



## CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

### PART I: PROJECT/PROGRAM INFORMATION

**Title of Project/Program:** *Strengthening access to drinking water for rural communities in the central zone of Côte d'Ivoire to reduce their vulnerability to the effects of climate change*

**Country:** Côte d'Ivoire

**Thematic Focal Area:** Water management

**Type of Implementing Entity:** National Implementing Entity

**Implementing Entity:** Interprofessional Fund for Agricultural Research and Consulting (FIRCA)

**Executing Entities:** - National Climate Change Program (PNCC) of Ministry of the Environment, Sustainable Development and Ecological Transition (MINEDDTE)

**Amount of Financing Requested:** 10,000,000 (in US Dollars Equivalent)

**Project Formulation Grant Request (available to NIEs only):** Yes  No

**Amount of Requested financing for PFG:** 150,000 (in US Dollars Equivalent)

**Letter of Endorsement (LOE) signed:** Yes  No

*NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>*

**Stage of Submission:**

This concept has been submitted before

This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date:

**Please note that concept note documents should not exceed 50 pages, including annexes.**

## Project/Program Background and Context:

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

### Geography and climate

Ivory Coast is a country in West Africa located along the Gulf of Guinea. It is bordered to the north by Mali and Burkina Faso, to the west by Liberia and Guinea, to the east by Ghana and to the south by the ocean Atlantic.<sup>1</sup>The country is crossed by the intertropical convergence zone and is therefore influenced by the monsoon during the wet season and the harmattan during the rainy season. dried.<sup>2</sup>The State of the Climate for the year 2022 established by SODEXAM (Société d'Exploitation et de Développement, Aéroportuaire, Aéronautique et Météorologique) reveals that the southern part has two (02) rainy seasons. The most intense and longest has a maximum in June (on average 700 mm of rain in the Abidjan area) while the shortest is centered on September-October. The two seasons are separated by a small dry season from August to September. On the coast, the rains are also quite abundant in March and November and even in December on the westernmost part. They vary from 1500 to 2500 mm of rain per year. On the other hand, inland the rains are generally less intense. They vary from 1200 to 1500 mm per year and can reach 2000 mm in the mountainous area. The northern part of Côte d'Ivoire has only one rainy season with its maximum in August. Average temperatures range from 30°C on the coast to 32 to 34°C in the interior areas of Côte d'Ivoire.

### Territorial distribution of Ivory Coast<sup>3</sup>

The Ivorian territory is organized into two autonomous districts (Abidjan and Yamoussokro), twelve (12) districts and thirty-one (31) administrative regions. Table 1 and Figure 1 present the different districts of Côte d'Ivoire as well as their regions:

**Table 1: District and Regions of Ivory Coast**

Districts	Geographical location	Chief town	Regions
Abidjan	South		
Yamoussoukro	Center		
Lakes	Center-East	Dimbokro	Aries, Iffou, N'zi, Moronou
How	South East	Abengourou	India-Djuablin, South Comoé
Dengue fever	Northwest	Odienne	Folon, Kabadougou
Goh-Djiboua	South-central	Gagnoa	Goh, Loh-Djiboua
Lagoons	South	Dabou	Agnébi-Tiassa, Mé, Grands-Ponts
Mountains	West	Man	Tonkpi, Cavally, Guémon
Sassandra-Marahoue	Center-West	Daloa	Daloa, Bouaflé
Savannas	North	Korhogo	Poros, Tchologo, Bagoue
Bas-Sassandra	Southwest	San Pedro	Nawa, San-Pedro, Gbôklé
Bandama Valley	Center	Bouake	Hambol, Gbeke
Woroba	Northwest	Seguela	Bere, Bafing, Worodougou
Zanzan	Northeast	Bandoukou	Boukani, Gantougo

<sup>1</sup>National Environmental Policy, 2011

<sup>2</sup>Environmental Profile of Côte d'Ivoire, July 2021

<sup>3</sup>Decree No. 2013-294 of May 2, 2013 establishing thirty-one (31) regions, administrative districts, in regional local authorities.



*Figure 1: Administrative map of Ivory Coast*

### **Population distribution**

The population of Côte d'Ivoire was 29,389,150 inhabitants in 2021, including 14,044,160 (47.8%) women and 15,344,990 (52.2%) men, with an annual intercensal growth rate of 2.9% between 2014 and 2021. This population is divided into 5,616,487 households with an average size of 5.2 people. The population density is 91 inhabitants/km<sup>2</sup>. The active population aged 15-64 is 59.2%, that of under 15 is 38.2% as well as 2.6% over 65 years old<sup>4</sup>. The distribution of the population according to the place of residence reveals that more than half of the population resides in cities. Indeed, 15,428,957 (52.5%) people live in cities compared to 13,960,193 (47.5%) in rural areas. The urbanization rate increased from 32.0% in 1975 to 52.5% in 2021.<sup>5</sup>

The Autonomous District of Abidjan, the Ivorian economic capital, has the highest concentration of inhabitants with 2,994 inhabitants/km<sup>2</sup> (with a total of 5,616,633 inhabitants, Abidjan is the most populated city). It is followed by Bouaké, the second largest metropolis in the country with a population of 832,371 inhabitants, then by Korhogo, which occupies third place with 440,926 inhabitants and finally by the city of Daloa with 421,879 inhabitants. Abidjan is the largest city in the country and the second most populated in West Africa after Lagos (Nigeria).

### **Environmental context and climate change**

**Côte d'Ivoire is highly exposed to climate change due to rising temperatures, sea levels and changes in rainfall patterns.** The average temperature increased between 0.5°C and 0.8°C between 1970 and 2021 (5-year moving average).<sup>6</sup> Rainfall patterns have changed as rainfall has become more frequent during the dry season, while there have been more rainless periods during the wet season. Different studies from the UK Met Office, the European Centre for Medium-Range Weather Forecasts (ECMWF) and the World Bank predict that by 2050, Côte

<sup>4</sup> UN-Habitat Côte d'Ivoire Country Report, "A Better Quality of Life for All in an Urbanizing World", 2023

<sup>5</sup> General census of population and housing, 2021

<sup>6</sup> The 5-year average temperature increased from 26.29°C in 1970 to 27.22°C in 2021, an increase of 0.93°C.

If we consider only annual temperatures, which are more likely to have outliers, the increase during this period is 0.70°C.

d'Ivoire could face the combined effects of warmer average temperatures (between 1°C and 4°C depending on the GHG emissions scenario), an increase in the frequency of extremely hot days (with 20 additional hot days by 2030 and 60 more by 2060 in a moderate emissions scenario),<sup>7</sup> greater variability in precipitation (-9% in May and +9% in October) and a rise in sea level (up to 30 cm by 2050), as well as the associated risks of flooding and coastal erosion.

**The effects of climate change are already evident in Côte d'Ivoire and are expected to be exacerbated in the future with rising temperatures, greater variability in weather conditions and more extreme climate events.** In the future, periods of drought and rain are likely to become more extreme, and more droughts and an increased risk of flooding are expected.

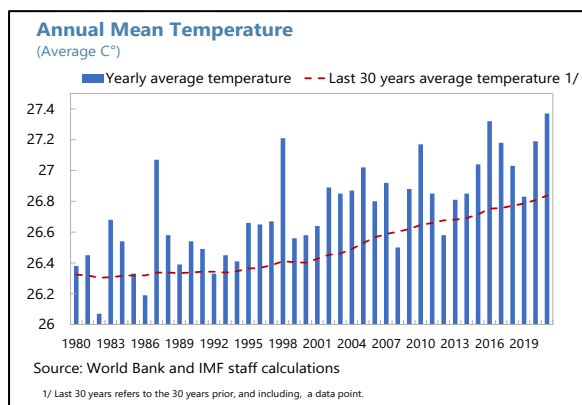


Figure 2 :Temperature assessment from 1980 to 2019

**Côte d'Ivoire's vulnerability to climate change is exacerbated by deforestation.**

Driven by intensive agricultural production practices, the country has experienced severe forest loss, from 37% of the country's cover in 1960 to 14% in 2010. By 2019, forest cover had fallen to 8%. While forests generally sequester carbon, deforestation reduces this effect. It also increases vulnerability to climate change by amplifying temperature increases, decreasing the likelihood of precipitation, and degrading land, increasing the risk of floods and landslides.<sup>8</sup>

**Water resources<sup>9</sup>**

The hydrographic network of Côte d'Ivoire is made up of:

- From four (04) large hydrographic basins from West to East (Cavally, Sassandra, Bandama and Comoé);
- Small coastal rivers in the south of the country, the most significant of which are the Tabou, the Néro, the San-Pédro, the Niouniourou, the Boubo, the Agnéby, the Mé, the Bia, the Tanoé and the Néro;
- Tributaries of the Niger in the far North-West extending over a watershed from West to East (the Gbanhala, the Baoulé, the Dégou, the Kankélaba and the Bagoué);
- Tributaries of the Black Volta in the North-East (the Koulda, the Kolodio, the Gbanlou Bineda and the Kohodio).

The Bandama watershed is the only entirely national basin (apart from a few small coastal basins); the others are shared with neighboring countries, notably the Niger and Volta rivers. There are no natural lakes and ponds. The existing bodies of water, with large areas of water storage inland, are artificial, linked to hydroelectric and hydroagricultural dams. In total, the mobilizable surface water resources amount to 39 billion m<sup>3</sup>.

<sup>7</sup>As average annual temperatures increase, the frequency of extremely hot days (with maximum temperatures (daily temperatures above 35°C) is expected to increase significantly, particularly in northern Côte d'Ivoire. In the SSP2-4.5 scenario (moderate emission reduction), it is predicted that by 2030 there could be 20 additional very hot days per year compared to 2000. This number is expected to reach 30 by 2050 and 60 more by 2080.

<sup>8</sup>World Bank Group West and Central Africa, Côte d'Ivoire: National Report on Climate and Development, October 2023

<sup>9</sup><https://www.fao.org>

### ***National drinking water context<sup>10</sup>***

Water is a renewable resource, but also limited and fragile, and a key factor in development. The country is full of a dense hydraulic network, but this density contrasts with the lack of hydraulic stations. Since 1973, the government has taken measures to increase access to drinking water for the population throughout the territory by guaranteeing both quantity and quality. More than 22,000 boreholes equipped with human-operated pumps (PMH) have been drilled, of which 18,000 have been operated using village hydraulics to supply localities and agglomerations of 100 to 1,000 inhabitants. The rest is operated using urban hydraulics (HU) or improved village hydraulics (HVA) for localities of 1,000 to 4,000 inhabitants.

Despite these efforts, the national drinking water coverage rate is 53% for localities and agglomerations. The capacities of the national bodies responsible for drinking water supply, in particular the National Office for Drinking Water (ONEP), as well as those of local authorities and communities, remain insufficient to ensure the deployment of water infrastructure throughout the territory. Furthermore, very strong regional disparities persist: according to the MICS (multiple indicator survey), the proportion of the population consuming surface water reaches 8.2% in the West, 14.8% in the North-East and 23% in the central zone.

### ***The impact of climate change on the Bandama watershed<sup>11</sup>***

From the 1980s to 2000, analysis of historical data shows that Côte d'Ivoire experienced a long period of rainfall deficit of around 3% compared to the 1971-2000 normal, with periods of severe drought, particularly in 1983 and 1998 with respective drops of 15% and 11% compared to the same normal.

Generally, dry and wet periods of different amplitudes were observed over the period 1981-2016 in the Bandama watershed. An interannual fluctuation in rainfall was noted, characterized by a more or less deficient period from 1981 to 1999 followed by a wet period from 2000 to 2016.

During the dry season, in the watershed there is a decrease in water availability marked by the intensification of drought and the decrease in rainfall. The downward trend in precipitation observed during the dry period from January to March across the entire watershed affects mainly surface water resources. This indicates a decrease in the rate of coverage of water needs during this period for all water use sectors. In the center of the watershed there is a high level of exposure to drought risks because the main activities of the populations in the center are linked to water (agriculture and livestock), which causes greater exposure to climate change in these regions.

In the city of Bouake for example, water availability depends on surface water and particularly on agro-pastoral dams. While the strong anthropogenic pressure and inadequate land use around these dams causes a particular sensitivity of these structures and their users to climate change. In addition, the sensitivity analysis shows that the irregularity of the seasonal distribution of precipitation is reflected in the availability and quality of water resources. Indeed, the decrease in the volumes of precipitated water over the period 1981-1999 was manifested by a generalized decrease in surface flows. Similarly, the lack of precipitation in the dry season induces a lack of water availability in these structures during these seasons.

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<sup>10</sup> SECTOR MINISTERS' 2019 MEETING, The Ivory Coast, COUNTRY BRIEF, 2019

<sup>11</sup>PROJECT: CIV 10 0010310 "Strengthening the integration of adaptation to climate change in planning development in Ivory Coast »development of five sectoral reports on soil, agriculture, water resources, coastal resources and health, **Sector report: water resources.**



## JUSTIFICATION OF THE PROJECT

### General

Water is the major challenge of the 21st century. Extreme weather events, droughts and floods have devastating consequences for access to water and global food security. The threats to Côte d'Ivoire's water resources are diverse. Overall, the quantity of water is sufficient but resources are unevenly distributed between the southern, central and northern areas of the country.<sup>12</sup> Indeed, the Ivorian territory is relatively well watered (1,000 to 2,500 mm/year) and has significant surface and groundwater reserves, with a hydrographic network comprising approximately 537 watercourses including four (04) main watersheds (Cavally, Sassandra, Bandama and Comoé). However, many surface water reserves, constituting the main sources of drinking water supply for rural populations, dry up during periods of drought. Thus, the proportion of rural households without access to water supply services stands at 42.2% in general and at 53% among the poorest households. The main manifestation of climate change is observed in the evolution of temperature and precipitation.

### Temperature evolution

Over the period 1960-2010, temperatures increased by 1.6°C across the entire Ivorian territory. The current trend observed in Côte d'Ivoire is expected to worsen overall, but to varying degrees depending on the location. Temperatures will continue to rise; projections show an increase of about 1.3°C by 2030, 1.8°C by 2050 and 2.1°C by 2070, compared to 1960. Under the RCP 4.5 scenario (Scenario with stabilization of emissions before the end of the 21st century at a level weak)<sup>13</sup>, temperatures could increase by 3°C across most of the country by 2100. In the north, in the eastern and central regions, temperatures are expected to increase more than in the southern and western regions.

### Evolution of precipitation

In terms of precipitation, projections indicate that total annual precipitation could increase by an average of 0.3% by 2050 and 1.2% by 2070. The largest increase would occur in the northern and western regions. However, in the central part of the country, precipitation could decrease by about 3%. Seasonal rainfall patterns will continue to change, with rains starting and ending earlier than historical norms. Based on the RCP 4.5 scenario, by 2100, daily precipitation is likely to decrease by about 8% during the months of April to July<sup>14</sup>.

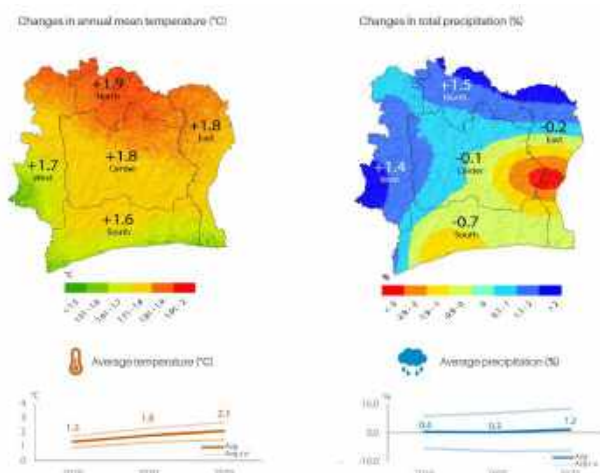


Figure 3: Projected changes in temperature and precipitation in Côte d'Ivoire by 2070<sup>15</sup>

<sup>12</sup>SECTOR MINISTERS' 2019 MEETING, The Côte d'Ivoire COUNTRY BRIEF, 2019

<sup>13</sup>Intergovernmental Panel on Climate Change, Scenarios for greenhouse gas concentrations, March 2015

<sup>14</sup>BAD, National Climate Change Profile, 2018

<sup>15</sup>World Bank Group West and Central Africa, Côte d'Ivoire: National Report on Climate and Development, October 2023

## Project Scope

The above-mentioned climate information reveals that in recent years, some areas of Côte d'Ivoire have been subjected to strong climatic variations, which are mainly manifested by a greater increase in temperatures and a sharp decrease in precipitation. This climatic trend has led to a decrease in water resources, particularly surface water, which is the main source of drinking water for populations in rural areas. In fact, only 58.8% of rural households have access to a water source.improved.<sup>16</sup> Communities are therefore dependent on surface waters which are affected by these effects of climate change. This dependence therefore increases their vulnerability. Rural communities are thus faced with a real problem of access to water due mainly to the drying up of surface water sources. This difficulty affects the quality of life of rural populations, particularly on a socio-economic level, particularly for women, young people and children. The central area of the country, which according to projections concentrates both the highest probabilities of an increase in temperatures (+3°C) by 2100 and decreases in precipitation (-3%) by 2070, appears to be the most vulnerable.in relation to the supply of drinking water to its populations.

Faced with this situation, it is necessary to strengthen access to drinking water for rural communities in the central part of Côte d'Ivoire to reduce their vulnerability to the harmful effects of climate change.

## PROJECTION TO 2075 OF THE AVAILABILITY OF WATER RESOURCES IN THE PROJECT AREA<sup>17</sup>

Studies carried out in the Bandama watershed and in coastal basins are unanimous in saying that the rainfall deficits recorded in Côte d'Ivoire since the 1970s have negatively impacted the quantity of water mobilized in rivers.

However, as regards groundwater resources, under the RCP 4.5 scenario,we will observe around:

- **2025:**a significant increase in flow rates from June to August and an increase in groundwater recharge from 172 mm to 304.8 mm;
- **2050:**a significant increase in flow rates from June to August and an increase in groundwater recharge from 170.1 mm to 301.1 mm;
- **2075:**a significant increase in flow rates from June to August and an increase in groundwater recharge from 173.9 mm to 311.9 mm.

Furthermore, according to the RCP 4.5 scenario, by 2050, with a constant abstraction effort, the assumption is that we are at least able to maintain the levels of exploitation and abstraction of water resources. Based on the RCP 4.5 scenario, the construction of boreholes in the project area is an adaptation option to be considered because groundwater will still be exploitable in the coming decades.

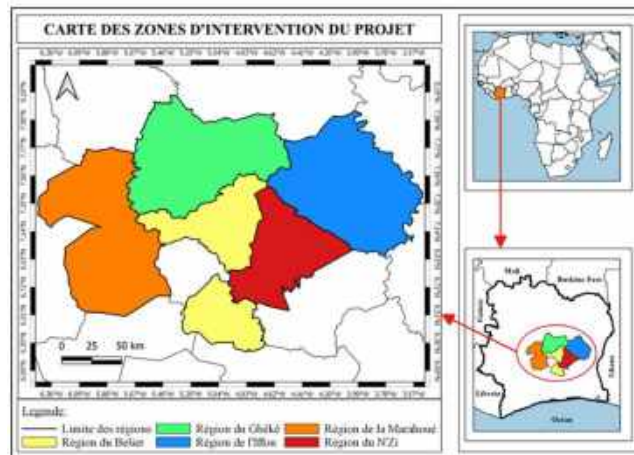
## Presentation of the project area

The project will be implemented in the center (figure 5) of Côte d'Ivoire, particularly in the regions of Béliér, Gbêkê, Iffou, Marahoué and N'Zi. The water resources of these regions are subject to climatic hazards, particularly in rural areas, thus leading to difficulties in accessing water to meet their basic needs.

<sup>16</sup> SECTOR MINISTERS' 2019 MEETING, The Côte d'Ivoire COUNTRY BRIEF, 2019

<sup>17</sup>PROJECT: CIV 10 0010310 “Strengthening the integration of adaptation to climate change in planning development in Ivory Coast”, development of five sectoral reports on soil, agriculture, water resources, coastal resources and health,

**Sector report: water resources.**



**Figure 4:** Area targeted by the project

The selected areas were selected because of the impact of climate change on their surface water resources. Several villages in the targeted regions reported a decrease in surface water and difficulty in accessing drinking water.

Several villages in the targeted regions reported a decrease in surface water and difficulty in accessing drinking water. A field mission conducted as part of the feasibility study for this project in 18 villages in May 2024 determined that several villages in the targeted regions did not have means of water supply. For villages that had already benefited from the installation of a drinking water supply system, several pumps were faulty or were insufficient in number. The villages visited have an average population of 200 and 1,500 inhabitants, and the density of pumps per number of inhabitants is often well below the actual needs of the inhabitants. The populations therefore resort to surface water or artisanal wells. However, with the advent of climate change, access to unimproved water sources is increasingly difficult, especially during periods of drought because backwaters, rivers and wells can dry up. Without an improved drinking water system, villagers are therefore very vulnerable to the vagaries of climate change and this has significant environmental and socio-economic consequences. This table below was established on the basis of data collected from the Regional Directorates of Hydraulics (source: field mission)

**These observations are listed in the table below:** These data are approximate and may be refined during the final proposal.

**Table 2:** Distribution of pump needs in the area targeted by the project

Regions	Number of villages without access to drinking water	Number of villages with pumps that are faulty	Number of villages whose population increase requires an increase in suitable work
IFFOU	57	12	10
RAM	23	N / A	18
GBÊKÉ	48	13	16
MARAHOUE	51	9	N / A
NZI	27	N / A	N / A
<b>Total</b>	<b>206</b>		

### Presentation of the targeted regions

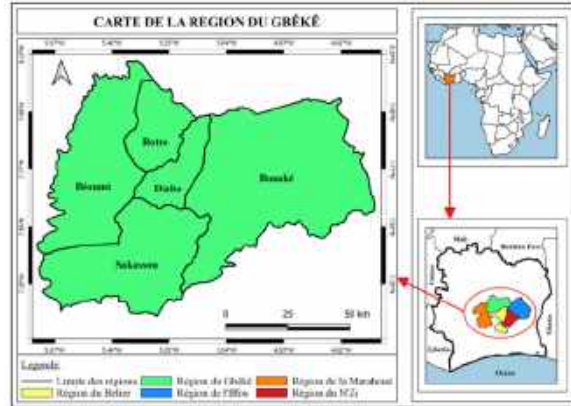
#### **The Gbêké region<sup>18</sup>**

Located in the centre of Côte d'Ivoire, 350 km from Abidjan, the Gbêké region is part of the so-

<sup>18</sup>Ivoirepolitics.Org/presentation-de-Gbêké



called "forest-savannah transition zone", made up of a mosaic of savannahs, open forests and dense semi-deciduous forests.<sup>19</sup>It covers an area of 9136 km<sup>2</sup>. It has four (04) departments namely: Bouaké, Béoumi, Botro and Sakassou made up of twenty (20) sub-prefectures and 771 villages.**Its total population is 1,352,900 inhabitants**, including 699,816 men and 653,085 women (INS, RGPH 2021).<sup>20</sup>The entire area falls within the Bandama watershed, and more specifically straddles two sub-basins: the Bandama Blanc to the northwest and the N'Zi to the south and east.

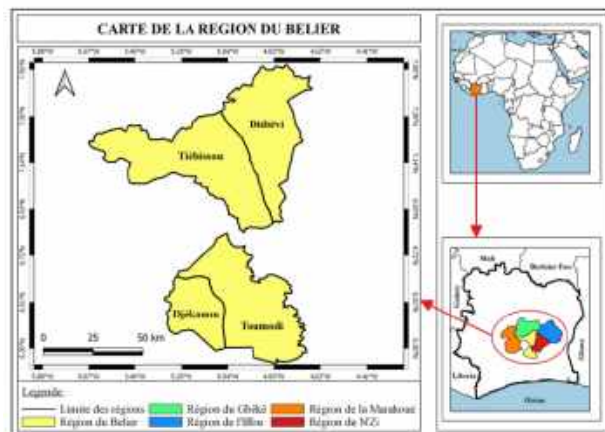


**Figure 5: Map of the GBÊKÊ Region**

### **The Aries region<sup>21</sup>**

The Béliér region covers the Yamoussoukro Autonomous District (Yamoussoukro and Attiéguakro departments) and the Béliér Administrative Region (Diedievi, Djékanou, Tiebessou and Toumodi departments). Located approximately 200 km north of Abidjan, it covers 11,695 km<sup>2</sup>. The Béliér Region has a population of 702,341 inhabitants, divided into 353,812 men (51%) and 348,529 women (49%). This area of the country is distinguished by a relatively flat relief, crossed by a hydrographic network with gentle slopes (1 to 3%), narrow basins and reduced lateral contributions: the Bandama River and the N'Zi and Kan rivers. The flows are characterized by significant interannual variability and marked low water levels that appear from January to April.

As for its vegetation, it is composed of wooded savannahs, grassy savannahs and gallery forests (mesophilic gallery forests along watercourses) characteristic of the "V Baoulé" (transition zone between the southern forest and the northern savannah of the country).



**Figure 6: Map of the Aries Region**

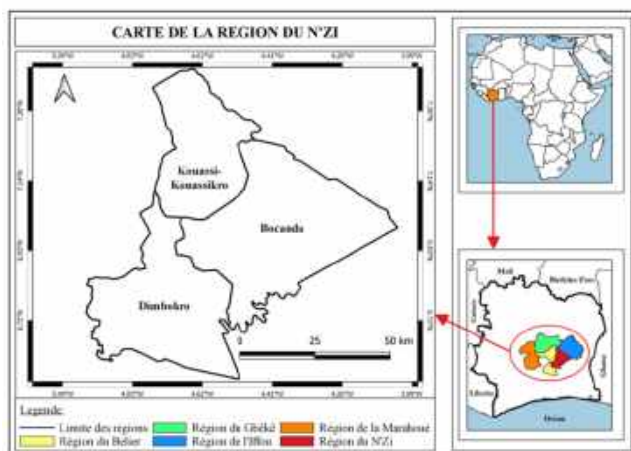
<sup>19</sup><https://ivoirepolitique.org>

<sup>20</sup>National Institute of Statistics, General Population and Housing Census, 2021

<sup>21</sup>Ivoirepolitique.Org/presentation-de-Béliér

### **The N'ZI region<sup>22</sup>**

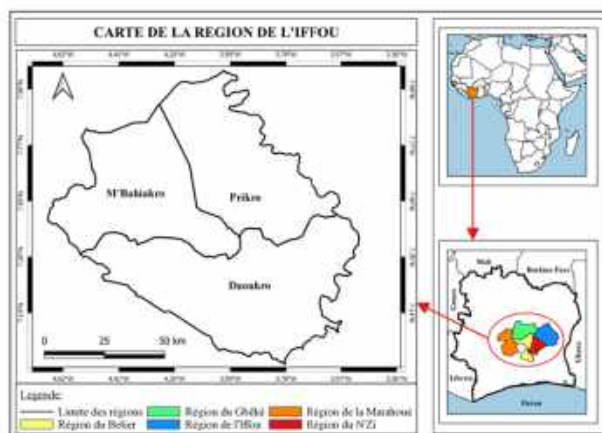
Located in the center-east of Côte d'Ivoire, the N'ZI region is bordered to the west by the Lakes region, to the north by the Iffou region, to the east by the Iffou and Moronou regions and to the south by the Moronou region. The population of the region is 254,623, including 129,386 men and 125,237 women. It is subdivided into three departments: Dimbokro, Bocanda and Kouassi-Kouassikro. The characteristic watercourse of the department is the N'zi. Its floods are relatively low due to low rainfall. The vegetation of the region consists of patches of mesophilic forest and large meshes of savannah separated by gallery forests.



**Figure 7: Map of the N'ZI region**

### **Iffou region<sup>23</sup>**

The Iffou region is located in the former "cocoa loop" in the center-east of Côte d'Ivoire. The territorial constituency of the Iffou region is limited to the north by the Hambol region, to the south by the Moronou region, to the east, to the southeast by a natural border (the Comoé), and beyond, respectively by the regions of Gontougo and Indénié-Djuablin, to the west by the regions of N'zi and Béliér, to the northwest by the region of Gbêkê. It is located in the center-east of Côte d'Ivoire to the east of V Baoulé with an area of 8955.05 km<sup>2</sup> or 2.8% of the national territory. Its total population is 378,560 inhabitants including 196,717 men and 181,843 women (INS, RGPH 2021).



**Figure 8: Map of the IFFOU Region**

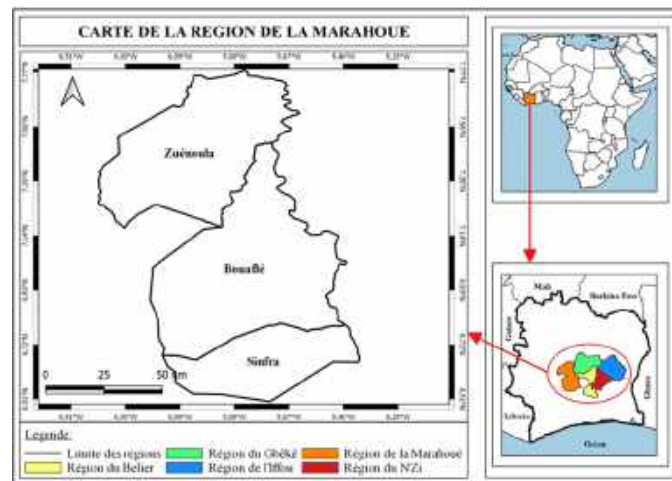
<sup>22</sup>ivoirepolitics.Org/presentation-of-NZI

<sup>23</sup>ivoirepolitique.Org/presentation-de-Iffou

## **Marahoue region<sup>24</sup>**

The region is located in the center-west of Ivory Coast. From an administrative point of view, the area is bordered to the north by the Béré region, to the south by the Gôh region, to the east by the Gbêkê and Béliér regions, and to the west by the Haut-Sassandra region. Straddling the forest zone and the savannah zone, the Marahoué region covers an area of 9,092.48 km<sup>2</sup>, including 4,222.48 km<sup>2</sup> for the Bouaflé department, 3,252 km<sup>2</sup> for the Zuénoula department and 1,618 km<sup>2</sup> for the Sinfra department. Its total population is 981,180 inhabitants, including 521,475 men and 459,704 women (INS, RGPH 2021).

The Region is drained by the Red Bandama River which acts as a natural border on the eastern side, then the Marahoué which crosses most of the study area, and the Baha, Ouréné, Bôlè, Zabré, Bouré, Dromonyi, Houda and Tenére rivers.



**Figure 9: Map of the Marahoué Region**

## **Vulnerability of selected communities to lack of drinking water**

The interviews conducted during the field mission helped determine the vulnerability of rural communities to climate change. The selected communities depend on surface water (rivers, backwaters, etc.) for their needs. During the rainy season, women obtain water from the backwaters in their villages and from rainwater. However, during the dry season, the backwaters dry up and people, especially women, must travel long distances (on average 5 to 8 km) to find a water point. In addition, these water points are often polluted by animal waste and human activity. Sectors such as education and health are also greatly affected by this lack of water. State officials (nurses, teachers, etc.) are not ready to settle in villages that do not have adequate access to drinking water. Students, sometimes very young, must therefore travel long distances to attend school. In case of serious illness, people in villages without clean water must go to the nearest health centre, often located in a village several kilometres away. People collect rainwater during the rainy seasons. Poor treatment and storage of this water also increases the risk of illness.

The quality of life and well-being of villagers is also affected by the lack of water. Indeed, the populations interviewed revealed that in areas without drinking water pumps, young men have difficulty finding a partner to share their daily lives. Women who are responsible for supplying their households with water refuse to live in villages where they will have to go through an obstacle course to get water. Young spouses are therefore abandoned after a few days. Also, hours of sleep are limited because they have to get up very early to collect water and then have enough time to do the day's work. Finally, we are witnessing an exodus of the youngest who prefer to move to regions with less difficult living conditions. But any movement leads to a competitive effect and can lead to conflicts.

<sup>24</sup>Ivoirepolitics.Org/presentation-de-Marahoue

### ***Vulnerability of women and youth to water scarcity***

In rural areas, women and girls are responsible for providing water to households. They are responsible for going to water points, collecting water, transporting it and carrying out household tasks that require water. Women have to travel long distances to get water. Then they have to do the same journey to get home. This is hard work that does not generate any income for them. On the contrary, by doing this task, they lose time that they could have spent studying or developing an income-generating activity. Thus, in the absence of adequate access to drinking water, women are even more likely to suffer from gender-related inequalities because the lack of drinking water impacts their health, their access to education and reduces their capacity for empowerment. Having to carry heavy loads sometimes several times a day over long distances has a significant impact on the health of women and girls who can develop diseases that cause disabling pain. Also, the lack of drinking water pushes populations in rural areas to use the first water they can get to meet their daily needs. The use of this often unsanitary water leads to diseases. However, in the event of illness in a household, it is women who are responsible for caring for the sick and replacing them in their household activities, thus leading to an increase in their burdens. Women are more often confronted with the negative health effects of poor water quality and untreated wastewater due to domestic roles such as cooking, cleaning and childcare. In addition, women are particularly affected by the lack of access to drinking water and sanitation, due to hygiene needs and increased vulnerability to infections around menstruation and reproduction. Difficulties in accessing clean water have deadly consequences for women in labor and newborns. Sometimes, simply having access to quality water could have made a difference. Unfortunately, in rural areas, health services also suffer from a lack of water. Women are therefore the most vulnerable to the lack of clean water and will be the first to benefit from the advantages of this project.

### **Project/Program Objectives:**

The objective of the project is to strengthen access to drinking water for rural communities in the central part of Côte d'Ivoire to reduce their vulnerabilities to the effects of climate change.

Specifically, this will involve:

- Improving drinking water production and distribution infrastructure for rural communities in the context of climate change;
- Strengthening the sustainability of access to drinking water for rural communities made vulnerable by climate change;
- Ensure the sharing of knowledge generated to promote the learning of sustainable drinking water supply and management practices to strengthen the adaptation capacities of rural communities in the face of the scarcity of water resources due to the lengthening of drought periods and the reduction in rainfall.

## Project/Program Components and Financing:

The table below shows the components of the project as well as the estimated cost of each component.

Project/Program Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
1. Strengthening the capacity of rural communities to access drinking water	Infrastructures for access to drinking water are installed/rehabilitated (Drilling, PMH, HVA)	The infrastructure for the production and distribution of drinking water for rural communities is strengthened	7,416,977
	Distribution networks are installed in the targeted areas to transport water from the boreholes to the final beneficiaries		
2. Strengthening the sustainability of access to drinking water for rural communities made vulnerable by climate change	Local technical capacities are strengthened for the maintenance of installed infrastructure and equipment	The sustainability of access to drinking water for rural communities made vulnerable by climate change is strengthened;	700,000
	Water management is optimized in beneficiary localities		
	Measures to preserve groundwater supplies to vulnerable communities are being implemented		
3. Sharing knowledge to promote learning about sustainable drinking water supply and management practices in a context of water resource scarcity due to climate change	Lessons learned from the actions taken and the good practices identified are capitalized on	Communities in regions prone to water scarcity due to climate change are equipped with knowledge on good practices for sustainable drinking water supply and management to improve their resilience	300,000
	The knowledge generated by the project is shared for learning sustainable drinking water supply and management practices		
6. Project/Program Execution cost			<b>799,613</b>
7. Total Project/Program Cost			<b>9,216,590</b>
8. Project/Program Cycle Management Fee charged by the Implementing Entity (if applicable)			<b>783,410</b>
<b>Amount of Financing Requested</b>			<b>10,000,000</b>

## Projected Calendar:

Milestones	Expected Dates
Start of project/program implementation	January 2026
Mid-term review	December 2027
Project/Program Closure	December 2029
Terminal assessment	June 2030



## PART II: PROJECT / PROGRAM JUSTIFICATION

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

In order to effectively implement concrete adaptation actions that will benefit rural communities in the central regions of Côte d'Ivoire subject to the scarcity of drinking water resources in the dry season and reduce their vulnerabilities to the effects of climate change, the project was designed to be implemented through three (3) key components:

- Component 1: Strengthening the capacity of rural communities to access drinking water;
- Component 2: Strengthening the sustainability of access to drinking water for rural communities made vulnerable by climate change;
- Component 3: Knowledge sharing to promote learning of sustainable drinking water supply and management practices in a context of dwindling water resources due to climate change.

### **Component 1: Strengthening the capacity of rural communities to access drinking water**

In rural areas, the supply of drinking water is traditionally ensured from water sources such as rivers, backwaters, wells, etc. These water sources have an increasingly marked tendency to dry up during the dry season. Alternative drinking water sources deployed to compensate for this insufficiency are boreholes equipped with human-powered pumps (HMPs) or improved supply systems that reduce the difficulty of collecting water, called Improved Village Hydraulics (HVA). This project will involve strengthening the drinking water supply system (DWS) in the targeted regions through the construction of new infrastructure, as well as the rehabilitation and extension of existing infrastructure, in particular HMPs and/or HVAs in accordance with current standards.<sup>25</sup>The expected products and activities under component 1 are:

#### **Product 1.1 Infrastructure for access to drinking water is installed/rehabilitated (Boreholes, PMH, HVA)**

Surveys conducted in the project area have revealed not only a decrease in water resources, but also insufficient water supply infrastructure, making access to this resource difficult. To reduce the vulnerability of rural communities in central areas due to the scarcity of drinking water resources in the dry season, the project will strengthen drinking water access infrastructure in these localities. To achieve this, the activities to be carried out will focus on: (i) conducting feasibility studies to determine the type of structure (PMH/HVA) to be carried out and (ii) the construction/rehabilitation of the structures selected at the end of the studies.

#### **Product 1.2 Distribution networks are installed in the targeted areas to transport water from boreholes to the end beneficiaries**

Water distribution in rural areas remains a concern even when a source of drinking water supply exists in the locality. Indeed, many constraints make it difficult to distribute water efficiently. These include, in particular, the distance between places of residence and the water source, the influx of users at water supply points during periods of high demand or the low flow rate of the borehole supplying the water supply points. In order to overcome the difficulties mentioned above and improve the conditions of access to water, distribution networks will be installed to transport water from boreholes to the end beneficiaries in densely populated localities. To this end, the project will (i) install or rehabilitate public drinking water distribution points and (ii) install drinking water supply networks for rural social infrastructure (schools, health centers).

### **Component 2: Strengthening the sustainability of access to drinking water for rural**

<sup>25</sup>National standards for the type of drinking water supply system to be implemented according to the population size of the locality concerned

## **communities made vulnerable by climate change**

The sustainability of access to drinking water is hampered by several constraints including: (a) the reduction of the quantity of water in aquifers and the pollution of infiltration water; (b) the weakness of local governance in terms of effective management of water resources and water access infrastructure and (c) the difficulties of maintaining the installed infrastructure. To ensure the sustainability of access to drinking water for rural communities made vulnerable by climate change, the project will ensure (i) implementing measures to preserve the water tables supplying water to vulnerable communities, (ii) optimizing water management in beneficiary localities and (iii) strengthening local technical capacities for the maintenance of installed infrastructure and equipment.

### **Output 2.1: Measures to preserve groundwater supplies to vulnerable communities are implemented**

The sustainability of the availability of groundwater in quantity and quality to supply rural households with drinking water is becoming increasingly problematic. Indeed, climate variability marked by the lengthening of drought periods, combined with the decline in precipitation, leads to difficulties in recharging groundwater tables. Similarly, the phenomenon of deforestation greatly reduces the capacity of soils to absorb rainwater, promotes rainwater runoff and increases the risks of soil erosion and evaporation of soil water.

To contribute to the sustainability of groundwater supply and groundwater quality, the project will focus on (i) promoting reforestation in groundwater recharge areas supplying installed boreholes and (ii) raising awareness among rural communities about good phytosanitary practices in these areas.

### **Product 2.2: Water management is optimized in beneficiary localities**

The information collected during the consultation mission carried out with the communities of the target localities of the project revealed shortcomings in community management of drinking water supply infrastructure and a poor knowledge of water resource management in a context of climate change. These shortcomings are reflected in particular by:

- Dysfunctions or even the cessation of activities of infrastructure management committees in certain localities which have water supply systems;
- Low synergy between local communities, technical managers of the decentralized administration responsible for managing water access infrastructure and decentralized communities responsible for coordinating local development, to ensure the sustainability of water access infrastructure;
- The lack of funding for the maintenance and upkeep of installed infrastructure and equipment, which leads to the cessation of water supply in certain localities;
- Poor knowledge of governance, technical and financial management mechanisms to ensure the sustainability of installed infrastructure;
- Low awareness among rural communities of the need to adapt their local water use practices to ensure sustainable water availability in the context of climate change.

To optimize water management in beneficiary localities, the project will support (i) the establishment of village committees for the management of drinking water access infrastructure in localities that do not have it, (ii) the establishment of regional committees for the integrated management of access to drinking water, (iii) the establishment of community mechanisms for sustainable financing of the maintenance and upkeep of drinking water access infrastructure, (iv) capacity building of committees set up for the sustainable management of infrastructure and (v) raising awareness among local communities on climate change and the need for efficient water management.

### **Product 2.3: Local technical capacities are strengthened for the maintenance of installed infrastructure and equipment**

Consultations with communities in target localities and discussions with technical managers of the decentralized administration responsible for managing water access infrastructure have

revealed (a) a shortage of qualified local technicians for the maintenance and upkeep of infrastructure in the event of a breakdown, (b) the shutdown of certain PMH or HVA systems installed due to the lack of suitable tools for maintenance by available technicians and (c) irregular maintenance of installed equipment. To address these malfunctions, the project will strengthen local technical capacities for the maintenance of installed infrastructure and equipment through (i) training and equipping local repair craftsmen in the maintenance of installed infrastructure and equipment and (ii) deploying local services for the maintenance and upkeep of installed infrastructure and equipment.

**Component 3: Knowledge sharing to promote learning of sustainable drinking water supply and management practices in a context of dwindling water resources due to climate change.**

The implementation of the project will generate knowledge products both in terms of water production and distribution systems in localities facing the scarcity of the "water" resource due to the lengthening and intensity of drought periods, and in terms of means to ensure the sustainability of access to drinking water for rural communities made vulnerable by climate change. The knowledge thus generated will be capitalized on and shared with other communities facing the problem of water shortages induced by the effects of climate change with a view to learning ways of resilience.

**Product 3.1: Lessons learned from actions taken and good practices identified are capitalized on**

The project will ensure that all actions initiated, the results obtained and the lessons learned are documented through monitoring and evaluation, both in the processes of implementing the actions and in the exploitation of the results obtained. Capitalization workshops bringing together beneficiaries, service providers, the decentralized administration in charge of managing water access infrastructure and the territorial administration of the intervention areas will be organized to retain good practices and lessons learned that will be disseminated.

**Output 3.2: Knowledge generated by the project is shared for learning sustainable drinking water supply and management practices**

The project will ensure wide dissemination of its interventions and achievements, with a view to promoting the learning of sustainable drinking water supply and management practices. To this end (i) audio-visual media for the dissemination of good practices and lessons learned will be developed, (ii) exchange visits and sharing of experiences bringing together other vulnerable communities and decentralized authorities, subject to the same climatic hazards, will be organized and (iii) the mass dissemination of good practices learned will be ensured through all supporting channels.

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

The project aims to strengthen access to drinking water for rural communities in the central part of Côte d'Ivoire to reduce their vulnerability to the effects of climate change. The climate changes observed in recent years have had an impact on water resources in rural areas and on rainfall. Indeed, drought periods are becoming longer and more frequent, leading to a reduction in water availability. Rural communities that are dependent on rainwater and surface water therefore encounter difficulties in water supply. These difficulties lead to environmental, social and economic consequences because the income of the populations, particularly those of women, is

reduced because of the time spent collecting water that could be used for a lucrative activity. The implementation of this project will generate benefits at three levels: economic, social and environmental.

### **Economic impact of the project**

Women will be the first beneficiaries of this project for access to drinking water. Indeed, according to the International Labor Organization (2019), access to water and its use has different impacts on women and men. This is explained by the fact that women are the most concerned by most domestic work. The chore of water for consumption is one of these tasks carried out mainly by women, often including the transport of heavy loads of water over long distances (it is estimated that African women spend several hours a day transporting water for their households). By providing women with water points near their homes, they will be able to use the time saved to carry out additional activities that help diversify their sources of income. These activities will have an impact not only on the women themselves but also on their families who will benefit from a different source of income, thus increasing their standard of living and purchasing power.

The economic activities carried out by women will have positive impacts on the local and even regional economy. The targeted areas will indeed be able to observe a reduction in poverty and an improvement in the standard of living of rural communities. In summary, the project will reduce the time spent collecting water and will promote the exercise of additional activities that contribute to diversifying their sources of income for women and young people. This will have an impact not only on the women themselves, but also on the targeted families and communities.

### **Social impact of the project**

Women and young people responsible for fetching water are exposed to pain, fatigue and even health problems. Their workload tends to increase in the event of a water shortage. Women who fetch water have less time to devote to paid employment, thus increasing their material dependencies on their spouses and therefore gender inequalities. The provision of drinking water and the facilitation of access, through the project, will allow women and young people to considerably reduce the time spent fetching water and allocate it to activities that allow them to take charge of themselves.

Furthermore, competition for access to water during droughts sometimes leads to conflicts within communities. Providing sufficient drinking water to communities at all times of the year through the project will therefore reduce these risks of conflict and thus improve social cohesion within communities.

Furthermore, by providing drinking water to populations in targeted areas, the risks of diseases linked to the consumption or use of unsanitary water will be reduced or even eliminated. The installation of distribution networks in public places such as clinics and schools will reduce the risks associated with a lack of water.

The supply of drinking water to villages will also improve their attractiveness, particularly for state public officials such as teachers and nurses, by allowing them to settle more easily in these areas, thus reducing long journeys for educational or health needs. The project will facilitate access to water. Thus, young people, especially girls, will spend less time looking for water. This will allow more time to be devoted to school, thus improving the schooling and education rate in local communities.

Finally, villagers revealed that the difficulty for young men to find a partner is partly linked to the lack of drinking water in villages prone to water shortages, as young girls refuse to live in areas where access to water requires a lot of physical effort. The project will therefore impact this aspect of social life and allow young people to have the opportunity to start families without it being necessary for them to leave their villages of origin.

## **Environmental impact of the project**

The project will directly and indirectly impact the environment of the targeted villages. By providing direct access to drinking water, rural communities can be less dependent on natural water sources, thereby reducing pressure on wetlands.

Promoting reforestation in the groundwater recharge areas supplying the boreholes installed in the localities targeted by the project will ultimately contribute to strengthening the soil's capacity to absorb rainwater and reducing rainwater runoff, as well as soil erosion and evaporation of soil water.

Furthermore, raising awareness among rural communities on good phytosanitary practices will help protect groundwater from pollution, thereby improving the quality of drinking water available to rural communities. In addition, rural communities will be better equipped to efficiently manage drinking water through awareness campaigns conducted under the project.

All these environmental benefits will result in an overall improvement in the quality of life in the villages and the preservation of the surrounding ecosystems.

## **C. Describe or provide an analysis of the cost-effectiveness of the proposed project/program.**

In the targeted rural areas, communities are struggling to meet their water needs. They rely mainly on rainwater harvesting or on surface water sources such as rivers, streams and backwaters. However, the effects of climate change are increasingly being felt. Temperatures are rising, dry seasons are lengthening and rainfall is decreasing alarmingly. These water sources tend to dry up during the dry season.

This situation is having a profound impact on people's lives. Without a sustainable solution, traditional water supply methods will become increasingly unreliable, increasing the vulnerability of communities. Women and young people, who are responsible for fetching water, spend long hours searching for water, when they could instead be engaged in activities that help diversify their sources of income, or studying. Conflicts are breaking out over access to this scarce resource, undermining social cohesion. Health problems caused by water-borne diseases are increasing, and pressure on local ecosystems is constantly increasing.

Faced with these challenges, some villages are beginning to empty of their inhabitants, who have left in search of better living conditions. If nothing is done, the adaptation costs for these vulnerable populations will become unsustainable, and the lack of water could, in the long term, cause loss of human life.

It is in this context that the project, whose financing is estimated at 10,000,000 US dollars, will support villages in the central zone of Côte d'Ivoire, by allowing them to have access to public pumps, a better water distribution network and a management system adapted to local realities.

To achieve this, the project will implement resilient technologies. Thus, depending on the size of the communities, Human Powered Pumps (HMPs) or Improved Village Hydraulics (HVA) systems will be installed in the localities. The main objective will be to enable rural populations to have drinking water, and this, in a sustainable way, in order to reduce their dependence on surface water or rainwater, and therefore increase their resilience to the effects of climate change. The financing to be mobilized will cover investment expenditure for water infrastructure and improve water distribution networks. The development of distribution networks and the increase in public distribution points as well as the strengthening of local capacities for (i) the maintenance of installed infrastructure and equipment, (ii) the optimal management of water in beneficiary localities and (iii) the implementation of measures to preserve water tables supplying water to



local communities, will make it possible to meet the water needs of populations in optimal conditions in all seasons.

The financing of the Adaptation Fund will therefore play a catalytic role in the development of drinking water supply in the central part of the country and in strengthening the adaptation capacities of rural communities vulnerable to climate change. It will also improve working conditions in health centres and schools in the targeted localities, which will benefit from an efficient and sustainable supply of drinking water. This improvement in access to drinking water for households and social services, in view of the social, economic and environmental consequences induced by difficulties in accessing water in the project intervention area, should constitute a guarantee of improvement in the quality of life of the target populations. Indeed, the implementation of the project will make it possible to: (i) free up time, previously allocated to fetching water, to devote to activities that contribute to diversifying sources of income for women and young people; (ii) reduce the risks of community conflicts over access to water and improve social cohesion; (iii) improve the health status of target populations by reducing the risks of waterborne diseases; (iv) improve the attractiveness of rural areas, and promote the installation of State agents assigned to these localities, thus impacting the effectiveness of social services (health center, school); (v) improve the schooling and education rate in local communities; (vi) limit the exodus of young people, particularly young girls, to urban areas and promote the establishment and consolidation of rural couples; (vii) preserve ecosystems by reducing pressure on wetlands and (viii) strengthen the availability and quality of groundwater supplying rural households.

In parallel, two other alternatives were analyzed in the search for solutions to the problem of access to drinking water in the targeted regions. These are: (a) the construction of wells equipped with pulleys and (b) the installation of gravity water supply systems.

There are significant advantages to constructing wells. These wells are designed with walls lined with nozzles, ensuring their durability and protection against collapse. They are also equipped with a lifting frame on which several pulleys can be mounted, thus facilitating drawing. A protection is built around the wells and a cover is installed to prevent contaminants, such as dust or debris, from falling inside when they are not in use. The groundwater exploited by these wells is generally of good quality, since it comes mainly from rainwater that infiltrates through the different layers of the ground, thus benefiting from a natural filtration process. However, this device can have limitations. Although the water may be free of bacterial contamination, it is sometimes affected by natural chemical contaminants, such as arsenic. In addition, human activities near the wells can also cause chemical or bacterial pollution. Therefore, a thorough analysis of the chemical and bacteriological quality of water is necessary before making it accessible for human consumption. Another potential problem lies in the risk of contamination during drawing. The ropes and scoops used can introduce impurities into the water, compromising its quality. These constraints limit the effectiveness and reliability of this solution to meet the long-term needs of the target populations.

Another option being considered is the installation of gravity-fed water supply systems. These systems use gravity to transport water from the source to the users through a network of pipes. This process brings water closer to the population, reducing the time and effort required to collect it, especially for women and youth. In addition, the water transported through these networks is protected from external contamination during its transport. However, this solution is not without challenges. It requires the existence of an elevated water source, such as a river, lake or dam reservoir, capable of meeting the water needs of the local population. Unfortunately, the regions targeted by the project do not have such natural sources. In addition, the construction of a dam to supply a locality as well as the installation of water filtration and transport equipment are more expensive, making this option unviable for the communities concerned.

In summary, the drinking water supply solutions proposed by the project offer the best cost-benefit advantages for strengthening the resilience of beneficiary communities to the effects of climate change.

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

The project on improving access to drinking water in the central zone of Côte d'Ivoire is in line with several national and subnational development plans, programs and strategies, in particular with the Sustainable Development Goals (SDGs), the National Development Plan (NDP), the Integrated Water Management Plan (IWRM), the NDCs, the National Adaptation Plan, the Strategy for the Preservation, Rehabilitation and Extension of Forests (SPREF).

**Alignment with the Sustainable Development Goals (SDGs)**

Access to water is an important pillar of sustainable development. Millions of people around the world are denied the basic right to clean drinking water. Failure to achieve this basic right means that people do not have equal opportunities for good health, education and financial security. Achieving the Millennium Development Goals (SDGs) can change this.<sup>26</sup>

As a member state of the United Nations since 1960, Côte d'Ivoire fully validates this approach and has articulated it with its own National Development Plan. Thus, improving access to water for populations is at the heart of the concerns of the Ivorian State, which is implementing policies and projects to ensure water for all. In this context, the project on improving access to drinking water in the central zone of Côte d'Ivoire through its components and activities will contribute to progress towards achieving several SDGs.

Thus, through component 1, which concerns strengthening the capacities of rural communities to access drinking water, the project will initially improve water quality and make it accessible to all. It will contribute to reducing poverty in the targeted regions (SDG 1), improving access to drinking water for all (SDG 6), improving the health of populations (SDG 3), improving education in the target communities (SDG 4), increasing food security in the selected regions (SDG 2) and reducing inequalities (SDG 10). Indeed, drinking water is an essential element for the quality of life of populations. However, access to quality water depends largely on household income. Low-income populations are often those who have the least access to safe drinking water or they must make greater efforts to gain access to it, which reduces the time they could spend on an income-generating activity.

Also, the project will increase the resilience of populations to climate change, thus making it possible to move closer to SDG 13 (fight against climate change). Finally, the populations most vulnerable to climate hazards, i.e. women, will be the first beneficiaries of the project. At the end of the project activities, women will benefit from more time to carry out an income-generating activity, thus leading to a reduction in gender inequalities (SDG 5).

Through component 2, which focuses on strengthening the sustainability of access to drinking water for rural communities, the project promotes sustainable management and rational use of natural resources (SDG 12). By promoting the reforestation of groundwater recharge areas supplying boreholes, the project contributes to the preservation and restoration of terrestrial ecosystems (SDG 15) and contributes to the implementation of measures to combat climate change (SDG 13).

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<sup>26</sup>WaterAid West Africa, July 2021, Climate change and water security in Burkina and Niger

## **Alignment with the National Development Plan (NDP)**

The vision of the Ivorian Government is to ensure access to drinking water for all and at a lower cost, throughout the national territory, through the development of quality hydraulic infrastructures.

With a view to increasing the rate of access to drinking water to 95% by 2025, the government has given priority to access to drinking water in the 2021-2025 PND.

The government intends to address the following challenges, among others:

- The construction of quality human hydraulic infrastructures taking into account the promotion of technological innovation;
- The rehabilitation, reinforcement and maintenance of human hydraulic infrastructures;
- The extension of the public drinking water distribution network with structuring projects such as hydraulic and multi-village boulevards and/or satellite accounts;
- Strengthening the human, technical, material and financial capacities of the sector;

Thus, thanks to the implementation of its components (component 1 and 2), the project on improving access to drinking water in the central zone of the country will contribute to the development objectives targeted by the Ivorian government in the area of drinking water.

In addition to contributing to improving access to drinking water, the project is a climate change adaptation project. The fight against climate change is at the heart of the Ivorian state's development policy.

## **Alignment with the Integrated Water Resources Management (IWRM) plan<sup>27</sup>**

Component 2 of the project, which concerns strengthening the sustainability of access to drinking water for rural communities, is in line with the principles of IWRM. In this component, women have a key role in the local management committees that will be created, and according to the third principle of IWRM, women are at the heart of the processes of water supply, management and conservation. It is indeed indisputable that women play a key role in the supply and preservation of water for household and, very often, agricultural purposes, but that their influence is less than men in the management, analysis of problems and decision-making process related to water. The project will seek to remedy this by giving women an important place in the decision-making process. In addition, IWRM stipulates that water development and management should be based on a participatory approach involving users, planners and decision-makers at all levels. This vision is consistent with that of the project, which aims to actively involve national, regional and local decision-makers and beneficiary communities in the various stages of the project, particularly in decision-making and infrastructure management.

## **Alignment with Nationally Determined Contributions (NDCs)**

Côte d'Ivoire's NDCs aim to reduce greenhouse gas emissions by 30.41% by 2030. To this end, the energy sector has been identified as a priority sector. Côte d'Ivoire wants to reduce the use of fossil fuels and move towards renewable energies. The project is aligned with this vision of the Ivorian state because the pumping system used in HVA systems for the production and distribution of water to populations will be partly powered by solar energy. It will therefore be a step forward for the country towards the use of renewable energies. In addition, the reforestation of groundwater recharge areas supplying the boreholes will contribute to the reduction of greenhouse gases.

## **Alignment with the National Adaptation Plan (NAP)**

Water resources are one of the priority sectors established by the PNA of Côte d'Ivoire. Côte d'Ivoire has a significant hydraulic system that is vulnerable to climate change. The PNA therefore aims to control water resources for different uses and to preserve and secure this resource. The project on improving access to drinking water in the central zone of Côte d'Ivoire is in line with these two ambitions because through the strengthening of the capacities of communities on

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<sup>27</sup>Integrated Water Resources Management

optimized water management and the reforestation of groundwater recharge areas supplying the boreholes to be installed, water resources will be better managed in the localities concerned.

### **The Strategy for the Preservation, Rehabilitation and Extension of Forests (SPREF)**

Ivory Coast has implemented an ambitious strategy to preserve, rehabilitate and extend its forest cover, which has been severely degraded in recent decades. This strategy is part of the fight against climate change, the protection of biodiversity and sustainable development. Among other objectives, it aims to increase the forest cover of Ivory Coast to 20%. Through the reforestation actions of the groundwater recharge areas supplying the boreholes to be installed, the project will contribute to the achievement of this objective.

In addition to national and international plans and strategies, the proposed project is aligned with national and regional technical standards: the Water Code and the sustainable development orientation law.

### **Alignment with the Water Code**

The project takes into account Article 9 of Law No. 2023-902 of November 23, 2023 on the Water Code, which stipulates that the management and development of water resources in hydraulic developments and structures must involve at all levels: (i) planners, decision-makers and specialists in the field; (ii) operators; and users. In addition, Article 5 of the said law states that the right of access to water is a right common to all. Thus, by facilitating and improving the conditions of access to drinking water in rural communities, the project aligns with this law.

### **Law No. 2014-390 of June 20, 2014 on sustainable development:**

This law constitutes a guide for the implementation of the project. It directs all development actions according to the principles of sustainable development. This law will be particularly highlighted in the context of citizen engagement which aims at the appropriation of the various activities of the project by the beneficiaries for a rational and sustainable management of water resources and the hydraulic works which will be carried out.

### **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.**

The proposed project is aligned with the relevant national technical standards and meets the requirements stipulated by the Environmental Code. The adaptation actions to be carried out as part of the application of technologies will comply with the various codes in force, in particular the Water Code. The relevant regulatory text applicable to this project is Law No. 2023-902 of November 23, 2023 relating to the Water Code. This Code sets the general framework for legal and institutional texts relating to Water in Côte d'Ivoire. Its objective is to enable integrated management of water resources, developments and hydraulic structures. This management aims to ensure:

- the preservation of aquatic ecosystems, sites and wetlands;
- protection against all forms of pollution;
- the preservation of water resources against the effects of climate change;
- the restoration of surface water, groundwater and sea water within the limits of territorial waters
- the protection, mobilization and management of water resources;
- the development and protection of hydraulic facilities and structures;
- the valorization of water as an economic resource and its distribution in such a way as to satisfy or reconcile, during the different uses, activities or works, the requirements;
  - o of the drinking water supply of the population

- health, public health, civil protection
- of the conservation and free flow of water and protection against floods
- agriculture, fishing and marine farming, freshwater fishing, industry, etc.
- coherent planning of water resource use at both the hydrological catchment area and national levels;
- improving the living conditions of different types of populations, while respecting the balance with the surrounding environment;
- the conditions for rational and sustainable use of water resources for present and future generations;
- the establishment of an institutional framework characterized by the redefinition of the role of the stakeholders.<sup>28</sup>

The expected results of the project and the actions to be carried out are in line with the said law which stipulates in its chapter 2, article 3, that the following are subject to the provisions of this law:

- natural or legal persons under public or private law carrying out an activity relating to water resources;
- hydraulic developments and works;
- installations classified in accordance with the laws and regulations in force, unclassified installations, works and activities carried out for domestic or non-domestic purposes, by any natural or legal person, under public or private law and resulting either in withdrawals from surface water or groundwater, returned or not, or a modification of discharges, flows, direct or indirect, chronic or episodic discharges, even non-polluting.

To highlight the participatory nature of the Law in the context of water management, Article 9 of Chapter 4 recalls that the development of water resources, hydraulic developments and works must involve at all levels:

- planners, decision-makers and subject matter experts;
- the operators;
- users.

With regard to the regime applicable to hydraulic developments and works, it is governed by articles 30, 31, 32 and 33 of this code in its chapter 3.

According to Article 30, the location, construction and operation of hydraulic developments and works are subject, depending on the case, to authorization or prior declaration, in accordance with the provisions of Articles 31 and 33 of the Law on the Water Code.

The implantation is preceded by the intervention:

- of a hydrologist or hydrogeologist expert for hydraulic works and developments subject to authorization;
- services of the Water Authority and the Ministries responsible for hydraulic developments and works subject to declaration.

Article 31 specifies all works subject to prior authorization, while Article 32 sets the environmental framework for developments and hydraulic works. According to the classification of projects by the Adaptation Fund and in view of the nature of the activities that will be carried out, the project may be classified in category B, therefore with moderate impact.

The environmental management framework is presented in the following table:

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<sup>28</sup>National Assembly, Law No. 2023-902 of November 23, 2023 relating to the Water Code



**Table 3** : Project environmental management framework

Environmental Principles of the Adaptation Fund	Assessment required for compliance	Potential impact and risks, as well as assessment and management required for compliance
<b>Principle 1:</b> Respect for the law	No appreciable risk.	The project is fully compliant with the country's policies, standards and laws. According to the FA principles, the project is classified as "Category B". The project ensures that all safeguards are in place to ensure that the project activities will not have a significant impact on the environment.
<b>Principle 2:</b> Access and equity	The project beneficiaries include vulnerable populations who are often excluded from decision-making processes. There is therefore a risk of unequal distribution of resources which could ultimately generate conflicts between beneficiaries.	The FIRCA environmental and social policy approach to social screening will be applied to mitigate the risk associated with unequal distribution of resources. In addition, awareness campaigns for beneficiary and non-beneficiary communities will be conducted to facilitate community acceptability of priorities focused on the most vulnerable communities.
<b>Principle 3:</b> Marginalized and vulnerable groups	There is a risk of exclusion of vulnerable and marginalized groups when implementing project activities.	The target groups of the project are rural communities whose access to water is limited as a result of the scarcity of water resources due to climate change. This situation increases their vulnerability due to their dependence on climatic factors, particularly rain. Thanks to FIRCA's targeting approach through categorical consultations (from the most vulnerable to the least vulnerable), this group of actors will be considered as well as the specific needs related to their situation.
<b>Principle 4:</b> Human rights	All activities proposed under this project are in line with the Universal Declaration of Human Rights. In addition, the proposed project will promote the fundamental human rights of access to food and water.	The project will not engage in any activity that may result in a violation of human rights during its implementation.
<b>Principle 5:</b> Gender equality and women's empowerment	The proposed project targets rural communities vulnerable to climate change where the gender gap may be significant. There is a risk that women in these communities may not benefit equitably from	Although there are risks of social exclusion of women, limited access to water and low mobilization of women, the project has set its objectives. Project activities are designed and will be implemented in such a way that men and women have equal opportunities to participate in all stages of project implementation.

	the adaptation interventions and capacity building of the proposed project.	
<b>Principle 6:</b> Fundamental labor rights	No appreciable risk	The project does not involve any activity that poses a threat to the rights of those involved in its implementation. However, it will ensure that national labor standards are respected at the various construction sites and that appropriate wages are paid for each task assigned. And no child/underage workers will be involved in the project.
<b>Principle 7:</b> Indigenous populations	No appreciable risk	According to the FA definition of indigenous peoples, no indigenous peoples have been identified in Côte d'Ivoire, but the project will strive to include minority groups in the project.
<b>Principle 8:</b> Involuntary resettlement	No appreciable risk	During consultations on the project, beneficiaries confirmed that there is no risk of displacement in the project intervention areas.
<b>Principle 9:</b> Protection of natural habitats	There is no risk that the project will affect natural habitats (loss of natural habitats and species of ethnobotanical importance).	The Project will not involve the conversion or undue degradation of critical natural habitats, including those that are (a) legally protected; (b) formally proposed for protection; (c) nationally recognized by the government for their high conservation value, including as critical habitat; or (d) recognized as protected by traditional leaders and communities. All necessary assessments will be conducted by the Project team.
<b>Principle 10:</b> Conservation of biological diversity	There is no risk of loss of biodiversity during the implementation of the project.	The project will have no impact on the conservation of biodiversity.
<b>Principle 11:</b> Climate change	There is a low risk of emissions (GHG) during the construction of hydraulic infrastructure.	The project will not generate a significant increase and/or unjustified emissions of greenhouse gases or any other cause of climate change.
<b>Principle 12:</b> Pollution prevention and resource efficiency	There is no risk of degradation of the environment and natural resources.	The project will have no impact on the environment and natural resources.
<b>Principle 13:</b> Public health	No risk to public health	The project will not have a negative impact on the health of residents. On the contrary, it will solve many health problems related to water quality.
<b>Principle 14:</b> Physical and cultural heritage	No appreciable risk	No mitigation measures required.
<b>Principle 15:</b> Land and soil conservation	No risk of soil degradation	The project will ensure that all environmental codes and standards are met during the implementation of the project.

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

The proposed project and its interventions will avoid any duplication of actions and sources of funding present in its intervention area. During the identification and design of the project, consultations were conducted with all local stakeholders (administrative and customary authorities, local communities). No projects are underway in almost all of the villages visited. This ensured that there was no duplication of projects or sources of funding.

The table below presents some projects related to the themes of drinking water in Côte d'Ivoire.

**Table 4 :** Project/Program in the drinking water sector

Project/Program	Objective Synergy/with the proposed project	Complementarity with the proposed project
The government's social program 1 (PSgouv 1)	<p>The programme aims to strengthen social action by identifying priority measures that guarantee immediate and lasting results for all.</p> <p>Axis 5 of this program is to improve the well-being of rural populations, in particular by promoting access to housing, drinking water, energy, transport and consumer goods.</p> <p>It targets all regions of the country.</p>	<p><b>Possibility of complementarity</b> with the proposed project because they both aim to improve access to drinking water for populations. However, the proposed project will not cover the same areas.</p>
The Agro-Industrial Pole Project in the Bélier region (2PAI-Bélier)	<p>It aims to establish the foundations of an agro-industrial hub to transform and modernize agriculture in the Bélier region through the restoration and development of productive capital, the modernization of means of soil cultivation and communication (ICT) and the promotion of the private sector and industrialization.</p> <p>One of the activities of this project is to build boreholes and pumps to facilitate access to drinking water for the project beneficiaries.</p>	<p><b>Possibility of complementarity</b></p> <p>The 2PAI-Bélier project does not target all regions of the country but only the Bélier region which is one of the beneficiary regions of the selected project. However, the proposed project will not cover the same areas.</p>
Water and Sanitation Security Support Project (PASEA)	<p>The project addresses the issue of access to drinking water. Its objective is to develop and strengthen integrated water resources management, improve governance and the sustainability of urban water supply and increase access to improved drinking water and sanitation services. It will be implemented over 6 years in 11 regions in the north of the country.</p>	<p>No duplication because the project is interested in the northern regions of the country while the target of the present proposal concerns the central area of the country.</p>

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

The problem of drinking water supply in a context of climate change, which the project addresses in the central part of the country, affects a number of other regions of the country, especially since it is estimated that in Côte d'Ivoire, more than 41% of households do not have access to an improved water source. The actions of component 3 will therefore ensure a wide dissemination of its interventions and achievements, to promote learning by local communities, other local authorities and administrations and partners involved in the production, distribution and management of drinking water. The implementation of the project is accompanied by a communication and knowledge management strategy whose objective is to enhance the acquired knowledge by capitalizing on it and disseminating it to rural stakeholders, technicians and authorities in charge of the development of rural communities.

This strategy can be broken down as follows:

- capitalization workshops bringing together beneficiaries, service providers, the decentralized administration responsible for managing water access infrastructure and the territorial administration of the intervention zones will be organized to identify good practices and lessons that will be disseminated;
- audio-visual media for disseminating best practices and lessons learned will be developed;
- exchange visits and sharing of experiences bringing together other vulnerable communities and decentralized authorities, subject to the same climatic hazards, will be organized;
- the mass dissemination of capitalized good practices will be ensured through all supporting channels.

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

In the process of identifying and formulating the project, several actors and stakeholders were consulted in an inclusive and participatory process.

The process took place in two main phases: (i) a diagnostic, consultation and field visit mission; (ii) a national stakeholder consultation and exchange workshop for the validation of the project concept note.

### **1. Diagnostic, consultation and field visit mission**

A diagnostic mission was organized in April-May 2024 in five (5) regions of the central zone of Côte d'Ivoire: the Iffou Region in the Center-East, the N'Zi, Béliér and Gbêkê Regions in the Center, the Marahoué Region in the Center-West. This mission aimed to consult local communities in these Regions and carry out field visits. Conducted jointly by the accredited entity (FIRCA) and the Ministry of the Environment, Sustainable Development and Ecological Transition, this mission was supported by the Regional Directorates of the Ministries in charge of hydraulics and the Ministry of the Environment. A total of 164 people including 63 women (38.41%) and 101 men were consulted in 18 villages in the 5 regions.

Administrative authorities (Prefects, Regional Councils, Regional Directors of the Environment, Regional Directors of Hydraulics), customary authorities, communities as a whole (women, men and young people) were questioned on the current state of their water supply, their needs and

their expectations. The consultations were conducted with respect for gender equality and gender issues were taken into account in the same way as environmental and social issues, in accordance with the environmental and social policy and the gender equality policy of the Adaptation Fund. The results of these consultations were used for the development of the draft of the concept note.

Visits to the communities' drinking water supply sources were carried out. They made it possible to observe the state of the wells, backwaters and watercourses used in these localities (image 2), which as a whole were in an advanced drying phase at the time of the visits. To ensure their drinking water supply during this period, these communities are forced to move to the nearest neighboring villages with sustainable water supply systems such as human-powered pumps or Improved Village Hydraulics systems. The nearest neighboring villages are generally located between 2 and 5 kilometers away.

To travel from their localities to these neighboring villages, the young people and women of the communities visited, in charge of the water chore, either walk, use bicycles or rent motorcycles or tricycles. When the populations move, the water collected from the neighboring villages is purchased at 50 FCFA (about 0.1 USD) per 25-liter can. On the other hand, the 25-liter can costs 200 FCFA (0.4 USD) in the case where it is offered for sale (by resellers) on site in the communities concerned. Each household uses on average 4 25-liter cans, or 100 liters of water per day.



**Image 1:** a. Discussions in the village of IFFOU; b. Discussion in the Kouréfla community in the Marahoué region



**Image 2:** a. Well in the village of Amanikro in the Gbêkê Region; b. Watercourse in the village of Blofonoud in the Gbêkê Region



**Picture1:**a. Visit to the Prefect of the Gbêkê Region b. Exchange with the Hydraulic Director of the Iffou Region

Extensive community level consultations in the targeted sites will be undertaken during the development phase of the full project proposal prior to the exact description of project activities.

## 2. National Stakeholder Consultation Workshop

A national stakeholder workshop was organized on October 31, 2024 in the conference room of the Prefecture in Bouaké, capital of the Gbêkê region. This workshop brought together the various stakeholders including the prefectural body, the Gbêkê Regional Council, the Regional Directorates of Hydraulics, the Regional Directorates of the Environment, customary authorities, representatives of women and youth from the target communities, the Ministry of the Environment, Sustainable Development and Ecological Transition (MINEDDTE) and the FIRCA team. This workshop made it possible to present the different axes and actions selected in the draft of the concept note and to collect observations from stakeholders. The workshop brought together a total of 63 people including 14 women (22%).







*Image 4: National Stakeholder Consultation Workshop*

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

The funding requested from the Adaptation Fund will be used to strengthen community resilience by improving access to drinking water in rural areas of the Béliér, Gbêke, Marahoué, N'zi and Iffou regions (central Côte d'Ivoire).

Rural residents in these regions are already subject to the vagaries of climate change, particularly in terms of their water resources. However, even more intense changes are predicted for the coming years. If nothing is done now, these populations risk finding themselves in an emergency situation and these villages could even disappear because the villagers will move to areas with better living conditions.

The FA funding to strengthen the water access capacities of its populations will ensure that water supply systems are available in all selected villages. With the funding of the Adaptation Fund, hydraulic infrastructures such as boreholes and pumps will be built and local, regional and national actors will benefit from a strengthening of their capacity in sustainable water resource management. This funding will provide access to renewable energies such as solar energy for the operation of pumps. Thanks to this funding, repair artisans will see their capacities strengthened to intervene in the event of a breakdown of the installed systems, which will ensure their sustainability.

Workshops bringing together state actors in charge of water will be organized with a view to strengthening their capacities, better managing the resource, properly distributing roles and coordinating activities. Through the promotion of reforestation in recharge areas and raising awareness among rural communities of good phytosanitary practices in said areas, the financing of the FA will contribute to establishing the sustainability of groundwater supply, and therefore the sustainability of water supply to the targeted communities. The funding obtained will also improve the working conditions of schools and dispensaries by installing functional pumps. In short, the grant provided by the Adaptation Fund will be used to cover the cost of adaptation to climate change of rural communities in the five (5) target regions.

As noted above, each rural household in the targeted localities consumes an average of 100 liters of water per day, mainly from surface water sources. During the dry season, households are forced to fetch this water from the nearest neighboring villages, which have sustainable water supply systems, traveling 2 to 5 kilometers per day over the 4 to 5 months of this period. The 25-liter can purchased for 50 FCFA, like the populations of the host villages, costs 200 FCFA when taking into account the costs of transporting this water back home. Thus, to ensure its daily supply, each household in the target villages spends an average of 800 FCFA (1.6 USD).

With the project, the installation of sustainable water supply systems in the target localities will enable households to meet these daily needs. To ensure the management and maintenance of



the system installed with the support of the project, in order to ensure its sustainability, a contribution of 50 FCFA per 25-liter can will be requested, similar to the costs charged in villages that already have such systems. Thus, to cover their daily water needs, each household will have to pay 200 FCFA (0.4 USD). The adaptation cost, assessed by taking the difference between the situation without the project and the situation with the project, therefore amounts to 600 FCFA (1.2 USD) per household per day. Assessed over the 5-month drought period at a rate of 30 days per month, the adaptation cost will amount to 90,000 FCFA (180 USD) per household per year. It is this financial cost that the FA grant will help to support, with a view to ensuring the adaptation of communities in target localities to the harmful effects of climate change in order to guarantee their supply of drinking water.

Furthermore, by investing in drinking water supply infrastructure in the target localities, the project will improve the health situation of the population by reducing water-borne diseases linked to the consumption of generally unsanitary water from surface water sources, which constitutes the source of water supply for the populations in the absence of the project.

In addition, these investments, which bring drinking water sources closer to the population, will lead to a reduction in the time and effort spent on water supply, mainly for women and young people responsible for fetching water. This time saved can be used to engage in other social or economic activities for women, and learning time, school and recreational activities for young people.

#### **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 is linked to the impact it will have on the quality of life of the populations in the targeted areas and the benefits of this project in the long term. The sustainability aspect has been taken into consideration by involving the main stakeholders from the design phase. This is demonstrated by the involvement of administrative authorities, who have a legal mandate to supervise the project activities in the target localities in addition to the beneficiaries. Furthermore, several actions are planned to ensure the sustainability of the project results.

First, in addition to the installation of water supply infrastructure, it is planned to strengthen local technical capacities for the maintenance of infrastructure and equipment. To this end, actions will focus in particular on the training and equipment of local repair artisans and their deployment.

Then, emphasis will be placed on optimizing water management in beneficiary localities through the establishment or strengthening of village and regional committees for managing access to drinking water, strengthening the capacities of the committees set up, as well as raising awareness among local communities on climate change and the need for efficient water management and the establishment of sustainable community financing mechanisms for the maintenance and upkeep of infrastructure. Particular attention will be paid to establishing an economic cost to be paid by the populations for access to water that can help finance the maintenance of the installed devices.

Finally, the project provides for the implementation of measures to preserve water tables supplying vulnerable communities with water, by promoting reforestation in the water table recharge areas supplying the installed boreholes and raising awareness among rural communities about good phytosanitary practices in these areas. These actions aim to ensure the sustainability of the water table supply in terms of quality and quantity.

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

In accordance with FIRCA's environmental and social policy, the identification and analysis of potential risks arising from the implementation of the project will be carried out through the environmental and social screening procedure to ensure the implementation of appropriate mitigation measures.

To this end, an environmental and social management framework aligned with FIRCA's internal procedures and the Adaptation Fund's environmental and social policy will be developed and included in the full proposal development phase. This framework, which includes the environmental and social management plan, will specify all the impacts associated with the project and the associated risk mitigation plan.

Due to the nature of the activities identified, the project may be classified as Category B.

Sub-projects will be assessed in accordance with FIRCA's environmental and social policy, which is aligned with the Adaptation Fund's environmental and social policy, in the following stages: (i) screening or preliminary selection; (ii) environmental and social assessment of risks and impacts; and (iii) adoption of an environmental and social management plan.

The table below sets out the potential impacts and risks as well as the additional assessment and management required to comply with the Adaptation Fund's fifteen principles.

The table below presents the potential impacts and risks and the additional assessment and management required to comply with the fifteen principles of the Adaptation Fund.

**Table 5** : Environmental and social impacts and risks of the project

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>	OK	Risk: Failure to comply with all applicable national and international laws and regulations. Probability: Low Potential impact: High Measures: The IE will ensure that the project complies with applicable national and international law, as well as a description of the legal and regulatory framework for any project activity that may require prior authorization.
<i>Access and Equity</i>	OK	Risk: Failure to ensure and monitor fair and equitable access for all community members. Probability: Low Potential impact: Low Measures: IE will ensure that the project provides all members of the community with fair and equitable access to the benefits of the project, and is designed and implemented in a way that does not prevent any group from accessing essential services and rights referred to by: 1) carrying out stakeholder mapping to identify potential beneficiaries, rivals, protesters, marginalized or vulnerable people. 2) Using risk analysis to identify and assess the risk of impeding access to essential rights and services and exacerbating existing inequalities

<i>Marginalized and Vulnerable Groups</i>	OK	Risk: Imposing any disproportionate negative impact on marginalized and vulnerable groups. Probability: Low Potential impact: Moderate/High Measures: 1) identify and quantify marginalized, minority and vulnerable groups; 2) describe the main findings and characteristics of marginalized, minority and vulnerable groups; 3) identify the negative impacts that each marginalized, minority and vulnerable group is likely to experience; and 4) identify the monitoring mechanism that may be necessary during the implementation of the project.
<i>Human Rights</i>	OK	Risk: occurrence of human rights violations Probability: Low Potential impact: Moderate/High Measures: The project will comply with national and international human rights standards, policies, rules and regulations, including the UDHR. EI will ensure that human rights issues are part of stakeholder consultations during project identification and/or formulation, provide an overview of relevant human rights issues (if any) and monitor implementation.
<i>Gender Equality and Women's Empowerment</i>	OK	Risk: Unequal access between men and women to water and decision-making. Probability: moderate Potential impact: Moderate/High Measures: Gender will be mainstreamed into all components of the project. IE will assess the current situation, potential risks and the legal and regulatory context and proactively take measures to promote gender equality to ensure equal access to benefits and that there are no disproportionate negative impacts.
<i>Core Labour Rights</i>	OK	Risk: Project activities do not comply with core labour standards due to limited knowledge of labour rights standards. Probability: Low Potential impact: High Actions: The project will respect fundamental labour rights and integrate ILO standards into design and implementation, as well as raise awareness of how the standards can be applied.
<i>Indigenous Peoples</i>	No risk observed	In accordance with the guidelines of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) on the definition of indigenous peoples, we confirm that there is no indigenous population in Côte d'Ivoire and therefore in the targeted areas of the project.
<i>Involuntary Resettlement</i>	No impact on natural habitats	No risk observed but a full risk assessment will be undertaken at the fully developed proposal stage
<i>Protection of Natural Habitats</i>	No impact on natural habitats	No risk observed but a full risk assessment will be undertaken at the fully developed proposal stage
<i>Conservation of Biological Diversity</i>	No impact on biodiversity	No risk observed but a full risk assessment will be undertaken at the fully developed proposal stage
<i>Climate Change</i>	OK	Risk: Increased greenhouse gas emissions Probability: Low Potential impact: High

		Measures: The project will contribute to climate change adaptation measures. No GHG emissions expected. The project will demonstrate compliance by conducting a qualitative risk assessment for each of the climate change drivers mentioned, as well as any impacts of the project on carbon capture and sequestration capacity.
<i>Pollution Prevention and Resource Efficiency</i>	OK	Risk: Increased pollution and resource inefficiency Probability: low Potential impact: high Measure: The project will comply with established national and international pollution standards, and will minimize all sources and forms of energy, water and other resources in a reasonable and cost-effective manner, as well as the production of waste and the discharge of pollutants.
<i>Public Health</i>	OK	Risk: negative impact on public health Probability: low Potential impact: high Measures: The project design will ensure that public health is not negatively affected by conducting screening and health impact assessment in accordance with WHO recommended practices.
<i>Physical and Cultural Heritage</i>	No impact on physical and cultural heritage	No risk
<i>Lands and Soil Conservation</i>	No impact on land and soil conservation	No risk

## PART III: IMPLEMENTATION ARRANGEMENTS

### A. Demonstrate how the project/program aligns with the Results Framework of the Adaptation Fund

Project objective(s) <sup>29</sup>	Project objective indicator(s)	Fund Result	Fund performance indicator	Grant Amount (USD)
Impact: Strengthening access to drinking water for rural communities in the central part of Côte d'Ivoire, to reduce their vulnerability to the effects of climate change				
1. Strengthening the capacity of rural communities to access drinking water	Number of drillings, PMH, HVA installed	Outcome 4: Increased adaptive capacity within relevant services in the development and infrastructure asset sector	4.2. Improved physical infrastructure to withstand the climate change and stress induced by variability	7,416,977
	Number of boreholes, PMH, HVA rehabilitated			
	Length of the distribution network in linear meters			
	Percentage of population with access to installed infrastructure			
2. Strengthening the sustainability of access to drinking water for rural communities made vulnerable by climate change	Number of local village management committees created/strengthened	Result 3: Strengthened awareness and the appropriation of adaptation and adaptation processes reducing climate risks at the local level	3.1. Percentage of the target population aware of the predicted adverse effects of climate change and appropriate answers	700,000
	Number of people trained and equipped for the management and maintenance of structures			
	Number of regional committees established		3.2. Percentage of the target population applying appropriate coping responses	
	Area of reforested groundwater recharge area	Result 5: Increased resilience of ecosystems in response to	5.1. Number of natural resource assets created, maintained or improved to withstand conditions	
	Number of trees planted in			

<sup>29</sup> The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

	groundwater recharge areas	climate change and induced stress by variability	resulting from climate variability and change (e.g. type and scale)	
	Number of people made aware of good phytosanitary practices			
3. Sharing knowledge to promote learning about sustainable drinking water supply and management practices in a context of water resource scarcity due to climate change	Number of exchange and experience sharing visits organized	Result 3: Strengthened awareness and the appropriation of adaptation and adaptation processes reducing climate risks at the local level	3.2.1 Number of technical committees/associations formed to ensure the transfer of knowledge  3.2.2 Number of tools and guidelines developed (thematic, sectoral, institutional) and shared with the stakeholders concerned	300,000
	Number of documents on lessons learned from the project			
	Number of people (women/men) participating in knowledge dissemination activities			

<sup>1</sup>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<sup>2</sup>** *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:*

<p><b>LIADE Dissahonon Marie Sylvie</b></p> <p>Adaptation Fund National Designated Authority Environmental Engineer, Technical Assistant in charge of Climate Resource Mobilization</p>	<p>Date: January 9, 2025</p>
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**B. Implementing Entity certification** *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/program contact person's name, telephone number and email address*

<p>I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (.....list here.....) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.</p>



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



**N'DIAYE Oumar N'Gor**  
Implementing Entity Coordinator

Date : 10<sup>th</sup> January 2025

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Project Contact Person : **AYEMOU Djatin Edmond**

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MINISTRY OF ENVIRONMENT,  
OF SUSTAINABLE DEVELOPMENT  
AND ECOLOGICAL TRANSITION

DIRECTORATE OF INTERNATIONAL  
COOPERATION AND FUNDING  
MOBILIZATION

N° 00007 /MINEDDTE/CAB/DCIMF/ld

REPUBLIQUE OF COTE D'IVOIRE  
*Union - Discipline - Work*



Abidjan, the 09 JAN 2025



ADAPTATION FUND

**Letter of Endorsement by Government**

To: **Adaptation Fund Board**  
1818 H Street, NW  
Washington, DC 20433 USA  
Tel : 202.522.3240/3245  
Email : [afbsec@adaptation-fund.org](mailto:afbsec@adaptation-fund.org)

**Subject:** Endorsement of the concept note for the project "Strengthening access to drinking water for rural communities in the central zone of Côte d'Ivoire to reduce their vulnerability to the effects of climate change".

In my capacity as the designated authority for the Adaptation Fund in the Republic of Côte d'Ivoire, I confirm that the above national project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Côte d'Ivoire.

Indeed, the present project is fully in line with the National Adaptation Plan, which identifies water resources as one of the sectors most vulnerable to the effects of climate change. The project, which is part of the country allocation, aims to improve access to drinking water for rural communities in the central zone of Côte d'Ivoire, in order to reduce their vulnerability to the effects of climate change.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles (FIRCA) and executed by the National Climate Change Program (PNCC).



Sincerely

**LIADÉ Dissahonon Marie Sylvie**  
Adaptation Fund National Designated Authority  
Environmental Engineer, Technical Assistant in charge  
of Climate Resource Mobilization  
Tel: +225 07 57 39 35 15  
Email : [dissahononliade@gmail.com](mailto:dissahononliade@gmail.com)

**Appendix 1: List of attendance of consultations**

**INFORMATION COLLECTION MISSION FOR THE PREPARATION OF THE CONCEPT NOTE FOR THE SUPPORT PROJECT FOR STRENGTHENING ACCESS TO WATER FOR VULNERABLE POPULATIONS IN THE CENTRAL ZONE OF CÔTE D'IVOIRE (Tuesday 23 to Friday 3 May 2024)**

Region	Locality	Date of consultation	Actors met	Number of people met	Women	Men
IFFOU	DAOUKRO	April 24, 2024	- Regional Directorate of the Environment - Regional Hydraulic Directorate	09	01	08
	KOUAKOU KOUADIOKRO		-Women's President -Youth President - Village chief and inhabitants	06	02	04
	AMANI KOUAKOUKRO	April 25, 2024	- Village chief and inhabitants - President of Women -Youth President	18	08	10
	DAOULEBO		- Influential village executive	05	01	04
NZI	DIMBOKRO	April 25, 2024	- Regional Directorate of the Environment - Regional Hydraulic Directorate	02	00	02
	ADI KOUAKOUKRO		Camp resident	02	01	01
GBEKE	BOUAKE	April 26, 2024	- Prefecture - Regional Directorate of the Environment - Regional Hydraulic Directorate	04	00	04
	DEKRETA	April 26, 2024	- Village Chief - President of Women - Youth President - Community Member	29	10	19
	BLAFONOU		- Village Chief - President of Women - Youth President - Community Member	20	16	04
	AMANIKRO		- Village Chief - President of Women - Youth President - Community Member	05	03	02
MARAHOUÉ	BOUAFLE	April 27, 2024	- Regional Directorate of the	02	00	02

Region	Locality	Date of consultation	Actors met	Number of people met	Women	Men
			Environment - Regional Hydraulic Directorate			
	TAAFLA	April 28, 2024	- Village Chief - President of Women - Youth President Community Member	10	04	06
	KOUREFLA			26	10	16
	YOBOUET N'GUESSANKRO	April 29, 2024	- Village Chief - President of Women - Youth President - Community Member	20	6	14
YAMOOUSSOUKRO DISTRICT	YAMOOUSSOUKRO	April 30, 2024	Regional Hydraulic Directorate	05	00	05
RAM	TOUMODI	02 05 2024		07	01	06
<b>TOTAL</b>				<b>232</b>	<b>139</b>	<b>93</b>

**NATIONAL STAKEHOLDER CONSULTATION WORKSHOP FOR THE PREPARATION OF THE CONCEPT NOTE FOR THE PROJECT  
“STRENGTHENING ACCESS TO CONSUMPTION WATER FOR RURAL COMMUNITIES IN THE CENTRAL ZONE OF COTE D’IVOIRE  
TO REDUCE THEIR VULNERABILITIES TO THE EFFECTS OF CLIMATE CHANGE”**

**(Thursday October 31, 2024 in Bouaké)**

Organization		Number of people met	Women	Men
<b>Ministries</b>				
1 Ministry of the Environment, Sustainable Development and Ecological Transition (Cabinet; Focal Point Adaptation Fund, DLCCTE, DCIMF, PNCC, Gender and CC)		6	0	6
2 Ministry of Hydraulics, Sanitation and Health (DR of the 5 regions concerned)	DR IFFOU	1	0	1
	DR N'ZI	1	0	1
	DR BELIER	1	1	0
	DR MARAOUHE	1	0	1
	DR GBEKE	2	0	2
3 Gbêkê Region Administration	Ministry of Water and Forests (DR Gbêkê)	1	0	1
	DR Environment	1	0	1
	DR Agriculture	1	1	0
	DR Animal and Fisheries Resources	1	0	1
	DR Family, Women and Children	1	0	1
	DG SODEXAM	1	0	1
	DR SODECI Bouaké	1	0	1
DE FIRCA (2 UFA, 2 SERGEN, Consultant, CP Cola, DE)	8	4	4	
Prefectural Corps	Prefect of the Gbêkê Region	1	0	1
	Sub-Prefects of Gbêkê	4	1	3
Local Authorities	Gbêkê Regional Council	3	1	2
Rural communities	Water management committees of 7 localities (Village chief + 1 member + 1 women's representative) chosen in the 5 regions targeted by the project	29	8	21
<b>GRAND TOTAL</b>		<b>64</b>	<b>16</b>	<b>48</b>



**Revised PFG Submission Form<sup>1</sup>**  
**Project Formulation Grant (PFG)**

**Submission Date:** 10<sup>th</sup> January 2025

**Adaptation Fund Project ID:**

**Country/ies:** Côte d'Ivoire

**Title of Project/Programme:** Strengthening access to drinking water for rural communities in the central zone of Côte d'Ivoire to reduce their vulnerability to the effects of climate change.

**Type of IE (NIE/RIE/MIE) :** NIE

**Implementing Entity:** FIRCA (Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles)

**Executing Entity/ies:** FIRCA

**A. Project Preparation Timeframe**

<b>Start date of PFG</b>	1 <sup>st</sup> June 2025
<b>Completion date of PFG</b>	31 <sup>st</sup> May 2026

**B. Proposed Project Preparation Activities (\$)**

<b>List of Proposed Project Preparation Activities</b>	<b>Output of the PFG Activities</b>	<b>US\$ Amount</b>	<b>Budget note<sup>2</sup></b>
Field visits to the project area to validate the project design and obtain information for a complete project proposal.	Validated project design	20,000	Expert missions (hydraulics, gender, environment, project set-up) in the 5 target regions.
Development of the environmental and social management framework (ESMF)	ESMF report	5,650	Mobilization of environmental study experts for ESMF drafting
Initial gender analysis	Gender Action Plan	4,800	Mobilization of gender experts for the drafting of the Gender Action Plan
Geophysical survey for borehole location	Localities validated and sites identified for drilling and pump installation in each selected locality	56,800	Mobilization of geophysical experts for the study

<sup>1</sup> As presented in AFB/PPRC.33/40 Annex 1.

<sup>2</sup> The proposal should include a detailed budget with budget notes indicating the break-down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.



Workshops to develop a complete project proposal and take into account the Adaptation Fund Secretariat's comments on the proposal before approval (Detailed analysis of project components; Development of project log frame and results framework; Detailed project budget development)	Well described and detailed Project components  Detailed Project Logframe and Results Framework developed.  Detailed and concrete project budget  Full Project Proposal developed	30,000	3 workshops planned:  Preparation of the full proposal  Consideration of comments from the first AF review  Consideration of comments from the second review of the AF
Stakeholders' workshops for validating the project design and inputs for full proposal development	Workshop reports, validated project design, improved design, inputs to the design process	20,000	Final stakeholder consultation workshop
FIRCA Management fees	PFG execution report	12,750	Supervision of the preparation of the full proposal Reporting on the implementation of the PFG
<b>Total Project Formulation Grant</b>		<b>150,000</b>	

**Field visits to the project area to validate the project design and obtain information for the preparation of full proposal:** Field visits to the project area are essential to gather additional data and information to finalize the project design. These visits will mobilize a multi-disciplinary team of experts including gender, environmental, hydraulic and project management specialists. During these visits, consultations with local communities, administrative authorities and other stakeholders will be carried out to deepen the exchanges initiated during the elaboration of the concept note. Activities during this mission will focus on (i) data collection on the vulnerability of populations to the effects of climate change, (ii) the division of tasks in the supply of water to communities, (iii) the monitoring of local natural resources, (iv) the collection of environmental and social data, and so on.

**Preparation of the environmental and social management framework for the full proposal.** Based on the data collected during field missions, this phase will consist of drawing up the project's Environmental and Social Management Framework document.

**Initial gender analysis:** Based on data collected during field missions, this phase will involve drawing up the project's Gender Action Plan.

**Geophysical survey:** Expert geophysicists will be mobilized to carry out preliminary studies, enabling us to identify localities with groundwater resources capable of ensuring water supply in each area targeted by the project. In each locality, potential drilling sites and pump locations will also be identified. This study will make it possible to identify potential localities to be equipped with permanent drinking water supply systems.




**Preparation of the full proposal:** This will take the form of three technical workshops, bringing together all the project's technical experts to consolidate the results of the various consultations. The first of these three workshops will consist of a quality review, consolidating and integrating all the data collected and the results of the studies into the final technical proposal to be submitted to the stakeholders for validation at the validation workshop. The next two workshops will involve taking into account the various observations made by the Adaptation Fund Secretariat during the two technical reviews that are carried out before the complete proposal is submitted to the AF Board.

**Workshop to validate the full proposal.** This workshop brings together all project stakeholders to validate the final technical proposal and the institutional arrangement for implementing the project before its first submission to the Adaptation Fund Secretariat.

**C. Implementing Entity**

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
N'DIAYE Oumar N'Ger		10th January 2025	AYEMOU Djatin Edmond	+225 0707880380	ayemou@fipa.ci