PROJECT PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT INFORMATION

Project Category:	PROJECT
Country:	REPUBLIC OF CONGO
Title of Project:	Building adaptive capacity to climate change in vulnerable communities living in the Congo River Basin
Type of Implementing Entity:	MULTILATERAL IMPLEMENTING ENTITY
Implementing Entity:	WORLD FOOD PROGRAMME
Executing Entity:	Ministry of Tourism and Environment
Amount of Financing Requested:	USD 9,932,901 (5 years)

A. Project Background and Context

1. Geography and Climate

Figure 1: Map of the Republic of Congo and its Departments

The Republic of Congo (RoC) is located in central Africa and extends over 342 000 km². Congo is located around the equator. The country is bordered by Gabon, Cameroon, the Central African Republic, the Democratic Republic of Congo and the Angolan enclave of Cabinda. The Atlantic Ocean borders the Congo in the south west on 170 km. Access to the ocean is a major asset for the country as it is a business opportunity and a gateway for the whole central African region (Fig. 1).

Congo's hydrographic network includes the Congo River, the second largest river in the world by discharge volume, following only the Amazon. There are several secondary rivers like the Sangha, the Djoué, the Léfini, the Oubangui, and the Alima. This large water network is an advantage for the country as it provides opportunities for transport, irrigation, biodiversity, and energy among others.

Generally, the climate in Congo is humid and hot, with two rainy seasons and two dry seasons, with rainfalls usually between September and December, and from April to May (Figure 2).

More specifically, there are 3 distinct climatic zones:

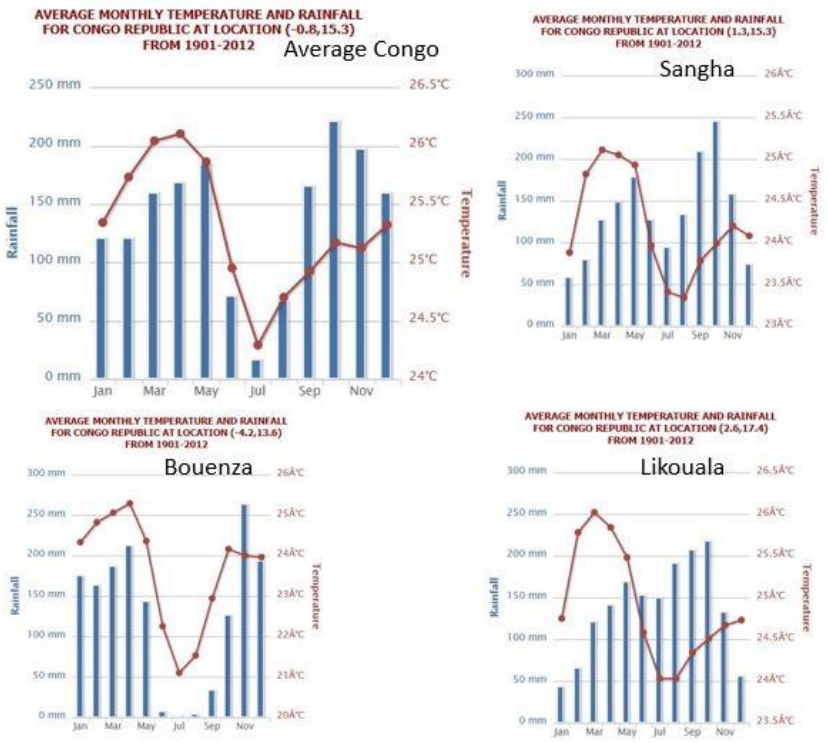


Figure 2: Congo average monthly temperature and rainfall 1901-2012 (World Bank RoC Dashboard)

- the equatorial climate in the north of the country, characterized by high humidity and rainfall of more than 1,700 mm with an average temperature between 24°C and 26°C;
- the humid tropical climate in the southwest, where average annual rainfall ranges from 1,200 mm in the south to 1,700 mm in the hills near Gabon; with the average monthly temperature between 21°C and 27°C;
- the sub-equatorial climate, in the plateau and basin regions, intermediate between the two previous ones; with average annual rainfall of about 1,600 mm.[1]

There are two types of landscapes in the country: the forest, which represents 69% of the country, and the savannah[2]. The RoC is home to 23.5 million hectares of the Congo Basin forest, the world's second-largest swath of tropical rainforest[3]. Forestry, mining, agricultural practices and growing populations in forest areas pose challenges to biodiversity conservation and protection of the existing forest stock. In 2017, scientists from the University of Leeds and University College London discovered the world's largest tropical peatland located in the Cuvette Centrale in the central Congo basin. The peatlands are estimated to cover 145,500 sq km (1/3 are located in the RoC, the rest are in DRC) and could lock in 30bn tons of carbon that was previously not known to exist, making the region one of the most carbon-rich ecosystems on Earth.

Despite the country's commitment to promote a green and blue economy, the induced effects of human activities have an impact on Congo's environment. The country is facing sustained degradation of its natural resources and environment due to anthropogenic pressures from overexploitation of forest and mining products, increased fallows due to loss of soil fertility, and excessive land clearing for agricultural purposes and repeated bushfires. This situation is even more pronounced in the vicinity of the country's major cities.[4]

2. Economy and Poverty

The RoC is a lower middle-income country. The gross national income (GNI) increased from US$600 in 2000 to more than US$2,500 in 2014.[5] The proportion of the population living below the poverty line has decreased from 50.7% in 2005, to 46.5% in 2012, and 35% in 2014[6]. However, since the current ongoing economic crisis, it is estimated that the poverty rate has raised to 54%. Inequalities between urban and rural areas are high, as the level of poverty in urban areas is 32.3% compared to 74.8% in rural ones[7].

Life expectancy at birth is 51.9 years. The maternal mortality ratio is 4.36 deaths per 1,000 live births, the neonatal mortality rate is 21 deaths per 1,000 births and the infant mortality rate of 56.40 per 1,000 live births.

[1] Ministry of Tourism and Environment
[2] National Development Plan 2018-2022, June 2018
[3] REDD+ Investment Plan, 2018
[4] Initiative Développement
[5] Systematic Country Diagnostic for the Republic of Congo, The World Bank, July 2018
[6] National Development Plan 2018-2022, June 2018
[7] Bilan commun de pays en République du Congo ODD, July 2018

The malnutrition rate remains high, with a total of 1.4 million people estimated as malnourished and 31% of children stunted[8].

In view of its geographical proximity to fragile and conflict affected countries, the RoC was hosting 54,000 refugees and asylum seekers as of end-2016[9], mostly originating from DRC, the Central African Republic and Rwanda.

The population is estimated at 5.2 million inhabitants (in 2018), with a 3% annual growth rate – 51% of the population are women and 47,7 % are under 20 years old[10].

The average population density is 15 inhabitants per km², but 66% of the population lives in cities. The two largest cities, Brazzaville and Pointe Noire, account for 56% of the total population of the country and for 90% of the urban population[11].

It is estimated that 8% of the total Congolese population is composed of indigenous people, representing around 400,000 persons[12]. Most indigenous communities live in Northern Congo (Likouala and Sangha Departments) and are a very vulnerable segment of the population, particularly exposed to food insecurity, malnutrition and poverty. Indigenous populations depend on rain-fed farming and broader natural environment for their income and nutrition. Their livelihoods and food security are therefore highly climate-sensitive. The relationship between local communities (often called "Bantous") and indigenous people is usually based on unequal economic alliances based on specific activities such as farming or hunting. These relationships often favor the economic interests of local communities over those of indigenous people. Indigenous women have even less economic opportunities and are thus even more vulnerable than indigenous men.

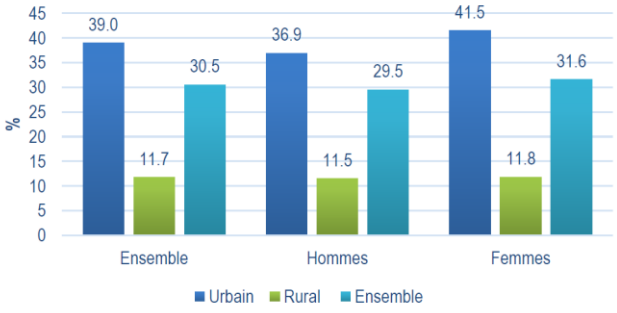


Figure 3, Congo unemployment (ETVA, 2015)

In general, gender inequality is high in RoC. Young women between 15 and 24 years old are less literate than men (76.9% women, 85.7% men). These low levels of literacy and education reduce women's access to vocational training and employability and increase their vulnerability to poverty (Figure 3). Historically, Congo is based on a patriarchal societal organization[13]. Women are a vulnerable group with 33% of them married before 18 and traditional practices limiting women's ability to access land and other productive assets.

However, the country is committed to fighting against gender inequality, notably through the Sustainable Development Goals[14].

Congo has not been able to leverage its natural resources to achieve robust socio-economic outcomes. Despite steady GDP growth of 5% over the past 10 years (before 2014) due to oil revenue, Congo's key social indicators, notably health and education outcomes, as well as service delivery do not match those of countries with similar GDP per capita.

The last oil counter-shock in 2014 revealed the fragility of the country's economy. Indeed, GDP fell by -3.1% in 2016 and -5% in 2017 according to IMF estimates. The country currently presents a high risk of debt sustainability, with a debt ratio of over 117% of GDP at the end of 2017, which may compromise the country's ability to finance its development. This situation is compounded by an unfavorable business environment that hampers private sector growth and business competitiveness, as confirmed by the country's performance in *Doing Business 2019* with a position of 180th out of 190 countries. In addition; Congo has been losing places in the *Doing Business* ranking for the last 3 years in a row[15] .

[8] Systematic Country Diagnostic for the Republic of Congo, The World Bank, July 2018. Undernourishment means that a person is not able to acquire enough food to meet the daily minimum dietary energy requirements, over a period of one year. FAO defines hunger as being synonymous with chronic undernourishment. Food Hunger Map 2015.
[9] United Nations High Commissioner for Refugees
[10] National Development Plan 2018-2022, June 2018
[11] Note publique, projet relance agricole en République du Congo, Agence Française de Développement, 2018
[12] WFP Bétou
[13] Gender Brief -WFP, 2018
[14] Bilan commun de pays en République du Congo ODD, July 2018
[15] http://documents.worldbank.org/curated/en/190781541072478748/Doing-Business-2019-Training-for-Reform-Congo-Republic-of

Today, the Congo wishes to diversify its economy out of the oil sector. The National Development Plan (2018-2022) focuses on agriculture, tourism and industry development. This represents a potential threat to the forest stock, as agriculture, forestry, and mining are among the key alternative sectors identified for economic diversification, which can have severe impacts on forests and on the local communities if not carried out responsibly.

The recent conflict in the Pool Department (200 km south of Brazzaville), which began just after the last election in 2016, impacted the country's agricultural production, as this region was the main food supplier to Brazzaville. The conflict has also had adverse effects on the overall welfare of the population. Internally displaced people were estimated at 138,000 people at the end of 2017. Moreover, guerilla activities have damaged infrastructure and led to the interruption of supplies to Brazzaville, including of oil products. However, a ceased fire was signed in December 2017. The government has agreed to offer amnesty to militia members in the region and to organize a programme of disarmament, demobilization, and reintegration under the supervision of the United Nations.

3. Focus on Agriculture

Despite good agricultural potential with an estimated 10 million hectares of arable land, the cultivated area (arable land and permanent crops) covers 240,000 ha, representing 0.7% of the national territory and 2% of the arable land[16]. Congo's agriculture is based on smallholder families that occupy 80% of the land under cultivation and produce 90% of the agricultural output. Productivity by international and even regional standards is low. The sector is unable to cover the country's food needs and the country is heavily dependent on food imports ($1.2 billion or 75% of total population needs in 2016).[17] Congo's agriculture thus remains mostly a subsistence family agriculture.

Furthermore, agriculture's contribution to GDP represents only 3.6%, whereas it constituted 30% of the national wealth in the 1970s. This can be explained by: (i) State disengagement from the productive sector; (ii) insufficient financing of the sector; (iii) absence of financing mechanisms adapted to the needs of smallholder farmers; (iv) almost total absence of infrastructure for processing, conservation and storage of agropastoral and fishery products; (v) isolation of several areas of high production; and (vi) ageing workforce[18].

Overall, women's land holdings are limited. In 2002, the government reported that women accounted for 70% of the agricultural workforce but owned only 25% of the agricultural land – usually in small holdings[19].

The main agricultural production areas in the RoC are: Niari Valley, Batéké Plateaux, Pool and Bouenza. Agricultural yields are low, the supply of quality seeds is very complicated, and agriculture depends on rainfall because there is no irrigation system. Livestock farming is not developed so there is no income diversification for households who then depend solely on crops. All these elements increase the vulnerability of livelihoods to climate change.

The development of agriculture is one of the government's priorities in order to diversify the country's economy; and the National Development Plan 2018-2022 wants to encourage the professionalization and financing of this sector.

4. Climate change vulnerabilities, impacts and risks

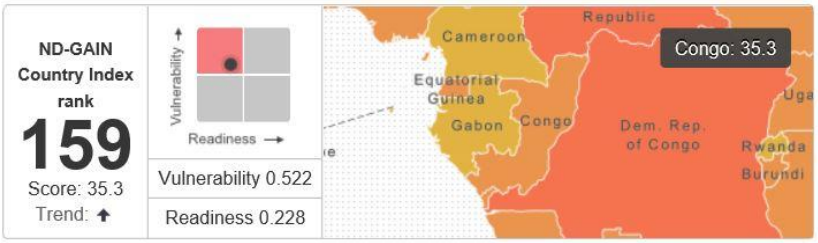


Figure 4: The ND-GAIN country Index

The ND-GAIN Country Index (Figure 4) positions Congo in the upper-left quadrant of the ND-GAIN matrix, meaning high vulnerability and low readiness. Congo is the 45th most vulnerable country and the 19th least ready country. It has both a great need for investments and innovations to improve readiness, and a great urgency for action.[20]

[16] Ministry of Agriculture
[17] National Food Security and Nutrition Policy
[18] National Development Plan, 2018-2022
[19] Gender analysis, WFP 2018
[20] https://gain-new.crc.nd.edu/ranking

Historical climate trends for RoC (1951-1999) show an increase in temperatures and a decrease in precipitations[21]:

- Mean annual temperature has increased (+0.6° C)
- Average maximum temperatures have increased (+0.76° C)
- Average minimum temperatures have increased (+0.69° C)
- More erratic and extreme rainfall

The results of the "Assessment of climate change in the Republic of Congo" indicate an increase in temperatures throughout the territory as shown by **Error! Reference source not found.**. [22]

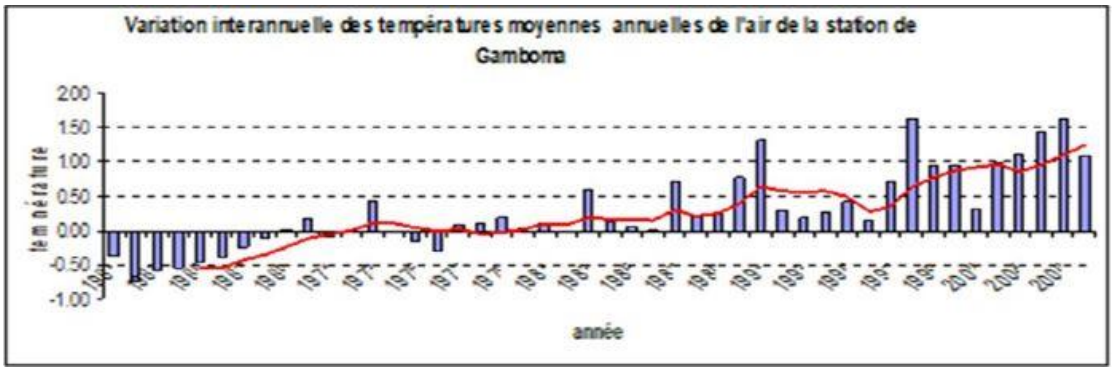


Figure 5: Annual variation of temperatures 1965-2003

Isohyets have evolved since 1932 and indicate a slight decrease in annual precipitation.[23] Climate projections towards the end of the 21st century likely have a warming in the range of +1.5-+3°C for the low emission scenario, and in the range of +3.5-+6°C for the high emission scenario.[24] These projections do not show a significant change in total annual precipitation (Figure 6).

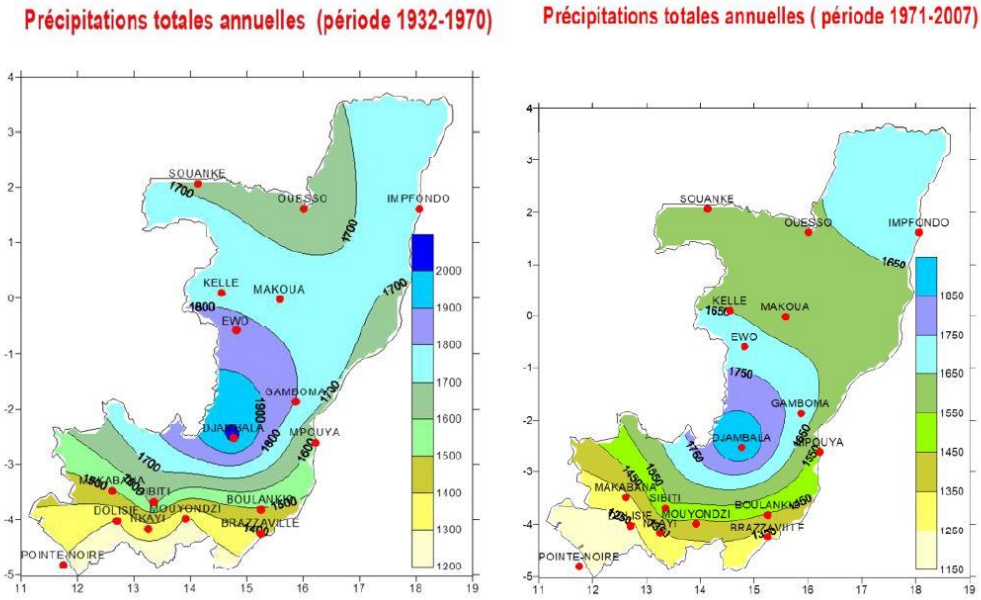


Figure 6: Annual isohyets 1932-2007

[21] World Bank RoC Dashboard

[22] Direction of meteorology "Assistance Météorologique aux Agriculteurs en République du Congo" Patrick IMPETI-N'DIAYE, Hilaire ELENGA and Wilfrid Serge Raoul LIKEBA LOUAMBA, 2008

[23] Direction of meteorology

[24] Climate Service Center Report 11 - Climate Change Scenarios for the Congo Basin

The geographical context of the country, its water network, its location with sea access, and its forest cover, give to the RoC an important place in the fight against climate change. The main climate change risks that Congo is facing are: rising temperatures, increased inter-annual and intra-annual rainfall variability, rising sea levels and more frequent and intense extreme weather events. It is expected, for example, that the intensity of heavy precipitation will substantially increase (likely range up to +30%). These risks translate into high environmental and socio-economic vulnerability.

The risks posed by climate change can slow the country's development curve as its impacts are a threat to Congolese society, economy and environment. The economic situation described above does not provide to the Congolese population the necessary reactivity to face climate change. Extreme weather events, sea-level rise, average global temperature rise and unpredictable rainfall patterns have considerable effects on people's livelihoods. Consequently, changing climatic conditions threaten the achievement of development goals, with extreme consequences for the most vulnerable social groups. Large parts of the economy in Congo are highly climate sensitive in particular the agriculture, infrastructure and water sectors. Also, livelihoods are highly dependent on climate-sensitive natural resources such as dry land agriculture, forestry and local water resources. There is little protection against disasters from storms and floods and there is limited adaptive capacity.

RoC's agriculture is directly affected by climate change. The temperatures in the region are already higher, and higher temperatures could further negatively affect crop production as during dry and hot years the economic output of the agricultural sector was negative while during average and above average rainfall years the economic output of the agricultural sector was growing[25]. Smallholder farmers in general are vulnerable to higher temperatures, but women smallholder farmers are more vulnerable than men because they have limited land tenure as well as limited access to and control over productive assets. In addition, high intensity rainfall and high humidity is currently limiting agricultural production through nutrient leaching and fungal growth. Higher temperatures can increase diseases and fungal infections. Stronger precipitation can also potentially increase erosion. Furthermore, there is no infrastructure or technology to preserve produces, which causes high level of post-harvest losses. This contributes negatively to the problem of food insecurity the country is facing. Lastly, higher short and violent rains will increase flood risks (flood frequency and severity) which might have a substantial impact on Congo's agricultural systems, even if the mean annual water availability stays constant.

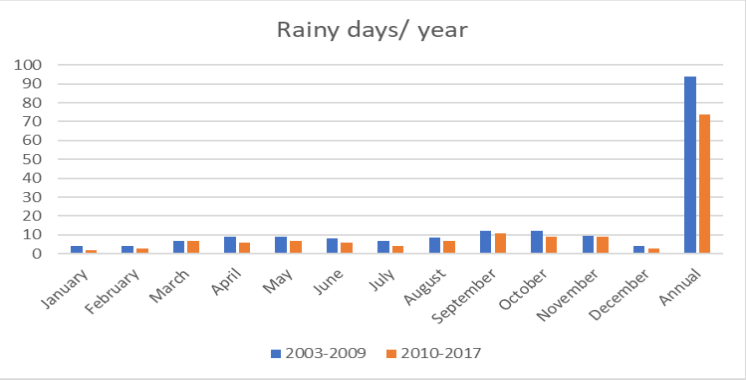


Figure 7: Number of rainy days between 2003 to 2017 (source: CIB)

Congo Industrielle du Bois (CIB) meteorological data (Figure 7) shows that even if the average total annual rainfall is not strongly impacted by climate change (1632 mm/year on average for 2003-2009 and 1601mm/year for 2010-2017), the rains no longer follow the same pattern and there are fewer rainy days in a year, which directly influences the daily work of smallholders. It rained on average 94 days per year in the period 2003-2009, and only 74 days in the period 2010-2017. Similarly, the number of dry spells during the rainy season is also likely to increase. Agriculture in the savanna regions surrounding the Congo basin could potentially face higher water shortages in the future due to more frequent droughts. Producers are already reporting that they are experiencing: (a) earlier planting times and longer crop cycles; (b) soil degradation, which makes some crops no longer suitable; and (c) greater occurrences of flooding. People need to adapt to uncertain rainfall patterns as the timing of the 2 annual rainy and 2 dry seasons is changing. This induces changes in land preparation, planting and fertilization schedules.[26]

During the various partner consultations in Brazzaville and with the local communities in northern Congo, it emerged that one of the major climate change impacts already observed is the decrease of water level and

[25] Climate Change Scenarios for the Congo Basin, 2013
[26] Consultations in Bouenza

flow on the main rivers, as well as the drying up of small streams near villages. This reduces fishing but also limits and blocks the flow of agricultural produce travelling to Brazzaville by boat.

From a health point of view, the expected climatic conditions might increase the development of waterborne diseases and infectious and vector diseases[27].

There are currently very few, if any, studies that have been conducted regarding the impacts of climate change on indigenous people in Congo. Given their intrinsically forest-related lifestyle, we can assume that their lifestyle habits will be directly impacted. For example, the disruption of the seasons could have a direct impact on forest fauna, the basis of the diet for indigenous peoples (e.g. caterpillars, honey, mammals).

B. Project area and Target groups

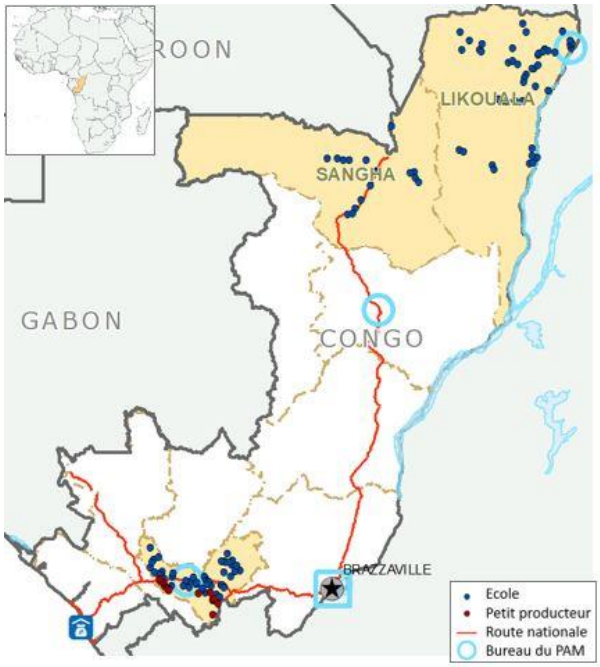


Figure 8: target area (WFP, 2018)

The proposed project aims to strengthen food and nutrition security through climate change adaptation measures, with a particular focus on indigenous people and smallholder farmers (of which 70% are women). The project thus purposely targets those who are most affected by climate change, poverty, food insecurity, and who rely on agricultural livelihoods that are limited by and vulnerable to climate change impacts, especially women and other marginalized groups.

The project has a national coverage for most outputs of component 1 and 2, particularly regarding defining policies, institutional capacity building and building national climate services. A large portion of the whole population of Congo (around 5.2 million inhabitants) should thus indirectly benefit from the project activities. Specifically for component 3, one part of component 2 and some pilot activities of component 1, the targeted areas are the Departments of Likouala and Sangha (Northern part of the country mainly covered by rainforest), and the Department of Bouenza (South-Eastern part of the country), which is facing a high level of deforestation due to extensive agriculture practices. These zones are vulnerable to climate change and have poor socio-economic status which denotes chronic vulnerability. Bouenza is an agricultural Department whose producers are especially impacted by seasonal variability. Given the project aim to target vulnerable populations affected by climate change and variability, the Sangha and Likouala Departments are paramount as the vast majority of Congolese indigenous populations are located in these two Departments. Furthermore, WFP is already active in these three Departments with strong local presence and offices in Bétou (Likouala) and Nkayi (Bouenza), which will facilitate project oversight and support to the executing entity. Project activities at local level will target **135 villages representing around 60,000 people** (see Figure 8 for exact location of villages). In order to maximize synergies, these 135 villages are located nearby WFP ongoing activities and projects and include 126 WFP supported schools (21,307 students including around 4,500 indigenous children) and 200 bean producers supported by the WFP's smallholder project.

C. Project Objectives

The overall goal of the project is to **enhance the adaptive capacity of vulnerable communities to the effects of climate change on food security.** Project actions will contribute to reducing vulnerability to the impacts of climate change and strengthening adaptive capacities of vulnerable communities and the ecosystems they depend on, by promoting food security, nutrition and gender equality.

The project will achieve this by pursuing the following 3 objectives:

[27] Ministry of Tourism and Environment

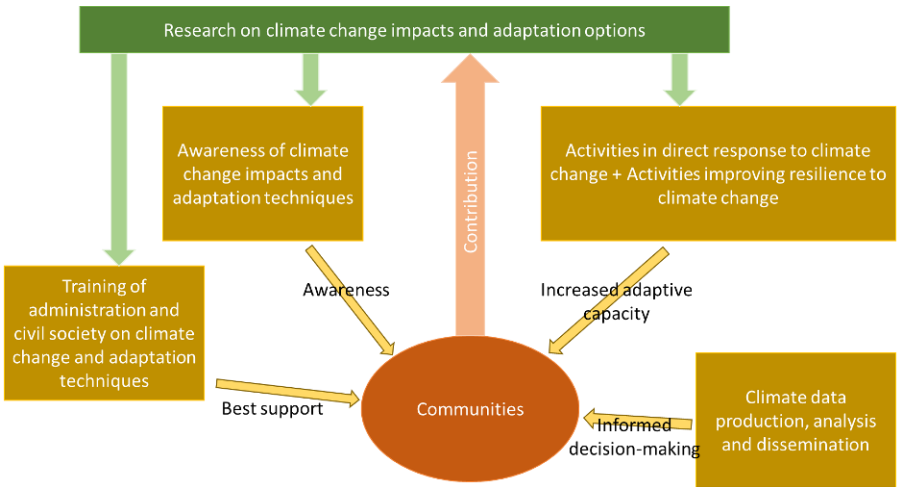


Figure 9: schematic view of the project structure

Improve knowledge at national and sub-national level on the impacts of climate change in Congo and sensitize population and partners to the current and future impacts of climate change and climate variability and about possible adaptation solutions (Component 1).

The knowledge and literature on climate change impacts on livelihoods and food security is still very limited in Congo so there is a need to raise population's awareness on climate change and climate variability, its impacts as well as on the adaptation solutions that are relevant/specific to their context. This component will also raise awareness on the relation between forests/environment and impacts of climate change, how current practices (e.g. "slash and burn", tree cutting for charcoal and fuel wood, etc.) can lead to environmental degradation and exacerbated impacts of climate change. The impacts of climate change on indigenous people living in RoC are currently not documented, so the project will make sure to integrate the indigenous communities specificities into its studies and research.

Strengthen access to relevant weather and climate information by vulnerable communities (Component 2).

Communities do not have access to relevant weather and climate information. At present there is a daily weather forecast bulletin aired on national television, but smallholder farmers usually don't see it (the overwhelming majority don't even have access to a television). Vulnerable households' livelihoods and food security are affected from increased climate variability and changes in rainfall patterns, which makes it difficult to plan ahead. In addition, the reduction in the number of continuous rainy days and the increase in their intensity leads to erosion and increases crop losses. Timely information can support households in making informed decisions on their livelihood options ahead of the season to better manage risks. Through the implementation of last mile climate services, the project aims at identifying specific climate and weather information needs of target communities/individuals and working together with key partners, end-users and stakeholders, will develop tailored services that will meet needs identified and enable informed decision-making for climate risk management. WFP has been working with partners in several African countries to support communities better accessing information through climate services, with a strong focus on users-centered development of products, co-production and feedback mechanisms. This expertise will inform the work in RoC.

Strengthen resilience at community level through concrete adaptation measures and improved food systems, including fostering climate resilient agriculture and establishing market linkages for sustained income generation activities (Component 3).

Activities under this component will be implemented in the three selected departments: Bouenza, Likouala and Sangha. This component is closely linked to the results of component 1 and activities will be adapted following the results of the research and studies conducted. This component will have two outputs: the first output (in line with the results of component 1) will support communities in building assets and engaging in alternative livelihood activities that can withstand future impacts of climate change (higher temperatures, erratic rainfall, etc). For example, indigenous people say that the wild gathering of honey is highly impacted and therefore less and less practicable; accompanying the populations to beekeeping could be considered to allow for a continuity of the honey activity. Another example could be the promotion of climate smart agriculture practices and improved water management in Bouenza.

In a second phase, the objective of component 3 will be to strengthen population resilience by consolidating sources of income by working on value chains. When changing agricultural practices and crops to more resilient ones, the access to markets could also be impacted. It is therefore imperative to also ensure that value chains are addressed in the project. By linking farmers to new markets, financial security and sustainability of the project can be achieved. WFP's experience in this field will inform activities aimed at supporting farmers in diversifying sources of income and linking them to markets.

D. Project Components and Financing

Project Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
Component 1: Awareness raising and knowledge on managing long term impacts of climate change	1.1 Deepened knowledge on the impacts of climate change in Congo	1.1.1 Research, studies and focus groups on historical climate change trends and future climate scenarios to formulate adaptation solutions	400 000 $
	1.2 Increased technical capacity at national and district level of government institutions and civil society	1.2.1. Agricultural sector managers, Department Directorates of Environment, Sustainable Development, Meteorology, Forests ministries and civil society are trained on climate change adaptation	300 000 $
		1.2.2 Congo's population benefits from the Government's adoption/implementation of a multi-sectoral and community-oriented national climate adaptation policy	150 000 $
	1.3 Sensitized population and partners on climate change, its impacts and possible adaptation solutions	1.3.1 Vulnerable children benefit from trainings on climate change and climate adaptation	140 000 $
		1.3.2 Vulnerable communities benefit from customized awareness-raising campaigns	350 000 $
Component 2: Strengthen access to climate services to manage climate variability	2.1 Improved access to climate services information adapted to users	2.1.1 The government has improved capacity to collect and analyze weather data through the purchase of technical equipment and the technical strengthening of its teams	750 000 $
		2.1.2 Government and communities benefit from increased capacity of smallholder farmers to engage in grass-root data collection and co-production of key messages	300 000 $
		2.1.3 Vulnerable communities benefit from strengthened dissemination channels to ensure communication of tailored climate services	850 000 $
Component 3: Support the development of resilient livelihoods	3.1 Increased adaptive capacity of communities and households to respond to climate change	3.1.1 Targeted communities affected by climate change benefit from the adaptation of productive assets that support transition towards resilience and self-reliance	2 700 000 $
		3.1.2 Targeted communities employ diversified income-generating activities and have better access to markets to improve their productivity, income, livelihoods and nutrition	2 420 500 $
Total Operational Cost			8 360 500 $
Project Execution Cost (9,5%)			794 247 $
Total Project Cost			9 154 747 $
Project Cycle Management Fee charged by the Implementing Entity (8,5%)			778 154 $
Amount of Financing Requested			**9 932 901 $**

E. Projected Calendar

Milestones	Expected Dates
Start of Project Implementation	January 2020
Mid-term Review	June 2022
Project Closing	December 2024
Final Evaluation	April 2025

PART II: PROJECT JUSTIFICATION

A. Describe the project components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience.

Component 1: Awareness raising and knowledge on managing long term impacts of climate change (1 340 000 $)

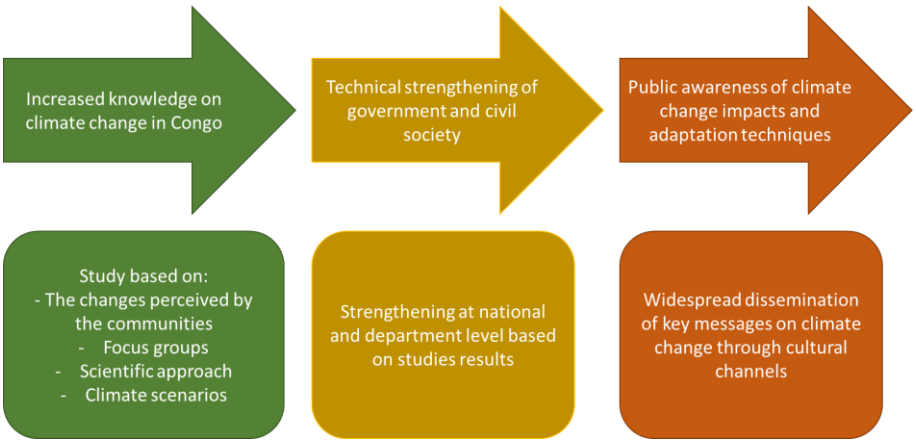


Figure 10: schematic structure of Component 1

Currently, there is only limited information about climate change impacts in RoC and a clear lack of awareness at government and community levels. Through this component, the project aims initially at strengthening knowledge in terms of climate change and climate variability and at identifying its impacts on food security and livelihoods. This component is intended to be the foundation of the project. It will collect the necessary scientific data, build institutional capacity and raise community awareness of localized climate change and adaptation options.

Outcome 1.1: Deepened knowledge on the impacts of climate change in Congo

This outcome aims to strengthen evidence of the impacts of climate change on livelihoods and food security but also to formulate locally-specific adaptation solutions. The data collected via this outcome will be used directly to detail activities under outcome 1.2 and 1.3, as well as for the two other project components.

It will build on studies already available or currently being carried out by other partners, like UNDP, FAO, the World Bank (WB) and Agence Française de Développement (AFD). Additional studies will be planned to complement existing data/information and will encourage exchanges with the populations, with the aim of disseminating climate change information and increasing ownership by the population of adaptation solutions.

Output 1.1.1 Research, studies and focus groups on historical climate change trends and future climate scenarios to formulate adaptation solutions

The scope of this output is to analyze historical trends and how they have impacted food security and livelihoods of both indigenous and bantu[28] communities in Congo, develop downscaled, future scenarios (30 years or more), and identify context-specific adaptation solutions. It will build on existing and ongoing studies carried out by partners[29], complement them with scientific data and gather information directly from communities.

The set-up of discussion groups with smallholder farmers and vulnerable communities will allow to get bottom-up feedback and information as well as to raise awareness and understanding of climate change impacts on livelihoods and nutrition/diet diversity. This output will have a participatory as well as a gender and nutrition sensitive approach to properly grasp the climate change impacts on the communities, including indigenous people. This means conducting women focus groups and indigenous focus groups in order to ensure that the views of Bantu men are not the only ones reflected. Focus groups in the 135 target villages, led by a multidisciplinary team (agronomist, economist, environmentalist, anthropologist and climate scientist), will allow to identify adaptation solutions directly inspired by the ideas and needs of the populations. This will provide solid findings to refine activities under component 3 of the project. In addition, feedback from

[28] Ethnic group that forms the majority of the population, also called "local population"; as opposed to "indigenous population".

[29] These include, among others: studies for the 3rd Communication (UNFCCC) launched by UNDP in July 2018; flood mapping dashboard created by Cloud to Street in October 2018; water resources inventory and related tools to be developed by UNESCO; agricultural vulnerability study and analysis of current climate scenarios for the formulation of an agricultural action and investment plan to be carried out by AFD in 2019.

smallholder farmers on the ground will directly strengthen the government capacity for participatory and informed decision-making at national level.

Results of this output will inform adaptation options at national and local (departments, districts) levels and help decision-makers and communities prioritize and invest in adaptation measures that address people's food security needs. Notably, findings will inform both national policies and plans, including the National Adaptation Plan; as well as local adaptation plans and activities, including those under Component 3 of the project.

Moreover, this output will be used to build the project Baseline, including for identifying climate services needs and preferences of specific groups within communities (women, youth, indigenous people) that will be provided under Component 2 of the project.

Although this output has a national coverage, a particular focus will be on the three target departments of the project (Bouenza, Likouala, and Sangha).

Outcome 1.2: Increased technical capacity at national and district level of government institutions and civil society

This outcome will focus on improving the skills of government technical services at decentralized levels regarding the analytic understanding of climate change, its impacts and the identification of possible adaptation measures. This capacity building outcome should enable national and departmental stakeholders to mobilize and support communities to understand their climate change impacts and needs and to improve and adopt adaptation solutions. This outcome will also support the Ministry in charge of climate change to develop an appropriate climate change adaptation strategy.

Output 1.2.1: Agricultural sector managers, Department Directorates of Environment, Sustainable Development, Meteorology, Forests ministries and civil society receive training in climate change adaptation

In order to increase government ownership of the project, the first step will be to technically reinforce the staff who are as close as possible to the beneficiaries on climate change issues and risks to food security and livelihoods. In addition, it is essential that the members of the department directorates but also the sub-prefects and leaders of civil society understand climate change issues and are able to make the link with the populations. All Departments of Congo (12 in total)) will be targeted by this output.

Two training modules will be planned: (i) climate change & variability and (ii) adaptation. They both will result from findings of outcome 1.1. The trainings will be delivered by external experts identified with support from WFP Congo. Ideally, the experts delivering the trainings should be the same as the ones who conducted the studies under outcome 1.1

Priority target administrations to receive trainings at Department level will be: Directorate of Agriculture, Livestock and Fisheries, as well as the heads of the agricultural sector (district level); Directorate of Water and Forest; Directorate of Environment; Directorate of Sustainable Development; Directorate of Meteorology; Directorate of Women and Department Directorate of Cadasters and Land Affairs.

In order to strengthen exchanges and discussions between the Department Directorates and civil society, the latter will also take part in these trainings. In addition, it is important to strengthen the technical capacity of civil society on climate change issues, so that it can send the right messages to the population. It is also important to include the sub-prefects in these training sessions, as they are important relays for raising awareness among the population.

Output 1.2.2: Congo's population benefits from the Government's adoption/implementation of a multi-sectoral and community-oriented national climate adaptation policy

This output will support the Ministry of Tourism and Environment in its political process on climate change. It is essential that the country adopts a National Adaptation Policy to climate change. The government of the Republic of Congo has already started this process via the Ministry of Tourism and Environment, and is also supported by UNDP, FAO and AFD. This project will build on the work already done by other agencies and continue to support the government in its policy. Findings from the analyses carried out in Output 1.1.1 will help inform decision-making at national level for adaptation in food security and agricultural sectors. Through its Nationally Determined Contribution (NDC) for COP21, Congo wants to implement climate change adaptation through a multi-sectoral approach in all the following subjects: population protection, protection of biodiversity, forests and resources, protection of production systems sensitive to climate change, and protection of high-risk infrastructure systems. Nonetheless, the National Development Plan of Congo (2018-

2022) only partially integrates issues of climate change adaptation. The Republic of Congo needs to be supported in order to best structure its response to climate change.

With the help of AFD's Adapt'action Facility, the project will contribute to supporting the development process of a National Climate Action and Investment Plan and its implementation, as well as strengthen sectoral governance. Proposed activities will align and complement initiatives carried-out by the other partners such as the one from COMIFAC[30] who wishes to apply for funding from the Green Climate Fund to support Congo to develop a strategy for adaptation to climate change (initiative not yet materialized).

The specific activities under this project will be developed during full proposal design, to ensure the most realistic and efficient methodology for supporting the government aligned with the other organizations.

Outcome 1.3: Sensitized population and partners on climate change, its impacts and possible adaptation solutions

People on the ground and local communities do not properly grasp the real impacts of climate change on their livelihoods or food security. During the community consultations carried out for the project design, many communities identified climate-related changes they perceived in their daily lives but didn't know how to explain nor adapt to them. They expressed their desire to understand these phenomena and to identify the real causes of change. For them, some phenomena are purely climatic, like for example the appearance of butterfly invasions when the sun is strong, while others can be caused by several factors. People want to better understand where the changes in their life and environment come from and how to adapt to these changes. This outcome will focus on disseminating information on long-term impacts of climate change whereas component 2 on climate services will focus on managing seasonal/intra-seasonal climate variability.

Output 1.3.1: Vulnerable children benefit from trainings on climate change and climate adaptation

This output will be implemented in partnership with the Ministry of Education as well as with UNESCO to raise awareness of children by training school teachers on climate change impacts on food security and nutrition.

UNESCO, with financial assistance from the Chinese government and in partnership with WFP, has set up an Internet-based school platform. This platform is training 2000 teachers and provides all school structures and teachers with teaching tools. Today, there are already two modules available on the platform: one on gender and one on nutrition, targeted at all school levels. The project will support the integration of concepts on the impacts and adaptation of climate change into the existing modules on gender and nutrition. Once a year, at the end of the school year, all teachers will come to Brazzaville or Pointe Noire to have access to the platform.

Output 1.3.2: Vulnerable communities' benefit from customized awareness-raising campaigns

In Congo, there is great inequality in accessing information and awareness tools. A large part of the population does not have access to electricity, which limits the awareness channels. The Congolese particularly appreciate everything that is broadcasted orally. This activity will be adapted to different groups within the Congolese public (those in cities with easy access to TV and telephones, those in villages with access to radio, indigenous people who are more sensitive to songs in their language or drawings) in order to carry out a broad awareness raising campaign on impacts of climate change on food security and livelihoods. In order for the Congolese to take ownership of the climate change issue, the project will rely on the local artistic community. The messages to be conveyed will be based on the studies of outcome 1.1 and will be translated by local artists to better convey messages on climate change, with focus on nutrition sensitive messaging. UNESCO and the French Cultural Centre could partner for this activity.

This activity will start with a national competition open to all Congolese artists (Brazzaville and Pointe Noire artist but also local artist in the 135 villages targeted by the project), divided into 4 disciplines: (i) Drawings and comics, (ii) Music, (iii) Radio sketch, (iv) Play/live performance.

The drawings and comics will be translated and printed (plastic booklet for a better resistance) in French and local languages, to be distributed in the project's target villages. Music and radio sketches will be broadcasted on community radio stations. A tour in some of the 135 identified villages of the winning play will be organized.

Facilitation for indigenous artists to participate in the competition will be put in place. Music and songs are particularly appreciated by indigenous people, so the communication supports will be available in the national language (Lingala) but also in different indigenous languages (Aka in Likouala, Baaka and Benzele in Sangha).

[30] Commission des Forêts d'Afrique Centrale

Component 2: Strengthen access to climate services to manage climate variability (1 900 000 $)

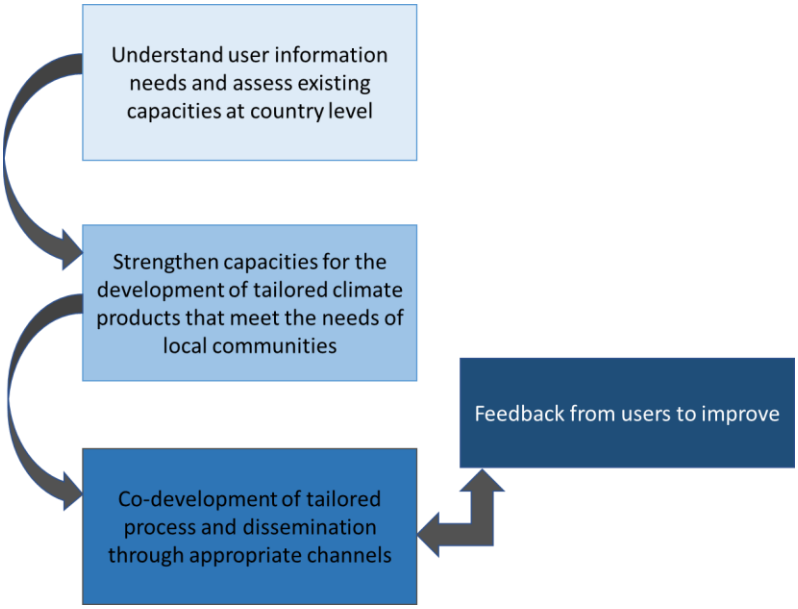


Figure 11: schematic structure of Component 2

Vulnerable people in the Departments of Likouala, Sangha and Bouenza do not have access to reliable and timely information they need to better manage climate variability and change. This lack of information often leads to decisions that negatively affect people's livelihoods and food security. Climate services support decision-making at different levels: individual farmers, communities, and local and national governments. When people are provided with adequate information, they are able to make informed decisions, better manage climate variability and strengthen their capacity to cope with climate risks and adapt to the impacts of climate change.

This component aims at ensuring that bottom-up co-produced and tailored climate products, including their timely dissemination to target communities, and the establishment of feedback mechanisms from end-users to further improve climate products will be established and operational. To ensure information reaches all relevant community members, communication channels will be identified based on information collected in the baseline assessment under Output 1.1 (this could include ICTs, radio broadcasts, schools, churches). Specific efforts will be made to ensure that all community members will be able to access information and in particular, women, indigenous people and youth. An important component of such system will also be a better understanding of local, indigenous knowledge and identification of entry points to blend traditional and scientific knowledge to strengthen the content of climate information and products delivered. By providing farmers and other vulnerable community members with the right information at the right time, this component will effectively empower them to manage climate related risks and take informed decisions ahead of the cropping season. In addition, this further stimulates farmer demand for adaptation and coping strategies such as those introduced in component 3 outlined below. It will do so by building capacities of Congo's Meteorological Services (hosted within the National Civil Aviation Agency – ANAC and IRSEN-Institut National de Recherche en Sciences Exactes et Naturelles), Agrometeorology Direction of the Agriculture Ministry and key stakeholders at district level.

Outcome 2.1: Improved access to climate services information understandable and adapted to users

The main objective of this outcome is to strengthen the systems and capacities required for planning and decision-making at both national and community levels regarding preparedness and management of climate risks to reduce vulnerability to climate variability and change.

The outcome will provide:

1. Strengthened capacity to generate quality, timely and relevant climate information, tailored to the identified needs of the final users;
2. Co-production of key messages as part of the climate products to ensure understanding and use by local communities and;
3. Increased access to accurate, timely and easy to understand information to support smallholder farmers' decision making and help them enhance their agricultural or livestock production, as well as inform other livelihood decisions, including those related to disaster risk reduction.

Output 2.1.1: The government has improved capacity to collect and analyze weather data through the purchase of technical equipment and the technical strengthening of its teams

The Meteorology Direction (and IRSEN) has the necessary equipment to record meteorological data. However, the equipment base is aging and requires restoration in order to collect usable data. In addition to the equipment, technical skills of the entire meteorological services chain also need to be strengthened,

including for seasonal forecast and shorter-time lead weather forecast generation. This project will set up technical trainings for the staff to ensure they can gather the necessary data and process it well.

The French Development Agency (AFD) is currently carrying out a study on the capacities of the Meteorology Direction in order to identify the needs for its modernization and proper functioning which the AFD will fund with $500.000 to $1million. A first assessment showed that there are 12 synoptic stations and 12 climatic stations in the territory, some of this equipment is obsolete and requires new investments. In addition, there are 214 rain gauges throughout the country, but only 20 of them are operational.

This proposed project will contribute to the financial and technical efforts that will be implemented by AFD, to ensure that the Meteorological Direction is able to produce the necessary data for this outcome. UNESCO has also just recruited a consultant from IRSEN to digitize all the hydrometeorological data of the country. This will allow the Meteorology Directorate to have all its computerized data, and the project will then build on this work to assist the Meteorology Directorate in the development of climate products as identified by final users.

Output 2.1.2: Government and communities benefit from increased capacity of district-level stakeholders and smallholder farmers to engage in grass-root data collection and co-production of key messages

The decree of 14 August 2017 established the Directorate of Agricultural Production and Agrometeorology within the Ministry of Agriculture, Livestock and Fisheries. One of the functions of this department is to collect agrometeorological data and establish adaptation strategies to manage climate change. As part of this Directorate, the project will identify, with the concerned Ministry, agricultural leaders in each district and train them in climate data collection. The Ministry of Agriculture is currently looking for funds to provide each agricultural leader with a small weather kit. Aside from enhancing data collection and reporting processes at district level, the output will also contribute to district level processes for translation and tailoring of key messages to ease understanding and use by local communities. This will also contribute to ensuring a two-way dialogue between producers and users of information in the target districts. Partnerships will be established with other institutions such as IRSEN, IRA[31] and the relevant departmental ministerial departments to inform climate services that meet community expectations. The activity will also include research and documentation of existing indigenous knowledge systems on climate and weather in target communities to help identify key entry points for building trust on information and products that will be shared as identified in Output 1.1.1.

Output 2.1.3: Vulnerable communities benefit from strengthened dissemination channels to ensure communication of tailored climate services

Building on the work done in outputs 2.1.1 and 2.1.2. for improving the quality of climate and weather information produced and the development of specific products as needed, this output will focus on identifying and strengthening dissemination channels to ensure information is received in a timely manner. A clear focus will be on ensuring that information is communicated in a clear language (including local language) and with additional guidance specific to the communities' needs. Establishment of low-cost feedback mechanisms from farmers, including those under 2.1.2, will be essential to enable the Meteorological Services to refine and further tailor information to needs.

Today, information flow in Congo generally stops at the national level. Information circulates very poorly at the departmental level and remains localized in large cities (Pointe Noire, Brazzaville and Dolisie). Not all villages have access to electricity, telephone, radio antennas, or even roads transport. The agricultural extension services reach is also limited, with currently only one extension officer covering an entire district. Extensive community consultations at district and community level, including through baseline assessment under output 1.1.1, will help determine the available and appropriate dissemination channels for different groups within communities (women, youth, elderly, indigenous people) and suggest a communication plan adapted to the different localities (initial focus on Bouenza, Likouala and Sangha). Based on findings from community consultations undertaken at project design stage, activities under this output could include:

1. Training end-users on use of climate information to support climate-risk management, including through use of existing tools such as Participatory Climate Services for Agriculture (PICSA) that have been used successfully in other countries. Taking into account the limited number of extension officers, trainings will include operating partners in the target districts, lead farmers and/or farmer organizations as well as other trusted members of the community as identified in the baseline assessment.

[31] Institut de Recherches Agricoles

2. Providing agrometeorological advisories and/or messages through other channels, including community radios (example of a radio in Pokola called "Biso na Biso", airing in one part of Sangha Department), schools, churches, SMS via mobile phones. Where possible, the project will also distribute necessary tools for sharing information, including distributing radios (solar or crank).

Component 3: Support the development of resilient livelihoods (5 120 500 $)

This component is paramount in ensuring that communities become more resilient to climate change. In order to address climate vulnerability across food systems, issues such as production, storage, transformation and consumption will be looked at and specific activities identified in order to create truly sustainable and resilient food systems in Congo. The objective of this component is to deliver assistance in a way that develops the individual's capacity to adapt to climate change and become self-reliant. The participation of women and indigenous communities in all activities will be facilitated.

It is important to note that the activities suggested at this stage are not fixed and will be reviewed during the first months of project implementation. Indeed, the studies carried out in component 1 will help identify the most appropriate local adaptation options (type of assets, livelihood diversification and income-generating options) and ensure these will be able to sustain the changed climatic context (higher temperatures, erratic rainfall, etc). Farmers engaging in asset creation and livelihood diversification activities, will also receive tailored climate services, which will include advise on how to further decrease disaster risk, increase productivity and capacity to cope with climate change and variability (Output 2.1.3).

Outcome 3.1: Increased adaptive capacity of communities and households to respond to climate change

Component 3 seeks to enhance climate adaptation and resilience-building through valorization of climate-resilient activities, strengthening and diversification of livelihoods, and promotion of climate-resilient value chains.

This outcome will be adapted according to information and recommendations emerging from component 1, as activities should be owned by the communities. Studies and focus groups of output 1.1.1 will allow a better understanding of the impacts of climate change and discuss with populations on the best adaptation measures that should be supported by this outcome. Moreover, the awareness raising will support communities in better understanding the adaptation options available to them. In addition, the state agents trained under component 1 will be able accompany populations more effectively on a daily basis regarding adaptation solutions supported by this component.

Exchange of experiences and pilot activities in the target villages will allow communities to learn from each other and see effective results on the ground.

Experience sharing: This activity aims at connecting communities experiencing similar issues and problems. The project will seek to identify adaptation systems already in place in the vicinity (look at adaptation solutions within Congo or from other countries facing similar challenges). These communities will be invited to share their good practices with some of the project's target villages.

Pilot adaptation solutions: To start this component, in parallel with the studies carried-out under component 1, the project will target three pilot villages (one in each Department - Bouenza, Likouala, Sangha) where it will test concrete adaptation solutions. The selection of the three communities will be done on a voluntary basis and the type of adaptation solutions on livelihoods and/or nutrition will be suggested by them. The project will provide the pilot villages with financial and technical support to carry out the activity (necessary inputs and technical expertise). Following these pilot experiences, depending on their success, the activities may be scaled-up to some or all the other project's target villages.

Output 3.1.1: Targeted communities affected by climate change benefit from the adaptation of productive assets that support transition towards resilience and self-reliance

This output focuses on livelihood activities directly related to food security in the face of climate change. This output will be implemented at household level in the target villages. The majority of the activities under this output will be developed by NGOs present in the country and working on the issues addressed (ID, APDRA[32], PEDD[33], ESSOR, Order of Malta, etc.). Indeed, the project will strengthen the existing system by drawing on

[32] Association de Pisciculture et Développement Rural en Afrique tropicale humide
[33] Programme Educatif et du Développement Durable

the work of NGOs that already have the expertise and reputation on the ground. NGOs will receive funds directly from the project to provide financial and technical support to the communities but also to provide the necessary equipment for the activities (e.g. hives, fish, innovative agricultural equipment). In addition, the project will be supported by appropriate government entities such as the IRA.

During project design stage, stakeholder consultations were conducted at both national and community level to identify the main vulnerabilities, gaps and needs for effective adaptation actions. At the community level, consultations helped identify a number of assets that could enhance resilience of existing livelihoods, thereby responding to communities' vulnerabilities and needs. Based on the preliminary analysis, community consultations, and lessons learned from previous projects, the following assets and techniques are anticipated to represent key adaptation measures under this output. However, this list is still tentative and will evolve through project proposal development and afterwards, depending on component 1 studies' results.

Table 1: Output 3.1.1 potential activities

Activities	Description
Climate-smart agriculture including agroforestry	The common planting practice in Congo is slash and burn, but with climate change the fires are less and less controllable and become even more harmful. Local ecosystem degradation increases vulnerability to climate change, as slash and burn increases vulnerability to erosion, water retention is reduced, and soils dry up. In addition, it impacts the emission of greenhouse gases. The proposed project, through a participatory approach, will encourage farmers to reduce the use of slash and burn by reflecting on the real motivations of this technique and the best adapted alternatives. A reflection around crop associations, climate sensitive rotations and improved seeds will be set up. The project will be able look at the work done by the NGO ESSOR, which works in the green belt of Brazzaville on the implementation of biological fertilization and biopesticides with an experimental approach with the populations. Partnerships will be considered with other existing CSA projects in Congo. In connection with REDD+, reflection on agroforestry will be promoted (planting of trees for food security and cooling of climate). In connection with component 2, this activity will disseminate crop calendars adapted to local seasons variations in the 135 target villages and tailored climate services, including agricultural advisories to manage seasonal and intra-seasonal weather variations. This activity can help adopt better climate change resistant varieties too. Depending on the department, this activity may be implemented by several NGOs in partnership with the government and UN agencies.
Water management	Limited access to water for production and consumption has been noted as a critical challenge in the Bouenza Department, in particular due to the reduction in the number of rainy days per year. As the amount of rainwater remains significant throughout the year, the implementation of a rainwater harvesting system would allow to have water reserves for drier periods of the year. Water conservation practices will help farmers store and make use of water in a more efficient manner. Where appropriate, irrigation schemes will be explored, with a focus on community structures that are adapted to the local environment. To ensure the sustainability of the scheme, the project will also liaise with the district council sector leads and community development structures to select the appropriate locations and approaches for this activity. IRA (Agronomic Research Institute in Congo) has started working on water use plans in response to climate change.
Fish farming	During the consultations, one of the perceived changes directly impacting the populations' way of life was the reduction of water level and the drying up of certain streams. This reduces fishing potential. Moreover, the decrease of 'long rains' no longer allows for a sudden rise of the river levels, which, according to the communities, no longer allows the sudden influx of fish they used to observe. Congolese are big consumers of river fish, and fishing is one of their basic means of subsistence. The reduction in fish is therefore a risk to food security, especially for the populations of northern Congo. The project could thus support the populations in launching alternative fish farming activities.
Beekeeping	The consultations highlighted a reduction in the amount of honey produced by wild bees and a decrease in the number of bees themselves (presumed to be induced by climate change, among others). Honey is the most appreciated food by indigenous people, carrying both symbolic and cultural value and therefore an identity marker to which indigenous people pay great attention. In line with local needs, the project could propose to combine beekeeping with wild mango trees (Irvingia sp.) for indigenous people. Developing beekeeping would make it possible to enhance local know-how and generate income by producing honey of constant quality and more easily packaged, with a high level of value added. Beekeeping could be an activity for both indigenous and Bantou communities; however the approach and partners will differ and will be adapted to the different beneficiaries' groups.

For all the activities proposed in the Likouala and Sangha Departments, simple community management plans (refer to forest concession, AFD and World Bank) and REDD+ technical itineraries will be taken into account when further developing the project activities.

Output 3.1.2: Targeted communities employ diversified income-generating activities and have better access to markets to improve their productivity, income, livelihoods and nutrition

This output aims to increase the climate change resilience of communities in the 3 target departments by diversifying income and food sources, working on value chains and ensuring sales to local markets. This output will be further developed following the results of the studies undertaken by component 1, which will lead to better understanding the adaptation needs of the project beneficiaries. The information collected by component 1 will be used to support communities to make their own informed choices and decisions. As with output 3.1.1, the activities of this output will be implemented by competent NGOs with a physical presence on the field. The relevant government departments will be approached by NGOs as needed. WFP will support this output in connection with its school feeding programme.

At this stage of project design, the pre-identified possible income-generating activities are the following:

Table 2: Output 3.1.2 potential activities

Activities	Description
Breeding	Over the years, game hunting in the forest has become decreasingly fruitful and practiced. Given increased climate variability, which trends point to increased aridity of target locations, livestock has been identified as a good supplement to crop production in the future. The project will thus consider a breeding activity as a sustainable and more lucrative alternative to game hunting. The project will need to support people to study the maintenance needs of the animals (vaccine, etc.) and the possibilities of livestock food supply. This last point could be considered locally, as there are very few livestock food companies in Congo. If the project implements a livestock activity, it will be at the household scale (10 to 50 animals per herd). This activity will be done in correlation with the setting up the whole breeding chain: food, vaccine, breeding techniques, conservation system for sale, etc. This breeding activity will meet the REDD+ standards implemented in northern Congo, as well as the Livestock Sector Development Programme (NDP 2018-2022). Breeding/livestock related activities within this project will in a first time target smallholder farmers. Some indigenous populations met are already breeding chicken and developing a sort of pisciculture behind small dams they construct. If requested by these communities and accepted, the project could explore ways to build on these existing activities and reinforce them.
Reduce post-harvest losses	More than 18% of bean producers in the Bouenza Department do not have access to storage infrastructures, and 56% experience post-harvest losses for more than 10% of their harvest (24% between 10% and 20% of losses, and 32% for more than 20% of losses). Post-harvest losses along the value chain of cassava have been estimated at 15%. On average in Congo, 10 to 20% of total harvests are lost (all harvests combined). Historically, losses have been due to conservation and storage problems (e.g. invasion by insects and rats). However, today post-harvest losses are aggravated by climate change when there are no storage and conservation structures (e.g. too much humidity in the air, mould, or heavy rains when beans are drying on the fields). Food losses happen at every stage of the supply chain, as commodities become damaged, spoiled or lost while harvested, handled, processed, stored and transported. Post-harvest losses have significant nutritional, health, and financial impacts for both consumers and farmers, disproportionately affecting women, who are largely responsible for managing post-harvest drying, cleaning, and storage. For rural families, many of whom already live on the edge of hunger, lost food means lost land, water, fertilizer and income for those who can least afford it. Lost food also deprives farmers of the opportunity to grow and strengthen their businesses. In East Africa, WFP already works on this issue. With support from its Innovation Accelerator, WFP is training smallholder farmers on how to use improved post-harvest handling methods, combined with simple but effective hermetic storage equipment. The equipment—which is subsidized—is both air and water tight, helping to guard against insects, rodents, and moisture. Participating farmers have so far been able to reduce post-harvest losses by up to 98%. Based on this technology and after a specific study for Congo, the proposed project will provide solutions to reduce post-harvest losses.
Food processing	Support farmers in transforming and processing part of their production (banana chips, fruit juices,) etc).
Production for	Mushroom, caterpillar and moringa farming are three activities will be considered for linkages with the

school feeding market	school feeding programmes.

Moreover, to further ensure the valorization of climate resilient activities and supporting their long-term adoption by farmers, it is important to ensure that farmers are connected to input and output markets. The project will ensure to support the establishment of sustainable value chains for the target villages, to sustain livelihood and income-generating activities in order to improve climate resilience and food security. This project aims to ensure that the farmers that apply climate resilient agriculture (3.1.1) and risk management strategies (component 2) have market options, helping them to sustain the changes to their livelihoods. Different market options and links will be explored, including with the WFP-implemented school feeding programme and around partnerships with forestry companies (for transport of agricultural products, for example).

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

Social & Economic Benefits

Enhanced food security and nutrition

The proposed project will initially ensure people's livelihoods by providing support (technical assistance and equipment) to farmers so they can better adapt to climate change and improve their agricultural practices by tackling some of the major climate challenges they face. The project also aims to reduce the risks concerning nutrients and food security by allowing the population to maintain a diversified diet or even increase it. For example, the project envisages to set up bee hives and fish farming.

Improved incomes

Access to climate data, technical support for subsistence activities, improved water management and the reduction of post-harvest losses will lead to better yields, which in the long term will lead to improved incomes. Indeed, by having greater access to improved soil and water resources, agricultural inputs, and information for livelihood-decision making, the expectation is that smallholder farmers will be able to realize greater yields even in the face of a changing climate. This increased production will be enough to meet household food needs, which in turn should reduce household food expenditure. By adding the training of state intermediaries at department level (including agricultural sector managers) smallholder farmers will benefit from better supervision to complete their production cycle and thus have enough surplus to sell. Through the implementation of a post-harvest loss reduction activity, households will increase their harvest profit. In addition, the project wants to link part of the communities' production to WFP's ongoing school feeding programme. This will provide families with regular and predictable financial incomes. Finally, the proposed project will try to find alternatives to the current difficult transport situation (the river, which is no longer accessible all year round due in part to climate change), notably in northern Congo, through partnerships with timber companies or other private sector operators. By improving the transport of local production, the project will increase resilience to climate change by increasing access to markets and open new sales channels.

Improved resilience

Resilience will be improved through income and livelihood diversification and informed risk management (thanks to climate services). The proposed project will look for alternative activities to diversify household food supply but also to ensure several income-generating activities per household.

Improved adaptative capacity

The proposed project aims at increasing adaptive capacity through (i) implementation of long-term strategies and impact through component 1, 2 and 3, (ii) access to climate information (component 2), (iii) a participatory approach at all levels, and (iv) reflections directly by communities on adaptation solutions (accompanied by experts). In addition, through this project, rural communities will be mobilized and empowered to make better decisions about their existing livelihoods and, as a result, will be able to use their inputs more effectively.

Gender and vulnerable groups

The project will contribute to gender equality, through strategies to empower women and girls with concrete commitments to ensure equal rights, access and opportunities for participation and leadership in the project and in community decision-making. By empowering women, the project will ensure that men and women are

informed on the need to improve women's involvement in decision making as well as the benefits of women's progress to the family. In Congo, around 70% of smallholder farmers are women (national average), and thus by specifically targeting smallholder farmers, the proposed project will naturally have a particular focus on women.

The proposed project will also ensure that civil society is involved in all decision-making so that the project integrates vulnerable groups (such as women and indigenous people) concerns. The project will use, in particular with indigenous communities, the "Free, Prior and Informed Consent (FPIC)" tool put in place by REDD+. The project will ensure that communities themselves are part of the climate change adaptation solutions and that any activity is adapted to their needs, culture and traditions and is accepted. The objective is for the project activities to originate from local ideas and for communities to take ownership of the climate change issue. In addition, the project will seek to protect and promote local indigenous practices, such as the promotion of local, traditional crop varieties, which have particularly nutritious values. Similarly, through climate services and other types of support, local, indigenous knowledge will be incorporated, as appropriate. Therefore, components 1, 2 and 3 will contribute to reducing vulnerability of women and indigenous groups. Overall, project planning and design will incorporate the use of participatory approaches that are culture- and context- sensitive throughout all project activities. Furthermore, the project will communicate key messages through the Congolese artistic community, so that the project uses Congolese codes.

Environmental Benefits

A variety of environmental benefits have been identified to stem from the proposed project:

Promotion of climate-smart agriculture

The project aims to put in place agricultural systems based on rotations and associations of crop varieties. It will support beneficiaries in the creation of their own organic fertilizers and biopesticides. Smallholders will be encouraged to use organic waste from the fields as fertilizer. These recommendations will reduce soil erosion and increase soil fertility. As a result, producers will use less or no chemical fertilizers and chemical pesticides. In order to propose sustainable agricultural techniques, the project will also work with farmers to find alternatives to slash-and-burn. Indeed, slash-and-burn agriculture in forest areas has been identified as the main cause of historical deforestation in the Republic of Congo over the period 2000-2012, with annual emissions estimated at 6 MteqCO2[34]. The project will promote climate-smart agriculture alternatives to slash-and-burn, such as maala[35] and the use of organic fertilizers (compost). Finally, the project will help farmers to reduce post-harvest losses, happening partly due to climate variability, by promoting and disseminating the use of improved post-harvest handling processes and improved marketing of crops. This will increase food available per hectare which reduces the conversion of natural ecosystems into farm fields.

Forest preservation

As mentioned above, the project will strive to find alternatives to the traditional technique of slash-and-burn, and thus reduce the rate of deforestation by fire. Moreover, the project will be based on the technical itineraries set up by the REDD+ Congo. The beekeeping activity suggested by the project will also provide an alternative to the wild gathering of honey that destroys biodiversity (burning/cutting of wild hives and the carrier tree).

Avoiding or mitigating negative impacts

The following measures will ensure that project activities are designed and implemented in a way that does not cause negative social or environmental impacts:

- Inclusive and representative community involvement in planning and implementing the project, including monitoring project activities. Consultation and engagement with beneficiary communities, including vulnerable groups.
- Strong collaboration with relevant ministries, both in activity design and implementation.
- Technical support sought from experts in the field especially in relation to sensitive or specialized services. Examples include gender, indigenous people and protection issues as well as irrigation and integrated resource management.
- Implementation in accordance with national standards and safeguards articulated in various strategies and guidance documents.
- Complaints and feedback mechanism established to get feedback from communities on the project and with established protocols for the resolution of complaints filed.

[34] Plan d'Investissement REDD+, 2017

[35] This technique consists of weeding the plot, making small piles that are then burned, which helps to control the fire that remains localized.

- WFP Environmental and social risk screening process (in line with AF ESS) in place during project implementation and a social and environmental risk management plan prepared during full proposal development.

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

The project seeks to be cost effective by leveraging ongoing national and sub-national processes and structures. This includes many of the initiatives such as the World Bank's projects, IRA, AFD's projects, PEDD, APDRA, etc. The proposed project aims to strengthen the existing systems by supporting ongoing dynamics. It will benefit from the experience of other WFP projects as well as other donors. The project will not start from scratch, although it will develop specific and innovative tools, but it will build on lessons learned and best practices. In addition, the investments made under this project will be valuable to all stakeholders in Congo.

The project will utilize a community approach that includes a concentrated effort on community mobilization, awareness raising and training. This approach will involve local people in: managing natural resources, meeting social needs and sustaining outcomes over time (maintaining local cultures, increasing opportunities for income generation, and improving food security and well-being). This increases the initial investment of the project but will greatly enhance the impact and sustainability of the project. Therefore, engaging the beneficiaries along with government as prosed in component 1 is cost effective due to the much larger foreseen impact and outcome success. Implementing concrete adaptation activities with community participation is cost effective when well executed and is the most cost-effective way to achieve large scale results in Congo. Indeed, the management of natural resources by communities has proven more effective than management at higher levels. Interventions will require relatively low material investments and yield a comparatively high return, while being more accessible for community understanding and appropriation. Apiculture, community radios and adequate storage facilities to reduce post-harvest losses are well known examples of low-cost interventions with potentially high returns. Concrete interventions will be carefully costed with community involvement before decisions are taken on implementation. Detailed cost effectiveness analysis will be made for each community adaptation plan, using a methodology developed by WFP, comparing measurable outcomes with all feasible options and risk analysis.

Component 2 leverages on existing equipment and investments by UNDP and AFD to develop a climate services system that will allow beneficiaries to make informed decisions. This tailored climate and weather information will also lead to stronger demand for adaptation capacities (component 3). Another option considered was to set up an Early Warning System for protection against extreme weather events but based on the fact that there are no national relevant policies and government structures in place for such a system, it was decided that the investment required was too high compared to the budget available and expected impact. Instead, Climate Services require only a local system to be set up. Hence, by setting up the local system, building capacity of staff along with closing the funding gap of AFD for equipment, this component is more cost effective. In terms of impact, through climate services, communities will receive the information they need in a timely, tailored and easily understandable manner. With this, they will be able to take informed decisions on their livelihoods and agricultural practices, helping them to adapt to a changing climate and more and more variable seasons. In short, component 2 builds on the much larger investment done by a range of stakeholders, keeping the investment from this project low while making a huge difference. On top of that, climate services can easily be scaled up to other regions once there is a good example in the country.

Component 3 uses the same cost-effective reasoning as component 1: ensuring the activities are needs-based and requested by the beneficiaries rather than imposed on them. From the initial consultations, the mentioned potential activities all require relatively low investment, but each identified activity will be checked for cost effectiveness before implementation. An example on how the considered activities will be cost effective is the local production of bee hives. Bee hives will be locally made with waste from local forestry companies and thus reduce costs (compared to importing bee hives) while also increasing local capacities including maintenance.

The approach will also lead to the creation of models which are expected to be replicated in the project area and beyond.

Finally, the full alignment of the project to Government-approved and tested methodologies and structures will increase cost-efficiency.

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

The project directly contributes to the objectives and supports the implementation of key Government policies and programmes aimed at achieving sustainable growth and adapting to the impacts of climate change.

In 2016, the Government with the support of UNDP, adopted the National Strategy for Disaster Risk Reduction and Prevention, one of its strategic actions being to develop knowledge on disaster risk management and adaptation to climate change for dissemination throughout the country. Component 1 is directly linked to this strategy.

Currently, Congo has no NAPA nor National Adaptation Plan (NAP). The Government is working with COMIFAC on a request for funding from the Green Climate Fund in order to develop the country's NAP. In addition, AFD, through its Adapt'Action Facility, is currently supporting Congo to develop an Agricultural Adaptation Plan. This will be available in 2020. WFP is closely following these processes to ensure the activities planned are aligned with the future plans and that lessons from this project will inform the development of the plans. Especially activities under component 1 will support and inform the development of these new strategic climate plans in Congo by providing new and updated knowledge and information.

The proposed project is fully aligned with the country's National Development Strategy 2018-2022, as the Government wants to diversify the economy focusing on sectors of economic growth such as agriculture, forests, tourism, and industry (strategic objective 2). Regarding agribusiness, the aim of the National Development Strategy is to improve food security and economic inclusion of the poor and women, including in rural areas.

In addition, the Government of RoC is involved in high level policy initiatives regarding climate change and is a strong advocate on environmental issues. The proposed project is aligned and consistent with these international commitments. The Government of RoC has ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1996, the Kyoto Protocol in 2006 and the Paris Agreement in April 2017.

The country is working to meet its obligations under the UNFCCC Convention, the Kyoto Protocol and the Paris Agreement. This resulted, among other things, in:

- The preparation of two national communications transmitted to the UNFCCC Secretariat in 2001 and 2009 respectively;
- The publication of a decree establishing the National Committee on Climate Change in 2010;
- The creation of a national authority for the Clean Development Mechanism in 2012;
- The communication of its Planned and Determined Contributions at the National level, prior to the conclusion of the Paris Agreement[36];
- The commitment since 2009 in the process of Reducing Emissions from Deforestation and Forest Degradation (REDD +);
- The commitment since June 2012 in the Global Partnership for Gas Flares Reduction (GGFR), coordinated by the World Bank in the oil sector.

In November 2014, the country began the process of preparing its Third National Communication to the UNFCCC, translated by the adoption in April 2015 of its national self-assessment report of the Second National Communication.

By pursuing REDD+, RoC has expressed its commitment to a low carbon development agenda including by supporting the creation of more efficient agricultural systems and by protecting forest habitat. In parallel, the government of Congo has also set up a sustainable management strategy mobilizing forest concessionaires to develop areas outside of the national parks to preserve essential wildlife habitat. In addition, the RoC is one of the three initial partner countries (with Indonesia and Peru) conducting activities within the Global Peatlands Initiative. Finally, the Roc is the chair of the Congo Basin Climate Commission (created following the COP22) and has created the Blue Fund as its implementation instrument.

[36]Congo's Nationally Determined Contributions to the UNFCC: *For a country like Congo, it is totally impossible to consider emissions without taking into account all the socio-economic development of the country. This will effectively reduce the country's GHG emissions without compromising its development capabilities. Thus, low-carbon, low-carbon alternative policies, falling within the wider "green economy" framework, are promoted in the NDC.*

Finally, this project is designed to support the ratified NDC (2017), as one of the NDC recommendations is to protect the productive systems that are sensitive to climate change, such as the agricultural systems. Implementing a climate change adaptation project as the one proposed is therefore a path that the government wants to follow and is supportive of.

E. Describe how the project 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 project complies with the national laws on Land Planning (Law 43-2014), on Forest Management (Law 16-2000) and on Environment (Law 003/91). More specifically, the project implementation mechanism through the Ministry of Tourism and Environment and its different units is in compliance with Law 16-2000 that stipulates that agencies and Ministries are to undertake, within their spheres of competence and through their stations and work units, interventions and monitor the components of the environment and relay their results and data to the competent authorities periodically.

The forest law considers the main REDD+ principles and the project will align with the standards imposed by the law relevant to the forest environment. For example, in agroforestry and livestock farming, a limit on the number of animals per herder is prescribed and certain agricultural activities should only take place in already degraded forest areas.

A new Land Law (number 21/2018) was adopted by the Government in June 2018 and sets the new legal framework for land use and acquisition, including in rural areas for agricultural land.

The proposed project also complies with the national law on Promotion and Rights Protection of Indigenous People (Law 05/2011) that stipulates, among other things, that indigenous people have the right to be consulted on any matter affecting them and the right to benefit from incomes related to the use of their customary land and natural resources. Consultations with the indigenous communities were done following the guidelines of Free Prior and Informed Consent. Furthermore, in order to align with the Indigenous Peoples Rights Act 05-2011, the project will provide:

- focus groups adapted to indigenous populations (anthropologist present in the multidisciplinary team)
- access to the climate awareness competition (output 1.3.2)
- using adapted tools for the awareness raising (images, specific understanding)
- climate services oriented towards indigenous peoples needs
- activities that meet the needs of indigenous populations (component 3, activities discussions with an anthropologist specialized in indigenous peoples)

Project activities will be carried out in full compliance with national standards and methodologies for natural resource management, including Forest Management Plans and Simple Community Management Plans which are still under development at this time of writing. The proposed interventions will adhere to national technical standards that are in force, particularly those relating to land use and agriculture management. Through its training activities aimed at department and district technical services, the project will promote the knowledge and understanding of such standards and norms, which is crucial for their effective application at local level. Also, will all proposed component 3 activities be discussed with community stakeholders including ministries of Environment, Agriculture and Forestry, to ensure the proposed activities will adhere to relevant standards upon implementation.

More specific adherence details are provided at relevant sections throughout this document.

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

The proposed project aims to build on existing/ongoing initiatives. In terms of climate, the majority of actors in Congo are working on mitigation, which does not prevent them from having interesting synergies with the proposed project. A working group including Congo's technical and financial partners active in the environment scene exists and meets every two months. Through this platform, synergies and specific technical working groups can be set up.

The WFP Country Strategy Plan (CSP) 2019-2023 for the Republic of Congo is currently being developed and will be officially approved by WFP's Board in February 2019. The proposed project perfectly aligns with WFP's strategic priorities for the Republic of Congo. Currently two WFP projects have climate-related items: (i) **School feeding programme** financed by Mc Govern Dole until 2022. Climate change adaptation activities include environment and climate change sensitization in schools, and distribution of energy saving cookstoves in all schools supported by the project which includes all the three departments targeted by the current

proposal. This programme also pays particular attention to ORA[37] schools for indigenous people, as we estimate that 65% of indigenous children from 4 to 16 are out of school.[38] (ii) **Smallholder farmers project** financed by the European Union and jointly implemented by WFP, FAO and IFAD. This project is active in the Bouenza Department and supports access of smallholder farmers to markets by improving the quantity, quality and competitiveness of agricultural products, particularly beans. Activities also include construction of dams and improved irrigation. In addition, 30% of the total beans production is locally procured by WFP for its school feeding programme. It is important to note that 60% of the project beneficiaries are women.

In addition to WFP, the stakeholders currently involved in the climate sector in Congo are rather limited. They include the World Bank, the French Development Agency (AFD), the European Union, UNDP and FAO.

The Congolese Government with the support of **FAO and AFD** is designing a project on “Implementation of the Determined Contribution at the National Level of Congo in the Land Use and Forest Sector" for submission to the Green Climate Fund (GCF). This project budget is $122 million, including $40-60 million from the GCF and the remainder in co-financing. Planned activities include: support for updating the national land use plan and securing the land framework, planting trees for people's energy needs, supporting sustainable forest management, sustainable agriculture (bananas, cocoa and cassava) and improving value chains. Although it is a climate change mitigation project, links can easily be made with the proposed adaptation project on sustainable agriculture activities. Both projects are expected to start in 2020 and it will be crucial that the respective teams collaborate on community activities such as agroforestry and value chains development. Synergies are possible, such as the implementation of the solar canteen supply system. A platform for consultation of Congo's technical and financial partners on the environment already exists. Through this platform it is possible to set up specific groups around certain projects to ensure synergies.

UNDP has launched the 3rd communication and the process of developing a National Adaptation Plan (GEF funding). UNDP is also working with FAO and UNEP on a study regarding Congo’s Peatlands. As previously explained, output 1.1.1 will take into account these studies.

The French Development Agency (AFD): The proposed project will complement AFD's Adapt'Action Facility and will be based on some of their studies. The Adapt’Action Facility is divided into 3 focus areas: (i) capacity building and climate governance for the consolidation, implementation and monitoring of the NDC; (ii) better integration of the NDC commitments into sectoral public policies in the field of climate change adaptation; and (iii) preparation of projects in the field of climate change adaptation through studies (pre/feasibility). The Facility started its activities at the end of 2018 and is due to finish in 2021. As a result, the proposed project will be linked to the progress of the Facility. The Facility will support the process of developing a National Action and Investment Plan and revitalize the national policy framework on climate change. The proposed project will build on these efforts and continue in the same direction. The Facility will launch three vulnerability studies in early 2019 that will be used as background studies for the proposed project: (i) Vulnerability study of areas affected by coastal and urban erosion, (ii) Vulnerability study of agriculture and (iii) Vulnerability study of forest ecosystems.

In October 2018, AFD initiated a diagnosis of the Meteorology Direction, from a technical and material point of view. This study will allow to establish the exact shortcomings of Congo in terms of meteorological management. AFD has planned to invest between €500,000 and €1,000,000 to modernize the Directorate's tools and equipment. Currently, it seems this funding will not be enough to answer to the dire needs of the Directorate. In order to obtain quality data for component 2, the proposed project will build on AFD’s investment and contribute to address the identified gaps.

The Northern Congo Forest Landscape Project (PPFNC), financed by the French Environment Fund and AFD (€7.5 million), will start in 2019. PPFNC is divided into 4 components, including one entirely dedicated to community development in northern Congo. One of the proposed pilot activities is fish farming. In addition, PPFNC will work with forest concessions and communities to implement simple community management plans. These plans will make it possible to delimit the community activity zones in the Likouala and Sangha Departments. PPFNC plans to set up a platform between the various partners for northern Congo and thus creating a working partnership with the proposed adaptation project, particularly regarding fish farming.

The **World Bank (WB)**: The WB is mainly working on climate change mitigation projects; however, they have put in place, together with the Congolese government, a number of environmental and social standards that the proposed project will take into account (particularly in relation to community activities in the north and

[37] Observer, Reflechir, Agir
[38] Source UNICEF

simple community management plans that are being developed). At the beginning of the AF project, output 1.1.1 will allow to see where the World Banks' projects stand and ensure proper alignment. The World Banks projects relevant to the proposed project are:

- The Forestry and Economic Diversification Project Additional Financing ($6.5 million) aims to strengthen the capacity of the Republic of Congo to: (i) promote better enforcement of forestry regulations; and (ii) create a supportive policy environment for the participation of local communities and the private sector in sustainable forest management and reforestation. This project has begun extensive work with communities and forest concessions on sustainable forest management and livelihood activities.
- As part of the Forest Investment Programme/Central African Forest Initiative financing, the WB supports RoC in the implementation of the REDD+ investment plan. In addition, the Forest Investment Programme is financing 2018-2025 the Northern Congo Agroforestry Project which funds the development of agroforestry plantations (cocoa-cultivation under shade and fruit/food crop associations on degraded areas).
- As part of the Emission Reductions Programme backup tools have been developed, for example: the Environmental and Social Management Framework and the Planning Framework for Indigenous People. The proposed project will refer to these frameworks.
- Commercial Agriculture Project (2017-2022) focuses on improving market access for small producers. This project aims to improve food security, reduce imports and fight against poverty. The proposed project will build on the achievements of this project for component 3 and more particularly output 3.1.2.

European Union: The European Union does not have a direct project on climate change, either in mitigation or adaptation. However, they have several programmes on forest conservation. As WFP already works closely with the EU, it will be easy to avoid duplication of activities and build bridges between the proposed project and their programmes.

Non-Governmental Organizations: Several national and international NGOs are carrying out activities related to climate change adaptation, so links could be made with the proposed project (particularly under component 3):

- Since March 2016, APDRA[39] has been active in the Republic of Congo as part of the "Project to strengthen the capacities of actors in the fish farming sector ".
- Initiative Développement has been working in Congo since 2004 on local development issues through a multi-stakeholder consultation process, the preservation of resources linked to the promotion of local and appropriate economic alternatives for the population, economic diversification through the creation of enterprises incubators and the production of energy saving cookstoves.
- Since 2016, ESSOR has been supporting market gardeners in the Brazzaville area to develop climate-smart and organic agriculture.
- Since 2017, the Order of Malta supports the improvement of the health conditions of indigenous populations in Likouala. In partnership with the NGO Apifleurdev, the Order of Malta also contributes to the development of beekeeping in northern Congo.
- Since 2008, PEDD has been supporting local and indigenous communities in the Sangha department around education and support for the creation of income-generating activities (including beekeeping).
- WCS and WWF are in charge of managing the national parks in the Likouala and Sangha departments and have set up community development programmes.

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

Many activities in the proposed project include knowledge and learning for the local government as well as for the communities. Since the knowledge of climate change impacts and adaptation is still very limited in RoC and there is a need for more capacity building and awareness raising, component 1 focuses solely on this. Under component 1, training of extension officers and awareness raising in schools is all about knowledge management. The key messages of the studies on climate change scenarios and adaptation options will be disseminated, in particular through the artistic competition (output 1.3.2), but also though the climate services and the government under its public politics.

The proposed project could be used as a learning model that will give the national government and local communities the opportunity to review context specific approaches, establish best practices and scale up successful activities to achieve climate change resilience at scale.

[39] Association de Pisciculture et Développement Rural en Afrique tropicale humide

The project will develop an M&E system which will focus on the application of evidence-based lessons in improving or influencing activity implementation within the project and among actors in similar work. The M&E will form the basis for the activity creation, sharing, and use of gained knowledge and information during project implementation. Knowledge and learning could also be achieved by working with a university or a research institute. Mid-term and final evaluations will also be a channel to disseminate lessons learned during the project. More specific mechanisms will be mentioned in the full proposal.

If successful, the proposed project could easily be replicated elsewhere in Central Africa with similar systems. Knowledge could be shared through the regional bodies of which Congo is a member including the CEMAC and ECCAS[40].

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

WFP Country Office officially met with the Minister of Tourism and Environment (Designated Authority for the Adaptation Fund) in April 2018. The Minister was very supportive and verbally endorsed the proposed project for the Adaptation Fund. Several follow-up meetings on this Adaptation Fund project have taken place since April with the Minister as well as with the Director General of Sustainable Development and his staff.

1- Stakeholders consulted during the formulation of the project concept note

Between April and September 2018, WFP conducted national-level stakeholder consultations with Development Partners, NGOs, Government entities and Academia to understand the existing challenges, ongoing and planned projects, experience and lessons learnt by various organizations in addressing the impact of climate change and variability in the country.

Consultations with the various government entities highlighted the following:

- the desire to put the priority on adaptation activities;
- allocate the majority of the budget to component 3, in order to be “as local as possible”;
- the need to strengthen the Meteorology Department;
- the role of each Ministry/Implementing Agency in relation to the project.

Meetings with development partners made it possible to map existing projects and possible connections with the proposed project. The exchanges with NGOs made it possible to identify the skills already present in the field in Congo and to gather their points of view on the different project activities in relation to their knowledge of communities. Discussions with the private sector provided an insight into the potential partnerships and what each company is doing today with communities. The findings of the stakeholders’ consultations are summarized in Annex 1.

2- Community Consultations

Stakeholder consultations were complemented by field visits to local communities to understand the vulnerabilities and needs and see the existing adaptation measures already in place at the local level. Between May and August 2018, nine community consultations were conducted (in three Departments of Congo – Bouenza, Likouala, Sangha) to inform the development of the project proposal. In total, 364 persons were consulted, including 169 women (46%) and 211 indigenous persons (58%). Consulted participants were members of the community, including farmers, women, elderly, NGOs, and local administration representatives. The exercise aimed at collecting information on livelihoods, vulnerabilities, impacts of climate change, gender roles and needs. The methodology used was focus group discussions (with different focus groups for men, women, young and elderly). The consultations were facilitated both in local language and in French (depending on the needs) and were delivered by a team composed of staff from WFP and from the Ministry of Tourism and Environment. The participants were not briefed about the project during the exercise in order to not tilt them in a particular direction. All questions were clearly explained and feedback was recorded (see Annex 2).

A special attention was given to indigenous communities during the consultations. Indeed, before starting the consultations in northern Congo, WFP staff met with an anthropologist, who is currently working with the indigenous populations of that region, to adapt the standard consultation questionnaire and also to obtain advice on how to conduct the interviews and consultations. The consultations were carried out in accordance

[40] Economic Community of Central African State

with Article 3 of the Indigenous Peoples' Rights Act 05-2011[41]: translators, known to the local population, were present, a member of the Ministry of Tourism and the Environment ensured the smooth running of the event as well as one or more members of civil society. In addition, the FPIC Guide, developed as part of the "Roundtable on Sustainable Palm Oil" project in the Republic of Congo, was used for the consultations.[42]

At full proposal stage, further consultations will take place with targeted communities to better define activities. Annex 1, 2 and 3 provide a list of all the people involved in the project design and the description of all village consultations.

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

Component 1: Awareness raising and knowledge on managing long-term impacts of climate change

Baseline scenario

Although Congo has a climate policy, few studies have been carried out on climate change and its impacts on food security and livelihoods, especially for the most vulnerable populations. UNDP has carried out some studies but they remain marginal (not finalized due to lack of resources). The 3rd communication launched in July 2018 will highlight current knowledge on climate change impacts in the country. Three vulnerability studies on climate change will be launched by the French Development Agency as part of the "Adapt'Action": Vulnerability of Agriculture, Forests and Coastal Areas. The lack of data on the impacts of climate change and variability is delaying the development of effective adaptation measures in vulnerable departments.

Moreover, since COP 21 and the Paris Agreement, Congo has not yet developed its Climate Change Adaptation Action Plan. A good structuring of public policies in terms of climate change is essential for the implementation of concrete and sustainable actions.

Although the populations interviewed understood the concept of climate change and raised perceived changes, they were not really able to explain them or knew how to deal with them. Many raised the relevance of being able to understand these phenomena in order to be able to adapt to them. By enhancing awareness of climate change impacts on livelihoods and food security and involving communities and local stakeholders in the identification of local adaptation activities, the project will pursue an inclusive and participatory approach aimed at creating ownership and sustainability of the project interventions.

Additionality

The project will produce concrete studies on the long-term impacts of climate change and variability. These studies will be directly based on field realities of impacts on livelihoods and food security of bantu and indigenous people. These studies will go beyond climate change impacts to propose the best possible adaptation measures based on local needs. As a result, the various studies will be used directly for the project but also by the government to develop sectoral public policies and action plans.

Through this project, youth and communities will be made aware of the impact of climate change, especially focusing on the impact on food security, nutrition and livelihoods of vulnerable groups, particularly women and indigenous people. Sensitization and awareness will precede any asset creation activity to ensure the assets are able to withstand changing climatic conditions (higher temperatures, erratic rainfall, etc). A strong awareness of the causes and effects of climate change will be followed up with community adaptation thinking and concrete adaptation activities which will have full community ownership. This will not only make project implementation effective but ensure that interventions are sustainable beyond the project lifetime.

Component 2: Strengthen access to climate services to manage climate variability

Baseline scenario

Assessments carried out at national and community level have highlighted how increased climate variability and change in the targeted districts has progressively affected livelihoods of vulnerable communities over the past decades. People's ability to cope with and recover from recurrent climate shocks, particularly women and indigenous people, has been progressively eroded, together with their capacity to adapt to a changing environment. Traditional practices and knowledge alone are proving insufficient to manage and plan from year to year, in particular with regard to erratic rainfall, the increase in weather extremes and the emergence of

[41] Loi 5-2011 du 25 février 2011 portant promotion et protection des droits des populations autochtones.

[42] Consentement Libre, Informé et Préalable : Guide à l'intention des membres de la RSPO, 2015

new risks that impact assets, crops and livestock such as, higher temperatures and increased dry spells. The need for better, reliable climate and weather information to inform planning at different times during the season has been identified as key to inform traditional practices and support adaptation planning over the short and long-term. But availability of information needs also to be complemented by strengthened capacities at local level to make use of such information for decision making and tailored advisories to advise on livelihoods options.

The Direction of Meteorology produces weather data that is broadcast in the form of weather reports on TV, radio and newspapers. Weather stations are also used to provide specific data for airline pilots and ships. The equipment is aging and the volunteers in charge of data collection are not properly trained. As a result, the data is not always the most reliable. In the current scenario, the Weather Directorate is able to provide same-day, next-day and up to 4-day forecasts. In addition, this data is not available to the general population. Communities currently have limited access to climate information, which does not allow them to plan their activities according to seasonal and intra-seasonal variability. Today, communities rely on their traditional knowledge that does not reflect current climate patterns. During the consultations, the communities explained that “the weather forecast is not enough, today we need to be told when to plant maize for example because we can no longer rely on our habits”. AFD plans to support the modernization of the Meteorological Directorate, but the funding allocated will not be sufficient to renew all the equipment, and the volunteer staff collecting the data will still need to be trained, as well as improvement of the delivery mechanism of the information reaches the end users in a way they can understand

Additionality

In the absence of this project, government budget does not allow the development of end-user driven climate services. A key aspect of the intervention will focus on the development of tailored, locally relevant information in a participatory manner (emphasis on co-production and establishment of feedback mechanism) including a better understanding of traditional knowledge to allow for the identification of opportunities for blending scientific with local, indigenous knowledge.

WFP will work with national and local partners to strengthen access of vulnerable households to tailored and reliable weather and climate information to support decision making and help them enhance their agricultural or livestock production, as well as inform other livelihood decisions- including those related to disaster risk reduction. Accurate, timely and easy to understand information can improve planning to reduce people’s vulnerability to climate change. To this end, the project will strengthen the Meteorological Services’ capacity to generate climate and weather data, including by installing additional equipment (automated weather stations and rain gages) as needed, and by training staff on seasonal forecast and shorter time-lead (1-10 days) weather forecast generation.

Notably, the project will establish feedback mechanisms from producers to users of information, including by training lead farmers and partners on data collection processes from local stations as well as on co-production of tailored messages and agricultural advisories. Based on consultations with communities as part of Component 1, the project will strengthen and, if necessary, develop relevant dissemination channels based on preferences identified, with a specific focus on women and indigenous people. A range of dissemination channels will also be tested in the target districts, including radio, messages in schools, churches or via sms (text messages).

Component 3: Resilient livelihoods

Baseline scenario

Most development partners and NGO are currently focused on climate change mitigation in the Republic of Congo; not on adaptation. Without concrete adaptation actions proposed by this project, the baseline scenario would see continued negative impacts of climate change affecting communities. Subsistence agriculture will continue to be negatively impacted by climate change, leading to a drop in production and consequently a drop in family incomes and overall food security in Congo. The availability of fish, caterpillars and honey, which are the basis of the diet of indigenous people, will continue to decline, which will reduce food diversity and thus nutrition. The resilience and regenerative capacity of forest resources will continue to be negatively affected by extreme climatic conditions and present practices. Smallholder farmers’ economic and physical isolation in Congo is compounded by the poor state of rural infrastructure, limited market information, the impacts of climate change and environmental degradation, and a lack of support from the government. Smallholder farmers also face high post-harvest losses due to inadequate equipment and a lack of storage

facilities. To be resilient, systems need to have the capacity to withstand, adapt and transform in the face of shocks and stresses.

Additionality

Based on the results of component 1, the project will provide a framework for the implementation of climate-resilient activities. The project will establish partnerships with NGOs that have expertise in working with communities.

Communities will be made aware of the negative impact of existing practices, how these impacts might be exacerbated by climate change and how to protect the surrounding ecosystems. The objective is to encourage communities to develop their own reflections on the harmful impacts of current practices (e.g. slash-and-burn) so that they can take ownership of the adaptation process as well as ensure that assets created by the project will be designed to take into account future climate patterns (i.e. increased risk of dry spells, drought or flood). This will be possible in particular through the implementation of "experience sharing" and pilot activities. In addition, the project will develop the best possible partnerships with local NGOs that are familiar with the field (e.g. Initiative Développement) and with other UN agencies like FAO.

The proposed project will support smallholders in increasing the quantity and quality of food supply by providing adequate storage facilities to reduce post-harvest losses in link with climate change (flood-proof, taking into account higher temperatures, etc.). Better post-harvest handling practices and storage technologies not only allow farmers to retain more of their harvest, but they also allow them to store their crops for longer periods, thus benefiting from higher prices at later points in time. This will allow smallholders to increase their resilience to climate change.

In addition, smallholder farmers will be linked with the local school feeding programme so that there is an ongoing demand for their climate-resilient products. This will ensure that there is some degree of crop diversification as well as sustainable income sources. To promote food security and nutrition, diversified native species production and consumption will be supported, including through the introduction of organic crop production practices, reforestation and natural resource conservation measures, and water conservation for agriculture. Water harvesting and storing activities (both rain water and spring ground water) will be done in collaboration with technical experts to ensure there is no negative environmental impact and provide communities with access to water during dry spells. These interventions will promote food security and nutrition by enhancing ecosystem quality, improving community resilience, agricultural productivity and the diversification of local incomes, taking into consideration both short-term and longer-term climate threats. Livelihood diversification, income generation as well as market linkages will ensure that beneficiaries are self-reliant and have sustained livelihoods beyond the project intervention.

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

The project will redefine value chains in order to revitalize the agricultural sectors of northern farmers but also in the Bouenza. The project is intended to develop the capacities, tools, and systems for national stakeholders, ranging from the farmers, to the communities, and all the way up to the national stakeholders, with the intention of developing a self-sustaining model that can continue beyond the project implementation period. By developing viable market opportunities and developing the capacities of farmers to benefit from these, the activities fostered by the project can become self-sustaining with time. Key studies conducted under component 1 will ensure that project interventions under components 2 and 3 are culturally sensitive, while also providing the government with useful data to plan future interventions and giving access to the communities to relevant and timely information for better decision making. The proposed studies will inform the NAP/NAPA and the Agricultural Adaptation Plan and are also expected to serve as baseline for other climate adaptation projects by other stakeholders/donors.

In addition, Component 2 will provide the necessary systems and capacities and thus impetus to the Direction of Meteorology, to continue to provide weather and climate services after the project ends. Current investments are important to establish the entire climate services chain, which could then be replicated and expanded to other departments. Also, once the project has established the basic processed and built a solid system, the government will be able to operate it on its own funds (operating costs only).

An improved awareness and understanding about climatic issues will ensure that activities under component 3 are fully owned by the communities as well as managed and maintained in the long run beyond the project life. Community empowerment and linkages with school feeding programmes will ensure sustainability of project intervention in the medium and long run. The project will enable the most vulnerable Congolese,

including indigenous communities, to better manage their food security in a changing environment. The project will build the capacities of indigenous groups and smallholder farmers to continue achieving food security in a future with more intense rains and flooding. Doing so represents a change with past practices that promoted food security at the macro and national level. The activities of component 3 will be implemented by NGOs based in the Republic of Congo. At the end of the project, these NGOs will remain and will be able to capitalize on the experience and skills learned through this project.

The project will apply an integrated approach. The objective is that people will be at the center of the project and that each project activity will be directly beneficial to them: they contribute to increasing the knowledge on climate change, they benefit from the strengthening of administrations through better monitoring on the ground, they understand climate change, they receive useful climate information that allows them to make better decisions, and they take ownership of the project's adaptation activities because they are the driving force behind them. As a result, resilient climate activities are sustainable over time beyond the project's life.

It should be noted that the government is committed to supporting sustainable development and has a budget for adaptation support, which during full proposal stage will be further explored to see how the government could further enhance the sustainability of this project's interventions.

Table 3: Sustainability of project outcomes

Outcomes	Sustainability
Outcome 1.1	The studies that will be carried out as part of the project will be used to build a sustainable project but also by the government and the various technical and financial partners to take informed decisions. Community consultations will allow to build the project on the basis of real needs, taking into account the socio-cultural context.
Outcome 1.2	Capacity building and coordination at the national and district levels will provide many benefits after the project end-date. Trained officials will be able to transfer their knowledge to other officials at national and district levels.
Outcome 1.3	Communities, especially school children, are informed about climate change and its impacts and make informed decisions even beyond the purview of the project. Communities are aware of which practices degrade the environment and modify their habits accordingly
Outcome 2.1	The training of meteorological department and data collection officers will be used beyond the project to improve the reliability of climate data and of the information created. The equipment invested by the project will contribute in the same direction. In addition, the implementation of a climate service, which has not yet been established, will provide the country with useful tools for climate change adaptation. Ensuring a feedback mechanism from its users will ensure continued improvement of the system.
Outcome 3.1	All processes leading to decisions at village level will be highly participatory and only assets prioritized by beneficiaries will be supported. All physical assets created under the project will be designed to be sufficiently simple and cheap to be repaired and replaced by communities with their own knowledge, skills and resources. With the adapted activities, the communities can rely on stable incomes despite climate change which is an incentive to adopt and maintain the new activities after the project closes. In addition, the project will work on the consolidation of value chains to create sustainable links to markets.

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

The project activities will be designed, planned and implemented in order to minimize any risk for negative social and environmental impacts. Activities will be designed in close consultation with beneficiaries – including the most vulnerable groups – and stakeholders, and will take into account the different needs and constraints of these groups. The project team will also ensure that the most vulnerable and food insecure groups have access to and are included in these activities.

Components 1 and 2, which mainly include studies, capacity building and awareness raising, do not have a negative effect on the environment, on the contrary they provide awareness and best practices. The activities of component 3 will be given particular attention in view of their potential negative environmental impact. However, the activities of component 3 are not yet fully defined at this early stage and will be further developed with the communities during project implementation. During project design stage, community level consultations were conducted in order to identify the main vulnerabilities, gaps and needs for effective adaptation actions. These consultations helped identify a number of asset types to enhance livelihood resilience and address environmental degradation. The first activities that emerge following consultations are: fish farming, beekeeping, livestock, water storage, agroforestry or climate smart agriculture. All these income-generating activities will be carried out in such a way as to have a reduced impact on the environment.

Because of the unidentified sub-activities of component 3, the project is categorized to be “medium risk”, or category B. The below table shows the results of the preliminary social and environmental risk assessment carried out during the development of this project concept note. All future activities will be submitted to the WFP environmental and social risk screening tool as per WFP Environmental policy.

Table 4: Potential impacts and risks

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	**X**	**Low/no risk:** Relevant national, regional and district authorities have been and will continue to be consulted during the proposal development process to ensure compliance with all relevant laws.
Access and Equity		**Low/no risk:** Through in-depth consultations with communities and stakeholders during the proposal development process and throughout project implementation, this project will ensure that no activity will interfere with access to basic services or exacerbate existing inequities. This project will promote the equitable access to activities and assets by youth, elders and women in targeted communities. When designing and planning the activities, ensure that any activity with communities targets at least 50% of women and includes marginalized and vulnerable groups such as elderly, youth, indigenous people and disabled.
Marginalized and Vulnerable Groups		**Low/no risk:** Marginalized and vulnerable groups – especially women and indigenous people - will be consulted during the proposal development process to ensure that their identified threats, priorities and mitigation measures are reflected. This project will empower vulnerable groups to make decisions on concrete adaptation actions, valuing their traditional and local knowledge.
Human Rights	**X**	**Low/no risk:** This project affirms the rights of all people and does not violate any pillar of human rights.
Gender Equity and Women’s Empowerment		**Low/no risk:** Through targeted consultations with women, project design and implementation will ensure that gender considerations are integrated in each activity. This project will promote women leadership in public spaces and decision-making power for climate change adaptation and food security and nutrition. In project formulation, gender experts will be consulted to ensure that the project effectively responds to the unique needs of women and girls and promotes gender equity. This will be enhanced by WFP’s and AF’s gender policy and other similar materials.
Core Labour Rights	**X**	**Low/no risk:** The project will ensure respect for international and national labour laws and codes, as stated in WFP’s policies.
Indigenous People		**Low to moderate:** Extensive consultations and participatory planning events will ensure that the project appropriately incorporates the priorities and needs of this population in all activities (FPIC). When designing and planning the activities, ensure that any activity takes into consideration priorities and needs of indigenous people and includes them in any participatory approach and in project activities.
Involuntary Resettlement	**X**	**No risk:** The project will not lead to involuntary resettlement.
Protection of Natural Habitats		**Low/no risk:** By implementing ecosystem-based adaptation activities such as agroforestry and water conservation efforts, the project will ensure the protection of natural habitats. In addition, consultations with government stakeholders, community leaders and communities will ensure that conversion or degradation of critical natural habitats (including those that are legally protected, officially proposed for protection, recognized for their high conservation value, or recognized as protected by traditional or indigenous local communities) is avoided. Component 3: perform social and environmental screening of activities.
Conservation of Biological Diversity		**Low to moderate risk:** Agroforestry and tree planting activities could lead to a deterioration of biological diversity if tree species are not correctly selected (e.g. inadvertent introduction of invasive species) and diversified. To ensure this risk is addressed, this project will prioritize local species and multi-species plantations and avoid the use of non-native and invasive species. Additionally, these activities will be designed in close collaboration with the Ministry of Forestry. Component 3: perform social and environmental screening of activities.
Climate Change	**X**	**Low/no risk:** The project will not generate any significant emissions of greenhouse gases and will not contribute to climate change in any other way. All project components and activities contribute to increasing local capacities to sustainably face climate change in the long-term and climate variability in the short and medium terms.
Pollution Prevention and Resource Efficiency	**X**	**No risk:** The project will not release pollutants. Energy efficiency, minimization of material resource use, and minimization of the production of wastes will be embedded in project design.

Public Health		**Low/no risk:** The project will be designed and implemented in a way that avoids any negative impact on public health. Attention will be given to activities related to water harvesting and storage and communities will be sensitized on how to use and store the water in a safe and efficient way. The same attention will be given to nutrition-sensitive activities that are part of the project ensuring a positive impact on health and alignment to nutrition and health services offered beyond the project. The project will ensure that the targeted populations will not face restrictions to their access to public healthcare.
Physical and Cultural Heritage		**Low/no risk:** Under all components, traditional and local knowledge will be understood and enhanced with scientific information for environmental management and food security and nutrition. Consultations and engagement with stakeholders and communities will ensure that any physical cultural heritage present on the project site is identified and potential negative impacts are avoided through project design.
Lands and Soil Conservation		**Low to moderate risk:** Through the adaptation activities in component 3 (output 3.1), this project will aim to rehabilitate lands and restore degraded soils through natural regeneration, planting of native nitrogen-fixing plants, agroforestry and water harvesting. Some activities, however, could have negative impacts on lands and soils conservation if not designed properly. In addition, increased agricultural production and livelihoods may lead to increased investment in livestock which may have an unintended effect on the environment, mostly on soils and water resources. Sensitization and trainings in component 1 will ensure these issues are well understood. Component 3: perform social and environmental screening of activities.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project implementation.

The executing entity will be the Ministry of Tourism and Environment. The executing entity will collaborate, for specific activities in their field of expertise, with the Ministry of Agriculture, the Direction of Meteorology under the ANAC, the Ministry of Education, the Ministry of Forests and the Ministry in charge of scientific research. Where needed at community level, execution of some activities will be undertaken by NGO partners or community organizations after receiving training, and with assistance from Government and WFP as needed. Some activities may be carried out or supported by United Nations agencies (UNESCO, FAO, WFP, UNDP). The Ministry of Tourism and Environment has set up a technical committee composed of the various United Nations entities and Ministries involved in this project. A detailed overview can be seen in table 5 below.

WFP Country Office in Congo will facilitate and supervise overall project implementation, oversee monitoring and evaluation, provide technical support, and report to the Adaptation Fund. WFP's principal role is fiduciary, supervisory, supporting, coaching, providing technical knowledge, monitoring and disseminating lessons learned.

The Ministry of Tourism and Environment is responsible for the development and implementation of the country's climate and environment policies. Component 1 will be mainly under the direct execution of the Ministry of Tourism and Environment. The studies to be carried out under outcome 1 may be carried out in partnership with the Congo Agricultural Research Centre (IRA), CIRAD, UK Met, IRSEN, WFP (technical unit) and any other relevant consultancy firms, United Nations agencies, or research institutes.

The Ministry of Tourism and Environment will ensure the implementation of component 2 in close partnership with the Agrometeorology Direction of the Ministry of Agriculture and the Meteorology Direction of ANAC. The Meteorological Direction (ANAC) will be the coordinating body responsible for component 2: establishing weather, climate and climate change data. This direction will coordinate with all other relevant government partners or research institutes.

Component 3 will be carried out in close collaboration between the Ministry of Tourism and Environment, the Ministry of Agriculture, Livestock and Fisheries, and the Ministry of Forests, as well as with NGOs in the field and United Nations agencies.

Table 5: Arrangements for project implementation

Expected Outcomes	Expected Concrete Outputs	Beneficiary	Technical support	Executing Entity	Implementing Entity
1.1 Deepened knowledge on the impacts of climate change in Congo	1.1.1 Research, studies and focus groups on historical climate change and future climate scenarios to formulate adaptation solutions	Congo population, governmental agencies, development partners	MTE[43], Ministry of Agriculture, IRA[44], IRSEN, CIRAD, UK Met, experts and consultants, UN agencies	MTE	WFP manages funds, recruits experts if needed, provides technical assistance where needed
1.2 Increased technical capacity at national and district level of government institutions and civil society	1.2.1 Agricultural sector managers, Department Directorates of Environment, Sustainable Development, Meteorology, Forests ministries and civil society are trained on climate change adaptation	Government and civil society	Experts and consultants		
	1.2.2 Congo's population benefits from the Government's adoption/implementation of a multi-sectoral and community-oriented national climate adaptation policy	MTE	UNDP, Experts and consultants		
1.3 Sensitized population and partners on the ground on climate change, its impacts and possible adaptation solutions	1.3.1 Vulnerable children benefit from trainings on climate change and climate adaptation	School children and teachers	UNESCO, IRSEN, WFP, Ministry of Education		
	1.3.2 Vulnerable communities benefit from customized awareness-raising campaigns.	Communities, Congolese artists	UNESCO, FAO, French Institute of Congo, Congolese artists		
2.1 Improved access to climate services information understandable and adapted to users	2.1.1 The government has improved capacity to collect and analyze weather data through the purchase of technical equipment and the technical strengthening of its teams	Meteorology Direction	WFP, UK Met and experts		
	2.1.2 Government and communities' benefit from increased capacity of smallholder farmers to engage in grass-root data collection and co-production of key messages	Ministry of Agriculture and smallholders	Ministry of Agriculture, Meteorology Direction, IRA		
	2.1.3 Vulnerable communities benefit from strengthened dissemination channels to ensure communication of tailored climate services	Communities	Meteorology Direction, Ministry of Agriculture, IRSEN, IRA, Experts and NGOs		
3.1 Increased adaptive capacity of communities and households to respond to climate change	3.1.1 Targeted communities affected by climate change benefit from the adaptation of productive assets that support transition towards resilience and self-reliance	Communities	NGOs, experts, FAO, UNPD, Ministry of Agriculture, MTE, MEF[45] and WFP		
	3.1.2 Targeted communities employ diversified income-generating activities and have better access to markets to improve their productivity, income, livelihoods and nutrition				

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

WFP's policy requires that risk assessment is conducted every year in all its programmes. Table 6 summarizes key risks and mitigating factors identified for this project.

[43] MTE: Ministry of Tourism and Environment.
[44] Institut de Recherche Agronomique
[45] MEF: Ministry of Forest Economy

Table 6: Risks and responses

Risk	Ranking	Response Measure
Political risk	Medium	The political risk is twofold: 1. political instability after the current president's term of office (ending in 2021); and 2. instability regarding the Ministry in charge of environment, as there have been several shifts and readjustments regarding the tutelage of the environment sector, changes in Ministers and technical teams. These two issues could lead to delays in the implementation of the project. To address this risk, the project will be included in the government's programmes and action plans.
Lack of technical capacity of government partners	Medium to low	Because unexpected constraints relating to a lack of capacities of national partners could result in delays in implementation, the project will recruit an expert within the Ministry of the Environment to coordinate the project and ensure capacities are built throughout the project.
Coordination among government agencies is ineffective due to the large number of government institutes involved, captured by sectoral interests, and multiple reporting lines.	Low	This risk will be mitigated by strong leadership from the Ministry of Environment. Since the concept stage, MTE and its technical advisors have been involved in project design and planning. Information will be broadly shared to identify synergies and opportunities for cooperation and minimize the risks of competition and duplication. Further multi-stakeholder discussions will focus on identifying common issues and finding pathways towards common goals and actions.
Financial risk	Medium to low	Corruption is a risk that should not be underestimated in Congo. In order to minimize the risk, project funds will be managed and controlled by WFP, who will transfer money on a quarterly basis to the project executing unit based within the Ministry of Environment. If procurement processes are not to WFP standards, the executing entity might ask WFP to procure directly.
Lack of quality seeds	Medium to low	The almost permanent deficit in agricultural input is a major obstacle to the development of agriculture in Congo. There could therefore be a shortage of supply of quality seeds. The project, in partnership with local research institutions such as IRA, will seek potential regional partnerships to minimize the risk.
Unavailability of weather and climate data in the targeted districts for analysis	Medium	This is why the project has planned an activity to strengthen the technical and material capacities of the Meteorological Direction. At the beginning it will be necessary to start from the existing system, which is not necessarily very reliable in terms of quality and spatial coverage. Technical training and procurement of materials with AFD should ensure good quality data during the project lifespan and beyond.

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

The proposed project will use WFP's established processes to screen for social and environmental impacts. It will also use the tools put in place by the REDD+ strategy, as they are the only nationwide tools for monitoring environmental risks available in Congo. To avoid social risks, the Implementing Entity, together with the project team, will ensure that WFP's and Adaptation Fund's social principles are taken into consideration during activity design. Moreover, they will ensure that any activity with communities targets at least 50% of women, includes marginalized and vulnerable groups such as elderly, youth, disabled, and indigenous populations, and ensures that the specific needs and priorities of these populations are heard and taken into consideration. In addition, close collaboration with a wide range of governmental entities during project design and implementation will ensure that the project is aligned with national legislation. Further consultations with the RoC Government will ensure that the tools to be used also align with the national environmental legislation. An Environmental and Social Management Plan will be attached to the full project proposal.

Project partners and stakeholders involved in asset creation activities will be trained on the use of WFP's E&S screening tool. They will be capacitated to identify environmental risks, quantify them, and identify and plan for avoidance or mitigation measures. Technical support from a governmental partner or WFP, where needed, will be provided to deal with medium and high-risk activities and manage them properly.

From experience, it is expected that most asset creation activities will be low risk, with some possibly being medium risk. It is not expected that asset creation activities will be high risk because of the usual type, size and nature of assets chosen. Nevertheless, the screening will be mandatory for all asset creation activities and filled-in checklists will be kept and recorded as part of the monitoring system.

The FPIC (Free, Prior and Informed Consent) methodology and related tools put in place by REDD+ in the country will be used for consultations and activities with indigenous people.

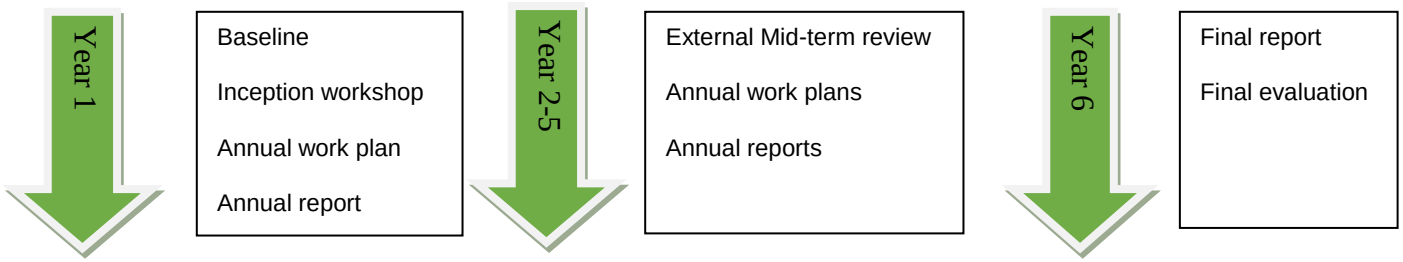
Finally, a grievance and complaints mechanism will be set up to enable beneficiaries to raise their voice and report any irregularities in project/activity design and implementation. Awareness will be raised among communities, targeting especially vulnerable groups such as women and indigenous people, to inform them of their rights and use of the complaint mechanism.

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

Project monitoring, reporting and evaluation will be carried out in accordance with WFP established procedures and standards and will be based on WFP's internal "Evaluation Quality Assurance System" (EQAS). Financial monitoring and accounting by the Multilateral Implementing Entity will follow WFP standards that are based on the International Public-Sector Accounting Standards (IPSAS).

Key monitoring, reporting and evaluation activities will include:

- Inception workshop that will be held at project start-up, under the chairmanship of the Ministry of Environment and with involvement of all major stakeholders, in particular the project technical committee, as well as centralized and decentralized government entities. The inception workshop report will include the first detailed annual work plan.
- An in-depth baseline (to be developed within 4 months of project start) and regular follow-up reports on all indicators included in the project results framework form an integral part of the project, which has a strong learning dimension.
- Short quarterly progress reports will keep the project stakeholders at decentralized and national level abreast of the most recent developments and events, including project activities, implementation of any risk mitigation measure, results achieved, problems encountered and plans to overcome these. Every fourth quarterly report will provide additional input to the project annual report.
- Detailed annual reports will provide full information on activities carried out, outputs produced and – to the extent possible – tendencies towards foreseen outcomes observed. The annual reports will be presented and discussed at an annual workshop – at which the advisory group (ad hoc inter-ministerial technical committee set-up in May 2018 by the Minister of Environment to follow-up project activities and implementation) and other identified key stakeholders will participate - that will provide recommendations / endorsement for the proposed next annual work plan.
- An external mid-term review will be carried out half way through project implementation and will be used to realign project activities, implementation arrangement and others, if needed.
- A final report will summarize all project activities and results. A final evaluation is foreseen to be completed within nine months after project termination.



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

This results framework will be further refined at full proposal stage.

Project strategy	**Objectively verifiable indicators**		
Goal	*To enhance the adaptive capacity of vulnerable communities to the effects of climate change on food security.*		
Impact: To reduce food and nutrition insecurity through climate change adaptation measures.	**Indicator**	**Target**	**Source of verification**
	Reduced climate change vulnerability	Reduced ecosystem vulnerability	Ecosystem baseline scenario and follow-up study at end of project
	Strengthened awareness of climate change and adaptation processes	At least 80% of targeted households are aware of climate change and implement adaptive measures	Gender and age sensitive household surveys
	Food and income diversification	At least 80% of targeted households have an additional activity	Project evaluation

Objective 1: Improved knowledge at national and sub-national level on the impacts of climate change in Congo and sensitize the population and partners to the current and future impacts of climate change and climate variability and about possible adaptation solutions			
Outcome/Output	**Indicator**	**Target**	**Source of verification**
Outcome 1.1: Deepened knowledge on the impacts of climate change in Congo	Number of studies/research papers		Results of the studies
Output 1.1.1 Research, studies and focus groups on historical climate change and future climate scenarios to formulate adaptation solutions	Number of focus groups carried out Number of participants in the focus groups Number of studies/research papers	20 focus groups are carried out 200 participants 2 papers	Results of the studies Activity reports
Outcome 1.2: Increased technical capacity at national and district level of government institutions and civil society	Implementation of training modules at department level Implementation of environmental policies at national level	Two training modules in the 12 departments have been set up Realization of at least one environmental policy tool at the national level	Final project evaluation
Output 1.2.1: Agricultural sector managers, Department Directorates of Environment, Sustainable Development, Meteorology, Forests ministries and civil society are trained on climate change adaptation	Number of people trained Number of technical support activities provided Number of partners supported	125 total number of people trained The training courses are divided into 2 modules: a "climate change" and an "adaptation" module.	Training materials Attendance lists of training courses
Output 1.2.2: Congo's population benefits from the Government's adoption/implementation of a multi-sectoral and community-oriented national climate adaptation policy.	Implementation of environmental policies at national level Number of technical support activities provided Number of partners supported	Realization of at least one environmental policy tool at the national level XX number of technical support activities organized XX number of partners supported	Final project evaluation
Outcome 1.3: Sensitized population and partners on the ground on climate change, its impacts and possible adaptation solutions	% of targeted community members (male and female) receiving key messages on climate change adaptation, food security and nutrition Number of medias used for awareness raising	At least 90% of community members (50% male and 50% female) in target villages are sensitized. XX Medias used	final project evaluations
Output 1.3.1 Vulnerable children benefit from trainings on climate change and climate adaptation	Number of climate change and adaptation training modules developed Number of people [teachers] trained on climate change topics in schools.	1 climate change and adaptation training modules developed XX number of teachers trained	final project evaluations

Output 1.3.2: Vulnerable communities benefit from customized awareness-raising campaigns	Number of key messages to be proposed to the competition Number of participants Number of broadcast channels	20 key messages are developed The competition is held 100 participants 5 broadcast channels	Competition results Baseline and final project evaluations
Objective 2: Strengthen access to relevant weather and climate information by vulnerable communities			
Outcome/Output	**Indicator**	**Target**	**Source of verification**
Outcome 2.1: Improved access to climate service information adapted to users	% of people reached by climate information	At least 90% of community members (50% male and 50% female) in target villages have access to climate information	Project reports Final project evaluations
Output 2.1.1: The government has improved capacity to collect and analyse weather data through the purchase of technical equipment and the technical strengthening of its teams.	Number of people trained Number of technical support activities provided Number of partners supported Number and type of equipment	XX number and type of equipment procured XX number of people trained XX number of technical support activities provided XX number of partners supported	Training evaluation and project evaluation
Output 2.1.2: Government and communities benefit from increased capacity of smallholder farmers to engage in grass-root data collection and co-production of key messages	Number of leaders identified and trained Number of equipment provided Number of technical support activities provided	XX number of leaders identified and trained XX number and type of equipment procured XX number of technical support activities	Final project evaluation
Output 2.1.3: Vulnerable communities benefit from strengthened dissemination channels to ensure communication of tailored climate services	% of community members in target villages provided with access to information on climate and weather risks	At least 90% of community members in target villages provided with access to information on climate and weather risks	Project reports Final project evaluations
Objective 3: Strengthen resilience at community level through concrete adaptation measures and improved food systems, including fostering climate resilient agriculture and establishing market linkages for sustained income generation activities			
Outcome/Output	**Indicator**	**Target**	**Source of verification**
Outcome 3.1: Increased adaptive capacity of communities and households to respond to climate change	Household Food Consumption Score (FCS); Diet Diversity Score (DDS); Minimum Dietary Diversity; Coping Strategy Index (CSI); Food Expenditure Share (FES)) Proportion of targeted communities where there is evidence of improved capacity to manage climatic shocks and risks	For FCS, DDS etc, targets to be set during baseline XX% of targeted communities where there is evidence of improved capacity to manage climatic shocks and risks	Project reports and final evaluation
Output 3.1.1: Targeted communities affected by climate change benefit from the adaptation of productive assets that support transition towards resilience and self-reliance	Number of assets built, restored or maintained by targeted households and communities, by type and unit of measure Number of partners supported Number of communities/departments targeted	XX assets built, restored or maintained 4 partners supported 120 of communities/ 3 departments targeted	Project reports and sites visits
Output 3.1.2: Targeted communities employ diversified income-generating activities and have better access to markets to improve their productivity, income, livelihoods and nutrition.	Number of income-generating activities implemented Number of communities/departments targeted Number of people trained Number of technical support activities provided Number of partners supported	XX income-generating activities implemented 120 of communities/ 3 departments targeted XX of people trained XX number of technical support activities provided 3 partners supported	Project reports and sites visits

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

Project Objective[46]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Improve knowledge at national and sub-national level on the impacts of climate change in Congo and sensitize the population and partners about possible adaptation solutions	Number of communities involved in developing and improving knowledge on the impacts of climate change	Outcome 1: Reduced exposure to climate-related hazards and threats Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level Outcome 7: Improved policies and regulations that promote and enforce resilience measures	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis 3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses. 7. Climate change priorities are integrated into national development strategy	1 340 000 $
Adapt complex climate data into useful information for different activities and users, and getting climate information to users	Number of communities with access to adapted complex climate data	Outcome 1: Reduced exposure to climate-related hazards and threats Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis 3.2. Percentage of targeted population applying appropriate adaptation responses	1 900 000 $
Strengthen resilience at community level through concrete adaptation measures and improved food systems, including fostering climate resilient agriculture and establishing market linkages for sustained income generation activities	Number of communties with increased adaptative capacity to climate change-driven hazards affecting their specific locations	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	6.1 Percentage of households and communities having more secure access to livelihood assets 6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods 5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	5 120 500 $
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Outcome 1.1: Deepened knowledge on the impacts of climate change in Congo	Number of studies/research papers	Output 1.1: Risk and vulnerability assessments conducted and updated	1.1. No. of projects/programs that conduct and update risk and vulnerability assessments (by sector and scale)	400 000 $
Outcome 1.2: Increased technical capacity at national and district level of government institutions and civil society	Implementation of training modules at department level Implementation of environmental policies at national level	Output 7: Improved integration of climate-resilience strategies into country development plans	7.1. No. of policies introduced or adjusted to address climate change risks (by sector) 7.2. No. of targeted development strategies with incorporated climate change priorities enforced	450 000 $
Outcome 1.3: Sensitized population and partners on the ground regarding climate	% of targeted community members (male and female) receiving key messages on	Output 3: Targeted population groups participating in adaptation and risk reduction awareness	3.1 No. of news outlets in the local press and media that have covered the topic	490 000 $

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

change, its impacts and possible adaptation solutions	climate change adaptation, food security and nutrition Number of medias used for awareness raising Number of people having knowledge/awareness, attitude and practice in climate adaptation initiatives	activities		
Outcome 2.1: Improved access to climate service information adapted to users.	% of people reached by climate information	Output 1.2: Targeted population groups covered by adequate risk reduction systems Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities	1.2.1. Percentage of target population covered by adequate risk-reduction systems 3.1 No. of news outlets in the local press and media that have covered the topic	1 900 000 $
Outcome 3.1: Increased adaptive capacity of communities and households to respond to climate change	Household Food Consumption Score (FCS); Diet Diversity Score (DDS); Minimum Dietary Diversity; Coping Strategy Index (CSI); Food Expenditure Share (FES)) Proportion of targeted communities where there is evidence of improved capacity to manage climatic shocks and risks	Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies 6.2.1. Type of income sources for households generated under climate change scenario 5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	5 120 500 $

G. Disbursement schedule with time-bound milestones.

Budget Breakdown	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Project Funds	$1 491 667	$2 340 229	$2 165 229	$1 628 812	$1 528 812	$9 154 748
Implementing Entity Fee (8.5%)	$126 791	$198 919	$184 044	$138 449	$129 949	$778 153
Total	**$1 618 458**	**$2 539 148**	**$2 349 273**	**$1 767 261**	**$1 658 761**	**$9 932 901**

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

A. Record of endorsement on behalf of the government[47] *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:*

Mrs. Arlette SOUDAN-NONAULT, *Minister,* *Ministry of Tourism and Environment*	Date*: 6 December 2018*

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

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Jean-Martin Bauer, WFP Country Director Implementing Entity Coordinator	
Date: *01,04,2019*	Tel. and email:(00242)06 666 51 57 Jean-martin.bauer@wfp.org
Project Contact Person: *Jean-Martin BAUER*	
Tel. And Email: (00242) 06 666 51 57 Jean-martin.bauer@wfp.org	

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

Annexes

Annex 1: List of Stakeholders Consulted

Organizations	Topics discussed
Government partners	
Ministry of Tourism and Environment (National Designated Authority)	The Minister gave its full support to WFP Congo to submit a proposal to the Adaptation Fund. The Director General for Sustainable Development leads the process, and a focal point for climate change adaptation was nominated. A letter was issued on May 22, 2018 to officially create an inter-ministerial technical committee to support the design of the project and the drafting and review of the concept note. The DG for Sustainable Development wants the majority of the budget to be directed towards community actions and local level activities.
Ministry of Agriculture	Congo has problems mobilizing climate funding – need partners like WFP to be able to access funding. Climate change adaptation measures are important for forests but also for savannas, as they represent 35% of total land. Water management is critical to climate change adaptation measures, as the planting seasons are shifting. Loudima (in Bouenza Department) has seen several dry spells these last years. Likouala Department has seen flooding problems these last years – need to drain water for improved agriculture. Decree No. 2017-340 of 14 August 2017 created the Directorate of Production and Agro-Meteorology under the General Directorate of Agriculture. In this context, the Director General of Agriculture wishes to distribute weather kits to agricultural leaders in the field.
Ministry of Forestry	Many development partners are active in the forests sector and in climate change mitigation. However, very few stakeholders are active in climate change adaptation. Smallholder farmers practice “slash & burn” and move their cultures to new fields every season. The main source of fuel is charcoal. Sensitization of smallholder farmers is critical, need to accompany them so they can understand why they should not destroy the forest. Also need to create income generating activities as alternatives to forest destruction and shifting cultures (e.g. agroforestry with a variety of crops: fruit trees, horticulture, amaranth, honey…). One of the main challenges is land property and rights. This has to be taken into consideration in every project to ensure that proper agreements between landowners and users are in place.
National Agency for Civil Aviation – Meteorological Department	There are currently 16 meteorological semi-automated stations in Congo, providing information on precipitations, temperatures, humidity, radiance, water evaporation, soil, etc. However, data collection is sometimes incomplete or erroneous. Weather reports for agriculture purposes are done irregularly (supposed to be every 10 days). There is one satellite station providing daily information for TV weather forecast. Rain gauge manual stations also exist, although only 22 out of 214 are currently operational (depend on volunteers to do the measures). In general, there are very weak capacities (human and material) to do a proper work regarding meteorological and climate services.
Development Partners	
FAO	Ongoing preparation for a big climate change mitigation project to be funded by the Green Climate Fund. Concept note was reviewed by GCF in April 2018 and several changes need to be made. Full proposal will be submitted to GCF Board in March 2019 (earliest). Component 1: The National Land Use Planning Scheme is updated, the National Land Use Plan is developed and implemented, and the land tenure framework of investment projects is strengthened. Component 2: Forest degradation from unsustainable fuelwood production is reduced through diversified agroforestry and logging systems and alternative energy source. Component 3: The management of forest resources and protected areas is strengthened, resulting in sustainable and legal management and marketing practices. Component 4: Perennial crops and subsistence farming are developed based on a sustainable regulatory framework and supported with technical assistance to reduce pressures on forests.
UNFPA	Has long experience working with indigenous women in Congo, particularly in Likouala and Sangha Departments regarding maternal health. Important to include local/traditional knowledge in the project proposal and activities.
World Bank	WB leads the Development Partners Working Group on Environment (meets every 2 months).

	WB has several ongoing projects in Congo, mainly related to climate change mitigation: REDD+, Forest Investment Programme, (Commercial Agriculture Project, particularly active in the Buenza Department, River Dredging Project in the North
French Development Agency	Has a large programme on Sustainable Development: - Forest legislation and forest management for Northern Congo – community development and partnerships with timber companies. - Agriculture: develop cocoa industry, put in place vegetable growing production around Brazzaville - Vulnerability studies that will start in September 2018 on Forests, Agriculture, and Erosion - Modernization of the meteorology department (2018-2020, 500 000 to 1 million euros)
European Union	Officially, indigenous population represents 1% (50,000 people) of the total population. But it is unclear actually how many indigenous people live in Congo and where they are located exactly – very little information available and population heavily stigmatized by "bantou" ("local") population. The Law from 2010 on indigenous population is a step in the right direction, but unfortunately there is no secondary legislation to enforce the Law. EU has provided several grants to NGOs working on indigenous people, including supporting ORA (Observer, Réfléchir, Agir) schools, putting in place mobile clinics, and supporting indigenous rights and representation. Regarding climate services, good to look at EUMETSAT (has free available satellite climate and meteorological data) as well as CICOS (International Commission for the Congo-Ubangi-Sangha Basin).
UNESCO	UNESCO is currently working on the consolidation of hydrological data in order to digitize them. They are also in the process of signing an environmental memorandum with the Ministry of Environment (by October 2018). With funding from China, UNESCO, in partnership with WFP, has set up an educational platform for teachers
Civil Society and Academia	
Association des Spiritains au Congo (ASPC)	NGO that has been working with indigenous people in Likouala Department for many years. Sapeli tree is massively cut for timber purposes but this is the tree where caterpillars grow -very rich nutrient and easy to stock for up to 1 year. It is also one of the main sources of protein for indigenous peoples (in addition to bushmeat). Many indigenous populations are paid by bantous to work on agriculture, with very low salaries. If we really want to help indigenous communities, it is essential to valorise their local products (e.g. honey, pepper, caterpillars…) and guarantee that they can sell their products – commercialization is critical. The road between Pointe-Noire and Bétou has improved substantially and thus allowed for easier access to markets. Perceived climate changes these last years: - Higher temperatures - Localized storms causing damages to housing and crops - Normally it rains more or less all the time in the Likouala. However, in 2015 there were 3 full months without rains and it resulted in important forest fires. - New diseases have appeared, mainly due to lack of hygiene and new environments (like ORA school): Chigoe flea, lice, etc. In indigenous communities, women are always the ones managing the money and household income.
Ordre de Malte	NGO working with indigenous people in Likouala Department on health issues: putting in place mobile clinics. Also has a long-term partnership with Romain Duda a French anthropologist from Museum d'Histoire Naturelle in Paris who comes regularly to the region for field missions and studies. NGO has ongoing discussions on partnership with CIB-OLAM (timber company) to implement their CSR-related activities. Main health issues for indigenous populations: malaria, "pian", children respiratory diseases, conjunctivitis. In annex 2, see the report of the meeting with Romain Duda, eco-antropologist
National Network for Indigenous People in Congo	Official national platform representing indigenous populations in Congo. A representative from RENAPAC accompanied the mission to N'Dolo (Bouenza Department) for community consultations and another representative met the mission team in Enyéllé (Likouala Department).
ESSOR	ESSOR is implementing a project around Brazzaville to improve agriculture incomes by developing a sustainable business for smallholder farmers. Changes perceived by smallholder producers:

	Higher temperatures, followed by heavy rains (higher intensity than before) and new zones have been flooded Adaptation measures used by smallholders: build shade for crops, add limestone to soil to reduce acidity due to increased rain, crops on stilts.
National Institute for Forest Research	Some climate data for Congo exists but is not utilized. It is important to measure the long-term impacts of climate change. It is important to also consult other research institutes. The main impacts related to climate change in Congo are the rains being random and not following the seasons anymore.
National Institute for Agronomic Research	There is an agriculture centre ("Centre d'Excellence Agricole") in Loudima, Bouenza Department. They have started studies on climate change, especially on cassava.
Initiative Développement (ID)	ID supports Congo through community development and the establishment of an improved household (energy saving cookstoves). ID operates in Bouenza around the pig farming sector. In Bouenza, it is reported that rains arrive later and later, which disrupts planting, and water levels are lower. Burnt crops are becoming even more worrying with climate change, fires are less and less controllable. Burning is not only used for crops but also for young caterpillars that come on the small inches of grass, and harvesting mushrooms, which is easier in low-growing herbs There have been climate disruptions since the 2000s, but they have become more visible over the past 5 years. .
Programme Educatif et du Développement Durable (PEDD)	PEDD is based in Pokola in northern Congo (Sangha). This organization works with WFP around ORA schools. This NGO also works in partnership with the CIB on all community development issues. The last income-generating activity that has been set up is beekeeping. So far 45 hives have been installed, most of them under the Kenyan model. CIB manufactures hives for 30,000 CFA francs per unit. PEDD has set up a carpentry workshop that can manufacture hives for 15,000 CFA francs using CIB's waste wood. A hive produces up to 60 liters of honey per year. 4 harvest periods: December, mid-February, May and September. Harvesting wild honey is becoming more and more difficult: less and less honey production per hive (5l for a hive). Wild hives only produce 3 times a year and 3 or 4 must be destroyed to obtain the quantity of a farmed hive.
Observatoire Congolais des Droits de l'Homme	OCDH has been in existence since 1994. They are active on several subjects including indigenous peoples. In 2014, they and Rainforest conducted a small study on climate change as it affects indigenous peoples. They shared this study with us as well as a specific guide on Free Informed and Participatory Consent.
Private Sector	
Congolaise Industrielle des Bois (CIB)	CIB has had a high-tech weather station in Pokola since 2016. They have had rainfall data since 2002. These data show a decrease in the number of rainy days per year since 2009 (20 days less per year on average).
Likouala Timber	This Italian forestry concession has been operating in Northern Congo (Bétou district) since 1997 and has 808 employees. The company has set up a chicken farm that supplies Impfondo (a nearby town). In the long term, they would like to be able to buy corn starch locally. From time to time, they make barges available to farmers so that they can transport their products to Brazzaville by the river. In terms of climate, they notice an increase in flooding, which has a direct impact on their benefits. Also, river level has decreased and the period for safe navigation has been shortened. They raised the unpredictability of the seasons too.
Eco-oil	Eco-oil currently cultivates 5,000 ha of oil palm trees in the Ouesso area (Sangha). This company employs 300 people in the Sangha and Likouala departments. Production started in 2016, following the takeover of a former palm oil farm. The palm trees are about thirty years old and are being replaced gradually. The potential of the concession is 30,000 ha. Eco-oil wishes to set up a meteorological research station. Some of the land will be used by the local population: the land still belongs to Eco-oil but under community management, eco-oil then buys back the production.

Annex 2: Communities Consultations

a- Bouenza

Table 1, Bouenza community consultations

Communities	Men	Women	Total
Mikassou	19	16	35
N'Dolo (Indigenous village)	22	28	50
Kimbaouka Kongo	2	6	8
Total	43	50	93 (including 50 indigenous)

The general trends regarding climate change impacts and adaptation needs coming out of the community consultations in Bouenza Department are as follows:

- **Diversified crops**: smallholders in Congo generally cultivate a wide variety of crops (like beans, peanuts, tomatoes, corn, peppers, bananas, "poids d'angole", pineapple, tobacco…) and always use cassava as a "last resort staple food", when everything else is lost or sold. Also, part of the harvest is usually sold to markets or wholesalers in order to generate income for the household.
- **Roles of men and women**: Regarding agriculture, roles of men and women are very similar. Except for very physical work such as removing tree stumps and cutting down big trees, which are typically activities for men, there is no differentiation and no separation of roles in the agricultural fields. However, women have much more household chores than men, as they usually take care of collecting water, cooking, cleaning and taking care of the children. Men usually are in charge of collecting fuelwood.
- **Perception of change**: The main climate alteration perceived these last years is the increased unpredictability and variability of the rainy and dry seasons. Communities reported that the timing of rainfall has changed: rains start later and can end earlier or later than usual, the number of dry spells during the rainy season have increased, and heavy rains during the dry season have also appeared. People now need to adapt to uncertain rainfall patterns as the timing of the 2 annual rainy and 2 dry seasons change. An increase in temperatures was also mentioned in a majority of the consultations.
- **Needs**: From these consultations, it resulted that the main gaps in adaptation are related to water management (either due to water shortage or flooding), energy (mainly provided by fuelwood), livelihood diversification, access to reliable, localized and tailored climate/weather information, and knowledge on climate change and adaptation solutions adapted to their context.

b- Likouala and Sangha

Table 2, Likouala consultations

Communities	Men	Women	Total
Limite 1: Indigenous	49	26	75
Limite 2: Bantou	35	28	63
Ngoundimba (Indigenous)	27	30	57
Ngoudimba (Bantou)	15	12	27
Total	126	96	222 (including 132 indigenous)

Table 3, Sangha consultations

Communities	Women	Men	Total
Matoto village (Mixte Bantou, Indigenous)	12	17	29
Pokola	11	9	20
Total	23	26	49

The general trends regarding climate change impacts and adaptation needs coming out of the community consultations in Likouala and Sangha Departments are as follows:

- **Perception of change:** Decrease in rainfall over the year, unpredictable seasons, stronger sunshine, sudden but short heavy rains. Less bees, less wild honey production, more mosquitoes, less caterpillars, less wild yam, drying up of rivers.
- **Consequence:** less fishing, less honey consumption, less nutrition and income, more malaria, physical discomfort (sweating, itching), disruption of the crop calendar.
- **Wishes:** Beekeeping, fish farming, animal husbandry and agricultural activities
- **Needs**: Technical support for the different activities, understandable weather information with concrete advice, mosquito nets.

Main outcomes of the community consultation in Mikassou (Loudima District - Bouenza)

Community participants: 35 persons (16 women, 19 men), including some elderly.

- *Community profile and livelihoods*

The main livelihood is agriculture (beans, ground nuts, cassava, maize, peas, tomatoes, onions, peppers, okra) with some people also rearing animals (chicken, pigs, sheep). While almost the entire community is involved in agriculture, many of them have also another – smaller – activity such as petty trade, sewing, bakery, masonry, hair dresser, etc. Some of the crops are grown during the rainy season while others (beans, ground nuts) are irrigated during the dry season. Some small water dams and irrigation systems were built through community work. This village is part of a WFP project supporting beans production and access to market.

- *Perceived changes and impacts of climate change*

Too much rain, at time when it is not expected, for example during harvest time. This already led to major losses of the beans' harvest because of floods (80% of production lost in 2017). The agriculture calendar has changed and needs to be constantly adapted as the season is unpredictable and variable. Consequences are a significant reduction in yields, which leads to a reduction in income and in available seeds for the next season, therefore less surface is cultivated the following season. The community does not receive any information on climate or weather forecasts and they rely on traditional methods like sensing the temperature to predict when the rains will come.

- *Coping mechanisms*

The loss of income means that children are sometimes taken out of school and healthcare becomes unaffordable. In difficult years, the community resorts to gathering (fruits, plants) in the forest and eats cassava (leaves and root). Diet diversity is therefore impacted.

Main outcomes of the community consultation in N'Dolo (Loudima District - Bouenza)

Community participants: 48 persons (28 women, 20 men). Two separate focus group discussions took place, one with women and the other with men.

- *Community profile and livelihoods*

The population of N'Dolo village is comprised essentially (95%) of indigenous peoples. Their livelihoods are more focused on the forest, with women taking care of the gathering and men of hunting and fishing. Agriculture is mainly practiced in small "household gardens" where crops like peppers, tomatoes, cassava, maize, banana and tobacco are grown. Part of the crops are sold to "locals" (as opposed to "indigenous peoples"); part is used for self-consumption. Both women and men are involved in agriculture and in small livestock rearing (sheep, pigs, goats, chicken). Livestock is sold (to "locals") as indigenous people don't eat livestock meat (they only eat bush meat that they have been hunting). Women are involved in petty trade (with "locals") and it is the role of boys to fetch water. Men are responsible to feed the family and find food, while women are responsible for cooking and taking care of the children and the house. This community mentioned their difficult access to market and can only sell to "locals" coming to their village (they don't go to markets). Money is mainly earned by men (by selling their production) but is managed – within the household – by women. Some other specificities of this community are

that school for the children is free of charge (for all indigenous peoples). However, as there isn't a teacher appointed to that village, school classes are not regular and sometimes children spend a month without going to school. Traditional medicine, mainly with plants found in the forest, is practiced. The closest health facility is 26km away and healthcare is usually quite expensive. The law "loi de la trentaine" allows indigenous peoples to access and use the land free of charge. Regarding climate and weather information, there is a national weather forecast bulletin aired on TV every night with the daily news. Men tend to watch the news (there is one TV in the village), while women don't. The bulletin is however too general (at national level) to provide any useful information for them.

- *Perceived changes and impacts of climate change*

Focus group participants mentioned the lack of rain and the increasing heat. They also mentioned that rains now start too late into the season and that the rainy season is more unpredictable. They also saw an increase in diseases and a decrease in the river flow that they use for drinking and cleaning purposes. Discussion participants also reported new types of climate-related hazards such as storms and strong winds that have been damaging houses and crops. Consequences of these changes are reduced yields which lead to a reduced income, a reduced area planted the next season because of a lack of seeds, and reduced quality of nutrition (they would tend to eat cassava and sell 70% of their production and the products they find in the forest).

- *Coping mechanisms*

More cassava is planted and eaten (both leaves and roots), greater reliance on forest products – and therefore greater pressure on forest resources, increased use of traditional medicine because there is less income to afford modern medicine.

Main outcomes of the community consultation in Kimbaoka Kongo (Boko Songho District - Bouenza)

Community participants: 10 persons (4 men, 6 women), including some elderly

- *Community profile and livelihoods*

Kimbaoka Kongo is a mountain village, approximately at 1000m above sea level. The climate is wetter and cooler than in the other communities visited. Some of the community members are beneficiaries of a WFP project supporting beans production and access to market. Main livelihood is agriculture. Crops grown include citrus fruits, tomatoes, sweet potatoes, yams, sugar cane, beans, ground nuts, cassava, bananas, pineapples, paddy rice. Most of the production is sold. Agriculture is practiced mainly on mountain slopes that are deforested to grow the crops. Both men and women work in the fields and on the same tasks. Only for the rice production there are gender-separated roles: men do the earth work and prepare the paddies while women grow the rice and take care of the paddies.

- *Perceived changes and impacts of climate change*

Increased heat, especially between February and April, more rain at the end of the rainy season which may damage crops because of excess of water, more human disease and more crop diseases, even on varieties that are supposed to be more resistant. This leads to a loss of yield and therefore a reduced income. Other changes mentioned were the unpredictability and variability of the rainy seasons. Men listen to the national weather forecast on the radio but it is not specific and local enough. To know when the rains will come, they rely on their observations of the clouds and temperature.

- *Coping mechanisms*

Less income sometimes means that children cannot go to (secondary) school in town. To cope with an uncertain and unpredictable rainy season, these community will tend to plant other varieties (e.g. more resistant to pests and diseases) and spread the risk by diversifying the location of their crops (having some crops on top of a hill, others on a slope of another hill, some elsewhere, etc.)

Main outcomes of the community consultation in Limite 1 (indigenous village)

Community participants: 75 persons (26 women, 49 men). 4 separate focus group discussions took place, one with women, one with men, one with younger and one with older.

- *Community profile and livelihoods*

The community lives mainly from the harvesting of caterpillars, leaves, wild yams and honey. In order to obtain clothes or small equipment they practice bartering. Each family has a small field to grow cassava, sweet banana, tarot and corn. They hunt when they are loaned or rented a gun, minon they make small traps, but they prefer fishing. Fish, honey, caterpillars and yams are the basis of their diet.

- *Perceived changes and impacts of climate change*

The community noticed that the seasons were less predictable, and the weather was warmer. "Before the rains could last 5 days, today it rains one day here and there". This impacts them directly physically: itching due to sweating and headaches. In terms of hunting, according to them, two factors come into play: the weather is no longer the same and there are many forest users (concession employees and refugees from Central Africa). "Before we saw animals on the road, now we can walk in the forest without finding anything to hunt". However, they noted that some snake species, which they do not consume, are becoming less and less observable. For them, climate change impacts mainly on fishing. During the dry season the rivers dry up, whereas before there was always water left. Fish no longer survive in these rivers. Another change that directly impacts their lifestyle: "before there was less wild hive but they were larger with large colonies of bees and produced a lot of honey, now there is more wild hive but with almost no honey". For caterpillars, the change was perceived between the older generation and the younger generation: this activity took place in July 15/20 years ago and now in August, but also a halving of the quantities.

- *Coping mechanisms*

Before they planted in April now they plant in February because otherwise they have noticed that nothing grows. An initiative of the Spiritan Fathers with the support of the Order of Malta and Apifleurdev is accompanying them in the establishment of beekeeping. They have set up an alert system in the village concerning the manufacture of "foufou": if someone sees rain coming or a dangerous cloud he warns the whole community to keep the "foufou" safe. However, they would like to have appropriate meteorological information, as well as technical support for crops and post-harvest conservation.

Main outcomes of the community consultation in Limite 2 (Likouala)

Community participants: 63 persons (28 women, 35 men). Two separate focus group discussions took place, one with women and the other with men.

- *Community profile and livelihoods*

This village was created to make "foufou" but the chain no longer works. The inhabitants grow: manioc, maize, pineapple, groundnut and sugar cane.

- *Perceived changes and impacts of climate change*

The rains are unpredictable, which asks them the following question: "How to dry the foufou quickly?" It is becoming more and more difficult to distinguish between the two seasons. In addition, they found that the taste of the products had changed: the banana is less sweet and the tarot no longer tastes good. A change that has a direct impact on their sales method: the decrease in the navigability of the river. Indeed, before they took the boat to Brazzaville, but today the river is no longer navigable all year round. Less water in the river, according to them, logging increases the sandbanks: "Logging directly impacts the climate and the river". Before they could take 15 days to sail down the river, today 1 month. However, their products are perishable, they cannot withstand 1 month of transport.

- *Coping mechanisms*

They do not know how to adapt to these changes. Today they no longer sell enough of their production.

Main outcomes of the community consultation in Ngoumdimba - indigenous part (Likouala)

Community participants: 57 persons (30 women, 27 men). Two separate focus group discussions took place, one with women and the other with men.

- *Community profile and livelihoods*

Before they lived from the forest, now that they have left the forest they want to live like other peoples. Today, in order to survive, they are the work force of the Bantu (250 FCFA/day). Nevertheless, they all have a small piece of land for their subsistence (25m/50m). They trade caterpillars, honey and hunting for alcohol, salt, oil, clothes, matches and soap. At the base of their diet are wild yams and honey. They hunt for other people, they no longer consider it as one of their activities. They are the subject of an exploitation of bantu: drinks in exchange for game. They are not really interested in that.

- *Perceived changes and impacts of climate change*

They noticed that it rains less often and that the rains are no longer heavy. They can have 1 to 2 weeks without rain, which was not the case before. "Before, the rains started in May, now we have to wait until July." They complained of an increase in mosquitoes and malaria cases. Before the fishery was very successful, but today it no longer allows them to survive. Rivers are drying up faster than before, but there are also problems of overfishing with refugee populations in the area. Concerning cassava: before the fields produced well, but now cassava rots (mosaic). As for honey, young people no longer want to harvest it traditionally because it is too dangerous, especially since they have noticed a decrease in bees and their productivity. There is less caterpillar, because not enough rain (or too much rain) and too much sun. Moreover, caterpillars are mainly found on sapellis, which is the flagship species of the forest concession.

- *Coping mechanisms*

Diet diversity is impacted.

Main outcomes of the community consultation in Ngoumdimba - Bantu part (Likouala)

Community participants: 27 persons (12 women, 15 men). Two separate focus group discussions took place, one with women and the other with men.

- *Community profile and livelihoods*

This community is very active in agriculture: banana, manioc, tarot, pineapple, corn, sugar cane, peanut, pili-pili, soya, tomato, eggplant, cabbage, okra and amaranth. Some inhabitants also raise small animals (in free wandering): pigs, goats, sheep, chickens and ducks. They sell their production on Bétou (nearby town).

- *Perceived changes and impacts of climate change*

The dry season is longer and the sun is stronger. As in the other villages, they noticed that the seasons had changed. As a result, the water dries up in the rivers and the sun dries up the corn. Because they can no longer predict the seasons, they can no longer anticipate agricultural production. They have noticed a decrease in the caterpillars, which they explain by the sun but also by logging. climate change, declining soil quality and disease development lead to reduced harvests and incomes. Some inhabitants have abandoned agriculture to now do small jobs (roof making for example).

- *Coping mechanisms*

Faced with the decrease in water in the rivers and therefore in the availability of fish, two inhabitants have been trying their hand at fish farming since 2016. This initiative is not technically supported and they train themselves on the job. They would like to have at least some programmes explaining fish farming techniques on community radio.

Main outcomes of the community consultation in Matoto (Sangha)

Community participants: 29 persons (12 women, 17 men). One focus group discussion took place.

- *Community profile and livelihoods*

The village has two communities: indigenous and Bantu. The village has established mixed Bantu/Indigenous agricultural groups. The village is a fishing and hunting village. The main

subsistence crop is cassava and they make a living from gathering honey, caterpillars, wild yams and mushrooms.

- *Perceived changes and impacts of climate change*

Seasonal upheaval, there is no control of the seasons. Natural trees lose their leaves, which didn't happen before. The water level in the river is unstable, which directly impacts fish life. In addition, the sun is too strong for bees, who no longer produce enough wild honey. They would like to be able to do beekeeping. Before every year, they saw the weevils coming out of the palm trees, this year they didn't come out, they have the impression that it's every other year now. They noticed butterfly invasions when it was hot. They also noted a decrease in caterpillars: too much sun, but also logging. More and more sand in the river, they do not know why, but this favors the close proximity of hippopotamus villages, which is dangerous. Species have disappeared from this watercourse: the giant crocodiles. Dwarf crocodiles are found in the forest but not on the river. In addition, they feel that the river is less navigable because there is no longer any boat in it. The hunt has become too painful. The small game no longer finds its food, it retreats deeper and deeper into the forest. They would like to breed.

- *Coping mechanisms*

There is no more wild yam, but they don't know how to explain why, so they make small cassava fields. They would like to be able to grow wild yams. The weather doesn't give them the information they need: it doesn't say when to plant, they need advice on the crop calendar for agriculture. Courses/advice/radio programmes on agriculture and livestock would be a good thing.

Main outcomes of the community consultation in Pokola

Community participants: 20 persons (11 women, 9 men). One focus group discussion took place.

- *Community profile and livelihoods*

Pokola is a small town in North Congo, home to the CIB forest concession. The people we met farm: maize, sorrel, sweet potato, banana, manioc, tarot; livestock: pigs, sheep, goats, goats, chickens but also other trades such as crafts, community radio animation, etc. they have access to radio, telephone, TV and internet easily.

- *Perceived changes and impacts of climate change*

The temperature has increased. The seasons are no longer predictable. Less rain than before. In recent years, they have noticed that normally at least in August there should be a rise in water levels, but the water continues to sink. Less vines for handicrafts, you have to go further in the forest to find them. Before during heavy rains, the rising waters brought in fish. Phenomenon that is less and less observed. They observe less bees and make less honey. There is no more palm glass, don't understand why. Some cassava trees no longer grow or only give roots and no tubers. Corn planting periods have changed: before they planted in March, now they are fumbling around not knowing when to plant, there is no longer a fixed period. Fewer termites (come out after a heavy rainfall).

- *Coping mechanisms*

Less fishing, less honey consumption, which leads to a decrease in food diversity.

Meeting with Romain DUDA, eco-anthropologist, about the Aka indigenous communities

Each Aka family is attached to a village with seasonal movements (forest camps) according to the different subsistence activities. - semi-sedentarized –

There is no strict hierarchy in the Aka villages, but three personalities have a special social status: Tuma (the hunter specialized in large game hunting), the heads of lineage (the elders of the clan who hold special relationships with the forest spirits), and Ngangat (the healer specialized in divination).

Although often less present than men in public meetings, women have a real influence (sometimes more than men) and a say in the intern conflicts and debates (possibility of joint consultations).

The Aka villages are situated along the road, never far from a Bantu villages (but unmixed Aka/Bantu village). It may happen that some Aka live on the plot of Bantu families, depending on the history of the relationship between the two families.

Subsistence activities: Mr Duda has observed a high variability from one family to another in terms of subsistence and income activities.

Land properties differ from a region to another. There are more fields belonging directly to the Aka around Pokola where the logging group CIB is based. For instance, towards Enyelle the Aka seems to be much more subordinated and dependent on Bantu wage labour, working in their fields.

- Cassava/plantain: the main crops for subsistence. Almost no cash crop cultivation (except few cacao fields held by Aka around Pokola). The Aka acquire a large part of starchy food in exchange of labour in Bantu fields.
- Honey: flagship subsistence activity, with a high cultural and symbolic value
- Caterpillar: seasonal source of income, but also largely used for subsistence.
- Pepper: only for sale, historically bought by muslim traders, not used in Aka diet)
- Wild meat (hunting): generally by trapping or with a gun, but the Aka almost never own a gun, remaining dependant on the Bantu's firearms (renting or hunting against payment).
- Fishing: diversity of techniques, both for subsistence and for sale.
- Mushrooms: important and appreciated, collected only for subsistence.

→ works a lot on external barter and internal sharing

. Difference from one group to another in the importance of each activity, there is great disparity from one village to another or from one lineage to another (related to relations with the Bantus). Children participate in the various activities, which allow them to learn the basics of forest survival and the botanical and zoological knowledge essential to Aka life (current schooling system is not necessarily adapted to the Aka way of life).

Impacts of climate change: The Aka are highly dependent on the forest and the seasonal wild resources production, sensitive to climatic variations. However, other threats (notably social) have been made more visible on the international scene and take center stage in researches and studies. Compared to others ecosystems (arid, artic), little is known about indigenous people relations and feelings with climate change issues in tropical forest regions.

Perceptions of climate change by indigenous people of Congo Basin (data from the Baka of Cameroon): fruiting cycles, honey harvesting periods, caterpillar seasons, changes in wildlife population and dynamics correlated to fauna diet (e.g. link between population of wild-pig and Irvingia *sp.* fruiting), etc.

We need to valorise the knowledge of the Aka, making them actors in climate change research (correlating their entomological and botanical knowledge with climate data: insects are the first and the best indicators to evaluate the effects of climate change). Climate change remains quite subtle in tropical areas but that does not mean it is inexistent, the mid-term and long-term effects might be consequent in terms of livelihood and lifestyle.

Annex 3: List of stakeholders consulted for AF Concept Note preparation

Institution	Name	Position
Development Partners		
FAO	Suze Filippini	Country Representative
	Parfait Ampali	Program Officer in charge of Green Climate Fund
UNFPA	Barbara Laurenceau	Country Representative
	Cyr Justus Samba	Program Officer in charge of women health
	Laeticia Loko	Program Associate
UNESCO	Richard Bouka	Acting Country Representative
UNDP	Emma Anoh N'Gouan	Deputy Resident Representative
	Jean-Felix Issang	Program Officer Environment
World Bank	Aurélie Rossignol	Environment and Natural Resources Specialist
French Development Agency	Sophie Derudder	Deputy Director
	Maylis Borelli – Cyril Brûlez	Program Officer Environment
	Alain Mpoué	Program Officer Infrastructure
European Union	Piero Valabrega	Program Officer Governance, Justice and Conflicts
	Amparo Moreno	Program Officer Health and Social Sectors
	Lucile Broussolle	Program Officer Forest
Government		
Ministry of Tourism and Environment	Arlette Soudan Nonault	Minister
	Germain Roch Mpassi Moumpassi	Director General for Sustainable Development

Institution	Name	Position
	Alicia Biangue	Focal Point Climate Change Adaptation
	Nadine Batekoba	Bouenza Department Director for Environment
	Edmond Makimouka	Disaster focal point
	Madzou Moukiki	DEP
Bouenza Development Council	Jean Fulgence Mouangou	Chair of Bouenza Development Council
Ministry of Forests	Gaston Mialoundama	Attaché
	Tsiba Mouaya	Technical Advisor
Ministry of Agriculture	Bienvenu Ntsouanva	Director General for Agriculture
	Marcel Nkouka Kouyingana	Head of agricultural sector Boko Songho
	Alexis Minga	Project manager
	Antoine Séverin Aya	Director of Production and Agro Meteorology
National Agency for Civil Aviation	Arcadius Motoly	Director of the Meteorology Department
	Hilaire Elenga	Head of service Climatology
	Alain Ambeto	Head of service Equipment
	Daniel Adoua	Head of service Observation Systems and Telecoms
	Patrick Impeti	Head of service Agrometeorology
Primature	Joseph Ossibi	Water and forest advisor
Ministry of Land Use Planning, Equipment and Major Works.	Jerome Nioungou	
Ministry of Scientific Research	André Mfoukou Ntsakala	Adviser to the Minister
Ministry of the Plan	Alain Michel Eyemandorco	Partnership Director
Ministry of Health and Population	Emercy Okemba Ongagna	Personnel manager
Ministry of Women	Veronique Kouta Makendzo	Advisor on the integration of women in development
Ministry of Higher Education	Frédérique Menga	School life advisor
Civil Society and Research Institutes		
National Institute for Forest Research	Aubin Saya	Scientific Director, Head of Genetic Improvement Department
National Institute for Agronomic Research (IRA)	Dr Lambert Moundzeo	Director of the Loudima agroecological area
Ordre de Malte	Barthélémy Gonella	Head of project in Enyellé (Likouala Department)
	Romain Duba	Anthropologist
Association des Spiritains au Congo (ASPC)	Lucien Favre	Coordinator for Likouala Department
National Network for Indigenous People in Congo (RENAPAC)	Guy Fabrice Ngoma	REDD+ focal point in Bouenza Department and representative of indigenous people
	Marguerite Waye	RENAPAC Representative in Likouala department Former ASPC and CIB worker
CACO REDD Platform	Mbourra Brice	Members of Congolese Platform
	Claude Marius Bandokouba	
APADEFC / REPALEAC/IPACC	Parfait Dihoukamba	REPALEC-CONGO National Coordinator APADEFC President Former RENAPAC President
ESSOR	Ibrahim Mahamadou Ango	Country officer
Initiative Développement	Agnès Rossetti	Country director
Programme Educatif et du Développement Durable (PEDD)	Mélaine Rita Ngokia	Program director
Observatoire Congolais des Droits de l'Homme (OCDH)	Trésor Nzila Kendet	Executive director
Private sector		
Congo Industrie du Bois (CIB)	Vincent Istace	Head of the planning unit
Likouala Timber	Raphael Betito	Controller General
Eco-Oil	Roger Bolou	Industrial director Sangha and Likouala departmental Director