ADAPTATION FUND

REQUEST FOR PROJECT/PROGRAMME
FUNDING FROM THE ADAPTATION FUND

« PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA »

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

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

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

Complete documentation should be sent to:

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ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category: **Food Security**
Countries: **Five (05) Economic Community of West African States (ECOWAS) Member Countries: Benin, Burkina Faso, Ghana, Niger and Togo**
Title of Project: **Promoting Climate-Smart Agriculture in West Africa**
Type of Implementing Entity: **Regional Implemented Entity**
Implementing Entity: **UEMOA's West African Development Bank (BOAD)**
Executing Entity: **ECOWAS Regional Agency for Agriculture and Food (RAAF) in collaboration with Directorates in Charge of Environment, Agriculture, and Livestock in the 5 countries indicated above**
Amount of Financing Requested**: US$14 Million**

1.1. PROJECT / PROGRAMME BACKGROUND AND CONTEXT

In West Africa, based on the amount of rainfall received annually, there are four agroecological zones: the arid or Sahelian zone (50% of the surface area), the semi-arid or Sudanian zone (20%), the sub-humid or Guinean zone (20%) and the humid or forest zone (10%) representing about 5 million km^2 (see map below figure 1)[1].

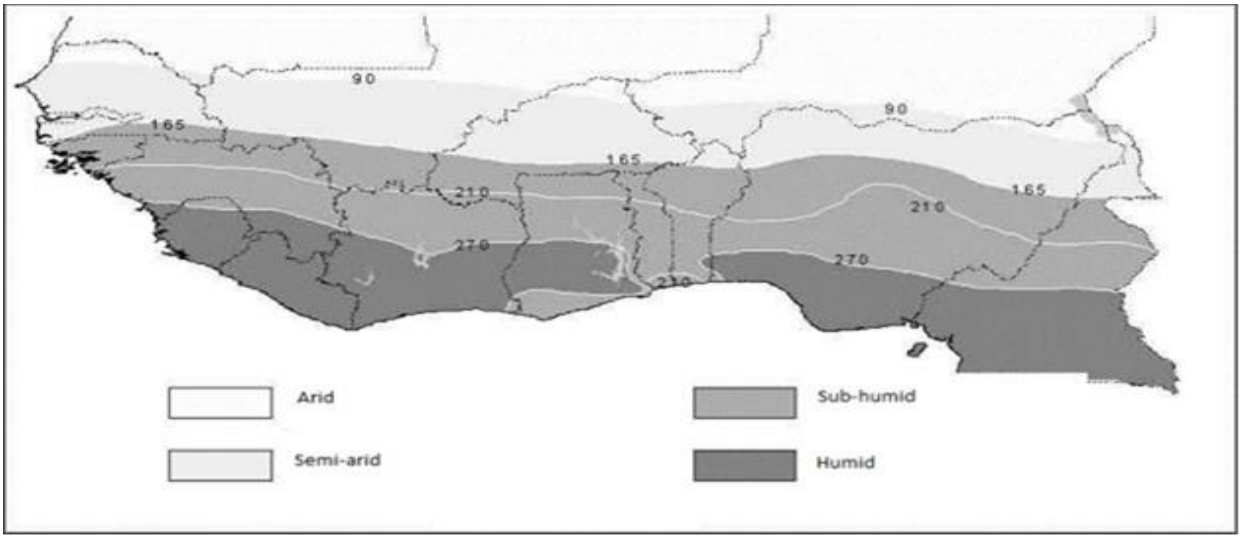


Figure 1: Principal Eco geographic zones in West Africa.

[1] FIDA (2001). L'évaluation de la Pauvreté Rural – Africa de L'ouest et du Centre. Rome, Italy.

According to the World Bank[2], agriculture, livestock and fisheries represent 35% of the regional gross product, employ 65% of the active population and provide 80% of the food needs of the 290 million people living in the ECOWAS region. Livestock production represents up to 40% of the domestic gross product and pastoralism provides 50% of the meat and 70% of the milk[3].

West Africa is a region conducive to the increase of agricultural production due to the availability of arable land, pastures and groundwater. Considered as the engine of economic growth in the ECOWAS region, agriculture is faced with major development challenges including being able to produce sufficiently to feed its 300 million inhabitants in a context marked by poor yields (less than 3 tons/ha for rice against 6 tons/ha in Asia), a limited use of fertilizers (in average 10 kg/ha against 100 kg/ha in Asia), a high demographic growth rate (between 2.2% to 3.6% per year depending on the country) and a very limited use of irrigation[4].

With its agroecological diversity, West Africa offers great potentials for increasing animal production (figure 2). In the arid areas, pastoral and agro-pastoral livestock production systems are dominant. However, they are drought-vulnerable. In the semi-arid zones, the prevailing systems are pastoral and agro-pastoral as well as periurban livestock production systems that are vulnerable to drought, floods and bushfires.

Axes de transhumance transfrontalière au Sahel et en Afrique de l'Ouest.
Source : Elevage au Sahel et en Afrique de l'Ouest, Note aux Décideurs Numéro 3, CSAO/OCDE.

[2] World Bank. West Africa Unites to Improve Agricultural Competitiveness and Productivity. http://www.worldbank.org/en/news/feature/2011/05/25/west-africa-unites-to-improve-agricultural-competitiveness-and-productivity (accessed 8/14/2013)

[3] ECOWAS-SWAC/OECD (CEDEAO-CSAO/OCDE/CILSS). 2008 - Climate and Climate Change. The Atlas on Regional Integration in West Africa. Environment Series. Version française. http://www.oecd.org/swac/publications/38903590.pdf

[4] ECOWAS. 2013. Adaptation to Climate change in agriculture in West Africa

Figure 2: Main transhumance corridors in West Africa (Source: CSAO/OCDE). *The red circle illustrates the project intervention area.*

In the subhumid and humid zones, it is rather the mixed farming/livestock systems and the periurban livestock production systems which are the most developed and they are also vulnerable to floods, bushfires and vector-borne diseases, especially Trypanosomiasis. With over 60 million cattle heads and 160 million small ruminants and a high demand for animal products –mainly in coastal countries livestock represents a major leverage in eradicating poverty. Moreover, animal productions contribute to improving food and nutrition among populations through the inclusion of animal proteins in daily diets.

Climate change and variability are an added challenge for West African agriculture's capacity to produce enough food and maintain or increase its economic relevance in the region. Indeed, agriculture in West Africa is mainly rainfed and therefore highly sensitive to temperature and rainfall changes and variations. Even if the region has great potential in terms of irrigable land, this asset is not sufficiently enhanced. To illustrate, only 5% of the Sahel's potential is irrigated. In addition, farming communities in West Africa are especially vulnerable to the impacts of climate changes, notably due to the small size of their farms. In average, the surface cultivated by inhabitant is under 3 ha and this limits the possibility of adapting to the various climate conditions.

In spite of this context and other structural challenges (poor transport and marketing infrastructures, land tenure issues, etc.), as well as climate changes, public investments in agriculture remain low. However, the last decade was marked by an awareness of the relevance of agriculture and its crucial role in eradicating poverty and food and nutritional insecurity.

Yet, it is estimated that if agriculture does not adapt to climate change and variability and technological advances, its main crops' (millet, sorghum, cowpea and maize) yields will experience a 5 to 22% drop by 2050 depending on the type of crop and climate models. This would translate into the increased exposure of over 200 million people in West Africa (WA) to hunger and food insecurity, especially for the most vulnerable groups (women and children). This vulnerability is all the more acute in agroecological transition areas where climate changes associated with the joining and juxtaposition of various administrative, political and social realities hinder the implementation of efficient, coordinated and coherent initiatives for the adaptation of agro-sylvo-pastoral activities. The peculiarities of these strategic areas in terms of economic (goods, livestock, etc.) and demographic flows require region-wide approaches to meet this challenge.

In view of this situation, the ECOWAS and UEMOA Member States and their technical and financial partners in the agricultural sector, met in Bamako, Mali, in June 2015 and committed to work at implementing Climate-Smart Agriculture (CSA) in WA. More specifically, an Alliance on climate-smart agriculture in West Africa was created to incite households to adopt the practices with the vision of reaching 25 million farming households in Africa by 2025. This type of agriculture i) is adapted to the new climate constraints; (ii) ensures food and nutrition security; (ii) sustainably protects the environment, thus reducing agriculture-induced emissions.

This project fits into the implementation of the ECOWAS and UEMOA agricultural policy and the 2014 Malabo Declaration in which African Heads of States undertook to intensify agriculture to

ensure food security. This project contributes to the operationalization of major commitments made by ECOWAS and UEMOA for the development of agriculture in the context of climate change in their member countries. It will be implemented in an area covering the northern part of Ghana, Togo and Benin, the South-West of Niger and the South-East of Burkina Faso.

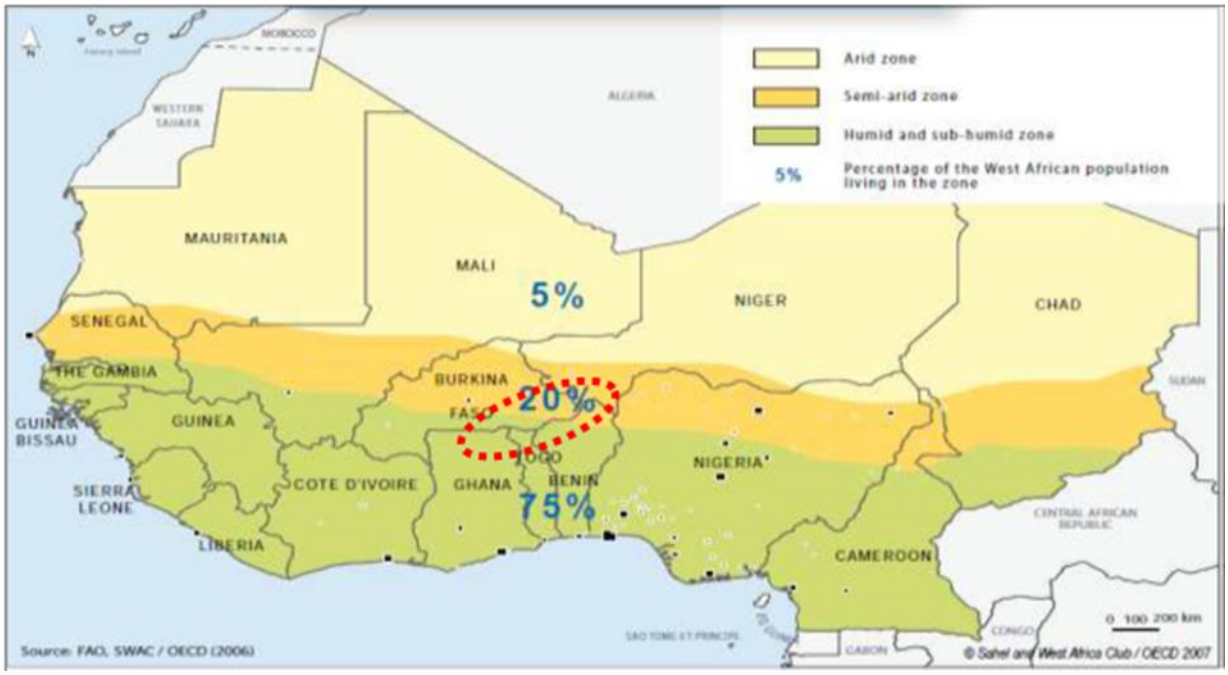


Figure 3: Main climatic zone in west Africa and percentage of population living those areas. The red circle illustrates the project intervention area.

ISSUE OF CLIMATE CHANGE AND FOOD INSECURITY IN WEST AFRICA

In West Africa (WA), climate change is manifested through various facts like change in conditions related to production, planning and execution of agricultural activities. These include among others: (i) shifts in climate calendars (delayed rains for example); (ii) changes in rainfall patterns, especially the annual precipitations received, with, in most regions, more pronounced and more or less frequent dry spells; (iii) the increased frequency of extreme and abnormal events (storms, floods, abnormally high temperatures, etc.); (iv) finally, a high variability of time and space everywhere at local level[5] of the climatic parameters.

The impact of these climatic developments is all the more strong since family farming in the ECOWAS states is subject to other environmental changes: i) fertility degradation; ii) deforestation and erosion of biodiversity, (iii) inclusion in a market economy and liberalization with competitiveness requirements, iv) disadvantaged position in accessing resources (land, production inputs, technology, etc.), but also financing issues.

[5] Dugué M-J., 2012 *Etude de capitalisation réalisée sur les terrains de coopération d'AVSF*, Marie-Josèphe Dugué, 2012

These climate changes affect the farming community, the capital of farms and their yields (less productive livestock and crop systems), but also the collective dynamics, contributing to exacerbate the vulnerability of the poorest inhabitants in rural areas, especially women and children. The decline in yield (livestock and crop systems), the impossibility to bring in to bear traditional risk management mechanisms and the high uncertainty weaken the systems and induce short-term strategies that are often detrimental to the economic sustainability of farms, ecosystems, social cohesion and, indirectly, the security situation.

In view of the effects of climate change, pastoralism in particular as a livestock production system based on the mobility of pastoralists and livestock, is increasingly constrained, notably by the drying off and decline in the nutritive quality of plants, the increased competition with agriculture, the reduced pastures, the occupation of routes, etc.

Consequently, the impacts on agriculture (in the large sense), food and nutrition security and the welfare of farming and rural communities are many. They have been initiated for several decades now in many West African countries, are accelerating and increasingly worsening. In economic terms, according to IFPRI6, they are generally of two types:

- direct impacts on the productivity of family farms in plant and livestock productions and ;
- indirect impacts on the availability of foodstuff on the national and international markets with consequences on the income generated by agriculture at State and farm levels.

In spite of some very limited positive impacts related to climate changes in some regions for some crops yield (maize, rice, etc.), climate changes will contribute to increasing food and nutrition insecurity in West Africa where about 34 million individuals, mostly women and children, are undernourished (SOFI, 2015).

Therefore, it is urgent to strengthen the actions that aim to support farmers in adapting their traditional knowledge and agricultural practices, and in strengthening the resilience of rural communities in order to also protect fragile ecosystems against future climate changes, especially in agroecological transition zones[7].

CLIMATE VARIABILITY/CHANGE AND TRENDS IN WEST AFRICA

According to the 5th Evaluation Report by the Intergovernmental Panel on Climate Change (IPCC), temperatures observed in West Africa have increased over the past 50 years. It was noted that the number of cold days and nights has dropped and that the number of hot days and nights have increased between 1970 and 2010[8].

Precipitations in the Sahel have generally decreased during the 20th century but have returned to their former level recorded in the 80s and 90s. This increase could be due to the natural

[6] West African agriculture and climate change : a comprehensive analysis / edited by Abdulai Jalloh *et al.* 2013

[7] *Changements climatiques en Afrique de l'Ouest : risques pour la sécurité alimentaire et la biodiversité*, OFEDI et GRAIN, 2009

[8] GIEC 2014

variability of the climate or to anthropically-induced climate change. Several droughts observed in the Sahel during the 1970s and 1980s were well documented.

Regarding the extreme events observed, a significant increase of temperature on hotter and colder days was observed in some parts of West Africa. Even though little information is available to identify the trends, this implies an increase of the frequency of hot days in the future. It was also observed an increase in the drought periods in West Africa even though the 1970 drought in the Sahel dominates this trend. A higher inter-annual variability has also been observed more recently.

CLIMATE CHANGE PROJECTION IN WEST AFRICA

According to the IPCC[9], temperatures in West Africa will increase by 3°C and 6°C by the 21st Century based on the various scenarios. Models at regional level converge with the shift range indicated by global models. Whatever the scenarios, the Sahel and West Africa should be climate change hotspots ("bio-geographical zones with a wealth of biodiversity especially threatened by human activity"). Projections indicate that unprecedented climate changes will happen in this region by the end of the 2030s and the beginning of the 2040s.

Regarding projected precipitations, variations in the results of global models mean that confidence in the robustness of projections of changes in regional precipitations is "low to medium" in view of the lack of regional data. However, several global models indicate that the seasons of heavy rains are marked by delays in the beginning of the season by the end of the 21st Century.

The projection related to extreme events show that the risks of drought are inconsistent for West Africa. The results of the regional modelling however suggest an increase in intensity and frequency of extreme precipitation episodes, especially in highlands and mountain areas.

CLIMATE CHANGE IMPACT ON AGRICULTURE AND WATER RESOURCES IN WEST AFRICA

Agricultural production systems (multicropping and livestock production) in West Africa are among the most vulnerable in the world due to their reliance on rainfall, intra and interseasonal climate variability, droughts and floods that repeatedly affect crops and livestock and, the level of poverty in rural areas which restricts the adaptation capacity of farming and rural communities (Boko *et al*., 2007)[10]. Farming in West Africa will be faced with major challenges, namely the decline of main crops' yields (IPCC, 2014)[11]. The changes in cropping seasons will also affect

[9] IPCC WGII AR5 Chapter 22, 2014

[10] Boko, M., I. Niang, A. Nyong, C. Vogel, A. Githeko, M. Medany, B. Osman-Elasha, R. Tabo, and P. Yanda, 2007: Africa. In: Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. [Parry, M.L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden, and C.E. Hanson (eds.)]. Cambridge University Press, Cambridge, UK, pp. 433-467.

[11] IPCC WGII AR5 Chapter 22, 2014

production systems and crop potentials in some areas (Cook and Vizy, 2012)[12]. "Multicropping-livestock" systems could also evolve towards the preeminence of extensive livestock production due to shorter rainy seasons and the occurrence and succession of unfruitful farming seasons (Jones and Thornton, 2009; Thornton *et al*., 2010)[13]. In several agroecological transition zones, livestock production could replace multicropping by the year 2050 (Jones and Thornton, 2009)[14].

In West Africa, temperature spikes higher than 2°C (based on a 1961-1990 reference) could also negatively affect the performance of modern cereal varieties contrary to the rustic traditional varieties (Sultan *et al*., 2013)[15]. In the short-term, an improved understanding and management of the impacts associated to climate change and variability could contribute significantly to strengthening agriculture's capacity to adapt to climate change (Washington *et al*., 2006[16]; Cooper *et al*., 2008[17]; Funk *et al*., 2008[18]).

In livestock production, climate changes will impact the availability and quality of fodder resources, access to water, animal species and races (heat stress and water needs), the mobility of livestock and epizooties (emerging and re-emerging diseases).

Concerning agricultural water in West Africa, climate changes will amplify the current stress related to water availability for agricultural production especially in semi-arid zones. The exact estimation of the influence of climate change on water resources in West Africa is limited by great uncertainty regarding climate models on the trend of precipitations. For example, Itiveh and Bigg (2008)[19] believe that in the future, precipitations will be higher in the Niger Basin (A1, A2 and scenarios B1), while Oguntunde and Abiodun (2013)[20] report a high seasonal variation with a decline in precipitations in the basin during the rainy season and an increase in rainfall during the dry season (scenario A1B). The Volta Basin should experience a slight average

[12] Cook, K.H. and E.K. Vizy, 2012: Impact of climate change on mid-twenty-first century growing seasons in Africa. Climate Dynamics, 39(12), 2937-2955.

[13] Thornton, P.K., P.G. Jones, G. Alagarswamy, J. Andresen, and M. Herrero, 2010: Adapting to climate change: Agricultural system and household impacts in East Africa. Agricultural Systems, 103(2), 73-82.

[14] Thornton, P.K., J. van de Steeg, A. Notenbaert, and M. Herrero, 2009b: The impacts of climate change on livestock and livestock systems in developing countries: A review of what we know and what we need to know. Agricultural Systems, 101(3), 113-127.

[15] Sultan, B., P. Roudier, P. Quirion, A. Alhassane, B. Muller, M. Dingkuhn, P. Ciais, M. Guimberteau, S. Traoré, and C. Baron, 2013: Assessing climate change impacts on sorghum and millet yields in the Sudanian and Sahelian savannas of West Africa. Environmental Research Letters, 8(1).

[16] Washington, R., M. Harrison, D. Conway, E. Black, A. Challinor, D. Grimes, R. Jones, A. Morse, G. Kay, and M. Todd, 2006: African climate change: Taking the shorter route. Bulletin of the American Meteorological Society, 87(10), 1355-1366

[17] Cooper, P.J.M., J. Dimes, K.P.C. Rao, B. Shapiro, B. Shiferaw, and S. Twomlow, 2008: Coping better with current climatic variability in the rain-fed farming systems of sub-Saharan Africa: An essential first step in adapting to future climate change? Agriculture, Ecosystems and Environment, 126(1-2), 24-35.

[18] Funk, C., M.D. Dettinger, J.C. Michaelsen, J.P. Verdin, M.E. Brown, M. Barlow, and A. Hoell, 2008: Warming of the Indian Ocean threatens eastern and southern African food security but could be mitigated by agricultural development. Proceedings of the National Academy of Sciences of the United States of America, 105(32), 11081-11086.

[19] Itiveh, K.O. and G.R. Bigg, 2008: The variation of discharge entering the Niger Delta system, 1951-2000, and estimates of change under global warming. International Journal of Climatology, 28(5), 659-666.

[20] Oguntunde, P.G. and B.J. Abiodun, 2013: The impact of climate change on the Niger River Basin hydroclimatology, West Africa. Climate Dynamics, 40(1-2), 81-94.

increase in rainfall (Kunstmann *et al*., 2008)[21]. In the areas receiving between 200 to 500 mm annually, namely in the Sahel (arid and semi-arid), climate changes could lead to a drop in groundwater recharge, especially in shallow aquifers due to recurring and protracted droughts (Barthel *et al*., 2009)[22].

OPTION TO ENHANCE RESILIENCE OF AGRICULTURE TO CLIMATE CHANGE TO SUPPORT FOOD SECURITY IN WEST AFRICA

To meet the challenge of adapting agriculture to climate change and strengthening the resilience of rural populations in West Africa, the promotion and development of a climate-smart agriculture is an opportunity. In this perspective, the Research programme of the Consultative Group for Agricultural Research (CGIAR) on climate change, agriculture and food security (Zougmoré R. *et al*., 2015)[23] and the West African Alliance for the implementation of the Intervention Framework for the Development of Climate-Smart Agriculture (June, 2015)[24] under the West Africa Regional Agricultural Policy (ECOWAP/CAADP) have identified a range of concrete actions, including:

- At regional level, facilitate the improved capitalization-dissemination of best practices in the area of Climate change adaptation and develop public policy tools to facilitate scaling up;
- Develop and implement climate change adaptation strategies for agriculture anchored in the agro-ecological realities related to agricultural systems;
- Strengthen the capacity of rural institutions and key stakeholders in actively using information on climate and adaptation for local development planning; develop seeds that are resistant to high temperatures and resilient;
- Scale up irrigation techniques and water harvest and conservation techniques;
- Promote agroforestry;
- Improve seasonal meteorological forecasts and facilitate their dissemination to producers;
- Promote alternative crops that are more resilient to climate change;
- Further integrate farming and livestock production;
- Etc.

Several regional and international organizations (CILSS, ENDA, IED Afrique, IUCN, etc.) have conducted studies and actions in several West Africa countries that highlight some best practices and technologies related to climate change adaptation in agriculture (see section 2.1).

[21] Kunstmann, H., G. Jung, S. Wagner, and H. Clottey, 2008: Integration of atmospheric sciences and hydrology for the development of decision support systems in sustainable water management. Physics and Chemistry of the Earth, 33(1-2), 165-174.

[22] Barthel, R., B.G.J.S. Sonneveld, J. Götzinger, M.A. Keyzer, S. Pande, A. Printz, and T. Gaiser, 2009: Integrated assessment of groundwater resources in the Ouémé basin, Benin, West Africa. Physics and Chemistry of the Earth, 34(4-5), 236-250.

[23] Robert Zougmoré, Alain Sy Traoré et Yamar Mbodj (Eds.), 2015. Paysage scientifique, politique et financier de l'Agriculture Intelligente face au Climat en Afrique de l'Ouest. Document de Travail No. 118. Programme de recherche du CGIAR sur le Changement Climatique, l'Agriculture et la Sécurité Alimentaire.

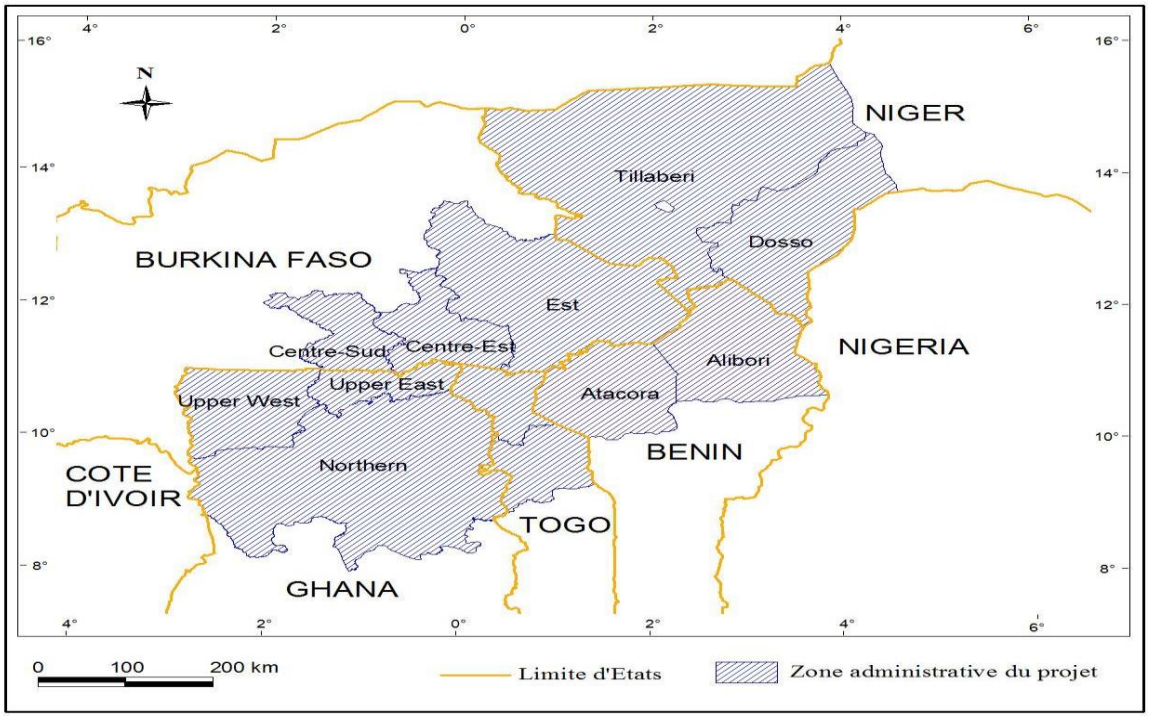
[24] Intervention Framework for the Development of Climate-Smart Agriculture under the implementation process of the West Africa Regional Agricultural Policy (ECOWAP/CAADP)

At the production level, best agricultural practices are the practices that increase productivity and hence competitiveness, while simultaneously allowing to maintain and improve management of natural resources, including services provided by ecosystems and biodiversity in a specific agro-ecological zone[25]. The best practices related to climate change adaptation in agriculture allow to reduce the vulnerability of agricultural production systems face to climate change and strengthening the resilience of rural communities in addition.

However the scaling up of these best practices related to climate change adaptation in agriculture is limited due to insufficient resources and the characteristics of family farming in the sub-region. The capitalization and scaling up of these practices are the challenge that will be addressed by this project.

TARGET AREAS AND BENEFICIARIES

The project "Promoting Climate-smart agriculture in West Africa" is to be implemented in the eastern, east-central, and south-central regions of Burkina Faso; in the southern parts of the Tillabery and Dosso region of Niger; in the Alibori and Atacora regions of Benin, in the Savanah and Kara regions of Togo and in the Northern-East, North-West and Northern regions of Ghana, that is, a surface area of 355,158 km^2 for a population of about 15,658,772 inhabitants (Figure 4).



[25] Bonnes pratiques agricoles: Opportunités pour les pays d'Afrique de l'est, atelier de consultation pour la région d'Afrique de l'est organisé à Arusha, Tanzanie, du 16 au 21 juin 2008, par la Division de production et protection végétale, Organisation des Nations Unies pour l'Agriculture et l'Alimentation (FAO).

Figure 4: Administrative regions concerned by the project intervention area.

With a population of about 80 million inhabitants for the five countries (World Bank 2014), the agricultural population represents a large share of the total population in these countries : Benin (56.2%), Burkina (71%), Ghana (48.48%), Niger (81. 54%) and Togo (60.47%).

In the intervention zones of the project, the population is estimated as indicated below:

- Burkina Faso: The number of population is The population in the eastern regions, of the East Central and South-central is 3 891 352 in 2015 with a growth rate of 3.08% (National Institute of Statistics of Burkina).
- Niger: the population in the southern zones of Tillabery region and Dosso's is approximately 4.6 million with a growth rate of 3.8,
- Benin: The population in regions of Alibori and Atakora is about 1 373 000
- Ghana: The population in the regions of East North, Northwest and northern is estimated at 4 394 420 inhabitants with a growth rate of 2.19%,
- Togo: The number of inhabitants in the Savanes and Kara is 1.5 million inhabitants with a growth rate of 2.6 (General Directorate of Statistics and National Accounts).

Gross domestic product per capita (GDP / capita) is lower in these countries and by extension in the affected project areas: Benin (890 USD), Burkina Faso (700 USD), Ghana (1590 USD), Niger (410 USD) and Togo (570 USD). A high proportion of poor people is recorded in these countries and their receptive areas. According to the World Bank, the ratio of the poor according to the national poverty line was 36.2% in Benin, 22.4% in Burkina Faso, 32% in Ghana, 39% in Niger and 38% in Togo.

In terms of livelihood in the zone of intervention of the project, agriculture is the main economic activity, followed by breeding. Cereal crops are dominant in these regions. The main crops grown are: maize, rice, sorghum, millet for Burkina Faso; maize, rice, sorghum for Benin; maize, rice, sorghum for Ghana; maize, rice, sorghum, millet for Niger and maize, rice, sorghum for Kara and savannah regions in Togo. Cereal yields are respectively 1433 kg / ha in Benin, 1157 Kg / ha in Burkina Faso, 1689 Kg / ha in Ghana, 424 kg / ha in Niger and 1258 Kg / ha in Togo. Livestock farming is practiced in all project areas, but more important in regions of Niger and Burkina Faso. Transhumant pastoralism is particularly important in areas covered by the project in Niger, Togo, Benin and Ghana. The main characteristics of agriculture systems in the project implementation zones are the low crop yield, the prevalence of poverty and food insecurity, especially in rural area.

The project will be implemented in a geographical area covering the agroecological subhumid zones in the south, the subhumid/semi-arid transition zone and the semi-arid zone in the north. Agriculture is the main source of income for populations in the project area. This is also a major internal and external transhumance zone for livestock. The transportation of goods and persons is also very important along the corridors (Niamey/Cotonou, Niamey/Lomé, Niamey/Tema, Ouagadougou/Cotonou, Ouagadougou/Lomé, Ouagadougou/Tema) that pass through this zone. Moreover, numerous nature parks and reserves are found in the area of the project, namely, the W National Park in the middle of a transboundary nature complex of 1,000,000 ha

co-managed by Benin, Niger and Burkina Faso, and the Pendjari Biosphere Reserve (RBP) which stretches over 480,000 ha.

Over 3,395,263 individuals living in rural areas in the project implementation zone will be its indirect beneficiaries in terms of improving their food and nutrition security and their income level. More specifically, at the end of the project, **more than 500,000 persons** would have benefited directly from having technical, physical and operational capacity strengthened. These include:

- More than 200,000 farmers and over 300,000 breeders (around 200,000 women) in the project implementation zone in Benin, Togo, Ghana, Niger and Burkina Faso;
- Over 600 producers and pastoralists organizations in the project implementation zone in Benin, Togo, Ghana, Niger and Burkina Faso;
- More than 1,600 technicians and supervisory agents from the ministries in charge of agriculture, livestock, environment, forestry and water in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso.
- Over 1,000 executives and agents from the Local Community and local administration in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso;
- More than 30 research institutions specialized in issues related to adapting agriculture to climate change in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso;
- Over 50 Non-Governmental Organizations and Community-based organizations engaged in rural and agricultural development in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso;
- The community of stakeholders involved in combatting climate change in West Africa.

Beneficiaries will be identified based on the principle of consultation and transparency to insure equity among vulnerable groups and individuals. The final beneficiaries will be selected on the basis of agreed criteria jointly defined by local communities, producer organizations and public technical structures in charge of agriculture and livestock present in area of intervention of the project.

In each site of intervention of the project, a selection committee of the beneficiaries chaired by local authorities comprising all key stakeholders will be set up. Producer organizations and local authorities will be consulted to identify final beneficiaries who are the most in need of support. Criteria for selection will discussed among stakeholders and grant will be allocated in priority to the most vulnerable population. Priority will be given to farmers (community, household and individual) whom are most vulnerable to climate change including minority groups.

PROJECT'S ADDED VALUE AND SYNERGY IN RELATION TO OTHER INITIATIVES IN THE COUNTRY

Through its regional and transboundary scope of action, areas of intervention (plant production and livestock production) and approach (scaling up of best practices on climate change adaptation in agriculture) and knowledge and experience sharing and production, the project has a significant replication potential in West Africa and even in other Africa regions.

The project will mobilize and concentrate the key regional expertise in response to a common challenge in a strategic area of ECOWAS in complementarity and synergy with the agriculture

adaptation to the climate change projects being implemented at the national level. It will also contribute directly to capacity building of local stakeholders and farmers.

Regarding component 1, at the national level, some projects in Niger, Benin, Togo, Burkina Faso and Ghana (see indicative list of projects in Annex 4) are supporting the water conservation, the land management and the livestock mobility and transhumance. However, very few projects are involved at the regional level on the adaptation of agro-pastoral systems to the climate change in the area of implementation of the project. The project will contribute to strengthen climate and meteorological observation networks for the provision of agro-climate services to support the dissemination of the good practices for adaptation of agriculture to climate change and the sharing of experience between beneficiary countries. By mobilizing the expertise of specialized regional organizations to meet the specific needs of farmers in the border area in agro-ecological transition, the project will also provide an added value of the regional intervention in the implementation areas of the project.

For component 2 in the border area in agro-ecological transition of implementation of the project characterized by a large flow of goods and people and considered to be particularly vulnerable to climate change, regional intervention logic of the project is an innovation. The project will strengthen the capacities of key stakeholders accross borders and facilitate the sharing of experiences and reinforcement of the synergy of interventions to benefit farmers facing common challenges to climate change.

Component 3 will strengthen the production and sharing of knowledge related to agriculture adaptation to climate change in lines to the objectives of the West African Alliance for Climate Smart Agriculture established in 2016. The project will contribute to the establishment and the management of a sustainable platform for exchanges between the main stakeholders (policy makers, technician and community leaders) of agriculture adaptation to climate change at the local, national and regional level.

Box 1 :This regional project has added value on several aspects compared to country initiative:

- The component one on "dissemination of best practices related to climate change adaptation in agriculture addresses harmonization of data to be collected within one oc the most vulnerable agro-ecological zone in West Africa. This will not only strengthen capacities in terms of data collection in countries but allow also allow regional institutions to get harmonized data to draw regional trends. Furthermore, a catalogue of existing best practices in the region will be very helpful to identify techniques that could be replicated within the intervention zone. Also livestock mobility and cross border transhumance cannot be addressed at the country level only. The project has therefore targeted some activities for which a regional approach is key for implementation

- Activities indicated in the second component like transboundary collaboration for the adaptation of agriculture to climate change required a regional approach. Training of Producer organizations, civil society and NGO is more efficient if organized at the reginal level compared to national level. This approach helps also in the sharing of experience and knowledge in regions facing similar constraints

- A regional approach is also key for the third component "management of knowledge on agricultural practices related to climate change" to foster the sharing of experience and adaptation to climate change techniques in regions having similar vulnerability in order to inform policy makers and practitioners.

Even if regional approaches are not very common, they are very important and relevant for climate change adaptation in particular. In West Africa in particular, the regional approach has been endorsed by the West African Alliance for CSA in June 2015 (Bamako, Mali) and it fits into logic of pooling and complementarity of interventions. Regional approaches complement very well country approaches but it is important to pay attention to potential synergies.

Synergies will be implemented between the project and ongoing regional climate change adaptation programmes in the ECOWAS/UEMOA zones:

- The Project to strengthen the investment capacity in agriculture and climate change of 15 West African countries, led by ECOWAS, funded by NEPAD/Climate Fund;
- The Strategic Programme for reducing vulnerability and promoting climate adaptation in WA, led by ECOWAS and funded by Sweden;
- The projects funded by the European Union in the context of the 11th EDF the intervention themes of which are being defined;
- The Special Programme for Food Security in UEMOA funded by BOAD.

At the regional level, complementarities will be developed with the “Regional Projects to support Pastoralism in the Sahel (PRAPS, a project funded by the World Bank) covering Burkina, Mali, Mauritania, Niger, Senegal and Chad and implemented by the CILSS and the beneficiary countries. This proposal project will seek synergies and complementarity by covering costal countries (Togo, Ghana and Benin) not covered by PRAPS but where issues related to climate change and pastoralism are very critical. Transhumant corridors covers Sahelian and costal countries and a regional approach to address climate change and pastoralism in all involved countries is key.

At the level of beneficiaries’ countries, complementarities and synergies will be developed with, among others:

- The agricultural chapter of national adaptation action programmes;
- The project Community-based actions for Climate resilience (PACRC) with the objective of “improving the protection of populations and production systems against climate change and variability in the targeted communes” implemented since 2012 in 2017.
- Strategic Programme for Climate Resilience (PSRC) in Niger, funded by African Development Bank (AfDB);
- The Project to support climate change-sensitive agriculture (PASEC), funded by the World Bank;
- Etc.

The specific objectives of the proposal project for Enhancing Resilience of Agriculture to Climate Change to Support Food Security in Niger, through Modern Irrigation Techniques submitted by BOAD to the adaptation fund are (i) enhance stakeholders capacity on climate resilient irrigation systems, 2) promote the setting up of efficient technologies to sustainably manage water resources and preserve soils of irrigated perimeters, 3) reduce energy charges for irrigation and 4) support diversification of livelihoods to improve income of farmers. Particularly in the Dosso region, synergies in terms of support water management and conservation, support soil rehabilitation and conservation and, of dissemination of agro-meteorological information will be built between the two proposal projects. At national level complementarity will also build on Knowledge management and production.

A detailed and comprehensive mapping of all projects and programme related to climate change adaptation in agriculture will be realized to highlight synergies with other initiatives in the country. (See in annex 4 Indicative list of projects on the adaptation of agriculture to climate change identified)

1.2. PROJECT / PROGRAMME OBJECTIVES

The overall objective of the project is to contribute to developing climate-smart agriculture in West Africa especially in terms of adaptation in order to strengthen the resilience of vulnerable populations.

The specific objectives are 1) the dissemination of best practices, 2) the mainstreaming of climate change adaptation in agriculture in strategies, plan and projects and 3) the knowledge management related to climate change adaptation in agriculture within a transboundary zone with agro-ecological coherence in terms of vulnerability. The strategic framework is indicated in the box below:

Component 1: Dissemination of agricultural best practices related to climate change adaptation at local level

Effect 1.1: Climate change adaptation in agriculture techniques and practices improved and adopted by producers

- Output 1.1: Climate services (agroclimatic, meteorological information, etc.) adapted to the needs of each category of producers are produced and disseminated.
- Output 1.2: The catalogue of existing climate change and variability adaptation expertise, techniques and practices in the target sites is completed.
- Output 1.3: Dissemination of agricultural best practices for climate change adaptation and related to extension services are improved and adopted by actors of the value chains.

Component 2: Mainstreaming agricultural best practices related to climate change adaptation in strategies/policies/projects

Effect 2.1. Resources mobilized and allocated to the dissemination of best practices related to adaptation to climate change are increased.

- Output 2.1.1: The technical capacity of a critical mass of field operators (NGOs, cooperatives, extension services) is strengthened to promote agricultural best practices related to climate change adaptation.
- Output 2.1.2: The technical capacity of national and regional managers and experts in charge of designing and implementing projects and programmes is strengthened to mainstream best practices related to adaptation to climate change.

Effect 2.2. Synergies and complementarities between regional and national projects on best practices related to adaptation to climate change are implemented and strengthened

- Output 2.2.1: Transboundary collaboration for adaptation to climate change in agriculture is strengthened;

Component 3: Management of knowledge on agricultural best practices related to climate change adaptation

Effect 3.1: Knowledge on agricultural best practices related to climate change adaptation is strengthened and disseminated.

- Output 3.1.1: The sharing of experiences and expertise on agricultural best practices related to climate change adaptation is strengthened.

1.3. PROJECT / PROGRAMME COMPONENTS AND FINANCING:

Project/ Programme Components	Expected Outcomes	Expected Outputs	Activities/ allocated budget	Countries/ components allocation (US$1,000)	Amount (US$1,000)
Component 1: Dissemination of agricultural best practices related to climate change adaptation at local level	1.1. Climate change adaptation techniques and practices improved and adopted by producers.	1.1.1. Climate services (agroclimatic, meteorological information, etc.) adapted to the needs of each category of producers are produced and disseminated.	1.1.1.1. strengthen climatic and meteorological observation networks in	***Benin (1,645) Burkina Faso (2,143) Niger (2,145) Togo (1,640) Ghana (2,150***	300
			1.1.1.2. Support the collection, processing and analysis of meteorological data		100
			1.1.1.3. Organize meetings to exchange on meteorological forecasts for agricultural campaigns		123
			1.1.1.4. Produce and disseminate agro-meteorological information for the attention of producers (newsletters, MIS, telephones, mobiles, community radio, local languages)		100
			1.1.1.5. Produce knowledge about trend, rainfall and thermometric variability in the project zone		500
		1.1.2. The catalogue of existing climate change and variability adaptation expertise, techniques and practices in the target sites is completed.	1.1.2.1. Take stock of practices and techniques related to climate change adaptation in agriculture in Benin, Togo, Niger, Burkina Faso and Ghana		100
			1.1.2.2. Characterize and assess best practices and techniques related to climate change adaptation in agriculture that could be scaled up		100
			1.1.2.3. Develop and operationalize a dynamic database of best practices and techniques related to climate change adaptation in agriculture		100
			1.1.2.4. Produce and disseminate the catalogue of best practices and techniques related to climate change adaptation in agriculture		100
		1.1.3. Dissemination of agricultural best practices for climate change adaptation and related to extension services are improved and adopted by actors of the value chains.	1.1.3.1. support water management and conservation		3,200
			1.1.3.2. support soil rehabilitation and conservation		2,500
			1.1.3.3. support livestock mobility and crossborder transhumance		2,500
Sub-total				***9,723***	**9,723**
Component 2: Mainstreaming agricultural best practices related to climate change adaptation in strategies/policies/projects at	2.1. Resources mobilized and allocated to the dissemination of best practices related to adaptation to climate change are increased.	2.1.1. The technical capacity of a critical mass of field operators (NGOs, cooperatives, extension services) is strengthened to promote agricultural best practices related to climate change adaptation.	2.1.1.1. Train the technicians of producers and breeders' organizations (PBOs) and their members and NGOs in the agricultural sector on climate change adaptation in agriculture	***Benin (200) Burkina Faso (250)*** **Niger (250) Togo (200) Ghana (250)**	150
			2.1.1.2. Train the technicians of POs and NGOs on climate change adaptation in agriculture project formulation and resources mobilization related to climate change adaptation in agriculture		150
		2.1.2. The technical capacity of national and regional managers and experts in charge of designing and implementing projects and programmes is strengthened to	2.1.2.1. Train the executives and technicians of decentralized and local structures in climate change adaptation in agriculture plans and projects formulation and in resource mobilization related to climate change adaptation in agriculture		150

Project/ Programme Components	Expected Outcomes	Expected Outputs	Activities/ allocated budget	Countries/ components allocation	Amount (US$1,000)
national and regional levels		mainstream best practices related to adaptation to climate change.	2.1.2.2. Support the mainstreaming of climate change adaptation in agriculture at the subnational local collectivities development plans in Burkina Faso (3), Niger (2), Benin (2), Togo (2) and Ghana (3).		500
	2.2. Synergies and complementarities between regional and national projects on best practices related to adaptation to climate change are implemented and strengthened.	2.2.1. Transboundary collaboration for the adaptation of agriculture to climate change is strengthened	2.2.1.1. Establish and operationalize a regular forum for exchanging and sharing experiences on climate change adaptation in agriculture between the neighboring administrative regions of Burkina Faso, Niger, Benin, Togo and Ghana.		100
			2.2.1.2. organize of exchange tours and training on climate change adaptation in agriculture for the benefit of executives and technicians		100
Sub-total				**1,150**	**1,150**
Component 3: Management of knowledge on agricultural best practices related to climate change adaptation	3.1. Knowledge on agricultural best practices related to climate change adaptation is strengthened and disseminated.	3.1.1. The sharing of experiences and expertise on agricultural best practices related to climate change adaptation is strengthened.	3.1.1.1. Establish and operationalize a network of exchange between stakeholders of agriculture adaptation, including public agencies, local communities, POs and NGOs in Niger, Benin, Togo, Ghana and Burkina Faso.	***Benin (100)*** ***Burkina Faso (100)*** **Niger (100)** **Togo (100)** **Ghana (100)**	250
			3.1.1.2. Produce and disseminate newsletters and journals to capitalize on the climate change adaptation in agriculture activities		250
Sub-total				***500***	***500***
Monitoring-Evaluation and Capitalization					***250***

Project/programme Execution Cost	**1331**
Total Project/Programme Cost	**12,903**
Cycle Management Fee charged by Implementing Entity (8.5% x Total Project/Programme Cost)	**1,096**
Amount of Financing Requested	**14 000**

1.4. PROJECTED CALENDAR:

The project duration is three and half (3.5) years

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2018
Mid-term Review (if planned)	July 2019,
Project/Programme Closing	July 2021,
Terminal Evaluation	January 2022

PART II: PROJECT / PROGRAMME JUSTIFICATION

2.1. PROJECT DESCRIPTION

The promotion of climate-smart agriculture in West Africa in the context of the project will be done using 3 components.

Component 1 will be devoted to the **Dissemination of best practices related to climate change adaptation in agriculture at local level**. The adoption of best practices and techniques related to climate change adaptation by producers will be realized by achieving the following 3 outputs:

Output 1.1.: Climate services (agroclimatic, meteorological information, etc.) adapted and specific to the needs of producers in the project area will be produced and disseminated.

1.1.1.1. strengthen climate and meteorological observation networks.

Since the mechanism for observing climate parameters in the project regions is currently incomplete, obsolete or out-of-date, it will be 1) strengthened by the procurement and installation of direct-reading rain gauges, 2) completed with the acquisition of thermo-anemometer recorders, and 3) equipped with densified grid extended to cover all the communes of the project.

1.1.1.2. Support the collection and analysis of meteorological data

Since the technical and physical capacity for the collection and analysis of meteorological data at regional level is limited, specific training sessions will be organized for technicians in the Regional Directorates in charge of agriculture, livestock and environment, water and forests. Computer equipment will be acquired to facilitate data processing, create an online database and facilitate its access via the internet.

1.1.1.3. Organize meetings to exchange on meteorological forecasting for agricultural campaigns

The results of the analysis of meteorological parameters will be presented and discussed during sessions that will include producers' organizations. These exchanges will enable to strengthen the dialogue between modern climate monitoring and analysis approaches and endogenous knowledge and strategies on climate, and to identify appropriate and shared responses among stakeholders of the agricultural sector. This approach is innovative in term of designing climate change adaptation strategy in agriculture at local level in West Africa.

1.1.1.4. Produce and disseminate agro-meteorological information for producers

A summary of the conclusions and recommendations related to meteorological forecasts will be produced, translated in a language accessible (local languages, sound messages, etc.) to the greater number and broadcasted through appropriate media channels (weather forecasts in the media, PO networks, telephone, community radio, etc.)

1.1.1.5. Produce knowledge about trends of rainfall and thermometric variability in the project zone

The improvement of agro-meteorological forecasts related to the phenology of plant and animal productions represents a challenge in strengthening climate adaptation capacity, especially at local level. In view of the limited technical capacity in the project implementation areas, activities are: 1) analysis of trends of climatic parameters (temperature and rainfall) and 2) mapping the trend of temperature and rainfall. These activities will be carried out in relation with the services in charge of meteorology. As such, this activity is designed to be a pilot-activity due to its complexity and the technical and scientific constraints to be overcome.

These activities will also enable to increase the production of climate data, to improve local monitoring of climate data, to strengthen the technical capacity in agro-meteorology, to strengthen knowledge sharing on the climate and to improve the provision of climate services for the benefit of producers, especially the most vulnerable. These activities will also strengthen the production and quality of the primary climate data for the regional meteorological and climatic network in West Africa.

Knowledge production is key for climate change adaptation in agriculture in the most vulnerable rural areas. These activities will contribute to strengthening collaboration between knowledge development and concrete agricultural activities for farmers on the ground. This activity will also contribute to improve knowledge about trends and projection of climate change in West Africa. To insure the regional dimension and harmonization of data collection, the activities indicated above will be implemented by a specialized regional organization which will also be encouraged to continue activities beyond the period of the project. The project will therefore be a levy to mobilize resources for coming years when the project ends.

Output 1.2.: The catalogue of existing climate change and variability adaptation expertise, techniques and practices in the target sites is completed

1.1.2.1. Take stock of practices and techniques related to climate change adaptation in agriculture in Benin, Burkina Faso and Ghana, Niger Togo,

The techniques, technologies, approaches and initiatives that exist or are being developed or implemented in response to the challenges of adapting to climate change in the ECOWAS region, will be identified and documented. Agriculture, livestock, natural resources management, water resources management will be covered by the scope of this inventory. The information collected and the database thus produced will be made available to all the stakeholders of the fight against climate change. This activity will be supported by field missions in the project beneficiary countries.

1.1.2.2. Characterize and assess of best practices and techniques related to climate change adaptation in agriculture that could be scaled up

Among the practices identified, those with a significant potential for the adaptation of agriculture to climate change, will be assessed based on economic, social and environmental criteria and characterized. This characterization will be conducted while taking into account the constraints related to agro-ecological zones, to local agricultural systems and to the economic and social environment of the project beneficiary countries.

1.1.2.3. Develop and operationalize a dynamic database of best practices and techniques related to climate change adaptation in agriculture

The practices documented and best practices characterized will be fed into a database accessible to all and will be updated every year. Setting up a georeferenced mapping tool showing climate change techniques and practices is an interesting practical and innovative way of presenting information.

1.1.2.4. Produce and disseminate the catalogue of best practices and techniques related to climate change adaptation in agriculture

The catalogue of best practices and techniques related to climate change adaptation in agriculture obtained will be disseminated annually in an appropriate format for each of the potential stakeholders (Public administrations and technical services, Producers' organizations, local community, students, etc.).

The knowledge related to good climate adaptation practices in agriculture in West Africa will thus be improved and made available and accessible to all the stakeholders of agricultural development in the ECOWAS region and in the world.

Output 1.3.: Dissemination of agricultural best practices for climate change adaptation and related to extension services are improved and adopted by actors of the value chains

A wide range of techniques and practices (listed in the Table below) identified in the project implementation areas have a significant potential in terms of climate change adaptation in agriculture. However, the adoption and the implementation of most of these techniques and practices remain isolated and limited.

Table 1: some promising practices and techniques related to climate change adaption in agriculture production

1. Soil management	**5. Livestock systems**
Stone bunds	Traditional practice of livestock mobility and transhumance
Permeable rock dams	Progressive settling and reconversion of pastoralists
Grassy strips	Strengthening the monitoring of the area and animals
Zaï	Reconstitution of the flock
Half-moons	Destocking of animals
Mulching (mulch or stems layering)	Redefining the modalities of the folding contract and the constitution of fodder stocks
Dune fixation (stop lines and tying with millet stalks)	Improvement of zootechnical performance through fattening
Improved fallow	**6. Water management**
Subsoiling	Micro-irrigation with “Koglogo” pans
Deferment	Surface irrigation water-saving systems
Lowlands management	Micro drip irrigation systems
2. Forestry and agroforestry	Construction of impoundments : dams, rock rubble, detention basin
Assisted Natural Regeneration (ANR)	Construction of impluviums
Reforestation	Mobilization of water through tube wells
Windbreaks	Irrigation brigades
Practice of alley-cropping	**7. Inputs and cropping techniques**
Fixation of shorelines	Improved seeds
Forest management	Flat plowing
Arboretums and botanic conservatories	Soil scarification
3. Pastoral hydraulics	Restoration of degraded lands through subsoiling
Protection of water points against sanding up	Composting
Realization of high-capacity boreholes equipped with solar pumps	Mixed cropping
Overdeepening of natural ponds	Off-season crops ; crop diversification
4. Pastoral resources management	**8. Animal feed**
Demarcation of pastoral zones or pastoral areas for special management	Run fattening and organic manure production stables
Demarcation and markup of cattle tracks and transhumance	Cutting and conservation of fodder
	Fodder crops

The systematic scaling up of some of these techniques and practices in the project zone is faced with challenges such as the high cost of implementation, the difficulties in adopting them due to the current peculiarities of prevailing production systems (access to inputs, land, level of mechanization, availability of local agricultural labor, fragmentation and dispersion of agricultural land, etc.) and the current characteristics of cropping systems (plant production, livestock, integration level of crop-livestock system).

In the context of the project, techniques and practices with the best cost-efficiency ratio and a significant effect on the most vulnerable populations (especially women) and that are likely to have significant impacts on a greater number of producers and breeders in the project implementation area will be prioritized.

1.1.3.1. Support water management and conservation

The availability of agricultural water for plant productions and livestock production is increasingly difficult due to climate change and variability. The recurrence and length of drought pockets are also greater. The water deficit thus generated considerably affects crop and farmers' productivity in the project zone. To reduce the vulnerability of these farmers, water conservation works will be conducted and water conservation techniques will be disseminated. More specifically, based on the characteristics of the sites, there will be a need to:

1) realize 600 runoff water harvest basins;
2) realize the overdeepening of 180 ponds;
3) Dig 60 large-diameter wells;
4) Operationnalize 240 mobile irrigation units, which is an innovation response to the unexpected dry period. These units include a driver/mechanic and a person in charge of irrigation and are equipped with a motor tricycle with a mechanism adapted to the transportation of materials and persons, a motor pump and mobile flexitubes. These units will provide services on demand.

1.1.3.2. Support soil restoration and conservation

The increased intensity of rainfall and their density in time and space, and the recrudescence of climate change-induced violent winds increasingly exacerbate the already advanced degradation of soils caused by erosion on large surfaces in the project zone. To curb this phenomenon that especially affects the most vulnerable populations and restore already degraded soils, support will be provided to producers to put in place the following techniques which are labor and work intensive.

1. Stone bunds, permeable rock dams and grassy strips over 2,400 ha;
2. Zaï or tassa, assisted natural regeneration and half-moons over 2,400 ha.

These techniques will be combined if necessary based on the capacity and characteristics of the sites in order to optimize their potential. Also, organic manure will be obtained from local livestock producers to improve soil fertility.

1.1.3.3. Support livestock mobility and crossborder transhumance

By affecting the availability of pastures and water, climate change forces pastoralists to adopt internal and external transhumance as an adaptation and survival strategy.

Transhumance practiced in an environment already marked by fierce competition to access resources, generates recurrent and increasing conflicts between pastoralists and farmers. Moreover, in an area characterized by different lifestyles, specific regulations on transhumance and uncoordinated animal health policies, these conflicts often lead to disastrous consequences (loss of livestock and human life, resurgence of zoonoses) especially in the "grey" zones (transboundary areas). To both support livestock producers' adaptation strategies and facilitate interactions with farming communities installed in the project implementation zone, activities will be implemented to improve livestock mobility and crossborder transhumance. More specifically, there will be a need to:

1. Demarcate, markup and secure 1,800 km of transboundary transhumance corridors or tracks;
2. Produce 100 water points and 30 boreholes along the secured transhumance corridors.

The incentives created by the grants awarded for the implementation of good adaptation practices of agriculture to climate changes will facilitate the transition of farms and rural communities towards climate-resilient producer systems.

Grant facility will be managed in 3 ways:

- The activities in link with the land management and water conservation will be carried out taking into account the specificities of each beneficiary country. Thus, in each country, the project coordination unit (PCU) in close collaboration with the government, local actors and producer organizations will select the specialized entity that will manage the grant facility. Similarly, the selection of beneficiaries will be done in consultation with the organizations of producers and local communities;
- The activities related to the climate services will be provided by specialized regional organizations already well known in the region (ACMAD, AGRHYMET, etc.);
- Regarding livestock mobility and crossborder transhumance, the activities will be done through a call for project proposals open to specialized regional entities in the issue of transhumance and pastoralism (NGOs, producer organization, etc.). These regional specialized entities will work with organizations at local level.

This approach will be deepened while formulating the full proposal and there might be some adjustment

Component 2 involves mainstreaming good climate change adaptation practices in national and sub-regional agricultural strategies and projects. Two outputs with major impacts through their activities will contribute to this component.

The first outcome for the component *2.1*. Improvement of the mobilization of resources allocated to the dissemination of good climate change adaptation practices in agriculture will be realized through the following outputs.

Output 2.1.1.: The technical capacity of a critical mass of field operators (NGOs, cooperatives, extension services) is strengthened to promote agricultural best practices related to climate change adaptation in agriculture. The activities planned will be conducted in the 12 zones of the project.

2.1.1.1. Train technicians of producers' and breeders' organizations (PBOs) and their members and NGOs in the agricultural sector on climate change adaptation

The adaptation of agriculture to climate change requires new skills and calls for PBOs and NGOs of the agricultural sector to increase, renew and strengthen the services to be provided to their members and beneficiaries. However, the current capacity for implementing concrete adaptation actions for PBOs and NGOs, especially at local level, remain limited. Capacity strengthening sessions for PBOs and NGOs in the project implementation zone will be organized. They will specifically focus on the need of practitioners and will analyze the challenges related to water, soil, energy in rural areas, genetic resources and the dissemination of good agricultural practices along the value chains, agroforestry, fisheries and aquaculture.

2.1.1.2. Train the technicians of PBOs and NGOs in formulating CSA projects and mobilizing financing related to climate change adaptation in agriculture

The implementation of concrete adaptation actions will require the formulation of climate change adaptation in agriculture-sensitive projects and the implementation of resources mobilization strategies at local, national and international levels. The related skills are actually limited in the PBOs and NGOs, especially at local level. Training sessions on the formulation of projects on climate adaptation in agriculture and on climate fundraising will be organized to that effect on behalf of Producers' organizations and NGOs.

The PBOs and NGOs play an increasingly important role in agricultural and local development due to their proximity with the beneficiaries and the most vulnerable populations, and their knowledge of the situation on the ground. These activities will enable them to contribute more efficiently to adapting agriculture to climate change, especially at local and West Africa region level.

Output 2.1.2.: The technical capacity of national and regional managers and experts in charge of designing and implementing projects and programmes is strengthened to mainstream best practices related to climate change adaptation in agriculture.

2.1.2.1. Training of executives and technicians of decentralized and local structures on the formulation of climate change adaptation in agriculture plans and projects and on fundraising in relation to the adaptation of agriculture to climate change.

The adaptation of agriculture to climate change requires new skills and calls for regional and departmental ministerial directorates in charge of agriculture, livestock, environment, water and forests, and the local community, to define and provide new interventions, and also to develop new resources mobilization strategies. However, the current capacity in the area remains limited at local level. Training sessions on the formulation of regional adaptation plans and projects for the adaptation of agriculture to climate change and on climate-fundraising, will be organized to that effect for the benefit of executives and technicians at the decentralized and local structures. The implementation of concrete actions to climate change adaptation in agriculture requires interactions and synergy between regional, national, and local actors in order to improve their collective efficiency. In practice, local actors are not very familiar with policies, regulatory mechanisms, community frameworks and international conventions related to the climate change. Training sessions on these frameworks will be organized for stakeholders of the

agricultural sector in the project implementation zones. Local actors will also get acquainted with the regional programmes and projects and the ongoing regional initiatives in the ECOWAS/UEMOA region related to climate adaptation in agriculture during these sessions.

2.1.2.2. Support the mainstreaming of climate change adaptation in agriculture in subnational local collectivities development plans in Burkina Faso, Niger, Benin, Togo and Ghana. At the local level, the climate change adaptation in agriculture necessarily fits into the subnational local collectivities development policy and in an interaction with the other dimensions of rural development. However, very few existing regional development plans integrate this dimension using an intersectoral approach. The mainstreaming process of regional development plans in the project implementation zone will be carried out under the leadership of local communities as needed. Training sessions on the creation of a development strategy focused on institutional options, policies, financing, disaster risk reduction and social security nets, the development of institutional capacity and monitoring-evaluation will be organized in parallel in favor of local community leaders.

The sustainability of the project activities is based on the ownership, increased involvement, knowledge and skills transfer, and a strengthening of institutional capacity at all levels of interventions, especially for decentralized and local structures and subnational local collectivities. These activities will contribute to capacity building of key local agriculture stakeholders in the area of intervention of the project. More than ever, it is necessary to strengthen the links between actions aiming to climate change adaptation in agriculture initiated at regional level with those implemented at local level. These activities are planned to initiate interactions to that effect and create a dynamics of mutual capacity strengthening.

The second outcome for this component 2.2 **Strengthening synergies and complementarities in the implementation of regional and national climate adaptation in agriculture** will be realized through the following outputs.

Output 2.2.1.: Transboundary collaboration for the adaptation of agriculture to climate change is strengthened.

2.2.1.1. Establish and operationalize a regular framework of experience exchange and sharing, and consultation on climate change adaptation in agriculture between the neighboring administrative regions of Burkina Faso, Niger, Benin, Togo and Ghana.

On both sides of borders in the neighboring administrative regions of the South-Central, East-Central and Eastern parts of Burkina Faso, of Tillabéry and Dosso in Niger, of Alibori and Atacora in Benin, of the Savannah and Kara in Togo, and the Northern, North-Eastern and North-Western regions in Ghana, the local actors of the climate change adaptation in agriculture are faced with often very similar common realities, constraints and challenges. However, no formal or informal framework of exchange currently exists to enable them share their experiences and knowledge in order to develop concrete, efficient and coherent and coordinated responses. A formal framework of exchange will be put in place with periodic meetings gathering executives from the Ministries in charge of agriculture, livestock, environment, water and forests, local communities and subnational local collectivities. This framework will enable to

address issues related to the effects of climate changes on agricultural production systems (value chain, crops, etc.) transhumance in livestock production, the sustainable management of shared water resources and the management of shared protected areas.

2.2.1.2. Support the organization of exchanges tours and training sessions on climate change adaptation in agriculture for the benefit of executives and technicians

Due to the existence of the administrative border between the Central-south, Central-East and Eastern regions in Burkina Faso, Tillabéry and Dosso in Niger, Alibori and Atacora in Benin, Savannahs and Kara in Togo, and the Northern, Northern-East and Northern-West regions of Ghana, the executives and technicians are very poorly informed of the strategies and interventions implemented from country to country, especially those affected in northern regions. Study tours and common training on climate change adaptation in agriculture will be organized to improve the technical and operational dialogue between technicians of these transboundary regions. Aspects such as policy and regulatory frameworks, collaboration with technical and financial partners, transhumance, will be prioritized for these activities.

Beyond the administrative and border dimensions, farming systems in the project zone are faced with various, albeit shared, challenges due to the relative cultural, agroecological, social and economic unity. These activities will contribute to developing a collective conscience, to pool the knowledge and to strengthen the coordination of actions in order to adapt agriculture to climate changes at local level. This activities will strengthen the “regional thinking” on climate change adaptation in agriculture.

Component 3 is the management of knowledge on best practices in adapting agriculture to climate changes. one main outcome will contribute to this component through their activities.

The outcome expected of this component is the **improvement of knowledge on good practices of adapting agriculture to climate change and their dissemination**. It will be carried out through the achievement of the outputs below. The activities planned will mostly be conducted in the regions covered by the project, however the dissemination will be extended to the entire ECOWAS region.

Output 3.1.1.: The sharing of experiences and expertise on agricultural best practices related to climate change adaptation is strengthened

3.1.1.1. Establish and operationalize a network of exchange among the actors of climate adaptation in agriculture including the public agencies, local communities, PBOs and NGOs in Benin, Burkina Faso, Ghana, Niger and Togo.

The dissemination of knowledge, mobilization of all the key expertise, the sharing of experience and expertise, the combination of approaches and the plurality of scales of action and the synergy and complementarity of initiatives are major drivers in defining strategies anchored in the territories and the implementation of concrete and efficient activities for climate adaptation. In this vein, in the context of the Alliance on climate-smart agriculture in West Africa, a virtual platform of exchange on agriculture adaptation to climate change will be established and facilitated by the project. The documentation

produced in relation with climate changes will be made available to all and regular online discussions will be conducted via the platform. A summary of the discussions and success stories will be published annually on the platform.

3.1.1.2. Produce and disseminate newsletters and journals to capitalize on the climate change adaptation in agriculture activities

The sharing of knowledge and enhancement of the channel of dissemination – the community of stakeholders involved in climate change adaptation actions in agriculture – and efficient communication are major areas for the development of climate-smart agriculture. Information and capitalization materials will be produced and disseminated on a regular basis to fill the gap of related varied and specific data and information.

The capitalization of climate adaptation actions in agriculture in the ECOWAS/UEMOA region will enhance the quality of the actions initiated and will foster scaling up of technologies and best practices related to climate change adaptation in agriculture.

2.2. PROJECT BENEFITS

The many benefits expected from the implementation of this project will be economic, environmental and social.

At environmental level: the pressure on natural resources (water, forests, protected areas and soil) in an already fragile environment will be reduced through the adoption of more sustainable farming practices (soil restoration and conservation, demarcation of transhumance corridors) and improved water management and intensified dialogue between stakeholders in the agricultural sector in the project implementation zone. Moreover, the emission of greenhouse gases will be significantly reduced by the adoption of climate-sensitive farming practices (Assisted Natural Regeneration) which will contribute, in the long term to the mitigation of climate change. Moreover, securing transhumance routes will limit livestock incursions in protected areas and will contribute to preserving the carbon sinks of these areas.

At economic level: the adoption of water conservation and management techniques combined with soil restoration and conservation techniques will contribute to improving agricultural production. For livestock production, improved access to water and pastures will contribute to improving animal production and significantly reducing losses.

At food and nutrition security level, the reduction of farming systems vulnerability will contribute to sustainably improving food and nutrition security among vulnerable populations, especially women and children, and to reduce the poverty level in the project zone.

At social level: improved transhumance will contribute to easing relations between farmers and breeders and to improving the overall social climate. The creation of water points will reduce the incidence of water-borne diseases and women's workload burden related to fetching water for the households. Additionally, developing the provision of irrigation-related services will help create jobs, especially for the youth.

At the gender level: the dissemination of good climate adaptation practices (soil restoration and water conservation) in agriculture will be especially advantageous for women and the youth by reducing the pressure on arable land and by allowing farming on larger surfaces. The creation of water points and overdeepening of ponds will facilitate the practice of new income-generating activities (market gardening). Women groups as most vulnerable population will be particularly targeted by the scaling up of climate change adaptation techniques.

At community and institutional level, their involvement in defining adaptation strategies and the increased role of local communities in combating climate change will strengthen local development dynamics. The capacity building of local collectivities, decentralized structure, producers' and breeders' organization and NGOs will contribute to sustainable climate change adaptation in agriculture as well as raising awareness on the importance and possible impact of Climate change adaptation in agriculture.

Box 2 The proposed project is **innovative in several ways**:

The project proposes to strengthen cooperation and synergy between actors involved the agriculture adaptation to climate change in vulnerable border areas by encouraging exchanges of experiences, knowledge and dialogue across administrative boundaries. By supplying of agro-climatic services, the project will strengthen the dialogue between local endogenous knowledge and modern practices. This is an innovation since such practices are not taking place in the region

At the institutional and methodological level, the project will strengthen collaboration and complementarity between the stakeholders at regional, national and local level to deliver concrete support to vulnerable farmers to climate change. Regarding the dissemination of good practices, the project will contribute to the capitalization of the expertise and experience of the most advanced countries in adapting agriculture to climate change by the least performing countries in technical and operational level. This approach is innovative and is not very common.

The project aims to producing innovative interactive tools. Setting up a georeferenced mapping tool showing climate change techniques and practices is an interesting practical and innovative way of presenting information

In terms of technologies, the project intends to operationalize mobile irrigation units to address unexpected dry period. The technology of using a motor tricycle with a mechanism adapted to the transportation of materials and persons is innovative technology in the area if intervention and will have a big impact on income of farmers while addressing adaption to climate change.

By strengthening the capacity of local actors in the adaptation of agriculture to climate change in particular local communities, the project will contribute integrate adaptation to climate change in the scope of actions of these key players in local development. The implementation of the network of stakeholders of agriculture adaptation at regional , national, local and community level involved in common action is in itself an innovation vector

2.3. PROJECT ANALYSIS OF THE COST-EFFECTIVENESS

Built on logic of capitalizing on the achievements of interventions by sub-regional organizations (CILSS, IUCN, CORAF, ACMAD, etc.) through BOAD and RAAF to address regional issues, this project is cost effective compared to implementing activities at the national level only. This aspect is strengthened by the economies of scale induced by the mobilization of expertise familiar with sub-regional issues.

With its component 1 based on the dissemination of climate adaptation practices in agriculture through concrete and structuring actions in rural areas for the direct benefit of farmers, the project will contribute directly to strengthening their capacity. The grant facility selected will enable actual ownership by beneficiaries whilst strengthening the sustainability of impacts.

68% of the project resources are allocated to the realization of investments (land management, water conservation and secure and demarcation of transhumance routes) that will help to reduce the vulnerability of farmers to climate change and will increase and to secure farmers' incomes. The income gains thus generated will enable the beneficiaries to ensure the maintenance of the project achievements. Through the project and the initial investments, the dissemination of good practices will ensure the sustainability and cost-effectiveness.

The component 2 focused on strengthening the capacity of key local stakeholders will enable to anchor the project actions in a territorial development trend and will strengthen the quality of local governance. Sustainable local capacity building in terms of agriculture adaptation to climate change will be provided by the training of executives and technicians of producer and breeder organizations, NGOs and decentralized and local structures.

The component 3 which prioritizes development and knowledge sharing will enable beneficiaries both to contribute to fighting climate change and to strengthening the efficiency of local, national and regional interventions. The regional platform for exchange and information and the network sharing of experiences and knowledge developed by the project will be managed and facilitated by the RAAF/ECOWAS at the end of the project. Sustainability of project achievements will be reinforced by the institutional anchoring (local and national) and the dissemination of agricultural adaptation practices to climate change

By focusing these actions on **a transboundary agro-ecological transition zone**, the project with all its activities directly related to the adaptation of agriculture to climate change, is both **catalytic**, **pioneer** and **innovative** in addition to its positive cost-benefit ratio. The implementation of activities such as support livestock mobility and crossborder transhumance cannot be coordinated only at the national level. Therefore regional coordination have a comparative advantage and cost-effectiveness.

Through these activities (mobile irrigation unit, mainstreaming of endogenous knowledge related to the climate change adaptation in agriculture, etc.), the implementation approach (focused on the scaling up of the best practices related to the climate change adaptation in agriculture), the involvement of local, national and regional actors and the level of action (transboundary transitional crossborder zone), **the project will develop an innovation at the institutional, organizational and technical level.**

Finally, **the scaling up** of best practices related to climate change adaptation in agriculture anchored and tested in the local context, will enable to improve agricultural yield significant positive externalities (jobs, access to water, etc.)

2.4. PROGRAMME IS CONSISTENT WITH REGIONAL AND NATIONAL SUSTAINABLE STRATEGIES

Improve the nutrition and food security and poverty reduction are the main goal of the main regional and national sustainable strategies. In its implementation approach, the project fits into the UEMOA's Agricultural Policy (PAU), ECOWAS' ECOWAP/CAADP translated into Regional Agricultural Investment Plans (RAIPs), the ECOWAS Environmental Policy (ECOWEP) and the actions of the *Alliance Globale pour la Resilience* (AGIR) – Sahel and West Africa. It also contributes to the implementation of the results of the ECOWAS High Level forum of stakeholders of Climate-smart agriculture in West Africa held in Bamako (Mali) in June 2015. The project is also in lines with the National Development Plan, the Strategy for Poverty Reduction, the National Agricultural Investment Plans (NAIPs), the NAPAs and NAPs and the COP 21 INDC of Benin, Burkina Faso, Ghana, Niger and Togo. The provision of climate services to farmers, reduction of the vulnerability of agricultural systems, reduction of conflicts between farmers and pastoralists, capacity building of local actors and the production and dissemination of knowledge related to the agriculture adaptation to climate change will help improve the nutrition and food security of rural populations and poverty reduction in the implementation of the project areas.

GHANA

The project will be aligned and be consistent with :

•The National Climate-Smart Agriculture And Food Security Action Plan (2016-2020) by focusing on its objectives namely: Institutional Capacity Development for Research and Development, development and promotion of Climate-resilient cropping systems, adaptation of livestock production systems, support to water conservation and irrigation systems, prioritization of the Action Areas by Stakeholders.

•The Achievement of Intended Nationally Determined Contributions (INDC) by contributing to agriculture resilience building in climate vulnerable landscape for Sustainable agriculture in Upper East, Upper West and Northern region

•The Ghana Shared Growth and Development Agenda (GSGDA) II (2014-2017). The ongoing national development framework, specifically on the agriculture and food security challenges which states that: "Climate variability and change constitute a major threat to national development" (NDPC, 2014; p. 67). The GSGDA identifies the northern and savannah region as concentric areas of interventions for strengthen the potential and economic viability of the northern ecological zone and its capacity to contribute to Ghana's national development.

•The National Environment Policy 2014 which underscores Ghana's vulnerability to climate change effects stating that "Ghana is particularly vulnerable due to lack of capacity to undertake adaptive measures to address environmental problems and socio-economic costs of climate change.

•The National Climate Change Policy (NCCP) 2014 by focusing on 4 of this 7 pillars of implementation namely: Governance and coordination, Capacity building, knowledge management and International cooperation

•Medium Term Agriculture Sector Investment Plan (METASIP) 2011–2015. Which is the strategic tool for implementing the Food and Agriculture Sector Development Policy (FASDEP) II (2009-2015). Specifically synergies and complementarities will be built to support water management and conservation and soil rehabilitation and conservation envisaged in the Northern and Southern Savannah zones by METASIP.

•The National Climate Change Policy – Action Programme for Implementation 2015 – 2020 by promoting the development of climate-smart agriculture and food security systems for agriculture development in Ghana to increase productivity and production.

BENIN

Project interventions will help to:

• Achievement of Intended Nationally Determined Contributions (INDC) in agro-ecological zones of the Northern Benin by integrating Climate Change issues in development plans, training of rural development officers, farmers and local authorities on climate issues and the promotion of local knowledge.

• Mitigating the effects of climate change on agricultural production as stipulated in the program 4 of the National Agricultural Investment Program of Benin (NAIP 2010-2015) and the Strategic Plan for Agricultural Sector Recovery (SPASR) developed in 2011.

• The implementation of the National Environmental Management Program (NEMP 2) in its component "Support for local environmental management initiatives" based on soil fertility aspects, reduction of grazing areas.

• The implementation of the National Program of Sustainable Management of Natural Resources (NPSNR) in the field of participatory management of sustainable rural space.

• The implementation of the Master Plan for Rural Development (MPRD) adopted in 2000 on the management of land and water through the establishment of irrigation schemes adapted in response to climate change.

BURKINA FASO

The project will be consistent with:

• the implementation of the agricultural component of the National Adaptation Plan to Climate Change in Burkina Faso adopted in 2015 and Achievement of Intended Nationally Determined Contributions (INDC) of the Republic of Burkina Faso by the Implementation of conservation techniques of water and soil and by promoting sustainable land management. The project will also contribute to improving access to climate information and also capacity building for the utilization of meteorological data in planning of actions in the agricultural sector.

• the implementation of the Strategy for Growth and Sustainable Development (2010-2015) by strengthening adaptation to climate variability and change in the environmental management program and optimal use of natural resources.

• the achievement of the objectives of the National Program for the Rural Sector (NPRS 2011-2015) of Burkina Faso in particular the sub-program on environmental governance and the promotion of sustainable development. The project will contribute to the adaptation to climate change and the reduction of the impact of climate change on the production and dissemination of sustainable land management best practices.

• the adaptation of the economy in general and the farming systems to climate change within the framework of the Sustainable Development of National Policy of Burkina Faso adopted in 2013.

TOGO

The project will contribute to:

• Achievement of Planned Contributions Determined to National level (SCOND / INDC) of the Republic of Togo by strengthening the resilience of production systems and ways of agriculture;

• The implementation of the National Agricultural Investment Program and Food Security (NAIPFS, 2010-2015) of Togo strengthening the sustainable management of natural resources and improved management of transhumance;

• Achievement of the Objective 1 on the promotion of joint management of natural resources and the national policy on action for the environment of Togo.

NIGER

The project will help to:

• the achievement of Intended Nationally Determined Contributions (INDC) of the Republic of Niger by strengthening adaptation measures related to sustainable land management.

• Fight against the risks and constraints related to the management of natural resources in the frame of National Action Program of fight against Desertification (NAP / Fad) of Niger.

• In the priority program No. 2 on climate change and variability of the National Environmental Plan For Sustainable Development of Niger

• Reduce stress related to land resources shortage and water, improve access to and the impact of climate change on agricultural production in the implementation framework of the Rural Development Strategy (RSD) and program “les nigériens nourrissent les nigériens” (3N).

2.5. PROGRAMME MEETS RELEVANT NATIONAL TECHNICAL STANDARDS, WHERE APPLICABLE, SUCH AS STANDARDS

The project will comply with the relevant national environmental and other statutory laws and regulations required in each of the concerned country. The related laws and regulations include (i) environmental impact studies standard , (ii) water-related laws and code; (iii) Land management and land use law; (iv) Code of Local Authorities; (v) Gender Equity and Women’s Empowerment; (vi) Core Labor Rights; (vii) Indigenous Peoples; (viii) Involuntary Resettlement; (ix) Protection of Natural Habitats, etc.. The project will ensure to comply with the following national laws and regulations:

Niger:

- Law N° 98-56 29 December 1998 framework law for the management of the environment;
- Law 2004 - 040, June 8, 2004, covering the Forestier in Niger;
- Law No. 2001-032 31 December 2001 on the orientation of spatial planning policy;
- Law N° 98-007 29 April 1998 laying down the rules of hunting and the Protection of wildlife;
- Order N° 96-067 of 9 November 1996 covering the rural cooperatives;
- Law n ° 98-041 of 7 December 1998 on the water regime on the extent of the Republic of the Niger;
- Order No. 93-15 March 2, 1993 on the principles of Orientation du Code Rural. This text relates to the lasting settlement of conflicts;
- Decree No. 97-007/PRN/MAG/EL of 10 January 1997 establishing the status of the terroirs of attachment of breeders;

- Decree N° 97-006/PRN/MAG/EL from 10 January 1997 regulating the development of rural natural resources;
- Order No. 97-001 of 10 January 1997 on the institutionalization of Impact Environmental Studies;
- Order No. 2010-09 of 1 April 2010 Water Code in Niger;
- Order 2010-029 20 May 2010 relating to pastoralism.

Togo:

- Law N° 2008-005 30 May 2008 on framework law on the environment;
- Decree No. 2006-058/PR of 05 July 2006 establishing the list of jobs, activities subject to environmental impact assessment and the main rules of this study;
- Order No. 18/MERF of 09 October 2006 laying down the terms and procedures of information and participation of the public in the EIA process;
- Order No. 013/MERF of 1 September 2006 on the regulation of the procedure, of the methodology and the content of the environmental impact studies;
- Law N° 2008-009 of 19 June 2008 on the forest code;
- Law N° 2007-011 of 13 March 2007 on decentralization and local liberties.

Burkina Faso:

- Law N° 005/97 / ADP of 30 January 1997 on the Environment Code in Burkina Faso;
- Law N° 006/97 / ADP of 31 January 1997 on the Forestry Code in Burkina Faso;
- Law No. 23/94 / ADP of 19 May 1994 on Public Health Code in Burkina Faso;
- Law No. 14/96/ADP of 23 May 1996 on Agrarian and Land Reform and Decree No. 97-054/PRES/PM/MEF of 6 February 1997;
- Decree No. 2001-342 / PRES / PM / MEE1 of 17 July 2001 on the scope and content of the Environmental Impact Assessment (EIA) and the Environmental Impact Notice (NIE) procedures;
- Law No. 034-2009/year on June 16, 2009, Rural land system;
- Law No. 008-2014 / AN on Orientation on Sustainable Development in Burkina Faso;
- Law No. 002-2001 / AN of 8 February 2001 orientation law on water management;
- Law No. 022-2005 / AN of 21 June 2005 concerning public sanitation code in Burkina Faso;
- Law No. 034-2002 / AN of 14 November 2002 on the framework law on pastoralism in Burkina Faso.

Benin:

- Law No. 98-030 of 12 February 1999 on the Framework Law on the Environment in Benin;
- Law No. 2010-44 of 21 October 2010 concerning water management in the Republic of Benin;
- Law No 87-015 Act of 21 September 1987 on the Code of Public Health of the Republic of Benin;
- Law No 87-016 Act of 21 September 1987 on Water Code in Benin;
- Law No. 2002-016 of 18 October 2004 on the regime of wildlife in Benin;
- Law n ° 93-009 of 2 July 1993 to lay down forestry in Benin;
- Decree No. 2001-190 of 19 June 2001 on the organization of the Public Hearing process in Benin;
- Law No. 87-013 of 21 September 1987 regulating the grazing vain, for the care of pets and transhumance.

Ghana:

- The Environmental Assessment Regulations 1999, L.I. 1652;
- The Environmental Assessment (Amendment) Regulations, 2002;
- The Water Resources Commission Act 1996, Act 522;
- The Local Government Act 1993, Act 462;
- Town and Country Planning Ordinance (Cap. 84) No. 13 of 1945;
- The New Labour Act 2003, Act 651;
- The State Lands Act 1962, Act 125;
- The Lands (Statutory Wayleaves) Act, 1963;
- The Forestry Commission Act, 1999 (Act 571);
- The Rivers Act, 1903.

The project will also comply with some regional community and International standard and convention, notably the Convention on biological diversity (CBN) and the United Nations Framework Convention on Climate Change.

Based on the BOAD policies, environmental and social impact assessment most be carried out for all projects at instruction stage of project. The proposal project will be submitted to the environmental and social impact evaluation and the environmental and social management plan will be design in collaboration with key stakeholders before submission of the fully developed project document.

2.6. DUPLICATION OF PROJECT

Considering the intervention zone (agro-ecological and transboundary transition), its scale (several contiguous regions of various neighboring countries) and its intervention approach (scaling up of good climate adaptation practices in agriculture by local actors), risks of duplication is limited (few projects with regional approaches). However, a complete mapping of potential overlapping activities will be carried out at the stage of drafting the full proposal of the project. At the level of beneficiary countries, complementarities and synergies will be developed with the others projects related to climate change adaptation in agriculture in the zones of intervention.

BENIN

The integrated program of adaptation to climate change in agriculture has contributed to capacity building of local authorities in some pilot municipalities in four vulnerable agro-ecological zones in 2011 and 2015. The project "Promotion of climate smart agriculture (CSA) in West Africa" will capitalize on achievements of the program in the identification of activities at the regional level and in Alibori and Atakora for the integration of adaptation to climate change into local development strategies.

Strengthening the Climate Information Project and an early warning system in Africa for climate-resilient development and adaptation to climate change contributes to strengthen monitoring capacities, early warning systems and the availability of information on climate change in Benin. Based on the achievements of this project at the nation level, the project "Promoting climate smart agriculture (CSA) in West Africa" will improve agro climatic services at the regional level in Alibori and Atacora.

Through the support to the designing of local development strategies which take into account agriculture adaptation to Climate change and the resource mobilization, the project "Promoting climate smart agriculture (CSA) in West Africa West" will facilitate financing at the regional level in Alibori and Atacora the activities related to climate smart agriculture in addition to the project “Strengthening local governance in financing adaptation to climate change” which implement similar activities in pilot municipalities.

BURKINA FASO

The Participatory Management Project of Natural Resources and Rural Development (NEER-Tamba) intends to support soil restoration activities in Burkina Faso. The project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will extend similar actions to regions of East Central and South Central while strengthening activities of water conservations and transhumance.

The project Mainstreaming Climate Resilience in the Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas (GCP/BKF/054/LDF) through the Farmer Field School including Burkina Faso in the East region. By capitalizing the achievements and lessons learned of the project GCP/BKF/ 054/ LDF, the project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will extend similar actions to East Central and South Centre regions in particular for facilitating the transhumance.

National land Management Program - Phase 3 (PNGT II) aims at strengthening the capacity of rural communities and decentralized structures for the implementation of local development plans that promote sustainable land and natural resources management. In the same strategic approach, the project "Promoting climate smart agriculture in West Africa" will strengthen the capacity of local stakeholders in the regions of South center, East-center and East specifically on the adaptation of agriculture to climate change and improve collaboration between neighboring administrative regions of Niger, Ghana, Benin and Togo.

GHANA

The sustainable Land and Water Management Project aim to Improve land management of selected micro-watersheds in Northern Ghana to reverse land degradation and enhance agricultural productivity and improve spatial planning through integration of watershed management and development plans. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to scaling up the activities related to the soil and water management by focusing in agriculture adaptation to climate change

Support transition towards climate-smart agriculture food systems project seeks to support the facilitation of the enabling environment for the scaling up of climate smart Agriculture to improve the resilience of vulnerable smallholder farmers in the country. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to provide fund for implementation of concrete CSA activities in the northern, upper east and upper west regions.

The Adaptation of Agro Eco Systems to Climate Change project (AAESCC) is implementing is Northern Region. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to scaling up and extend the key interventions in Upper region (East and West) and to intensify it in Northern region of Ghana.

Northern Rural Growth Programme (NRGP) aim to increase northern Ghana area rural households’ income on a sustainable basis. Based on the results achieved by the NRGP, the project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute

to strengthen the capacity of the key stockholders by focusing on agriculture adaptation to climate change.

Ghana Adaptation Fund Project. The main objective of this project is centered on the improvement of water access and also increase institutional capacity and coordination for integrated water management to support other uses of water resources especially for the diversification of livelihoods by rural communities. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to this main objective by focusing on water management and conservation for agriculture and livestock. For the communities' interventions, the 2 projects will build a common approach.

NIGER

The Project Community Action for Climate Resilience (PACRC) with a budget of US $ 65.5 million for aims at "improving the protection of populations and farming systems to address climate change and variability in targeted municipalities" for a period of implementation from May 2012 to June 2017. It operates in the areas of agriculture, livestock, environment and social safety nets and covers 8 regions of Niger. The main sub project initiated by the project with the adaptation of agriculture to climate change are:

- Revision of 35 Municipal Development Plans (DMP);
- Training and awareness of national actors on issues of climate change
- Rehabilitation of rangelands;
- Marking of corridors;
- Recovery of land (in the form of high labor intensive programme)

The project "Promoting climate smart agriculture (CSA) in West Africa" will allow:

1) to build on achievements and lessons learned from the implementation of the PARC for their share, their valuation and recognition in actions to implement particularly in Benin, Togo and Ghana.

2) to intensify and densify through synergy and complementarity, actions for adapting agriculture to climate change in the regions of Dosso and Tillabery.

3) to improve the coverage of needs for adaptation of agriculture to climate in the regions of Dosso and Tillabery with a focus on cross-border areas.

The Strategic Program for Climate Resilience (PSRC) of Niger which is being prepared by the African Development Bank (ADB) intends to support the development of Information and Climate Forecasting (PDIPC) in collaboration with the Niger's Director of Meteorology. The project "Promoting climate smart agriculture (CSA) in West Africa" will provide an opportunity to 1) strengthe the agro-climate services for the benefit of farmers in the regions of Dosso and Tillabery and, 2) disseminate the knowledge produced on the adaptation of agriculture to climate in West Africa.

The Project Agricultural Resilience (PANA) funded by GEF aims at strengthening the capacity for adaptation to climate change at the different levels: departmental, municipal and village. The project "Promoting climate smart agriculture (CSA) in West Africa" will address regional issues (Tillabery and Dosso) with a focus on cross-border areas for the improvement of food security and the availability of water for agriculture.

The Community Action Program-PAC 2 and 3 jointly funded by the World Bank, GEF and IFAD with the aim of improving the capacity of municipalities to design and implement Communal

Development Plans and Annual investment Plans. The project "Promoting climate smart agriculture (CSA) in West Africa" will strengthen the capacity of local stakeholders for the integration of adaptation of agriculture to climate change in annual investment plan in the regions of Dosso and Tillabery.

The Support Program for Rural Sector (PASR) aims at strengthening the capacity of stakeholders to operationalize the 3N Initiative in the context of sustainable resource management. The project "Promoting climate smart agriculture (CSA) in West Africa" will share specific knowledge related to capacity building in the adaptation of agriculture to climate for local actors.

The Project for the Development of the Private Irrigation in Niger (PADIP) will: (i) evaluate the different dynamics of farmer irrigation in Niger and identify relevant support and monitoring of the extension measures irrigation; (Ii) strengthen the capacity of farmer organizations in the assessment, management and monitoring of smallholder irrigation; and (iii) to create a center of studies and information on small peasant irrigation in Niger (center of excellence). By improving the availability of agricultural water and supporting the promotion of good practices of conservation and water management, the project "Promoting climate smart agriculture (CSA) in West Africa "will contribute to the adaptation of access systems to water for agriculture in rural areas in the regions of Dosso and Tillabery and especially with a view to scaling-up agricultural technologies of adaptation to climate change.

The project "Promoting climate smart agriculture (CSA) in West Africa" will contribute to the sustainability of impacts of the Project “Agricultural Intensification by the promotion of inputs shops” through the scaling-up of good practices related to soil restoration and management (Zai, bunds, etc.) in the regions of Dosso and Tillabery. This will contribute to a sustainable and appropriate use of inputs for sustainable agriculture.

The Integrated Management of Ecosystems Project in the cross border regions between Niger and Nigeria funded by the Global Environment Facility (GEF) aims at developing the integration, harmonization and cooperation strategies for the management of transboundary resources. The project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will extend the activities in to the cross border areas of Niger, Burkina Faso and Benin.

The Project of Training and Dissemination of Techniques for mitigation of desertification Effects and Enhancement of household incomes in the Sahel focuses on the extension of mitigation technologies. The project "Promoting climate smart agriculture (CSA) in West Africa" will focus on climate smart agriculture techniques.

The Local Development Support Program (PADEL) objective is to strengthen the capacity of Local Authorities in Planning, Programming and project management. The project "Promoting climate smart agriculture (CSA) in West Africa" will focus on knowledge sharing with the PADEL and will allow building capacity of local authorities in the area of integration of climate change adaptation into local development strategies.

The Support Project sensitive to climate risks (PASEC) which is being formulated intends to contribute to adapt agricultural practices, food chains and social policies to climate change within the framework of the Global Alliance for climate smart Agriculture. By complementarity, the project "Promoting smart smart agriculture in West Africa" will strengthen the PASEC actions by focusing on transboundary areas of Niger, Benin and Burkina Faso in order to increase agricultural productivity and resilience of agro-forestry-pastoral production systems.

TOGO

In the Savanna and Kara regions, the project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will improve the resilience of the most vulnerable farmers to climate change. These farmers will then receive support from the 2 projects: (i) the Project to Support agricultural Development in Togo (PADAT) and (ii) the Project to Support the agricultural sector (PASA), which aims at improving the production and farm, animal and fish productivity. The project “Promoting climate smart agriculture (CSA) in West Africa” will contribute to the achievement of expected results from the PADAT and PASA projects by enhancing the agro-climate services in order mitigate climate risks.

In the Planned areas for agricultural development (ZAPP) savanna regions (Mandori, mano, Sadori) and Kara (Défalé, Leon, Kara, Sarakawa), the project "Promoting climate smart agriculture (CSA) in West Africa "will focus on the most vulnerable farms to climate change.

West Africa Agricultural Productivity Program (WAAPP - Togo) is designed to generate and disseminate proven technologies in order to improve agricultural productivity in Togo. In areas of the Savanna and Kara, the project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will strengthen the resilience of farms in order to optimize the potential of technology popularize

2.7. DESCRIBE THE LEARNING AND KNOWLEDGE MANAGEMENT COMPONENT

The production, management and dissemination of knowledge and lessons learnt will be key actions in all the 3 components of the project. This will be done through the production and dissemination of information via a web portal, policy briefs to policymakers, press releases, scientific publications, the creation of databases on practices and the production of awareness raising tools (documentary films, etc.). In the component 1, activities related to climate services and existing best practices in climate change adaptation in agriculture will produce knowledge that will be shared and disseminated through different networks and websites. The component on training the technicians will support the dissemination of knowledge at field level and will help to learn about feedback from the local actors in climate change adaptation in agriculture.

Potential partnerships with key international Knowledge Management Systems like the Climate Technology Centre and Network (CTCN) will be analyzed in lines with communication strategies of the Adaptation Fund to foster the sharing and dissemination of information. International organizations having adaptation platforms will be contacted. These may include (i) FAO-adapt platform which provides an umbrella to FAO’s adaptation activities including short and long term adaptation activities; (ii) the World Bank knowledge portal on climate change for development practitioners and policy makers; (iii) the UNFCC platform; (iv) the green growth knowledge platform; (v) the adaptation learning mechanism; (vi) the climate adaptation knowledge platform and (vii) the weadapt website. At the regional level, key information and results of the project will be posted on the ECOWAS climate change platform as well websites of other regional organizations (CILSS, Hub Rural, UEMOA, ACMAD).

2.8. THE CONSULTATIVE PROCESS

The process of drafting the concept note and identification of activities to be carried out has been extensively consultative and inclusive since most of all groups of stakeholders (producer and breeders' organizations, different ministries, local authorities in the area of intervention, etc.) have been consulted both at the regional level and at the national and local levels. An international consultant was hired to insure regional approach. At the national level, consultants were also hired to provide specific information in the area of intervention and insure coherence with national strategies and priorities as regards climate change adaptation in agriculture. Consultations and interviews were organized with different ministries and other stakeholders involved in climate change adaptation in agriculture.

The consultative process combined different approaches:

(i) A review of the relevant literature and secondary date;

(ii) Interviews with the resource persons who work in the various ministries and organizations involved in climate change adaptation in agriculture in the beneficiaries countries;

(iii) Field visits and discussion meeting were made in Burkina Faso (Ouagadougou, Fada Ngourma and Manga), in Benin (Cotonou and Malanville), in Niger (Niamey and Dosso in Ghana (Accra, Tamale, Bolgatanga and Wa) and in Togo (kara and Dapaong). (see annexe 6).

(iv) A validation workshop of the concept note which involved the national designated authority, the representatives of the Ministry in charge of agriculture and livestock of beneficiaries' countries and some regional and international organizations was organized on the 6, January 2016 in Lomé (Togo) at the headquarters of the BOAD. This workshop was a good opportunity to have an in-depth discussion with major stakeholders on activities to be carried out in the framework of the project. The methodology adopted enabled to appreciate the potential of adaptation practices, to identify the constraints related to their scaling up, and to define appropriate support measures.

The list of persons and entities met can be found in the annex of this concept note.

2.9. JUSTIFICATION FOR FUNDING REQUESTED, FOCUSING ON THE FULL COST OF ADAPTATION REASONING

Climate changes affect agriculture in all ECOWAS countries at varying levels. The governments of each of these countries supported by technical and financial partners, develop and implement actions for the climate change adaptation in agriculture.

Faced with the complexity and multitude of challenges, the will to capitalize on good common adaptation practices through the implementation of structuring actions for rural areas while pooling the resources mobilized in a regional approach justifies the application submitted to the Adaptation Fund in the context of the first call for proposal of regional projects.

For the Alliance for Climate-smart Agriculture in West Africa which aims at increasing the number of households adopting the practices to 25 million by 2025 in Africa, it is also an opportunity for concrete actions at local level to strengthen resilience among farmers.

Component 1: Dissemination of agricultural best practices related to climate change adaptation at local level

Reference situation / baseline (without the project):
In the project implementation zone, the levels of productivity and crop yields are low. Conflict between farmers and breeder are recurrent because of scarcity of available resources (water and fodder) and transhumance restriction. The observation (collection) of climate parameters in the project regions is currently incomplete, obsolete or out-of-date. The climate services provided to the farmers are basics. The water management and conservation and soil rehabilitation and conservation are limited.

Situation with the project: The project will enable agriculture adaptation to climate change by improving the access climate services and provide support for water management and conservation, soil rehabilitation and conservation and livestock mobility and crossborder transhumance. In addition, the project will mobilize the expertise of key regional specialized entity to deliver a concrete support to farmers.
It will plan to:

- realize 600 runoff water harvest basins;
- realize the overdeepening of 180 ponds;
- Dig 60 large-diameter wells;
- Operationnalize 240 mobile irrigation units
- Stone bunds, permeable rock dams and grassy strips over 2,400 ha;
- Zaï or tassa, assisted natural regeneration and half -moons over 2,400 ha.
- Demarcate, markup and secure 1,800 km of transboundary transhumance corridors or tracks;
- Produce 100 water points and 30 boreholes along the secured transhumance corridors.

Component 2 and 3 : Mainstreaming agricultural best practices related to climate change adaptation in strategies/policies/projects and Management of knowledge on agricultural best practices related to climate change adaptation

Baseline: To date, the adaptation of agriculture to climate change requires new skills and knowledge and calls for PBOs and NGOs of the agricultural sector to increase, renew and strengthen the services to be provided to their members and beneficiaries. However, the current capacity for implementing concrete adaptation actions for PBOs and NGOs, especially at local level, remain limited.

The implementation of concrete adaptation actions will require dialogue and the formulation of climate change adaptation in agriculture-sensitive projects and the implementation of resources mobilization strategies at local, national and international levels. The related skills are actually limited in the PBOs and NGOs, especially at local level. The adaptation of agriculture to climate change requires new skills and calls for regional and departmental ministerial directorates in charge of agriculture, livestock, environment, water and forests, and the local community, to

define and provide new interventions, and also to develop new resources mobilization strategies. However, the current capacity in the area remains limited at local level.

Across borders in the neighboring administrative regions of the South-Central, East-Central and Eastern parts of Burkina Faso, of Tillabéry and Dosso in Niger, of Alibori and Atacora in Benin, of the Savannah and Kara in Togo, and the Northern, North-Eastern and North-Western regions in Ghana, the local actors of the climate change adaptation in agriculture are faced with often very similar common realities, constraints and challenges. However, no formal or informal framework of exchange currently exists to enable them share their experiences and knowledge in order to develop concrete, efficient and coherent and coordinated responses

Situation with the project: with better capacity and knowledge, the stakeholder involved in agriculture adaptation to climate change at local level will contribute to the design and management of more sustainable strategies and activities. They will support the replication and scaling up of these activities at national and regional level. It is planned to build the capacity of :

- More than 1,600 technicians and supervisory agents from the ministries in charge of agriculture, livestock, environment, forestry and water in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso.
- Over 1,000 executives and agents from the Local Community and local administration in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso;
- More than 30 research institutions specialized in issues related to adapting agriculture to climate change in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso;
- Over 50 Non-Governmental Organizations and Community-based organizations engaged in rural and agricultural development in the project implementation area in Benin, Togo, Ghana, Niger and Burkina Faso.

With the funding requested, the project proposal will increase resilience of farmers and community at local level to adverse effect of climate change and variability.

2.10. SUSTAINABILITY OF THE PROJECT/PROGRAMME OUTCOMES HAS BEEN TAKEN INTO ACCOUNT WHEN DESIGNING THE PROJECT/PROGRAMME

The sustainability of project achievements is built on 1) support for the realization of investments in agricultural plot that will be maintained thanks to the additional income generated by these investments and 2) capacity building of local actors which contributes to the sustainability of the achievements.

The sustainability of the project will be ensured at various levels:

- The implementation of actions in Component 1 will be done by field operators, relevant ECOWAS community-based organizations and NGO selected through a call for proposals. The capacity of these entities will then be strengthened during the project implementation. These entities will thus be able to take over at the end of the project. Furthermore, ECOWAS has already decided to integrate adaptation of agriculture to climate change in second phase of the regional and national agricultural investment plan to be completed in the coming years. Lessons of this project will facilitate advocacy to secure the continuation of activities of the project. Also, activities related to investment is water and soil to support water management and conservation as well as soil rehabilitation are sustainable in themselves since they are incoming generating activities through increase of production. Experience from Niger (Tillabéri, Tahoua, Maradi and Zinder), Burkina Faso (central plateau), Ethiopia and other countries have shown that investment in soil regeneration in degraded zones has allowed increase of production for farmers. These farmers were able keen to invest by themselves in soil conservation when required. Regional institutions (ACMAD, AGRHYMET, CILSS, ECOWAS) will also be encouraged to secure the continuation of activities of the project which are in lines with their mandate
- The sustainability and ownership of actions will be strengthened by components 2 and 3 aiming at strengthening the capacity of key stakeholders at subnational and ECOWAS levels.

While organizing consultation for the full proposal, issues of sustainability will be discussed with ministries, regional institutions and partners to encourage them to allocate some resources and insure the continuation of activities of the project.

Beneficiary countries are committed to supporting the implementation of project activities. This approach is also necessary for sustainability. Ministries may allocate some resources to insure the continuation of some activities. Regional institutions (ACMAD, AGRHYMET, CILSS, UEMOA and ECOWAS) will also be encouraged to secure the continuation of activities of the project which are in lines with their mandate.

2.11. PROVIDE AN OVERVIEW OF THE ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

Based on screening and scoping process, the project is classified in category B according to environmental, social and climate risks identified. In compliance with the environmental law and ESIA in Benin, Burkina Faso, Ghana, Niger and Togo this project should be subject to a Strategic Environmental Assessment. When the project intervention areas will be identified and localized with precision, an ESIA will be set up, accompanied by an Environmental and Social Management Plan.

The potential environmental and social impacts and risks identified during the screening and scoping process:

- **Potential environmental and social Positive impacts:**

- intensification of counter season crop and market gardening;
- jobs creation during all the construction phase;
- increasing incomes of the population through the exploitation of the perimeter;
- improvement of the local budget revenues by levying taxes (pickups aggregates, water abstraction, clearing taxes, operating taxes perimeter, etc.);
- strengthening health coverage through the construction of health infrastructure;
- improving access to drinking water;
- intensification of agriculture through application of technological packages;
- intensification of livestock by the use of crop residues (rice stalks, etc.).

- **Potential social negative impacts:**

- cohabitation between Fulani stockbreeders and farmers;
- increasing the phenomenon of immigration by the economic attraction of the zone;
- exacerbation of the conflicts between established groups;
- monopolization of the plots by the financial elites to the detriment of local populations;
- not assignees of plots;
- exacerbation of the land pressure;
- propagation of the MST/SIDA by the arrival of the workers out of zone;
- development or spread of waterborne diseases due to water bodies.

- **Potential environmental negative impacts:**

- destruction of specific biotopes, in particular those for animals hatitats;
- soil's destructuration and groundwater contamination by the pesticide residues and chemical fertilizers;
- water flow decrease.

- **Potential climate negative impacts:**

- disruption of the water cycle;
- no significant emissions of carbon (CO2) and methane (CH4) are expected.

Potential Risks Identified

Risks	Degree of perception	Measures
No acceptante or non-support of the projet by the population	Low	The project was designed on the basis of a consultation of the concerned population and the identification of their different needs. All the project activities and the work plan of the PMU will be defined by a committee of local authorities, NGOs and population.

Land and soil degradation	middle	One of the objectives of the project is to support soil restoration and conservation through the promotion of best soil restoration and conservation techniques and practices, with respect to environment.
the conservation of biological diversity	Middle	Protected tunes and forest reserves have been identified in the potential of the project area. The environmental and social impact assessment will address the potential impact of the project with regards to the question of biological diversity.
The social risk between established groups and migrant workers	middle	The environmental and social impact assessment will address the potential impact
The climate risk : Contribution to possible of greenhouse gases	low	It's not significant, but the environmental and social impact assessment will address the potential impact
Lack of awareness of communities on pesticide using	middle	The projects will implemented pesticides management plan in the case of pesticide use
Insufficient training in water management and disturbance of the water lifecycle	middle	The projects will implemented measures to strengthen capacities of actors in the areas identified for improving the knowledge and good practices.

2.12. DESCRIBE THE MEASURES FOR ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT, IN LINE WITH THE ENVIRONMENTAL AND SOCIAL POLICY OF THE ADAPTATION FUND.

Standard backup	Required	Not required	Additional Comments

Principle1: compliance with the law	yes		The Project will be fitted and implemented in compliance with all environmental applicable national and international laws. Particular attention will be devoted to the laws coming from Ghana, due to their Anglo-Saxon background, different from those from Benin, Burkina Faso, Niger and Togo, based on francophone origin. These features will be notified in the TORs related to feasibility studies for a better consideration.
Principle 2: Access and Equity	yes		The project design will be developed in order to allow to all vulnerable people from the project area under investigation to have fair and equitable access to all project benefits. The selection of beneficiaries will also be made in an inclusive method with respect to traditions, local practices, and access to basic social facilities. The project will bring its support in reducing existing inequalities, particularly those affecting marginalized or vulnerable groups.
Principle 3: Marginalized and vulnerable groups	yes		Particular attention will be devoted to children, women, girls, and the elderly, economic migrants (seasonal), people with disabilities or living with HIV/AIDS, found in the project investigation area.
Principle 4: Human rights	yes		Given the presence of vulnerable groups, special courtesy will be assumed to respect for human rights, even better the project will contribute to their promotion.
Principle 5: Gender Equity and Women's Empowerment	yes		During public consultation the project team noted that women and young people were still subjected to certain social and cultural constraints. Indeed, Togo and Ghana for example, the land belongs to men. The direct consequence is: the lack of empowerment for women and youth will increase their vulnerability.

			For this project, particular attention will be addressed to this segment of the population in order to guarantee gender equity and women's and youth's empowerment.
Principle 6: Core Labour Rights	yes		The project will be managed in compliance with the respective countries labor laws and regulations which forbids forced labor, children's labor and discrimination, and which allows freedom of association.
Principle 7 : Indigenous people	yes		If the ESIA notice that indigenous people are present in the project implementation area, the project will respect the rights and responsibilities set forth in the UN Declaration on the Rights of Indigenous Peoples and other applicable international instruments relating to indigenous peoples.
Principle 8: Involuntary Resettlement	Yes		At the present stage of project design, everything will be done to avoid or reduce the need for involuntary resettlement. The identification and selection of areas of intervention will avoid involuntary resettlement. If this option is unavoidable, an Action Plan of Resettlement will be carried out. The displaced persons will be informed on their rights, consulted based on options of resettlement alternatives that fitted to technical, economic and social offers as much as possible. Priority will be given to resettlement alternatives; fair and adequate compensation in case of absolute necessity.
Principle 9: Protection Natural Habitats	yes		The project has potential risks with regards to the protection Natural Habitats as there are nature parks and reserves found in the area of the project. In fact, protected tunes and forest reserves have been identified in the potential of the project area. The environmental and social impact assessment will address the potential impact of the project with regards to the question Natural Habitats protection

			and conservation.
Principle 10: Conservation Biological Diversity	yes		The project has potential risks with regards to the conservation of biological diversity. Indeed, we are witnessing in the project intervention area to the quantitative reduction of certain plant and animal species such as *Parkia biglobosa*, *Anura amphibians* and *Bufonidae*. Also protected tunes and forest reserves have been identified in the potential of the project area. The environmental and social impact assessment will address the potential impact of the project with regards to the question of biological diversity.
Principle 11: Climate Change	yes		Tricycles and motorcycle fuel pump and transhumance will contribute to possible of greenhouse gases (CO2 and Ch4). It's not significant, but the environmental and social impact assessment will address the potential impact of the project with regards to this critical issue in relationship with of pollution.
Principle 12: Pollution Prevention and Resources Efficiency	yes		Coping with drought stress in some areas, the project aims to create of water basin downstream rivers, hill reservoirs or small dams, etc. This solution coming from the project may be a source water cycle disruption in the region. The environmental and social impact assessment will address the potential impact of the project with regards to this question of resources efficiency.
Principle 13: Public Health	yes		Malaria is a most important parasitic infectious disease in the project implementation area - is transmitted by *Anopheles gambiae* (main vector for transmission) which breeds in fresh or occasionally brackish water. The project will create water retention ponds accommodating to *Anopheles*

			spread. The environmental and social impact assessment will address the potential impact of the project with regards to this question of public health, focusing on water and vector borne diseases.
Principle 14: Physical and Cultural Heritage	yes		During public consultations, mainly in the Kara region of Togo, the project team was informed of the presence of cultural remnants fled into the basement. The environmental and social impact assessment will address the potential impact of the project with regards to physical and cultural Heritage.
Principle 15: Lands and Soil Conservation	yes		One of the objectives of the project is to support soil restoration and conservation through the promotion of best soil restoration and conservation techniques and practices, with respect to environment.

PART III: IMPLEMENTATION ARRANGEMENTS

3.1. DESCRIBE THE ARRANGEMENTS FOR PROJECT/PROGRAMME IMPLEMENTATION

Implementation of the project will be realized at regional, national and local levels. Overall execution and coordination of the project will be realized under the leadership of the ECOWAS Regional Agency for Agriculture and Food (RAAF/ECOWAS) in close collaboration with ministries and other stakeholders, notably producer organizations involved in the implementation of the project at national and local levels. Several bodies will be set up for guidance and coordination of the implementation of the project at the regional and national levels: a Regional Project management Unit (RPMU) which will be set up by the RAAF/ECOWAS, a Project Steering Committee (PSC) and an Inclusive National Coordination and Concertation Platform (INCCP) supported by a Secretariat (SINCCP).

At the regional level

- **A Regional Project Management Unit (RPMU).** The RAAF/ECOWAS will set up a Regional Project management Unit (RPMU). The mission of the RPMU involves: (i) identifying and contracting with specialized technical institutions best suited for the implementation of specific activities (CILSS, CORAF, ACMAD for agro-meteorology, UICN, CGIAR-CCAFS, etc.), (ii) supporting and facilitating inclusive dialogue for the implementation of activities and fostering synergy between local and regional level and other projects/programmes implemented by other stakeholders, (iii) coordinating and facilitating the operational implementation of activities in close collaboration with beneficiary countries at the national and sub-national/local level, (iv) monitoring and evaluation as well as reporting (in particular to BOAD and the steering committee). The RPMU will be responsible for drafting the Programme of Work and Budget (PWB) which will be submitted to the steering committee for approval. It will be composed of (i) a Coordinator, (ii) programme officers (including an expert on monitoring and evaluation) in charge of monitoring the implementation of component activities of the project and (iii) an administrative support staff. The expert on monitoring and evaluation will be responsible in particular for disseminating lessons learned as well as disseminating results of the implementation of project within other international knowledge sharing platforms.

1) **A Project Steering Committee (PSC).** The PSC is responsible for (i) providing overall guidance for the implementation of the project, (ii) validating the programme of Work and Budget (PWB), (iii) suggesting reorientation of activities of the project, (iv) providing recommendations and guidance as regards next steps for the implementation of the project. The Committee will meet once a year to take stock of the implementation of the Annual Programme of Work and Budget (APWB). The PSC will be composed of statutory members and observers. Statutory members will include the Director of the RAAF/ECOWAS, a representative of Regional Economic Communities (UEMOA, CEDEAO), key technical international and regional organizations working on climate change adaptation in agriculture (CILSS, CORAF, ACMAD), a representative of the Inclusive national dialogue and coordination platform (INCCP), a representative of regional producer organizations and civil society[26]. Observer members will be composed of NGOs and international organizations invited on an ad hoc basis to contribute to specific issues and analyses. A president and the vice-president of the PSC will be elected by PSC members for the whole period of the project.

At the national and local level

- **An Inclusive National Coordination and Concertation Platform (INCCP)**. The mission of the INCCP is to (i) provide feedback on activities to be implemented at the national level, (ii) participate (through an elected representative) to meetings of the regional project management Unit (RPGM), (iii) monitor implementation of activities and

[26] In ECOWAS region, there is already a coordination mechanism/platform of regional producer organizations and the civil society which allows to get one representative designated

insure coordination and synergies between different ministries and other stakeholders, (iv) insure national priorities are taken into account. The composition of this platform will be set up after concertation in each of the 5 countries involved in the project based on principles of (i) inclusiveness representation, (ii) synergies and complementarity and (iii) concertation, dialogue and consensus.

- As regards inclusiveness, members of the INCCP will include different ministries involved in the climate change adaptation in agriculture (ministries in charge of environment, agriculture, livestock, fisheries, transport and meteorology, etc.), beneficiaries (producer organizations and farmers), local authorities (regional councils, local governments etc.) in the 12 zones of the project (areas of implementation), local and international NGOs, financial and technical partners implementing activities related to climate change adaptation in agriculture.

- As regards the principle of synergies and complementarity, an initial analysis will be conducted in all beneficiary countries to identify existing concertation and coordination mechanisms as regards climate change adaptation in agriculture. In countries where such platforms exist already, the INCCP will build on these existing platforms and may adapt to include some members for specific needs of the project. In countries where such platforms does not exist at all, the INCCP will be set up to fulfill the mission of the project. This principle is important in order to build on existing concertation mechanisms and avoid multiplication of concertation and coordination mechanisms. The principle insures also ownership and sustainability of activities of the project.

- Concerning the principle of concertation, dialogue and consensus and given the diversity of institutional and administrative situation/arrangements in the 5 countries, consultations will be organized at national level to set up an appropriate INCCP. The platform will insure that all stakeholders participate and contribute to the implementation of the project at the local level

- **A Secretariat of the Inclusive National Coordination and Concertation Platform (SINCCP).** To be operational, a technical secretariat of the INCCP will be set up. The mandate of the secretariat is to support activities of the president of the INCCP (draft report to be submitted to the INCCP, animate the concertation of the INCCP, etc.) but also so to technically liaise with the RPMU to insure better coordination between local, national and regional levels. The secretariat is composed of an expert on climate change and an assistant.

The BOAD, in its capacity as regional implementation entity, will supervise the implementation of the project in accordance with the Fund's management rules. To this end, it will issue its no objection to the work program of the RPMU as well as the procedures for acquiring goods and services.

The Bank will conduct periodic supervision missions of the project on the ground and draft reports to the Fund. Through its missions, the Bank will provide technical support for the smooth

implementation of the project. Under the procedures of the Fund, the Bank will develop on the basis of RPMU's monitoring reports and its supervision missions, periodic monitoring reports including the annual activity report, the mid-term and the final evaluation reports.

3.2. DESCRIBE THE MEASURES FOR FINANCIAL AND PROJECT/PROGRAMME RISK MANAGEMENT

A comprehensive analysis of the financial framework and risk management of the project will be developed during the formulation of the full proposal of the project. This framework will be specified in the procedural and operational manual to be agreed upon between the main stakeholders (BOAD, RAAF and Adaptation Fund).

In a bid to manage financial risks, a reference framework will be established to specify the modalities of budget and fiduciary management that will govern the relations and operation of the entities involved in implementing the project. The financial management policies of beneficiary countries, BOAD and the Adaptation Fund will be integrated and reflected in this framework.

3.3. DESCRIBE THE MEASURES FOR ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT IN LINE WITH THE ENVIRONMENTAL AND SOCIAL POLICY OF THE ADAPTATION FUND

An environmental and social impact study will be conducted during the formulation of the final project document (full proposal). An environmental and social management plan will be produced and implemented during the project implementation phase.

3.4. DESCRIBE THE MONITORING, EVALUATION AND CAPITALIZATION ARRANGEMENTS AND PROVIDE A BUDGETED M&E PLAN

A monitoring-evaluation mechanism for the project activities will be implemented to assess the progress made towards achieving the outcomes and objectives of the project. It will allow to identify the strengths and weaknesses in the project implementation in order to take the necessary actions in a timely manner. Internal monitoring will be entrusted to the Regional Project Management Unit (RPMU) based at RAAF. In each beneficiary country, the RPMU will carry out two joint annual monitoring missions to assess the smooth operation of project activities in close collaboration with the inclusive national coordination and concertation platform (INCCP). A monitoring mission will be carried out to make recommendations to the Steering Committee. A project monitoring and evaluation plan will be developed and an expert on M & E will be hired to insure follow up of the project in lines with targets and indicators.

During the project implementation, technical support will be provided to the technical services and producers' organizations for the development of simple participatory monitoring and evaluation tools.

Monitoring and evaluation will be done through:

- Evaluation and planning meetings with stakeholders;
- Quarterly reports and annual reviews by the project team;
- Field visits.

Annual evaluation: An annual evaluation conducted by RPMU in close collaboration of the INCCP will be submitted to the Project Steering Committee (PSC). It will address the progress made towards achieving the objectives, the lessons learned, risk management, budget implementation and the challenges related to the implementing of the project. This evaluation will also cover the technical and financial aspects.

Mid-term evaluation: This will be conducted to assess the efficacy, efficiency and relevance of the activities implemented in the context of the project. The report produced will highlight issues that require decisions and actions, and the first lessons learned from the formulation, implementation and management of the project. If necessary, reorientation of some activities will be recommended. According to BOAD rules, a mid-term evaluation is mandatory for projects of more than 3 years.

Terminal evaluation and ex-post evaluation: It will be conducted at the end of the project and recommendations should also be made on additional measures to strengthen project sustainability. According to BOAD rules, an independent assessment (including financial audit) is mandatory for projects of more than 3 years

The Capitalization will be done by the RAAF/ECOWAS during the project implementation to sustainably strengthen institutional capacities

3.5. INCLUDE A RESULTS FRAMEWORK FOR THE PROJECT PROPOSAL, INCLUDING MILESTONES, TARGETS AND INDICATORS

This section will be developed during the drafting of the project document (full proposal)

3.6. DEMONSTRATE HOW THE PROJECT/PROGRAMME ALIGNS WITH THE RESULTS FRAMEWORK OF THE ADAPTATION FUND

This section will be developed during the drafting of the project document (full proposal)

Project Objective(s)[27]	**Project Objective Indicator(s)**	**Fund Outcome**	**Fund Outcome Indicator**	**Grant Amount (USD)**
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**

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

3.7. INCLUDE A DETAILED BUDGET WITH BUDGET NOTES, A BUDGET ON THE IMPLEMENTING ENTITY MANAGEMENT FEE USE, AND AN EXPLANATION AND A BREAKDOWN OF THE EXECUTION COSTS

This section will be developed during the drafting of full proposal project.

3.8. INCLUDE A DISBURSEMENT SCHEDULE WITH TIME-BOUND MILESTONES

This section will be developed during the drafting of the of full proposal project.

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

A. Record of endorsement on behalf of the government[28] *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:*

-Thiyu ESSOBIYOU, Director of environment of Togo (AF_NDA_TOGO) **-Dr Kamayé MAÂZOU (AF_NDA_Niger)** **-Fredua AGYEMAN Director of environment of Ghana (AF_NDA_Niger)** **-Ibila Djibril (AF_NDA_Benin)** **- Alimatou KABORE/ZONGO**	Date*: August , 01st* 2016 August, 23th 2016

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 (i) Regional Agricultural Investment Plan (RAIP), ii) National Agricultural Investment Plans (NAIPs), iii) National Adaptation Programme of Action (NAPAs), iv) National Adaptation Plans (NAPs) and v) national communications.) 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.	
Almamy MBENGUE  *Directeur de l'Environnement et de la Finance Climat (BOAD)* Implementing Entity Coordinator	
Date: *August , 01st, 2016*	Tel. and email:ambengue@boad.org
Project Contact Person: Ms Fatoumata T. SANGARE	
Tel. And Email: +228 22 23 27 96/ ftoure@boad.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

ANNEXE 1 : LIST OF PERSONS MET DURING FIELD VISITS 1

PROJET PROMOTION DE L'AGRICULTURE INTELLIGENTE EN AFRIQUE DE L'OUEST				
Name	**STRUCTURE / FONCTION**	**E-MAIL**	**CONTACT**	**Country**
BILA MAINA	Ministère de l'environnement (ME)/ Secrétaire général	bila_maina@yahoo.fr - 96 96 9733		**NIGER**
SALISSOU YAHOUZA	Direction Générale de l'Environnement /Point focal	mwane2003@yahoo.fr	96261942	
ABDOU SADOU OUMAROU	Ministère de l'environnement -Direction des Etudes et des politiques – chargé d'études	asomar74@yahoo.fr	96275615	
IBO ADAMOU	Directeur Générale des Eaux et Foret /- DG Adjoint	ibnoadamou@yahoo.fr	96965910	
M.MAMOUDOU IDRISSA	Responsable du suivi-Evaluation des programmes des conventions biodiversité, le changement climatique et la désertification au Secrétariat Exécutif du CNEDD, Responsable du suivi-Evaluation du PAC/RC			
M.ISSA IDI	Conseiller au secrétariat Exécutif du CNEDD/Division changement et variabilités climatiques			
BOUBACAR GOUBE	Ministère de l'Agriculture (MAG) – Secrétaire	illiassougaoh@yahoo.fr	96881165	

ILLIASSOU	Général Adjoint			
Dr MOUSSA HASSANE	Chercheur à l'Institut National Agronomique au Niger (INRAN). Spécialiste de l'Environnement Ancien DG de l'INRAN			
M.IRO MAMAN	Coordonnateur régional de l'initiative 3N de Tillabéry			
M.ATTIKOU AMADOU	Coordonnateur régional de l'initiative 3N de Tillabéry			
M.YAHAYA TANKARI	Secrétaire général de la région de DOSSO			
IBRAHIMA DOUBOU	Ministère de l'Agriculture Directeur Régional de l'Agriculture (DRA) Dosso	doubouibrahima@gmail.com	98697869	
DAM-TANI AMADOU	Ministère de l'Agriculture DRA - Directeur	dantani.amadou@yahoo.fr	96593635	
IBRAHIM MAHAMANE BASSIROU	Ministère de l'Agriculture - DRA - Inspecteur Régional	bassirou@hotmail.com	96879333	
IDRISSA MOUSSA	Directeur Régional de l'Elevage	idrissamenssa11@yahoo.fr	96469139	
ALLOKE GILBERT	Ministère de l'environnement - Direction Régionale de l'Environnement (DRE) - Directeur Régional Adjoint	alloke_gilbert@yahoo.fr	96192982	
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ANNEXE 2 : MAIN CONCLUSIONS AND RECOMMANDATIONS OF THE VALIDATION WORKSHOP OF THE CONCEPT NOTE : "PROMOTING SMART AGRICULTURE TO CLIMATE CHANGE FOR FOOD SECURITY IN WEST AFRICA"- (6, JANUARY 2016, LOMÉ TOGO)

Introduction

1. As part of the call for proposal of the Adaptation Fund, ECOWAS in collaboration with the West African Development Bank, FAO and the Designated National Authorities (DNAs) of Benin, Burkina Faso, Ghana, Niger and Togo have made a pre-concept note which was accepted. It focuses on promoting the scaling of smart agriculture to climate change that will allow the adaptation of populations to the impacts of climate change and its resilience to food insecurity;

2. The project aims to: i) promote the dissemination of good practices for adaptation of populations to the impacts of risk and changes, ii) to ensure the integration of best practices for

adaptation to climate risks in strategies and agricultural projects at national and regional and sub regional level iii) insure knowledge management on good practices for adaptation of agriculture to climate risks;

3. Wednesday, January 6, 2016, was held in the conference room of the West African Development Bank (BOAD) in Lome, Republic of Togo, a validation workshop of the "concept note" of the said project. The workshop saw the participation of BOAD teams, ECOWAS-RAAF, FAO, the Designated National Authorities (DNAs) of the Adaptation Fund, in charge of the Ministries of Agriculture, Representatives of the countries concerned (Benin, Burkina Faso, Ghana, Niger and Togo. Attached is the list of attendance.

4. The meeting for the validation of the Concept Note was jointly organized by (BOAD), the Regional Agency for Agriculture and Food (RAAF) ECOWAS and FAO.

Purpose of the workshop

5. The overall objective of the workshop was to discuss the concept note of the project "Promoting climate-smart agriculture" to be submitted to the Adaptation Fund.

6. More specifically, the workshop aimed at:

- informing recipient countries of the call for proposal of the projects.
- Discussing the activities and proposals of project implementation mechanisms;
- Identifying the need for additional information to strengthen link between the concept note of the regional project, national priorities of the countries concerned as well as the synergies between the activities proposed in the project and those already in progress in the area of intervention.

Opening *Ceremony*

7. The opening ceremony was chaired by the Director in charge of Environment, BOAD and the Executive Director of the Regional Agency for Agriculture and Food, ECOWAS.

8. All these Directors warmly thanked the Adaptation Fund, the Designated National Authorities (DNAs) and the Ministries of Agriculture of 5 Project countries for their interest in the project.

9. They also stressed that the BOAD and the ECOWAS- RAAF will spare no effort for better project formulation that will contribute to the implementation of the agricultural policy of ECOWAS (ECOWAP) reviewed for consideration of climate change dimensions.

Proceedings

10. Following the opening of the workshop, the work was chaired by Mr. Dramane Coulibaly, Resource person and moderation was provided by Dr. Ablassé Bilgo, Head of the Technical Unit of the RAAF- ECOWAS. The reporting was provided by the team of the RAAF, FAO and BOAD.

11. Work began with a brief presentation on the scheme of call for proposal focusing on criteria of eligibility and guidelines of the call for proposal.

12. At this level, it was recalled that the eligible projects are those that should be of great value, innovative and regional activities, a cost/effectiveness ratio acceptable and a coordination mechanism developed at regional and national level. In addition, each beneficiary country should demonstrate its commitment through a letter of endorsement.

13. After this initial presentation, the second focused on the "concept note". It came with a comprehensive presentation of the note which main points are the three components of the project, broken down into expected results and activities and institutional anchorage.

14. Component 1 will be devoted to the dissemination of good practices for adaptation to climate risks locally.

15. Component 2 will involve the integration of best practices for adaptation to climate risks in strategies and agricultural projects at national and sub regional level.

16. Component 3 will be the knowledge management on best practices for adaptation of agriculture to climate risks.

17. At the institutional level, it is noted that the coordination of the project will be provided by the Regional Agency for Agriculture and Food ECOWAS (ARAA) with a Project Management Unit based at its headquarters and BOAD will ensure the financial management of the project.

1. Presentations and discussion during the workshop

18. Following the two presentations, contributions, comments and clarification questions were addressed by the participants to finalize the concept note.

19. <u>In respect of questions:</u>

Clarification of the questions focused on the value added at institutional, technical and financial; the contents of the innovative nature of the project; country engagement; criteria and targeting the role of BOAD.

Satisfactory responses have been made to various points. On the specific role of the BOAD, it was clarified that BOAD should not be part or the project management unit or the steering committee. BOAD will issue only non-objection on the implementation of project activities as it will provide the mandate for the management of financial resources.

As for the identified activities, it was also recalled that a field mission was carried out in the countries to diagnose the priorities of national stakeholders, including exchanges by phone or by mail, and the interventions of experts from the FAO Representation in countries allowed the identification of three components of the project activities declined. So the question of consistency with national priorities is assured.

20. In respect of contributions and comments:

The participants made comments and suggestions which will be taken into account in the development of the full note. In addition, the question of definitions, harmonization of concepts, correction of certain data, the issue of sensitization of stakeholders, taking account of certain activities such as reducing post-harvest losses, and supplemental irrigation, the clear use of the terms climate change, lack of socio environmental impact assessment, highlighting the link between strategies / policies of the countries and the project, capacity building has been sufficiently addressed.

It was agreed to review the institutional arrangement setting out the general guidelines and the details should be made at the time of formulation of the document of the full project will be the third phase of the process.

21. At the end of the workshop, the draft concept note has been validated and endorsed by the Designated National Authorities. Only Ghana AND who became represented endorse the draft next week. The team in charge of project formulation work will take into account all the needs of countries for finalizing the Concept Note before submission to the Adaptation Fund. Countries thanked the Adaptation Fund and requested funding for this project that meets national and regional priorities to allow populations resilience to climate change impacts.

List of Participants to the validation workshop of the concept note Lomé-Togo, 6 January 2016

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ANNEXE 3 : DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF THE COUNTRIES AND REGIONS CONCERNED BY THE PROJECT

Country	Area	Total Population (Millions)	Population in project areas in each country	Growth	population over national population per capita		per capita GNI in2014	Ratio of the poor according to the national poverty line (% of population)	Share of agriculture	Cereal yield in 2013	Major food crops
					Million	% total	USD courant		% PIB	Kg/ha	
Benin	114760	10,598	1373 000	2,7	5,960	56,2	890	36,2% (en 2011)	35,9	1 433	Maïs, riz,

											sorgho,
Burkina Faso	274 220	17,589	3 891 352	3,08	12,484	71,0%	700	46,7% (en 2009)	22,4	1 157	Maïs, riz, sorgho, millet
Ghana	238.537	25,75	4 394 420	2,19%	12, 484	48,48	1590	24,2% (en 2012)	32	1 689	Maïs, riz, sorgho
Niger	1 267 000	19,11	4 600 386	3,8	15, 583	81,54	410	48,9% (en 2011)	39	424	Maïs, riz, sorgho, millet
Togo	56,785	6,817	1 498 214	2,6	4 ,306	60,47	570	58,7% (en 2011)	38,4	1 258	Maïs, riz, sorgho

Sources :

NATIONAL STATISTICS DEPARTMENTS (BURKINA FASO, BENIN, TOGO), WORLD BANK 2014 GENERAL CENSUS OF AGRICULTURE AND LIVESTOCK, 2007 (NIGER), 4TH NATIONAL CENSUS OF AGRICULTURE, 2014 (TOGO); WEST AFRICAN AGRICULTURE AND CLIMATE CHANGE: EXHAUSTIVE ANALYSIS: GHANA (DELALI K. ET AL IN DECEMBER 2012).

ANNEXE 4 : INDICATIVE LIST OF PROJECTS ON THE ADAPTATION OF AGRICULTURE TO CLIMATE CHANGE IN NIGER, TOGO, BENIN, GHANA AND BURKINA FASO

Projets	Pays	Objectifs	possibles Synergies
Projet d'Actions Communautaires pour la Résilience Climatique (PACRC) **Budget: 65,5 millions $ US** **Duration: 2012-2016** **Implementer/ donor (s) : environment for sustainable development national council (CNEDD), Ministries in charge of hydraulic, agriculture and development/ word bank**	**NIGER**	**Improved protection of populations and production systems**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
Programme Stratégique pour la Résilience Climatique (PSRC) du Niger **Budget: 23, 4 millions $US** **Duration: 2012-2017** **Implementer/ donor (s) : Ministries in charge of agriculture / Africa development Bank**		**significant contribution in foresight and useful climate information**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
Projet Résilience Agricole-PANA **Budget: 2 840 000 $ US** **Duration: 2013-2016** **Implementer/ donor (s) : Government of Niger/ UNDP- ACDI**		**Strengthening the capacity to adapt to climate change in agriculture and water**	**Knowledge management**
Programme d'Action Communautaire-PAC 2 et 3 **Budget: 49.518.000 $ US** **Duration: 2013-2017** **Implementer/ donor (s) : Government of Niger/ word Bank -GEF**		**Improving the capacity of municipalities to design and implement participatory manner communal development plans and annual investment plans**	**land conservation** **Water management** **Knowledge management**

		Reduction of land degradation and promote sustainable land management	
Programme d'Appui au Secteur Rural (PASR) **Budget: 17 500 000 000 FCFA** **Duration: 2012-2016** **Implementer/ donor (s) : ministry in charge of hydraulic/ Danish kingdom**		**Strengthening the capacity of actors to operationalize the 3N Initiative** **Creating favorable conditions for a sustainable increase in production and rural incomes**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
Projet d'Appui au Développement de l'irrigation Privée au Niger (PADIP) **Budget: CHF 656'000** **Duration: 2010-2014 (phase 1)** **Implementer/ donor (s) : ministry in charge of agriculture / Swiss cooperation**		**Evaluation of the different dynamics of peasant irrigation in Niger and identification of relevant accompanying and monitoring the expansion of irrigation measures** **Capacity building of farmers' organizations in the assessment management and monitoring of smallholder**	**Knowledge management**
Projet d'Intensification de l'Agriculture par le Renforcement des Boutiques d'Intrants **Budget: € 6.000.000** **Duration: 2008-2013 (phase 1)** **Implementer/ donor (s) : ministry in charge of agriculture and FAO / European Union- Luxemburg Cooperation-Belgian Technical Cooperation-Spanish cooperation**	**NIGER**	**sustainable improvement in productivity of rainfed crops** **Strengthening and improving existing BI**	**Water management** **Knowledge management**
Projet de Gestion Intégrée des Ecosystèmes dans les Régions Transfrontalières entre le Niger et le Nigeria **Budget: 29,049,910 $ US** **Duration: 2005-2010 (phase 1)**		**Development of integration , harmonization and cross-border cooperation strategies**	**Knowledge management**

Implementer/ donor (s) : ICRISAT / GEF		**Capacity building for the promotion of local values**	
Projet Formation et Vulgarisation des Techniques Pratiques pour l'Atténuation des Effets de la Désertification et l'Amélioration des Revenus des ménages du Sahel **Budget: 50 million yen** **Duration: 2010-2013 (phase 1)** **Implementer/ donor (s) : Global Environnemental Forum / JICA**		**Vulgarisation et pérennisation de la technique pratique ''Système de la petite jachère dans les champs''**	**Knowledge management**
Programme d'Appui au Développement Local (PADEL) **Budget: USD 17,522,111** **Duration: 2010-2015** **Implementer/ donor (s) : Government of Niger / UNCDF- UNDP-Belgian Fund for Food Security (BFFS)**	**NIGER**	**Promote local economic development,** **Improve food security by increasing accessibility,** **Reduced incidence of welding and reducing malnutrition.** **Capacity Building of Local Authorities in Planning, Programming project management for socio-economic structuring investments**	**Knowledge management**
Projet d'appui à l'agriculture sensible aux risques climatiques (PASEC) **Budget: USD 171,522,111** **Duration: 2010-2015** **Implementer/ donor (s) : the Initiative 3 N High Commission, / Word Bank and European union**		**Adaptation of agricultural practices, food chains and social policies** **Increasing agricultural productivity and resilience to drought of agro-forestry- pastoral production system in households and target communities** **Improved capacity to respond promptly and effectively to any crisis**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**

		or eligible emergency	
NEER-Tamba : Projet de Gestion Participative des Ressources naturelles et de Développement rural **Budget: USD 110,200,000** **Duration: 2013-2021** **Implementer/ donor (s) : ministry in charge of agriculture / IFAD**	**Burkina Faso**	**Improvement of living conditions of the rural poor in the project area**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
GCP/BKF/054/LDF Intégrer la Résilience Climatique à la production Agricole et pastorale pour la Sécurité Alimentaire dans les Zones Rurales vulnérables à travers l'Approche Champ Ecole des Producteurs **Budget: 2 223 000 000 FCFA** **Duration: 2015-2019** **Implementer/ donor (s) : ministry in charge of agriculture / FAO**		**Strengthening the agricultural sectors and pastoral capacities of Burkina Faso to address climate change by signing the practices and strategies to adapt to climate change (ACC) in agricultural development initiatives in progress , agricultural policies , programming and increasing adoption of practices and CCA technologies by farmers through a CEP network already established . "**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
PNGT II : Programme National de Gestion des terroirs II phase 3 **Budget: USD 284,076,000** **Duration: 2013-2018** **Implementer/ donor (s) : GOVERNMENT OF BURKINA FASO / IAD-IFAD-GEF-UNDP**		**Strengthen the capacity of rural communities and decentralized structures** **the implementation of local development plans that promote sustainable management of land and natural resources** **and economic investments in common ...**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
Land and Water Management Project **Budget: USD 16,900,000** **Duration: 2014-2018** **Implementer/ donor (s) : Ministry of Environment, Science, Technology and Innovation / word Bank**	**GHANA**	**Support land and water management**	**land conservation** **Water management**
Support transition towards climate-smart agriculture food systems **Budget: USD 1,159,634**		**Promote CSA**	**Knowledge management**

Duration: 2015-2016 **Implementer/ donor (s) : Ministry in charge of agriculture / FAO-Norway**			
Adaptation of Agro Eco Systems to Climate Change (AAESCC) **Budget: € 3.000.000** **Duration: 2012-2017** **Implementer/ donor (s) : Ministry in charge of agriculture / German Federal Ministry for Economic**		**Promote sustainable agriculture system of production**	**Knowledge management**
Northern Rural Growth Programme (NRGP) **Budget: UA 68.39 Million (UA 1 = 1.55665 USD)** **Duration: 2008-2014 (phase 1)** **Implementer/ donor (s) : Ministry in charge of agriculture / AFRICAN DEVELOPMENT FUND-IFAD**		**Food Security and nutrition**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
Ghana Agriculture Sector Investment Programme (GASIP) **Budget : US$ 113.0 million** **Duration : 2014 -2020** **Implementer/ donor (s) : Ministry in charge of agriculture / Government of Ghana-IFAD**		**Food Security and nutrition**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
Ghana Adaptation Fund Project **Budget: USD 8,293,972.19** **Duration: 2015-2019 (phase 1)** **Implementer/ donor (s) : MINISTRY OF environment, science, technology and innovation of ghana-UNDP / Adaptation fund**		**Promote agriculture adaptation to climet change**	**land conservation** **Water management** **Livestock mobility** **Knowledge management**
Project to Support Agricultural Development in Togo (2011-2016) **Budget: USD 63,500,000**	**Togo**	**To contribute to the improvement of food security and incomes of small farmers through the improvement of production and productivity of**	**Water management** **Knowledge management**

Duration: 2011-2016 Implementer/ donor (s) : ministry in charge of agriculture / WORD BANK-IFAD-EBID-BOAD		the targeted farms rice, maize and cassava as well as through the promotion and marketing targeted agricultural production.	
Planned areas for agricultural development (ZAPP) Budget: not available Duration: 2011 – on going Implementer/ donor (s) : ministry in charge of agriculture / government of TOGO		Occupation of land all year Avoid pressure on the forest during the dry season	land conservation Water management Knowledge management
Project to support the agricultural sector (PASA) Budget: USD 53,900,000 Duration: 2011-2016 Implementer/ donor (s) : ministry in charge of agriculture / WORD BANK-		rehabilitate and strengthen the productive capacities of targeted beneficiaries in selected sectors and Promote an institutional environment suitable to the development of the agricultural sector	Knowledge management
Agricultural Productivity Program in West Africa - Togo Project (PPAAO – Togo) Budget: USD 12,000,000 Duration: 2012-2016 Implementer/ donor (s) : ministry in charge of agriculture / word bank		Generate, adapt and disseminate a range of improved sustainable production technologies of the main plant products (corn, rice, sorghum, cassava, yam, cowpea, groundnut, tomato, pineapple, cashew) and animals (poultry, small ruminants and swine); • Enhance the efficiency,	Knowledge management

		performance and sustainability of agricultural extension services	
Programme intégré d'adaptation aux changements climatiques dans le secteur agricole dans 4 zones agro-écologiques vulnérables (2011-2015). Une mise à échelle est envisagée. **Budget: USD 4,601,000** **Duration: 2010-2015 (phase 1)** **Implementer/ donor (s) : ministry in charge of Environment/ GEF-UNDP**	**Benin**	**Make available to actors and farming communities advice and warning of significant weather and climate events announced , damaging production systems**	**Knowledge management**
Projet de renforcement de l'Information sur le climat et système d'alerte précoce en Afrique pour un développement résilient au climat et adaptation aux changements climatiques **Budget: USD 18 511 549** **Duration: 2013-2017** **Implementer/ donor (s) : ministries in charge of energy, water and development / UNDP**		**Strengthen monitoring capacities, early warning systems and the availability of information on climate change to cope with climate shocks and plan adaptation to climate change in Benin**	**Knowledge management**
Projet de Renforcement de la gouvernance locale en matière de financement de l'adaptation aux changements climatiques **Budget: USD 450 000 000** **Duration: 2014-2016** **Implementer/ donor (s) : ministries in charge of energy, water and development / UNCDF**		**Contribuer à combler le déficit de financement de l'adaptation aux changements climatiques au niveau des collectivités locales tout en développant leur capacité institutionnelle et technique pour faire face aux risques et défis climatiques dans le processus de développement local.**	**Knowledge management**

ANNEXE 5: PROJECT'S ALIGNMENT TO STRATEGIES AND PROJECTS

Country	strategies	Project
BENIN	• Achievement of Intended Nationally Determined Contributions (INDC) in agro-ecological zones of the Northern Benin by integrating Climate Change issues in development plans, training of rural development officers, farmers and local authorities on climate issues and the promotion of local knowledge. • Mitigating the effects of climate change on agricultural production as stipulated in the program 4 of the National Agricultural Investment Program of Benin (NAIP 2010-2015) and the Strategic Plan for Agricultural Sector Recovery (SPASR) developed in 2011. • The implementation of the National Environmental Management Program (NEMP 2) in its component "Support for local environmental management initiatives" based on soil fertility aspects, reduction of grazing areas. • The implementation of the National Program of Sustainable Management of Natural Resources (NPSNR) in the field of participatory management of sustainable rural space. • The implementation of the Master Plan for Rural Development (MPRD) adopted in 2000 on the management of land and water through the establishment of irrigation schemes adapted in response to climate change.	The integrated program of adaptation to climate change in agriculture has contributed to capacity building of local authorities in some pilot municipalities in four vulnerable agro-ecological zones in 2011 and 2015. The project "Promotion of climate smart agriculture (CSA) in West Africa" will capitalize on achievements of the program in the identification of activities at the regional level and in Alibori and Atakora for the integration of adaptation to climate change into local development strategies. Strengthening the Climate Information Project and an early warning system in Africa for climate-resilient development and adaptation to climate change contributes to strengthen monitoring capacities, early warning systems and the availability of information on climate change in Benin. Based on the achievements of this project at the nation level, the project "Promoting climate smart agriculture (CSA) in West Africa" will improve agro climatic services at the regional level in Alibori and Atacora. Through the support to the designing of local development strategies which take into account agriculture adaptation to Climate change and the resource mobilization, the project "Promoting climate smart agriculture (CSA) in West Africa West" will facilitate financing at the regional level in Alibori and Atacora the activities related to climate smart agriculture in addition to the project "Strengthening local governance in financing adaptation to climate change" which implement similar activities in pilot municipalities.
BURKINA FASO	• The implementation of the agricultural component of the National Adaptation Plan to Climate Change in Burkina Faso adopted in 2015 and Achievement of Intended Nationally Determined Contributions (INDC) of the Republic of Burkina Faso by the Implementation of conservation techniques of water and soil and by	The Participatory Management Project of Natural Resources and Rural Development (NEER-Tamba) intends to support soil restoration activities in Burkina Faso. The project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will extend similar actions to regions of East Central and South Central while strengthening activities of water conservations and transhumance.

	promoting sustainable land management. The project will also contribute to improving access to climate information and also capacity building for the utilization of meteorological data in planning of actions in the agricultural sector. • The implementation of the Strategy for Growth and Sustainable Development (2010-2015) by strengthening adaptation to climate variability and change in the environmental management program and optimal use of natural resources. • the achievement of the objectives of the National Program for the Rural Sector (NPRS 2011-2015) of Burkina Faso in particular the sub-program on environmental governance and the promotion of sustainable development. The project will contribute to the adaptation to climate change and the reduction of the impact of climate change on the production and dissemination of sustainable land management best practices. • To the adaptation of the economy in general and the farming systems to climate change within the framework of the Sustainable Development of National Policy of Burkina Faso adopted in 2013.	The project Mainstreaming Climate Resilience in the Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas (GCP/BKF/054/LDF) through the Farmer Field School including Burkina Faso in the East region. By capitalizing the achievements and lessons learned of the project GCP/BKF/ 054/ LDF, the project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will extend similar actions to East Central and South Centre regions in particular for facilitating the transhumance. National land Management Program - Phase 3 (PNGT II) aims at strengthening the capacity of rural communities and decentralized structures for the implementation of local development plans that promote sustainable land and natural resources management. In the same strategic approach, the project "Promoting climate smart agriculture in West Africa" will strengthen the capacity of local stakeholders in the regions of South center, East-center and East specifically on the adaptation of agriculture to climate change and improve collaboration between neighboring administrative regions of Niger, Ghana, Benin and Togo.
GHANA	• The National Climate-Smart Agriculture And Food Security Action Plan (2016-2020) by focusing on its objectives namely : Institutional Capacity Development for Research and Development, development and promotion of Climate-resilient cropping systems, daptation of livestock production systems, support to water conservation and irrigation systems, prioritisation of the Action Areas by Stakeholders. • the Achievement of Intended Nationally Determined Contributions (INDC) by contributing to agriculture resilience building in climate vulnerable	The sustainable Land and Water Management Project aim to Improve land management of selected micro-watersheds in Northern Ghana to reverse land degradation and enhance agricultural productivity and improve spatial planning through integration of watershed management and development plans. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to scaling up the activities related to the soil and water management by focusing in agriculture adaptation to climate change Support transition towards climate-smart agriculture food systems project seeks to support the facilitation of the enabling environment for the scaling up of climate smart Agriculture to improve the resilience of

	landscape for Sustainable agriculture in Upper East, Upper West and Northern region • The Ghana Shared Growth and Development Agenda (GSGDA) II (2014-2017). The ongoing national development framework, specifically on the agriculture and food security challenges which states that: "Climate variability and change constitute a major threat to national development" (NDPC, 2014; p. 67). The GSGDA identifies the northern and savanah region as concentric areas of interventions for strengthen the potential and economic viability of the northern ecological zone and its capacity to contribute to Ghana's national development. • The National Environment Policy 2014 which underscores Ghana's vulnerability to climate change effects stating that "Ghana is particularly vulnerable due to lack of capacity to undertake adaptive measures to address environmental problems and socio-economic costs of climate change. • The National Climate Change Policy (NCCP) 2014 by focusing on 4 of this 7 pillars of implementation namely: Governance and coordination, Capacity building, knowledge management and International cooperation • Medium Term Agriculture Sector Investment Plan (METASIP) 2011–2015. Which is the strategic tool for implementing the Food and Agriculture Sector Development Policy (FASDEP) II (2009-2015). Specifically synergies and complementarities will be built to support water management and conservation and soil rehabilitation and conservation envisaged in the Northern and Southern Savannah zones by METASIP. • The National Climate Change Policy – Action Programme for Implementation 2015 – 2020 by promoting the development of climate-smart agriculture and food security systems for agriculture development in	vulnerable smallholder farmers in the country. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to provide fund for implementation of concrete CSA activities in the northen, upper east and upper west regions. The Adaptation of Agro Eco Systems to Climate Change project (AAESCC) is implementing is Northen Region. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to scaling up and extend the key interventions in Upper region (East and West) and to intensify it in Northen region of Ghana. Northern Rural Growth Programme (NRGP) aim to increase northern Ghana area rural households' income on a sustainable basis. Based on the results achieved by the NRGP, the project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to strengthen the capacity of the key stockholders by focusing on agriculture adaptation to climate change. Ghana Adaptation Fund Project. The main objective of this project is centered on the improvement of water access and also increase institutional capacity and coordination for integrated water management to support other uses of water resources especially for the diversification of livelihoods by rural communities. The project « PROMOTING CLIMATE-SMART AGRICULTURE IN WEST AFRICA » will contribute to this main objective by focusing on water management and conservation for agriculture and livestock. For the communities' interventions, the 2 projects will build a common approach.

	Ghana to increase productivity and production.	
NIGER	• Achievement of Intended Nationally Determined Contributions (INDC) of the Republic of Niger by strengthening adaptation measures related to sustainable land management. • Fight against the risks and constraints related to the management of natural resources in the frame of National Action Program of fight against Desertification (NAP / Fad) of Niger. • In the priority program No. 2 on climate change and variability of the National Environmental Plan For Sustainable Development of Niger • Reduce stress related to land resources shortage and water, improve access to and the impact of climate change on agricultural production in the implementation framework of the Rural Development Strategy (RSD) and program “les nigériens nourrissent les nigériens” (3N).	The Project Community Action for Climate Resilience (PACRC) with a budget of US $ 65.5 million for aims at "improving the protection of populations and farming systems to address climate change and variability in targeted municipalities" for a period of implementation from May 2012 to June 2017. It operates in the areas of agriculture, livestock, environment and social safety nets and covers 8 regions of Niger. The main sub project initiated by the project with the adaptation of agriculture to climate change are: - Revision of 35 Municipal Development Plans (DMP); - Training and awareness of national actors on issues of climate change - Rehabilitation of rangelands; - Marking of corridors; - Recovery of land (in the form of high labor intensive programme) The project "Promoting climate smart agriculture (CSA) in West Africa" will allow : 1) to build on achievements and lessons learned from the implementation of the PARC for their share, their valuation and recognition in actions to implement particularly in Benin, Togo and Ghana. 2) to intensify and densify through synergy and complementarity, actions for adapting agriculture to climate change in the regions of Dosso and Tillabery. 3) to improve the coverage of needs for adaptation of agriculture to climate in the regions of Dosso and Tillabery with a focus on cross-border areas. The Strategic Program for Climate Resilience (PSRC) of Niger which is being prepared by the African Development Bank (ADB) intends to support the development of Information and Climate Forecasting (PDIPC) in collaboration with the Niger’s Director of Meteorology. The project "Promoting climate smart agriculture (CSA) in West Africa" will provide an opportunity to 1) strengthe the agro-climate services for the benefit of farmers in the regions of Dosso and Tillabery and, 2) disseminate the knowledge produced on the adaptation of agriculture to climate in West

		Africa. The Project Agricultural Resilience (PANA) funded by GEF aims at strengthening the capacity for adaptation to climate change at the different levels: departmental, municipal and village. The project "Promoting climate smart agriculture (CSA) in West Africa" will address regional issues (Tillabery and Dosso) with a focus on cross-border areas for the improvement of food security and the availability of water for agriculture. The Community Action Program-PAC 2 and 3 jointly funded by the World Bank, GEF and IFAD with the aim of improving the capacity of municipalities to design and implement Communal Development Plans and Annual investment Plans. The project "Promoting climate smart agriculture (CSA) in West Africa" will strengthen the capacity of local stakeholders for the integration of adaptation of agriculture to climate change in annual investment plan in the regions of Dosso and Tillabery. The Support Program for Rural Sector (PASR) aims at strengthening the capacity of stakeholders to operationalize the 3N Initiative in the context of sustainable resource management. The project "Promoting climate smart agriculture (CSA) in West Africa" will share specific knowledge related to capacity building in the adaptation of agriculture to climate for local actors. The Project for the Development of the Private Irrigation in Niger (PADIP) will: (i) evaluate the different dynamics of farmer irrigation in Niger and identify relevant support and monitoring of the extension measures irrigation; (Ii) strengthen the capacity of farmer organizations in the assessment, management and monitoring of smallholder irrigation; and (iii) to create a center of studies and information on small peasant irrigation in Niger (center of excellence). By improving the availability of agricultural water and supporting the promotion of good practices of conservation and water management, the project "Promoting climate

		smart agriculture (CSA) in West Africa "will contribute to the adaptation of access systems to water for agriculture in rural areas in the regions of Dosso and Tillabery and especially with a view to scaling-up agricultural technologies of adaptation to climate change. The project "Promoting climate smart agriculture (CSA) in West Africa" will contribute to the sustainability of impacts of the Project “Agricultural Intensification by the promotion of inputs shops” through the scaling-up of good practices related to soil restoration and management (Zai, bunds, etc.) in the regions of Dosso and Tillabery. This will contribute to a sustainable and appropriate use of inputs for sustainable agriculture. The Integrated Management of Ecosystems Project in the cross border regions between Niger and Nigeria funded by the Global Environment Facility (GEF) aims at developing the integration, harmonization and cooperation strategies for the management of transboundary resources. The project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will extend the activities in to the cross border areas of Niger, Burkina Faso and Benin. The Project of Training and Dissemination of Techniques for mitigation of desertification Effects and Enhancement of household incomes in the Sahel focuses on the extension of mitigation technologies. The project "Promoting climate smart agriculture (CSA) in West Africa" will focus on climate smart agriculture techniques. The Local Development Support Program (PADEL) objective is to strengthen the capacity of Local Authorities in Planning, Programming and project management. The project "Promoting climate smart agriculture (CSA) in West Africa" will focus on knowledge sharing with the PADEL and will allow building capacity of local authorities in the area of integration of climate change adaptation into local development strategies. The Support Project sensitive to climate risks (PASEC) which is being formulated intends to contribute to adapt agricultural practices, food chains and social policies to climate change within the framework of the Global Alliance for climate smart Agriculture. By complementarity, the

		project "Promoting smart smart agriculture in West Africa" will strengthen the PASEC actions by focusing on transboundary areas of Niger, Benin and Burkina Faso in order to increase agricultural productivity and resilience of agro-forestry-pastoral production systems.
TOGO	• Achievement of Planned Contributions Determined to National level (SCOND / INDC) of the Republic of Togo by strengthening the resilience of production systems and ways of agriculture; • The implementation of the National Agricultural Investment Program and Food Security (NAIPFS, 2010-2015) of Togo strengthening the sustainable management of natural resources and improved management of transhumance. • Achievement of the Objective 1 on the promotion of joint management of natural resources and the national policy on action for the environment of Togo.	In the Savanna and Kara regions, the project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will improve the resilience of the most vulnerable farmers to climate change. These farmers will then receive support from the 2 projects: (i) the Project to Support agricultural Development in Togo (PADAT) and (ii) the Project to Support the agricultural sector (PASA), which aims at improving the production and farm, animal and fish productivity. The project “Promoting climate smart agriculture (CSA) in West Africa” will contribute to the achievement of expected results from the PADAT and PASA projects by enhancing the agro-climate services in order mitigate climate risks. In the Planned areas for agricultural development (ZAPP) savanna regions (Mandori, mano, Sadori) and Kara (Défalé, Leon, Kara, Sarakawa), the project "Promoting climate smart agriculture (CSA) in West Africa "will focus on the most vulnerable farms to climate change. West Africa Agricultural Productivity Program (WAAPP - Togo) is designed to generate and disseminate proven technologies in order to improve agricultural productivity in Togo. In areas of the Savanna and Kara, the project "Promoting climate smart agriculture to climate change (CSA) in West Africa" will strengthen the resilience of farms in order to optimize the potential of technology popularize

ANNEXE 6: COMMUNITY LEVEL CONSULTATION REPORT

TOGO

As part of the formulation of the concept note of the project "Promoting climate smart agriculture (CSA) in West Africa", local consultations were carried out in Togo on 11 July 2016 in Kara (the Kara region) and 13 July 2016 in Dapaong (the savannah region).

The objectives of these consultations are to 1) present the project proposal to key stakeholders of the adaptation of agriculture to climate change in order to receive their contributions and their comments and 2) to make the field phase of a preliminary environmental and social assessment of the proposed project.
These consultations organized in plenary sessions were used to exchange with 35 participants in Kara and 30 participants in Dapaong. Participants represented the following entities (see below list of participants):

- Regional Directors of Environment and Forest Resources (RDoEF)
- Regional Directors of Agriculture and Water Resources,
- Specialized regional institutions to support the agricultural sector,
- The heads of the Department of Meteorology,
- Officials of the Ministry of Culture,
- Ministry officials in charge of Grassroot Development,
- Civil Society Organizations (CSOs) and local NGOs Consortium
- Local representatives of farmers' organizations.

Participants highlighted the effects of climate change and the impact on their farming activities including:

-Delay and / or sudden stop of rains causing delays start of crop or crop water stress;
-Decrease of crop yields and loss of some crops like millet;
-Decrease of rice production due to declining rainfall and the drying up of lowland rice;
- Decrease of yields of fruit trees such as shea and cowpeas due to flowering difficulties;
-Drastic fall in annual rainfall in the regions of Kara and Savannah;

- Dry up of water in many water points;
- Periodic flooding of the agricultural plots;
- Increased of Erosion (due to water and wind);

Main findings and recommendations

Due to exchanges and discussions made after the detailed presentation of the concept note, the following issues are highlighted:

1. The need to make an inventory of existing good practices of adaptation to climate change in the areas of Kara and savannas. This inventory would be used as the basis for scaling-up in the regions
2. Facilitating livestock transhumance is a priority for adaptation to climate change
3. The need to strengthen the capacity of local stakeholders to contribute more effectively to the adaptation of agriculture to climate change

Conclusion

At the end of the exchange, stakeholders of the project "Promoting Climate smart agriculture (CSA) in West Africa" have expressed endorsed the ideas indicated in the concept note.

The findings of the preliminary environmental and social assessment of the project are presented in the appropriate section of the concept note.

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GHANA

As part of the formulation of the concept note of the project "Promoting climate smart agriculture (CSA) in West Africa," local consultations were carried out in Ghana between the 18 and 25 July 2016 in Accra, Tamale (Northern area), Wa (Upper West) and Bolgatanga (Upper East Region).
The objectives of these consultations are to 1) present the proposed project to key stakeholders of the adaptation of agriculture to climate change in order to get their contributions and their comments and 2) make the field phase of a preliminary environmental and social assessment of the proposed project.
These consultations were conducted with more than 60 key stakeholders in the regions covered by the project in Ghana (see list of participants).
In the discussions made, all participants confirmed the effects of climate change in the 3 northern regions of Ghana, including:

- Delay and / or sudden stop rains causing delays for the beginning of cropping season or water stress for crops;
- The Dramatic drop in annual rainfall;
- The drying up of many water sources;
- The Periodic flooding of the agricultural plots;
- The increase of soil erosion (due to water and wind);

In these regions, climate change exacerbates the negative impact on agricultural production and rural poverty where the level is already one of the highest in Ghana.

Following the detailed presentation of the Project Concept Note, exchanges and discussions highlighted the following points:

1. Closely involve local actors in the formulation and implementation of activities of the proposed project.
2. Allocate a significant portion of the project resources for the scaling of adaptation good practices (soil management and water conservation).

3. Livestock transhumance movement constitutes a challenge for adaptation to climate change
4. Strengthen the capacity of local stakeholders to increase their contribution to the adaptation of agriculture to climate change in the regions of Northern Ghana.

Conclusion

At the end of the exchange, stakeholders expressed their support to ideas developed in the proposed project (concept note). More details would be provided in the full proposal and all actors al the local level will also be involved.

The findings of the preliminary environmental and social assessment of the project are presented in the appropriate section of the concept note.

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List of Abbreviations

AESD – Agricultural Engineering Services Directorate
DCS – Directorate of Crop Services
DOA – Department of Agriculture
DSWFA – Dachio South Women Farmers Association
ELWMU – Environment, Land and Water Management Unit
EPA – Environmental Protection Agency
FAO – Food and Agriculture Organization
FC – Forestry Commission
FSD – Forest Services Division
FTC – Farmer's Training Centre
IESS – Institute of Environment and Sanitation Studies
MESTI – Ministry of Environment, Science, Technology and Innovation
MOGCSP – Ministry of Gender, Children and Social Protection
MOFA – Ministry of Food and Agriculture
NRGP – Northern Rural Growth Programme
PAS – Presbyterian Agriculture Services
PPRSD – Plant Protection and Regulatory Services Directorate
RSSP – Rice Sector Support Project
SRID – Statistics, Research and Information Directorate
UG – University of Ghana
UWRCC – Upper West Regional Coordinating Council
WIAD – Women in Agriculture Development Directorate