengthen the implementation of both its mechanisms and tools to facilitate the achievement of these objectives; lastly, (iv) mobilize all relevant means, including both national and international funding. NDCs are therefore a relevant framework for taking adaptation into account because they clearly identify several sectors vulnerable to climate change and propose adaptation actions. The main objective of the project is to accompany the implementation of the NDCs.

In addition, Côte d'Ivoire, as part of the implementation of the Paris Agreement on Climate and the NDCs, then adopted a Post-COP21 roadmap for the period 2016-2020 with a component called climate and environmental governance. Activities

under this component include the development and implementation of an NAP. In 2016, the government of Côte d'Ivoire organized a workshop where stakeholders prioritized vulnerable sectors. A census report was prepared to identify the technical, institutional and financial needs to integrate climate change adaptation into national planning in the short, medium and long term. In line with the priorities identified as part of this process and the development of the full project proposal, emphasis will be placed on maintaining synergy of action between the project and the NAP process.

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

Article 27 of the Ivorian Constitution stipulates that "the right to a healthy environment is universally recognized throughout the national territory." Article 40 states that "the protection of the environment and the promotion of quality of Life is a duty for the community and for each natural or legal person." Finally, Law No. 96-766 of 3rd October 1996 on the Environment Code, determining the rules and procedures applicable to the environmental and social impact studies (ESIA) for development projects and environmental audits, constitute a framework which requires development actors to carry out an ESIA of projects before they are carried out. Most internationally funded projects are also subject to an ESIA prior to the disbursement of funds. It must be recognized today that the practice of the ESIA has become the norm. Several ESIA for development programs and environmental profiles are available. An environmental and social impact study will be completed as part of this project and added to the full proposal. This study will focus on both the texts in force in Côte d'Ivoire and the safeguard principles of the Adaptation Fund.

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

At this stage, the consultations and secondary resources do not indicate any duplication of this project/programme with other funding sources. However, a more in-depth analysis in the field will be undertaken to support this assertion and will show in more detail how this project complements other initiatives in the country.

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

In order to build on the lessons learned from the project, a communication plan will be developed in the full proposal. The plan will include information on the techniques that will be used to disseminate the results of the project. In addition, the project implementation unit (PIU) will identify and participate, as appropriate, in the activities of other ministries or national or international technical structures, with a view to sharing information and to replacing or reframing certain of the project’s activities. This could be beneficial for the implementation of the project. The PIU will identify, analyze and share

lessons learned that could be beneficial in the design and implementation of similar projects in the future. Lastly, the following two important actions will be carried out by the end of the project:

First action: The development of feasibility study for a similar project in another area of the country. The aim is to prepare the country to develop a second project using the present project as an example. This should facilitate the mobilization of funding from other windows.

Second action: A document or report on lessons learned will be produced by a consultant. This report should include:
- A review of the project financing document with a view to understanding the objectives of the project and the expected results of activities;
- An analysis of annual activity reports, field mission reports, workshop reports, meeting minutes, project evaluation reports and the various studies undertaken by the project;
- The identification and analysis of the achievement, constraints, weaknesses, strengths and lessons learned from the project in the field;
- An analysis of the viability, sustainability and feasibility of pilot demonstration projects and micro-projects;
- A synthesis report of the lessons learned from the implementation of the project. The report will be presented at a national workshop organized by the project during the last month of the consultation.

The Consultant will also support the team in the organization and facilitation of the workshop in view of drawing on lessons learned for the report. He/she will produce a final report taking into account the comments and suggestions made at the workshop.

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

A first phase of consultations was held with stakeholders from relevant government ministries, research centers and representatives of the Association of Regions of Côte d'Ivoire. This first phase made it possible to identify the problem and the level of ownership of these by national stakeholders.

As part of the formulation of this concept note, three types of consultations [13]were carried out:
- Consultations between the AfDB and the PIU: two consultations were held to understand the templates provided by the Adaptation Fund and the Environmental and Social Policy principles of the Fund;
- Meetings with designated focal points: two meetings were held with the focal points in order to develop this concept note. Future activities for the focal points were determined by key stakeholders (ministries, NGOs, local and regional authorities);

[13] A report and pictures of these consultations can be found at Annex 1 to 3.

- The provision of a digital questionnaire filled out by the focal points. The answers to the questionnaire helped enrich this note (please see in Annex of this document). A database of documents provided by the focal points is available.

Consultations with vulnerable groups, women and local communities are planned. A firm will be recruited with the financial support of the Africa Climate Change Fund to fully prepare this concept note into a full project proposal. This firm will be responsible for conducting the complete formulation of the project and the related studies. The firm will also be responsible for providing a comprehensive and detailed study of compliance with and consideration of the Adaptation Fund principles.

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

The funding requested will finance activities that will respond to the needs of the rural vulnerable groups established in the Bandama watershed. More specifically, the project aims to: (i) improve agricultural production techniques for vulnerable populations in the Bandama watershed; (Ii) improve food security through sustainable management of water resources in the Bandama watershed; (Iii) combat poverty through access to electricity and clean energy sources; and (iv)empower women and enhance the resilience of vulnerable households. The combination of these activities will therefore improve the target households' natural, social, financial and physical capital which contributes to increasing livelihood sustainability in the face of existing and future climate-related threats. In turn, the strengthening of households' livelihoods will help lower the risk of them falling back into poverty due to climate-related shocks or stresses. These activities focus on building up people's ability to adapt and become more resilient in the face of climate-related hazards.

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

The sustainability of the project covers three areas:

Ecological sustainability: given that the overall objective is to contribute to the implementation of Côte d'Ivoire's NDCs, which is an essential strategy in the fight against climate change, ecological sustainability will be promoted through: the conservation and management of the ecological environments for the different sectors of activity in the implementation area: soil improvement and conservation, rational management of natural resources, sustainability of coastal areas etc. The conservation of ecological environments through responsible agriculture and environmentally friendly consumption methods will contribute to the preservation of the fauna and flora that are not only essential to maintaining the local "know- how" but can also be used for research in certain areas that require fairly representative ecological spaces. The project should also help farmers practice sustainable agriculture, which while avoiding diseases or the use of certain pesticides, helps to optimize productivity. Mastering the

use of adapted techniques and agricultural schedules will increase both food security and incomes.

Institutional Sustainability: This is important at both local and national governance levels. At the local level, institutional sustainability is ensured through: training activities for local populations; income generating activities; using existing consultations and decision-making structures as a basis for all project planning; and integrating all actions into existing and approved local development plans.

The sine qua non of institutional sustainability in the implementation of the project necessarily requires the involvement of the project's stakeholders (as early as the planning stage). The role of the stakeholders will of course need to be clarified. On this basis, the design of the project needs to be undertaken in a consultative process. Special provisions have been made by the National Climate Change Program the PIU to facilitate this process. The PNCC will sign agreements with the National Climate Change Program, technical structures, communities and NGOs involved in the project to enable the actions of all the stakeholders to be consolidated during the execution of the activities.

Economic sustainability: This is particularly important at the local level. This project will require significant funding; however, sustainability strategies are required in order for that investment to create wealth and be durable. The economic sustainability of the project's activities also requires that the needs of the local private sector and the informal rural sector are met. The implementation of a report on lessons learned in good practices could contribute to the sustainability of project benefits. In addition, the project should influence policymaking towards a greater mobilization of resources during the budgetary planning to address climatic challenges, especially adaptation.

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

The table below constitutes of a preliminary assessment of environmental and social risks relevant to the project. Note: all items marked as "potential impacts and risks – further assessment and management required for compliance" will be integrated in the project's results-framework, and compliance with Adaptation Fund's regulations – including the Environmental and Social Policy – will be monitored and evaluated (M&E) during project duration using specific, verifiable and time-bound indicators. For the Full Proposal a comprehensive Environmental and Social Impact Assessment (ESIA) will be designed and carried out in order to identify potential impacts and risks to the relevant standards in the areas relevant to the proposed project, such as agri-culture, water and natural resources management, and small infrastructure, as well as environ-mental and social standards, as well as the 15 principles below more precisely, as well as to identify potential management solutions to these risks.

The preparation and implementation of the project takes into account both environmental and social impacts. The table below shows the results of a preliminary

assessment of these risks. As part of the development of the full proposal, a firm will be recruited with the financial support of the Africa Climate Change Fund (ACCF) and will be responsible for conducting a comprehensive Environmental and Social Impact Assessment (ESIA) to identify potential risks and impacts as relevant to the project's fields of intervention (agriculture, water, energy), environmental and social standards and the 15 principles (listed in the table below) of the Adaptation Fund. The firm will therefore be responsible for providing a comprehensive and detailed review of compliance with and consideration of the Adaptation Fund principles by refining the information provided in the table of safeguard principles below. This identification will be complemented with a list of mitigation activities to be integrated in the project and managed to address the potential risks and impacts identified.

Checklist of environmental and social principles	**No further assessment required for compliance**	**Potential impacts and risks – further assessment and management required for compliance**
Compliance with the Law	*The project will comply with all international and national laws and regulations currently in force in Côte d'Ivoire. For the Full Proposal an Environmental and Social Impact Assessment (ESIA) will be carried out in order to identify any potential risks related to compliance with the law.*	*Very weak. The ESIA will ascertain whether there are any conflicts with other sectoral laws or policies. The PIU will rely on the legal department of the Ministry of the Environment to ensure that the project's implementation does not violate the Ivorian regulatory framework.*
Access and Equity	*The project will not have a negative impact on access to health, drinking water, education, energy, housing, and the good working conditions of all sections of the population. Notwithstanding, a study on ways to increase domestic energy and water resources will be undertaken to ensure equitable access to the project's benefits.*	*Weak. The ESIA and the identification of mitigation activities will be undertaken to prevent discrimination and inequalities in access to domestic energy and water resources in the project area.*
Marginalized and Vulnerable Groups	*The project will not have a disproportionately negative impact on marginalized populations and vulnerable people because it seeks to improve the adaptive capacity and resilience of marginalized and vulnerable households including children, women and girls and the elderly. Through this project, the poor, women, young, old will have the*	*Very weak. These aspects will be taken into account during the full project formulation phase through focus groups discussions and interviews with beneficiary populations. The project will also comply with the AfDB's Integrated Safeguards System.*

	opportunity to improve their incomes and living conditions.	
Human Rights	*The project has no potential human rights risks.*	*Weak. Target village and community head will be consulted and particular attention will be paid to human rights during the implementation of the project and especially regarding conflict management (e.g. conflicts between farmers).*
Gender Equity and Women's Empowerment	*Women and men will be able to participate fully and equitably in the project and both will receive comparable social and economic benefits. Given the challenges currently experienced by women in agricultural production, they will be empowered by benefiting from training on soil fertility management, use of organic manure, climate-smart agriculture, and use of resilient species and will acquire climate-adapted seeds.*	*Weak. As indicated in Part 2. B. of this concept note, this project will promote vulnerable populations and address gender issues. Since the project design is inclusive and participatory, these issues will be dealt with at the beginning.*
Core Labour Rights	*The project will be managed in accordance with the Ivorian Labor Law, which prohibits forced labor, child labor, and discrimination and allows freedom of association.*	*Very weak. Additional studies will not be necessary. Monitoring on core labor rights will be undertaken throughout the project.*
Indigenous Peoples	*The project will not create any negative impact on the indigenous. An assessment of the social impacts of the project will be carried out, especially in terms of changing habits and patterns of consumption. Conflicts may arise as a result of access to the benefits of the project. This can be mediated by ensuring that the demands of all stakeholders are taken into account through mediation and by ensuring that the project conforms to the country's regulatory framework.*	*Strong positive social impact. The study on lessons learned will make it possible to more precisely identify these positive impacts. This study will be carried out during and after the project. The study will be an essential element in the ex-post evaluation of the project.*
Involuntary Resettlement	*There will be no involuntary resettlement as a result of the project.*	*Very weak. Even though an ESIA will be conducted as part of the preparation of the project, it is strongly expected that this aspect will not be an issue given the objectives and activities of the project.*
Protection of Natural	*The potential of the project to affect*	*Weak. It is expected that this*

Habitats	*natural habitats is low because the project area is located in an area already affected by and vulnerable to climate change (the Bandama watershed).*	*project will be environmental friendly and will not negatively affect both the fauna and flora already existing in the project area. The ESIA and corresponding ESMP (as relevant) will ensure that project activities do not negatively impact natural habitats.*
Conservation of Biological Diversity	*The project will not negatively impact biodiversity. On the contrary, the services (supply service, cultural service, regulatory service) provided by the project area's biodiversity will be preserved and amplified.*	*Very low negative impact on biodiversity. However, consultations with local populations as part of the full formulation of the project will need to highlight the ecosystem of biodiversity services available for beneficiary populations in rural areas to ensure that there are not compromised.*
Climate Change	*Project activities will not result in a significant or unjustified increase in greenhouse gas emissions or other drivers of climate change.*	*Very limited impact and/or risk. The project foresees adaptation and mitigation to be incorporated as part of the project's activities. The project will minimize the production of greenhouse gases by adopting solar energy, climate-friendly agriculture. Through its implementation of the Côte d'Ivoire NDCs. The project is part of the fight against climate change.*
Pollution Prevention and Resource Efficiency	*The project aims to combat climate change through the reduction of GHG emissions, particularly from polluting farming practices and consumption patterns. The project will promote the use of less polluting agricultural inputs.*	*Weak. The ESIA will to be carried out during full proposal preparation will identify potentially adverse risks and impacts in this area.*
Public Health	*Some potential impacts on health could arise during the implementation of the project including noise, dust and water-related diseases. However, the project will promote organic fertilizer use and sustainable practices that are expected to be beneficial to human health.*	*Weak. An environmental and social management plan will be drawn up to mitigate these potential impacts. The plan will be developed by the firm recruited to draw up the full proposal. The project also plans to build capacity and improve access to safe drinking water to reduce waterborne diseases and improve hygiene. The*

		irrigation system will limit the development of parasites in the water.
Physical and Cultural Heritage	*The project and its components will not be implemented in an area known for having physical cultural resources, cultural sites and sites with unique natural values. If cultural resources are discovered, the relevant technical ministry will be notified.*	*Very weak. Potential impacts will be assessed throughout implementation of the project.*
Lands and Soil Conservation	*The project will be based on best practices and lessons learned from the management of the Management of Obsolete Pesticides and Associated Waste in Côte d'Ivoire Project (PROGEP-CI). In addition, the project is expected to yield positive impacts on the land and soil through environmentally friendly and climate-smart agriculture.*	*Limited impact and risk. These will be monitored during the implementation of the project.*

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

Action 4.2. **Project Management**

Activity 4.2.1. *Provide effective and efficient management support for project implementation, including project management and coordination*

B. Describe the measures for financial and project / programme risk management.

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

Activity 4.2.2. *Monitoring and evaluation*

E. Include a results framework for the project proposal, including milestones, targets and indicators.

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

Project Objective(s)[14]	**Project Objective Indicator(s)**	**Fund Outcome**	**Fund Outcome Indicator**	**Grant Amount (USD)**
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**

G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

H. Include a disbursement schedule with time-bound milestones.

[14] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

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

A. Record of endorsement on behalf of the government[15] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Jean Douglas Anaman *Head of Adaptation Unit* *National Climate Change Programme* *Ministry of Urban Sanitation* *Environment, and Sustainable Development* *Côte d'Ivoire*	Date*: August, 04, 2017*

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

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Ayanleh DAHER ADEN *Name & Signature* Implementing Entity Coordinator	
Date: *August, 06, 2017*	Tel. and email: (+225) 20 26 43 47; a.daheraden@afdb.org
Project Contact Person: **Mame Soce Sene**	
Tel. And Email: (+225) 20 26 27 79; m.sene@afdb.org	

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

ANNEX 1: Report on the different consultations for the AF Concept Note

REPORT OF THE DIFFERENT CONSULTATIONS IN CONNECTION WITH THE DEVELOPMENT OF THE CONCEPTUAL NOTE OF THE PROJECT TO BE SUBMITTED TO THE ADAPTATION FUND

The Ministry of Health, Environment and Sustainable Development through the National Climate Change Program (NCCP) is funded by the Africa Climate Change Fund (ACCF) administered by the African Development Bank (AfDB) for the implementation of the project "Preparation of Côte d'Ivoire for access to climate finance for a transition to a green economy resilient to climate change".

This project is structured into three (3) components: (i) developing two (2) climate change programs to be submitted to the Green Climate Fund and the Adaptation Fund, (ii) Design, project management and mobilization of funding; (iii) explore options for the establishment of a national fund-raising mechanism.

In the implementation of component 1 of this project, a concept note of the project should be submitted to the Adaptation Fund for endorsement by the Fund Secretariat. It was in this context that several consultations and working sessions were held with the various stakeholders from the Public Administration, the Private Sector, Territorial Collectivities, Civil Society Organizations and the implementing agency (African Development Bank).

2. Consultations

2.1. Working sessions with AfDB

Two working sessions with the AfDB experts provided sufficient information on the Adaptation Fund for the ACCF Project Team to develop the concept note.

2.1.1. First working session

This session, which took place on Thursday, June 08, 2017, in the premises of the AfDB, was aimed at presenting the draft preparation of Côte d'Ivoire for access to climate finance (ACCF project) and to get information on the Adaptation Fund. The attendance list of the meeting can be found at the end of the section.

At the end of the meeting, the following recommendations were made:

- The AfDB Focal Point should learn about the mandatory criteria to be followed, in particular with regard to the consultation of the stakeholders for the preparation of a concept note and the South-South cooperation funds, despite the current absence of the call for proposals on the Adaptation Fund's website. In view of the delayed reception of the project and the work to be done in its preparation, it would be

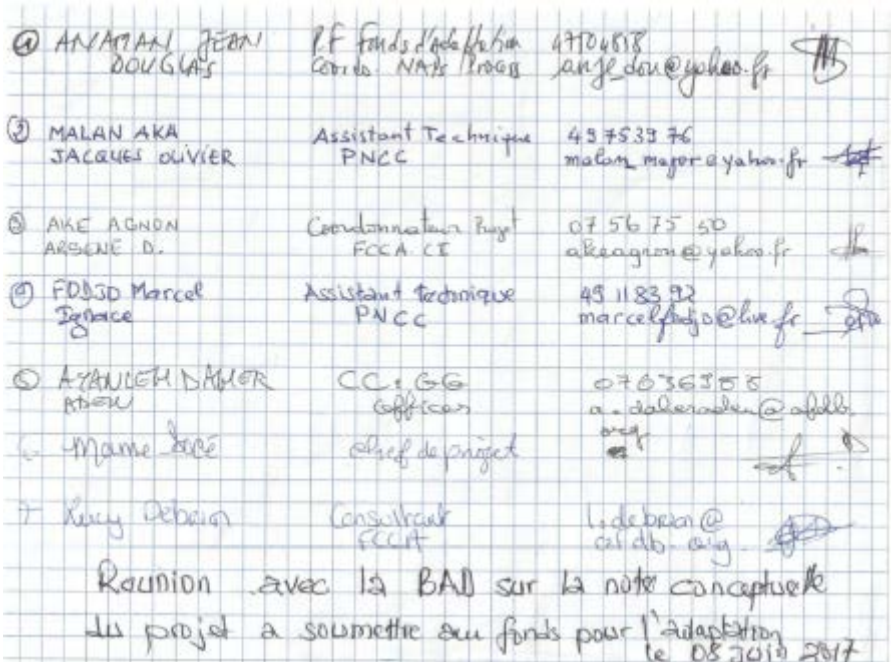
expedient to start preparing a concept note for submission with the AF Designated Authority's endorsement letter (Mr. Anaman Jean Douglas) from Côte d'Ivoire to the Adaptation Fund, by the end of July 2017;

- It would be valuable to see the possibilities of starting the recruitment process of the firm as soon as possible so that it can begin the work necessary to develop the full proposal of the project. A summary of TORs would be sufficient before they are comprehensively developed;

- It would also be beneficial to begin discussions on the request for the extension of the project by the ACCF, which should be submitted 6 months before the end of the project;

- The ACCF project team should share the revised Annual Budget Work Plan (AWP) at the appropriate time;

- The transmission of the Template of the Concept Note to the Project Team by the AfDB Adaptation Focal Point (as indicated, Part 3, which deals with implementation arrangements, does not require information for submission and the endorsement of the concept by the Board of the Fund) and the link for all documents required for project submission is: https://www.adaptation-fund.org/apply-funding/project-funding/project-proposal-materials/



Attendance list of the participants to the 1st working session with the AfDB

2.1.2. Second working session

This meeting was held at the AfDB's premises on Wednesday, 05 July 2017, with the participation of the National Director of the Airport, Aeronautical and weather Operations and Development Company (SODEXAM) (see attendance list) with the goal of analysing the possibility of the submission of a regional project carried out by the SODEXAM and to report on the progress made on the concept note for the

project to be submitted to the Adaptation Fund. Thus the main points addressed were:

- The complementarity between the national project carried out by the Ministry of the Environment and the sub-regional project carried out by SODEXAM to be submitted to the Adaptation Fund: There seems to be no overlap / duplication and beneficial connections between the two projects;

- AfDB's assistance on the SODEXAM Project: AfDB colleagues in charge of project follow-up will examine the project and send comments / corrections, if necessary

- Stakeholder consultations: In view of the short time remaining before submission of the concept note for the national project (7 August), it would be necessary to prioritize a consultation (Physical, if possible or, failing that, online) with stakeholders based in Abidjan, to collect and document this in the concept note, and to obtain relevant information for the analysis of the environmental and social safeguards. A mission should nevertheless be considered in order to continue the preparation of the concept note;

- The timetable of activities for the submission of the concept note: We will attempt to target an initial submission of a draft to the AfDB on July 21, a second draft on July 28, 2017 for review, translation and a final submission to the Adaptation Fund (AF) on 6 August 2017.

5 Juillet 2017

Reunion Projet CI - AF

Nom Prenom	Titre	Signature
1) Lucy Debrian	ACCF- BAD	
2) AKE Agnon Arsene	Coordonnateur Projet FCCA	
3) Doumbia Konafé	Directeur de la Météorologie	
4) SANOGO Mohamed	Assistant Tech. PNCC	
5) MALAN AKA J.O.	,,,,,,,,	
7) FODJO Marcel Ignace	Assistant Tech PNCC	
8) ANAMAN Jean Douglas	Point Focal Fonds d'Adaptation	

Attendance list of the participants in the 2nd working session with the AfDB

2.2. Consultation with stakeholders

2.2.1. Objectives of the meeting

The overall objective of the meeting was to increase the level of ownership of the project by stakeholders.

Specifically, there was talk of (i) presenting the draft preparation of Cote d'ivoire for access to climate finance; (Ii) present the draft concept note with a view to collecting stakeholder input; and (iii) prepare the next steps for the formulation of the full project proposal to be submitted to the Adaptation Fund.

2.2.2. Agenda

2.2.2.1. Opening

Mr. AKE Arsène, Coordinator of the Côte d'Ivoire Climate Finance Preparation Project, thanked all the participants for their presence at this first meeting. He presented the general context of the project and the various components before presenting the goal of this meeting. According to his remarks, this meeting was aimed at taking the stakeholders' views into account in the project formulation process. This process should be inclusive and participatory.

He also invited the participants to introduce themselves and presented the program of the meeting.

2.2.2.2. Presentation of the Côte d'Ivoire Climate's Finance Preparation Project - Presentation N ° 1

Mr. ANDE Jean Yves, Technical Assistant for studies and projects in the National Climate Change Program, gave a general presentation of the AF project to prepare Côte d'Ivoire for access to climate finance, which spans a period of 12 month.

2.2.2.3. Discussions and contributions on presentation N ° 1

Mr AKOUSSI K. Jacob (Technical Advisor to the Ministry of Petroleum, Energy and Renewable Energy Development) stressed the importance for Côte d'Ivoire and for Africa in general to seek internal financing mechanisms before turning to external partners.

Colonel KODJO AHUATCHY Alain Project Coordinator, Ministry of Animal and Fishery Resources, thanked the project team for their willingness to involve all the stakeholders at the design stage of the project and made it clear that the Framework for future activities was to establish a fairly clear agenda.

Mr. ANAMAN Jean Douglas, Designated Authority of the Adaptation Fund for Côte d'Ivoire, made a final presentation of the project and explained the expectations of the Ministry in charge of the environment in particular on component 1. He insisted on the fact that the project to be submitted to the Adaptation Fund is intended to accompany the implementation of the NDCs at the national level in Côte d'Ivoire.

Mr LOKOU Koffi Jules, PCA of the Federation of Networks and Associations of the Environment and Sustainable Development (FEREADD) asked about the identification of themes in the framework of capacity building?

Responding to this question, the Project Coordinator ACCF recalled that the training modules had already been pre-identified and covered the Capacity building in the context of mobilizing climate finance at existing international windows.

2.2.2.4. Presentation of the concept note - Presentation N ° 2

Mr FODJO Marcel, Junior Consultant on the development of the concept note, presented the draft concept note to be submitted to the Adaptation Fund. In his presentation he supported the remarks of the Focal Point for Adaptation of Côte d'Ivoire by stating that the project to be submitted should accompany the implementation of the NDCs of Côte d'Ivoire. The actions identified in the NDCs require a range of practical, measurable activities which should make it possible to operationalize the (NDC), which has been at the heart of several consensus, particularly in the three vulnerable sectors of agriculture, water resources and energy.

In his presentation, he presented the implementation area of the project which is the watershed of the Bandama. At this level, Mr FODJO insisted that this was only a proposal. He also presented the two (02) approaches concerning the final choice of a localized zone of the project namely:
- Approach 1: identify and implement the project on three (03) distinct areas in the Bandama catchment by implementing in only one sector (agriculture, water resources or energy) in each zone;
- Approach 2: concentrate the three (03) on an identified area.

These approaches were presented to the participants and an explanation session was held on how to complete the matrix of the project components and the safeguarding principles of the Adaptation Fund.

2.2.2.5. Discussions on presentation N ° 2

Doctor GAGNE DOEL Eugénie of the Ministry in charge of Health asked the consultant about what motivated the choice of the Bandama catchment area for the implementation area of the project.

Answer: The Bandama watershed is the only national watershed (consultant). This response was complemented by the focal point of the Adaptation Fund, who highlighted that there is already a study on the vulnerability of the Bandama watershed to climate change (Focal Point).

Professor Koné Daouda (WASCAL) advocated the implementation of the project in three (03) zones rather than a watershed area. He also called for the integration of crop production in the framework of the implementation of the Côte d'Ivoire's NDCs.

WASCAL is also willing to support the project, especially in the area of stakeholder capacity building.

Mr. LOUKOU Jules (FEREADD): How does the project involve youth? Are they taken into account as vulnerable people? Are natural resources part of the project, especially in the area of mangrove restoration?

Answer: We expect from you, the stakeholders, concrete proposals based on the actions of the NDCs, it is up to you to propose actions that take into account the areas that you consider indispensable. You can also Integrate targets according to your activities (Consultant, Coordinator ACCF Project and Focal Point Adaptation of Côte d'Ivoire).

The project can also be a pilot phase from which the lessons learned can be used to extend it to a larger scale (participating contribution).

Colonel APATA of the Ministry of Water and Forests proposed that the project could take into account forests especially for component 1 which deals with agriculture. He also discussed the link between agriculture and forestry in Côte d'Ivoire.

At the level of the project implementation area, the representative of the Ministry in charge of energy stressed the importance of taking into account transboundary watersheds. In the worst case scenario, it is necessary to find other more convincing arguments justifying the wish to implement the project in the Bandama watershed.

Colonel KODJO of the Ministry of Animal and Fish Resources (MIRAH): It is desirable to propose a demonstration project (of small size) and be based on the results before implementing a larger project. In addition, the choice of the area must be related to clear objectives. This way of proceeding will lead to the choice of an implementation zone which allows the clearly identified objectives to be reached.

The contribution of Mr. AKOUSSI Jacob on the question of the choice of the zone of implementation specified the need to identify the activities first as a whole, before choosing the zone.

Doctor GAGNE Eugénie of the Ministry of Health recalled that the provision of project design tools was a prerequisite for the formulation of a complete proposal.

Mr. AKOUSSI Jacob: It should be remembered that the project has to be submitted back to the INDC

Col KODJO of MIRAH also pointed out the importance of establishing a (very important) reference situation in the chosen area.

Miss GBO Amin, Head of the Climate Change Division of the National Agency for Rural Development (ANADER), would like to see the specific objective 1 of the concept note revisited because the concept of agricultural technology is quite broad. Moreover, in this agricultural component of the project, proposals should be made for agricultural seeds and be able to demonstrate their adaptability to climate change.

Mr. KONE Mohamed of the National Office of Drinking Water (ONEP) proposed to carry out integrated actions within the framework of the project.

2.2.2.6. Closing

The meeting ended with the thanks from the Coordinator of the Côte d'Ivoire Climate Finance Preparation Project. He also stressed that the focal points should take ownership of the project and submit their proposed activities according to the project components by Friday 28 July 2017.

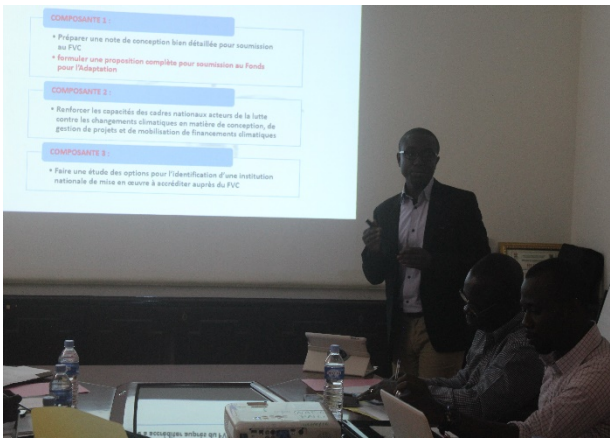
Finally, he recalled that the Climate Change Fund in Africa had launched a call for project submission and that all ministries could also propose projects.

A family photo was taken and the meeting ended at 10:40.

ANNEXE 2 : Pictures of the consultation meeting

Picture 1 *: Participants (1)*

Picture 2 : *Participants (2)*



Picture 3 : *Presentation of the drafted Concept Note by the Junior Consultant*

Picture 4 : *Presentation of the ACCF project by Project Development Specialist*

Picture 5 : *Family photo of participants to the consultation meeting*

Annexe 3 : Attendance list of the participants to the stakeholders meeting

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Union – Discipline – Travail

MEETING ON THE CONCEPT NOTE TO BE SUBMITTED TO THE ADAPTATION FUND AS PART OF THE PROJECT TO PREPARE CÔTE D'IVOIRE TO ACCES TO CLIMATE FINANCE

LIST OF PRESENCE : PARTICIPANTS

DATE : 25 JUILLET 2017
PLACE : MINISTERE DE LA SALUBRITE, DE L'ENVIRONNEMENT, ET DU DEVELOPPEMENT DURABLE

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