ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	Regular Project (Concept Note)
Country/ies:	The Gambia
Title of Project/Programme:	Rural Integrated Climate Adaptation and Resilience Building Project (RICAR)
Type of Implementing Entity:	Multi-lateral Implementing Entity
Implementing Entity:	World Food Programme
Executing Entity/ies:	Ministry of Environment, Climate Change and Natural Resources (MoECCNAR)
Amount of Financing Requested:	USD 10,000,000 (5 years)

A. Project Background and Context

Location and climate

The Gambia is a small West African state of 11,360 km2 situated along the Gambia River, surrounded by the Atlantic Ocean to the west, and Senegal along all other borders. Situated within the Soudan-Sahel region, the country experiences considerable inter-annual and inter-decadal climate variability. Rainfall is largely seasonal, the majority falling during the months of June to October. Located on the flood plain of the Gambia River, topography consists of riverine flats and mangrove swamps intersected by tidal creeks, flanked by savannah and low hills. The highest elevation is 53 metres above sea level. The country has 80 km of open ocean coast and approximately 200 km of sheltered coast within the tidal reaches of the River Gambia.

Environmental and agro-ecological conditions

The Gambia's rich biodiversity is due to its geographical position and the central presence of the River Gambia.[1] However, habitat destruction as a result of urbanization, cultivation, uncontrolled burning, and wood utilization has led to local species extinction and degradation of ecosystem services. Comparison of the most recent forest inventory against earlier records reveals a declining forest cover from 505,300 hectares in 1981/1982 to 423,000 hectares in the 2009/2010 inventory.[2] Environmental degradation and unsustainable land-use practices are reducing the generation of ecosystem goods and services that support both agricultural productivity and rural livelihoods in The

[1] GoTG (2014) The Fifth National Report to The Convention on Biological Diversity. May 2014.
[2] GoTG/Ministry of Forestry and the Environment (MoFEN) (2010) National Forest Assessment 2008-2010 – The Gambia

Gambia. For example, overstocking of livestock and reliance on slash-and-burn agriculture has resulted in widespread depletion of soil fertility, which reduces agricultural productivity. Other sources of degradation, such as over-extraction of woodland trees, uncontrolled bushfires, and production of charcoal results in loss of vegetation cover, leading to widespread soil erosion and sediment transfer into the Gambia River. The Gambia is the most densely populated country in West Africa; rapid population growth is intensifying environmental pressure, while weak public institutions are largely incapable of enforcing environmental protections.[3]

Socio-Economic Characteristics

Population, economy and poverty

The Gambia is recovering from a difficult period of 22 years of dictatorship that hindered human rights, exacerbated poverty, impeded livelihoods and lowered economic growth.[4] Despite a promising environment for improved growth, stability and partnership, the population of 2.1 million is faced with rising food insecurity, poverty and malnutrition. A history of authoritarianism, weak public institutions, political instability, and limited public administration capacity are the most salient causes of steadily worsening fragility in The Gambia, unlike most countries in the West African region that have become increasingly stable over the past decade.[5] The country ranked 174 out of 189 countries in the 2017 Human Development Index. 66 percent of the population is below the age of 25 and employed in the informal sector, which constitutes 63 percent of the economy.[6] Women and girls account for 50 percent of the population, with 38 percent of women unemployed compared with 21 percent of men.[7]

Overall poverty levels have remained unchanged in the past decade, with around 48.5 per cent of households living below the poverty line of USD 1.25 per day.[8] Male-headed households are more likely to be poor than female-headed households, as female-headed households are mostly found in the urban areas, where household heads are generally employed.[9] Poverty is higher in rural Gambia, where 69.5 percent of households live below the poverty line, compared to 31.6 percent in the urban areas.[10] The incidence of rural poverty is also increasing, from 64.2 percent of rural households in 2010 to 69.5 percent in 2015[11], while the depth and severity of rural poverty has also increased.[12] Moreover, there is a growing gap between rural and urban Gambia concerning access to health, education, and basic services.

Gender equality and women's empowerment are still major challenges in Gambian society.[13] The country was ranked 174 out of 189 countries in the Gender Inequality Index 2017, below Afghanistan, Sudan and Djibouti. Only 10.3 percent of the members of parliament are women, and 46 percent of women are married before the age of 18. There is gender parity in primary education enrolment and retention, but concern in general at the poor quality of education for girls and boys.

Economic recovery is gaining traction, with real GDP growth at an estimated 5.4 percent in 2018, up from 3.5 percent in 2017.[14] This growth is driven largely by services— tourism, trade, financial services and insurance— which expanded by 10 percent in 2018, coupled with robust growth in transport, construction, and telecommunications. Agriculture contributes 26 percent to the country's

[3] AfDB/WB (2017) Fragility Risk and Resilience Assessment
[4] GoTG (2017) The Gambia National Development Plan 2018-2021.
[5] AfDB/WB (2017) Fragility Risk and Resilience Assessment
[6] Altai Consulting (2017) Migration Profile: the Gambia. IOM and Free Movement and Migration in West Africa.
[7] 2016 Integrated household survey
[8] GoTG (2017) The Gambia National Development Plan 2018-2021
[9] FAO (2019) National Gender Profile of Agriculture and Rural Livelihoods
[10] GoTG (2017) The Gambia National Development plan 2018-2021
[11] World Bank Country Engagement Strategy
[12] GBOS, 2017
[13] GoTG (2017) The Gambia National Development Plan 2018-2021
[14] African Development Bank, African Economic Outlook 2019.

GDP and accounts for 40 percent of national exports[15], but is constrained by weak investment and limited access to capital.[16] Agriculture is relatively undiversified, and mainly rain-fed, derived by smallholder and subsistence-based farming, with 91 percent of the rural poor working as farmers, many of whom do not produce a marketable surplus. The country produces less than 50 percent of its food requirements; this heavy reliance on imported food leaves it vulnerable to price shocks. While there is potential for agriculture to play a larger role in economic development, this is constrained by severe and increasing land degradation.[17]

The gender division of labour is highly accentuated in the agriculture sector. Men cultivate the uplands, growing groundnuts (45 percent of crop area), early millet, maize, sorghum, late millet, cotton and upland rice, in decreasing order of importance. Women largely cultivate the lowlands, where the main crop is rice, grown in the wet season by hand on approximately 20,000 ha along the middle and lower reaches of the River Gambia, with vegetables grown in the dry season.[18] Divisions of labour also apply traditionally to animal husbandry and fisheries, with women in charge of small ruminants and chicken, while men deal with cattle for reasons of prestige. In the fisheries sector, men are responsible for the actual fishing, while women are engaged in landing the fish, processing and trading it (fresh, smoked or dried). This applies to both the artisanal and the industrial sector.[19]

As a result of increased fiscal discipline and international community support, the fiscal deficit narrowed to 3.9 percent of GDP in 2018 from 7.9 percent in 2017.[20] Inflation decreased to an estimated 6.2 percent in 2018 from 8 percent in 2017.[21] However, the debt-to-GDP ratio stood at about 130 percent of GDP in 2017, and the country has been classified as being in debt distress. This limited fiscal space for financing critical infrastructure and human capital development needs also denies the private sector access to the finance and credit vital for its expansion.[22] Enhancing efficiency in service delivery is essential, given limited government resources. High public debt will continue to crowd out government spending in health, education, and infrastructure development, unless the government restructures its debt.[23]

Addressing energy and water shortages remains a vital policy priority. Access to electricity is 47 percent nationally but only 13 percent in outlying provinces. Only 60 MW of the 106 MW of total installed capacity are available, with transmission and distribution network losses reaching 26 percent in 2016.[24] Unreliable electricity supply also affects availability of water in Greater Banjul. Regarding roads and drainage infrastructure, current practices in the GBA and the growth centres are not sufficient to address the growing problem of poor drainage coupled with inadequate waste management.[25]

Health, nutrition and food security

The Gambia is grouped as a low-income, food-deficit country[26], with eight percent of people (approx. 160,000) classified as food insecure[27]. Progress towards Sustainable Development Goal (SDG) 2 of Zero Hunger is limited, given the high levels of vulnerability to food insecurity, coupled with multiple

[15] Jaiteh, M.S. and B. Sarr (2011) Climate Change and Development in The Gambia: Challenges to Ecosystem Goods and Services. Available at http://www.columbia.edu/~msj42/pdfs/ClimateChangeDevelopmentGambia_small.pdf accessed 20 May 2019.
[16] WFP (2018) Country Strategic Plan 2019-2021.
[17] CSAO-CILSS, 2008. Gambia Food Security Profile.
[18] NDMA (2015) National Drought Operational Plan
[19] FAO (2019) National Gender Profile of Agriculture and Rural Livelihoods.
[20] African Development Bank, African Economic Outlook 2019.
[21] African Development Bank, African Economic Outlook 2019.
[22] GoTG (2017) The Gambia National Development Plan 2018-2021.
[23] African Development Bank, African Economic Outlook 2019.
[24] African Development Bank, African Economic Outlook 2019.
[25] GoTG (2016) Strategic Programme for Climate Resilience, Phase 1, Volume 1 report.
[26] State of Food Insecurity in the World, 2018
[27] According to the 2016 comprehensive food security and vulnerability analysis (CFSVA), food insecurity in Kuntaur was 18 per cent, Basse 14.5 per cent, and in Janjanbureh and Mansakonko 12 per cent.

forms of malnutrition amongst the population.[28] Political uncertainty and institutional dysfunction, coupled with long-term structural vulnerabilities and short-term economic shocks is exacerbating food insecurity[29]. The Gambia is on the verge of a nutrition emergency. There is a high prevalence of global acute malnutrition (GAM) in children aged 6-59 months and stunting rates above the national average of 22 percent, with a high of 24.9 percent in four districts.[30] The prevalence of wasting is 12 percent. Concerning iron deficiency anaemia, the prevalence for pregnant women is 56.8 percent 50.4 percent of children under five years of age suffer from anaemia, with 18.3 percent having Vitamin A deficiency. According to a recently conducted countrywide Micronutrient Survey in The Gambia, the rates for stunting, wasting and underweight are at 15.7 percent, 5.8 percent and 10.6 percent respectively. According to the 2015 Standardized Monitoring and Assessment of Relief and Transitions (SMART) survey, the prevalence of GAM increased to 10.3 percent, up from 9.9 percent in the 2012 survey. Drivers of malnutrition in the Gambia include unstable incomes, disease, early pregnancy, high women's workload, poor infant and young child feeding practices, and poor knowledge and practices around health and WASH. The highest incidence of vulnerability to food insecurity is found among households whose primary livelihood sources are from the sale of cash crops, such as groundnuts.[31]

While The Gambia has made progress with malaria control, major concerns still relate to this climate-sensitive disease, which is endemic and peaks in the rainy season. An estimated 20,000 people, including pregnant women and girls, were living with HIV in 2016, of whom only 30 percent were receiving anti-retroviral therapy.[32] The Gambia's primary healthcare system has deteriorated over the past years and is no longer able to serve the population adequately.[33] Regarding access to services, 89.6 percent of the population has access to safe drinking water, 64.9 percent has access to improved sanitation facilities, while only 30.3 percent of urban and 26 percent of rural households have a place for hand washing with soap and water.[34]

Climate Change Vulnerabilities, Impacts and Risks

Climate trends and projections

There is no doubt that temperatures across The Gambia have increased in recent years. The increasing trend of 0.5°C per decade since the 1940s set out in the Second National Communication (2012) translates to an increase of 3.5°C since then, which is likely more than observed. An estimate of 0.21°C per decade is provided by McSweeney et al. (2012), converting to an increase of about 1.0°C since 1960, the largest trend being in October-November-December at 0.32°C per decade. This is coupled with an increase of almost 8 percent in the number of 'hot nights' between 1960 and 2003. It is also certain that rainfall over the country has decreased in recent decades, at about 8.8 mm per month per decade between 1960 and 2006 (McSweeney et al., 2012). GoTG records show that the total national area that receives less than 800 mm rain has increased from 36 percent to 93 percent of the country since the 1940s.[35] There is a justified concern about more frequent and intense heat waves (likely), and droughts and floods (more uncertain).

Temperatures in The Gambia are projected to increase by up to 7°C in the interior by the end of the century, under the greenhouse gas emissions trajectory RCP8.5.[36] For rainfall under RCP8.5, the main pattern in the ensemble means is for decreases except in September-October-November. In

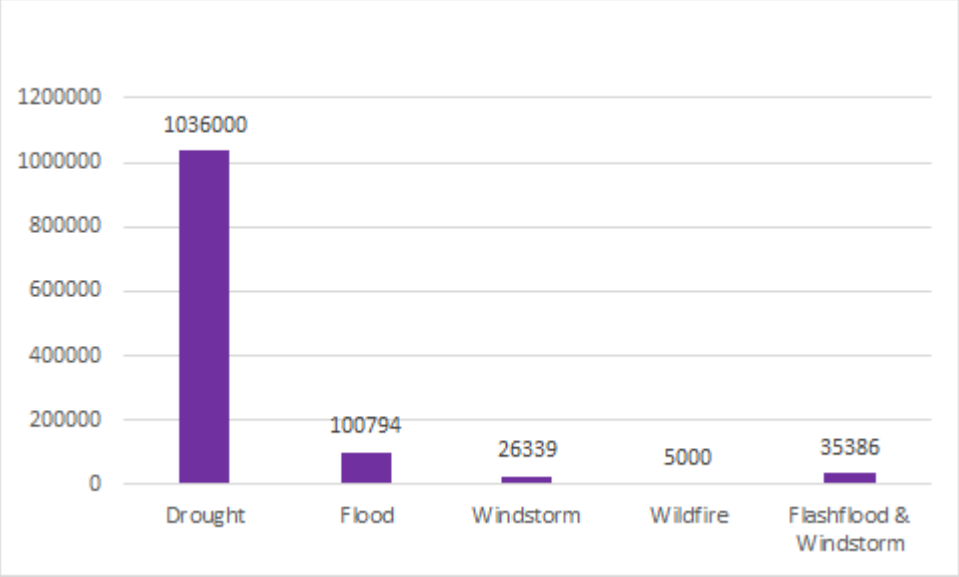
[28] State of Food Insecurity in the World, 2018
[29] AfDB (2017) Fragility Assessment
[30] WFP (2018) Country Brief
[31] NDMA (2015) National Drought Operational Plan
[32] Joint United Nations Programme on HIV/AIS (UNAIDS) country overview for the Gambia. See
[33] GoTG (2107) The Gambia National Development Plan 2018-2021
[34] GoTG (2017) The Gambia National Development Plan 2018-2021.
[35] GoTG (2007) Gambia National Adaptation Programme of Action (NAPA). Department of State for Forestry & The Environment, Banjul, 97p.
[36] IPCC Fifth Assessment (AR5)

the absence of more detailed projections studies (which are a recommendation of the SPCR), a low-regrets adaptation path should be followed. According to the draft Third National Communication to the UNFCCC, annual rainfall in the country is projected to decrease by less than 1 percent in 2020 to about 54 percent in 2100, depending on the emissions scenario.[37] Overall, predicted changes in climate and continuing inter-annual variability will present important short-term and long-term challenges to development efforts in the Gambia. This may worsen, especially if the possible increases in the frequencies and intensities of short-term extreme climate events, such as windstorms, rainstorms, droughts and dust storms, occur. Land use and land cover change, sea level rise, and coastal erosion present significant long-term challenges, unless concerted action is taken to address these issues.

Current and future impacts of climate change on livelihoods, food security and nutrition

Droughts are the key hazard affecting most vulnerable households in The Gambia. While not occurring as frequently as floods, they affect far more people than any other hazard (Figure 1). A quarter of the population (approx. 520,000 people) was food insecure due to the 2011 drought, according to the NDMA, with crop failure affecting 25 of the 39 districts. Despite some uncertainty in regional rainfall projections for the Sahel, all scenarios project an increase in potential evapotranspiration (PET) over an annual timescale, up to 45 percent above historical levels (the 56-year average from 1955 to 2005).[38]

Figure 1 Population affected by drought versus other hazards in The Gambia[39]



The weak agriculture sector and exposure to food price fluctuations and climate shocks such as the 2012 and 2017 droughts and floods have already resulted in increased food insecurity. Rice cropping under tidal irrigation in the lower stretch of the river is already facing considerable disruption due to high levels of salinity, while upland crop production of groundnuts is being affected by low soil fertility rates, and the increasingly drier environment resulting from lower rainfall and increased frequency and intensity of "harmattan" related dust storms.[40] Productivity of the staple crops of maize and millet is projected to decrease as the climate warms, but the productivity of groundnuts, a cash crop, is

[37] However, some regional climate models (RCMs) incorporating complex orographic features project increased rainfall for West African region
[38] GoTG Draft Third National Communication to the UNFCCC, not yet submitted
[39] Source: NDMA (2015) National Drought Operations Plan
[40] GoTG (2016) Strategic Programme for Climate Resilience, Phase 1, Volume 1 report.

projected to increase.[41] Climate shocks were the leading cause of food insecurity in The Gambia in 2017, during which erratic rainfall (late onset and dry spells) was experienced. In September 2018, the National Food Security Council declared an emergency food crisis situation for the cropping season 2018/2019. This followed from a rapid assessment estimating that 1,7 million people were under pressure due to inadequate rainfall resulting in decreased yield.[42]

Climate changes should worsen the current indicators for health, food security and nutrition status, and agriculture activities. Against a backdrop of high stunting, wasting, and iron deficiency anaemia, climate risks will further reduce household availability and access to diverse nutritious foods, increase post-harvest losses, increase disease prevalence (especially malaria) and reduce dietary diversity. Many of these climate impacts will be disproportionately felt by women, given their heavy responsibility for household duties. Women will have to walk further to collect water and fuelwood, and will have to toil harder to provide nutritious food for their families.[43] In the long-term, climate change will also impact the nutrient composition of key crops, exacerbating nutritional problems unless addressed. Projections are that risks for malaria, cholera, and water- and air-borne diseases would increase.[44]

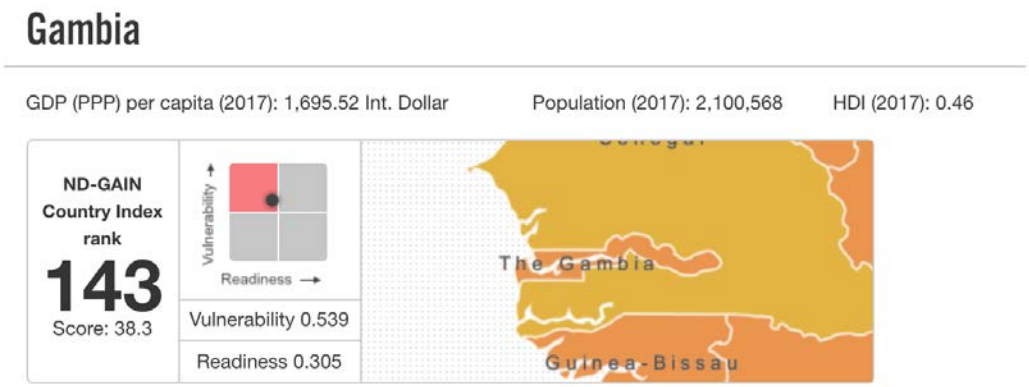
By 2100, increased flood severity and increased temperature are the climatic variables likely to have the highest impact on the coastal zone.[45] The direct effects of climate change on human health include injuries and fatalities as a result of extreme weather events and disasters such as flooding or landslides after heavy rain, as well as heat stress from extreme heat events.[46] In terms of the proportion of the total population affected by annual flooding, The Gambia is in the top three countries in Sub-Saharan Africa: the National Disaster Management Agency (NDMA) indicates that at least 40,000 people are affected each year by floods, predominantly in the Greater Banjul Area.[47] This includes tidal flooding of low-lying areas along the open coast and up the river, with potential loss of important urban areas, port infrastructure, roads, fish landing sites, farmland, forestry and significant natural habitats. Moreover, abstraction of drinking water near the coast has resulted in saline intrusion, reducing water quality and making some bore holes unviable. Population growth in the coastal zone is expected to put increasing pressure on the water resource with lowering water tables and higher saline intrusion, irrespective of any exacerbating adjustments resulting from climate change.[48]

At a national level, possibly the greatest predicted impact of climate change will be the effective loss of the capital city, Banjul. Much of the residential area of the city is extremely low lying and already at risk from tidal flooding; this situation will be exacerbated by expected sea level rise, putting most of the city and the access highway at risk of flooding. Beyond Banjul there is a widespread issue of ongoing coastal erosion that is predicted to increase in the future, and for which no systemic solution has yet been put in place.[49]

Multi-dimensional vulnerability to climate change

Figure 2 ND-GAIN ranking for The Gambia

[41] GoTG (2016) Technology Needs Assessment: Adaptation Technologies. Developed by the TNA Team.
[42] WFP (2018) Gambia Country Brief
[43] Note that there has been limited formal study of climate change impacts on women in The Gambia; these impacts are generalized from global literature.
[44] GoTG (2016) Strategic Programme for Climate Resilience, Phase 1, Volume 1 report.
[45] Amuzu, J., Jallow, B.P., Kabo-bah, A.T. & Yaffa, S. (2018) The Climate Change Vulnerability and Risk Management Matrix for the Coastal Zone of The Gambia. Hydrology. 5. 10.3390/hydrology5010014
[46] Serdeczny et al. (2015) 'Climate change impacts in Sub-Saharan Africa: from physical changes ot their social repercussions.' *Regional Environmental Change*, vol. 15 no. 8, pages
[47] UNCT 2014-2016 Strategic Response Plan for The Gambia
[48] GoTG (2016) Strategic Programme for Climate Resilience, Phase 1, Volume 1 report
[49] GoTG (2016) Strategic Programme for Climate Resilience, Phase 1, Volume 1 report.



The Gambia was ranked 143 in the ND-GAIN Index, which illustrates the comparative resilience of countries. The high vulnerability score and low readiness score of Gambia places it in the upper-left quadrant of the ND-GAIN Matrix. It has both a great need for investment and innovations to improve readiness and a great urgency for action. Gambia is the 40th most vulnerable country and the 53rd least ready country.

Relative poverty often limits the adaptive capacity of populations in Africa and thus increases vulnerability. This is true for The Gambia, where related factors limiting adaptive capacity and exacerbating vulnerability to climate change include gender inequalities, environmental degradation, poor educational outcomes and the decline of some health indicators. In a recent fragility assessment, large-scale rural-urban migration and deteriorating environmental quality were identified as destabilising factors to an already tenuous social, political, and economic equilibrium.[50]

Gender inequalities contribute to vulnerability, malnutrition and reduce the adaptive capacity of women. For example, rural women lack access to formal credit and land, which limits their engagement in agriculture and investment in climate-resilient technologies.[51] While women are recognized as the main rice producers on swamplands, a review of an irrigation project found that only 10 percent of improved land was registered to women.[52] In addition, women are more likely to lack identity numbers making them difficult candidates for, for example, index-based insurance in case of crop failure, land acquisition (because of traditional norms) and difficulties obtaining collateral necessary for investments.[53] Gender-based violence is a frequent occurrence in The Gambia, and.the maternal mortality rate in 2015 was 706 deaths per 100 000 live births - which ,is still high in comparison to the global average.[54]

Youth make up 65 percent of the population. Youth unemployment in The Gambia is at 70 percent, while the ratio of youth unemployment to adult unemployment is 2:3. A major contributor to youth unemployment is lack of access to high-quality education and training systems and a lack of skills, or mismatch between the skills possessed and those demanded in the labour market. This has contributed to young people seeking alternative means of livelihood, including irregular migration and employment in the informal sector. There are concerns about the quality of education and high drop-out levels: of those who started grade one in 2015, 54 percent will be expected to reach grade six, 43 percent grade nine and only about 21 percent to reach grade 12.[55] These factors continue to limit the youth's productivity and acquisition of skills; insufficient access to knowledge, including business

[50] In addition to the governance factors mentioned earlier. Source: AfDB/WB (2017) Fragility Risk and Resilience Assessment.
[51] GoTG (2018) Zero Hunger Strategic Review
[52] World Bank (2013) Improving Access to Land and Strengthening Women's Land Rights in Africa.
[53] GoTG (2016) Strategic Programme for Climate Resilience, Phase 1, Volume 1 report.
[54] World Bank (2018) Country Engagement Note.
[55] GoTG (2016) Education Sector Policy 2016-2030. Ministries of Basic and Secondary Education, and Higher Education, Research, Science and Technology, Banjul, The Gambia, 51p.

development services, hinders their gainful engagement.[56] While many citizens showed great courage and determination in defeating the environment of repression that had predominated in The Gambia for several decades, there is no doubt that the ravages of this time, together with the high levels of migration[57] out of the country by youth and others, have led to a fraying of the social capital of many communities, which is a key component of resilience. Most migrants are reportedly averagely educated males between the ages of 18 and 47; the vast majority of migrants remain within West Africa region.[58] The reasons for migration from rural areas are complex and require further study, but include economic reasons linked to decline of the rural economy and natural resource base, exacerbated by climate change, and a lack of services in rural areas. A further challenge lies in the numbers of people returning from abroad – reportedly 400 people in a particular month: there are risks of social disorder should returnees lack livelihood support systems for long.[59]

Currently, the majority of rural households do not generate enough produce or income from farming activities to meet annual needs. This is particularly true during the wet season when the previous seasons' produce has been consumed. These rural communities therefore rely heavily on the fast depleting ecosystem goods and services derived from woodlands, savannas, wetlands, mangroves and rivers to supplement their livelihoods. These ecosystem goods and services themselves are being negatively impacted by climate change, currently largely due to drying effects. The resultant overall reduction in ecosystem goods and services is reducing rural Gambian's food supply, health, nutritional status, income streams and socio-economic well-being.

In addition to climate-related risks, systemic and persistent gender inequalities in access to water are further challenges to developing food security and climate-resilient agriculture in The Gambia. Post-harvest losses, inadequate storage, limited value-addition and weak marketing are further barriers to food security.[60] Limited access to resources to make quick changes to lifestyles, especially with respect to food supplies, and low access to risk-spreading mechanisms, render many people highly susceptible to the current variability and future climatic changes.[61] Ongoing migration from rural to urban areas, and out from the country, is reducing adaptive capacity, as the rural areas lose important labour resources and experience a profound demographic shift. Women, girls, and members of female-headed households are especially vulnerable to crime, exploitation, food insecurity and poor nutrition status, and the loss of household labour. This migration, which consists largely of the youth, is itself fuelled by climatic changes such as increasing temperature and reduced, erratic rainfall, which have resulted in lowered agricultural production. In the absence of resilience building and concrete adaptation activities in the targeted localities, this is likely to continue into a downward spiral of increasing vulnerability and decreasing adaptive capacity.

Compounding the above, the country has no national health insurance programme or crop insurance programme for farmers, despite the prevalence of weather-related risks. While there are recent positive developments to scale up the social protection system, social security benefits still exclude the bulk of informal sector employees who lack unemployment insurance and paid maternity benefits, and there is no mandatory disability benefit provision. Social protection support is thus inadequate for those most in need, including the extreme poor, migrant families, disabled people, and other vulnerable groups.

The above inter-linked vulnerabilities frequently serve as barriers to climate change adaptation in The Gambia, and will need targeted strategies to overcome them. The following section sets out the

[56] GoTG (2017) The Gambia National Development Plan 2018-2021
[57] Net migration rate: -1.9 migrant(s)/1,000 population (2017 est.) https://www.indexmundi.com/the_gambia/net_migration_rate.html
[58] http://ec.europa.eu/europeaid/sites/devco/files/t05-eutf-sah-gm-02_-_migration.pdf
[59] As stated by the Minister of MoECCNAR, 3rd August 2018; http://www.ipsnews.net/2018/08/land-degradation-triple-threat-africa/
[60] GoTG Zero Hunger Strategic Review
[61] GoTG (2016) Strategic Programme for Climate Resilience, Phase 1, Volume 1 report.

specific situation of communities in the project target area, after which the proposed project components to address the status quo are set out.

B. Project area and target groups

The target group for concrete adaptation activities is smallholder farmers and other vulnerable rural groups, who are already at risk from climate variability and change, with an emphasis on women and youth. While farmers across the entire country are already experiencing great hardship from climate-related changes, coupled with structural poverty, the project will focus on a limited number of localities in one or two regions of the country, to maximise impact. The regions under consideration are Upper River Region (URR), Central River Region (CRR), and North Bank Region (NBR). All three regions are highly climate vulnerable, and would be appropriate for the identified project scope and preliminary components. The decision will be based on evidence of food security, vulnerability, climate risk and vulnerability, production potential, etc. During full proposal preparation WFP and the GoTG will develop an appropriate set of criteria and make a decision based upon the 'Integrated Context Analysis' (ICA) to be carried out in the second half of 2019, amongst other studies. The ICA will provide a better understanding of the most appropriate programmatic strategies in specific geographical areas, based on areas of convergence of historical trends of food security and risk of climate-related hazards. The decision will also be based upon a more in-depth gap analysis of the existing and pipeline initiatives in the country, including the EbA project, the new GAFSP project, and the proposed World Bank project in CRR on support to rice growing, amongst other initiatives.

C. Project Objectives

The overall goal of the project is **to enhance adaptive capacity of vulnerable rural populations in The Gambia through support to climate-resilient and diversified livelihoods**. The project aims to achieve this through the following three objectives:

1. Develop knowledge and awareness to underpin evidence-based resilience building and adaptation activities, particularly for women and youth, and enhance capacity for systematic sub-national level adaptation planning (Component 1)
2. Implement concrete resilience building and adaptation measures in the project target areas (Component 2)
3. Develop incentives, targeting women and youth, and risk transfer mechanisms, targeting smallholder farmers, for sustainable resilience building and adaptive capacity (Component 3)

The project will focus on concrete climate change adaptation activities to address the climate risks and vulnerabilities identified above. This will be done through an integrated risk management approach, to address the interface between climate change, agriculture and food security. This will include disaster risk reduction and support for climate-resilient agricultural practices, to address current climate risks and build capacity for longer-term adaptation of vulnerable communities in The Gambia. The concrete adaptation activities will be nutrition-sensitive and gender transformative, by working to identify and address the underlying drivers of malnutrition related to livelihoods, knowledge and practices and gender inequality. Risk transfer through micro-insurance and other financial inclusion strategies will help to strengthen adaptive capacity of affected communities.

The bulk of the project funding will go to support concrete adaptation activities on the ground, supported by enabling studies and policy engagement where required. However, the project will also avoid an *ad hoc* approach and support the building of long-term institutional systems and programmes in The Gambia, in particular to assist with implementing the National Climate Change Policy (NCCP) and the Strategic Programme for Climate Resilience (SPCR), as indicated below. Thus, a key theme running through the project logic is for evidence-based and systematic approaches that build the country's systems for building resilience and responding to climate change.

In addition to mainstreaming gender in a meaningful way, the project will also promote entrepreneurship and private sector participation in climate change responses, especially of MSMEs.

The project will target smallholder farmers and other vulnerable groups in the rural areas from one or two of The Gambia's regions. There will be a particular focus on women and youth, including the differentiated needs of female and male youth, given their heightened vulnerability in general, and to climate change. Thus, sensitisation activities carried out to meet Objective 1 will focus on building the understanding of women and youth about climate change effects and impacts on food security and nutrition, and assist them to develop national platforms to engage with and lobby government and other stakeholders about necessary responses (see Part II).

D. Project Components and Financing

Project Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
Component 1: Knowledge, awareness and systems developed for evidence-based and systematic resilience building and adaptation	Outcome 1.1 Enhanced knowledge and awareness on the climate change, food security and nutrition nexus, and systems to underpin evidence-based adaptation	Output 1.1.1 Studies based on updated climate change projections to understand specific impacts on and vulnerabilities of target populations Output 1.1.2 Targeted awareness raising on climate change, food security and nutrition, focusing on pathways for women and youth to be change agents Output 1.1.3 National platforms for women and youth to engage in multi-stakeholder dialogues on climate change Output 1.1.4 Existing climate services systems scaled out to target populations	311,000
	Outcome 1.2 Capacity enhanced on climate change for systematic and effective sub-national planning	Output 1.2.1 Systematic approach for climate change capacity development at sub-national level Output 1.2.2 Members of sub-national structures trained on climate change and systematic adaptation planning	160,000
Component 2: Concrete resilience building and adaptation measures implemented	Outcome 2.1 Increased adaptive capacity and resilience of targeted communities through concrete adaptation and diversified livelihoods	Output 2.1.1 Communities develop Local Climate Change Action Plans (LCCAPs)	400,000
		Output 2.1.2 Concrete resilience building and adaptation measures implemented	5,200,000
		Output 2.1.3 Diversified livelihoods developed through value chain and marketing support for climate-resilient value chains	1,600,000

Component 3: Incentives and risk transfer developed for sustainable resilience building and adaptive capacity	Outcome 3.1 Women and youth are incentivised to become change agents	Output 3.1.1 Incentives for sustainable resilience building for women and youth developed and implemented	100,000
	Outcome 3.2 Smallholder farmers adopt sustainable pathways for risk transfer to increase longer-term resilience	Output 3.2.1 Risk transfer mechanism for smallholder farmers tested and implemented	320,000
		Output 3.2.2 Farmers have access to savings products and micro finance	250,000
6. Project Execution cost (9.5%)			875,575
7. Total Project Cost			9,216,575
8. Project Cycle Management Fee charged by the Implementing Entity (8.5%)			783,409
Amount of Financing Requested			9,999,984

E. Projected Calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	June 2020
Mid-term Review (if planned)	January 2023
Project/Programme Closing	June 2025
Terminal Evaluation	September 2025

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project components

The project foresees an integrated, holistic and systemic intervention that addresses the root causes of vulnerability to climate change of smallholder farmers and rural populations in vulnerable regions of The Gambia. A multi-pronged approach will be used that harnesses risk reduction and risk transfer to promote diversified and climate-resilient smallholder production, for adaptation to climate change.

The entry point will be to reduce the climate-related risks facing poor smallholders, by resilience-building assets that improve the natural resource base upon which their livelihoods depend, and that increase their capacity to resist weather shocks such as drought and flooding, as well as longer-term changes such as increased average temperatures and increasingly erratic rainfall. The resilience building activities will unlock improved resource management, and be accompanied by capacity development and technical packages for sustainable and climate-resilient agricultural practices. As production is enhanced and diversified, the project will support the development of climate-resilient and nutritious value chains, including support to reduce post-harvest losses (PHL), to enhance processing, and to increase access to markets. This will result in diversified livelihoods, a key strategy for adaptation, as well as increased income streams for smallholder farmers.

In addition to risk reduction, and support for diversified livelihoods, risk transfer will be enabled through piloting weather index insurance, with some farmers paying for crop insurance by means of

food for assets (FFA) (i.e. using insurance as a transfer modality, instead of or in addition to cash-based transfers for the creation of climate resilience assets). Rapid compensation for weather-related losses builds resilience as farmers can avoid selling productive assets and recover faster from droughts. Micro credit and savings will be supported to allow for ongoing and sustainable livelihood building and diversification and help farmers to build up their risk reserves to deal with smaller shocks. This will be enabled through post-harvest storage and value chain support. Thus vulnerable farming households will develop their capacity to pay for insurance with cash, and to meet their basic needs such as buying food and paying for school fees.

The project will prioritize vulnerable groups such as households headed by women, people living with HIV (PLHIV), people with disabilities, pregnant and lactating women (PLW), etc. Communities will identify these groups and individuals during the community-based adaptation planning process. Where possible, the project will support steps to address the low participation of women in decision-making. A key thrust of the project will be economic empowerment of women and youth, to address the inequalities identified above.

The three components set out below have been developed based on the findings of the community and stakeholder consultations, and have been further refined and focused through discussions with the MoECCNAR. During development of the full project proposal, detailed activities will be further defined and clear linkages and synergies with other current and proposed projects further elaborated.

Component 1: Knowledge, awareness and systems developed for evidence-based and systematic resilience building and adaptation

A repeated issue raised during stakeholder consultations was that despite numerous projects which have included climate change sensitisation and capacity development, communities and sub-national planning and facilitation structures lack a proper understanding of climate change, and the ability to make informed decisions on most appropriate adaptation options. One of the reasons for this is the multitude of approaches towards awareness raising, resilience building and capacity development on climate risks and responses adopted by projects, as well as the *ad hoc* and superficial nature of many of these interventions. This has resulted in a lack of clear understanding on the part of communities and individuals of exactly why certain project interventions are being carried out and not others, which has had serious consequences for sustainability of projects.

Furthermore, many climate change-related projects in The Gambia have not made use of a strong evidence base upon which to design their activities, and have not contributed to building The Gambia's emerging systems for climate change coordination, capacity development and awareness raising, as set out in the National Climate Change Policy (NCCP) (2016) and the Strategic Programme for Climate Resilience (SPCR) (2017).

Thus Component 1 of the project will lay the ground for a sustainable and cost-effective intervention by developing key aspects of knowledge required to underpin systematic, evidence-based adaptation activities, sensitising target populations on the climate change, food security[62] and nutrition nexus using this knowledge; and enhancing capacity on climate change risks, responses and planning approaches, for systematic and effective sub-national planning in the targeted regions and localities.

Outcome 1.1 Enhanced knowledge and awareness on the climate change, food security and nutrition nexus, and systems to underpin evidence-based adaptation

Output 1.1.1 Studies based on updated climate change projections to understand specific impacts on and vulnerabilities of target populations

[62] Recognising that climate change will impact on all the components of food security: availability, accessibility, and utilization.

While The Gambia has submitted two national communications to the UNFCCC, with a third (the TNC) under development, there has been no comprehensive climate vulnerability analysis (VA) in the country for more than 20 years. The first VA carried out in the early 1990s has been used for all subsequent documents, including the TNC. This means that unless a project or programme carried out a detailed VA of its own, using more up-to-date climate projections, climate responses in the country have not been based upon the best available evidence. To partially address this, the MoECCNAR has funds to conduct national-level VAs for health, agriculture, and possibly rural livelihoods, to be completed by the end of 2019. These will be welcome but will not provide localised information upon which to base targeted adaptation activities.

Thus, the project will commission a climate change impact analysis for specific crops grown, and potentially also livestock varieties, in the project target areas, in order to understand, using the most up-to-date and suitable climate projections, how these will be impacted in the near-, medium- and long-term. This will include developing/tailoring decadal (i.e. near term) CC projections for the project target area, so that impacts over the next couple of decades, which are of great interest for policy makers and of great need for designing effective adaptation interventions, can be better understood.

The climate change impact analysis will be used to inform a Climate Change and Food Security Vulnerability Analysis, as well as the community-based planning on resilience and adaptation, as set out under Component 2.

A Climate Change and Food Security Vulnerability Analysis (CCFSVA) will be carried out for the project target areas, disaggregated according to different livelihood systems and groups (women, men, female and male youth, vulnerable groups). The CCFSVA will examine current vulnerability of the target populations, as well as future vulnerability by factoring in the results of the climate change impact analysis. This will generate vital knowledge for empowering communities during the community-based planning process to identify and prioritise the concrete resilience building and adaptation measures to be implemented under Component 2. It will also be used to inform the awareness raising under Outcome 1.2, as will provide valuable knowledge as well as a good practice to scale up for future support in other projects/programmes by development partners and the GoTG.

Both of these studies are vital to ensure that the concrete adaptation measures are designed to respond to observed and projected climate risks and impacts, such as increased temperature and heat waves, erratic and decreased rainfall, flooding, sea level rise, and coastal erosion; and how these will play out more specifically in the project areas.

Given the importance of these studies for the bulk of the project activities, and their broader use and applicability, it will also be important to spell out a knowledge management system for the project, as well as a communications strategy to ensure that the project's aims and activities are well understood, and that local communities, government officials and stakeholders are significantly involved from the outset, to build a supportive base for the project.

The knowledge generated under Outcome 1.1 will be used to sensitise the target populations in the project areas on the projected impacts of climate change on their areas and livelihoods. There will be a focus on the climate change, food security and nutrition nexus, given the critical challenges in The Gambia on food security and nutrition, and expected negative impacts of climate change on these national priorities.

Output 1.1.2 Targeted awareness raising on climate change, food security and nutrition, focusing on pathways for women and youth to be change agents

Targeted awareness raising on the impacts of climate change, and on the **climate change, food security and nutrition nexus**, will be carried out, focusing particularly on pathways for women and youth to be change agents. This will link to the national platforms for dialogue under Output 1.2.2, as well as to the activities under Component 3 on further empowering women and youth through incentives to be climate change champions in their areas. This approach of deepening the

awareness raising so that it has greater impact, through developing change agents and champions, will be one of the (several) mechanisms to support sustainable development of adaptive capacity employed by the project.

Output 1.1.3 National platforms for women and youth to engage in multi-stakeholder dialogues on climate change

In response to specific points raised during the stakeholder consultations, the project will, in conjunction with national-level women and youth organisations and NGOs experienced in advocacy and dialogue, support the further development of existing national platforms for women and youth to engage in multi-stakeholder dialogues on resilience and climate change, and to become more effective advocates for the implementation of climate change policy in the country. Should the WFP/ITC/UNFPA proposal to the Peace Building Fund be approved, complementarity will be developed with its related activities on national platforms and dialogues. Apart from raising the profile of climate change and the need to respond to it in the country, the national platforms will be valuable means through which women and youth can develop their capabilities to become confident and engaged climate change advocates and change agents. They are also a means to ensure that targeted sensitisation activities in the project area have a wider outreach.

Output 1.1.4 Existing climate services systems scaled out to target populations

Delivery of climate services is an area that has received much attention in The Gambia of late. Projects such as the Early Warning Phase II project have had success in testing and delivering climate services down to the last mile, therefore this is not an area in which the AF project will need to develop new approaches, conduct capacity assessments, or place large amounts of funds or effort. Should the project not be operating in the same localities where climate services have been successfully rolled out, then some support will be provided to scale out the system for delivery of climate services as developed by the EW Phase II to communities in AF project target areas – for example, providing support to traditional communicators to deepen the impact of climate services provided by local radio, for which the coverage is nationwide. This output is being included in direct response to calls during the community consultations from people who had not been beneficiaries of the EW Phase II climate services activities, but had seen the value of them from their neighbours.

Outcome 1.2 Capacity enhanced on climate change for systematic and effective sub-national planning

This outcome aims to develop capacity on climate change in a focused manner at the sub-national level in The Gambia, to address key issues raised by a number of stakeholders on the multiplicity of climate change initiatives all approach capacity development and planning for climate change in a sectoral and often *ad hoc* manner. Towards addressing this, the AF project will implement training on climate change and resilience building for sub-national levels and structures in project target areas. This outcome has been designed to not over-burden the project, while still making a contribution towards building the Gambia's climate change response systems, and avoiding the *ad hoc* project-based approaches that were frequently raised by stakeholders during the consultations as negative practices.

Output 1.2.1 Systematic approach for climate change capacity development at sub-national level

A first step will be to conduct an inventory, in the project target areas, of climate change-related training that has been carried out, and an assessment of climate change knowledge at sub-national levels. Based on this, the project will develop an approach and guidelines for systematic training on resilience and climate change at the sub-national level, to feed into national Long-term Climate Change Capacity Development Strategy, as set out in National Climate Change Policy (LT-CCCDS). This will be one of the project's contributions towards building the systems for climate change coordination and response in the country. Note that the project will not develop the LT-CCCDS itself,

but will merely provide an input into the sub-national capacity development part of the strategy, when this is developed in the future under separate funding.

Output 12.2 Members of sub-national structures trained on climate change and systematic adaptation planning

This will be done according to the provisions of the NCCP, which identifies the need for additional capacity building efforts for the following structures, to enable them to facilitate the planning and implementation of the Local Climate Change Action Plans, and to meet their responsibilities in terms of the NCCP: Area Councils, Ward Development Committees (WDCs), Sub-Ward Development Committees (SDCs), Village Development Committees (VDCs), Technical Advisory Committees (TACs) and Multi-Disciplinary Facilitation Teams (MDFTs), and for Regional, Ward and Village-level Disaster Management Committees. The project will include selected key national coordinating and facilitating structures, such as the MoECCNAR Climate Change Secretariat and the Department for Community Development (DCD) in this training.

The training for the TACs and MDFTs will include capacity assessment and project development skills, so that they can assist local communities to formulate simple concept notes for funding priority adaptation needs; the AF project will develop a simple template for this purpose. Such proposals could be submitted to the Gambia Climate Change Fund (GCCF), which is expected to become operational in 2020, and which will dedicate 50 percent of its funding to the local level.

The approach and guidelines developed under Output 1.2.1 will be implemented in the project target areas, to enable enhanced support for communities to plan, implement, monitor and assess resilience building and adaptation measures. As part of the knowledge management of the project, the approach will be documented and shared, with associated policy advocacy activities undertaken by the MoECCNAR.

Component 2: Concrete resilience building and adaptation measures implemented

Under Component 2, the project will build resilience-building assets that improve the natural resource base upon which the livelihoods of vulnerable communities depend, target the underlying drivers of malnutrition, and increase their capacity to resist weather shocks such as drought and flooding, as well as longer-term changes such as increased average temperatures and increasingly erratic rainfall. The resilience building activities will unlock improved resource management, and be accompanied by capacity development and technical packages for sustainable and climate-resilient agricultural practices. As production is enhanced and diversified, the project will support the development of climate-resilient, nutritious value chains, including support to reduce post-harvest losses (PHL), to enhance processing, and to increase access to markets. The project activities will be designed to improve dietary diversity of the target populations.

Component 2 will be implemented through coordinated resilience and nutrition interventions, including working with women to enable diversification beyond rice to more nutritious food (e.g. homestead gardening, pulses, poultry). Activities will further enable smallholders in the project area to increase their productivity and competitiveness and to benefit from improved access to markets, in order to generate a self-sustaining growth, and deliver improved nutritional outcomes. The project will implement nutrition-sensitive asset creation (incentivizing production of assets that target the underlying drivers of malnutrition) through improving agricultural production of nutritious foods and not just staples, supporting assets that reduce the time women must spend on routine tasks where possible, and assets that improve post-harvest storage and transformation of foods while protecting their nutrient content.

Outcome 2.1 Increased adaptive capacity and resilience of targeted communities through concrete adaptation measures and diversified livelihoods

Output 2.1.1 Communities develop Local Climate Change Action Plans (LCCAPs)

The project will carry out stocktaking exercise of different sectoral and other approaches to local planning on climate change, with recommendations in line with the aims and objectives of the NCCP and SPCR, and in particular the need for local climate investment plans to link with the Gambia Climate Change Fund (GCCF), when it is operationalised. The project will then implement the recommended approach to developing LCCAPs in the project target areas, for communities to identify priority resilience building and adaptation measures and document lessons learned for use in policy engagement. This will be one of the project's contributions towards building the systems for climate change coordination and response in the country.

Output 2.1.2 Concrete resilience building and adaptation measures implemented

Once priority resilience building activities have been identified by communities in the project localities, these will be implemented through a Food for Assets (FFA) approach. During detailed project planning, a menu of likely resilience building and adaptation activities will be developed and included in the full project proposal. These are likely to include building productive assets for erosion control, gully reclamation, water harvesting and storage, and structures for storage or processing. Activities will be supported in which both women and men can participate, as well as female and male youth. The project will consider possibilities to support elements of the activity set out in the SPCR Concept Note 4, which calls for "promoting soil and water conservation measures through climate-smart water ponds and intercropping in agroforestry, to act as "climate buffers" providing shade, wind breaker and litter source for water conservation coupled with minimum tillage, soil fertility management and regeneration of natural vegetation". Gully reclamation is likely to be an important activity to be funded, given the increasing incidence and severity of gullies throughout the country, as noted by numerous stakeholders during the consultations process. WFP has had good experience with successful gully reclamation in the West African region, including through the use of gabions.

Regarding water harvesting and storage, which were important issues identified during the community consultations, the project will develop synergies with the pipeline GEF/LDCF project on rural water supply, and the associated AfDB-funded baseline project (Gambia Climate Smart Rural WASH Development Project). These projects aim to install climate-proofed solar-powered water schemes for households and agriculture, and to diversify water sources, including rainwater harvesting and storage (domestic and communal) for water security during dry seasons and droughts.

The project will collaborate with key implementing partners, such as United Partners and Action Aid, as well as the Ministry of Agriculture (MoA) technical units and extension officers, to provide technical packages and support for climate-resilient agricultural approaches e.g. agroforestry, conservation agriculture, companion planting for vegetables, composting, organic fertiliser production, and integrated pest management (IPM).

The implementation of agroforestry, which is an important multiple-benefit adaptation measure (soil fertility enhancement, wind breaks, increased income stream, amelioration of the micro climate, etc.), will require careful planning and community mobilisation, particularly for women farmers who in many cases only have yearly user rights on the land; thus, they are constrained in terms of engaging in agroforestry. Specific ways to engage women in agroforestry will be identified and further detailed at the full proposal stage. Communities will be sensitised about the benefits of keeping the trees rather than chopping them down for fuel, and individual responsibility will be allocated for growing trees as well as planting them.

Output 2.1.3 Diversified livelihoods developed through value chain and marketing support for climate-resilient value chains

Activities will be designed to improve market access for the farmers, reduce the drudgery involved in the processing of agricultural produce, reduce the amount of post-harvest loss and diversify the dietary intake of the population. This will seek to increase the value/ efficiency of what has already

been produced – and allow farmers to be more efficient with their existing yields, by reducing post harvest loss, and increasing product value. It will include training for farmers about what products are more resilient to future environmental changes, balanced with understanding what products are attractive to buyers. The five-year project cycle would also increase livelihood sustainability.by supporting farmers and buyers in setting up value chains that are sustainable and climate resilient.

Until recently, the value addition sub-sector in The Gambia has been under developed. With recent donor support, a few products are being processed for value addition, but there remains significant work to be done in this area. The food-processing sector is gradually growing, particularly among urban women agro-processors who are mainly engaged in processing cereals, fruits and forest products for retail sales.

Value chain and marketing support would be based upon a targeted and localised value chain analysis and marketing study for selected climate-resilient and nutrition-sensitive crops of relevance to project target areas. The value chain work, which will be localized to the situation in the project target areas, will build on and deepen relevant work of other projects. However, it may be that no value chain assessment has yet been carried out for the climate-resilient crops/products to be selected during the AF project. Supporting and developing co-operatives and aggregators who have access to customers, will allow for a more complete value chain that will ensure that post harvest loss is reduced and smallholder farmers have more consistency in the market.

Women have a key role to play in reducing food loss at the production, post-harvest and processing stages, but face many barriers in doing so. For example, seed stores in the villages are controlled and managed by men with limited access to women. During the value chain assessment, gendered (and nutrition) analysis will be conducted to understand these barriers, and develop sustainable solutions to overcoming them.

In order to ensure that the project targets at least 50 percent women beneficiaries, it will be necessary to provide support to climate-resilient value chains that target women as well. Thus, consideration will be given to promoting post-harvest and market support to early-maturing climate-resilient cereal varieties, as well as vegetables and small ruminants/poultry. The latter are important supplements both to household nutrition and to income.

The project will work with NGOs such as Concern Universal and Action Aid that have had good results in strengthening the capacity of farmer-based organizations (FBOs), promoting use of technologies, expanding commercialization and developing value chains; as well as the Food Technology Services (FTS) Unit of the MoA, which is also engaged in capacitating both rural and urban processors (mainly women) with the required skills in food processing and preservation.

To create markets for enhanced and diversified production, the project will create linkages to the ongoing Home-Grown School Feeding (HGSF) programme supported by WFP and others. Through this, the modality of school feeding currently employed will be shifted towards strengthened and more adaptive smallholder farming that supports school feeding (i.e. home-grown school feeding). Market linkages beyond the HGSF will be facilitated, depending on the outcomes of the value chain study.

The project will implement the recommendations of the value chain analysis and marketing study for selected (2 or 3) climate-resilient and nutrition-sensitive crops in project target areas. This would involve activities to reduce PHL, improved storage, formation or support of existing producer groups for aggregation, agriculture as a business skills development, food processing, milling, etc. The value chain development support will serve to strengthen marketing and agribusiness development through engagement with private sector stakeholders.

The value chain work would of necessity need to include enhancing access to energy, as most ways of preserving (cooling, smoking, drying, pasteurizing, canning, void sealing) and processing (milling, de-husking, grinding, pressing) need energy. The primary way in which the project would approach this would be to make linkages and create synergies with existing interventions that are promoting

rural renewable energy. Increasing the marketing and publicity of successful methods will support the uptake of new value chains and thus help to replicate successes in other districts and regions.

There are a number of initiatives and projects that are supporting the use of renewable energy in processing and storage, e.g. solar dryers; key partners will include the UNIDO GEF project, as well as REAGAM. A number of initiatives are providing support to youth to become entrepreneurs in the renewable energy field. Further linkages will be explored, including along the lines of the "Energizing School Feeding" concept developed by WFP, and delivery modalities will be developed during the formulation of the full project proposal. Facilitating access to renewable energy will be an important way to enable women to meaningfully participate in activities and community life, through reducing some of the drudgery of their daily routine[63] that keeps them away from engaging in income-generating activities and community leadership activities. Local markets do not have electricity supply, which requires women to take produce to and from markets each day, greatly increasing loss, and reducing profits. Ensuring markets have suitable and sustainable storage will allow women to be more efficient with their time and produce.

The project will document the above process, carry out a lessons learned exercise, and disseminate the findings. These will be used in policy advocacy on, for example, the necessary National Crop Diversification Strategy, called for in the SPCR.

Component 3: Incentives and risk transfer mechanisms developed for sustainable resilience building and adaptive capacity

Outcome 3.1 Women and youth are incentivised to become change agents

Output 3.1.1 Incentives for sustainable resilience building developed and implemented

Incentives for sustainable resilience building targeting women and youth will be developed and implemented, as an element of the project's strategy to promote longer-term resilience building and adaptation. This output will also build on the successes that the Women's Bureau and National Youth Council have already developed and scale up successful and appropriate activities that are relevant for the region/s and target beneficiaries.

The kind of incentives could include developing and implementing a 'Resilient Rural Entrepreneurs' competition, and designing and implementing a competition for Women and Youth as CC Change Agents, with the prizes being for example scholarships for applied training. For both of these, relevant criteria will be developed – including the need to continue to contribute towards building adaptive capacity in the regions from which they come. A focus will be to diversify livelihoods, and develop small business away from agriculture, to more climate resilient businesses that are not reliant on rainfall and other environmental conditions. This will allow for there to be an income in times where the climate does not allow for good agricultural production.

Outcome 3.2 Smallholder farmers adopt sustainable pathways for risk transfer to increase longer-term resilience

Output 3.2.1 Risk transfer mechanism for smallholder farmers tested and implemented

This will respond to Concept Note 1 of the SPCR, which includes activities to develop microfinance products and provide support to local government, farmer organisations and cooperatives, other user groups and entrepreneurs to access and use climate finance at local levels. Weather index insurance for crops will be piloted in project localities, to develop a system for risk transfer for smallholder farmers, to enable greater resilience to large climate shocks such as extreme drought. WFP is

[63] This could be, for example, collecting fuel (perhaps 2 h), preparing and tending the fire, cleaning pots (5h), washing clothes (1h), processing food (1h) etc.

conducting a feasibility study in the country, to explore the conditions under which weather index insurance could be successfully piloted, and the partners necessary to do so.

The development of risk transfer/microinsurance solutions has been proven successful for many smallholder farmers in the West African and African regions. Surveys conducted in Kenya, Malawi and Senegal of the WFP risk transfer programmes showed that insurance payouts were mainly used to purchase food, cover basic needs and livelihood investments. Utilizing the payouts for these purposes has the potential to limit the degradation of household food security after a failed growing season. For example, in Senegal and Kenya, after several seasons of bad harvests, farmers with coverage were able to maintain their food security compared to others exposed to the same risks.[64]

Consultations with communities and stakeholders revealed a low penetration rate of insurance in rural communities, particularly for climate risk insurance. The program will seek to develop an index-based insurance – a type of insurance where payouts are objectively based on satellite data and weather stations, and then paid out automatically to policyholders.

Output 3.2.2 Farmers have access to savings products and microfinance

In conjunction with the piloting of weather index insurance, with initial premiums financed through Insurance for Assets, the project will work towards developing sustainable pathways for farmers to finance their own weather index insurance, build up their savings, and have sustainable access to microfinance.

Microfinance is recognized as an enabling development resource for both men and women to escape the poverty cycle. In The Gambia, the microfinance sector operates in a multi-faceted manner and involves a multiplicity of actors, including the Government, NGOs and the private sector. In addition to work done over the years by The Gambia Social Development Fund (SDF), stakeholders and development programmes that provide access to financing, particularly for rural farmers are: The Rural Finance Project, Gambia Women Finance Association, Indigenous Business Advisory Services (IBAS), and, most recently, private sector microfinance institutions such as Reliance Financial services and Supersonic Financial Services.

Despite these initiatives, access to affordable formal credit for agriculture-related activities continues to be a challenge for rural communities, and for women in particular. There is however a prevalence of informal women's savings groups that can be found in many communities. This shows a desire to save and access microcredit, however credit systems that have been used in other similar countries such as Senegal and Mali have not yet reached the Gambian market. Consequently, the project will seek to work on developing the microcredit system in the target regions through supporting informal savings groups to become more efficient, working with microcredit providers to increase access, and introducing successful WFP lessons/ products to Gambia.

By providing access to savings and microfinance, households will be better able to manage smaller and more frequent shocks through building risk reserves, and access microcredit to facilitate their productive activities and livelihoods. Combined with the insurance, this will allow individuals to become more resilient to both smaller and larger shocks, whilst also being able to contribute towards the payment of their insurance premium over time.

B. Economic, social and environmental benefits

Social and economic benefits

Enhanced food security and nutrition: resilience building activities will unlock improved resource management, and be accompanied by capacity development and technical packages for sustainable

[64] https://docs.wfp.org/api/documents/WFP-0000019963/download/?_ga=2.176866976.428595326.1562842383-471820114.1559743475

and climate-resilient agricultural practices. The project will focus on increasing and diversifying production into nutritious foods, including neglected crops such as *findi*, which are also more climate resilient. Project activities to reduce PHL and increase processing will result in more nutritious food available for households, for longer periods, thus reducing the lean season and increasing nutritional indicators, such as dietary diversity, which will be monitored.

*Increased income from developed and diversified livelihood*s: As production is enhanced and diversified, the project will support the development of climate-resilient and nutritious value chains, including support to reduce post-harvest losses (PHL), to enhance processing, and to increase access to markets, including HGSF. This will result in strengthened and diversified livelihoods, as well as increased income streams for smallholder farmers.

Enhanced gender equity and benefits for women and youth: A key thrust of the project will be economic empowerment of women and youth, to address the inequalities identified. At least 50 percent of the beneficiaries will be women, and the project will adopt a number of strategies to achieve gender empowerment and benefits, e.g. during the value chain assessment, gendered (and nutrition) analysis will be conducted to understand barriers women face in participating in value chains, and develop sustainable solutions to overcome them. The project will support the development of women and youth climate champions, and will support resilience building activities in which both women and men can participate, as well as female and male youth.

Enhanced resilience through risk transfer: Piloting weather index insurance for crops and enabling smallholder farmers to pay initially for premiums using Insurance for Assets will provide a system for risk transfer for smallholder farmers in the case of climate shocks such as drought. Receiving a cash payout will prevent farmers from resorting to negative coping strategies, such as selling livestock or land, thus preserving their asset base and increasing their resilience going forward.

Providing access to savings and microfinance: through this, households will be better able to manage smaller and more frequent shocks through building risk reserves, and access microcredit to facilitate their productive activities and livelihoods. Combined with the insurance, this will allow individuals to become more resilient to both smaller and larger shocks, whilst also being able to contribute towards the payment of their insurance premium over time.

Increased knowledge and empowerment on climate risks and responses: Targeted awareness raising on the impacts of climate change, and on the climate change, food security and nutrition nexus, will be carried out, focusing particularly on pathways for women and youth to be change agents. The sensitisation will be based on the targeted climate change impact analysis and Climate Change and Food Security Vulnerability Analysis, thus allowing for more informed community-based planning on resilience and adaptation, as well as more evidence-based selection of concrete adaptation measures.

Environmental benefits

Enhanced natural resources and ecosystem services in project target areas: The productive assets developed under Component 2 such as erosion control and water harvesting structures, will improve the natural resource base upon which livelihoods depend. Erosion control measures will reduce soil loss from the project areas. Sustainable agricultural technologies supported by the project, such as agroforestry, will increase soil fertility and soil structure. Upland contour structures and protection of stream banks will enhance the flooding protection services provided by the natural environment. Gully rehabilitation will further reduce the flow of soil into the River Gambia, where it impacts on the river ecosystem. Enhancing these ecosystem goods and services, which themselves are being negatively impacted by climate change, will improve the resilience of the ecosystems to climate change.

Increased availability and quality of water: Water harvesting and climate-smart irrigation techniques (e.g. household drip irrigation) will result in greater water availability and reduced conflict related to its use for household, agricultural and animal use.

Reduced pressure on the natural environment: Activities under Component 2 contribute to transformation from subsistence to sustainable livelihoods for vulnerable people by (i) reducing pressure on landscapes and the natural environment (e.g. avoiding negative coping strategies such as deforestation); (ii) gradually increasing adaptive capacity through training, creation and management of climate adaptation assets; and (iii) improving productivity and building economic protection from shocks, thereby preventing relapse into poverty and renewed pressure on the natural environment.

The project is being designed to avoid or mitigate negative impacts, including through the following measures: (i) implementation in accordance with national standards and safeguards; (ii) strong collaboration with relevant ministries, and stakeholders including Women's Bureau and National Youth Council, both in activity design and implementation; (iii) inclusive community involvement in planning and implementing the project, including monitoring project activities; (iv) consultation and engagement with beneficiary communities, including vulnerable groups; and (v) seeking technical support from experts in the field, especially in relation to sensitive or specialized services, including gender and protection issues as well as SLM. The Environmental and Social Management Plan (ESMP) that will accompany the full project proposal will provide more detail on how negative impacts will be avoided or mitigated.

C. Cost-effectiveness of the proposed project

The cost effectiveness of the project has been assessed and is evident when compared with the status quo. Regarding the alternative of no project, the recent climate change-related impacts experienced in The Gambia and the strongly negative effects these are having on rural livelihoods and social cohesion, linked to ongoing migration, constitute large costs for the state. These are incurred as the GoTG struggles to provide adequate services in the burgeoning urban areas, and to cope with returning migrants. The project will address the root causes of the exodus from the rural areas, thus ensuring that money is spent on causes and not symptoms of rural and agricultural decline.

Considering Component 1, an alternative approach considered for the capacity development activities was to carry this out at all levels in the project target areas. However, it was decided to focus capacity development activities at the sub-national level, as it is at this interface between communities and district and regional structures where the greatest need is. Moreover, the project will contribute to building systems, and systemic issues are catalytic in nature, and therefore cost effective. Thus, for example, the project will avoid an *ad hoc* approach and, instead of carrying out parallel processes to build capacity on climate change and carry out local level planning for adaptation, it will support the building of long-term institutional systems to assist with implementing the NCCP and the SPCR, as indicated in Sections A and J. A key theme running through the project logic is for evidence-based and systematic approaches that build the country's systems for building resilience and responding to climate change. The focus on evidence-based interventions is designed also for cost effectiveness: for example, carrying out a Climate Change and Food Security Vulnerability Analysis for the project target areas, disaggregated according to different livelihood systems and groups (women, men, female and male youth, vulnerable groups) will be vital knowledge for empowering communities during the community-based planning process, so that the most appropriate concrete resilience building and adaptation measures are prioritised and implemented. This will prevent generic measures being implemented that result in maladaptation, and thus a waste of the project resources.

Considering Component 2, an alternative considered was to only focus on increasing climate-resilient production, and not to include value chain work. This could have been justified on the basis of

decreasing agricultural production figures in the country. While this may still have resulted in increased food and nutritional outcomes, it would not have simultaneously maximised the increased incomes for beneficiaries from project activities, which will accrue mainly from the activities to strengthen climate-resilient value chains. Thus it was felt that including production and value chain activities in the same project would be the more cost-effective option.

Considering Component 3, an alternative considered was to not include weather index insurance in the project activities, but to rather focus only on improving climate-resilient production and value chains. However, studies have pointed to the cost effectiveness of weather index insurance. A recent review[65] found a positive relationship between index insurance and uptake of more profitable production technologies and practices; it also noted that while social protection contributed resilience to climate shocks among Kenyan pastoralists, index-based insurance had a similar effect at lower cost.

Finally, during development of the full project proposal, clear linkages and synergies with other current and proposed projects will be further elaborated, to avoid duplication and promote cost effectiveness of the intervention.

D. Consistency with national or sub-national sustainable development strategies

At the national level, the AF project is consistent with several of the cross-cutting enablers of the Gambia National Development Plan (2018-2021), namely promoting environmental sustainability, climate resilient communities and appropriate land use; strengthening evidence-based policy, planning and decision-making; and (iii) empowering the Gambian Woman to realize her full potential. It will also contribute to the NDP's vision of a resilient rural economy.

The AF project is aligned with and will contribute to the realisation of the National Climate Change Policy, regarding several of the thematic areas identified in the NCCP, as well as contributing towards the eventual development of the envisaged Long-Term Climate Change Capacity Development Strategy.

The SPCR provides the overall strategic framework for response to climate change in TG; thus the AF project is being designed to further the implementation of as-yet unfunded aspects of the SPCR, particularly Pillars 1 and 4. Regarding Pillar 1, the AF project will contribute towards building the envisaged systems for climate resilience by (i) testing and developing a systematic process to develop Local Climate Change Action Plans, to link local communities and institutions to climate finance via the Gambia Climate Change Fund; and (ii) developing a systematic process for climate change capacity development at the sub-national level, to contribute towards the Long-Term Climate Change Capacity Development Strategy as set out in the NCCP and SPCR. Regarding Pillar 4, the entire focus of the AF project is on building rural resilience, which it will achieve through several approaches set out in the SPCR, such as weather-based index insurance for smallholder farmers, promoting crop diversification, restoration of degraded rural land, water harvesting, and livelihood diversification.

Moreover, the project is aligned with the following:

- The identified priorities in the National Adaptation Programme of Action (NAPA), including (i) Diversification and Intensification of Agricultural Production, Processing and Marketing; and (ii) Expansion and Intensification of Agroforestry and Re-forestation Activities;
- The 2015 Nationally Determined Contribution (NDC), which sets out GoTG's voluntary commitments to reduce GHG emissions, under the UNFCCC, through agroforestry, land

[65] Hansen et al (2019) Climate risk management and rural poverty reduction. *Agricultural Systems,* Vol. 172, 28-46.

restoration leading to revegetation, and support for renewable energy sources in processing and other value chain activities;

- Nationally Appropriate Mitigation Actions (NAMA), by improving storage facilities and promoting the use of post-harvest technologies; and restoring and rehabilitating degraded lands;
- Priority adaptation actions and technologies identified in the First and Second National Communications to the UNFCCC, particularly through promotion of,drought-resistant crops, indigenous crops, and post-harvest technologies;
- The revised Climate-Integrated Agriculture and Natural Resources Policy (2009-2015), which calls for climate-resilient, early maturing crops, saline tolerant crops, improved post-harvest technologies and crop insurance services;
- The Gambia National Agricultural Investment Programme Phase 2, e.g. with respect to transforming the agricultural sector, with individual households and communities moving from subsistence to farming as a business;
- The National Nutrition Policy (2018-2025), which supports the implementation of SDGs 2 and 3;
- The priority areas of the Gambia Gender and Women Empowerment Policy (2010-2020), especially (i) Poverty Reduction, Economic Empowerment and Livelihoods Development; and (ii) Gender and the Environment;
- The Zero Hunger Strategic Review (2017), regarding (i) efforts to restore degraded land; and (ii) enhanced access to agricultural risk insurance;
- The evolving approach towards social protection, in which cash-based transfers are increasingly used, as set out inter alia in the National Social Protection Policy (2015-2025); and
- The Sustainable Development Goals, to which Gambia is a signatory, particularly SDGs on Climate Change, Poverty, Food security, and Gender Equality (SDGs 13, 1, 2 and 5, respectively).

In addition to national policies, strategies and programmes, the project is aligned with and will contribute to the further development of local-level planning activities, as set out in the Local Government Act (2002), as well as evolving approaches for linking sub-national planning to accessing climate finance through the Gambia Climate Change Fund.

E. Consistency with relevant national technical standards

The project will comply with all provisions of the National Environment Management Act, (NEMA) 1994, and the Environment Impact Assessment (EIA) Regulations, 2014, as well as with the with the Environmental and Social Policy of the Adaptation Fund and the Environmental and Social Safeguards of WFP. The Gambia has taken steps to introduce strategic environmental assessment (SEA) as an integral part of environmental and climate policy, with the drafting of a National SEA Policy (2017-2021) with accompanying Guidelines and Procedures. The SEA Guidelines and Procedures apply to all policies, plans and programmes in the country that fall within the scope of the SEA Policy, and have a legal basis in terms of the NEMA and the EIA Regulations.

The project will ensure that all activities implemented adhere to the principles as set out in the National Climate Change Policy. Of particular relevance are principles (iv) *Precautionary and preventive*: minimizing the known causes of climate change and offsetting predicted impacts through

risk-averse approaches; and (xi) *Duty to maintain a decent environment*[66]: emphasizing the inter-linkage between environmental integrity and climate resilience.

The project will abide by the principles and national standards as set out in the Forest Policy and Regulations, and relevant Community Forest Plans, insofar as they provide guidance for land reclamation and restoration and soil and water conservation activities that involve planting of trees, conservation agriculture, weeding, pitting, stone cutting and stone collection, diversion, silt trap, stone terrace, grass seeding, grazing land management, and water storage activities.

The project will comply with the relevant sections of the National Water Policy (2006) and the nascent Water Act to ensure sustainable utilization and conservation of water. However, as project irrigation-related activities will be restricted to rainwater harvesting off household roofs, micro irrigation systems for household gardening use, and possibly micro farm dams, it is not expected that water use permits shall be required for these activities.

Other relevant national and international technical standards include the following:

- Gambia Labour Act 2007[67]
- Gambia Environmental Laws of Labour[68]
- WFP – Harmonized Approach to Cash Transfer (HACT) Framework
- WFP – Cash Based Transfer (CBT) Manual
- WFP – Cash Based Transfer (CBT) Financial Management
- IFRC - Cash Based Transfer Guidelines[69]
- International Organization for Standardisation – Cash for Work

The project will moreover comply with other relevant standards set by the Gambia Bureau of Standards, regarding for example renewable energy materials, installation and maintenance.

F. Measures to avoid duplication of project with other funding sources

There are numerous climate change-related projects and programmes operating or planned in The Gambia. It is essential to find synergies and avoid duplication, so that scarce resources are effectively used. During development of the CN, the team has had numerous discussions on this matter (see Annex 1), and has actively sought out available information on relevant initiatives. The proposed project will build on, complement and /or strengthen the projects set out in table below, as indicated in the right-hand column.

Project Title	Funding / institutions	Timeframe & regions	Complementarity with proposed AF project
Strategic Programme for Climate Resilience (SPCR)	CIF/AfDB (Phase 1) Largely still unfunded	Phase 1 (design) completed. Phase 2 (implementation) will begin in 2019. National	Provides overall strategic framework for response to climate change in TG; thus the AF project is designed to further the implementation of as-yet unfunded aspects of the SPCR. Regarding Pillar 1, the AF project will contribute towards building the envisaged systems for climate resilience, especially with respect to (i) Local Climate Change Action Plans, that will ultimately link local communities to climate finance via the Gambia Climate Change Fund; and (ii) developing a systematic sub-national level capacity development process to contribute towards the Long-Term Climate Change Capacity Development Strategy as set out in the NCCP and SPCR. AF project contributes to Pillar 4, on building rural resilience, including livelihood diversification.
NAP and NAP-Agriculture	UNDP/FAO USD400,000	National	Joint coordination at FAO. 4 components: (i) institutional capacity to manage ANR, (ii) roadmap for NAP, (iii) M&E to monitor adaptation activities, (iv) advocacy and information sharing. Also doing a climate expenditure review;

[66] Principle drawn from National Environment Management Act (1994)
[67] http://lmis.gm/sites/default/files/Labour%20Act%202007%20%20Vol%201%20%20%281%29.pdf
[68] http://lmis.gm/sites/default/files/ENVIRONMENTAL%20LAWS%20OF%20LABOR.pdf
[69] https://www.ifrc.org/Global/Publications/disasters/finance/cash-guidelines-en.pdf

			and joint sensitisation of National Assembly and CBOs; plus some work on EW. Given the numerous activities and small budget, analyses conducted will be preliminary rather than in-depth. The AF will use the barrier analysis to inform detailed planning of activities; and will use the skills and capacity development assessment as a starting point for a more focused assessment at the sub-national level in the AF target regions. The local planning process piloted in a few communities by the NAP will be an input into the AF's stocktaking local CC planning. The AF will use the inventory of adaptation activities developed by NAP as an input into the planning of concrete adaptation activities.
Nema-Chosso (Nema = National Agricultural Land Water Management Project; Chosso = climate add-on)	IFAD/MoA/	Ends Dec 2019. **All regions**, max. 175 villages, is in almost every district	Activities on vegetable gardens, tidal irrigation of rice along river – installed drainage systems and concrete canals. Adaptation actions included mangrove restoration (with Dept. of Parks and Wildlife); woodlots (DoF); agroforestry (identified 25 farmers, DoF trained and supplied with seedlings, farmers knew concept but had not practised before; cashew and groundnut, and cashew and cereal crops). United Purpose (UP), an NGO with much experience in TG, had the role over 3 years, build community capacities to see agriculture as a business in all gardens: training, market assessment, etc. AF will build on/scale up successful activities, such as integrated support to vegetable gardens and value chain promotion of climate-resilient products.
Resilient Organizations for Transformative Smallholder Agriculture Project (ROOTS)	GoTG/IFAD/OFID etc (Total project: USD80m; IFAD: 40m, OFID: 11m, WB/IsDB/AfDB: 10m cofinancing, GEF7: 5.3m, GCF Energy: 5m)	Under design, launch due Dec 2019. **NBR, CRR, LRR, WCR, URR**	ROOTS is the follow-up project to Nema-Chosso. It will focus on climate resilient value chain development, primarily swamp rice production and horticulture; while the AF project will focus primarily on value chain development for short cycle, climate resilient and nutrition sensitive crops. ROOTS will promote integrated farming systems and diversification (livestock, agro-forestry, ecotourism). ROOTS will rehabilitate and improve tidal irrigation perimeters (mainly in CRR-region sites, including Jahally/Pacharr) and lowland water-control schemes, using FFS to introduce SRI of rice. It will also upgrade 60 existing vegetable gardens. ROOTS will further develop a system of inclusive eco-lodges involving rural farming communities in its business model. The AF team will liaise further with the ROOTs project design team, to ensure synergies, particularly with respect to agroforestry and on plans to promote climate resilient farming by youth, via financial support (matching grant window) and SONGHAI Centre training; as well as on proposed savings component of ROOTS.
Agricultural Value Chain Interaction Platforms (AVIP)	Funded by Nema (IFAD) / WARF/ GYIN Gambia	2019-2021	Focus on women and youth, to realize increased yields in rice and vegetable production, through their participation in national and regional markets. E.g. support marketing from Dasilameh Youth Garden (WCR). The AF will make links with AVIP to build on successes, in the year that the projects would overlap.
GAFSP	GoTG/WFP	Under development Regions not defined, likely to be CRR, LRR and WCR	One component designed that is focused on reducing risk and vulnerability of smallholder farmers, with two subcomponents: a) establishment of post-harvest climate resilient post-harvesting procedures, drying, processing and value addition, storage, logistics and distribution; and b) promotion of climate-informed smallholder farming planning (pre-harvest), i.e. supporting smallholder farming communities to prepare adaptation and disaster risk management (DRM) planning. Specific activities for these subcomponents will consider ongoing/planned initiatives including the AF project, for complementarity.
Large-scale ecosystem-based adaptation in The Gambia: developing a climate-resilient, natural resource-based economy (EbA project)	GCF/ UNEP / MoECCNAR	Under implementation 2017-2022 LRR, CRR and URR	Implementing large-scale EbA within/adjacent to agricultural areas, community-managed forest reserves and wildlife conservation areas, through: a) restoring degraded forests and agricultural landscapes (target: 10,000 ha) with climate-resilient plant species that provide goods for consumption or sale; and b) facilitating the establishment of commercially viable NR-based businesses (includes market development) to be managed by CBOs. EbA will be integrated into ongoing national-, district- and village-level planning. The AF will include the local plans developed by EbA in its stocktaking exercise, and will build on these, should any localities overlap. To avoid overlap with the EbA's value chain and marketing activities on NTFPs, the AF will focus VC/market work on climate-resilient and nutrition-sensitive crop varieties. The AF will have a focus on gully restoration, which the EbA does not. Further discussions will be held to build on synergies, and avoid

			overlaps.
AACC Adapting agriculture to climate change in The Gambia	GoTG/GEF LDCF/FAO	Dec 2016 – Nov 2020 NBR, CRR North, URR North	Focus on strengthening and enhancing diversified livelihoods. 10 community gardens. Provide suitable short-cycle seed varieties, appropriate sustainable farming practices and other inputs to 40,000 poor farmers, 70 percent women. Rangeland management: re-seeding and livestock support. Database for information sharing on C risk, and vulnerability assessment. The AF project will build on/scale up promising approaches, such as short-cycle crops (with NARI) and sustainable farming practices. Includes an insurance component. The AF team will explore how to build synergies with this.
3S initiative Sustainability, Stability, Security	EU/UNCCD/ Ankara Initiative/ Italian Development Cooperation (global donors)	In the pipeline	Aims to stabilise "at risk" areas by creating new, green jobs for vulnerable communities through investments on land rehabilitation and SLM. Will rehabilitate 50 ha in lowland areas affected by salinization and highland degraded areas. Similar to EbA. Targeting migrants, women and youth. Aims to create 25,000 green jobs (5,000/year) for youth and returning migrants, in agriculture, tourism, and conservation. Action plan will prioritize investments in youth *kafos* that will rehabilitate the land and revitalize local vegetable gardens.
EWS Phase II: Strengthening Climate Services and Early Warning Systems in the Gambia	GoTG (DWR) /UNEP/ GEF LDCF	Started 2015/16, runs till mid-2020 **CS in 14 pilot sites, 2 in each region**	Hydrometeorological infrastructure upgraded/ installed and maintained to cover full needs for optimal performance of EWS; will have trained 40 graduate & post-grad in Meteorology and CC, 30 percent women. Capacities developed to perform medium and long-term adaptation planning. Climate services (incl. seasonal forecasts, can do nowcasting) developed down to last mile. CS transmitted via mobile network; community radio – daily weather forecasts in local languages; traditional communicators; drums, PA systems, motorbikes to transmit messages. The AF will integrate the EWS Phase II experience with CC-integrated Regional Development Plans into the AF work on developing a system for Local CC Action Plans, linked to the GCCF, as called for by the NCCP and SPCR. The AF will support scaling out of climate services into AF project localities.
Enhancing Resilience of Kololi stretch economic infrastructure/social assets against sea level rise	GCF/UNDP/ MoECCNARNEA (implementing partner)	Submitted 2017, further studies on proposed breakwaters required. Launch envisaged for 2020.	Builds on GEF/ LDCF Project: Enhancing Resilience of Vulnerable Coastal Areas and Communities to Climate Change (RVCC). Aims to promote a paradigm shift for long-term adaptation and resilience of coastal development against SLR/other climate induced risks in the Kololi stretch. Includes physical protection and a flood-based index insurance scheme for the coastal economic investments. There is no overlap with coastal resilience activities. However, as the project will operate up the river to Farafenni on livelihoods activities, further discussions will be held to avoid any possible overlap.
GCCA+	EU funded	Soon to be launched,	This is a follow-up to the GCCA, which ended in 2016 and focused on ICZM and developing the NCCP. The GCCA+ activities are focused on coastal issues and ICZM, and include institutional strengthening and incorporating climate resilience into zoning land-uses along the coast. No overlap as AF will not have coastal focus.
Unknown	World Bank	Pipeline **CRR**	World Bank USD40 million project in the pipeline, targeting rice in CRR
Agriculture Value Chain Development Project (AVCD)	AfDB/GoTG/MoA	May 2016 – Dec 2020 Mainly URR	Despite name, is mainly focusing on the production side. Some storage infrastructure. Focus on rice (developed 500 ha pump irrigated land) and livestock value chains, also targeting 35 poultry schemes, 15 in URR and 4 in each other region. The AF will focus its VC activities on climate-resilient/neglected cereals, hence no duplication.
Commercial Agriculture and Value Chain Management Project (GCAV)	WB/ GoTG/ MoA	March 2014 – Nov 2019 **WCR, NBR, CRR**	Focuses on the value chains of rice and horticulture. Includes rehabilitation of tidal irrigation infrastructure to enhance the resilience of agricultural production to climate change-induced weather shocks; and rehabilitate /build commercial post-harvest infrastructure for processing and marketing. The primary focus of the VC work of the AF will be on climate-resilient and neglected cereal crops, thus overlap will be avoided.
Promoting agricultural resilience by enhanced	EU / Mbolo Association	Jan 2018 – Dec 2020	The budget provided by the EU to Mbolo is Euro 299,288. The Mbolo project will enhance agro-processing using solar technology through empowering women. The AF project will explore synergies with the Mbolo Association on how best to promote the use of RE in the value chain activities to assist

agro-processing using solar		**CRR**	women and youth, including through reducing PHL.
Make it in The Gambia	EU / GIZ	Nov 2018 – Nov 2021	Budget from EU is Euro 7 m. Focus is on employment and employability through new technologies and renewable energies. The AF will explore synergies regarding promotion of RE in its value chain activities.
School meals and DRM	EU support to WFP	July 2017 – June 2021	The AF project will link its production and value chain activities to the SF programme, to enhance market access and promote sustainable rural livelihoods.
Youth Empowerment Project (YEP)	EU / ITC	Jan 2017 – Jan 2022	Budget from EU is Euro 11 m, plus a further Euro 2 m for YEP 2.0 (linked with Make it in The Gambia). The AF project will meet with the YEP team during the design of the full project proposal, to explore any possible synergies with the AF youth-related activities.
Promoting agro-ecology and eco-restoration	EU support to Action Aid	Aug 2018 – July 2021 **CRR South and NBR**	The AF project will explore relevant best practices on eco-restoration and agro-ecology, as well as delivery mechanisms for these, with Action Aid, to support and upscale these where appropriate.
Make it in The Gambia - IMVF	EU and Instituto Marquês de Valle Flôr Fundação (IMVF)	Jan 2019 – Jan 2022	Budget from EU: Euro 5m. This project explores the conducive socio-economic environment for a sustainable reintegration and improvement of attractiveness of rural areas. As such, it will be important to understand the exact activities in order to make any relevant linkages with the AF's youth-related activities.
Improving Water Availability in Rural & Peri-Urban Communities	GEF/AfDB/ MFWRNAM (DWR)	PIF currently under review	Will enhance water availability in the rural and peri-urban areas, for household and agricultural use. The AF will explore potential linkages with the project activities during detailed design.
Climate Resilient Fishery Initiative for Livelihood Improvement	GCF/FAO, Dept. of Fisheries to execute	Pipeline, CN submitted 2018 USD15 million	Aims to increase the resilience of this sector through adaptive measures including climate-proofed infrastructure, habitat and ecosystem services restoration and capacity development. Includes aquaculture and processing. The AF will explore any potential synergies in value chain work, particularly with respect to using RE for processing.
Agriculture for Economic Growth, Food Security & Nutrition to Mitigate Migration	EU/FAO/ WFP/GoTG **(Envelope A)**	2017- 2021 **NBR, CRR, LRR, URR**	The overall objective is to contribute to sustainable growth in the agricultural sector and reduce food insecurity and malnutrition to mitigate migration flows to Europe. Specifically, the project is contributing to: (i) Increasing agricultural productivity/ diversification and access to food; (2) Increasing most vulnerable smallholders' participation in value chains; (3) Enhancing information systems, crisis management and prevention. The AF project will build on and complement these activities.
Adapting Agriculture to Desertification (AAD)	FAO	Technically ended, closure December 2019. **CRR (North), URR (North). NBR**	Similar to GEF project on CB-sustainable forest management. Includes policy frameworks for NRM; capacity development of village-based committees. Diversification of NTFPs: beekeeping, fruits and nuts, palm fronds for crafts and furniture, woodlots. Train communities to build mud stoves, introduced improved stoves through WFP SF programme. NTFP diversification will not overlap with the AF's VC focus on climate-resilient and neglected crops. The AF project will build on positive examples of efficient stoves for SF – although AF would support renewable energy for SF.
Community-based Sustainable Dryland Forest Management	FAO / GEF / Dept. of Forestry	5 years, ends 2021 **NBR. URR, CRR, LRR**	Builds on AAD, in NBR. URR, CRR, LRR. Has range of activities, including afforestation, site-suitable agroforestry techniques implemented across 500 ha. The AF project will explore opportunities to collaborate and share lessons on agroforestry activities, and will not target the same localities.
Jobs, skills and finance (JSF) for youth and women in TG	EU support to **UNCDF**	June 2018 – May 2022 **NBR, LRR, CRR**	Euro 15 m. JSF aims to tackle root causes of migration. Will support climate-resilient infrastructure, through CFW, using UNCDF's Local Climate Adaptive Living (LoCAL) planning/finance channelling approach. Includes performance-based climate resilience grants to wards, as a top-up for green investments. Contracted Senegalese organisation to collect CC data and

			train wards on this. Will partner with ITC to provide training linked to 6 climate-resilient thematic areas. The AF will include the JSF local planning approach in its stocktaking of sub-national level planning, and will explore further synergies, but will not work in the same localities.

G. Learning and knowledge management

The GoTG is cognisant of the opportunity that this AF project presents to test, and to begin to develop, evidence-based and systematic approaches for coordination and enhanced implementation of climate change responses. These include (i) using the required community-based planning process (needed to identify priority resilience building and adaptation activities) to build longer-term systems, by piloting Local Climate Change Action Plans (LCCAPs) that will ultimately link communities to funding from the Gambia Climate Change Fund; and (ii) developing a systematic approach to climate change capacity development at the sub-national levels, as set out under Outcome 1.3, to contribute to the envisaged (in the SPCR) Long-term CC Capacity Development Strategy. Far from detracting from the implementation of concrete adaptation activities, these more systemic elements are of critical importance for the sustainability of the project. Thus it will be necessary to carefully document and disseminate valuable lessons learned, as well as systematic approaches developed.

The project will also need to carefully document the development and testing of the weather-index based micro insurance, as this will be the first time this is implemented with smallholder farmers in the country. Given the focus on equitable benefits for women and youth, the project will also prioritise learning related to integrating gender and youth, applying a gender-transformative approach to fostering climate resilience, and achieving gender equality results for climate resilience / adaptation.

To promote systematic learning and dissemination of this, the project will develop a knowledge management (KM) strategy under Component 1, which will set out how the innovative approaches and activities of the project will be documented and shared, with associated policy advocacy activities undertaken by the MoECCNAR. The KM strategy will include appropriate knowledge products to be developed out of the studies to be conducted under Component 1, namely the climate change impact analysis for specific crops grown in the project target areas, and the Climate Change and Food Security Vulnerability Analysis for the project target areas; as well as the climate-resilient and nutritious value chain study. These knowledge products will be used to sensitise communities for more informed community-based planning, and will be disseminated for customisation and use beyond the target areas. A thread running through the project is the emphasis on an evidence-based approach; this too will be documented to share the benefits of adopting such an approach more broadly.

H. Consultative process

A first round of community consultations was carried out towards the end of May, to assess vulnerability to climate change and needs, to inform the Concept Note. The project team visited communities in the districts of LRR, URR, NBR and CRR on two separate field trips encompassing a total of seven days in June. The consultations included communities from each of the three ethnic groups of Gambia, with representation from men (167) and women (162). For consistency, each community received the same set of questions, centring around their livelihoods, perceptions of climate change, roles and responsibilities of community members, and adaptation needs.

Main crops include rice (when still feasible), groundnuts, millet, and some maize. Women mainly grow rice, while other crops are the responsibility of men. In all communities, women grow vegetable gardens, and some members have small livestock (goats and poultry). Other livelihoods include remittances and other jobs outside the community. All communities use firewood as fuel for domestic purposes, mainly collected by women, who also collect the water.

Communities observed the following climatic changes: erratic rainfall, reduced precipitation, reduced length of rainy season, more frequent and longer dry spells, increased frequency and intensity of floods, increased temperature, increased frequency of strong winds, salt intrusion into River Gambia. Other changes include deforestation caused by community use for fuelwood and private logging companies, forest fires, decreased soil fertility due to wind and water erosion, and reduced grazing.

Climate change is heavily affecting the food security of these communities. Low and erratic rainfall results in reduced crop yields and crop failures. Rice cultivation is becoming more difficult due to climate change: Kundam Mafatty (in URR) community members report that rice production is no longer possible on their land, which impacts negatively on women as the primary growers of paddy rice. Problems in LRR centre on salt intrusion in the River Gambia, while in the upper basin (CRR and URR), they centre on changes in rainfall patterns and water availability. A number of communities noted the increase in disease and malnutrition in children, over the past 10-20 years.

Communities report that impacts of climate change are heavier for women, who are responsible for feeding the household. In addition, women face an increased workload due to the reduced availability of water and fuelwood. Youth are impacted through climate-related productivity changes, as they (primarily male youth) are asked to go to the Greater Banjul Area or migrate out of the country, to try to find jobs and send remittances. Children suffer as families do not have expendable income to fund their higher education. A common coping strategy in all communities is cultivating vegetable gardens, which is water-intensive. All communities report livestock damage in gardens due to inadequate fencing. Some now grow millet instead of rice; or do fishing or carpentry (although the demand is low). Other coping strategies include reduced food consumption, school dropout and migration, including illegal migration. Some communities also issue licenses to logging firms to cut down trees in the community forests, for extra cash in times of need. All communities have access to climate and weather information through the radio (outcome of the EW project) and find it useful to plan their productive activities. None of the communities has access to insurance or microfinance; women participate in traditional village savings groups. Needs identified by communities include: improved fencing for vegetable gardens; improved access to water; training for improved/resilient agricultural practices; provision of seeds and other inputs; in CRR, support to rehabilitate dykes and canals to regulate water in rice fields; support and training for processing food, food storage and access to markets; and reforestation. Representatives of vulnerable groups such as the elderly highlighted the need for support to set up small businesses, for those that cannot practice agriculture.

National-level stakeholder consultations in the Greater Banjul Area were carried out over 10 days in June 2019. The project team met with different ministries of the GoTG, including the Ministry of Agriculture (MoA), National Disaster Management Authority (NDMA), National Environment Agency (NEA), Ministry of Local Government and Lands (MoLGL); key national institutions like the National Women's Bureau and the National Youth Council; producer's organisations (National Women Farmers Association); NGOs (United Purpose, TANGO, Gambia Red Cross); development partners e.g. EUD and UNDP; and private sector (Renewable Energy Association of The Gambia).

Key issues that arose during the stakeholder consultations were (i) the critical need to support concrete resilience building and adaptation in the rural areas; (ii) strong support for the modality of to address degradation of the productive resource base through activities such as erosion control and soil and water conservation; (iii) strong stress on the fact that all of the rural areas in The Gambia are highly vulnerable to climate change and already feeling its effects; nevertheless, URR and CRR would be appropriate regions to target; (iv) the need to do more work on systematic sensitisation and capacity development on climate change risks, planning and responses at the sub-national level; (v) support to value chain development and marketing is critical, as this has often been left out of projects or only minimally supported and not evidence based; (vi) build on what is already on the ground, to avoid duplication and waste of effort, and focus on women and youth as well; (vii) many projects implemented through different donor funding have not been sustainable; it is critically important to focus on a limited number of localities for impact, and to

develop a strong exit strategy; (viii) projects should seek to build GoTG systems, rather than implementing a parallel reality.

Please see **Annex 1** for a list of national stakeholders contacted, **Annex 2** for attendance at the national validation workshop, **Annex 3** for key issues raised by these stakeholders, and **Annex 4** for a detailed report on the community consultations.

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

Component 1

Baseline scenario:

A critical constraint to developing effective and sustainable adaptation measures to address the current and future climate risks and impacts in the Gambian rural areas is the lack of a strong evidence base upon which to base these. This is leading to the design and implementation of adaptation projects that may not be effective at all, or may even contribute to maladaptation. An example of this is the promotion of crops that are stated to be climate resilient, when these crops have not been assessed through an impact assessment to determine whether they will in fact be appropriate adaptation options with respect to the changing climate, even in the short- to medium-term. Many projects are promoting rice growing in the rural areas of the country, which is understandable given that this is the country's main crop and a culturally-preferred meal. However, the performance of rice in specific localities under changing conditions is not well understood: as the UNFCCC Focal Point has stated, there has been no comprehensive climate vulnerability analysis (VA) in the country for more than 20 years.

Compounding the lack of a solid evidence base for adaptation is the enduring lack of understanding on the part of communities and their service providers of climate change risks and impacts and how these will affect their specific livelihoods and localities. This means that communities cannot make well-informed decisions when they enter into the planning process that each project initiates, and thus often are steered into certain areas of response by the project. This undermines both effectiveness and community ownership of the process. Further, many stakeholders noted the multiplicity of climate change initiatives that all approach capacity development and planning for climate change at the sub-national level in a sectoral and often *ad hoc* manner, and in many cases do not engage with, let alone try to develop, the existing and nascent planning systems for community development and climate investment at the sub-national level. All of the above results in a situation in which available funds for adaptation are not used effectively, and may even lead to maladaptation, and thus increased vulnerability for target populations.

Additionality:

The studies proposed under Component 1 of the AF project will result in an enhanced understanding of specific and disaggregated climate change risks, localised to the environments and livelihoods of the project target areas. The GoTG, local communities and service providers will have much better evidence of what the climate change impacts will be on the crops grown in the target areas in the near-, medium- and long-term, and thus will be able to integrate this knowledge into the design of concrete resilience building and adaptation measures to be implemented under Component 2. These measures can then be expected to be more effective in the localities.

The knowledge generated under Outcome 1.1 will be used to sensitise the target populations in the project areas on the projected impacts of climate change on their areas and livelihoods. There will be a focus on the climate change, food security and nutrition nexus, focusing particularly on pathways for women and youth to be change agents. This will link to the national platforms for dialogue under Output 1.2.2, as well as to the activities under Component 3 on further empowering women and youth through incentives to be climate change champions in their areas. This approach of deepening

the awareness raising so that it has greater impact, through developing change agents and champions, will be one of the (several) mechanisms to support sustainable development of adaptive capacity employed by the project. Furthermore, the project will develop a systematic approach to climate change capacity development at the sub-national levels, which will be employed during the necessary community-based planning process to identify the prioritised resilience and adaptation measures under Component 2. Thus the project activities will lay the ground for enhanced and more effective adaptation in the project localities, that will also have greater outreach through dissemination of the guidelines developed for systematic sub-national level capacity development.

Component 2

Baseline scenario:

Currently, the majority of rural households in the project target areas do not generate enough produce or income from farming activities to meet annual needs, particularly during the wet season when the previous seasons' produce has been consumed. These rural communities therefore rely heavily on ecosystem goods and services derived from woodlands, savannas, wetlands, mangroves and rivers to supplement their livelihoods. These ecosystem goods and services themselves are being negatively impacted by climate change, currently largely due to drying effects that result from increased temperature, more heatwaves, and reduced and/or erratic rainfall. The resultant overall reduction in ecosystem goods and services is reducing rural Gambian's food supply, health, nutritional status, income streams and socio-economic well-being. All of these are important components of adaptive capacity. In the absence of resilience building and adaptation measures, rural households and communities will continue in a downward spiral of increasing vulnerability to climate change, and decreasing adaptive capacity, which is already having negative effects on the social cohesion and poverty levels in the rural areas, and exacerbating migration to the urban areas or out of the country.

Additionality:

Through the evidence-based and well-planned resilience building and adaptation measures that the AF project will implement, climate-related risks facing poor smallholders will be reduced. The productive assets developed under Component 2, such as erosion control and water harvesting structures, will improve the natural resource base upon which their livelihoods depend, and increase their capacity to resist weather shocks such as drought and flooding, as well as longer-term changes such as increased average temperatures and increasingly erratic rainfall. The resilience building activities will unlock improved resource management, and be accompanied by capacity development and technical packages for sustainable and climate-resilient agricultural practices. As production is enhanced and diversified, the project will support the development of climate-resilient value chains, including support to reduce post-harvest losses (PHL), to enhance processing, and to increase access to markets. This will result in more diversified and nutritious diets, as well as diversified livelihoods, a key strategy for adaptation, as well as increased income streams for smallholder farmers.

The capacity development on sustainable land and water management practices and climate-resilient sustainable agricultural technologies that will accompany the resilience building measures will help to ensure that adaptation benefits are ongoing beyond the period of support. The value chain support and market creation, linked *inter alia* to home-grown school feeding, will assist smallholder farmers, of whom at least 50 percent are expected to be women, to move up the value chain producing, storing and selling diversified food at market prices to reliable buyers. This will allow for ongoing and sustainable increased income streams, which will allow households and community groups to continue to fund their own adaptation activities beyond the end of the project.

Component 3

Baseline scenario:

There is currently no weather index based insurance programme for smallholder farmers in The Gambia. In the context of increasingly frequent droughts, smallholder farmers' risks for total crop failure are increasing, resulting in them having to sell productive assets to cope. Such negative coping strategies are leading to loss of land in some cases. The increasingly desperate situation in the rural areas, in which the productivity of smallholder agriculture is declining due to climatic changes and the lack of adaptation support, is also fuelling migration into the urban areas, especially of youth, who then may also try to leave the country on irregular migration routes. This is leading to a breakdown in the social cohesion of the rural areas, and a loss of labour and human capacity to re-energise rural economies. Access to affordable credit for agriculture-related activities continues to be a challenge for the rural community, and for women in particular. This means that even those people who are remaining in rural areas are not able to access credit to fund their own adaptation activities. Even if they have been supported by a climate change project, as soon as the project ends, they fall back on negative coping strategies. Furthermore, there are few incentives to energise and encourage rural youth and women to excel as resilient rural entrepreneurs, and continue investing in their areas and serving as champions and change agents for climate response options.

Additionality:

With support from the AF, risk transfer will be enabled through piloting weather index insurance in the targeted project areas, with the poorest farmers paying for crop insurance by means of their labour (i.e. using insurance as a transfer modality, instead of or in addition to cash-based transfers). Rapid compensation for weather-related losses will build resilience, as farmers can avoid selling productive assets and recover faster from droughts. Furthermore, helping farmers to access micro credit and savings, as will be done under Component 3, allows for ongoing and sustainable livelihood diversification, as an adaptation strategy, and helps farmers to build up their risk reserves. Increasing savings and access to micro finance means that poor smallholder farmers will be empowered to invest in their own chosen actions for post-harvest storage and processing, and thus be able to move up the value chain. Thus, vulnerable farming households will continue to develop their income generating activities and livelihoods diversification, thus building their adaptive capacity and enabling ongoing adaptation actions on their part. Incentives will be developed to energise rural youth and women to become champions for climate resilient rural entrepreneurship, through e.g. competitions that fund them to take part in applied training and increase their profiles and skills. Criteria will be applied in the judging of competitions that encourage the winners to remain as entrepreneurs in their rural localities, thus serving as beacons of hope for the general community.

J. Sustainability

Many past climate change-related projects in The Gambia have not had sustainable results, due *inter alia* to the multitude of approaches towards awareness raising and capacity development on climate risks and responses adopted by projects, as well as the *ad hoc* and superficial nature of many of these interventions. This has resulted in a lack of clear understanding on the part of communities and individuals of exactly why certain project interventions are being carried out and not others, which has had serious consequences for sustainability of projects. The proposed project will adopt a number of strategies to prevent repeating these mistakes, including the following:

- Focusing on one or (a maximum of) two regions, where a structured and sustained approach over 5 years can be maintained, will ensure sustainability and change after the projects life cycle;
- *Using the required community-based planning process (needed to identify priority resilience building and adaptation activities) to build longer-term systems*: the community-based planning process of the AF project will be designed to pilot the gender-integrated Local Climate Change Action Plans (LCCAPs) foreseen in the SPCR; these will be the ultimate mechanisms to link local communities and institutions to at least 50 percent of the funding in the Gambia Climate Change

Fund (GCCF), when this becomes operational (targeted for 2020). Thus communities in the targeted areas will be well placed to be early beneficiaries of funding channelled through the GCCF, enabling ongoing financing for their adaptation activities;

- *Developing a systematic approach to climate change capacity development at the sub-national levels*, as set out under Outcome 1.3. This will contribute to the envisaged (in the SPCR) Long-term CC Capacity Development Strategy. Thus project activities will not only lay the ground for enhanced and more effective adaptation in the project localities, that will also have greater outreach through dissemination of the guidelines developed for systematic sub-national level capacity development on climate change;
- *Supporting gender-sensitive private sector involvement for sustainability*: Project components that target the private sector for sustainability include sub-component 2.3 on value chain development, and sub-component 3.2 on index-based weather insurance. The project will also work to support entrepreneurship for women and youth. Discussions have been held with REAGAM, and will be held further with GCCI, to identify what the range of private sector involvement could be. During detailed design, the team will hold discussions with the PPP Unit in the Ministry of Finance, which is interested in expanding out into the regions, to identify possible activities.

A key constraint to sustainable project results, which was raised by several stakeholders, is the attitude of communities. Experienced project managers noted that despite sensitisation, communities in some instances do not maintain even the simplest aspects of project investment. Many factors have led to this situation, including political factions and divisiveness, which are arguably worse now than during previous years. Using the above as a starting point, the project will develop a solid exit strategy during full formulation, learning lessons from other projects in this regard as well. This will include how best to advance gender equality for sustained results and climate resilience.

K. Environmental and social impacts and risks

The entire project was put through a preliminary screening for environmental and social risks against the 15 principles outlined in the AF's Environmental and Social Policy, as set out in the table below. The project is not expected to generate any significant environmental/social impacts or risks. Component 1 of the project entails the creation of knowledge on targeted aspects to ensure climate resilience of project activities. This knowledge will be integrated into activities of Component 2, to provide a solid basis for asset creation and climate-resilient value chain development. Concrete assets to be developed under Component 2 will be prioritised through community-based planning during project implementation. Component 3 activities will ensure sustainability of the Component 2 activities, by incentivising climate champions and developing risk transfer mechanisms – these activities are intrinsically risk-averse with respect to social and environmental impacts.

Because of the unidentified sub-activities of Component 2, the project is categorized to be "medium risk", or category B. A full screening of environmental and social risks will be conducted during full project preparation. An Environmental and Social Management Plan (ESMP) and Grievance Mechanism will be included in the full project proposal, as required by the AF and by WFP procedures. The ESMP will track identified risks, or any new risks, ensuring they are properly monitored, evaluated, reported on, and addressed. A gender assessment will be carried out to fine-tune the activities so that they promote gender equality and women's resilience to climate change.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance

Compliance with the Law	**X**	**Low/no risk**: Relevant national, regional and district authorities have been/will continue to be consulted during the proposal development process to ensure compliance with all relevant laws.
Access and Equity		**Low/no risk:** Through in-depth consultations with communities and stakeholders throughout proposal development process and project implementation, this project will ensure that no activity will interfere with access to basic services or exacerbate existing inequities. This project will promote the equitable access to activities and assets by women and youth in project areas.
Marginalized and Vulnerable Groups		**Low/no risk**: Marginalized and vulnerable groups – including women, youth, the elderly and disabled - will be consulted during proposal development to ensure that their identified threats, priorities and mitigation measures are reflected. This project will empower vulnerable groups to make decisions on concrete adaptation actions, valuing their traditional and local knowledge.
Human Rights	**X**	**Low/no risk**: This project affirms the rights of all people and does not violate any pillar of human rights.
Gender Equity and Women's Empowerment		**Low risk:** The project will fully mainstream gender, and will ensure that women and female youth benefit fully from project activities such as concrete asset building and climate-resilient value chain development. A gender assessment will be conducted during full project formulation to deepen the strategy and fine-tune activities.
Core Labour Rights	**X**	**Low/no risk:** The project will ensure respect for international and national labour laws and codes, as stated in WFP's policies.
Indigenous Peoples	**X**	**Low/no risk:** The project will ensure that all ethnic groups benefit equitably from activities.
Involuntary Resettlement	**X**	**No risk:** The project will not lead to involuntary resettlement
Protection of Natural Habitats		**Low/no risk**: By implementing ecosystem-based adaptation activities such as SLM and agroforestry, the project will ensure the protection of natural habitats. In addition, consultations with government stakeholders and communities will ensure that conversion or degradation of critical natural habitats (including those that are legally protected, officially proposed for protection, recognized for their high conservation value, or recognized as protected by traditional or indigenous local communities) is avoided. Component 2: perform social and environmental screening of activities.
Conservation of Biological Diversity		**Low to moderate risk**: Agroforestry and promotion of new crop varieties could lead to a deterioration of biological diversity if species are not correctly selected (e.g. inadvertent introduction of invasive species) and diversified. To ensure this risk is addressed, the project will prioritize local species and multi-species planting and avoid the use of non-native and invasive species. These activities will be designed in close collaboration with NEA and NARI. Component 2: perform social and environmental screening of activities.
Climate Change		**Low risk**: The project will not generate any significant emissions of greenhouse gases. Many project activities will be designed to be low-emissions, as well as adaptive – e.g. the promotion of renewable energy technologies in value chains, and increase in vegetative cover during SLM asset building. As the project area is highly vulnerable to the impacts of climate change, all project components and activities will be designed to contribute to increasing local capacities to sustainably face climate change in the long-term and climate variability in the short and medium terms.
Pollution Prevention and Resource Efficiency	**X**	**No risk**: The project will not release pollutants. Energy efficiency, minimization of material resource use, and minimization of the production of wastes will be embedded in project design.
Public Health		**Low/no risk**: The project will not have any detrimental effect on public health. It is designed to be nutrition sensitive, and thus will contribute to tackling the underlying causes of malnutrition through increasing agricultural production and processing, promoting sustainable natural resource management and supporting nutritious value chains. Particular attention will be given to activities related to water harvesting and storage, so that these do not result in an increase in vector-borne disease. Communities will be sensitized on using and storing water in a safe and efficient way.
Physical and Cultural Heritage		**Low/no risk**: The project will seek to understand the role of traditional and local knowledge and how it can be blended with scientific information for climate resilience. The community-based planning will highlight this, and the KM component will document this. Consultations and engagement with stakeholders and communities during implementation will ensure that any physical cultural heritage present on project sites is identified and potential negative impacts are avoided through project design.

Lands and Soil Conservation		**Low/no risk**: Project activities will not pose risks to land and soil conservation, but rather will be specifically designed to address land degradation and promote sustainable land management and erosion control. Afforestation activities will additionally support protection and enhancement of lands and soil. Component 2: perform social and environmental screening of activities.

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

A. Record of endorsement on behalf of the government[70] *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:*

(Enter Name, Position, Ministry)	Date*: (Month, day, year)*

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 (……list here…..) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy 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.	
Name & Signature Implementing Entity Coordinator	
Date: *(Month, Day, Year)*	Tel. and email:
Project Contact Person:	
Tel. And Email:	

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

Annex 1 List of stakeholders consulted (national level)

Institution	Name	Position
Development Partners		
FAO	Haddy Lamin Njie	Head of programme
	Lamin Fatajo	Project Manager
	Abdoulie Danso	Project Coordinator- AAB
UNDP	Fatoumatta Sanyang	Programme Analyst
	Dr Almammy Camara	Programme Specialist
European Union	Darrell Sexstone	
UNCDF	Rebecca Simms	Programme Manager
WB	Penny Williams	Senior Social Protection Specialist
UNOPS	Buba Camara	Project Assistant
ITC	Raimond Moser	Project Manager-YEP
Government		
Minstry of Agriculture	Ndey Fatou Trawally	Deputy permanent Secretary
	Seedy M Demba	Senior Planner- PSU
	Bakary Sillah	Principal Planner- PSU
	Famara LJ Kolley	Principal Data Analyst- PSU
	Jerro Maane	Director- PSU
	Sabina K Mendy	Senior Planner- PSU
Ministry of Environment	Lamin Jammeh	Climate Change Officer
	Alpha Jallow	UNFCC Focal Point- Climate Convention
	Malang Jaiteh	Technical Advisor- Forest science, GIS
	Salman Jobe	Director Central Project Coordinator
	Bubacarr Z Jallow	Principal Climate Change Officer
National Women Farmers Association	Njaga Jawo	Executive Director
	Fatou Samba	Programme Manager
	Demba FJ Jallow	Capacity Development
NEMA/CHOSSO Project	Ensa Colley	Monitoring and Evaluation Officer
	Bakary Jammeh	Climate Change Assistant
National Disaster Management Agency	Sanna Dahaba	Executive Director
	Sering Modou Joof	Deputy Executive Director
	Lamin Mass	Director of Administration
Central Project Coordinating Unit- Ministry of Agriculture	Sarjo Marenah	Finance Officer
	Abdoulie Touray	OIC
	Molpha Sanyang	Procurement officer
	Ebrima Sallah	
	Dr Famara Bulli Sanyang	AVCDP
Department of Community Development	Tamba Jassey	
	Gibbi Bah	Senior Community Development Officer
	Sunkary Badjie	Head- Research Unit
	Mama Janneh Sawaneh	Head- Women Programme Officer
	Ebrima Sawaneh	Director of Community Deveopment
Ecosystem Based Adaptation Project	Bubu Pateh Jallow	Technical Adviser
Early Warning Phase 2 Project	Ousman Jarjusey	Project Coordinator
Women's Bureau	Bintou Gassama	Executive Director
NGO/Civil Society and Research Institutes		
The Gambia Red Cross Society	Buba Darboe	Disaster Management Coordinator
	Ablie Faye	Programme Manager
	Isatou Joof	Deputy Disaster Coordinator
	Tombong Gibba	Finance Officer
National Agricultural Research Institute	Lamin B Sonko	Programme Director
	Jalamang Camara	Programme Officer
	Adama Jawo	Research Officer
	Demba NA Trawally (PhD)	Director Research
	Mattew Gomez	DD
	Ousainou Drammeh	Senior Research Officer
	Ousman M Jarju	
United Purpose	Manfred Bojang	Resilience Officer
	Bura Danjo	Project Team Leader
National Youth Conucil	Lamin Darboe	Executive Secretary
	Kawsu Sillah	Programme Officer
	Zackline Mendy	Finance Officer
National Environment Agency	Dodou Trawally	Project Dorector- ACCC
	Momodou Jama Suwareh	Executive Director
The Association of Non-Governmental Organisation	Ousman Yarbo	Executive Director
Private sector		
Renewable Energy Association of the Gambia	Chris Dean	Executive Secretary
	Renold Carrol	Chariman

Annex 2: Attendance list for Validation Workshop held on 23 July 2019.

Institution	Name	Position
MoECCNAR	Bubacar Jallow	Principal Climate Change Officer
MoECCNAR	Malanding Jaiteh (PhD)	Technical Advisor
MoECCNAR	Lamin Jammeh	Climate Change Officer
UNFPA	Alieu Sarr	Assistant Representative
DWR-UNFCCC Focal Point	Alpha Jallow	MEL Officer
WFP	Wanja Kaaria	Country Director
WFP	Margie Rehm	Deputy Country Director
WFP	Njogou Jeng	Assistant Programme Officer
WFP	Adam McVie	Programme Officer

Annex 3: Key issues raised by national-level stakeholders

Organisations	Topics discussed
Government partners	
MoECCNAR and AF NDA (who is located within DWR):	MoECCNAR noted the 4 concept notes of the SPCR, which is the 25-year strategy. Given WFP mandate, CN 4 on rural resilience is relevant. MOE will complete additional vulnerability studies by Nov 19, opportunity for AF to use as baseline, midterm, and evaluation. MoE provided overview of other existing/ planned initiatives, stressing need to avoid duplication. It was clarified that given WFP mandate and technical expertise, activities should address impacts of CC on livelihoods, food security and nutrition. Activities discussed included: (i) water harvesting; (ii) storage/cold storage, to diversify incomes - a clear climate rationale is needed to justify this investment; (iii) Ecosystem restoration camps; (iv) access to market; (v) an integrated risk management approach, including micro-insurance. While project activities should reduce CC-related risks, it is also important to protect farmers from inevitable climate related shocks. WFP explained how this approach is used in Senegal/elsewhere. Ideas from MoECCNAR: Ecotourism; Ecosystem restoration camps ERC (2 of these failed completion), Land recovery, Water harvesting – and returning to former capacity, Water supply (need water table analysis), Energy (similar recommendations found in other docs for Sahel), Development of value chain and completing the cycle (efficiency), Canal dredging, Post-harvest storage (cold storage and cereal siloes, Climate Change training, School access to markets and general marketing, Need to diversify food base. Some of these activities would be hard to classify as adaptation and would not fit under AF umbrella.
MoECCNAR (2 additional meetings):	Coordination and climate finance: The number of fragmented CC initiatives remains challenging. Challenges implementing National CC Policy; the CC Secretariat has requested budget for 8 additional staff for next year, will helpf for coordination. There have been challenges accessing funding for SPCR implementation. Discussions with MoF on Gambia CC Fund are ongoing' should be operational in 2020. Proposed that 0.5 percent of environment sector's budget goes into GCCF. Institutional issues: The National CC Council was established 4 weeks ago and held first meeting; Regional CC Focal Points are in place and will be trained to help communities develop bankable projects. NEA already has regional officers and TAC members; need closer relationship with UNFCCC focal point; CC focal points (Directorates of Planning) in line ministries had first meeting last week. First Biennial Report to UNFCCC not started. Nema-Chosso has supported MoECCNAR for some of these meetings. Problems with implementation of some projects e.g. the EbA had a 10 percent success rate in the trees planted in 2018. Critical areas to support for resilience are agroforestry and water harvesting and storage. Capacity development at the sub-national level would be appropriate for the AF to fund, starting with a capacity assessment – stocktaking of training done and an impact assessment of its effectiveness. A gap analysis is needed of all CC-related projects (outcomes/area/objectives). CC vulnerability assessments in 2019 are on health, agriculture (national level), and possible rural livelihoods. Enhancing production sustainably is critical for resilience and adaptation, need to think about commercialisation as well. Inventory of all CC projects (e.g. from MoA) with lessons learned is needed. Climate resilient infrastructure standards good, look at regional standards. Other projects: EWS Phase II; EbA; IFAD; FAO; Agriculture NAP done; not sure if a Health NAP is being developed.
National Disaster Management Authority (NDMA):	Good partnership with WFP. Revising DM Policy to include Sendai focus. Additional efforts needed to mainstream DRR in sectors. Village and district contingency plans in place, lack of capital funds to implement. Erosion of topsoil a key problem, leads to low yields, communities have identified tree planting (provide seedlings) to remedy. New hazards: noted increased gully formation – seems to be accelerating across the country, villages where gully has swallowed road, children play in gullies, leads to loss of life, animals being washed away. Three villages in CRR South, also in URR North and South. Study needed to understand situation, may be starting in Casamance highlands in some cases (NBR?). Discussed impacts of Sambangalo Dam construction – Kabakama Stream in URR, comes from Fouta Jalong highlands to Basse – flooding, so now have different market localities for dry/wet season. Draft report on 19 flood prone hotspots (up from 14); feasibility study needed on how to address, don't have funds for this. Most flooding due to human activities e.g. in 2016, no flooding in KM as cleansing had been good, but bad flooding in 2017. Agree with focus on

concrete adaptation measures; NBR needs tree planting as affected by desertification.
Department of Community Development, MoLGL: Climate change is greatly felt at community level. Major capacity gaps exist, despite various project interventions, including at all levels in DCD, other institutions, communities. For the latter, need to target TACs, MDFT, WDCs and VDCs – lack of understanding of climate-related issues and effects, must integrate into local plans. DCD is starting to prepare models and handbooks, to guide holistic planning, including climate-resilient development planning and implementation, needs help to improve. Need a framework that all planning processes should follow. DCD staff skilled, but community engagement skills need updating with respect to different groups, e.g. youth, women, the disabled. Programmes like CBT at community level needed. At regional level, all sectors go through Regional Council, which is supposed to mobilise funding for their area; all get support through TAC. Other technical units can be created, e.g. need climate at regional level. Ongoing coaching and mentoring is required. Local planning: currently sectors deal with communities any way they want. Community action plans are only usually used with a project and can be sector-driven (orientation and training). Need to engage communities as holistically as possible. In URR and LRR, DCD working with UNICEF and UNDP programmatically to map WDCs and VDCs, which are the crucial entry points. Formulating Community Development Policy and MDFT policy on community engagement. Need institutionalisation – structures linked to VDCs for climate action. DCD at national level not involved in EW Phase II, but sometimes 'co-opt' staff on the ground. Project trainings can have limited impact.
Women's Bureau: New ED has been involved in DRR and CCA and feels all of these activities benefit women who are most vulnerable. Target areas: Agrees with possible focus for AF on CRR and URR, as both severely impacted by CC, and CRR North is poorest region in TG. Need to carry out community assessments to see what people really need, and guide them to understand the options, or they will just say 'oh we need infrastructure' etc. Needs: Capacity building so climate-resilient agriculture is crucial; people don't fully understand CC risks and effects. Micro insurance is a good idea, as a social safety net, so people can take charge of their own coping mechanisms. Reducing PHL and marketing support are big needs. Renewable energy as firewood and charcoal a problem; build women's capacity for solar installation. Structures: National Women's Council in every district, can play a role for sensitisation for CC. WB currently validating study for Cooperative for National Vegetable Growers and Marketers; half of vegetables spoiled/sold at low price as no storage. Establishing an Enterprise Development Fund for Women, active by December 2019; micro loans: all ways to provide social safety nets for women.
National Environment Agency (NEA), MoECCNAR: NEA has much experience managing CC-related projects: ACCC (coastal zone focus, closed in 2012); PARCC (protected areas); the GCCA (EU-funded, ICZM component), with the GCCA+ soon to be launched. The UNDP/GEF RVCC included livelihoods activities: vegetable gardens, beekeeping, fish farms. Noted that follow-up to many projects is not very good – e.g. studies conducted under projects are not used for the intended purposes. Most past NEA coordinators are still in the Agency. Increased gully formation in TG. Also, people settled in dry years on watercourses; now flooding is happening. Former RVCC coordinator noted that during community consultations, many chose vegetable gardens, fisheries, protecting rice fields from salt intrusion through dykes and flood gates. NARI developed salt tolerant rice. NEA supported three rice areas with saline intrusion: Tendaba, Ilyasa, Dasilami; interventions partially successful. Recommendation to AF to work with what is on the ground/established groups. Working with NARI is a way to build the govt. system. A key constraint to sustainable results is community attitudes: despite much sensitisation, they do not maintain even easy aspects e.g. fences (easy to fix), or pumps (fix for under D1,000); 3 fibreglass boats given to fishermen at Tendaba are now 'gone'; deep freezers supplied, but community will not replace battery.
MoA Deputy PS: Other projects: Nema Chosso will end mid-2019; CSA under Nema; AVCD = Agriculture Value Chain Development Project – MoA implementing in Basse. Important to meet MoA CPCU & Planning.
MoA Planning Services Unit: Former mandate of independent M&E of agricultural projects was removed - needs to be re-instituted, to address common shortcomings of projects. E.g. many vegetable gardens are white elephants, lack adequate water/fences, and/or women were not properly organised. Projects often don't go through correct supervisory unit. Infrastructure: capacity to construct contour bunds and dykes to prevent salt water intrusion is very limited (only one good contractor). Apart from having good specifications and transparent Bills of Quantity, there is also the issue of corruption in awarding of contracts. Insufficient effort is placed on understanding the value chain properly, correct storage facilities are not developed. Thus there are market gluts with resultant low prices (true for vegetables and rice). Support for processing is needed. Good examples e.g. women contract farmers / Mango Outgrowers programme to Radville Farms, which is the largest exporter of crops from TG (mango, chillies, beans, baby corn). Key gaps / constraints are farmers adherence to good agricultural practices, low levels of extension services, cost-effective storage options. Sahelisation: NBR is the most affected region. Used to be the groundnut basin, which led to cutting down many trees. Mangroves in NBR need to be enriched. Noted a World Bank USD40 million project in the pipeline, targeting rice in CRR. The WFP SF project was an excellent example of market access, to be replicated, and used to encourage year-round production. IGA: PiWAMP promoted woodlots; beekeeping good as leads to people planting more trees.
MoA Central Project Coordinating Unit (CPCU): The CPCU has 6 active projects (different funding) including GCAFSP, FASDEP, IDB project on ruminants, Agriculture Value Chain (AVC). The CPCU promised to send a matrix of all of the projects with objectives, etc. Noted that neglected varieties such as findi are very good for resilience building for farmers; plus use of climate-smart drip irrigation. Key needs for farmers are storage, processing, and marketing. Rice: desilting of canals and maintenance of irrigation structures done, and training of WUAs. However, recent flash flooding in CRR N and S mean farmers only had half a crop in wet season. Dryland rice grown mainly in URR. GCAFSP support mango value chain, machinery that ran off groundnut oil.
Development partners and projects

WFP: Developing standards for climate-resilient infrastructure is necessary. Short cycle, drought-resistant and neglected indigenous crop varieties e.g. findi (ancient form of millet) are key. PHL are between 50 and 80 percent so must be tackled for resilience. Technologies for reducing workload of PLW necessary. Conflict over resources increasing due to scarce land, erosion, windstorms etc, resulting in sharply decreased productivity. Rising prices.
School feeding: WFP focus on policy environment, agreed exit strategy and capacity development for GoTG. Move to HGSF, GoTG taken over 2 regions. CBT effective at the secondary school level. Food basket includes 9 items: maize/millet, groundnuts, beans, rice, oil, local beans, dark green leaves, dry/fresh fish, iodised salt. Need to increase production, quality (aflatoxin in ground nuts), processing (labour intensive for rice/maize/millet), regulate market to give opportunities to smallholder farmers (reduce intermediaries). Scope to include sweet potato, fruit, eggs, milk (but not produced in large quantities), cassava, crabs; renewable energy for SF and processing. Innovative options e.g. women in Brufut producing briquettes from burnt nut shells, coconut husk. Fish ponds. Challenges: water (need more irrigation); markets for vegetable gardens; women losing land for gardening in kombos as men sell it to developers. Look at composting organic waste before it goes to dumps. The AF could consider supporting processing of locally blended foods, for supplementary feeding, if climate rationale is there.

Ecosystem-based adaptation (EbA) project and EW Phase II project: EbA project is in LRR, CRR and URR, 125 communities; rehabilitation of degraded agricultural lands and community forests. Learned from 2018 mistake – did not protect trees planted/provide water, many died. EIA being conducted on water harvesting from runoff vs water supply from boreholes. In 2018 had good value chain study done by Prime Africa (South Africa), can share. ICRAF produced very good baseline report (using LIVE tool). EbA not gone into rehabilitation of valleys/gullies, need to address by runoff water harvesting. Report available for community-based planning process on adaptation options in 25 communities (done for 50 so far). Develop CC-integrated community forest plans, working with DCD, DPW, MoF. MoA, NPC, community development structures. **EW Phase II** providing hydro- and meteorological equipment, climate services (incl. seasonal forecasts, can do nowcasting), down to last mile. Now have mobile network coverage across country; community radio – daily weather forecasts in local languages; traditional communicators; provided drums, PA systems, motorbikes to transmit messages. Working in 14 pilot sites, 2 in each region. Established call centre at NDMA. Most equipment provided, might need to augment hydrological (especially for Sambangalo operations) as equipment not sending real time info on river levels. Construction of new Hydrology HQ at Bansang. AWS is UNDP's component. Local plans: EW working with local governments to develop CC-integrated Regional Development Plans, in consultation with villagers. Provide technical and financial assistance for training, including TACs and MDFTs. Prior, only Kuntaur had a LDP. Plans not in terms of LCCAPs called for in NCCP, and no funds for implementing plans. 14 pilot sites for local plans, Nema Chosso will increase the number of pilot sites (?). EW has consultant coming for CC modelling, have provided hardware and software. Exit strategy a key challenge – ability of govt. to take over. Don't think there are any EbA and EW common sites.

World Bank (Social protection): Extending CBT programme they had with Unicef (which was only PLW) to CBT for 3 years targeting vulnerable women/HHs. Simple programme, D1,500 per month and behavioural change. Establishing Social Grants Registry; Roadmap towards a shock-responsive social protection system. Want to do poverty tracking (IDS study). WB and WFP done a lot of cooperative work across Sahel, building resilience of HHs. Want to move to making this climate aware. Looking at conducting HH Vulnerability and Exposure Analysis.

FAO: Currently has 4 CC-related projects, more in pipeline. Important to work together to avoid duplication, and NB comparative advantage. Provided overview of 4 CC projects: (i) AACC project: GEF; strengthening diversified livelihoods, operating in NBR, CRR, URR, includes assessment of vulnerabilities. (ii) GEF agriculture project – working on institutional framework, and enterprise development, for CB-forest management and land degradation. (iii) AAD/EU: NBR, CRR N, URR N. FAO executing, implementation through GoTG, NGOs, CBOs. AAD is similar to GEF project on CB-forest management. Working on policy frameworks for NRM (forests and agric); capacity development of village structures to manage forests. Diversification is required due to inconsistent rains. Looking at NTFPs: beekeeping, fruits and nuts, palm fronds for crafts and furniture. Targets different communities to EbA project. Biochar: not done yet, but practised in Senegal, using mud and grass. FAO provided detail on numerous activities carried out under the joint NAP and NAP-Agriculture process (USD400,000) – see section F in the CN. FAO still trying to catalyse crop insurance; see de-risking farmers as involving cereal banks (and system of warehouse receipting), and climate-proofing livelihoods, especially through vegetable gardening, to increase number of people doing two crops/year. Suggested that AF could introduce rainy season varieties for vegetable gardens. FAO carrying out value chain studies of 10 core areas: fisheries, forestry, crops, etc. FAO is developing further proposals: USD 7 million on integrated land management in support of land degradation for GEF-7, consultant arriving shortly; REDD+ project (approx. USD 1 million); & GCF climate-resilient fisheries (USD 15 m).

UNDP: Described a number of UNDP CC projects. Enhancing Resilience of Coastal Communities (2014) was in response to salt intrusion into productive lands, rice no longer what it was. Implemented vegetable gardens in WCR, LRR, NBR (not in CRR). Rehabilitation of abandoned rice fields, put up dykes (Tendaba) and coastal infrastructure, polders, resulting in big changes at Tendaba. LDCF funded initial stage of beach revetment. The follow-up to the LDCF project is a GCF project to be implemented from Kololi up to Farafenni (infrastructure and livelihoods). Will include fish processing and RE aspects. Avoids overlap with EbA project, which is operating from Farafenni up country. CN approved, but GCF asked for rationale for breakwaters, so additional studies are being carried out in 2019. The GEF SLM and protected areas project will run into 2020, in LRR, NBR.

IFAD – Nema Chosso project: Activities: vegetable gardens, tidal rice irrigation – installed drainage systems and concrete canals. Adaptation actions included mangrove restoration (with DPW); woodlots (DoF); agroforestry (identified 25 farmers, DoF trained and supplied with seedlings; cashew/groundnut, and cashew/cereal crops). Challenges with uptake of

agroforestry relate to the land tenure system – need approval of entire family. Provided water facility (solar pump) for one woodlot (indigenous trees), to improve survival rate. Community Forest Committees were trained to raise own seedlings. Insufficient funds for woodlot activities, which were in high demand. Developed CC-integrated curriculum for rice and vegetables, carried out ToT; and climate games to understand risks/strategies. Water harvesting activities included enhancing existing ponds. Started water harvesting for livestock this year in URR and LRR. In LRR, developed tidal access for rice fields, plus roads for market access. Upland conservation activities included water control contours, and gully plugs/gabions. Major challenges: use of contractors for infrastructure, lack of capacity/equipment led to serious delays, up to 2 years. Had to terminate some contracts. Preferred approach under LADEP, in which MoA/communities did the works. ROOTS currently being designed to consolidate and scale up Nema-Chosso. Agree that incidence of gullies all over country is increasing, related to increasingly intense rainfall, especially early in the season, accelerated by the farming system in which people fell a lot of trees, use mechanised farming, and too many cattle. Noted that in URR the gullies are even worse; census shows more cattle in URR than in any other region. Many big Keno trees (teak) are cut, increasing erosion/sedimentation in rice fields. Organic manure production positive in gardens.

EUD: Provided a link to online Aid Information Platform, developed for donor conference in May 2018. GCCA+: total value is Euro 5m (1m for small grants); tendering for the TA will only be completed end of 2019. EU is funding range of initiatives to support youth empowerment and livelihoods, and tackle root causes of migration, e.g. YEP and JSF. Provided a matrix of projects. Make it in The Gambia also relevant. Total EU funding is around Euro 347 million (10x 2016 levels). A third is through budget support linked to performance indicators (social sector reform, statistics, procurement, transparency). Will explore WRM throughout country, feasibility study in September 2019; thus there could be big water supply project in pipeline. Rural electrification received Euro 80 m from EDF, with money from EIB and WB, this will be over Euro 130 m; will provide electricity to 1,000 schools and health centres. Potential for social conflict: by 2050, population will be 5 million; growing tensions as migration is shut down.

UNOPS: UNOPS is currently implementing rural feeder road project financed by EU (Euro 11 m). Reportedly, climate resilience is not integrated into design of roads, need to check. Digital Master Plan for Port of Banjul and GBA has been launched, 2-year project, funded by the AfDB. Climate projections will be integrated into the Master Plan. The issue of linking this to Concept Note 2 of the SPCR was raised at the recently-held validation workshop.

UNCDF and ITC: JSF project will support flow of funds for CC down to ward level; all funds to be used for climate-resilient infrastructure in 6 thematic areas. The AF team encouraged JSF to ensure their interventions seek to build systems for implementation of NCCP and SPCR. The ITC works with Gambia Standards Bureau, training young Gambians across the board. New technology such as compressed earth blocks which reduce the amount of cement used are part of ECOWAS standards, but not yet Gambian standards. ITC will seek to build skills.

Civil society, research and academia

Gambia Red Cross: Highly field-based organisation, worked with WFP on lean season response. LRR poorest region ito HDI; not high malnutrition but poor access to markets, fewer remittances, could share project baseline. Started resilience building activities in 2011, with women's communal gardens for income generation: 2 in LRR, 2 in NBR, using two-track approach: emergency response and resilience building. Erratic rains have really been felt since 2011/2012 season. First programme involved fencing and hand-dug well, but very labour intensive to draw water, so production did not increase. Learned lessons for second (Spanish funding): 10 rural communities in URR: vegetable gardens, training on composting and food processing, registered as cooperative to link to microfinance. Provided seeds, training, fencing, solar water pumps. Also built health posts and latrines. In 2019, in LRR, including literacy and numeracy classes linked to vegetable gardening, plus solar reticulation and small ruminants (which women prefer). Targeting 15 most vulnerable but still able women, identified by community. School of Husband innovation been well received, training on gender etc. FFW with WFP in 2008/9/10 during refugee crisis, involved environmental protection, rehabilitation of access roads, community woodlots, some communal farming. CBTs in 2015: Twin Track funded by ECHO to address 2014/2015 floods, included training on indigenous foods (MoA and NaNA). In KM and WCR, worked with NDMA to identify risk, vulnerability and develop plan of action especially for flood-prone communities. Implemented community EW/EA project with IFRC: train communities on EW, looked at indigenous forecasting. CFW project with FAO in CRR (over 1,000 beneficiaries), URR (700), NBR (750). In CRR, regenerated large rice field that was seized by Jammeh regime, and same thing in Jino Sawa. No impact assessment, but continuous cultivation achieved. Key constraint with vegetable gardens is damage by cattle. Specific materials provided by MoA Plant Protection Unit. Project includes mixed farming, EW in local languages, livestock management, discouraging chemical fertilisers. Youth issue requires holistic assessment on what will keep them in TG, not just entrepreneurship, plus change in youth mentality.

United Purpose: UP has 3 broad areas: (i) Livelihoods: broad package including agriculture, business, skills training; (ii) resilience: prepare communities for disasters, e.g. drought; do VCAs – vulnerability capacity assessments (iii) Capacity building: work with local NGOs and farmers organisations to implement. Now inject CSA into all agric. activities. Direct support to NDMA and communities to support EW systems and structures. With EFP, implemented CT for 20,000 HHs during 2011/2012 food crisis. Nutritional activities: support backyard gardens (PLW). Support communities to share indigenous seeds, farmer trials show these may be more climate resilient. Evidence: Work by UC student on millet varieties; trial showing organic fertiliser more effective and sustainable - NBR and Senegal. Good idea to include manufacture of organic fertiliser, and promote organic agriculture. USAID through AGRA: indigenous varieties millet and cowpea better, farmers found improved groundnut varieties did better. Green grams not in farming system here. INGO Consortium with Action Aid and CRS: cash transfers (floods) some time ago; and with FAO on ToT for FFS (all regions). Millet: hand pounding removes most nutritious part; procured 30 machines, 5 for each region, can be shared amongst communities. GoTG established National Seed Secretariat 2 years ago, active, responsible for all certified seed. On NEMA, work on

horticulture in relation to market demand. Recently finished VC analysis for horticulture; promoting interactive value chain platform, including producers, transporters, etc. Innovation: market information system, 2,500 farmers linked to call system across country, Eng/Wolof/Mandinka. Needs/challenges: changing farmers attitudes requires ongoing efforts; appropriate machinery; tensions between different partners and in GoTG policy e.g. pushing commercialisation at expense of environmental sustainability. Capacity development on resilience at community level, many programmes and communities don't take ownership. Build capacity of Regional Councils to integrate CC into plans; knowledge gaps at all levels. Plans more geared to financing than changing attitudes.

National Youth Council: Whole country is vulnerable to different elements of CC. Vulnerability in the rural areas linked to farming and mass deforestation, including illegal logging. Youth dynamics: youth want to come to urban areas for secondary school. In the rainy season, they do farming in rural areas, then come to the kombos as there is no reason to stay in rural areas: no jobs or safety nets there. CC does impact heavily on youth, as in his opinion, the majority of the migration is climate-induced: parents don't make a living from farming anymore, so youth are asked to go to the kombos to look for work, once they realise lack of opportunity, they may go abroad. Have established a climate smart garden for youth in Saringai (URR), with Gambia Songhai Initiative (totally organic production), intend to have one per region. Include facilities to keep youth: gym, tv, internet access. Highlighted opportunities to explore for youth in upland irrigated crops, small ruminants, storage facilities, technology-oriented opportunities, using biomass for charcoal, waste management, recycling. Female youth interested in gardening and processing (e.g. groundnut processing into cake, fabric making, poultry management); male youth in marketing, also cashew processing, pawpaw, beekeeping. Could explore aquaculture for female youth, who want to stay in one place. Look at Rural Youth Awards; Comfora youth forestry association. Gambian youth prominent in CC internationally, but no national platform to bring real experiences, fears and hopes to influence policy.

National Agricultural Research Institute (NARI): NARI has different thematic research areas, each has climate resilience components. Has been working on diversification out from maize, groundnuts and rice, given changing rainfall distribution; looking at cassava and sweet potato. Land degradation and declining soil fertility are serious problems, as is aflatoxin in ground nuts. Agroforestry ('take the forest to the farm') is very important, especially in the dry north, where you rarely see any large trees. NARI has been trying to access multipurpose trees from ICRAF, can be used to protect from erosion, rejuvenate soil, live fences. Researching indigenous trees e.g. *Faidherbia albida*, which sheds leaves in rainy season, thus does not shade crops. Most project activities have been on-station trials, therefore AF could support to outscale; need social mobilisation as trees take 5-7 years to produce food. Groundnuts: were only 2 lines in TG, NARI has experimented with 60 lines, which they have reduced to 15 and now 5 appropriate lines on standby to be run, these are shorter duration and could have 3 or 5 times the yield. Now have aflatoxin-resistant lines that need to be promoted, as well as afla-sieves. Stated that the proposed AF focus on short cycle and neglected crops, and reducing PHL is good and much needed. Stressed that enhancing planting material for climate resilience is the base for improved rural livelihoods. Findi (*fonio; Digitaria exelis*) ('hungry rice'), is a good option to promote; dryland crop, smaller than couscous, almost zero inputs and suppresses weeds, harvested using sickle, very expensive in markets and high local demand. NARI now doing trial using minimum inputs for increased yield. Main constraint is lack of correct mills in TG for processing, important to reduce labour; local fabricators now working on this. Sorghum is neglected, is grown in URR. Easy to cultivate, may not need to weed, But largely not cultivated as taste not appreciated – need to look at ways to prepare, blend with e.g. millet, make into bread. Biofortification of maize and orange-fleshed sweet potato: was supported by FAO, they have materials and need to upscale and integrate into cropping system. Rice: do have some rice varieties resistant to shuttering, and to salinity, have tested these, even in LRR, with small amount of support from NEA. Nerica was upscaled long ago, in uplands and lowlands, declining yields as strains are getting old. Land reclamation: salinity is the main challenge, NARI has packages for this, would want to test. This could be done in CRR N and LRR. Nema-Chosso work was on mitigation e.g. constructing infrastructure, salt dykes etc., not on actual remediation of saline lands. Cassava: partnered with FAO, through AAD project, in 10 districts in NBR. Need for targeted climate vulnerability assessments of crops, while these may be carried out in a broad sense for the NCs to the UNFCCC, they don't involve NARI/are not ground-truthed. The Director of Research has PhD in climate modelling. Fish ponds: Do have in CRR, not effective, but the interest is there. Gully erosion: noted increase throughout the country, links this to more intense rainfall.

National Women Farmers Association: NWFA was formed by CRS and funded by USAID until 10 years ago, has 30,000 members, with 1,074 groups, plus 14 Board Members. Women engaged in farming groundnuts, sesame, maize, millet, rice, *findi,* livestock. NWFA carries out training, advocacy, has facilitators for ToTT country wide. Did literacy and numeracy training for Nema/Chosso. Key constraints for women farmers are harvest failure due to changing rains, land tenure system (why few women go into cashew), marketing (e.g. for sesame, women selling at a low price to Asian buyers, as no steady market). Learn from Senegalese processing groundnuts into oil for export. Needs: diversification, fertiliser, promoting early maturing varieties in the uplands, seeds, canals and infrastructure for rice production along river, proper training of WUAs; solar dryers for processing (hot pepper, tomato paste, tomato jam); more training on vegetable processing, packaging, labelling; trade fairs. Vegetable gardens have problems: inadequate fencing, water pipes, insufficient solar panels for water pumping, water tanks too small, so women spend more time in own gardens. Many villages still use wells. Need to reduce drudgery for women, e.g. provide drip irrigation (but note rodents ate pipes in GITAF? project under MoA CPCU). Access to finance: Women's Banking at Reliance - the only bank prepared to work with farmers. Micro loans for farmers must be linked to farming calendar. Women lack collateral (land). Focus on FFW is good for erosion control. Advise the AF to focus on a limited geographical area, for impact. Poorest of the poor are in many villages in URR, also NBR. Their best farmers are in CRR (N and S), and NBR. Good vegetable gardens in URR. Address the issue holistically, support value chain. Many projects leave no trace.

TANGO (The Association of non-Governmental Organisations): World View is TANGO's focal point on climate. Also recommend consulting ADWAC (NBR) and Action Aid, and WASDAC in URR. A key challenge facing rural farmers and youth is that they do not understand climate change, despite previous sensitisation. Projects do not take the time to build understanding and thus, after the project, it is all gone. Gambian farmers still do not know much about mechanised/improved farming. Youth not prepared to go into the field any more, so need to develop this. Important to learn lessons from the past, e.g. previous govt. bought thousands of tractors, but were broken in 6 months and no parts available. Training of farmers is important, must change based on current developments. Market development is essential, given the glut of e.g. mangoes and the waste that occurs. Projects have serious compromises, for example sub-standard machinery is provided (e.g. for processing peppers on FAO project), or maintenance is not ensures. *Findi* is a good idea, was supposed to be introduced in CRR N, but did not happen. Community attitudes to projects need to change, don't take projects seriously. Introduction of Nerica rice by NARI caused loss of indigenous seeds, similarly for maize (hybrid seeds can't be saved).
Private sector
Renewable Energy Association of The Gambia (REAGAM): Formed in 2007 to improve standard of RE installation. 150 members, of which 17 are RE businesses and rest are activists, journalists, food security people. Unesco donated money to MoE to enable REAGAM to do training and install solar at their premises. Small grant from UNDP for mapping cassava as a climate-resilient crop, will map in NBR next quarter (contact is Fatoumata Ceesay). Working with NARI on improved variety. Successes in water pumping, efficient stoves (institutional and HH size), waste to energy (people recycling biowaste into charcoal briquettes). To ramp up production, need charcoal press. Carbonising groundnut shells and mixing with cassava starch. Another success: solar freezers at Tendaba, with MoECCNAR. Also look at Solar Project Tillo, using solar dryers to dry herbs, could replicate; and using RE to reduce PHL in general, including aflatoxins in groundnut (contact is Ndena Fa Ceesay, REAGAM member), storage of cashew. Technological and social acceptability issues e.g. women may not use improved stoves because not hot enough, or taste is not the same. Worked with Gambia Standards Bureau: 3 standards for solar accepted and published, REAGAM has a loose standard, could develop further. Enforcement: whose role is it? For AF, micro insurance a good idea, build on VISACAs. Look at financing options for people who want to IGA using RE – could have system of approved vendors. In procurement, need proper design with engineering specs.

Annex 4: Summary of Community Consultations

1. Upper River Region (URR)

Communities	Men	Women	Total
Kundam Mafatty	36	10	46
Kunting	6	30	36
Total	42	40	82

Kundam Mafatty

Livelihood: Roles between men and women are split with women doing harvesting ground food such as peanuts, beans, millet and vegetable gardens. Animals are primarily goats and sheep. Most of the produce is consumed within the community. Land is owned by men, and lent to women to grow agricultural products. Anyone can own livestock, but households mainly only have chickens and other small animals. Water points tend to dry out before the whole community can receive water. Women are responsible for cooking and the household, and for collecting and transporting wood and water. Vulnerable people such as elderly and the disabled tend to participate in small business and as they can't participate in agricultural/ vegetable, and if they do have access to land it is loaned to them through parents or other family members.

Other income: Women sell vegetables for additional income at a vegetable market in Basse, where they have to rent stalls. Remittances from overseas family members help the community during lean periods and throughout the year.

Agriculture practices/ patterns: The community grows peanut, beans and millet in the agricultural areas, and vegetables and ground crops. The community alternates between using land for agriculture and gardening – which slows/ stops land degradation. However, they will always rely on the rainy season for the agricultural side of the land use. One member of the community is trained as a "master farmer" and will be undertaking further training. They have a 35,000L water tank with a solar pump for the vegetable plot. However, the solar panels do not fill the tank up quick enough, and they get insufficient water for the vegetable gardens. During rainy season they use large pans to collect rainwater for animals Rice production has ceased as there is not enough consistent rainfall for the rice paddies. Instead the community has converted the field into vegetable gardens, where shocks can be better managed.

Perceived impact of climate change: Women noted decreased amount and frequency of (more erratic) rains. The growing season now starts in July instead of May. Previously it rained every 2-3 days, but now sometimes there is rain only once in 20 days towards the end of the season. This prevents the use of crops that require consistent rains, such as rice. There are also increased winds and higher temperatures, with the wind bringing sand and dust. Disease (animal and human) and pests have become more common. They used to collect firewood 2-3 km away, but now must go 20-30 km. There is also an increase in bushfires, and the community has set up a bushfire committee to reduce/ combat instances of bushfire.

Support from external agencies: Receive government support in the form of seeds, and support in fencing of agricultural areas from Red Cross. One member received training of trainers from FAO in "master farmer" in 2017. They also used to

have access to micro loans, as well as a literacy group – however these have stopped. There are no micro finance institutions anymore and apart from seeds and ad hoc projects – there is no consistent support.

Coping mechanisms: Increased dry spells and the reduced rainy season has meant that rice can no longer be grown, but instead they grow early maturing millet which takes 60 days – which is then sold for rice. Crops used to be planted at the same time, and good harvest throughout the rainy season – however with the change in environment and rainfalls, the community are forced to use early maturing seeds. They receive weather updates from the radio, but no other formal communication of weather information.

Recommendations from the community: Women primarily wanted a vegetable market, where women and buyers from URR can purchase produce, with cheaper stall costs. Cold storage that allows for produce to be stored for more competitive times or transported longer distances would also increase income. Other small-scale businesses would require loans/ capacity development, such as tie dye shops, and another skills development. Assets to support existing vegetable production, such as millet machines to process millet and better fencing to prevent cattle from getting into vegetable plots and processing machinery to turn crops into more sustainable products – such as tomatoes into tomato paste etc. Women also requested more water points to increase the size of vegetable plots, and for better access for domestic purposes.

Kunting

Livelihood: 2,500 people live in the community on over 1000 hectares of land, 300 hectares of which are arable land. Their main crops are rice, groundnut, millet, maize, beans and okra, with vegetable plots providing fresh food during the dry/ lean season. Water collection is predominantly done by women, and wood collection is done by the men. Local forests have been cut down from timber business both from within the community and loggers from outside of the community. Men have the primary function in terms of getting wood and returning it to the community. Wood collection takes 5 hours.. Men cultivate groundnuts, maize, beans and millet, while women cultivate rice and vegetable gardens. The agricultural products cannot sustain the village for the whole year; selling vegetables allows purchase of rice/ millet. Produce is sold externally through a roving market, located 7km away..

Perceived impact of climate change: The community perceives an increased in number and duration of dry spells. Flooding is also more common, which can wash away crops and/ or top soil which can destroy planted crops and future crop yields. The reduction in wooded areas on the hills has increased the amount of flooding, and the number of wind- and dust storms – with large windstorms occurring every other year and dust storms almost every January. The rainy season starts in June-July, instead of May, causing a shift to short cycle seeds.. Disease outbreaks among livestock, related to direct impacts of heat and lack of consistent water and food resources, are more common.

Support from external agencies: The community could not recollect any recent support from external agencies or the government in terms of seeds or emergency food distribution. The last external support was from ActionAid, where they provided inputs and drawing tools over 30 years ago. There is no access to formal financial institutions, and so they cannot receive any micro credit. They used to have Reliance Bank in the community, which relied on group collateral for any loans taken out. However, due to high interest rates, no one took policies out for fear of losing the collateral.

Coping mechanisms: There is not enough ground/ surface water for the vegetable gardens, so women extract water from wells in shifts, or they will run dry. This restricts the times when women can water the vegetable plots and collect water for cooking. Watering of vegetable plots is also cycled between the plots, so not every plot can be watered every day (despite the heat/ sun). During lean seasons when local wells dry out, the community must travel to the nearest deep water well which is 0.5 km away and requires regular breaks in the journey. With the reducing crop yield, other forms of livelihoods have had to be adopted, e.g. youth migration to Europe. The remaining able-bodied individuals also adopt other forms of livelihood such as fishing and carpentry to fill any financial gaps – however demand can be low for these products.

Recommendations from the community: The vegetable plots which are the main source of income for women, are regularly destroyed by cattle, and there is insufficient. There is a lack of hand tools for clearing and sowing – often using homemade ploughs and tools made from wood which often break. A local businessman offers a ploughing service by tractor, but the cost is too high and the have no ability to take out a loan, so must plough either by hand, or with drawing animals.

2. Central River Region (CRR)

Communities	Men	Women	Total
Dobong Kunda	7	20	27
Fas	32	27	59
Total	39	47	86

Dobong Kunda

Livelihood: 4,000 people, with 1,500 hectares, no forest and all agricultural land with some vegetable plots, with overall food deficit. Women cultivate rice and tend to the vegetable plots, while the men tend groundnuts, rice millet, beans etc. Women primarily earn their livings through vegetable gardens, and some agriculture, while men earn their living through agriculture. Women oversee the household and children, with vulnerable persons either supported by relatives and/ or local charities. When families don't have school fees for children, they must work on the vegetable plots and/ or agricultural fields. There is some livestock, owned by the men. Pigs, baboons and birds cause damage to the agricultural and vegetable plots by eating the seeds and/ or crops. Fencing is not sturdy enough. There is also a water deficit (quantity and accessibility). Water

pumps are all by hand, and at inconvenient places. Wells built by local handymen do not last due to poor quality. The primary source for fuel is wood bought from local stores as there are no longer any forests in the community.

Other income: Women have a group savings group that they all contribute towards and can withdraw funds dependent on their contribution. They also have access to a formal "land finance saving group" – where they can take out loans. However, if repayment of the loan isn't made, then you are kicked out of the savings group.

Agriculture practices/ patterns: The community grows rice, groundnut, findi, millet and beans with vegetable plots providing a consistent amount of food out of the agricultural crop season. They used to have an irrigation system in the rice fields, so that excess water can be released into lower regions – however metal dealers stole the sluice gate, and the community had to block the sluice to ensure water didn't drain out.

Perceived impact of climate change: Agricultural yield has dropped in the last 10 years, from erratic rainfall. 20 years ago, the rainy season lasted between 3-4 months, with consistent rain. However now the rainy season has a maximum of 2 months, and can go up to 20 days without rain. The rainy period is shortening each year, and temperature increasing. The season used to have a cold period that lasted 2-3 months, but now it is just hot all year round. They can no longer use floods to cultivate crops, as floods are much heavier. They are no longer able to cultivate without fertilizers. All the forests have been lost, either for household fuel use, or by logging companies. All these impacts have caused a dramatic drop in yield, from 40 bags of 100kg to 6 bags of 100kg. Flooding has increased diseases (diarrhea).

Support from external agencies: The Government has provided seeds for rice and beans during emergencies, and they receive news and weather updates via radio and tv – but have never had any specific training on agricultural practices.

Recommendations from the community: Needs are development and fixing of irrigation outlet points in rice fields, more irrigation to increase the number of fields, and inputs such as shovels, fences and other tools which are too expensive.

Fas

Livelihood: As of May 2016, this Fula community is made up of 1,500 men, 2,000 women, 1,000 boys and 1,500 girls, spread over 2km squared. There are no forests - all have been chopped down for firewood. The men produce groundnut, maize and millet, while women manage vegetable plots, growing onions, tomatoes and okra. Women also support the men in groundnut and millet production during the rainy season. Women used to manage the rice fields, but stopped planting rice due to the lack of rainfall. Women can own land, and in the event a husband dies, the land is passed over to the wife in the form of an informal will. There are cattle, donkeys and horses for work, and goats, sheep and chickens for food. Many small animals are owned by women,, with no restriction on purchasing and selling of either larger animals or small animals.

Other income: Some community members have small business such as tailors, masonry and carpentry – however workload is inconsistent and often not enough to provide for the household throughout the year. Women sell vegetables at the local market. However, the tax required for a stall reduces profitability. Lack of storage results in selling at a lower price or taking back to the community. Within the district there is limited excess cash, as everything is bought and sold internally.

Agriculture practices/ patterns: Stopped rice production 2 years ago, due to low yield and lack of rainwater. With the crops of groundnut, maize and millet, they do yearly crop rotation and mixed cropping to keep the soil fertility. Support from external agencies in agricultural training has meant they have specialist skills in agricultural and vegetable plots.

Perceived impact of climate change: The biggest change has been in the rainy season, with older community members noting it used to start in mid-June and end in early November. Now it starts in early July, and ends late September/ early October. Now there is inconsistent temperature, with cool evenings but extremely hot daytime heat. There are more frequent stronger winds, which may rip roofs from households (as in the week before the consultation). The local environment has also dramatically changed: 20-30 years ago there were far more trees. They also used to have local reservoirs form during the rainy season which supported any irrigation needed during any dry spells. Flooding is not a problem - the primary change has been the increase in dry spells. Soil fertility has dropped, so they have had to switch from organic fertilizer to manufactured fertilizer. The high cost of fertilizer often requires support from community savings groups. Disease/ heath issues have increased in both humans and animals, , with the loss of horses and donkeys, this year.

Support from external agencies: The primary credit system is an informal women's savings group. Women can also take out a loan from the pool. The community has access to "Reliance" which is a micro finance institution, and can open accounts, hbut the interest rates are too high to make it worth it. There is no existing support from governments or charities, but, they did receive training on farming and how to make a profit through micro finance 3-5 years ago. Updates of weather forecasts are primarily through radio & TV but also through internet on mobile phones. Most of the community do not have access to either of these, and information is normally shared through word of mouth.

Coping mechanisms: Elders of the community used to raise and rear the animals – then on the elder's death, the animals were shared in the community. However gradually these animals have been sold to cope with failed crop years, leading to a shortage of animals. Most of the youths have left to find jobs in Greater Banjul or to go to Europe.

Recommendations from the community: The lack of trees is affecting the immediate environment, so community needs to grow more trees. They also requested training on climate change as well as how to turn their produce into more profitable products through processing, and need inputs, e.g. spades, hand tools, fertilizers etc.. The youth want to stay n the community, but lack opportunities to provide for their households. They are halfway through building a youth center, which can be used for setting up small business (tailor, carpentry etc.), but will need support and long-term training.

3. North Bank Region (NBR)

Communities	Men	Women	Total
Jokadu	17	20	37
Kerr Amadou	24	18	42
Ngain Sanjal	22	15	37
Total	63	53	116

Jokadu

Livelihood: The community is made up of 2,030 people with a yearly increase of 2 percent each year, over a land area of 20km squared. Men tend groundnut, early millet and maize, while women tend vegetable plots (lettuce, potato, tomato, onion, okra, cassava and eggplant) and grow rice and beans during the rainy season. Groundnut is the main cash crop, and cassava is the main product from the vegetable plot that can be sold. During the rainy season, the community only farm 50 percent of the available farmland due to the lack of inputs and mechanized machinery. Each woman in the community has 2 vegetable plots and must rotate the water usage of the local wells to ensure that the well doesn't run dry. There are goats, sheep, chickens and cattle. Both men and women share responsibility and can own animals. A gricultural land is owned by men, and lent to women to harvest, including rice fields..

Other income: The main source of income is from selling of vegetables at local markets, which is done by solely by women in terms of growing and selling of produce. Women also locally produce soap to raise cash, however there is a limit to the supply that can be produced, and access to market to reach a demand. Men also take up labor roles such as masonry and contract work such as building. In terms of lean periods, the community will also cut wood to sell – or allow commercial loggers to come and chop trees down. Transportation to markets is extremely poor and reduces the effectiveness of sales.

Agriculture practices/ patterns: The community will cultivate crops dependent on the population size and predicted weather patterns for that year – either through meteorological weather predictions or local customs. They have access to radio which allows them to understand upcoming weather and do a crop rotation each year to keep soil fertility. In terms of sowing, they mix the crop to ensure that each crop can reach the maturity. The change in weather is also changing when they plant, as the shortening rainy season is making the use of crops that take more than 3 months to mature riskier. Children are taken out of school during the harvest period..

Perceived impact of climate change: The community can only produce one agricultural crop a year. The erratic rainfall makes the crop and its yield uncertain Older people noted that 20 years ago, the rain used to start in May and end in November. However, now it begins in early July and ends in September, with some rain in October. The rain is often more erratic, with a dry spell in late August, which could destroy a crop. The community used to farm late millet (which had a higher yield) and sesame seed, but the rains do not allow this anymore.. The community believes that heatwaves, which destroy crops, are due to chopping down the forest which protected the farmland from strong hot winds. They link the increased flooding to having no tree line/ vegetation cover to protect/ reduce floods. Increased flooding has caused more topsoil erosion, affecting future crop yields. Salinity of the river and surface water has been increasing in recent years.

Support from external agencies: There has been no credit system or access to any banks, with the ability to save being only accessible for households that have enough to eat. There have also been no insurance schemes, or any sort of micro finance institutions. FAO have supported farmer field schools and the MoA has supported capacity development. The Red Cross/ EU have provided some fences for vegetable gardens. NaNA have disbursed cash for breast feeding as well.

Coping mechanisms: Climate change effects have had a major issue for the head of the household for the provision of food, with knock-on effects for the woman/ wife of the household, and on children. There is a prevalence of malnutrition and underweight children. In lean periods children tend to drop out of school to work in agriculture/ vegetable plots. For lean periods, the major coping strategies harvesting wood to sell, or to make charcoal. Men also undertake labor/ ad hoc jobs like masonry, carpenters and mechanics. Another large source of income is youth remittances from GBA/Europe.

Recommendations from the community: Women highlighted the need for proper fencing for vegetable gardens and more water points to expand their vegetable plots, plus provision of tools for digging and sowing. The men recommended tree planting to systematically reforest the land, which they used to do, but saplings are too expensive.

Kerr Amadou

Livelihood: This Fula community is made up of 2,270 people, with more women than men, and land of 3km squared. There is natural bush located in the community and around 3 hectares of forest. Both men and women can own land and animals.. Men grow millet, maize, beans, cashew nuts and sesame seeds. Women tend vegetable plots which typically grow melons, onions, cabbage and similar vegetables, and grow groundnut. Livestock: cattle, sheep and chickens. Fuel is gathered by hand from a community forest 3km away..

Other income: Other income sources are from the sale of vegetables, petty trading and labor roles such as masonry and tailoring, which are rare. There is no local market, but a weekly market comes to the district 6km away. Costs like hiring a local donkey cart to go to and from the market, and renting a stall, can result in making a loss. Rice hasn't been grown in the community for 40 years. The community has transitioned to crops that take less time to reach maturity but produce less. Beans and maize can fit in the rainy season, so they are slowly producing more of those crops.

Perceived impact of climate change: Worsening soil fertility is affecting crop yield and types of crops that can be grown. With the increasing dry spells in recent years, the community have sold many ruminants as coping mechanisms. Ruminants have also died from disease, and heat exhaustion. Crops are often harvested before they have fully matured,

due to shorter rainy season. Deforestation has increased windstorms, and topsoil erosion, which affects subsequent crops. The increase in temperature is linked to perceived increased disease, (noted increase in fevers and malaria). Crop pests have increased. More animal deaths has reduced access to manure for fertilizer. Most youth want to leave the community, and many have moved to Greater Banjul for more reliable jobs. The community estimates that they only produce enough for 500 out of the 2,000-person community – and this is reducing every year.

Support from external agencies: The only credit system they have is the informal women's savings group.. Reliance did come once to do an assessment, but never returned. NaNA has done a cash for work programme, and provided millet machines, donkey cart and a motorbike ambulance. FAO have done fertilizer training and WFP food disbursements and school meals. ADWAC have supported in the creation of gardens and development of water systems/ hand pumps.

Recommendations from the community: Fencing around vegetable gardens is needed, as is diversification away from agriculture due to its dwindling opportunity. Other needs are water supply, either through new boreholes or surface water wells; and better access to markets through both transportation routes and a larger customer base..

Ngain Sanjal

Livelihood: This Fula community is made up of 2,750 men and 3,250 women spread over 7km squared, with less than 3km squared available for agriculture. Men produce cous, cassava, maize and beans, and both men and women work on groundnut and millet. Women also tend vegetable plots producing tomatoes, potatoes, onions, melons, etc. They used to have rice fields before these were destroyed by salt-water intrusion. Men have land and animal rights, while women have none. If the husband dies, the land is handed over to another male (son, uncle, father). Animals can be managed and used by women, but not owned. There are cattle, poultry, sheep, donkeys, horses and goats. The community does not produce enough food,, so make up any deficit through selling vegetables at local markets. Wood is used as fuel for cooking. Women will travel 3 miles to gather wood, which men carry back via donkey cart.

Other income: The community also has smaller businesses such as carpentry, and masonry – but also rent out land to other members of the community. Other people will go into the bush and do charcoaling which they will sell at local markets.

Perceived impact of climate change: The main change over the past 10 years is the rainfall shift from beginning in mid-June and ending in late October, to beginning in July and ending in late September/ early October. There are increased dry spells which have caused crop failure. .The inconsistent crop cycle and lack of storage for vegetables means that they have seen an increase in malnutrition and stunting in children. Children are often taken out of school due to insufficient funds or if they are needed . Increased temperatures have severely affected production and how long water will stay on the surface of the ground. Winds have become stronger and last for a longer period, causing damage to households and the school. Diseases in humans (cataracts and high blood pressure) and animals (foot and mouth and chicken pox) have increased.

Support from external agencies: They have a local women's cooperative with informal group savings., but no formal credit or micro finance. WFP have supported school feeding and blanket food distribution during lean season. FAO have provided fertilizer, and regional government have supported the women's association. The community receives weather information from the radio and TVs where available, and from traditional forecasting through signs in the sky/ cloud formation.

Coping mechanisms: The community has stopped growing rice, and some poorly designed irrigation systems have washed away topsoil. In lean periods they are forced to sell livestock, which are currently running low. Youth primarily take up small business and ad hoc labor such as masonry, bricklaying, driving and carpentry. The community issues licenses to logging firms to cut trees down in their forests for extra cash in times of need.

Recommendations from the community: The community wants to stop issuing logging licenses and start replanting trees, but they need more sustainable income. Fencing for gardens would stop loss in the vegetable plots. .Agricultural training is needed to increase farming skills and yields. Youth need skills training for small business to diversify income.

4. Lower River Region (LRR)

Communities	Men	Women	Total
Jalli	13	8	21
Jataba-Kiang	10	14	24
Total	23	22	45

Jalli

Livelihood: The community is made up of 953 people on the main road in LRR, with an area of 1km squared and 520 hectares of agricultural land. Men grow maize, groundnut, beans, rice and early millet, while women support the rice growing and tend to vegetable plots. All products are sold at the household level, apart from groundnuts. Last season they tried selling groundnut at the local purchasing point, but there was no more money left at the buying point. The community then had to transport the groundnut to Greater Banjul, meaning the transport costs were deducted from the profits. Livestock is also present in the community such as sheep, goats and chickens – however not everyone has them.

Other income: These come from selling vegetables at the market or along the main road. Men harvest firewood from the available wooded areas, and in times of severe lean periods, they will sell any animals they have available.

Perceived impact of climate change: Feedback on how the climate has changed was that the rainy season has dramatically shortened in the last 4 decades, going from a May to October rainy season, to a July to August rainy season. The elderly people remembered having standing water all year round when they were children, but now it is only present during the

rainy season. Increased salination of surface water has affected the rice crops and is beginning to make certain fields unworkable. Agricultural production has reduced each year, and they don have enough boreholes to feed the vegetables plots. There has also been a notable increase in disease and malnutrition in children, that wasn't common 10-20 years ago. People avoid the midday sun and cannot work in the fields any more. They used to have tree cover when walking between villages, but now the land is bare. There is also an increasing amount of strong winds, due to deforestation.

Support from external agencies: In the year of 2018 they received 350kg of rice and 350kg of beans in response to a failed crop. There are no formal credit systems and no bank accounts due to the limited excess. Contributions to women's savings groups depend on available excess cash – which comes from what can be sold at market.

Coping mechanisms: A lot of the youth have migrated to Greater Banjul or Europe and send remittances home, because they cannot provide for themselves and their parents in the community. Men undertake *ad hoc* labor such as masonry and carpentry, but there isn't enough available work to do this full time.

Recommendations from the community: The recommendations are to increase the amount of vegetable plots, as rains are no longer reliable in producing food for the household/ community, and to move away from open fires to more fuel-efficient wood stoves. Salt resistant rice or development of barriers to reduce saltwater intrusion are needed.

REPUBLIC OF THE GAMBIA
Ministry Of Environment, Climate Change, and Natural Resources (MECCNAR)
GIEPA House - 1st Floor, Kairaba Avenue
Kanifing Municipality

PB 33/66/01 (108) **5th August 2019**

The Adaptation Fund
c/o Adaptation Fund Board Secretariat
email: afbsec@Adaptation-Fund.org
Fax: 202 522 3240/5

NOMINATION OF GAMBIA'S DESIGNATED AUTHORITY FOR THE ADAPTATION FUND (AF)

The Government of the Gambia in its quest to manage the impacts of climate change whilst seeking to achienve it's development goals has established a climate Change portfolio at the Ministry of Environment to oversee and coordinate climate change issues at national and international levels. This strategic change has been manifested in the development and implementation of the National Climate Change Policy, the Strategic Programme for Climate Resilient (SPCR) and the development of a Long-Term Strategy for climate change up to 2050.

However, although progress is being made, the country is yet to access the resources from the Adaptation Fund, which is well overdue. Current developments have further higlighted the need for access to the Fund especially since the MECCNAR is working with the World Food Programme (WFP) strengthen the country's Adaptive capacity and build resilience of its people to the impacts of climate change.

With these considerations, the Ministry of Environment, Climate Change and Natural Resources (MECCNAR) deem it imperative to formalize the country's status and update its Designated

Authority to the AF. In this regard, the Ministry of Environment, Climate Change and Natural Resources (MECCNAR) under cover of this letter, write to inform you that henceforth, **Mr. Bubacarr Zaidi Jallow,** the Principal Climate Change Officer of the **MECCNAR** will be the Designated Authority of the Country with regards to the Adaptation Fund. Mr. Jallow can be reached via email (**bubazj@gmail.com)** and telephone (**+220 3653113)** and will be replacing Mr. Pa Ousman Jarju, the last nominated DA with the Adaptation Fund who is no longer in Government Service. Mr. Jallow will therefore be responsible for carrying out the duties of the Designated Authority as outlined in the Operatiional Policies and Guidelines of the Fund (*OPG 2007, Pg 4 section 20 -21*).

Your sincerely,

MINISTRY ENVIRONMENTAL, CLIMATE CHANGE AND NATURAL RESOURCES
MINISTER
09 AUG 2019
SIGN

Hon. Lamin B. Dibba
Minister of Environment, Climate Change & Natural Resources

REPUBLIC OF THE GAMBIA
Ministry of Environment, Climate Change & Natural Resources (MECCNAR)
GIEPA House - 1st Floor
Kairaba Avenue
Kanifing Municipality

PB 33/66/01/ (106) **2nd August 2019**

The Adaptation Fund Board
C/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

UFS:
Permanent Secretary,
Ministry of Environment, Climate Change & Natural Resources

MINISTRY OF ENVIRONMENTAL, CLIMATE CHANGE AND NATURAL RESOURCES
PERMANENT SECRETARY
05 AUG 2019
SIGN

03/08/19

SUBJECT: ENDORSEMENT FOR THE *"RURAL INTEGRATED CLIMATE ADAPTATION AND RESILIENCE BUILDING PROJECT" (RICAR)*

In my capacity as designated authority for the Adaptation Fund in the Gambia, I confirm that the above national project concept note is in accordance with the Government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Gambia.

Accordingly, I am pleased to endorse the above project concept note with support from the Adaptation Fund. If approved, the project will be implemented by the World Food Programme and executed by **Ministry of Environment, Climate Change & Natural Resources.**

Sincerely,

.....

Bubacar Zaidi Jallow

Principal Climate Change Officer

Nominated Focal Point for Adaptation Fund

TEL: 4399447/ 4399446/ 4399504/ 4399503
E-mail: info@mofen.gov.gm

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

A. Record of endorsement on behalf of the government *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:*

Bubacar Zaidi Jallow, *Principal Climate Change Officer, Ministry of Environment Climate Change and Natural Resources*	Date: *5th August 2019*

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 within the Gambia National Development Plan (2018-2021). Namely promoting environmental sustainability, climate resilient communities and appropriate land use; strengthening evidence-based policy, planning and decision-making; and empowering the Gambian Woman to realize her full potential. It will also contribute to the NDP's vision of a resilient rural economy. Subject to the approval by the Adaptation Fund Board, we 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.	
Wanja Kaaria *World Food Programme Representative and Country Director for the Gambia* Implementing Entity Coordinator	
Date: *5th August 2019*	Tel. and email: +220 4494782 wanja.kaaria@wfp.org
Project Contact Person: Wanja Kaaria	
Tel. And Email: +220 4494782 wanja.kaaria@wfp.org	