PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	Project
Country:	Lesotho
Title of Project:	Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	World Food Programme
Executing Entities:	Ministry of Energy and Meteorology; Ministry of Forestry, Range and Soil Conservation
Amount of Financing Requested:	USD 9,999,894 (4 years)

Project Background and Context

Location

The Kingdom of Lesotho is located in the south-eastern part of Southern Africa, surrounded by the Republic of South Africa. With a total land surface area of 30,355km², the country is landlocked and mountainous, with rugged terrain and elevations ranging from 1,388m to 3,482m above sea level. Four distinct geographical zones are characterized by significant climatic and agro-ecological differences: the lowlands (17 percent), foothills (15 percent), mountains (59 percent), and the Senqu River valley (9 percent). The rugged mountainous areas are suitable for livestock grazing and water resources development, with more favourable agricultural conditions in parts of the lowlands, foothills and Senqu River Valley. Only 9 percent of Lesotho's land is arable[1].

Figure 1: Location map of Lesotho showing administrative divisions and agro-ecological zones[2]

Environmental and agro-ecological conditions

Climate

The climate of Lesotho is characterized by four distinct seasons with significant fluctuations in temperature and rainfall. The country normally receives 85 percent of its average annual rainfall (700mm) between the months of October and April. Rainfall is often marked by heavy torrents that can result in severe soil erosion, while snowfall is common in the mountains. Temperatures are highly variable, on diurnal, monthly and annual time scales, but generally lower than those of similar latitude inland regions, due to the altitude. Normal monthly winter minimum temperatures range from -6.3°C in the lowlands to 5.1°C in the highlands, while monthly mean winter minimum temperatures can reach -10.7°C, and daily winter minimum temperatures can drop as low as -21°C, with sub-zero daily minimum temperatures possible even in summer both in the lowlands and the highlands[3]. In recent decades, the previous climate variability of wide-ranging temperatures, erratic rainfall, heavy rains and mid-season dry spells has become more exaggerated.

Land degradation and biodiversity

Land degradation is one of the main environmental challenges constraining agricultural productivity and food and nutrition security in Lesotho. Soil erosion and desertification have been aggravated by recurrent droughts, rapid population growth and increasing pressure on natural resources, as well as

[1]Lesotho Vulnerability Assessment Committee, 2016: Market Assessment Report.
[2] https://visitlesotho.travel/travel-guide/about-lesotho/59-mokhotlong-district.
[3] Lesotho Meteorological Services, 2018. Ministry of Energy and Meteorology.

unsustainable land and natural resource management practices. Loss of ground cover on the highland rangelands due to overstocking has resulted in excessive water runoff during mountain storms, leading to flash flooding and sheet and gully erosion, which is leading to loss of limited agricultural land. It is estimated that 4.5 million tons of soil is lost through soil erosion per year[4], thus reducing the productive capacity of the country's croplands and rangelands, and impacting on biodiversity by changing and reducing habitat for wild species. Other threats to biodiversity include overgrazing, unsustainable harvesting (particularly of medicinal plants), uncontrolled fires, urban and agricultural encroachment, invasive alien species and pollution.[5]

Socio-Economic Characteristics

Population, economy and poverty

The population of Lesotho is estimated at 2 million, with over 70 percent of people residing in rural areas. Women make up 51.1 percent of the population, with youth (those between 15 to 35 years) comprising nearly 39.6 percent (50.7 percent male and female 49.3 percent) of the total population. According to 2011 statistics[6], 33 percent of Lesotho's population is below the age of 15, 11 percent between the ages of 15-19 and 10 percent between the ages 20-24, while 67.1 percent of the population up to the age of 24 was still attending school.

Classified as a lower middle-income country, Lesotho has a Gross Domestic Product (GDP) of US$2.2 billion, a national gross income per capita of US$1,500[7], and a low human development index (HDI) of 0.497, with a rank of 160 out of 188 countries[8] . When adjusted for inequality, the HDI falls to 0.320, a loss of 35.6 percent.[9] The country's economy is intricately linked to its regional and international partners. South Africa, Lesotho's main trading partner, supplies about 80 percent of all imported goods and services and imports one quarter of Lesotho's total exports.[10] With a GDP contribution of 17 percent, agriculture is the mainstay of the rural economy, with rainfed agriculture being the major source of livelihood for the majority of the population living in the rural areas. Poverty, inequality, and unemployment remain major development challenges facing Lesotho, despite high literacy rates and high investment in social sectors over the years. Despite the lower middle-income status, the national poverty head count ratio, at purchasing power parity (PPP) US$1.25 a day, has increased since 2000 and currently stands at 57.1%.[11] More than one quarter of the population is classified as extremely and/or chronically poor.

Approximately 85 percent of the population lives in rural areas and 70 percent derive all or part of their livelihood from agriculture. The variable climate, limited arable area, mountainous topography, and severe land degradation constrain the agricultural sector's ability to generate adequate levels of employment and income to support the rapidly increasing population. As a result, both absolute and

[4] MFRSC 2015. National Action Programme. Report to the United Nations Convention to Combat Desertification
[5] Lesotho Review, 2018 edition. Available at http://www.lesothoreview.com/contents/environmental-conservation/
[6] 2011 Lesotho Demographic Survey
[7] The World Bank: http://data.worldbank.org/country/lesotho).
[8] UNDP 2016 Human Development Report
[9] Verité 2018. Lesotho Country Report. https://www.verite.org/wp-content/uploads/2018/01/SSA-Verite-Country-Report-Lesotho.pdf
[10] Revenue from the Southern African Customs Union (SACU), royalties from the Lesotho Highlands Water Project (LHWP), benefits from regional trade protocols such as the Common Monetary Area (CMA), and individual remittances from Basotho working in South Africa contribute significantly to the national budget, with a lesser contribution from mining.
[11] The World Bank Group: https://data.worldbank.org/country/lesotho

relative poverty have been increasing over time amongst rural and farming communities[12]. There has been a gradual decline in factory incomes and remittances from abroad shrank from about 60 percent of GDP in the 1980s to less than 20 percent in 2016[13], further entrenching poverty in many rural households. Over 50 percent of the population remains unemployed and inequality, as measured by a GINI coefficient of 0.5, is considered unacceptably high and increasing. The country's fiscal space is shrinking due to increasing levels of public debt, affecting the ability of the Government of Lesotho (GoL) to increasingly fund priority sectors like education, health, and social development.[14]

The incidence of poverty is persistently higher among female-headed households at approximately 64 percent, which is well above the national average of 58 percent and a male-headed average of 57 percent. A large proportion of female-headed households are poor and extremely vulnerable to climate change because they lack agricultural assets due to discriminatory customary laws and socio-cultural practices, as well as low awareness of their legal rights. Over 60% of the agricultural labour force is constituted by women, yet only 30% of women own land. Whilst women represent a large share of total employment, they occupy only one in three jobs outside of agriculture and earn close to half of what men earn. Moreover, women are less likely to hold leadership positions and have less employment security than men[15]. As a result, women constitute most of the poor in Lesotho, thus they are more vulnerable to the adverse impacts of climate change.

Health, nutrition and food security

The country is ranked second highest in HIV and AIDS prevalence (25.6 percent) in the world, with one in every three adults estimated to be living with HIV and AIDS. Females over the age of 15 years make up 56 percent of people living with HIV, with 29 percent of women in Lesotho having contracted HIV, as compared to 18.7 percent of men. New infections are most likely to occur among women.[16] The higher HIV prevalence rate among females is related to the increased prevalence of gender-based violence (GBV) and cultural practices that limit women's and girls' rights, including access to services, information and protection such as the use of condoms.[17].

The high prevalence of HIV and AIDS has inevitably led to higher morbidity and mortality rates, particularly among the most productive segments of the society. This has increased the number of orphans and child-headed households, weakened agriculture and other forms of livelihoods and coping strategies, and increased vulnerability of poor households, especially women and children, to both income and non-income poverty[18]. Furthermore, the pandemic has proliferated household food and nutrition insecurity and malnutrition. HIV/AIDS and TB have had a devastating impact in curtailing the nation's productivity, compromising the nutrition and social wellbeing of its citizens as well as placing an incalculable burden on the national budget.

[12]Ministry of Natural Resources, 2000. Lesotho's First National Communication under the United Nations Framework Convention on Climate Change. Lesotho Meteorological Services.
[13]International Fund for Agricultural Development, 2008
[14] Unicef (2017) Fiscal space profiles of countries in the eastern and southern African region: Case Study Lesotho.
[15] United Nations Development Programme,2015. Lesotho National Human Development Report, 2014/2015.
[16] The disparity in HIV prevalence by sex is most pronounced among young adults between 20 and 24 years of age, where the prevalence of HIV is most alarmingly four times higher among females (16.7 percent) than males (4 percent)
[17] Lesotho Population Based HIV Impact Assessment (LePHIA) 2017 Report.
[18] Government of Lesotho. Ministry of Natural Resources, 2007.National Adaptation Programme of Action On Climate Change under the United Nations Framework Convention on Climate Change, Maseru.

Lesotho has significant national chronic food insecurity, with an estimated 34 percent of households (650,000 people) living below the food security line (US$0.61 per day). About 25 percent of the total population is undernourished with 33.2 percent of children stunted and 14.8 percent severely stunted. Over 27 percent of girls and women and 14 per cent of boys and men in the 15 – 49 age range are also anaemic[19]. Nationally, the prevalence of global acute malnutrition (GAM) remains at a lower level of 2.8 percent. However, 89 percent of children aged 6-23 months do not receive a minimum acceptable diet.[20] The country loses slightly more than 7 percent of its GDP to chronic malnutrition. It has been chronically food deficit since the early 1960s, and continues to be a net importer of food to meet basic needs[21]. Recent years have seen increasingly frequent climate events such as recurrent droughts, dry spells, floods and early frost, leading to crop failures, low incomes, and high food prices, with serious consequences on overall food and nutrition status. This situation has deteriorated in recent years, with the country only able to meet 30 percent (110,000 tonnes) of its annual cereal requirement (360,000 tonnes) during the best harvest years. This is reflected in Lesotho's Global Hunger Index of 24.1, with the 2017 Global Hunger Report ranking Lesotho 80 out of 119 countries that were assessed.[22]

A large part of the rural population who depend mainly on rain fed subsistence farming remain exposed to chronic food insecurity and malnutrition. In 2016, over 709,000 people were in urgent need of food assistance, with eight of the country's 10 regions predicted to experience a high food deficit in 2016-17. According to the 2018 vulnerability assessment, 257,283 people (18%) of the rural population (very poor and poor wealth groups) are in need of humanitarian assistance, while 51,683 people (9.2%) of the urban population require assistance.[23] Aggravating factors are that the majority of poor rural households do not have adequate access to agricultural land and lack resources such as fertilizers and high-yielding seeds; thus production and output levels are very low and inefficient. In an attempt to cope with lack of food, many communities take detrimental measures such as skipping meals or selling off assets, thus further compromising their livelihoods and adaptive capacity.

Inadequate access to services

The socioeconomic context outlined above is made more difficult by inadequate access to services. The rugged and undulating mountain terrain, long geographical distances to service centres, poor road networks, as well sparse and isolated settlements, limit access of the rural population to services such as savings, credit, money transfers, insurance, credit and information. This is particularly experienced by women, who consequently, tend to borrow only in emergencies and are less likely to seek loans to develop businesses or invest in their farms[24]. Unfavourable terms and conditions make it difficult for them to access reliable and secure saving facilities. This situation is counterproductive to the 55,835 smallholder farmers, of whom 60 percent and 10 percent are women and youth respectively[25].

[19] Lesotho Government, 2015.National School Feeding Policy.
[20] Lesotho 2014 Demographic and Health Survey, https://www.dhsprogram.com/pubs/pdf/SR230/SR230.pdf
[21] Lesotho Vulnerability Assessment Committee, 2016.
[22] GoL 2018. Zero Hunger Strategic Review. Office of the Prime Minister, Kingdom of Lesotho.
[23] Lesotho Vulnerability Assessment Committee, presentation made in July 2018, Maseru, Lesotho.
[24] Lesotho Transport and Infrastructure Connectivity Project, 2016. World Bank.
[25] Lesotho National Farmers Union, 2016.

Climate Change Vulnerabilities, Impacts and Risks

Climate trends and projections

Changing climatic trends over recent decades mean that Lesotho now experiences an increased frequency, duration and magnitude of weather phenomena and extreme events, including prolonged dry spells, recurrent droughts, intense rainfall, localised floods, heavy as well as early and late snowfall, hailstorms and strong winds.[26] According to Lesotho's Intended Nationally Determined Contribution (INDC), the trend analysis of temperature over most areas of the country (Figure 2) shows increases in both annual maximum and minimum temperatures between 1968 and 2006, with minimum temperatures rising more than maximum temperatures, and the most rapid warming to date reported in the early 1980s. In 2016, the country experienced an unprecedented El Niño related drought.[27]

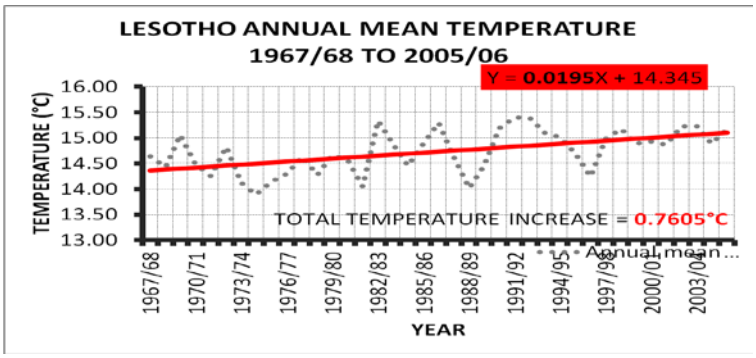


Figure 2: Mean Annual Temperature in Lesotho: 1967-2001. Source: Lesotho Meteorological Services.

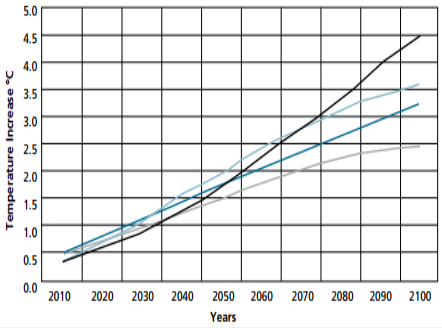


Figure 3: Annual temperature scenarios for Lesotho (source: Lesotho Meteorological Service)

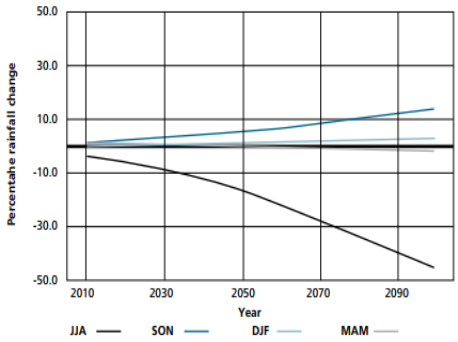


Figure 4: Seasonal rainfall projections for Lesotho (source: Lesotho Meteorological Service)

The projected climate change scenarios for Lesotho include increasing temperatures, changes in rainfall patterns, decreasing summer precipitation, increasing intensity and frequency of extreme weather events such as drought, heavy rainfall, hailstorms, prolonged mid-season dry spells, and late start and early end of the rainy season[28]. The projected changes in climatic conditions by 2030, 2050 and 2080 are summarized below[29]:

Increasing climatic variability, and frequency and intensity of extreme weather events: this includes droughts and heavy rainfall and captures the magnitude of non-average climatic events over short timescales rather than direction of change.

Gradually changing mean: this shows the general direction of change, with reasonable levels of confidence, and the magnitude or rate of change. For temperature changes, an increase in annual mean temperature of approximately 1.0°C by 2030, 1.5-2.0°C by 2050, and about 2.5-3.5°C by 2080 (Figure 3) is projected. For rainfall, a moderate drying in late autumn/winter is expected and moderate increases in spring/summer

[26] GoL First and Second National Communications of Lesotho to the UNFCCC.
[27] Lesotho: El Niño-related Drought - Office of the Resident Coordinator Situation Update No. 5 (as of 17 March 2017)
[28] Studies by the Intergovernmental Panel on Climate Change (IPCC) and Lesotho Meteorological Services (LMS)
[29] ibid

rainfall, with stronger spring/summer wetting towards the end of the century (Figure 4). These projections are in line with the simulation modelling performed as part of the IPCC Fourth Assessment Report (Christensen et al., 2007, Boko et al., 2007).

Studies carried out under the Third National Communication to the UNFCCC project a warming trend, decreasing precipitation and recurring drought in the short term (2011 to 2040), medium term (2041 to 2070) and long term (2071 to 2100) under two different development scenarios.[30]

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

As a result of the observed climatic trends of recurrent and prolonged droughts, dry spells, floods, early frost, and associated increasing incidence of pests and diseases, agricultural productivity has been steadily declining in recent years, further exacerbating the country's food and nutrition security[31], and negatively impacting on overall economic performance. According to the National Resilience Framework, drought is the main natural hazard contributor to Lesotho's high levels of vulnerability and food insecurity, followed by heavy rains and extreme weather variability.[32]

Changes in climatic conditions have already affected the production of some staple crops, and future climate change will continue to threaten and exacerbate the situation. Higher temperatures and changes in rainfall patterns will negatively affect both crop quality and quantity.[33] Climate scenarios project high chances of water stress by 2019, a situation that is expected to worsen by 2060 and will add more stress on agriculture. Increase in temperature and climate variability would induce further challenges in the form of increased pest and disease attacks, destruction of crops and increased spoilage[34]. The probability of increased localised flooding places food transportation infrastructure and community assets at higher risk of damage. The trend of increasing temperatures has resulted in increased heat stress for crops, livestock and human beings.

Significant shifts in rainfall patterns observed in recent years have compromised the country's water resources. The size and number of fresh water sources are diminishing, with multiplier effects in other sectors, such as increased frequency of water borne diseases, negative impact on planting and agriculture as well as on the land due to soil erosion, loss of soil moisture and desertification.[35] Recurrent droughts have accelerated environmental degradation, loss of biodiversity and related ecosystem services, resulting in reduction or loss of the natural resource-based livelihoods for the rural poor.

Ongoing climate variability means that past livelihood coping mechanisms are becoming increasingly inadequate to cope with the existing situation, raising strong concerns about how projected climate change will be dealt with. The apparent increase in the frequency, magnitude and duration of hazards

[30] Climate Change Scenario Analysis for Lesotho. Unpublished Work in Progress for the Third National Communication to the UNFCCC. Source: National Resilience Strategic Framework, 2017.
[31] The Lesotho Vulnerability Assessment Committee results of the 2014/15 agricultural season showed a deterioration of 33 percent in food security compared to 26 percent recorded in 2013/14 farming season. A total of 179,944 people are under chronic and irreversible food and nutrition insecurity and, thus, need immediate food assistance.
[32] Lesotho National Strategic Resilience Framework and Theory of Change, 12 July 2017 draft.
[33] Lesotho Second National Communication to the UNFCCC
[34] Ministry of Energy, Meteorology and Water Affairs, 2013.National Report on Climate Change, Second National Communication to the Conference of the Parties to the United Nations Framework Convention on Climate Change, Maseru.
[35] Lesotho Second National Communication to the UNFCCC

such as drought, flooding, hailstorms and strong winds in recent years leaves local communities, especially more vulnerable groups, with little or no time to recover from one event to the other, thus progressively eroding their capacities to cope with and recover from such events. The 2016 El Niño-induced drought resulted in 49 percent of the rural population requiring emergency food and livelihood protection interventions[36] well into 2017.

The impact of frequent extreme weather events on the country's already fragile agricultural productivity has translated into declining incomes as well as severe and chronic food and nutrition insecurity for most households, and at the national level[37]. Households that mainly rely on subsistence farming (characterized by low earnings, herding and casual labour for income), are headed by widows, and that have fewer employment opportunities and few assets, are the most severely affected[38]. Particularly, women and children are unable to meet households' minimum daily requirement for food intake as they can only access poor quality food with low micronutrient content.

Climate change affects nutrition by influencing the food security of communities, including their dietary diversity. The cumulative effects of reduced water availability and its impacts on sanitation and hygiene include an increased burden of disease. This places an additional load on women, with respect to choices about how to allocate time to their livelihoods and to household caregiving. The nutritional status and diet choices of women, girls and children, as well as people living with HIV (PLHIV), are often the most affected.

From a market perspective, climate change is likely to exert upward pressure on food prices of basic cereals. Under these conditions, the poorest people — who already use most of their income on food — typically sacrifice additional income and other assets to meet their nutritional requirements, or resort to poor coping strategies like skipping meals, with particularly serious implications for female-headed households, which generally have fewer assets than male-headed households.

According to the Lesotho Vulnerability Assessment Committee (LVAC), the trend of food insecurity is inversely correlated to production. In years of drought or dry spells such as 2012 and 2016, food production drops significantly and the population at risk increases.

By accelerating the decline of biodiversity and related ecosystem services, climate change increases food and nutrition insecurity, and reducing livelihoods and income generation opportunities for the rural poor and unemployed men and women who heavily depend on indigenous plant species for income, fuel wood, food, forage, shelter, building material, medicinal and cultural purposes[39]. Further, it imposes an extra workload on women and girls, who have to walk longer distances (92 percent of households take more than one hour)[40] to fetch water and wood for cooking and heating, in addition to other household management and maintenance roles. This reduces opportunities for women and girls to engage in productive activities such as childcare, income generation and education and increases their vulnerability to gender-based violence[41]. In addition, competition for scarce water resources causes social tensions and conflict between communities.

[36]Lesotho Vulnerability Assessment
[37]Lesotho Second National Communication under the United Nations Framework Convention on Climate Change. Lesotho Meteorological Services, Lesotho.
[38]Kingdom of Lesotho. 2018 Zero Hunger Strategic Review Report.
[39]Lesotho Environment Outlook Environment For National Prosperity Summary For Policy Makers 2014
[40]FAO, 2011. Strengthening capacity for climate change adaptation in Agriculture: Experiences and Lessons learnt from Lesotho. Rome.
[41] https://www.unicef.org/esaro/7310_Gender_WASH.html

Factors limiting adaptive capacity and exacerbating vulnerability to climate change

The Notre Dame Global Adaptation Index (ND-GAIN Index)[42] provides a useful summary of a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. Lesotho is classified in the upper-left quadrant of the ND-GAIN Matrix, meaning that it has relatively high vulnerability to climate change, combined with relatively low readiness to improve resilience. The country is ranked 14th most vulnerable and 51st least ready country, out of 181 countries assessed.[43] This indicates a great need for investment and innovations to improve readiness and preparedness for action.

Contribution of gender inequalities to vulnerability

Traditional gender roles in Lesotho confer more power to men over women. Due to limited participation of women in political leadership and the labour force, and their limited access to sexual and reproductive health services, the Gender Inequality Index (GII) score of Lesotho is 0.549, ranking it 132 out of 188 countries. While the Land Act 2010 provides for equal title to land for both women and men and introduces lease holding in rural areas, customary law still considers an adult woman to be a minor and not entitled to inherit land. Thus, women are less likely to own land than men, and own smaller plots of land, reducing their active participation in productive agricultural activities, and trapping them in a cycle of poverty. Thus women constitute approximately 30 percent of rural people living in extreme poverty, and are, relatively more vulnerable to climate change-induced risks, when compared to men [44]. For example, considering the phenomena of migration, as more men move to the lowlands and urban areas, women remaining in deep rural areas are expected to take on additional household responsibilities.

The majority of rural women already experience poverty due to their heavy workload that combines participation in agriculture, household management as well as non-farm earning activities. Household management includes the time and energy engaged in intensive tasks of child-care, fetching water, and fuel as well as food processing in a context where these services are either inadequate or do not exist. These multiple gender disadvantages trigger the intergenerational transfer of poverty as evidenced by poor social development indicators such as high child mortality and morbidity and low educational attainment[45].

Considering the link between gender and education in Lesotho, there is an overall higher enrolment of boys at primary level, except for grades 6 and 7 where more girls are represented, with 23,242 females compared with 18,339 males. In addition, there are urban and rural trends whereby more boys than girls are enrolled at primary level in urban areas, whereas the opposite stands true in mountainous rural areas, where boys often leave school early to become herders.

Multi-dimensional vulnerability exacerbated by climate change

Socio-economic determinants of vulnerability, including health, HIV and nutrition challenges coupled with high rates of unemployment, deep and pervasive poverty, gender inequality and isolated

[42] https://gain-new.crc.nd.edu/

[43] On the Global Needs Assessment (GNA) Vulnerability Index, Lesotho is ranked 2/3 and on the GNA Crisis Index it scores 3/3, further indicating a high degree of vulnerability.

[44] 2014 Demographic and Household Survey (DHS)

[45] African Development Bank Group, 2005. Multi – Sector Country Gender Profile: Agriculture and Rural Development North East and South Region.

settlements in rugged mountainous terrain are some of the key factors that keep Lesotho and its population vulnerable to the negative impacts of climate change as outlined below. The declining agricultural productivity, linked to ongoing climatic changes and land degradation, continues to expose the majority of the population, especially the very poor and poor unemployed rural population (men and women), to chronic, irreversible and severe food and nutrition insecurity and malnutrition, as well as poverty[46].

Inequality related to gender, exclusion of those with disabilities and income inequality are some of the factors that contribute to structural inequality. This inequality predisposes groups, including women, rural communities, boy and girl children (especially orphans) to poverty and hunger. Food and nutrition insecurity and poverty, in return, subjects vulnerable households and individuals to negative, even harmful, coping strategies, including risky behaviours (e.g. transactional sex) that fuels new HIV and AIDS infections in a country that already has the second highest HIV prevalence in the world. Furthermore, drought reduces employment and income opportunities. This results in income shocks, which account for up to 20 percent of variation in HIV and AIDS prevalence across African countries[47]. This scenario further increases the vulnerability of households and communities to the negative impacts of climate change.

The predicted climate change scenarios are all likely to increase land degradation far above current levels, due to the combined effects of increased intensity of rainfall and more frequent and more severe droughts. Unless checked, the ongoing progress of land degradation will further weaken the capacity for land to support the country's biological and economic well-being. Knock-on effects such as decreased income generation opportunities and livelihood sources, increased poverty and worsened food and nutrition insecurity will increase the vulnerability of many small-scale subsistence farmers and rural communities to climate change and extreme weather events.

In addition to the above environmental and socio-economic determinants of vulnerability, there are important contributory knowledge and governance issues. A key issue is poor access to relevant climate information, which limits the ability of people to plan ahead in dealing with current climate variability, not to mention longer-term climate change. In the absence of adaptation planning, for most farmers, climate change implies lower agricultural outputs, and declining incomes from sale of wool, mohair and other agricultural produce.[48] Climate change affects food systems as well as all dimensions of food and nutrition security including availability, access, utilization and stability. Given the vulnerability of smallholders to the interlinked challenges of climate change and land degradation, it is crucial to create more awareness amongst policy-makers about the implications of these changes for the country's food security and wellbeing in the coming decades, in order to develop and implement a more enabling policy environment for addressing climate change.

Barriers to climate change adaptation

By ratifying the UNFCCC, the Kyoto Protocol and the Paris Agreement, Lesotho has articulated its commitments to addressing climate change and has deployed much effort in understanding the risks, impacts and vulnerabilities, as reflected in the First and Second National Communications to the UNFCCC and the National Adaptation Programme of Action (NAPA). More recently, the country has developed the National Climate Change Policy 2017-2027, to set out a coherent policy framework to

[46] Kingdom of Lesotho. 2018 Zero Hunger Strategic Review Report.
[47] Income Shocks and HIV In Africa: http://web.stanford.edu/~mburke/papers/Income_HIV_EJ_final.pdf
[48] Lesotho Government, Ministry of Energy and Meteorology, 2012. Climate Change Affects us all.

address climate change, and developed a Nationally Determined Contribution outlining adaptation and mitigation actions needed to address climate change. The National Communications note that major barriers to climate change adaptation in Lesotho are the inadequate national early warning system, and the lack of awareness on climate change, its impacts and the need to undertake appropriate adaptation measures. Based on the vulnerability analysis conducted above, as well as on the stakeholder consultations, a number of more detailed barriers to climate change adaptation can be identified, at different levels. These are summarized in Box 1.

Box 1 Barriers to climate change adaptation

At the government level:

- Lack of tools linking climate trends and future climate forecast.
- Safety nets not shock adaptive nor shock responsive.
- Lack of technical capacities and resources at district level (knowledge and resources).
- Lack of interconnectedness of climate interventions because of a project-based approach.
- Slow or limited integration of climate information into national programmes and policies, due to limited capacity and resources.
- Inadequate cross-sectoral coordination, with limited participation of women in relevant decision making.

At the community level:

- Lack of awareness and knowledge of climate change and its impact on livelihoods.
- Mismanagement of natural resources and lack of awareness of unsustainable practices that result in widespread land/environmental degradation.
- Superstitious beliefs often trump scientific information.
- Lack of adaptation options and practices that reduce vulnerability and strengthen preparedness to climate related hazards.
- Non-diversified livelihoods increase vulnerability to climate impact.
- Lack of access to information and knowledge to better manage increased climate variability and recurrent climate shocks.
- Cultural practices that limit the participation of women in decision making on adaptation options.

As identified by the National Resilience Framework, a critical issue for addressing likely increased incidence of climate-related shocks such as drought and flooding is that response strategies are not appropriately developed to fully address the needs of acute and chronic vulnerabilities.[49] The vulnerable and drought-prone southern districts of the country, namely Mafeteng, Mohale's Hoek and Quthing, would in particular benefit from enhanced predictability of drought and dry spells, and from an early warning and response system that triggers a timely and effective response.

Project area and target groups

To address the above challenges, the GoL, in partnership with the World Food Programme (WFP), seeks to strengthen the resilience of poor and vulnerable rural, food insecure communities and households in the low-lying areas of Lesotho. The targeted area for concrete interventions lies within the three southern districts of Mafeteng, Mohale's Hoek and Quthing, which have poor socio-economic status and high risk of climate impacts[50]. The targeted project area and beneficiaries were identified using two complementary and mutually reinforcing frameworks, namely the 2015

[49] National Resilience Strategic Framework and Theory of Change, 12 July 2017 draft.
[50] GoL 2007. National Adaptation Programme of Action. Lesotho Meteorological Services.

Integrated Context Analysis (ICA) and the NAPA. Figure 7 is the main output of the ICA carried out in Lesotho in 2015[51], highlighting the most food insecure, at risk and densely populated areas. The project area lies in the red rectangle.

CATEGORY 1	High recurrence of food insecurity prevalence above 20% High/ Moderate exposure & risk to natural shocks
CATEGORY 2	Moderate reoccurrence of food insecurity above 20% High/ Moderate exposure & risk to natural shocks
CATEGORY 3	High/ Moderate recurrence of food insecurity prevalence above 20% Low exposure & risk to natural shocks
CATEGORY 4	Low reoccurrence of food insecurity above 20% High/ Moderate exposure & risk to natural shocks
CATEGORY 5	Low reoccurrence of food insecurity prevalence above 20%. Low exposure & risk to natural shocks

Source: Integrated Context Analysis (WFP, 2015)

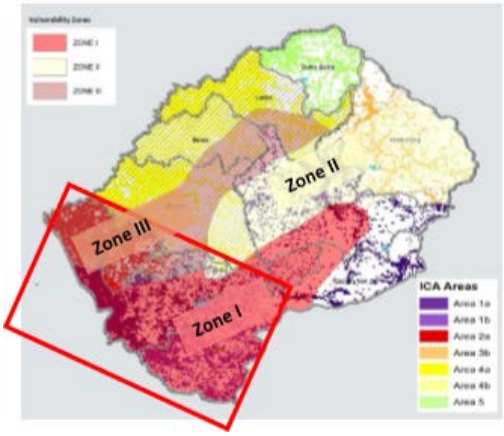


Figure 7. ICA and Categorisation of livelihood zones in Lesotho

Based on respective socio–economic and biophysical characteristics, the NAPA, which was developed through a participatory and integrated approach, classifies the country into three main vulnerability zones: Zone I (Southern Lowlands across the Senqu River Valley), Zone II (Mountains) and Zone III (Lowlands and Foothills). Owing to their socio-economic and biophysical parameters, Zones I and lll are most vulnerable to climate-induced risks. The targeted area lies in Zone I for Mohale's Hoek and Quthing districts and in Zone III for Mafeteng district. The targeted population in the three southern districts is identified as chronically vulnerable and most at risk to the adverse impacts of climate change[52]. This includes the poor and very poor socio-economic groups comprising of smallholder subsistence farmers, the elderly, the disabled as well as female and child-headed households, the unemployed youth and people living with HIV and AIDS. Different groupings will be targeted through different activities – see text on Component 3 for further details.

Mafeteng district, comprised of lowlands and foothills, consists of mainly marginal lands with low soil fertility, and suffers from high rates of soil erosion and environmental degradation. Livelihoods are dependent on cereal production and cash crops, and there is relatively improved infrastructure. Mohale's Hoek and Quthing districts lie in the drought-prone southern lowlands, where there is minimal arable land with little vegetation cover. As for Mafeteng, there is high soil erosion and environmental degradation, coupled with desertification. Livelihoods depend largely on low levels of crop production and livestock. Very high levels of chronic poverty are linked with the high unemployment rate and a lack of infrastructure: there are few roads and low levels of water and electricity services, with many settlements lying remote from town service centres. All three districts have high population density, very high levels of malnutrition and food insecurity, and low levels of hygiene and sanitation. Stunting, which is more prevalent in rural areas in general (35 percent) than in urban areas (27 percent), is an enduring problem in the three targeted districts. Boys are more frequently affected (39 per cent) in comparison to girls (28 per cent).

[51] In the 2015 Integrated Context Analysis, food security and natural shocks data were collected at livelihood zone level and at district level, respectively. The food security analysis was carried out using data from the vulnerability assessment reports where sampling was conducted at livelihood zone level. Natural shock data were sourced from the Disaster Management Authority (DMA) as well as other government reports.

[52] 2015 Integrated Context Analysis.

Land degradation due to a combination of repeated droughts, poor land management, and increased resource competition decreases available arable land, increasing vulnerability (Figure 8).

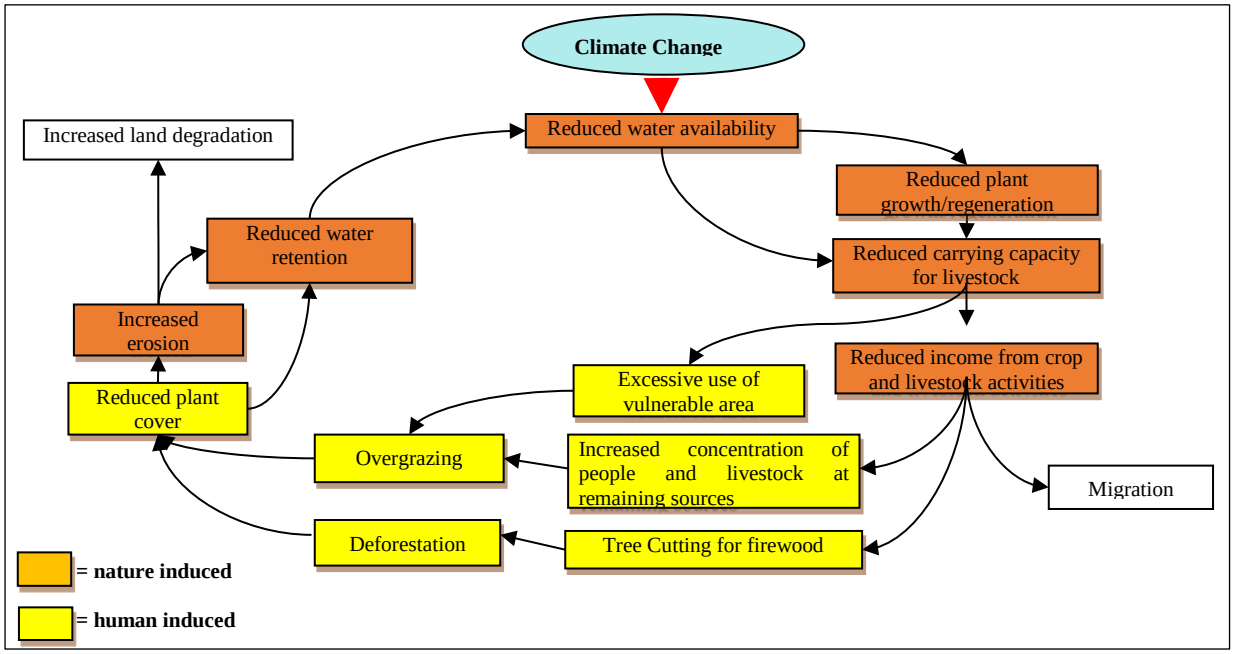


Figure 8: Causes of increased land degradation in the southern low-lying regions of Lesotho

To break the cycle indicated in Figure 8, the physical actions on adaptation (asset creation) will be implemented within the estimated 18.7 percent (549 km2) of the total area that falls within the moderate to highly degraded environment category.

There will be four different types of beneficiaries, as indicated in Table 1.

Table 1: Summary table of beneficiaries

Category	Receiving benefits from:	No. of people	Total beneficiaries
A	Cash transfers, inputs, tools and technical assistance (the most vulnerable)	42,840	Total number direct beneficiaries in 3 districts = 86,000
B	Inputs, tools and technical assistance (food insecure but less vulnerable people)	43,160	
C	Community assets, climate services & awareness raising	215,000	Total number direct beneficiaries in 3 districts = 215,000
D	National-level awareness raising strategy	800,000	Total number indirect beneficiaries nationally = 800,000

The project will target 60% female and 40% male beneficiaries for categories A and B. Category C beneficiaries represent the total population of the three southern districts of 215,000, of which 52 percent are women/girls, and 48 percent are men/boys. Of the total of 215,000 people, 24 percent or 51,600 are youth.

In the three southern districts, direct benefit from the FFA asset building activities under Component 3, through the cash-based transfer (CBT) mechanism, will be implemented at 21 project sites and for 3 out of the 4 years of the project's duration. The transfer will be provided to assist vulnerable food insecure people to cover their food gap during the lean season, so that they are able to participate in

asset creation activities to build their resilience and to adapt their livelihoods for longer-term climate change.[53]

Please see Annex 2 for further details of the estimated number of project beneficiaries and the list of community councils, and Annex 3 for maps of the project areas.

In the targeted communities, there is an urgent need to prevent violence against women and girls, ensure equitable access to social services and productive inputs and promote the equality of women in labour markets and decision-making processes to ensure full contribution to climate related planning, policy making and implementation. For people living with HIV, the consequences of inadequate and insufficient nutrition intake can be detrimental for the disease progression and the treatment outcomes. In addition, HIV increases the vulnerability of already economically stressed and food-insecure households caring for PLHIV and children living with HIV. Specific activities are integrated into the project design to address these issues, such as developing targeted messages on climate change, nutrition and HIV under Component 2, and ensuring that asset creation activities under Component 3 are carried out in conjunction with sensitisation and behaviour change interventions to address violence against women and girls. The WFP gender team will provide additional guidance in terms of practical tools to be used to achieve greater participation of women in integrated watershed management, climate-resilient agriculture, and associated benefits.

Project Objectives

The main goal of the project is to enhance the adaptive capacity and build the resilience of vulnerable and food insecure households and communities to the impacts of climate change on food security. The project will achieve this by pursuing the following three objectives:

a) Strengthening government capacities to generate climate information and promote its use to forecast risks of climate shocks, mobilise early action, and co-develop tailored and locally relevant climate services for communities;

b) Raising awareness of communities, women, youth, people living with HIV, and other vulnerable groups on the impacts of climate change, the importance of adaptation, and the use of climate information for seasonal planning and climate risk management; and

c) Designing and implementing, through a community-based planning process, local resilience and adaptation plans focusing on robust asset creation schemes, income diversification and market linkages, for increased adaptive capacity and household resilience.

To respond to the challenges and local context set out above, the project has been designed based on lessons learned from existing project experiences of the GoL, WFP and other partners in the field, as well as scientific evidence from peer-reviewed literature and the Intergovernmental Panel on Climate Change (IPCC). The outcomes of the community consultations are reflected in the design, as indicated throughout the proposal. Furthermore, the design is sufficiently broad so that it can to be adapted to the situation of local communities, in that Component 3 allows for selection of concrete adaptation measures based on a community-based planning process.

Key cross-cutting issues mainstreamed into project design are:

[53] Additional information is provided in the text on Component 3, in section A of Part II.

- **Gender transformative**: The project identifies actions and procedures across all three components aimed at mainstreaming gender and ensuring that it provides women and men with an equal opportunity to build resilience, address their differentiated vulnerabilities and increase their capability to adapt to climate change impacts. Mechanisms to manage potential risks to the promotion of gender equality and the empowerment of women as well are also identified. The ability of women in the three targeted districts who are involved in agricultural activities to act as agents of change will be strengthened, and specific activities have been developed that target women exclusively.[54] Awareness raising on gender issues on its own will not deliver a gender transformative approach, and therefore a collection of communications approaches, activities, and tools will be used to positively influence behaviours.
- **Environmental and social sustainability**: The project further embraces a do-no-harm approach. It includes an environmental and social management plan (ESMP) to ensure that environmental and social risks are identified and assessed at the earliest possible stage, and that measures are adopted to avoid or to minimize those risks during implementation.

Project Components and Financing

Project/Programme Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
1. Institutional capacity and systems building to support national and community adaptation and management of climate change impacts	Outcome 1.1: Increased knowledge and technical capacity at national and district levels to forecast, plan, and anticipate responses to climate change impacts	Output 1.1.1: Strengthened sub-seasonal to seasonal precipitation and temperature forecasting to feed into National Early Warning System to trigger early action through government and other safety net programmes	1,071,832
		Output 1.1.2: Capacities strengthened through development of standard operating procedures in response to climate change-related drought shocks	551,012
	Outcome 1.2: Strengthened access to tailored climate information by vulnerable communities to improve decision making for food security and livelihoods	Output 1.2.1: Enhanced understanding of local knowledge and beliefs on climate change and acceptability of climate services	138,082
		Output 1.2.2: Strengthened access to tailored seasonal forecasts that meet the needs of vulnerable communities	795,082
2. Awareness raising of vulnerable communities on climate change impacts and adaptation	Outcome 2.1: Strengthened awareness of climate change impact on food security amongst vulnerable communities and youth and knowledge of adaptation actions	Output 2.1.1: Coherent and institutionalised multi-level programme on awareness raising on climate change designed and operationalized	433,482
		Output 2.1.2: Enhanced capacity of media houses and reporters to effectively write and publish climate change stories	101,482

[54] See the write-up on Component 3, in Section A of Part II.

		Output 2.1.3: Communities understand and use climate information and are aware of climate change threats and impacts on food security Output 2.1.4: Raised awareness of scholars through integration of climate change into school curricula and training of teachers on climate change impacts	311,982 269,482
3. Strengthening resilience at community level through community-based concrete adaptation and resilience measures for improved food systems	Outcome 3.1: Increased adaptive capacity of communities and households to respond to droughts and water-related hazards	Output 3.1.1: Community resilience and adaptation plans developed through community-based participatory approaches Output 3.1.2: Community nutrition-sensitive productive assets and other livelihood resources developed to support climate risk reduction and adaptation measures Output 3.1.3: Established market linkages for sustained income generation activities	457,238 3,559,218 651,750
6. Project/Programme Execution cost (9.5%)			875,850
7. Total Project/Programme Cost			9,216,492
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (8.5%)			783,402
Amount of Financing Requested			9,999,894

Projected Calendar

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

PART II: PROJECT JUSTIFICATION

A. Project Components

This project is of pivotal importance for increasing the adaptive capacity of the country's most vulnerable households and communities, located in the three southern districts of Mafeteng, Mohale's Hoek and Quting. The project aims at building resilience to the impacts of climate change while advancing equitable social welfare and income generating opportunities, as well as safeguarding the environment, in three main ways: i) building and strengthening the currently weak institutional capacity and systems to support communities and household to adapt to and manage climate risks; ii) strengthening communities' awareness and understanding of climate change, its impacts and adaptation, and enhancing communities' ownership of adaptation plans and interventions, including generating behavioural change for effective climate change management; and iii) facilitating community-based local adaptation planning to deploy resilience building measures and adaptation

technologies that will strengthen and support vulnerable food insecure households and communities to meet their immediate and future food and nutrition security needs under conditions of increasing climate risks. These objectives will be achieved through three interlinked components:

- Component 1: Institutional capacity and systems building to support national and community adaptation and management of climate change impacts;
- Component 2: Awareness raising of vulnerable communities on climate change impacts and adaptation; and
- Component 3: Strengthening resilience at community level through community-based concrete adaptation measures and improved food systems.

The components have been designed to translate important national policy statements into action on the ground. During development of Lesotho's National Resilience Strategic Framework (2017), resilience was framed in Sesotho as "Boitšematlelo", or "Ho tsoha 'moi", with three core elements: knowledge (Kutloisiso/tsebo); capacity (Bokhoni) and ability to withstand shocks (Boikemelo). The project will contribute towards realization of each of these core elements at different levels (individual, household, community and institutional) in an integrated fashion, through the three inter-linked components.

The design has specifically been developed to respond to the outcomes of the community consultations process set out in Section H and Annex 6. In summary, communities highlighted that addressing climate change risks, particularly on agriculture, food security and nutrition, as well as water security, were urgent needs and priorities; indicated that their awareness, knowledge and understanding of climate change was inadequate; and identified key adaptation and resilience building interventions. Regarding the creation of assets and diversification of livelihood sources for resilience building, communities identified the following interventions as key adaptation and resilience building interventions: establishment of homestead farms, support on climate-smart agriculture, support on the uses of improved seed varieties, afforestation and reforestation programmes and clean energies, the integration of climate change into education curricula at all levels, household and community water harvesting and conservation schemes for domestic as well as other productive purposes, and income generating opportunities. All of these needs have been integrated into the project design, as shown in the discussion of the project components below.

In total, 215,000 people will benefit from newly built community assets, such as soil and water conservation structures, which will result in improved soil quality, reduced erosion, improved availability and quality of water. Farmers will also have access to tailored climate and weather information, which will help them to take better decisions and to better manage weather variability and climate-related shocks for greater food security. Of these beneficiaries, 86,000 will also benefit from technical assistance and training in the development of productive assets, other livelihood resources and establishment of market linkages for sustained income generation. They will receive inputs and tools and the most vulnerable among them (42,000 people approx.) will receive cash transfer to cover the food gap. The project is expected to result in a 50% increase in the Household Dietary Diversity Score, which is used as a proxy measure of household food access, i.e. measures the impact of the project on food access, and is used to track the project goal of reduced food and nutrition insecurity. A 50% increase in HDD will which represents an important increase in nutritional benefits

for all household members, and in particular for women, children, and PLHIV. Kindly refer to Annex 9 for additional information on evidence of food security benefits achieved through FFA programmes.

Opportunities to increase women's participation in the project's activities and decision-making processes have been identified. These include: (i) inclusion of sex-disaggregated indicators and targets in the project results framework, to ensure participation of women in awareness-raising activities, capacity building, and any management committees; (ii) targeting of gender-differentiated vulnerabilities into project interventions so that groups most vulnerable to climate variability and change receive support; (iii) designing women capacity building and skills enhancement programmes; (iv) ensuring the participation of the Ministry of Gender Youth Sports and Recreation (MoGYSR) and Women in Law in Southern Africa (WILSA) throughout project planning and implementation, to ensure that gender considerations are appropriately mainstreamed into project activities. In collaboration with the MoGYSR and youth organizations, the project will adopt a consultative approach specifically targeting the youth as a means to actively engage youth in asset creation and income generating activities.

Project components

Component 1: Institutional capacity and systems building to support national and community adaptation and management of climate change impacts

Component 1 specifically responds to the first of four objectives of the National Resilience Strategic Framework, which is "To detect in advance and take early action to prevent and mitigate the potential negative impact of shocks and stresses through an effective and efficient early warning system". Under Component 1, the Adaptation Fund project will focus on developing the capacity for a specialised sub-seasonal to seasonal precipitation and temperature forecasting system (S2S) to cover the entire country, with national and sub-national forecasts. The sub-national forecasts will be tailored to the targeted districts.[55] This will be linked to the development of an integrated early-action system, through standard operating procedures (SOPs) at national and district levels, for one of the key climate change-related hazards affecting the livelihoods and food security of smallholder farmers in the three southern districts, namely drought. Enhanced S2S forecasting will be a critical input into the community-based adaptation planning under Component 3. Together with the National Climate Change and Food Security Analysis, it will also provide valuable information to be disseminated through the awareness raising activities under Component 2.

Rationale. Lesotho has made efforts towards establishing a robust and integrated national Early Warning System (EWS) and Lesotho Meteorological Services (LMS) continues to upgrade and extend the observational network and carry out capacity development. However, the EWS is not yet sufficiently functional, disaster risk reduction mechanisms are fragmented, and the Disaster Management Authority (DMA) requires additional capacity development and reorientation to fulfil its important role in a proactive and effective manner. Seasonal forecasts do not provide accurate information on the likelihood of drought or timing of dry spells in different parts of the country. Early action and response systems to shocks such as drought and floods are not yet sufficiently efficient and effective, and are not functionally linked to social protection systems. Relevant information for early

[55] Due to downscaling limitations related to complex terrain in other parts of the country, and limited automated weather station (AWS) coverage, additional refinement would be needed to develop accurate sub-national forecasts for other districts.

warning/ early action (EW/EA) exists in different formats and databases that are hosted by different institutions, making access and utilization difficult for EW/EA stakeholders.

To address these constraints, the specific objectives of this component include:

a) Building capacities of the LMS to: (i) generate national and sub-national S2S forecasts, through enhanced downscaling of global and regional seasonal forecasts to the local context; (ii) correlate seasonal forecasts and longer-term climate outlooks to their relevance and impact on food security; and (iii) develop thresholds and triggers to inform early actions through standard operating procedures for drought.

b) Building the capacity of LMS and other actors to develop tailored climate products that meet the needs of end-users, including both local planners and vulnerable and food insecure communities. Based on an anthropologically informed climate perceptions study that includes in-depth assessment of users' needs for climate services while simultaneously understanding the barriers to uptake of climate information, the LMS will work with final users and key stakeholders to co-develop different products to support better climate risk management and long-term adaptation.

c) Strengthening access to better climate and weather information through the identification of most suitable dissemination channels and establishment of key partnerships (including between private and public sectors) to ensure sustainability.

d) Training and capacity building of key stakeholders including media, NGOs, ICT providers, community radios, Red Cross, District Disaster Management Teams (DDMTs), Village Disaster Management Teams (VDMTs), representatives of traditional, cultural and religious institutions, etc., to enhance effective communication related to climate change, including expected impacts in target districts and short- and long-term variability. This will complement the provision of information through climate services as well as the work done in Component 3 to support local communities develop their climate adaptation strategies.

Component 1 has the following outcomes:

- Outcome 1.1: Increased knowledge and technical capacity at national and district levels to forecast, plan and anticipate responses to climate change impacts
- Outcome 1.2 Strengthened access to tailored climate services by vulnerable communities to improve decision making for food security and livelihoods

Each of these outcomes will be achieved through a number of outputs and associated activities, as detailed below. The project will be informed by the Enhancing National Climate Services (ENACTS) approach, which focuses on the creation of reliable climate information that is suitable for national and sub-national decision-making.[56]

Outcome 1.1: Increased knowledge and technical capacity at national and district levels to forecast, plan and anticipate responses to climate change impacts

Under Outcome 1.1, a strengthened S2S precipitation and temperature forecasting system will be developed and linked to standard operating procedures (SOPs) for drought to trigger early action

[56]ENACTS is a unique initiative developed by National Meteorological Agencies (NMAs), the International Research Institute for Climate and Society (IRI) and partners to provide reliable and readily accessible climate data at high resolution to decision makers in Africa. The ENACTS initiative delivers robust climate data, targeted information products and training specifically relevant to user needs, enabling them to apply climate information to decision making in multiple sectors (agriculture, water, health, insurance) with confidence.

through partner interventions and government safety net programmes. The linkages between a drought forecast, and appropriate early actions to mitigate the impact of a drought, will be analysed through the strong and ongoing support by WFP and the technical experts at the International Research Institute for Climate and Society at Columbia University (IRI). Based on this work, a set of early actions will be developed at national and subnational levels that uses pre-defined drought thresholds in the seasonal forecast to trigger appropriate early actions, including through government safety net programmes, and adaptation measures.

As such, this will be a component of the overall National Early Warning System for a wider range of hazards that is being supported concurrently through the UNEP/GEF LDCF EWS Phase II, and the AF project will implement these activities in close coordination with the EWS Phase II project, which will further strengthen the capability of the Lesotho Meteorological Services (LMS) to forecast for additional hazards (hailstorms, frost, flash flooding, extreme temperatures, etc.) across several time horizons: nowcasting, short-range, medium-range, and extended range, and to develop the associated early action systems for these hazards. See Table 3 and Annex 4 for additional information on complementarity with the EWS Phase II project.

Outcome 1.1 contains two outputs described below.

Output 1.1.1: Strengthened sub-seasonal to seasonal precipitation and temperature forecasting to feed into National Early Warning System to trigger early action through government safety net programmes

Strengthening S2S forecasting will entail firstly improving LMS' historical database of spatially and temporally complete gridded climate data series going back over 30 years by combining LMS station observations with satellite rainfall estimates (for rainfall) and climate model reanalysis products (for temperature). Capacity strengthening of computing power for analysing observations and integrating these into the seasonal forecast will be carried out. This activity will be conducted in a complementary fashion to the UNEP/GEF LDCF EWS Phase II project support for enhancing the high-power computing (HPC) centre at LMS, for the most efficient use of resources.

The LMS archiving system and historical database with respect to S2S forecasting needs will be strengthened, staff trained to maintain the observational database on an ongoing basis, and web-based map rooms established in LMS for sharing the historical observations and tools to describe the variability in rainfall and temperature with users. The map rooms (information portal) will be co-developed by LMS with national decision makers such as Ministry of Agriculture and Food Security (MAFS), civil protection, DMA, as well as relevant partners including NGOs, to coordinate seasonal forecasts and related data and information, such as food security vulnerability analyses.

Map rooms (sources of information) will be monitored and analyzed by LMS, which, upon detection of a possible drought, will trigger contextualization of this by other sectors that will, in turn, develop and disseminate sector-based advisories. The map rooms will allow tailoring such triggers with user-defined shock severity and confidence levels.

Once the calibrated S2S precipitation and temperature forecasting system has been set up and national and sub-national forecasts can be produced, thresholds will be developed for drought

impacts on other sectors e.g. food security, water, and health. This will require quality interaction between climate scientists and sector experts, and has been budgeted for accordingly. Ongoing support will be provided in the form of revisiting the needed forecasts in light of stakeholder inputs on the drought thresholds, which will require collaborative work between LMS and technical specialists on seasonal forecasting such as IRI.

A National Climate Change and Food Security Analysis will be conducted to better understand what the near- and long-term impacts of future climate change will be on food security and nutrition, to inform national level policy and proactive implementation of key vulnerability reduction measures. An innovative aspect of this will be to develop decadal predictions – i.e. for the next couple of decades – and to use these to develop an impact study with respect to food security and nutrition. This will be an exciting tool for policy makers and managers across sectors and groupings, who will find the shorter-term projections more relevant to their decision scales. The impact analysis associated with the decadal predictions will also be used to develop critical messaging during the awareness raising activities under Component 2, as well as for the empowerment process of the community-based local adaptation planning under Component 3. The partner to develop the decadal predictions part of the study is likely to be the UK Met Office, given its expertise in this area. Regionally based organisations such as the CSIR and the Climate Systems Analysis Group in South Africa will be considered for the impact analysis.

Indicative activities

Activity 1.1.1.1: Stocktaking of current practices and capacity for seasonal forecasting (detailed assessment, including of historical data, and detailed workplan to address capacity gaps)

Activity 1.1.1.2: Capacity strengthening of computing power for analysing observations and integrating into seasonal forecast

Activity 1.1.1.3: Strengthen LMS archiving system and historical database with respect to sub-seasonal to seasonal forecasting needs

- IRI data library tools installed and staff trained on how to use this
- Quality controlled station data
- Gridded rainfall time series 1983-current at 4km spatial resolution
- Gridded minimum and max temperature at 4km resolution
- Report on process and quality of generated products

Activity 1.1.1.4: Training staff to maintain observational database on an ongoing basis

Activity 1.1.1.5: Install web-based map rooms in LMS for sharing the historical observations and tools to describe the variability in rainfall and temperature with users

Activity 1.1.1.6: Develop a specialised sub-seasonal to seasonal precipitation and temperature forecasting system for drought at national and sub-national (3 targeted districts) forecasts

Activity 1.1.1.7: National climate and food security analysis on near and long-term impacts of climate change on food security and nutrition

- Develop decadal and long-term climate projections

- Carry out impact analysis (crops (including drought-resistant sorghum) and nutrition) for three timeframes

Activity 1.1.1.8: Develop thresholds for drought impacts on other sectors e.g. food security, water, and health

Activity 1.1.1.9: Seasonal forecast support – revisiting needed forecasts in light of stakeholder input on thresholds

Output 1.1.2: Capacities strengthened through development of standard operating procedures in response to drought

Currently there are no documented standard operating procedures (SOPs) for the generation, dissemination and utilization of climate data and information for preparing for, and act early before drought in Lesotho. Given that the frequency and severity of drought is likely to increase in Lesotho under climate change, developing an integrated EW/EA system for drought is critical for timely, effective and efficient prevention-oriented and resilience-focused interventions, particularly in the drought-prone southern districts targeted in this project.

This output of the project will close the loop for early warning and early action by connecting the enhanced forecasting for drought developed under the activities of Output 1.1.1 to an integrated and proactive early action and response system for drought. Output 1.1.2 will support the development of a national mechanism for forecast-based early action by developing a seasonal forecast and trigger system for drought in target areas, downscaled (country specific) from regional and national forecasts and will build the capacity of national stakeholders (LMS, MAFS, DMA, etc.) to define their own thresholds and triggers to inform the development of integrated early action plans. This system will be developed by LMS with the appropriate engagement from the International Research Institute for Climate and Society (IRI) of Columbia University.

The approach adopted is one of forecast-based financing (FbF), in which climate information is used to develop weather-hazard thresholds that impact food security sectors, triggers based on the probability of the weather event occurring, pre-agreed actions (SOPs) to mitigate the impact of the weather event, and link those to contingent funding for these early actions. Under this approach, a portion of funds that under a business as usual scenario would be used for response will be allocated to proactive and early action to mitigate the impacts of drought and thereby require fewer funds for response, reducing overall costs and livelihood impacts. FbF was successfully used by WFP and partners in the context of the 2015/16 El Niño drought to respond to the impacts of drought in Guatemala and Zimbabwe and helped vulnerable communities take early action to reduce the impacts on their livelihoods. The key to the success of FbF is the emphasis on developing government capacity to anticipate, absorb and prepare for the impacts of climate-related disasters as part of a more comprehensive and well-integrated disaster risk management system that includes disaster preparedness, anticipation and mitigation (Component 1), and long-term resilience-building (Component 3).

Output 1.1.2 will build upon the work carried out under the ECHO project on EW/EA and shock responsive social protection systems. The AF project will develop SOPs for EW/EA on drought, while the ECHO project will develop EW/EA with respect to weather observations to confirm seasonal

forecast impacts and support early response actions. The AF project will build on the updating of the National Information System for Social Assistance (NISSA) and the Land Cover and Hazard Mapping supported by ECHO to provide a platform for timely, effective and efficient prevention-oriented and resilience-focused interventions. Relevant stakeholders will be able to access and use updated NISSA and explore linkages with other information systems for targeting vulnerable households before and during shocks like drought.

The AF project will complement the technical assistance (TA) to be provided under the EWS Phase II project to DMA, by supporting a change management process for the re-orientation of DMA, in the light particularly of the increased workload implications over the next couple of decades that are likely to be revealed by the decadal projections part of the National Climate Change and Food Security Analysis (Output 1.1.1).

The SOPs for drought preparedness and early action will be developed for relevant stakeholders to take up climate information and translate its impact into respective sectors. They will also guide monitoring and communication of anticipated crises, and coordination and implementation of response actions (early response mechanisms) to ensure food and nutrition security. In addition to international partners, local and international NGOs, and the private sector, the project will work with a range of government institutional divisions, including Ministry of Energy – Lesotho Metrological Services; Ministry of Agriculture and Food Security- departments of Crops, Livestock, and Field services; Disaster Management Authority - National Early Warning unit, District Disaster Management Teams, and Village Disaster Management Teams; and Ministry of Forestry, Range and Soil Conservation - Department of Rangeland Management.

An initial national stakeholder workshop will be held to sensitise government, NGOs and other partners on the need to develop SOPs for drought preparedness and early action and to develop a roadmap for the way forward. Relevant service providers e.g. members of the DDMTs will be brought to this workshop from each of the three targeted districts. Stakeholders will validate the drought thresholds for different sectors and develop triggers and actions to constitute the national SOP for drought at a subsequent national workshop. After this, district-level triggers and early actions (the SOPs) will be developed in the three southern districts, to define the field-level actions for drought in each district.[57] This process could subsequently be refined and contextualised for other districts, providing an opportunity for the GoL to scale up these project-supported actions. Finally, under this output, a study for the integration of the SOPs into the legal framework will be supported, to further promote sustainability and institutionalisation.

Indicative activities

Activity 1.1.2.1: Conduct scoping study on landscape (including stakeholder mapping) and existing protocols to monitor food security, anticipate and communicate crises, and coordinate and implement anticipatory action

Activity 1.1.2.2: Facilitate roadmap for re-orientation of DMA in the light of increased workload implications of decadal projections study

[57] This will be done through a series of three district SOP workshops: (i) sensitisation (2 days); (ii) develop district SOPs (3 days); (iii) validate the district SOPs (1 day).

Activity 1.1.2.3: Initial national stakeholder workshop to sensitise on need to develop SOPs for drought response

Activity 1.1.2.4: Validate thresholds and develop triggers and actions – national SOP

Activity 1.1.2.5: Develop triggers and actions at district-level in the three southern districts

Activity 1.1.2.6: Study for integration of the SOPs into the legal framework

Activity 1.1.2.7: Analyse and document a case study on the benefits of acting early to further inform the development of a potential national system for FbF.

Box 2: Link with social protection

Link with Social Protection

When policymakers consider the use of social protection systems to address seasonal needs or humanitarian crises, there are several strategies that can be employed to scale up the overall level of support provided to vulnerable people. For example, policymakers could graft an entirely new emergency response programme onto existing social protection administrative systems, such that the targeted households and the support provided are completely different, but the delivery channels are the same, thereby offering improvements in efficiency. Lesotho's National Social Protection Strategy 2014/15-2018/19 for shocks sets a vision for 2025 stating that "It is essential that the social protection system is used to build the resilience of Basotho families and to provide support in the face of shocks''. It plans to achieve this by developing a comprehensive national disaster management and shock responsive framework.

The Integrated Watershed Management Programme (Fato-fato) operated by the Ministry of Forestry employs 10,000 people per month to plant trees and carry out other environmental conservation work at the village level. The social safety net programme is not targeted and works on a first-come, first-served basis, with the condition that only one household member can participate in a year. Despite the fact that the programme is fully funded by the government, with an annual budget of USD 8 million (and in 2013 was USD 15 million[58]), there are currently no records on the type and number of beneficiaries, or evaluations of the programme's impact. Through Component 1, the AF project will aim to link the forecast and triggers created with the Fato-fato programme. The Fato-Fato programme will be part of the financing mechanism of some of the early actions under the SOPs. The project will work to develop the Ministry of Forestry's capacities to use S2S forecasting to inform the implementation of the Fato-Fato Programme, namely the selection of project sites, the scale and type of assets to be developed. As such, based on forecasts and subsequent triggers, Fato-fato resources will be used for the development of resilience assets in those areas that are expected to experience the impacts of climate-related shocks. Activities under Component 3 will serve as a pilot and are expected to demonstrate how the S2S forecast can be linked to pre-agreed mitigating actions, asset creation planning, informing decisions on what type of assets should be created, when and where. It is expected that this approach will bring significant gains to the efficiency and effectiveness of the Fato-Fato programme, paving the way for a more shock-responsive social protection system in the country, while also strengthening the government ownership and thus sustainability of a potential FbF system in the country.

Outcome 1.2 Strengthened access to tailored climate services by vulnerable communities to improve decision making for food security and livelihoods

Being able to access easy-to-understand and timely climate information allows communities to take better decisions and to better manage weather variability and climate-related shocks for greater food

[58] World Bank (2013) 'Lesotho – a safety net to end extreme poverty'. World Bank report no. 77767-LS. WB Human Development department, Social Protection Unit, Africa Region.

security. Examples of climate services include using weather forecasts and early warning systems to help people prepare for a major storm event; providing information that helps pastoralists choose grazing routes for livestock during a drought; or using seasonal forecasts to provide agro-meteorological advice to farmers on the best crops that will withstand a predicted wetter or drier season than the norm.[59] Thus it is clear that the notion of climate services includes providing information on both rapid-onset events (such as flooding) and slower-onset events (such as drought), as well on year-to-year climate variability and longer-term climate trends.

Additional stakeholder engagement carried out after the approval of the Concept Note revealed a number of different projects that will be working on the climate services landscape in Lesotho. Thus it was important to differentiate the area of focus for this project in this regard.

The LMS will continue to improve the accuracy and reach of its short-term weather forecasts through the support of the GoL/UNEP/LDCF Early Warning Phase II project, which will provide both hardware and 'software' support for this, as well as through support under the proposed Green Climate Fund (GCF) Readiness funding. Given this point, and given the focus of Component 1 on strengthening S2S forecasting, it is logical and efficient for the information generated through S2S to be the basis for the tailored weather and climate information for vulnerable communities to be produced under Component 1.

The AF project has a clearly defined niche in this landscape, in that it will support the production of longer-term S2S forecasts and, within the ongoing work of the LMS and other government partners, make them available in a suitable format to a variety of end users.

While drought is an important climate hazard facing communities in the southern districts in which the project will operate, it is certainly not the only focus of comprehensive climate information that will be shared with communities ahead of the season. Component 1 activities will generate enhanced sub-seasonal to seasonal forecasts, that will in some years indicate drought, but in other instances will provide an indication of expected precipitation patterns, including expected frequency and length of dry spells. The enhanced seasonal forecasting ability will also allow for more accurate prediction of onset and cessation of the rainy season. All of these are important parameters that have a definitive impact on smallholder farmers.

Agriculture extension workers will be trained to interpret and communicate relevant climate information to rural audiences. Additional activities as set out under Output 1.2.2, as well as Components 2 and 3, will ensure that forecasts are tailored to the needs of end users, through a process of knowledge co-production.

Outcome 1.2 has two outputs, described below.

Output 1.2.1: Enhanced understanding of local knowledge and beliefs on climate change and acceptability of climate services

Consultations undertaken during the formulation of the National Climate Change Policy in 2017, the project scoping mission in July-August 2017, and subsequent consultations indicated that while many Basotho attribute climatic extremes to natural variability, a significant number attribute these events

[59] WFP (2017) Climate services briefing note. Available at https://docs.wfp.org/api/documents/WFP-0000009142/download/?_ga=2.7637109.690513904.1539937698-1367131024.1539612117

to religious or cultural beliefs. Several stakeholders and community members cited lack of adherence to religious and traditional belief systems and cultural norms as the main causative factor for climate change[60]. Discussions with LMS confirmed that climate related disaster warnings aired during recent years were ignored as, due to religious beliefs, some communities believed that rains would come. With additional sensitisation, some opinion leaders who often appear on radio shows, could play an important role as vehicles for change if they understand and are involved in delivering climate information and solutions to the people.

To address this situation, a 'Climate change perceptions and climate information needs study' will be conducted, on local knowledge, beliefs and understanding of climate patterns and climate change, which identifies barriers to uptake of climate services and possible solutions; and includes detailed community-level needs assessments carried out in the three focus districts. This study will feed into the awareness raising activities conducted under Component 2 and will inform the climate services developed under Output 1.2.2.

It is important to identify barriers as well as facilitating factors for behavioural change. This study, which constitutes formative research to feed into the National Climate Change Awareness Raising and Communication Strategy (NCCAR&CS) detailed under Component 2, will elucidate current knowledge, attitudes and practices related to the resilience and adaptive capacity building goals of the AF project. It will also assist in developing audience segment profiles and provide recommendations on the range of communication channels and tailored messages that are necessary to raise awareness and communicate effectively on climate change in Lesotho, and will provide an input into the further development of culturally appropriate climate services. The study will assist with identifying areas of convergence and divergence between climate science and local and indigenous knowledge, so that awareness raising and behaviour change messaging can be developed from areas of convergence. Given the aims of the study, it will be conducted by specialists with both anthropological and climate services expertise. The study will further adopt a nutrition sensitive approach, so that it can provide recommendations to facilitate uptake of messaging on how communities can adapt to climatic changes by resorting to growing climate-resilient crops that are also nutrient rich.

Note that this will not be the only needs assessment upon which climate services delivered in the project will be based. Rather, the project will adopt an iterative approach to understanding climate services needs, and to tailoring culturally appropriate and adequately disaggregated climate services, in which the Focus Days under Output 1.2.2 and the annual seasonal forecast planning meetings in the three targeted districts will serve as ongoing opportunities to better understand the information needs of the different community segments and to increasingly refine and enhance the climate services that are co-produced and disseminated. This approach has been adopted as consultations have revealed that communities in the three southern districts have little to no knowledge on climate change or access to reliable climate/weather information. Thus, as their knowledge grows with the implementation of project activities under Components 2 and 3, their ability to articulate their needs clearly will grow, allowing for an increasingly substantive engagement in knowledge coproduction. The knowledge of service providers will grow too, through this dynamic process, and thus an iterative

[60]Lesotho Government, 2017.Ministry of Energy and Meteorology. National Climate Change Policy 2017 – 2027.

approach will allow for a process of continuous improvement of both needs articulation and knowledge coproduction to address this.

The 'Climate change perceptions and climate information needs study' will contribute to understanding how climate change is perceived and experienced by communities, from their socio-economic perspectives. This includes how gender and age may exacerbate climate change vulnerability, especially in relation to increased gender related workloads and opportunity cost associated with these workload changes. An important aspect of the study will be to understand how people take decisions related to their livelihoods, and to identify potential entry points to blend indigenous with scientific knowledge. The study will develop recommendations on engaging community leaders, opinion formers as well as vulnerable communities in a more productive and sustainable manner and will inform output 1.2.2, which aims at co-developing climate services based on S2S forecasts and translating them into advisories tailored to the needs of communities. Participatory consultations at community level will also allow the identification of the most suited, culturally-appropriate channels to share information with a attention given to how most vulnerable people in communities access information (e.g. women, elderly, illiterate people, etc). A variety of ICTs and other channels could therefore be used depending on communities' preferences (i.e. mobile phones, tailored radio programmes, churches, school, etc.).

Indicative activities

Activity 1.2.1.1: Conduct 'Climate change perceptions and climate information needs study' on local knowledge, beliefs and understanding of climate patterns and climate change, which identifies barriers to uptake of climate services and possible solutions; and includes detailed community-level needs assessments carried out in the three focus districts

Output 1.2.2: Strengthened access to tailored seasonal forecasts that meet the needs of vulnerable communities

Developing climate services (CS) involves the timely production, tailoring, translation and packaging of weather and climate information to ensure that people have access to the knowledge that is most relevant to their needs and can easily interpret and use it.

Improving LMS seasonal forecast data will not be sufficient to enable climate-resilient livelihoods in Lesotho. Vulnerable communities need to have access to reliable information that they can easily understand and act upon, both before the season (so that they start planning ahead) and during the season to make further adjustments to their practices. Analyses under output 1.2.1, including the community-level needs assessment, will be key to better understanding what type of information people are receiving at the moment (and who receives it), whether they trust the information they have access to, how they use it, and how people make decisions ahead of the season. This, together with a better understanding of local and traditional knowledge, will also help to understand how people want information to be communicated to them, with specific focus on how different people in a community are able to access climate and weather information and potential challenges to be solved.

Once tailored climate data is produced, the project will support the co-production of key messages for communities by engaging key stakeholders at district level during production of the seasonal

forecasts and other forecasts (bi-monthly, monthly, etc). Co-production will happen in designated Focus Days where key actors will meet to discuss, validate and tailor information provided by LMS into meaningful and easy to understand messages for communities but will also provide some light advisories and options for communities to choose from. These Focus Days will be in addition to the annual seasonal forecast planning meetings under Component 3, which will provide further opportunities for discussion and refining climate services through a knowledge coproduction process. In addition, the project will consider how best to deliver the seasonal forecast through systems being developed to deliver weather and climate information using alternative ICTs.

Amongst others, representatives in the Focus Days could include LMS staff, district level agricultural/extension services, DDMTs, Red Cross Volunteers, university and research. The project will provide support for the ongoing dissemination of targeted messages for example through providing transport support for e.g. theatre groups that deliver the messages in outlying areas, and compensation for the expenses of other service providers.

The project will capacitate partners (e.g. extension services, local NGOs, Red Cross, theatre groups, storytelling groups etc.) on seasonal forecasts, for example on how to access, translate and communicate key information to different audiences through different methodologies; co-develop key messages on *inter alia* drought, as well as specific avenues for dissemination of tailored climate and weather information. During this process, it will be important to clarify the links with the drought SOPs in terms of preparedness and response (on drought and likely impacts). The project will also develop an interface with the ongoing Participatory Integrated Climate Services Approach (PICSA) process at district and sub-district level, so that this can be built on in the most efficient and effective way to enable the integration of climate information into the community-based adaptation planning process under Component 3.

To ensure continuous improvement on the information received, a mechanism to enable a two-way dialogue between producers of information (LMS) and local communities will be established to allow LMS to better understand needs and refine products to ensure greater usefulness for local communities during and after the project is implemented. The nature of this mechanism will be developed during implementation, taking into account the experiences of all ongoing projects implemented by LMS that involve climate services.

Activities under this output will be informed by results from outputs 1.1.1 and 1.2.1, lessons from other projects implemented in Lesotho and synergies with other LMS projects. This output is also strongly linked with Component 2, which aims at increasing awareness of communities on expected climate change impacts and building their capacities to take adaptive measures. Component 2 activities will provide an additional vehicle to ensure that climate information is effectively used by communities to better manage climate variability and to adapt to climate change.

Indicative activities

Activity 1.2.2.1: Identify range of potential service providers and most suited dissemination channels for CS (e.g. ICTs, radio, schools, theatre groups, farmers' organisations, magazines, pamphlets, etc.), based on community needs assessments, and establish partnerships

Activity 1.2.2.2: Capacitate partners on seasonal forecasts (how to access, translate and communicate key information to different audiences through different methodologies); co-develop key messages on *inter alia* drought, as well as specific avenues for dissemination of tailored climate and weather information; clarify links with drought SOPs in terms of response (on drought and likely impacts)

Activity 1.2.2.3: Disseminate the targeted messages on an ongoing basis

Activity 1.2.2.4: Hold Focus Days for partners and communities to discuss and re-adjust messaging, through knowledge coproduction

Activity 1.2.2.5: Develop interface with ongoing PICSA process at district level

Activity 1.2.2.6: Policy advocacy on benefits of CS and institutionalisation of the above (policy brief developed with emerging lessons and impacts) (after MTR)

See Annex 4 for a summary of how the activities of Component 1 have been refined subsequent to the approval of the Concept Note by the AF, to prevent any overlap or duplication with other projects or programmes, and in response to further in-depth stakeholder consultations.

Component 2: Awareness raising of communities on climate change impacts and adaptation

The focus of Component 2 is on raising the awareness across different sectors and at different levels of Basotho society on the current and projected impacts of climate change on their livelihoods, as well as potential adaptation responses. A critical element is ensuring that awareness raising and communication on climate change becomes more coherent and structured, and that it is designed to engender behaviour change that results in more resilient livelihoods. The enhanced S2S forecasting developed under Component 1 activities provides an important input into the awareness raising activities of Component 2, as does the 'National climate change and food security analysis' study, which will provide new and more detailed information on the near- and long-term impacts of climate change on aspects of food security and nutrition. The awareness raising activities and provision of climate services under Components 1 and 2 will provide the ongoing 'matrix' within which the community-based planning for resilient assets under Component 3 is embedded.

Rationale

Climate change is a relatively new concept in Lesotho, especially at grassroots levels. As noted in the NAPA (2007), and the Second National Communication to the UNFCCC (2013), a key barrier to implementing climate change adaptation programmes is lack of awareness of the potential impacts of climate change on people's livelihoods, and of the available adaptation options. During stakeholder consultations in July 2017 and in 2018, it was observed that most community members were still unaware of climate change and its impacts and often relied on indigenous knowledge, religious beliefs and cultural practices to understand and respond to the changing environment. Community members indicated that their awareness, knowledge and understanding of climate change was inadequate, which was preventing them from being able to select and implement suitable concrete adaptation measures. Thus Component 2 has been designed to address these issues, in a systemic fashion, with sufficient flexibility and targeting for the different community groups, as set out below. Stakeholders noted that these barriers remain despite numerous past projects that included climate change awareness raising activities. A constraint identified is the *ad hoc* and fragmented implementation of such activities, which in fact may have resulted in confusion rather than enlightenment for

communities on the ground, as a result of conflicting messages. This has contributed to the situation in which, more than 10 years after the development of the NAPA, its identification of lack of awareness as a barrier to Lesotho's drive for greater climate resilience remains valid.

The National Climate Change Policy 2017-2027[61] further prescribes awareness raising as a key component of adaptation activities across all socio-economic sectors, calling for education and training programmes as well as broad communication campaigns to create cross-sectoral awareness on climate change, to enhance the adaptive capacity of Basotho society. Component 2 will contribute directly to the achievement of Policy Statement 19: Implement education, training, public awareness and communication programmes.

The field experience of the GoL, WFP and other partners reveals that awareness raising alone, however, is not sufficient to engender the behaviour change needed for enhanced resilience of vulnerable communities. It is clear that resilience-building that does not create the understanding, at community and other levels, of why these activities are being undertaken, has not been sustainable in the past.

To this end, partners are increasingly adopting behavioural change methodologies, to ensure that increased knowledge and awareness on climate change translates into actions that enhance the resilience of livelihoods. In the field of nutrition, WFP is adopting the approach of social and behaviour change communication (SBCC) to bring about behavioural change necessary to improve nutritional status of children and families. A number of climate change programmes in different countries have also used SBCC tools to positively influence target audiences' behaviours and facilitate social change.[62] . Behavioural change approaches recognize that a person's knowledge and attitudes are necessary, but not sufficient, for behaviour change. Interpersonal influences (social influences of friends and community members such as village heads and religious leaders), organisational factors (e.g. schools, civil society organizations, service providers), community characteristics (underlying socio-cultural context), and the policy environment are further influences on individual behaviour.[63] Thus it is important to work on all of these dimensions, using appropriate channels.[64]

In response to the above challenges, Component 2 activities will design and implement gender-transformative and culturally appropriate awareness raising strategies at both national and district levels, on climate change impacts on various socio-economic sectors and in particular on food and nutrition security; as well as the need for adaptation. These strategies will include a range of different approaches, to be implemented cross-sectorally and at community levels, to engage with the range of influences on individual behaviour: interpersonal influences, organisational factors, community characteristics and the policy environment. Increased awareness, knowledge and understanding will assist communities and households to undertake well informed adaptation planning under Component 3.

[61] LMS 2017. Lesotho's National Climate Change Policy. Ministry of Energy and Meteorology, Lesotho.

[62] For example, this approach was used to underpin public awareness campaigns to promote inter alia rainwater harvesting in the Maldives Global Climate Change Project, and to increase adoption of climate resilience measures by communities and civic and community organizations (including civil society, NGOs, and faith-based organizations) in the Mozambique Coastal City Adaptation Project - see Chemonics (2018) Poster for SBCC Summit, available at https://www.chemonics.com/wp-content/uploads/2018/04/00015-SBCC-Summit-Poster-Abstract-Print-Out-02-CN-PRINT.pdf

[63] WFP (2017) Social and behaviour change Communication (SBCC): interim guidance manual for WFP Nutrition, December 2017, v. 1.0.

[64] For example, in the Mozambique Coastal City Adaptation Project, tools used included (i) door-to-door campaign to raise awareness of climate change impacts; (ii) government and community radio message dissemination to promote best practices for adapting to climate change; and (iii) community mobilization to promote climate resilient practices, such as preventing marine water flooding and constructing resilient housing.

Furthermore, through strengthened awareness targeted at behaviour change, Component 2 activities will focus on behaviour changes in individuals and sectors that support the use of climate resilient and environmentally friendly technologies, such as energy efficiency and water harvesting (including those under Component 3) amongst the target community members. This component is therefore of key importance for project sustainability, through enhancing communities' adaptive capacity and building resilience to the changing climatic regime in the short, medium and long term.

Component 2 will address the above constraints and provide a platform through which the sustainability of the concrete adaptation measures under Component 3 can be facilitated, through a multi-level, coherent and institutionalised approach, that is responsive to the needs of vulnerable communities and individuals, as identified during the community consultations and described under the outputs below. A mix of ICT and other gender-transformative and age- and culturally-sensitive communication strategies and platforms will be used. For example, in Lesotho, radio stations have the potential to reach a wide population group, help form opinions and raise important awareness on key issues affecting lives and livelihoods. Therefore local/district radios stations, amongst other dissemination channels, will be used as a key source of information for all Basotho, including urban and rural populations, through news bulletins, drama and theatre using local traditional folklore and indigenous stories.

Component 2 will achieve one outcome: Outcome 2.1: Strengthened awareness of climate change impact on food security amongst vulnerable communities and youth and knowledge of adaptation actions, through four outputs, described below.

Output 2.1.1: Coherent and institutionalised multi-level climate change awareness raising and communication strategy designed and operationalized

To address the above issues, and leveraging on the current WFP work on SBCC, activities under Component 2 will support the GoL to develop a systematic, institutionalized and multi-level approach to raising awareness and knowledge of climate change impacts and appropriate response measures, towards engendering behavioural change. At the national level, a coherent National Climate Change Awareness Raising and Communication Strategy (NCCAR&CS) will be designed and operationalized, from within the Climate Change Unit of the Ministry of Energy and Meteorology (MEM). The Secretariat of the National Climate Change Committee, located within LMS, will interact closely with the Sub-Committee on Outreach of the NCCC in the development and implementation of the national strategy and action plan. A range of partners, including NGOs and academia, will provide support for activities under this output.

The Secretariat of the NCCC will further develop a process to ensure coherence with the NCCAR&CS of ongoing and future projects that have awareness raising components, to avoid the fragmented project-based approach of the past. The national strategy will include development of an M&E system, with outcome and impact indicators, to track effectiveness of climate change awareness raising and communication.

A specific focus will be to develop clear, targeted and integrated messaging on current, near- and long-term climate change and its impact on food security and nutrition, bringing in also the interlinked aspect of environmental degradation. The 'National climate and food security analysis' will provide a strong basis for this messaging, which will be disseminated through a multi-pronged approach that targets youth, the elderly, people living with HIV, OVCs and other vulnerable groupings in a gender-

transformative fashion. Needs assessments at the community level, carried out in each of the three districts under the Climate Change Perceptions study (Output 1.2.1) will feed in to the development of the NCCAR&CS, to ensure that it is responsive to community needs. This study, which will explore local and indigenous knowledge, beliefs and understanding of climate patterns and climate change, and adopt a nutrition sensitive approach, will provide a valuable basis for the development of culturally appropriate messaging – both for the development of awareness raising messaging and activities. The study will also identify barriers to the uptake of climate services, and possible solutions, thus providing a valuable basis for the tailoring of climate services as well.

An inclusive, gender-transformative, culturally sensitive approach to climate change awareness raising will be designed to ensure active engagement of men and women; boys and girls; children; youth; vulnerable groups; government authorities; private sector, media, academia, CSOs, and NGOs. As the awareness raising activities will be underpinned by SBCC, and will integrate the gender inequality with respect to vulnerability to climate change, they will be designed to engender behaviour change across all sectors of society to reduce gender inequality and empower women, thus raising their adaptive capacity. The specific messaging and mechanisms for this will be developed during the strategy development process.

A range of different awareness raising and communication materials will be developed to convey key messages to differentiated target communities and stakeholder groupings, bearing in mind the range of different influences on individual behaviour, as set out above. The exact number and type of materials will be determined during the strategy development process.[65]

An interlinked bottom-up / top-down approach to awareness raising will be adopted, in which there is further an interface between awareness raising and provision of climate services. In the first instance, the community-level needs assessments, conducted during the climate change perceptions study, will provide the basis for design of the awareness raising strategy at the national level. This will then be contextualised and implemented at the district (and sub-district) level. Initial awareness-raising activities will ideally be conducted in each district prior to the community-based local adaptation planning (under Component 3). Issues raised during the local adaptation planning will feed up into the ongoing development and implementation of the district-level strategies.

Community-based needs and experiences using the S2S forecasts will be monitored and incorporated into climate services, through annual seasonal forecast planning workshops, as detailed under Component 3. These workshops will provide the vehicle through which service providers (e.g. LMS and the extension services) learn in an iterative fashion from the experience of vulnerable communities on using the S2S forecasts. Thus the annual seasonal forecast planning workshops provide the basis for an empowering process of knowledge co-production between vulnerable communities and government and other service providers. Finally, the implementation of the five-year NCCAR&CS Action Plan will be monitored on an annual basis, and adjusted through an adaptive management approach.

Indicative Activities

Activity 2.1.1.1: Design and operationalise National Climate Change Awareness Raising and Communication Strategy:

[65] As an example, the Maldives Global Climate Change Project's "Fen Fahi" awareness campaign included 24 individual awareness materials, including posters, billboards, TV spots, factsheets, and newsletters – covering seven topic areas.

- Formulate gender-transformative and age-sensitive National Climate Change Awareness Raising and Communications Strategy (NCCAR&CS)
- Develop clear branding and key targeting at different levels (informed by study above, as well as district and community consultations)
- Develop key messages for links between climate change, food security and nutrition to be delivered through SBCC
- Develop 5-year Action Plan for implementation at different levels, by the Secretariat, in association with the NCCC

Activity 2.1.1.2: Design, develop and disseminate gender-sensitive awareness raising materials for policy makers, private sector, civil society, national and local government, youth, children, herders, etc

Activity 2.1.1.3: Conduct climate change and food and nutrition security symposiums

Activity 2.1.1.4: Develop action-oriented research programme for tertiary institutions on the drought /climate change / food security and nutrition nexus

Activity 2.1.1.5: Monitor the implementation of the five-year Action Plan, and adjust through an adaptive management approach

Output 2.1.2: Enhanced capacity of media houses and reporters to effectively write and publish climate change stories

One of the essential mechanisms to enable the multi-pronged awareness raising and communication on climate change in Lesotho will be through the media – print, electronic, television and radio. Activities under this output are designed to enhance the effective communication of contextualised climate change messaging, as developed under the National Strategy outlined above. Given the relatively small size of the more formal media in Lesotho, media training activities will be conducted in Maseru, with efforts made during district inception workshops to identify any reporters based in the southern districts, who will be supported to attend the training in Maseru.

Targeted press kits will be developed for the different media outlets (print, electronic, television and radio), and an expert will be engaged to contextualise an existing media training programme on climate change to the Lesotho context, and using the background material developed above. A training manual will be developed that outlines the training to be delivered in three training sessions. Building on previous work by LMS, journalists and editors in the print, online, radio and television media will receive training on the fundamental aspects of climate change, the current and projected impacts in Lesotho, and on writing compelling climate change stories. The aim of activities in this output is to strengthen the role of the media in providing appropriate information to enhance better understanding among community listenership, readership and viewership.

Indicative Activities

Activity 2.1.2.1: Contextualise an existing media training programme on climate change to the Lesotho context, and, using the background material developed above, develop a Lesotho-focused media training manual

Activity 2.1.2.2: Develop targeted press kits on climate change, food security and nutrition in Lesotho

Activity 2.1.2.3: Provide training for journalists and editors on the fundamental aspects of climate change, the current and projected impacts in Lesotho, and writing compelling climate change stories

Output 2.1.3: Communities understand and use climate information and are aware of climate change threats and impacts on food security, nutrition and livelihoods

At the district and community level, the project will focus on raising awareness, knowledge and understanding of climate change risks, impacts and adaptation solutions amongst vulnerable communities through a gender-transformative and culturally appropriate lens, with a focus on food and nutrition security at both the district and community levels. The generated awareness, knowledge and understanding will inform actions to be undertaken by households and those supported under Component 3 in local adaptation planning and resilience-building assets. Guided by recommendations from community consultations, special attention will be given to integrating local and indigenous knowledge and practices into various awareness creation activities.

In each of the three project districts, a contextualised District Climate Change Awareness Raising Strategy and Action Plan will be developed, under the umbrella of the national strategy, to interface with existing activities and ongoing projects. Activities will be selected and implemented to provide for a differentiated focus, including on children and youth (male and female), elderly women and men, and formal and non-formal education. The project will in addition design and undertake climate change awareness-raising measures aimed at herders, given that many of them leave school prematurely.

The approach to awareness raising, in accordance with IPCC recommendations, will foster integration of cultural norms and practices, local languages and indigenous knowledge as a means to strengthen the social fabric and connect younger generations with community elders, promoting the transfer of knowledge and practices. Support will be provided to district and community climate change awareness raising and communication activities, including those that integrate local traditional practices and knowledge. Activities could include public gatherings, community dialogue sessions, women and climate change awards, sports tournaments, debate competitions, drama performances, folklore, poetry, traditional music performances, climate change fairs and exhibitions, climate change awareness days, climate change ambassadors/champions programmes. The project will mobilise the participation of key community leaders including Area and Village chiefs, farmers, leaders of religious and traditional institutions, and representatives of women's as well as youth organizations.

Radio and other media/dissemination campaigns will be reinforced through training sessions (especially for women) and theatre using local folklore and indigenous stories. A training of trainers' programme for district level extension services officers, i.e. MAFS and Ministry of Forestry, Range and Soil Conservation (MFRSC) will be designed. They will also be trained on new themes such as climate change impacts on natural resources as well as food security and nutrition. Trained extension officers will, in turn, organize awareness raising sessions with key community leaders such as village chiefs, farmers, leaders of religious and traditional institutions and representatives of women as well as youth organizations. The AF project will develop joint awareness raising activities with the EW Phase II project, in the districts of overlap.

The project will work with a total of 80 agriculture extension workers in 22 Agricultural Resource Centres (ARCs) in the three districts. The catchment population for each extension worker is estimated at an average of 25 farmers which gives a total reach of 2,000 farming households to be reached by

the extension workers each year for three years during the project life, giving a cumulative direct total of 6,000 households. When communities are aware of climate change threats and its impacts on their lives and livelihoods, they will be trained to use and interpret the climate information that will be shared with them through this project's output 1.2.1, but also in the framework of other LMS-driven projects related to climate information. Training and awareness raising will aim to enable communities to develop their own solutions for adaptation, based on the information they receive, for both short-term and longer-term planning.

The project will not develop new parallel community climate change centres but will rather provide support to the existing ARCs so that climate change is mainstreamed into their operations. This will include identifying and building the capacity of a 'Climate Change Focal Point' in each of the ARCs where the project is operational. Displays showing the impacts of climate change on the specific livelihoods of people in those areas will be developed under the District Climate Change Awareness Raising activities and exhibited in each ARC. The climate change competitions and fairs envisaged above will take place at or linked to the ARCs. The MAFS and MFRSC will be encouraged to work jointly on such activities at the ARCs.

Indicative Activities

Activity 2.1.3.1: Under the umbrella of the NCCAR&CS, design a District Climate Change Awareness Raising Strategy and Action Plan, to interface with existing activities and ongoing projects, in each of the three southern districts

Activity 2.1.3.2: Train relevant service providers, including the DDMTs and extension officers (forestry and agriculture) on the above (Train-the-trainers as well as rolled-out training)

Activity 2.1.3.3: Develop and disseminate gender-transformative awareness raising materials for policy makers, technical managers, private sector, civil society, youth, children, herders, etc.

Activity 2.1.3.4: Implement at district and community level awareness raising activities identified in the District Strategy

Activity 2.1.3.5: Provide support to the established Agricultural Resource Centres in each of the three districts, so that climate change is mainstreamed into their operations (including capacity development for a Climate Change Focal Point from existing ARC staff, and resources for climate change-related displays and awareness raising events)

Output 2.1.4: Raised awareness of scholars through integration of climate change into school curricula and training of teachers on climate change impacts

Lesotho's educational system presents a platform for building the resilience and adaptive capacity through increasing the awareness, knowledge and understanding of youth as the future leaders and driving forces behind a new climate change regime. Aware and empowered girls and boys will grow into young women and men able to harness much-needed employment opportunities related to sustainable agriculture and other green jobs. However, the integration of climate change into educational curricula is not yet fully achieved. While the topic is covered in other subjects, including Geography, Science and Development Studies, it would ultimately require further depth of integration into a wider range of subjects, with the possibility of developing climate change or climate-smart agriculture as stand-alone subjects.

Lesotho's tertiary education institutions offer varying levels of training in climate change-related topics, although there are no fully-fledged formal programmes on climate change. The large awareness and knowledge gap amongst youth, teachers and training institutions on climate change and its impacts has limited the ability of the educational system to play a meaningful role in responding to the challenges posed by climate change in general, and to food security in particular.

Coupled with awareness, education enables informed decision-making, and plays a critically important role in increasing adaptation and mitigation capacities of communities, and in empowering women and men to adopt sustainable lifestyles. Knowledge of climate change and its impacts on various socio-economic sectors, particularly on food security, if embedded in educational curricula, will enhance the understanding of climate change amongst youth and help to generate the behavioural change needed for the youth to incorporate climate change adaptation techniques into their livelihoods. To enable this, there is a need to build the capacity of teachers and teacher-training institutions to adequately promote climate change and environmental education, and to further develop climate change material so that it is more strongly localised and made applicable.

As a contribution towards these longer-term aims, Output 2.1.4 will support the review, updating and scaling-up of the piloted climate change information toolkits for teachers implemented by the Lesotho Meteorological Services in 56 schools. The toolkit will first be revised, to ensure that it is up-to-date and includes practical response measures in addition to the scientific basis on climate change.

The scale-up will include 120 schools across the three districts targeted by the project. The scale-up will build a critical mass of practice centres, which will form the basis for a national take up of the climate change toolkit into the formal educational curriculum. The revision of the toolkit will be designed to complement the manual on climate-smart agriculture (CSA) targeted at schools that is under development in the UNDP Responding to Vulnerability and Climate Change (RVCC) project being implemented in the southern districts of Lesotho. The RVCC is further providing tools and inputs to schools so that they can practise the CSA technologies in the manual. The AF project will provide support to scale up this practical school-based approach in areas in which the RVCC has not worked. These activities will provide strategic avenues for youth to adopt green behaviours and learn how to embrace adaptation technologies that they may employ in their livelihoods. The scale-up of CSA manuals will aim to encompass all of the WFP-assisted primary schools in the three target districts: Mafeteng – 82 schools, Mohale's Hoek – 118 schools, and Quthing – 95 schools, thus reaching a total of 295 primary schools.

These educational interventions will be complemented by the tertiary level activities under Output 2.1.1, namely the annual symposiums on climate change and food and nutrition security for two years, and the support to action-oriented research programmes on the drought/ climate change/ food security and nutrition nexus.

Indicative Activities

Activity 2.1.4.1: Support the review, update and dissemination of teachers' climate change tool kit and adoption of whole-school approach programmes to integrate climate change and food and nutrition security into school curricula

Activity 2.1.4.2: Design and operationalise training programmes on climate change, food and nutrition security for teachers, based on the updated climate change toolkits, in the three southern districts

Activity 2.1.4.3: Scale up the climate-smart agriculture manual and practices piloted by RVCC in the three southern districts

See Annex 4 for a summary of how the activities of Component 2 have been refined subsequent to the approval of the Concept Note by the AF, to prevent any overlap or duplication with other projects or programmes, and in response to further in-depth stakeholder consultations.

Component 3: Strengthening Resilience at Community Level through Community-Based Concrete Adaptation Measures and Improved Food Systems.

The focus of Component 3 is on developing local-level resilience and adaptation plans, through a community-based participatory approach that integrates as well scientific information on current and projected climatic changes. Local adaptation planning encompasses the identification, selection, and sequencing of various adaptation activities, through a community-based approach that generates ownership of these adaptation actions. Community productive assets, such as soil and water conservation structures, and other livelihood resources, such as household vegetable gardens, promotion of fruit trees and drought-tolerant crop varieties, will be developed to support climate risk reduction and longer-term adaptation. Smallholder farmers will be assisted to establish market linkages, for sustained income generation. The climate information in the form of sub-seasonal and seasonal forecasts developed under Component 1 will be important inputs into the community-based planning process, with annual seasonal forecast planning meetings allowing for the iterative process of mutual learning and knowledge co-production between smallholder farmers and climate information service providers, as well as for adaptive management of the community adaptation plans, should this be necessary. The national and district awareness raising activities under Component 2 will further provide a basis for more empowered community planning, as will the climate change educational interventions under Output 2.1.4. These awareness-raising activities, delivered through a range of mechanisms to engender behaviour change, are important steps in building adaptive capacity of vulnerable communities.

Rationale. The Lesotho policy framework increasingly recognises resilience as a concept that has the transformative potential to deal with recurrent humanitarian crises and enable the move away from crisis and recovery towards sustainable development. While climate-induced disasters such as drought and flooding cause widespread impacts across Lesotho, the rural populations in Zone I (Southern Lowlands across the Senqu River Valley and Mountains) for Mohale's Hoek and Quthing Districts, as well as Zone III (Lowlands and Foothills) for Mafeteng district, are amongst the most chronically vulnerable areas, in terms of high climatic risk, coupled with poor socio-economic status. Therefore, Component 3 is a critical pillar for ensuring that communities and vulnerable households in the three targeted districts become not only more resilient to current climate-related shocks, but also are able to build their longer-term capacity to withstand and thrive in what is likely to be an increased risk of extreme events and long-term trends. This will be done through community-based concrete adaptation measures linked to rehabilitation of the ecosystems upon which community livelihoods depend, and associated measures that develop climate-resilient food systems. Component 3 has been designed to respond directly to communities' identification of climate change risks, particularly on agriculture, food security and nutrition, as well as water security, as urgent needs and priorities; as well as their call for assistance with key adaptation and resilience building interventions. The resilience building activities under Component 3 will be implemented within an Integrated

Catchment Management (ICM) approach, and thus there are strong synergies with the national ICM programme that will be implemented by the Department of Water Affairs, and supported by the EU. Strong collaboration with the DWA in this regard will be pursued (see Table 4).

The strategic interventions in this component are aimed at strengthening resilience and increasing adaptive capacity of vulnerable households and communities in the three southern districts of Mafeteng, Mohale's Hoek and Quthing. While specific activities will be implemented to assist individuals to withstand the droughts and other climate hazards they are currently experiencing, the activities will also develop the platform for longer-term adaptation, to ensure ongoing food and nutrition security, with enhanced income generation opportunities underpinned by a more resilient natural resource base.

To respond to and address the aforementioned risks and vulnerabilities, Component 3 aims to:

I. Improve the capacity of Government technical services and other partners at decentralized levels to mobilize and support communities to understand current and future climate change impacts on their livelihoods and to prepare detailed adaptation plans – including harmonized plans for livestock, land and water management and sustainable natural resources management.

II. Support communities and households to proactively identify, design and implement community-based resilience and adaptation plans which respond to and address their immediate climate-related needs such as food gaps, inability to meet nutritional needs, and limited livelihood sources; while regenerating and enhancing the resilience of ecosystems upon which community livelihoods depend.

III. Support vulnerable communities and households to improve, develop and strengthen community productive assets and livelihood resources identified in the community-based resilience and adaptation plans. This will include training, coaching, asset investments and learning by doing. With respect to investments, the project will ensure that the assets created represent the most appropriate choice of technology, allowing the desired production, storage and marketing outputs while being fully mastered by villages and households themselves. The asset building approach will also include strong gender and age analysis to ensure that asset creation benefits all community members, and in particular those who are most vulnerable.

IV. Through linking communities to markets, Component 3 will ensure sustained income generation opportunities for communities, thereby alleviating poverty, buffering against food insecurity, and enhancing communities' adaptive capacity through diversification of livelihood sources.

V. Finally, through an ongoing process of annual community-based planning, community-based needs and experiences using the sub-seasonal to seasonal forecasts will be monitored and incorporated into the ongoing improvement of climate services by LMS and other actors, which will be supported through this project as well as other initiatives (for example the UNEP/LDCF EWS Phase II and the GCF Readiness project – see Table 4).

Output 3.1.1: **Community resilience and adaptation plans developed through community-based participatory approaches.**

Output 3.1.1 activities will support communities and households to proactively develop and implement community-based resilience and adaptation plans, to address the root causes of food and nutrition insecurity. This will be done through a community based participatory planning (CBPP) approach. The main focus of the exercise is for community members to undertake an in-depth assessment of community resources, climate risks and vulnerabilities, food production, resource utilization practices, and local coping strategies; and to identify their needs and priorities for building their resilience and adaptive capacity. Awareness raising activities under Component 2 will assist with achieving this, as people will be aware of the impacts of climate change and will understand that they can take action to become more resilient to it. Through CBPP, community members identify their priorities and the most needed and relevant assets for their resilience building and adaptation to climate change, plan for their creation over a period of 2-3 years, and agree upon a range of implementation details at community level. The result of a CBPP exercise is a multi-year community-based plan that can then be used by communities, the private sector and any actor supporting development and adaptation efforts in the community. The CBPP includes discussion and agreement on project implementation modalities (timing, targeting, establishment of community users and maintenance groups, complaint and feedback mechanisms); environmental and social safeguards; and labour division, tenure and maintenance aspects for the asset creation schemes.

In addition to the initial CBPP exercise in each of the community councils, annual seasonal forecast community planning workshops will be held, during which sub-seasonal and seasonal (S2S) forecasts (developed under Component 1 activities) will be discussed and communities will plan based on this. Community-based needs and experiences using the S2S forecasts will be monitored and incorporated into the ongoing improvement of climate services by LMS and other actors, through the annual seasonal forecast community planning workshops. These workshops will provide the vehicle through which service providers (e.g. LMS and the extension services) learn in an iterative fashion from the experience of vulnerable communities on using the S2S forecasts. Thus the annual seasonal forecast planning workshops provide the basis for an empowering process of knowledge co-production between vulnerable communities and government and other service providers.

Regarding sensitization and capacity development for key partners (government and NGO) at national, district and community levels, to enhance their capacity to mobilize and support communities for local adaptation planning, this will entail building upon the CBPP approach normally adopted by WFP, as well as the PICSA training received by district agricultural and forestry extension workers across Lesotho under the WAMPP project (see Table 4). The training will build upon the capacity development of technical extension staff with respect to climate services received through the PICSA training, but will go further than that, as it will bring in the decadal climate predictions developed under Component 1 (Activity 1.1.1.7: National climate and food security analysis). The training under the AF will also include how to facilitate local adaptation planning that identifies priority community and household assets to be developed, as well as individual planning for livelihood diversification. The District Disaster Management Teams will be involved in this training, as will be the Agricultural Assistants from the sub-level Agricultural Resource Centres.

The CBPP and ongoing annual community-based planning will include gender analysis and a gender support strategy at the community level, with gender-related technical assistance and services provided by the gender team in the WFP CO. This would result in a contextualised strategy in each district on the best approach to engage and help women, with community-level interventions in each planning process to support women.

In previous community-based planning approaches for FFA, the Child and Protection Unit under the Ministry of Police, together with Women and Law in Southern Africa Research and Education Trust (WLSA), which is an action-oriented research organisation, have been instrumental in conducting gender awareness sessions. Other potential partners will be identified during preparation for the district-level activities.

While the CBPP will be a completely community-based process, efforts will be made to ensure integration of community-based plans into existing or emergent district planning systems. It has increasingly been recognised that while community-based planning is necessary and desirable, it is not sufficient to ensure resilience and sustainability. Rather, approaches to community-based planning that integrate scientific information and local and traditional knowledge, and that also facilitate support to meet community needs through the institutionalised planning system, may present more optimal pathways for community resilience and sustainability of interventions. To this end, an approach will be developed at district level for integration of community resilience plans with district level development planning and land-use planning. To ensure that community-based planning is informed by existing information on vulnerability and hazards (of various natures, not only climatic), detailed overlays of available hazards and the vulnerability context for the three districts / implementation sites will be prepared before the start of the CBPP, and fed in to the community-based planning process at the appropriate stage. These overlays will be developed using the FAO land cover maps and online portals being developed with ECHO support.

During the CBPP, communities will agree implementation details for the assets to be developed at community level, including prioritisation, location, tenure, maintenance, and required technical support.

Output 3.1.1 will include a number of studies important for informed community-based planning, namely (i) feasibility study on suitable trees for specific soil and other conditions in the three southern districts (afforestation, agroforestry, and high-value tree crops), which will integrate any previous studies carried out; and (ii) cost-benefit analyses on possible concrete community adaptation measures that were identified during the stakeholder consultations. The outcomes of these studies will be presented and discussed with community members and service providers during the CBPP process. In addition, support will be provided to the Department of Agricultural Research to re-establish a seed bank for indigenous vegetables and indigenous medicinal plants and to multiply suitable species, so that supply of these essential inputs into Output 3.1.2 can be assured.

Indicative Activities

Activity 3.1.1.1: Provide sensitization and capacity development for key implementing partners (government and NGO) at national, district and community levels, to enhance their capacity to mobilize and support communities for local adaptation planning

Activity 3.1.1.2: Carry out feasibility study on suitable trees for specific soil and other conditions in the three southern districts (afforestation, agroforestry, and high-value tree crops)

Activity 3.1.1.3: Support the Department of Agricultural Research to re-establish a seed bank for indigenous vegetables and indigenous medicinal plants and to multiply suitable species

Activity 3.1.1.4: Carry out cost-benefit analyses on possible concrete community adaptation measures (identified during the stakeholder consultations)

Activity 3.1.1.5: Develop at district level the approach for integration of community resilience plans with district level development planning and land-use planning

Activity 3.1.1.6: Develop detailed overlay of available hazards and vulnerability context for the three districts / implementation sites

Activity 3.1.1.7: Facilitate preparation of detailed community resilience and adaptation plans in the three districts through a community-based planning process that integrates scientific information and local and traditional knowledge - including harmonized plans for livestock, land and water resources management and sustainable natural resources management

Activity 3.1.1.8: Ensure that higher-level district plans incorporate the outcomes of community resilience and adaptation plans

Activity 3.1.1.9: Develop by-laws to ensure sustainability of assets created

Activity 3.1.1.10: Map and identify locations for implementation of FFA activities informed by community resilience and adaptation plans.

Activity 3.1.1.11: Carry out detailed environmental and social safeguards screening

Output 3.1.2 Community nutrition-sensitive productive assets and livelihood resources developed to support climate risk reduction and adaptation measures.

Activities under output 3.1.2 will support vulnerable communities and households to create small- to medium-scale agricultural and rural infrastructure assets to enhance the resilience of vulnerable communities and households to climate change, including to existing shocks such as droughts, and to longer-term risks such as increasing temperatures, more frequent droughts, and increasing unpredictability of rainfall. Small-scale assets that do not require complex construction efforts will be created through cash-based transfers (CBT), guided by the WFP corporate Food for Assets (FFA) modality of engaging community members. The project will not support construction of large scale assets, such as large dams. Under this modality, aspects such as labour conditions and health and safety of community members will be discussed during the community-based planning and factored in the design stage of activities.

While activities will be executed by the Ministry of Forestry, Rangeland and Soil Conservation (MFRSC), WFP will provide oversight and strengthen the abilities and systems of the GoL, to promote a more standardised and sustainable approach that the MFRSC could incorporate into the national public works programme. The climate-resilient assets and livelihood resources will be those that have been prioritised by communities during the CBPP, and that serve to enhance agricultural production for improved food security and nutrition and access to markets; provide increased access to clean water; help to reduce unemployment, and empower rural youth and women, while reducing vulnerability to climate change. In this way, they will strengthen the adaptive capacity and livelihood resilience of 26,000 households in Mafeteng, Mohale's Hoek and Quthing. Furthermore, activities will address soil erosion and land degradation and reverse biodiversity loss, thus building the resilience of the ecosystems upon which rural livelihoods depend.

The process of asset creation will build upon lessons learned from the Rural Public Works Programme (RPWP), known as *Fato fato,* which has focused on soil conservation and land rehabilitation, but has been undermined through lack of maintenance for the constructed structures has undermined the cost effectiveness of the RPWP. Using AF support, the GoL, supported by WFP, will implement community asset creation, enabled through the CBT mechanism, in a longer-term and more predictable fashion, underpinned by solid awareness raising and behaviour change activities, and will maximise income generation and livelihood diversification for youth, women and other community members. Transfers shall be structured to government-approved rates and provided as targeted seasonal cash assistance to participating households during the November to March lean season (about 5 months). This is when the food gap is most severe as a consequence of exhausted food stocks and high food prices, and most rain-dependent farmers are without employment and income. Such transfers are planned for 3 years, with a graduation from year 4. In practical terms, without food assistance, the most vulnerable people would need to use their time and efforts to provide food for their families to meet their current needs, rather than participating in the creation of adaptation assets to address climate shocks and increasing variability into the future. As climate change impacts children, youth, women, men and other community groupings in different ways, adaptation is most effective when the different perspectives are taken into consideration in the design and implementation of adaptation interventions[66]. Cognizant of this fact and guided by the rights-based approach to development[67], the AF-supported project will ensure that assets created respond to various gender roles, contribute to the reduction of workload for women, and enhance active participation of men and women, as well as female and male youth. The asset building approach will include strong gender and age analysis to ensure that assets created respond to various gender roles and contribute to the reduction of workload for women, enhance women's and youth access to income generating activities, and facilitate their active participation in the markets. Activities will also be promoted that prioritise benefits for orphans and vulnerable children (OVCs) – the exact nature of these will be contextualised during each CBPP exercise, through interaction with the OVC Support Groups in each community.

During the CBPP sessions, the project will ensure that the choice of assets promotes resilient communities and contributes to women empowerment. FFA will be used as a pathway to disseminate gender and gender-based violence (GBV) issues, and to increase the knowledge of women on their rights - for example, the Lesotho Legal Capacity of Married Persons Act 9 of 2006, the Lesotho Land Act 8 of 2010, and other laws protecting the rights of women, so that household-level created assets are protected.

The project will ensure that the assets created represent the choice of the most appropriate climate-smart technology for production, storage and marketing outputs. Training and capacity building will be undertaken to build capacity and mastery of various technologies by various sectors of the community and households members. Cost effectiveness of the interventions will be promoted through the cost-benefit analysis (CBA) of identified potential concrete resilience-building and community adaptation measures (see Output 3.1.1) that were identified during the stakeholder consultations. The CBA will be carried out prior to the community-based planning process, so that communities can take more informed and empowered decisions during the CBPP. Maintenance of

[66]Lesotho Government, 2017. National Climate Change Policy 2017 – 2027.
[67]Lesotho Government, National Gender and Development Policy, 2015.

assets will be a pre-condition for investment in community assets, to ensure sustainability, and individuals and communities will be supported to diversify their livelihoods for enhanced food security.

Resilience and adaptation menu of options. Stakeholder consultations conducted at the national, district, community and household levels identified a range of appropriate and desired interventions for resilience building and climate change adaptation measures to create sustainable community assets and investments. These have been collated into the following 'Resilience and adaptation menu of options' (RAMO), which has been informed by WFP's list of assets that can be created through FFA, and the overview of environmental and social impacts and risks. The options set out below address a range of critical problems identified by communities, including the need to promote climate-smart agricultural technologies and drought-resistant cereal crop varieties to reduce the impacts of climate change on food and nutrition security in the Lowlands and Senqu Valley; the need for support to homestead farming so that it can provide greater dietary diversity and provide women with income-generating opportunities; securing village water supply for communities in the drought prone southern districts; and others set out below. Underpinning all of these would be a range of integrated watershed management (IWM) activities for restoration and rehabilitation of degraded land and wetlands, so that the recovery of the natural resource base is supported.

Regarding crops to be promoted, it is clear that sorghum, which is already a drought-resistant crop, is appropriate for the climatic conditions in the southern districts. Studies have indicated that the Senqu River valley, which falls within the project sites, is a high potential area for beans, which are currently not grown there. Given their nutritional value, and nitrogen-fixing abilities, this is an important crop to promote under the AF support. For each of the crops or species identified, an appropriate support package will be developed by the Ministry of Agriculture and FAO. This usually includes training and material support in the form of seeds and some implements.

It can be seen that a number of these activities specifically target women, for the benefits they would confer, given the relative gender roles. One of the ways the project will ensure benefits for women will be through making the household vegetable gardens a central part of component 3, to include specific promotion of entrepreneurial opportunities for women based on this - e.g. support to access vegetable dryers, which could be done through making linkages with any appropriate rural finance / micro finance organisations operating in Lesotho, beyond this project. Implementing the recommendations of the value chain analysis for indigenous vegetables and medicinal plants, which are included under Output 3.1.3 of this project, will further support this goal.

Entrepreneurial activities linked to the climate-resilient crops (sorghum, high-value tree crops, indigenous vegetables etc.), but not involving production, would provide youth with options for developing their livelihoods. Specific opportunities, for example in the realm of food drying and processing of more drought resistant and highly nutritious indigenous vegetables and beans, and those related to apiculture, would be discussed during the CBPP with youth in each community council, and a strategy developed to assist female and male youth with livelihood development. Each district will consider the possibility to create a Community Support Fund, which would initially be supported through a percentage of income generated through project activities, to support livelihood activities of the most vulnerable groups (e.g. vulnerable youth, vulnerable women, OVCs, disabled people) in the different communities.

Note that during each CBPP, and at every level of support for the asset creation and livelihood support activities, an integrated approach to planning and implementing activities will be followed. The necessity for this, in terms of environmental and social sustainability, cost effectiveness and the interlinked nature of vulnerability at the household and community level, will be an important component of all sensitisation and training activities. In many cases, the project will facilitate access to adaptation options through the ongoing activities of the executing entities (MAFS and MFRSC), as well as other project partners (FAO, Unicef, etc.). The FFA modality will support project beneficiaries in the construction of community assets, and the awareness raising and sensitisation activities will provide the impetus for behaviour change with respect to maintenance of assets, as well as ongoing efforts towards livelihood diversification.

During the CBPP, communities will identify their vulnerabilities and needs. Based on these, the facilitators will present menu of options, which is already based on preliminary community consultations and thus already in line with expressed needs, and suggest what assets could be created to meet those needs and vulnerabilities. Communities would then choose from the menu and prioritize the assets to be created and the livelihood support to be provided.

The resilience and adaptation menu of options responds specifically to district and community needs raised during consultations. For example, community water development and household water harvesting, together with energy-efficient stoves, are included as women indicated that dry spells result in water shortages and depletion of fuelwood, which forces women and girls to travel long distances to fetch water and fuelwood. This exposes them to assault, rape, marriage by abduction and child marriages. Income generation opportunities such as food preservation, processing and fortification, as well as beekeeping, have been included to address issues raised by youth participating in the consultations, who indicated that as result of climate change, they are forced to migrate to urban areas or to South Africa to find job opportunities.

Table 2 Resilience and adaptation menu of options

Category of resilience/ adaptation option	**Details**	**Indicative activities/ Modality**	**Targeting**
Homestead farming - support vulnerable households to reduce food and nutrition insecurity through homestead farming	Support to household vegetable gardens Promotion of indigenous vegetables Promotion of indigenous medicinal plants Vegetative fencing	- Facilitate field demonstrations of household gardens at ARCs - Based on result of value chain study, implement findings to promote indigenous and medicinal plants - Establish nurseries for indigenous species - Include the above in the training of extension officers - Establish demonstrations of vegetative fencing at ARCs	Primary target is women, who are generally engaged in household-level production Market-links opportunities for women will be promoted
Drought-resistant crops and climate-smart agriculture	Promotion of drought-resistant sorghum and beans in the southern districts	- Facilitate accessibility of drought-resistant and heat tolerant varieties to farmers (FAO) - Provide demonstrations of agroforestry, crop rotation,	Open to all, 60 percent of project beneficiaries will be female

- promotion of these in the Lowlands and Senqu River Valley	Agroforestry, crop rotation, intercropping Mulching and crop residues management Promote fodder species to increase soil fertility Promote integrated pest management (IPM) Promote conservation agriculture (CA)	intercropping, CA, mulching etc at ARCs (MAFS and FAO) - Identify and facilitate access to fodder species - Provide training on IPM (FAO), project to provide assets e.g. bait traps	Market links for sorghum will be promoted through value chain study and other activities in Output 3.1.3
High-value tree production and bee-keeping - promotion and improvement of this	Feasibility study will be carried out on high-value and agroforestry trees for southern districts; support and market links provided based on that	- Carry out feasibility study on high-value trees (under Output 3.1.1) - Provide support (e.g. seedlings, advice and tools) based on that - Facilitate market links based on recommendations of value chain study under Output 3.1.3) - Training on methods for commercial beekeeping - Acquire materials for beekeeping (bee hives and protective clothing) - Establish 1 bee product processing facility to service the 3 districts	Fruit tree production linked to household gardens would be targeted at women Beekeeping specifically targets herders (male youth)
Community water development for small-scale irrigation and domestic use	Household water harvesting (roof) Family drip irrigation system Low-cost micro ponds Rehabilitate and protect wells Protect water resources e.g. from livestock	- Provide support for household water harvesting - Provide drip irrigation kits and relevant training - Develop micro ponds - Rehabilitate and protect wells - Protect water resources e.g. from livestock	Household water harvesting targets women, would benefit entire household
Restoration and rehabilitation of degraded land and wetlands in Mafeteng, Mohale's Hoek and Quthing	Hillside terraces Stone bunds Diversion weirs Gully reclamation Rangeland rehabilitation, brush control and reseeding Afforestation Footpaths Infiltration dishes, eyebrow basins, gully reshaping	- Based on existing Land Cover Atlas, identify and rehabilitate key wetlands in the 3 southern districts - Implement land reclamation activities – e.g. construct burrigates along gullies to reduce erosion - Plant beneficial indigenous trees, plants and grasses on the burrigated land in the gullies - Implement complementary sensitization /education programmes to capacitate people on land degradation and adaptation	Entire community

Food preservation, processing and fortification - provide technical support for this	Tarpaulins, grain stores, dryers, mini warehouses etc.	- Provide training for simple food preservation and storage at community level - Support food processing and fortification initiatives	Specific opportunities for youth would be further developed during implementation
Fuel-efficient stoves	Provide fuel-efficient stoves and training on their use	- Create platforms for dialogue and discussion to promote uptake of fuel-efficient stoves - Provide fuel-efficient stoves with associated training	Primary target is women, who will benefit from reduced workload gathering wood
Fish farming	Support small-scale fish farming (size of the planned fishponds would be 10mX10m, with a depth of 3m)	- Agree locations and provide training for fish farming (MAFS and FAO) - Construct fish ponds and provide inputs and ongoing support	Community at large will benefit, but will target vulnerable youth and women

To ensure sustainability of the technologies adopted, relevant capacity will be built and linkages established with accessible service centres for maintenance, repair and replacement. In order to reduce climate vulnerability across the food system, issues such as production, post-harvest handling practices, techniques and storage, processing and consumption will also be considered under Output 3.1.3. Specific activities have been identified in order to create more sustainable and resilient food systems in the targeted project area.

The FFA activities will be carried out in an holistic fashion, in which partners will be brought on board for complementary activities such as HIV prevention education, nutrition education, and water, sanitation and hygiene (WASH) interventions. All of these components play a vital role in enhancing behaviour change, education and nutrition outcomes, and are most effective when implemented in conjunction with one another. An integrated approach to asset creation and livelihood development will be pursued wherever possible – for example, promotion of fruit trees will be linked to beekeeping, and bee-friendly agricultural activities. Biodiversity conservation will be seen as integral to the climate-smart agriculture approaches promoted, and this will be integrated into the sensitisation and training of extension officers, as well as community members. To enhance women empowerment, activities such as women's financial literacy to address the existing inequalities will be implemented by partners already operating in the targeted areas.

Fish farming. The proposed fish farming activities have been included in the project design, due to numerous requests from communities across all three districts during the stakeholder consultations. Although a detailed environmental and social impact assessment (ESIA) would be required, there is identified potential for fish farming in three different rivers identified in the three districts. The ESIA would be carried out by experts and follow national legislation (or international standards if the national legislation is less stringent than international standards). [68]

[68] The ESIA would need to consider the state of the riverine ecosystems, the quantity of water that would need to be harvested from the rivers to service the fish ponds, the size of the ponds and how they would affect local residents that depend on rivers, the possible impacts of the discharged water from the ponds, the need for acquisition land area for the fish farms, amongst other variables. The size of the planned fishponds would be 10mX10m, with a depth of 3m, with overall benefits for the communities in the project sites. The selection of the areas and beneficiaries will be agreed during the community based participatory planning approach.

Indicative Activities

Activity 3.1.2.1: Develop action plan for implementation of community productive assets, optimising synergies across the districts, and specifying time frames and service provider responsibilities, including MoUs

Activity3.1.2.2: Implement agreed asset creation activities in the three districts according to the detailed asset creation action plan

Activity 3.1.2.3: Monitor the implementation of assets and community maintenance of them on an ongoing basis, according to the district-level M&E system developed under Output 3.1.1

Output 3.1.3: Established market linkages for climate-resilient value chains

Through linking communities to markets for climate-resilient value chains, output 3.3 will promote sustained income generation opportunities for communities, thus helping to alleviate poverty, reduce food insecurity, and enhance communities' adaptive capacity through diversification of livelihood sources. Output 3.1.2 aims at enhancing productivity of climate resilient crops, such as sorghum and beans, and promoting high-value tree crops. Output 3.1.3 aims to enhance the sustainability of by linking farmers to markets, sell the crops they grow at stable prices. Output 3.1.3 will also provide support to reduce post-harvest losses, and thus increase the amount of production available both for household use as well as to sell to the market. This is a critical step in promoting climate-resilient value chains, as production will become more efficient, allowing for greater surpluses for sale.

The farming community in Lesotho faces several constraints that inhibit output growth, including limited access to marketing information, poor market organization and integration due to poorly developed supply chains, and limited capacity to deal with agricultural risks. In general, there are no national marketing agencies or rural centres to support rural communities in marketing their products. Women tend to dominate informal subsistence marketing. These general constraints would also affect the sustainability of climate-resilient value chains.

Output 3.1.3 will explore the potential to link smallholder producers with buyers in Lesotho. Specifically, the project will collaborate with the GoL to link its nationally funded school meals programme with local producers and help catalyse the creation of a market for communities and stimulate local production and purchase as prescribed by the National School Feeding Policy. While local purchases for school feeding may appear to be an ambitious undertaking, results of a pilot project in 2014 and 2015 have demonstrated that with systematic planning involving several stakeholders, the country's smallholder farmers can reliably produce for the market[69].

Activities under this output will support climate-resilient value chain development, particularly with respect to training on post-harvest handling and commodity quality as well as training on group marketing to exercise economies of scale. A situation analysis will be carried out on post-harvest losses at district level, to include recommendations for priority actions. Farmers will be trained and actions implemented on post-harvest losses (e.g. providing tarpaulins, behavioural change interventions, rehabilitation of small storage structures). Value chain analysis studies will be conducted for relevant drought-resistant crops leveraging on the work already done by FAO. It is envisaged that four value chain studies will conducted, to include sorghum, high-value tree crops, indigenous vegetables, and

[69]Government of Lesotho, 2015.National School Feeding Policy, 2015.

indigenous medicinal species. The recommendations of the value chain studies will be implemented, including providing inputs e.g. seedlings, tools, and extension support for the value chains, and facilitating market linkages.

Specific activities will be included that particularly benefit women, i.e. market linkage support to existing women's cottage industries will be provided, to further diversify their livelihoods into climate-resilient options. The project will support cottage industries that produce handicrafts with sustainable harvested grasses and plants used for ecosystem regeneration purposes (introduced under Output 3.1.2), as well as existing sewing groups. Women will be equipped with the knowledge, skills, equipment and material resources they require to enable their access to markets.

This component leverages work already carried out under WFP's local purchase initiative, 'Purchase for Progress' (P4P), to support local procurement of food for school feeding, which began in August 2017. Through P4P, farmers in the northern parts of Lesotho, especially women, are being linked with markets – in this case, with schools. In addition, farmers in the northern districts have supplied food commodities to WFP for the National School Feeding Programme, and they will be further linked to the national actors in the school feeding programme.

The project will not include rural finance components, as this is considered too ambitious at this stage. However, given the importance of micro finance for enabling entrepreneurial opportunities linked to climate-resilient value chains, the technical advisors on the project staff will provide some assistance in this regard through discussions with existing rural finance / micro credit programmes already operating in the project area, towards encouraging them to also serve the project's beneficiaries.

Indicative Activities

Activity: 3.1.3.1: Conduct situation analysis on post-harvest losses at district level, to include recommendations for priority actions.

Activity: 3.1.3.2: Train farmers and implement actions on post-harvest losses (e.g. providing tarpaulins, behavioural change interventions, rehabilitation of small structures)

Activity: 3.1.3.3: Carry out value chain analysis studies for relevant drought-resistant crops leveraging on the work done by FAO – to include sorghum, high-value tree crops, indigenous vegetables, and indigenous medicinal species

Activity: 3.1.3.4: Facilitate linkages with WFP local purchase programme and GoL national school feeding programme

- Support the formation and functioning of Farmers' Cooperative Societies for marketing of surplus produce for school feeding, comprised of key community socio-economic groups (male and female), with relevant objectives and activities

Activity: 3.1.3.5: Implement recommendations of value chain study, including providing inputs e.g. seedlings, tools, and extension support for the three value chains, and facilitate market linkages

Activity 3.1.3.6: Market linkages support to cottage industries for women, particularly handicrafts, using sustainable harvesting of grasses used for ecosystem regeneration (under Output 3.1.2), as well as sewing

Activity: 3.1.3.6: Leverage opportunities to link farmers to existing rural finance / micro credit programmes.

See Annex 4 for a summary of how the activities of Component 3 have been refined subsequent to the approval of the Concept Note by the AF, to prevent any overlap or duplication with other projects or programmes, and in response to further in-depth stakeholder consultations.

B. Economic, Social and Environmental Benefits of the Project

Owing to the high levels of poverty, food insecurity and high levels of environmental degradation in the low-lying southern districts of Lesotho, communities in the targeted project area are vulnerable to the impacts of climate change and climate variability, with already evident disintegration of their livelihoods and chronic food and nutrition insecurity. Through this project vulnerable populations in the targeted areas will have the following economic, social and environmental benefits (Table 3).

While recognizing that these benefits will likely be uneven across the four ecological zones that make up the project areas, project reports will quantify changes from current baselines in each region.

Table 3 Economic, Social and Environmental Benefits

Economic benefits	
Reduced losses from climate-related disasters	Generating enhanced sub-seasonal to seasonal forecasting, linked to forecast-based triggers using scientific data is an innovative way to indicate elevated risks and respond early before disaster strikes. Component 1 of the project will create standard operating procedures that will enable LMS forecasts of impending longer-onset climate shocks such as drought to trigger preparedness, early action and links with the safety net programme. This will also ensure that natural resources are utilized more effectively. In addition, through this project, rural communities will be mobilized and empowered to make better decisions related to their existing livelihoods, and as a result, will be able to use their inputs (including labour allocation) more efficiently. Estimates indicate that climate induced extreme events caused economic losses totaling US $80,000,000 over the last decade. Most of the climate risks affect the rural vulnerable populations more due to the lack of accurate information and early warning. Enabling the GoL to shift investments from risk recovery to preparedness and development will avoid losses for the rural population. Anticipatory response should result in lower unit costs of aid due to early procurement/pre-positioning; decreased caseloads as response is assumed to take place before households enter into a downward cycle of asset depletion and negative coping strategies; and additional benefits, for example improved attendance at school, better health, and longer term income gains for women and men. The project will remove barriers including those related to adoption of new technologies and practices such as ICT/mobile technologies for EWs. Strengthening of LMS's capacity to provide sub-seasonal to seasonal forecasting and support to the climate services system creates conditions for enhanced budgetary support and financial viability in the long-term. Activities in Output 3.3 will also strengthen processing and storage facilities which will reduce overall post-harvest losses.
Increased household income from increased agricultural production	The project will support 105 community productive assets with multiple benefits. These assets will be in the form of ICM/ soil and water conservation measures, including gully restoration, terracing, stone lines, etc. While it is difficult to provide an exact economic cost benefit for these, as this depends on the nature of the asset (still to be decided through CBPP) and the surrounding environment, these benefits will be tracked and recorded through project M&E. Increased agricultural activities resulting from enhanced provision of climate-smart technical support and inputs such as drought-tolerant cereal varieties and high value tree crops, as well as expansion of land under agriculture due to gully reclamation, will result in surplus production for income generation. Improved livestock feed supplies due to increased soil conservation measures such as grass bands, planting of leguminous trees, re-seeding of denuded areas and production of fodder will improve the health of the livestock in the project areas and thereby benefit vulnerable households and individuals. An estimated at least 20 percent of the total direct beneficiary households of 21,500 is expected to prioritise and be supported for household vegetable gardening, i.e. 4,300 HHs. All individuals targeted will be the women. As a result of vegetable gardening, supported by tools and inputs and further enabled by HH water harvesting, HH incomes for very poor HHs targeted will increase by at least 50 percent, from USD 300 per year to USD 450. Taken for all 4,300 HHs, this would be an increase in income from vegetable gardening of USD150 x 4,300= USD 645,000 per annum.
Increased income and cereal production from reduced	The project will aim to target 3,000 households with interventions to reduce PHL, such as tarpaulins, improved drying practices, rehabilitation of existing stores, and small siloes. There will be an estimated reduction of PHL of 50 percent, which is conservative given that in trials conducted in Uganda and Burkina

post-harvest losses (PHL)	Faso on WFP's Zero Food Loss Initiative, participating farmers saw a reduction in food loss of 98 percent.[70] For a combination of sorghum and maize, this is likely to result in an increased crop yield of 0.374 MT per household, valued at an average of USD 187.6 per MT. When computed for the 3,000 HHs targeted for reducing PHL, this will result in an increased amount of grain of 1,122 MT, with a value of USD210,480 annually (=210*5 years = 1,052,400).
Increased household income from value addition and increased market access	Through activities in Component 3, farmers will be capacitated and empowered to carry out basic value chain addition. This will result in improved value of agricultural produce, including from high-value tree crops that will be promoted. The project will result in improved market linkages, including with the national school feeding programme, resulting in increased income for vulnerable households and individuals. Women will benefit from increased income through household garden vegetable production, including of highly nutritious indigenous vegetables and medicinal indigenous plants. Component 3 will also support creating market linkages for women craft groups creating grass products and sewing goods. 5. **Local purchase**: The project aims to stimulate production to allow for the purchase of 500 MT of beans from local farmers for school feeding. At an average price of USD1,200 per MT, this represents at least USD 600,000 in total. Similarly, for maize and sorghum, the project is aiming for 2,500 MT of processed and fortified grains by the end of Y4. Assuming that half of this will be maize, and half sorghum, this represents USD 337,500 from maize (at an average price of USD270 per MT), and USD 400,000 from sorghum (at an average price of USD320 per MT) by the end of the project.
Resilient household income from alternative/ non-climate sensitive activities	In the short-term, skills will be developed (practical and activity based) for diversification of livelihood activities and awareness raising. Increased incomes for men and women will result from alternative livelihoods through cultivation of high value crops, reforestation/afforestation activities, and ensuring market linkages. Water harvesting, and agro-forestry activities will ensure that livelihood sources like crops and fruits are strengthened especially in the face of climate variability. In the medium-term, new value chains will create demand for the commodities produced by rural communities as well as create post-production employment opportunities, such as packaging, storage and processing. In the long run, the project aims to stimulate local economies that are self-sustaining through linkages with regional markets.
Ensuring participation of poorest, most vulnerable populations without compromising their food security in the short-term	Transfers will be provided to households in the targeted communities to enable their participation in activities to build physical infrastructure and livelihood assets as identified in Component 3. Such transfers are planned for 3 years, with a graduation from year 4. Compared to many other organizations, WFP together with the GoL targets the most vulnerable rural households, who fail to meet their daily food needs, and are most vulnerable to the impacts of climate change. Transfers are therefore a necessary enabling condition for these populations to participate in the creation of resilience and adaptation assets. In practical terms, without food assistance, the most vulnerable people would need to use their time and efforts to provide food for their families to meet their current needs, rather than participating in the creation of adaptation assets to address climate variability and shocks in the future. This means that without the enabling element of an initial transfer, those who are in greatest need of adaptation services would be excluded from the opportunity to restore land and create their own climate change adaptation assets. This, in turn, would undermine the sustainability of the project.
Environmental benefits	
Improved soil quality, reduction in erosion and soil loss	Studies indicate that Lesotho currently loses 3–5 percent of its topsoil every year. The project will contribute to reversing this trend through a range of integrated watershed management activities that promote soil conservation, including rangeland reseeding, planting native species and nitrogen fixing plants resulting in increased plant cover, improved plant diversity and reduced deforestation for firewood. The project aims to increase the vegetation index in the project areas by 10 percent, which will result in a significant increase in ecosystem services such as reduced soil erosion, decreased flooding risk, increased water quality downstream, etc. The project will focus on the 549 square km of the total area in the southern districts that is in the moderate to highly degraded environment category. The training of local extension services and local smallholder farmers on interpreting climate information linked to the sustainable use of natural resources will also contribute to increased water, land, firewood supply and related income. Farmers can better plan their activities to protect against floods, resulting in a reduction of soil loss (and any nutrients that may be used on their crops) to the riverine environment. Increased soil conservation will, over the long term, reduce or prevent the use of forest areas for agricultural production. Both sustainable water and land use measures are national priorities as set out in various national regulations, including the National Climate Change Policy.
Increased availability and quality of water for household	Activities under Component 3, including household water harvesting and climate-smart irrigation techniques will result in greater water availability and reduced conflict related to its use for household, agricultural and animal use. Restoration of wetlands will lead to enhanced ground water percolation and recharge, resulting in increased and sustained river flows within and beyond the project areas. Through culturally appropriate dissemination of short- and longer-term sub-seasonal and seasonal forecasts,

[70] See https://www.wfp.org/content/wfp-post-harvest-loss-prevention

use, animals and irrigation	farmers will gain knowledge and adapt their practices to be more climate resilient, and thus more effective, economically and environmentally. Once farmers are more aware of impending events such as droughts and floods, they can adjust planting calendars and/or undertake alternative farming practices that will use less water or be able to cope with the predicted rainfall patterns. Farmers will be prepared to store water in micro dams and limit overexploitation of the resource through drought events.
Reduced pressure on the natural environment	Transfers associated with asset creation also contribute to transformational change bringing some of the most vulnerable people from a subsistence to a sustainable livelihoods level 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. In terms of sustainability, participants are gradually phased out of the conditional transfer, once the identified community adaptation assets and household-level interventions are completed. Based on several other experiences with this type of intervention, rural populations can maintain and replicate the assets created thanks to the establishment of community level structures.
Social benefits	
Embedding indigenous culture and tradition	The project will ensure that community and religious leaders are part of the solution to create awareness of climate change impacts and to contribute to adaptation interventions. The project will contribute to gender equality, through strategies to empower women and girls with concrete commitments to ensure equal rights, access and opportunities for participation and leadership in the project and in community decision-making. In empowering women, the project will ensure that men and women are informed on the need to improve women's involvement in decision-making as well as the benefits of women's progress to the family. Activities under Component 1 will aim to understand traditional practices and beliefs on climate change through a study, whilst Components 2 and 3 will ensure that the project will deliver its results with those sensitivities. New economic opportunities will be created through Component 3, which will ensure prosperity for the rural communities in the southern districts who are often the most vulnerable people in Lesotho. Broader societal benefits will accrue to Lesotho through the national awareness raising strategy, which should reach at least 800,000 people throughout the country, by means of exposure to at least two awareness raising messages or events per year; as well as through training 20 journalists from national radio / TV / print media.
Children and teachers empowered on climate-resilient development	The project will have targeted social benefits through the educational system, in that 600 teachers will be trained on the use of the LMS climate change toolkits in their teaching, resulting in enhanced knowledge on climate change for their pupils. Moreover, at 295 schools, the climate-smart agriculture toolkits developed under the UNDP/LDCF RVCC project will be rolled out, resulting in empowerment and skilling of learners with practical climate resilient agricultural methodologies.
Greater gender empowerment	Through this project, women will be trained on the importance of nutrition as well as skills development in order to generate income through provision of inputs, seeds and water for irrigation and drinking. This project will aim to contribute towards gender equality and women's empowerment by allowing for increased decision making, educational attainment, economic integration as well as improved autonomy related to work load and health. Training both men and women will also improve the nutrition of their children. Community-based adaptation planning represents also a powerful vehicle for women's empowerment. By ensuring that at least 50% of the targeted population will use seasonal forecasts in decision making, while 70% (or 107,500 people) will have increased knowledge and awareness on climate change that they can apply in decision making on their livelihood strategies, the project will empower women and men for more climate-resilient livelihoods.
Reduced use of negative coping strategies	The project will reduce the Coping Strategy Index in the 3 targeted districts to a situation in which less than 20 percent of households will use stress, crisis and emergency coping strategies, even during drought periods. This will have numerous knock-on social benefits in terms of households being able to retain their assets and thus emerge more resilient from periods of crisis, as well as positive nutritional outcomes.
Improved nutrition, health and food security	Activities under Component 3 promote both increased diversified production, including horticulture, indigenous vegetables, small grains, and high-value tree crops including fruit trees, as well as quality and safety standards which will ultimately lead to improved dietary diversity and nutritional value of food consumed and this will by extension, improve the health of the people particularly the vulnerable and the poor. The project will result in a 50% increase in the Household Dietary Diversity Score, which is used as a proxy measure of household food access, i.e. measures the impact of the project on food access, and is used to track the project goal of reduced food and nutrition insecurity. A 50% increase in HDD will represent an important increase in nutritional benefits for all household members, and in particular for women, children, and PLHIV. The AF project will place additional emphasis on quantifying the benefits on food security. A central element of the climate change awareness raising strategy at national, district and community levels will be strong messaging on the links between climate change, food security and nutrition,

	delivered through an approach based on social and behaviour change communication for effective uptake. This will include messaging that covers the extra nutritional requirements of PLHIV.
Improved community participation, ownership and accountability	The provision of climate information coupled with a greater understanding of food security and climate risk management issues will enhance planning and decision-making of community level users regarding the selection of specific resilience building and adaptation interventions. Component 3 will include the aggregation of community plans into larger district-level programming, leading to key partnerships for further complementary programming to enhance resilience building efforts. The proposed project also advances positive changes related to experience and perceptions of safety, security, and personal comfort, trust and confidence, attitudes, preferences or behavioural norms, organizational culture or function, and equitable distribution of benefits. Communities will benefit from the increased safety and security and reduced disruption to educational activities, family and community structures. The strengthened capacities of the communities and linkages to sub-national systems can empower and enhance decision-making among community members. Communication channels established through the proposed project can be used to take proactive steps to ensuring the protection of their lives and assets during periods of shocks. This therefore has a significant social benefit as it allows communities to be aware of the actions they need to take and builds resilience within the communities. Further, it also provides a sense of community if individuals are able to help others during these events, and to take responsibility for maintenance of community assets.

Avoiding or mitigating negative impacts

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

- Strong collaboration with relevant Ministries, both in activity design and implementation (e.g. Ministry of Forestry, Range and Soil Conservation, Ministry of Agriculture and Food Security, Ministry of Small Business, Marketing and Cooperatives, Ministry of Social Development, Ministry of Trade, Ministry of Development Planning, Ministry of Local Government and Chieftainship, Ministry of Water, Ministry of Tourism, Environment and Culture);
- Engagement with community leaders and opinion formers such as religious leaders and traditional healers;
- Consultation and engagement with beneficiary communities, including vulnerable groups and herders;
- Empowered and inclusive community-based planning to create local resilience and adaptation plans, coupled with annual follow-up community-based planning workshops;
- Establishment of complaint and feedback mechanisms to enable beneficiaries to raise their voice and report any irregularities and allow for pre-emptive operational adjustment;
- Overall (i.e. at project level) environmental and social screening and categorization against the AF's Environmental and Social principles at full project formulation stage;
- Activity-level environmental and social screening for component 3 activities (output 3.2) at project implementation stage; and
- Planning, implementation and monitoring of necessary mitigation measures as identified by the activity-level environmental and social screening.

Please see Section K for additional information on how the project will avoid or mitigate negative environmental and social impacts, as well as the attached Environmental and Social Management Plan (ESMP) (Annex 7).

Regarding mitigating any negative gender-related impacts, the project is designed to be gender-transformative in its effect. Numerous opportunities for inclusive participation across sex, age, and different ability levels have been factored into the project's activities and decision-making processes. These include targeting of gender-differentiated and other vulnerabilities into project interventions so that groups most vulnerable to climate variability and change receive support, and designing women and youth capacity building and skills enhancement aspects. The WFP Country Office will monitor and support these gender-related goals on an ongoing basis, and motivate for change in the operational procedures should this be required. The project results framework includes gender- and age-disaggregated indicators and targets to track and ensure participation of women and youth in awareness-raising activities, capacity building, and any management committees. Implementation partners such as the Ministry of Gender, Youth, Sports and Recreation (MoGYSR) and the Women in Law in Southern Africa (WILSA) organisation have been integrally involved in project planning and will continue to be throughout implementation, to ensure that gender and other inclusion considerations are appropriately mainstreamed into project activities.

C. Cost-effectiveness of the Project

The cost effectiveness of the project is evident when compared with the status quo and has also been considered compared to a number of potential alternatives under each of the three components. Regarding the alternative of no project, the recent climate variability has had serious impacts on food security and national response costs. In 2011, the total of damages and losses incurred due to heavy rainfall was estimated at USD 32 million, 3.2 % equivalent of the Gross Domestic Product (GDP). Climate change damages to household incomes due to a decline in livestock productivity were estimated at USD 22 million. Additionally, financial requirements to achieve post disaster recovery and reconstruction were estimated at USD 56 million[71]. In 2016, the funding requirement of the government to respond to the drought associated with El Niño was estimated at USD 36.5 million[72].

Moreover, during the recent droughts, despite warnings from LMS to avoid planting crops, rural farmers continued planting at the reassurance of traditional and religious leaders and faced financial losses. The community consultations revealed that indigenous means of forecasting weather (for example the shape of the moon) failed to be reliable. In 2016-17, not only were rural communities affected by loss of inputs, reduced agricultural production also meant that commodity prices increased. This led to people migrating in search of casual labour opportunities in South Africa.

The underlying project logic of linking early action (Component 1) to investments in longer-term interventions that support resilience (Components 2 and 3) is backed by a growing collection of evidence on its benefits. A 2018 return on investment study conducted by WFP in Nepal on implementing the FbF approach found that US$22 million can be saved when responding to an emergency of an average size (175,000 affected people). The same study found that over 20 years, US$34 and 42kg of CO_2 emissions can be saved per dollar invested, after deducting the investment cost. When Forecast-based Financing is combined with early response to a climate shock and resilience/disaster risk reduction activities, the benefits are maximized. A 2018 USAID study on Ethiopia, Kenya and Somalia indicates that early response to drought, combined with safety net transfers and resilience-building activities, could over a 15-year period save US$4.3 billion, or an

[71]Post Disaster Needs Assessment: Heavy Rains 2010/11 Report.
[72]UNDP 2016

average of US$287 million per year. A DfID-funded study also found it to be cost effective, with benefit-to-cost ratios ranging from 2.3:1 to 13.2:1, depending on the country.[73] The same study showed that early response is far more cost-effective than late humanitarian response: for every USD 1 spent on disaster resilience, USD 2.9 was saved in potential humanitarian expenditure.

Regarding the design of Component 1, two main alternatives were considered for strengthening the GoL's forecasting capabilities: supporting the full range of forecasting needs across all hazards, or focusing on sub-seasonal to seasonal (S2S) forecasting, with an emphasis on drought EW. Given that the former will be supported by the EWS Phase II project, and also given that increasing dry spells in the season, plus increasing drought incidence, are resulting in enormous losses for poor smallholder farmers of agricultural inputs and finance, it was decided that the focus on S2S forecasting would be the more cost-effective use of AF funds. Through promoting uptake of accurate and targeted sub-seasonal to seasonal forecasting by smallholder farmers (women and men), agricultural productivity will be increased and costs of production minimized through informed use of climate information. It will also serve as a cost-saving measure for targeted communities through enhancing responsible use of agricultural resources and effectively managing agricultural risk.

For the early warning/early action (EW/EA) elements of Component 1, two main alternative approaches were considered: the more traditional EW system approach, and the more innovative Forecast-based Financing (FbF) approach. FbF builds on the framework of a traditional EWS, which is often heavily focused on meteorological service capacity-strengthening, by building and strengthening the needed components to define activities that can be initiated or scaled-up *before* the impacts of a natural hazard (such as drought) occur. The key to the success of FbF is the emphasis on developing government capacity to plan ahead to anticipate, absorb and prepare for the impacts of climate-related disasters as part of a more comprehensive and well-integrated disaster risk management system that includes disaster preparedness, anticipation and mitigation (Component 1). This is in the interests of impact and well as cost effectiveness. FbF does not constitute additional financing, but centres on developing these enhanced capacities so that the government and other key players in EA/EW can use the existing funds within the government budget as well as those of agencies and NGOs more proactively and effectively.

Based on tailored S2S forecasts that contain pre-agreed thresholds and triggers, and the development of operating procedures that contain actors, and actions based on those triggers, FbF aims to complete the link from early warning systems to early actions. Despite growing awareness of the high return on investment in preparedness activities, actions to mitigate the impacts of a natural hazard such as drought are heavily biased towards responding only *after* it has occurred – Governments and communities are not yet systematically exploiting opportunities for action that can take in the critical window between a meteorological forecast and an extreme-weather event (e.g. storms, floods and droughts). Analyses of the Return-on-Investment (ROI) for FbF approach in Nepal found that US$22 million can be saved when responding to an emergency of an average size (175,000 affected people) and that over 20 years, US$34 can be saved per dollar invested, after deducting the investment cost. Similar analyses for early action to drought in Sudan (2017/2018) have indicated a ROI of 1:7.1, while

[73] Economics of Early Response and Disaster Resilience Study: lessons from Kenya and Ethiopia (2012); available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/67330/Econ-Ear-Rec-Res-Full-Report_20.pdf

in Kenya drought EA in 2017 showed a ROI of 1:3.5.[74] Given the positive ROI figures for FbF, and the significant investment in weather forecasting capacity, it was felt that this would be both the most effective and more cost-effective approach.[75] Therefore, through supporting the development of SOPs the project will identify mitigating actions and their costs that would be funded by a portion of the existing GoL resources that under a business as usual scenario would be used for response to the impacts of drought ensuring a more favourable ROI. See section J on Sustainability for more information on the existing resources that the GoL has at its disposal for social protection and response.

The project will support not only the development of SOPs that are specific to the three target districts but also the development of capacities at the national level to support the SOPs, thus ensuring sustainability in the long run and enabling the government to replicate the approach in other districts and scale it up at national level. While the project will not provide specific funding for actions foreseen in the SOPs, activities under component 3 will serve as a pilot and are expected to demonstrate the types of early actions communities can take, specifically regarding asset creation planning (when & where) and how the S2S forecast can be linked to these actions, thus providing both a holistic approach from early warning to early action and documenting the evidence of the cost effectiveness in terms of financial costs and livelihood impacts . The approach will be analyzed and documented as a case study in order to further inform the development of a national system in the country and sensitize key stakeholders on effective use of early warning information.

Regarding the design of Component 2, an alternative considered was to implement a more discrete project-level set of awareness raising (AR) activities. However, this would perpetuate the observed situation of multiple parallel AR interventions on climate change, implemented under different donor-funded projects. This has led to duplication of activities and an ineffective use of scarce resources. Thus Component 2 was designed to adopt the more systemic and institutionalised approach of a National Climate Change Awareness Raising and Communication Strategy (NCCAR&CS), through which the Climate Change Unit of the MEM will ensure coherence of all ongoing and future projects, and thus cost effectiveness of existing and future interventions. Further, the improved awareness and understanding of climate change and adaptation responses promoted under Component 2 will ensure that activities under Component 3 are fully owned by the communities as well as managed and maintained in the long run beyond the project.

Regarding the design of Component 3, an alternative considered was to implement the resilience building activities in line with the existing approach of the GoL's Rural Public Works IWM Programme (RPWP), known as Fato fato, which is estimated to cost the government USD 4 million in 2016[76]. However, an evaluation found that the shorter-term approach of the RPWP and associated problems, including poor targeting, lack of maintenance for the constructed structures, and inadequate M&E, has undermined the RPWP's cost effectiveness.[77] Thus, using AF support, the GoL, supported by WFP, will implement community asset creation, enabled through the CBT mechanism, in a longer-term and more predictable fashion, underpinned by solid awareness raising and behaviour change activities,

[74] FAO presentation: Analysing the impact of Early Action: Methodology and country case studies
[75] Additional evidence for the cost effectiveness of early action and resilience building can be found in two DfID-funded studies, one covering Kenya and Ethiopia (https://library.wmo.int/index.php?lvl=notice_display&id=13115#.XFVqa3qeSRt) and another for Niger (https://assets.publishing.service.gov.uk/media/57a08a0ded915d3cfd000572/61114_Niger_Report.pdf)
[76] Lesotho News Agency, 2015 Forestry Ministry is hiring over 10 000 people per month, 24 June 2015.
[77] WFP (2017) Evaluation of Fato Fato Programme in Lesotho. Three volumes.

and will maximise income generation and livelihood diversification for youth, women and other community members.

Cost effectiveness of the concrete resilience-building and community adaptation measures (see Output 3.1.1) will be promoted through cost-benefit analysis (CBA) of potential identified potential measures. The CBA will be carried out prior to the community-based planning process, to allow for more informed and empowered decision making. Furthermore, the Component 3 activities on asset creation and income diversification will ensure that losses faced due to water scarcity and drought are avoided, while at the same time diversifying income from staples to high value crops such as fruits and vegetables, and promoting climate-resilient value chains that are likely to continue to provide good returns in relatively bad seasons.

Overall cost-effectiveness of the AF project also arises from the fact that it will fill some of the key gaps and complement and enhance the efficacy of other ongoing initiatives in the targeted proposed project area. Stakeholder consultations reiterated the need for various organizations operating in the proposed project area to harmonize and synergize respective initiatives to avoid duplication of efforts and contribute towards larger positive impacts. Such partners include the FAO, World Vision, UNDP, and CRS.

Finally, the cost-effectiveness of the project is also ensured by the project management approach taken. The project will partner with existing local community stakeholders, such as local organization and community members as the main project implementing organs in the field. In this regard, the project will incur comparatively lower costs. This will help to lower the budget while anchoring the project within communities, thereby safeguarding the project's sustainability. It will also ensure that the majority of resources will go straight to the beneficiaries.

D. Project alignment with national sustainable development priorities

The proposed project is aligned with and will contribute to the attainment of the goals of key national sustainable development strategies and frameworks, described below. Annex 5 provides additional detail on the alignment of project components to resective policies and national strategies.

Lesotho Vision 2020. The Vision outlines Lesotho's vision to provide a long-term perspective within which national short to medium-term plans ought to be premised. Of specific relevance to the proposed project is the focus of Vision 2020 on: "building a nation endowed with a healthy and well developed human resource base highly careful about hygiene and proper nutrition".[78] The Vision further emphasizes sound environmental management characterized by a diversity of life systems. The AF project has adopted environmental and social sustainability as required cross-cutting issues, and has developed an Environmental and Social Management Plan to meet these goals.

Poverty Reduction Strategy. The Poverty Reduction Strategy outlines national priorities and strategies to reduce poverty and promote equitable economic growth. The strategy identifies the following priority areas, amongst others: employment creation, food security, infrastructure development, education, and environmental sustainability. Through Components I, II and III the proposed project supports the attainment of these priorities.

The National Strategic Development Plan 2012/13 – 2016/17. Underpinned by development priorities set out in the National Vision 2020, the country's five-year National Strategic Development

[78] Lesotho Government, Ministry of Development Planning, 2000: Lesotho Vision 2020

Plan (NSDP) recognizes the country's vulnerability to natural disasters and to climate change, noting the negative impacts thereof as a barrier to the attainment of country's socio-economic development goals.[79] The Plan categorizes the need to build resilience to climate change as a necessary measure to enhance the country's agricultural productivity and ensure long-term food security[80].This is precisely the goal of the AF project, with all activities oriented in this direction.

The National Climate Change Policy. The National Climate Change Policy envisions a climate change resilient and low-carbon development society with a prosperous economy and sound environment. The Policy aims at increasing climate change resilience and improving the wellbeing of Basotho through implementing concrete measures for adaptation and climate risk reduction, as well as mitigation and low-carbon development, with the aim to attain sustainable development, through active participation of all stakeholders in various social and economic sectors.[81]

National Adaptation Programme of Action on Climate Change. The NAPA reiterates the ongoing crisis of severe food insecurity, failing livelihoods and high rates of malnutrition due to the adverse impacts of climate change on agriculture. Accordingly, the programme has classified agriculture as one of the socio-economic sectors that are particularly vulnerable to climate change, which require "immediate and urgent" special attention. The NAPA categorizes the project area as one of high chronic vulnerability, with vulnerable communities at high risk of climate change and in urgent need of remedial adaptation activities.

National Resilience Strategic Framework (NRSF) 2017 - 2030. The NRSF is the nationally contextualized transition from the Hyogo Framework for Action (2005-2015) to the Sendai Framework for Disaster Risk Reduction 2015-2030. The NRSF seeks to harmonize resilience-building efforts with Lesotho's Vision 2020 and National Strategic Development Plan (NSDP) by creating resilience core operating principles that will guide its operationalization (see Annex 5). The project is aligned with these principles, as well as with the recommended targeting methods of the NRSF that aim for services to be provided equitably and impartially, to reach the intended beneficiaries based on vulnerability and needs and minimizing exclusion.

In addition to the above frameworks, the project advances the attainment of goals of the following sectoral policies and plans: Natural Range Resources Management Policy; Agriculture Sector Strategy; Food Security Policy; National Action Plan for Food Security (NAPFS); Energy Policy 2015-2025; National Environment Act 2008; National Gender and Development policy, 2003; National Youth Policy; Lesotho National Nutrition Policy (draft), National Food and Nutrition Sector Strategic Plan; Social Development Policy (draft); and to the Lesotho National HIV and AIDS Policy.

E. Project alignment with national technical standards, guidelines and regulations

Implementation of this project will be governed by several national guidelines, policies and regulations including the Constitution of Lesotho; Environment Act 10 of 2008; the Water Act, 2008; Lesotho Food Security Policy 2005 and Food Aid Policy 2000; the Land Husbandry Act 1969; Range Management and Grazing Control Regulations 1980, 1986 and 1092 and 1993; the National Plan of Action for Nutrition

[79]Lesotho Government, Ministry of Development Planning, 2012: National Strategic Development Plan.
[80] Government of Lesotho: Ministry Of Development Planning, 2012. National Strategic Development Plan 2012/13-2016/17.
[81]Government of Lesotho. Ministry of Energy and Meteorology, 2017. National Climate Change Policy.

1997; Vision 2020 on Poverty Reduction Strategy; Millennium Development Goals on eradication of poverty and hunger; and the Physical Planning guidelines of Lesotho.

Environmental and sustainable development provisions emanate from the Constitution of Lesotho, section 36, which provides that "Lesotho shall adopt policies to protect and enhance the natural and cultural environment of Lesotho for the benefit of both present and future generations, and shall endeavour to assure all citizens a sound and safe environment adequate for their health and wellbeing".

The Environment Act 10 of 2008 is the framework legislation that encapsulates the policy guidelines and standards for sustainable environmental management in Lesotho. The only component of the project that may require a detailed environmental impact assessment (EIA) project brief according to Sections 20, 21 and 25 of Environmental Act 2008 would be the fish farming project activities. The national standards require that a comprehensive project brief be submitted to the relevant Lesotho Government Ministries (Environment and Agriculture) for evaluation and possible issuance of environmental clearance. Two months will be required to carry out the EIA studies and to submit a report to the relevant Government institutions.

Part XIII of the Environment Act 10 of 2008 provides appropriate measures for integration of environmental education at all levels. The national standards set for environmental education shall guide the further development and rolling out of the climate change toolkits for teachers under Component 2. Project interventions under Component 2 will be in accord with the Strategic Plan for Education for Sustainable Development in Lesotho calls for education techniques that change behaviour and promote action-oriented competence through the use of Participatory Learning Techniques (PLT).[82] This approach will inform the climate change awareness raising strategy and communication activities, which will also use the synergistic approach of social and behaviour change communication (SBCC).

The project will abide by the Ministry of Forestry, Range and Soil Conservation's (MFRSC) national standards commonly known as "Work Norms Guide", which provides 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, dam construction and water tank activities.

National standards of the Ministry of Water Resources emanate from the Water Act 2008, which provides for "Water Use Rights and Permit Standards". The project shall comply with the relevant sections of the Act to ensure sustainable utilization and conservation of water with regards to irrigation. However, as project irrigation-related activities will be restricted to rainwater harvesting off household roofs, micro irrigation systems for household gardening use, and micro farm dams, it is not expected that water use permits shall be required for these activities. Irrigation interventions in Lesotho are required to adhere to the National Irrigation Policy. The Policy provides detailed standards and guidelines for farmers and block farming groups to form "Water Harvesting and Irrigation Associations" stressing the need for farmers to work together and manage water resources sustainably. The project will abide by these standards and guidelines, although the same provision relating to the small scale of the project activities stated in the preceding paragraph does apply.

[82] The PLT approach is rooted in Participatory Rural Appraisal (PRA), which includes, among others, holding public gatherings jointly with experts, promoting action, brings change and uses demonstrations, role playing, stories, traditional proverbs, discussions, and debates, field trips and songs using teaching aids where it is available.

The Ministry of Agriculture and Food Security (MAFS) provides policy guidelines for reducing and remediating the harm done to farmlands and crops, which remain significant challenges to crop farming in Lesotho. The project shall embrace relevant sections of the MAFS Policy of 2005 that are in alignment with Adaptation Fund guidelines.

The project shall apply the standards of the Ministry of Small Scale Businesses for establishment of cooperative societies, its operational procedures and relevant gender policies, and the Ministry of Social Development standards that protect women, the elderly, children and most vulnerable households.

The authority of Local Government Councils and traditional authorities (the Chiefs) over land and rangeland management is critical in this project.[83] In either case, expert knowledge is required to reconcile, mediate and harmonize some gaps between the Community Council's political interests and interference of the Chiefs' traditional interests and opinions. The project will align with National Physical Planning guidelines of Lesotho, which are used by the Chiefs and Councillors when allocating land for development and farming.

In Lesotho, since the promulgation of some of the above legal instruments, many new national and international developments have rendered some of the guidelines inadequate, or outdated with respect to the escalating negative environmental and climate change trends that impact on the livelihood support base of vulnerable households and individuals.[84] Bearing this in mind, the project will comply with the above national standards, but will also adopt best practice international guidelines, for reducing vulnerability and promoting sustainable development while addressing climate change impacts. In this regard, the AF's environmental and social standards are invaluable and will be adhered to, as is further indicated in Section K and in the project ESMP (Annex 7).

F. Avoidance of duplication with other funding sources

There are multiple climate change-related projects concurrently active in Lesotho, including some activities in the targeted project area, with other donor-funded climate change projects in the pipeline. To date, these projects have been functioning in silos with limited progress on integration, meaning that the respective efforts have in general not been synergized. Most beneficiaries have capitalized on this shortcoming and have become reliant on project interventions for their own sustenance. In light of the above and as guided by recommendations gathered during consultations, the proposed project will build upon the experiences of IFAD, CRS, FAO and GEF-funded and other relevant projects in the southern part of the country. The project will scale up successful practices to new areas and communities. The project will lay heavy emphasis on community engagement and sensitization from the start and will ensure that expectations of the community members are managed before an operational intervention is made. The sensitization will also generate the much-needed commitment from various community members. Where the proposed project sites overlap with previous or ongoing projects, the project will ensure that duplication of efforts is avoided while complementarities are strengthened. The proposed project will build on, complement and /or strengthen the projects set out in Table 4 below.

[83] The powers of the Chiefs and those of the Community Councils have a bearing on the country's Land Acquisition Policies, and Grazing Control Regulations 1980, 1986, 1992 and 1993 also remain critical to the project implementation.

[84] For example, the Ministry of Tourism, Environment and Culture has been planning a review of the Environment Act 10 of 2008 since 2013, which has not yet materialized. The Local Government Act that empowered Councilors in 2013 did not repeal the earlier Act which empowered the Chiefs to perform the same functions in 1993.

Project Title	Funding	Dates	Project focus and complementarities with AF
Wool and Mohair Promotion Project (WAMPP)	IFAD, ASAP, OFID, LWMGA, GoL	2013 – ongoing (7 years)	The focus of WAMPP is on climate-smart rangeland management, including climate services; improved livestock production and marketing. Components 1 and 2 of the AF project will build on the Participatory Integrated Climate Services for Agriculture (PICSA) approach - WAMPP has already trained all extension officers (agriculture & forestry, plus District DMA and LMS staff) in all the districts on PICSA. The AF project will extend this training to cover the enhanced seasonal forecasting that it will support, in the 3 targeted districts, and further skill the extension officers to facilitate communities to use S2S, together with longer-term climate projections, during the participatory planning approach. Component 2 and 3 of the AF project will also build on lessons learnt by WAMPP on livelihoods and income generation activities in common locations. The AF project will build on WAMPP's use of the Land Degradation Surveillance Framework (LDSF) for biophysical monitoring, thus also helping to develop a common approach across government departments.
Strengthening climate services in Lesotho for climate resilient development and adaptation to climate change (EWS Phase II)	GEF LDCF / UNEP/ LMS	Concept Note Approved. Project Proposal under review.	Component l will develop a sub-seasonal to seasonal (S2S) forecasting system at LMS to reduce the workload of and complement EW Phase II. The national forecast will be further refined (bias correction, calibration, etc.) for the three southern districts. Further refinements of the national forecast for the UNEP priority districts would still fall under the UNEP work, and be fed back into the national level forecasts to improve their skill, resulting in a collaborative approach to the national S2S forecast. The two projects will closely collaborate for the development of early warning products and SOP on drought early action so that the methodology can be exported by both project teams to other non-common districts. The two projects will also plan joint awareness raising activities, in the framework of the National Climate Change Awareness Raising and Communication Strategy (NCCAR&CS). The projects will share experiences on the improved use of generated climate information, working in different districts, to inform community adaptation planning and actions. The AF focus is on the drought response system, while EWS Phase II focus is on shorter-range hazards (flooding, frost, extreme temperatures etc.). No overlap in targeted project areas.
Improved EWS to reduce impacts of CC (EW Phase I)	GEF LDCF /UNEP / LMS	2011 - 2015	Component l of the proposed project will ensure that existing Early Warning Systems are built upon for generation of triggers and use of forecast. The project will develop an enhanced sub-seasonal to seasonal forecasting capacity in LMS, together with early action SOPs for drought, which will constitute an important strengthened element of the national EWS.
Strengthening capacity for CC adaptation through support to IWM	GEF/ FAO	2015 – ongoing	The AF project will adopt an IWM approach to the soil and water conservation work carried out under Component 3, and will actively look for synergies with both the FAO and the EU IWM projects. Where locations are similar Component 3 will build upon the work done by FAO in soil and water management under an IWM approach, as well as livelihood diversification activities.

Support to Integrated Catchment Management in Lesotho	EU/ BMZ/ GoL	In final stages of design; expected to run until 2023	The project will institutionalise and fully implement ICM across Lesotho, based on gender equality and climate adaptation principles, through support to the Department of Water Affairs. There is thus great synergy between the EU and the AF projects. The resilience building activities under Component 3 of the AF project will be implemented within the ICM approach, through strong collaboration with the DWA, which will sit on the AF PSC, as well as through the decentralised project management and implementation. It is not yet clear in which priority sub-catchments the ICM programme will begin to work.
Reducing vulnerability to CC in Foothills, Lowlands & Lower Senqu River Basin	GEF/ LDCF/ UNDP/ GoL	2015–2020	Component 2 will scale up climate-smart agriculture manuals, training and implementation piloted by RVCC into other districts. Further lessons learned from RVCC will be fed into the AF project at inception.
Strengthening Disaster Preparedness and Response Systems in Lesotho	ECHO/ WFP/ FAO/ GoL	2017-2020	Will enhance the capacity of the GoL in EW/EA and shock responsive social protection system. The AF project will build on the activities of the ECHO project, including updating National Information System for Social Assistance (NISSA), Land Cover and Hazard Mapping to provide a platform for timely, prevention-oriented and resilience-focused interventions. The AF project will develop SOPs for EW/EA on drought; the ECHO project will develop EW/EA capabilities more generally.
Smallholder Agriculture Development Programme (SADP)	IFAD/ GEF LDCF/ MoA/ World Bank	2011 - 2019	Supports smallholder farmers to increase their productivity and diversify into market-oriented agriculture. AF implementation will draw on valuable lessons on identifying commercially viable activities that can be replicated and successfully scaled up, in the one overlapping district (Mafeteng).
Lesotho – Adaptation of Small-scale Agriculture (LASAP)	IFAD/ GEF LDCF/	Initially to start in 2014, but has been delayed.	LASAP will build LMS's capacity to develop downscaled climate scenarios relevant for district-level agricultural use; establish an agro-meteorological function in MAFS linked to LMS; and do ToT of Resource Centre extension staff on CI, managing climate risks, and adapting agricultural advice for training frontline AEOs at sub-centre level, for effective translation of climate bulletins into production-relevant advice at farm levels. Only 1 district of overlap (Mafeteng), different community councils selected, common execution through LMS will ensure complementarity.
Climate Change Adaptation for Sustainable Rural Water Supply in Lowlands	AfDB/ LDCF GEF	2015 - 2019	To improve livelihoods of communities in SW lowlands facing CC challenges through better water resource management; in parallel with Lowlands Rural Water Supply & Sanitation Project (LRWSSP), which consists in Berea and Maseru districts along routes of Metolong Dam Water Supply Project of basic rural water and sanitation infrastructure, environmental health support, plus capacity building. Climate risk information generated under AfDB project will feed into risk estimation models that will underpin development of EW messaging for the AF project & overall EW/EA systems.

'Strengthening Lesotho's capacity to advance National Adaptation Planning'	GCF/ UNEP/ GoL (GCF Readiness project)	Under development	Encompasses strengthening institutional capacity for adaptation planning; enhancing CC information generation, analysis and dissemination; etc. The AF research activities will contribute to the GCF long-term CC research and study programme (plus a scholarship programme). AF project training of LMS staff is very specific to drought and S2S forecasting and will not overlap with GCF training to LMS. The AF will assist LMS to develop a coherent national CC awareness raising strategy and action plan, which will be the umbrella under which the GCF's awareness raising activities should be conducted.
Mountain Communities Government Dialogue	Global Mountain Partnership	CSO-GoL dialogue ongoing	Lessons learned will inform and complement Component 3 of the proposed project in relation to in-depth understanding of building resilience, establishing long-lasting processes and policies that strengthen the resilience of mountain communities and environments and ensuring sustainable development.

G. Learning and Knowledge Management

The Government of Lesotho attaches great importance to this project and views it as a learning model that will give the various stakeholders - policy and decision makers, private sector, local and international NGOs as well as local communities - the opportunity to test, review and learn context specific approaches, establish best practice and scale up successful activities to achieve climate change resilience at scale.

Most activities in the proposed project, especially in Components 1 and 2, entail knowledge and learning processes for Government authorities, NGOs, private sector and academia, as well as community members. Under Component 1, studies on local knowledge and ways to embed science in traditional practices will be vital for all government departments to learn and factor into respective sectoral plans and programmes. The project will also include systematization of lessons learned from the implementation of the FbF pilot in the country, to inform the potential development of a country-wide system and to document the effectiveness of increased weather forecasting capacity. Component 3 includes a feasibility study on suitable high value tree crops, a cost-benefit analysis study of adaptation options to inform the community-based adaptation planning process to be conducted in the three southern districts, and a situation analysis of post-harvest losses in the southern districts. This knowledge will be more broadly applicable too, as, for example, it will be important for government departments at different levels to understand the costs and benefits of various adaptation interventions. The entire Component 2 focuses on learning and awareness raising for communities, as well as different stakeholders at multiple levels, and will employ a well-validated social and behaviour change communication (SBCC) approach to ensure that learning engenders behaviour change and thus practical action on building resilient livelihoods.

The project will develop a robust Monitoring, Evaluation and Learning (MEL) system, which focuses on application of evidence-based lessons in improving or influencing implementation within the project and amongst actors engaged in similar work. The MEL will form the basis for the active creation, sharing, and use of gained knowledge and information during the implementation of the proposed project. Specifically, this will be achieved through the following processes:

i. Inception SWOT analysis on similar projects to generate and document lessons from previous projects and identify what the project can apply in the different activities building on this experience.

ii. During the first two years of implementation, the project will facilitate quarterly project reviews and in the last two years, bi-annual reviews to identify project gaps and then inform project improvement – i.e. a process of adaptive management.

iii. On an annual basis the project will document lessons learned and improvements to implementation for review with stakeholders, to inform the following year's planning and implementation.

iv. In the final year of implementation, as part of evaluation, a learning document will be produced to build on yearly exercises that will form a basis for replication and scale-up of activities to other districts. The generated knowledge will be shared with stakeholders and donors working in the climate adaptation space in Lesotho.

Regarding the studies and other knowledge generated:

- The studies on local knowledge and ways to embed science into traditional practices will inform the design of some of the activities and will be shared with government partners and other stakeholders for future projects and policies;
- The FbF pilot will be analysed and documented as a case study, to further inform potential upscaling at the national level and disseminate lessons learned in the region.
- The media reporting manual is for training journalists in appropriate coverage and reporting of climate change, to generate a culture of maintaining media attention and therefore public awareness and knowledge on climate change information, impacts and solutions. The knowledge generated will be managed through the media editors' forums and journalists' associations.
- Through the agricultural resource centres, the generation of best practices (and those to avoid) will be used as part of the extension services by the Ministry of Agriculture and Food Security and the Ministry of Forestry, Range and Soil Conservation to promote adoption of practices that reduce land degradation and restore land and biodiversity within communities. The developed curriculum will be the training content for extension services across the country.
- Finally, the climate change toolkit will be basis for integration of climate information into the school curriculum in the districts in which it is upscaled, and will inform more structural changes in the education system. This will be used to strengthen education policy in the country, through advocacy activities with policy makers.

Knowledge management and sharing for indirect beneficiaries:

- Finally, to ensure nationwide dissemination and sharing of knowledge captured, the above will be complemented by activities to share success stories, progress, lessons, and milestone events. These will be disseminated as part of project management activities, through national and local radio channels, television, and other knowledge sharing tools such as social media streams and newsletters.

H. The Consultative Process

The project formulation team, led by WFP, has worked in close collaboration with the MEM, MAFS, and MRSC at the national and district levels to develop this project in support of national policies and plans related to climate change adaptation, sustainable development and poverty eradication, natural resources management, as well as women and youth empowerment. WFP conducted four intra- and inter-ministerial meetings with senior administrative and technical government counterparts to share and exchange views on the concept, and to jointly identify and align priorities for the development of the project proposal. This process was complemented by a series of bi-weekly technical meetings and/or monthly meetings with key national stakeholders at administrative and technical departmental level. In addition, meetings with other relevant actors were held, including CBOs, academia, NGOs, UN Agencies and the Delegation of the EU to discuss respective ongoing sectoral activities, and relevant lessons learned to inform the project approach and modalities. These consultations were undertaken during the concept note formulation process and for the ongoing duration of the project proposal formulation phase.

In addition to the community consultations in the three southern districts held during the first scoping mission in July 2017, further consultations took place at the district and community levels, in communities in Zone l (Southern Lowlands across the Senqu River Valley and Mountains) in Mohale's Hoek and Quthing Districts, as well as in Zone lll (Lowlands and Foothills) in Mafeteng, from 20-30th June, 2018. To ensure a comprehensive and inclusive coverage of the targeted population, consultations were carried out in 16 Community Councils, engaging community members in four villages per Community Council through workshops, Focus Group Discussions (FGD), household interviews as well community gatherings through community traditional leaders (Area Chiefs). Inclusion of all sectors of the society, particularly the most vulnerable members of the community, was ensured through engagement of representatives of all socio-economic groups in respective communities: community associations, men's initiation schools, women's initiation schools, herders, youth, widows, the elderly, orphans, traditional and political community leaders, women's traditional dance and entertainment clubs, community health workers, teachers, the disabled, and support groups for people living with HIV/AIDS.

In the remaining 5 (out of 21) Community Councils, WFP conducted Community Based Participatory Planning exercises in January 2018, which covered the same holistic areas as were covered during the AF consultations. In these 5 communities, Community Action Plans (CAPs) outlining the challenges, risks and priority interventions were established. Thus, the AF design team did not duplicate the exercise in June 2018. The CAPs of the 5 community councils reveal the environmental and climate change challenges experienced by the 5 communities.

In general, the socio-economic groups (SEG) consulted included representative of women, farmers, orphans, traders, men, herders, teachers, people with disability, etc., with an overall gender balance of 60% women and 40% men. Please see the summary in Annex 6.

Both men and women were consulted collectively, as well as individually as necessary, as were youth, to fully capture respective needs and priorities on climate change adaptation, resilience, food security and livelihood diversification. All engagements with community members were conducted using the local language. Regarding gender, representatives of MoGYSR, WFP Gender focal point, and Women

in Law in Southern Africa (WILSA)[85] were engaged in the consultation processes. This assisted with identifying, cultural, gender and youth sensitive methodologies to be designed and implemented in all activities. Communities highlighted that addressing climate change risks, particularly on agriculture, food security and nutrition, as well as water security, were urgent needs and priorities; indicated that their awareness, knowledge and understanding of climate change was inadequate; and identified key adaptation and resilience building interventions.

Annex 6 provides additional details of national stakeholder and community consultations.

I. Full Cost of Adaptation Reasoning

Component 1: Institutional capacity and systems building to support national and community adaptation and management of climate risks

Baseline scenario:

The LMS provides weather forecasts for special services such as airline pilots, public weather forecasts through LMS website, national radio stations, TV, and newspapers in English and Sesotho languages. LMS also relays climate information to the Ministry of Agriculture and Food Security, which is mandated with generation of farmer advisories. Weather forecasts and warnings are also provided to Disaster Management Authority for preparedness and early warning purposes. However, beyond this transmission of information, there is no framework in place that can trigger action on the ground by the government bodies. Currently, the capacity to predict high-resolution temporal and spatial distribution of rainfall and precipitation remains a challenge for LMS, which means that they are not able to provide optimal information to farmers to guide seasonal planting and ensure the best possible seasonal production. There is a need for high-resolution weather and climate prediction models/tools to provide in-season dry spell detection (frequency, duration and intensity) and interpretation, as well as dates of onset and offset of rains and frost. Additionally, there is no climate atlas or agro-ecological zoning. Vulnerability maps exist for one community council in three districts, namely Thaba-Tseka, Mafeteng and Quthing.

Under the current scenario, LMS is able to generate forecasts for the short term (same day, next day, next 4 days, 7 days) as well as near term (3- as well as 6-month forecasts) via WMO's Southern African Regional Climate Outlook Forum (SARCOF). However, these forecasts are not sufficiently accurate and hence have lower probability levels. In addition, they have not been sufficiently based on Lesotho-specific climate trends.

Communities currently have limited or no access to climate information, which makes it increasingly difficult for them to plan ahead of the season as they continue to rely on traditional knowledge and practices that do not reflect the current climate patterns. In general, they do not trust or understand scientific-based evidence on climate trends and climate change, including seasonal and weather forecasts.

Additionality:

The project will improve LMS historical database in generating spatially and temporally complete gridded climate data series going back to over 30 years by combining LMS station observations with satellite rainfall estimates (for rainfall) and climate model reanalysis products (for temperature). The

[85] Women's rights advocacy organizations from civil society.

Enhancing National Climate Services (ENACTS) approach focuses on the creation of reliable climate information that is suitable for national and sub-national decision-making.

The project will strengthen sub-seasonal to seasonal forecasting, and develop standard operating procedures (including thresholds and triggers) for drought response, based on the forecast. The project will build the capacity of national stakeholders to define their own thresholds and corresponding triggers to inform the development of integrated action plans for timely response to drought. Map rooms (mapping service) will be co-developed with LMS and other stakeholders to overlay the climate forecasts with other relevant contextualizing data and information, such as food security vulnerability. The tailored seasonal forecasts will be probabilistic allowing for the development of a forecast-based trigger system based on the probability of the forecast being realized. The map rooms will allow for tailoring of these triggers with user-defined shock severity, and confidence levels with respect to the costs and time needed to implement early actions. The way the information is presented and the interface option for choosing thresholds and triggers will be co-developed with the partners, with a certain level of flexibility so that the system can be used at national and sub-national level.

The information generated will then be used to co-develop different time-lead forecasts that are locally relevant and complemented by agro-met advisories through a process of co-production. To ensure that vulnerable communities will have relevant information when they need it, forecasts will range from sub-seasonal to seasonal, under the support of the AF project, while the UNEP/GoL/LDCF EWS Phase II will develop the capacity LMS to produce enhanced short-time lead (i.e. 1-5 days) forecasts. Studies and consultations with communities under Components l and lll will ensure the format, content and means by which the information is disseminated corresponds to communities' needs, is culturally appropriate and gender and age sensitive. Awareness and trainings under Component 2 will ensure that this information is understood, correctly interpreted and that the communities have the knowledge to make informed decisions in order to manage climate risks, adapt to the changing climate and build resilience.

Component 2: Awareness raising of vulnerable communities on climate change impacts and adaptation.

Baseline scenario:

Whilst there have been climate change adaptation projects in Lesotho in the past, there is still a large void in terms of general awareness of the population, especially vulnerable poor people, on the causes and impacts of climate change. Most community members met outside of Maseru during the stakeholder consultations showed little or no awareness of climate change. They did observe that weather patterns have changed – mainly because of the recurrent droughts in the past years due to El Niño - but showed very little to no understanding of the long-term pattern of climate change. Community members have often heeded the advice of traditional healers and priests to challenge scientific advice by government meteorological services. Under such levels of understanding, projects aiming at providing climate services have often found it difficult for an uptake of the same by community members. This has presented a lost opportunity to truly facilitate more climate resilient livelihoods.

Going forward, lack of awareness will make project sustainability difficult and often create aid dependency at the community level. In order to have sustainable interventions, communities must be sensitized and there must be a sense of ownership. This cannot happen unless they understand the

reality of climate change as it affects their livelihoods, and are empowered and fully understand the range of available adaptation options.

At the district level, extension service providers are overstretched and tasked with the responsibility of training communities on sustainable environmental practices, but without community buy in, this is often a one-dimensional project intervention. The educational system also lightly mentions climate change as a sub-section of a chapter in Geographic studies at university level, and teachers are not fully capacitated to teach students about the linkages between climate change, environmental degradation, and food and nutrition insecurity. This means that pupils leave school without the understanding of climate change and available responses that would enable them to develop climate-resilient livelihoods.

Additionality:

AF resources would support the integration of scientific knowledge into livelihoods bearing in mind the indigenous beliefs and practices. Efforts will be made to collaborate with local chiefs and religious leaders so that they are fully sensitised and can become vehicles for passing on such information to address climate change, food security and nutrition risks at the local level. The proposed project would facilitate this process by involving communities, particularly youth, elders and women, in planning and designing local solutions and collecting traditional practices for environmental management and food security and nutrition.

The project will assist the GoL to develop a coherent, multi-level, ongoing system for promoting gender-transformative climate change awareness raising and action, through the National Climate Change Awareness Raising and Communication Strategy (NCCAR&CS), and associated district-level strategies in the three southern districts. This coherent approach will allow for the development of clear and evidence-based messaging on climate change, strengthened by being linked to clear branding and the development of a five-year action plan to allow for systematic implementation after the end of the project. The messaging will include a focus on the linkages between land degradation, climate change, food security and nutrition, in order to address Lesotho's structural challenges in this regard. It will moreover provide a distinct and institutionalised channel with which all future projects that wish to undertake climate awareness raising activities will need to engage, to prevent any further repetition of the *ad hoc* and ineffective approaches of the past.

The climate change awareness raising strategies at national and district levels will be developed and implemented underpinned by a social and behaviour change communication (SBCC) approach, to overcome the constraints of past projects in which knowledge dissemination on climate change and resilience building did not lead to behaviour change, rendering project interventions unsustainable. This will require developing a range of differentiated messaging targeting different sectors of the community, including policy makers, government technical service providers, women, youth, children, the disabled, herders, and so on. The messaging will be delivered using a range of different channels that target the different influences that impact on an individual's behaviour, such as organisational, peer, social and policy, as per the SBCC approach.

Community sensitization campaigns will precede preventive adaptation. Sensitization and awareness will also precede any asset creation activity. Special focus will be paid to women (gender-differentiated approach for asset creation and income generation activities) and children (children will be informed about the impact of climate change through educational curricula and hence be change agents within communities). A strong awareness of the causes and effects of climate change will be

followed up with community adaptation plans and concrete adaptation activities, which will have full community ownership. This will not only make project implementation effective but ensure that interventions are sustainable beyond the project life.

In addition, the project will produce studies on indigenous knowledge and understanding on climate patterns and beliefs; and an assessment of current and future post-harvest losses and its impact on food security of communities in the targeted communities. Such information will then be used by communities and by the government for existing and future plans. The development and implementation of district awareness raising strategies in the three southern districts will provide valuable lessons, which will be tracked and recorded in project documents, for the GoL to scale up this approach in the other districts of the country not covered by the project. Policy advocacy will be undertaken to sensitise the GoL to the value of scaling up the awareness raising activities.

Component 3: Strengthening resilience at community level through community based concrete adaptation measures and improved food systems

Baseline scenario:

Without the concrete community-level resilience and adaptation actions proposed in this project, the baseline scenario would see continued negative impacts of climate change including shortage of water for livestock and crops as rains fail, and thus the ongoing lack of food for consumption and sale as well as loss of livestock. With climate change, rainfall will be increasingly unpredictable and scarce and ground water sources negatively affected by shortened rainfall seasons. Lack of income, land degradation and deforestation due to overgrazing and demand for firewood will continue to be exacerbated. The resilience and regenerative capacity of forest resources will continue to be negatively affected by extreme climatic conditions. Due to over reliance on a single income source (staples), earning capacities will fall and lead to outmigration of youth and rural population. The risk of increased frequency of drought in the three southern districts will lead to continued negative coping activities on the part of poor and vulnerable people, and further erosion of their meagre asset base.

Additionality:

AF resources would be used to sensitize the communities on climate trends and longer-term change and the need for adaptation before embarking upon adaptation interventions. Communities will be made aware of the negative impact of existing practices, how these impacts might be exacerbated by climate change and how and why to protect the surrounding ecosystems. Community members will be empowered to develop their own local adaptation plans, and to engage in concrete resilience building and adaptation interventions. These will include building soil and water conservation measures and reducing land degradation through community asset creation, under an integrated watershed management approach. Livelihood activities to enhance agricultural efforts and diversify livelihoods will also be implemented, such as agroforestry activities to ensure not only fuel wood but also incomes through sale of crops and fruits, as well as household water harvesting and vegetable gardening. Indigenous vegetables, which have high nutritional value, will be promoted, as will indigenous medicinal plants. A number of market linkage activities will be included, to promote climate-resilient value chains. These will be underpinned by four value chain studies (sorghum, high value tree crops, indigenous medicinal plants, and indigenous vegetables). In addition, smallholder farmers will be linked with local school feeding programmes so that there is an ongoing demand for their produce. This will ensure that there is some degree of crop diversification as well as sustainable income sources to prevent outmigration, skills loss and brain drain.

Increased agricultural production will be encouraged through the provision of drought-tolerant varieties, and technical advice and demonstrations on sustainable and climate-smart agricultural practices. Rangeland regeneration, sustainable fodder production, reforestation and natural resource conservation measures will be integrated and supported, as will water conservation for agriculture. Water harvesting and storing activities (both rain water and spring ground water) will be done in collaboration with technical experts to ensure there is no negative environmental impact and provide communities with access to water during dry spells.

These interventions will promote food security and nutrition by enhancing ecosystem quality, improving community resilience, agricultural productivity and the diversification of local incomes, taking into consideration both short-term and longer-term climate threats. Livelihood diversification, income generation as well as market linkages will ensure that beneficiaries are self-reliant and have sustained livelihoods beyond the project intervention. In order to address climate vulnerability across the food system, issues such as production, storage, transformation and consumption will also be considered and specific activities identified in order to create truly sustainable and resilient food systems in Lesotho.

J. Sustainability of the Project

In line with pronouncements of the National Climate Change Policy, the proposed project has given due consideration to ensure that benefits generated by are sustained beyond the project's life span and enhance long–term resilience to climate change. To this effect, the project has been explicitly designed for sustainability from the social, economic, environmental, institutional, political and financial perspectives, as outlined below.

Capacity building and coordination at the national and district levels under Component 1 will provide many benefits after the project end-date, including trained government and community leaders in sub-seasonal to seasonal forecasting, as well as design and implementation of standard operating procedures (SOPs) for EWS management and integrated early preparedness and response actions. After the project end-date, trained officials will be able to transfer their knowledge to other officials at national and district levels.

Regarding sustainability of the FbF approach, note that FbF does not constitute additional financing, but centres on developing these enhanced capacities so that the government and other key players in EA/EW can use the existing funds within the government budget as well as those of agencies and NGOs more proactively and effectively.

The current GoL allocation for the Fato-fato Social Protection programme is USD 8 million. The GoL has annual budgeted additional amounts for other social protection programmes like school feeding (USD 31 million), child grants (USD 2.2 million), and so on. Total spending on all transfers is high, there is no overall framework for coordinating transfers, and the existing range of programmes cannot be easily scaled up or down in response to shocks like drought[86] The project will work with the GoL to enhance Fato-fato and other social protection systems to become more shock responsive. This will entail not only developing the triggers and thresholds, but also looking at what can be done earlier for a more proactive response to prevent a full-fledged emergency. Under the ECHO project, WFP, together with FAO and Unicef, is currently advocating for the GoL to develop a contingency fund, for

[86] World Bank (2013) 'Lesotho – a safety net to end extreme poverty'. World Bank report no. 77767-LS. WB Human Development department, Social Protection Unit, Africa Region.

early response to drought and other hazards. The AF project will further the development of the more proactive approach started under the ECHO project. The envisaged contingency fund would be in addition to the existing GoL budget on social protection, and would be institutionalised within the GoL budget for sustainability. Thus it would not be dependent on additional external funding.

Activities under Component 2 are aimed at raising awareness, knowledge and understanding of communities on climate change so that communities understand its impacts on food security, nutrition, and livelihoods. Various information dissemination, awareness creation as well as skills and capacity building programmes will be deployed. For example, agricultural extension officers will be engaged to train, propagate and entrench climate change awareness into community leaders, village chiefs, religious and traditional leaders, and women and youth organizations. These will be augmented by community training sessions for women, theatre using folklore and indigenous stories. The proposed project awareness, knowledge, understanding and skill and capacity base will reach 2,000 farming households each year for three years during the project life. This yields a cumulative direct total of 6,000 households. However, through the actions of the National Climate Change Awareness Raising Strategy, it is likely that at least a total of 800,000 people – i.e. 40 percent of Lesotho's population – will be reached by at least two of the awareness raising messages or events per year.

This multi-level and cross-sectoral robust awareness raising, information sharing as well as skill and capacity building relay mechanism is a critical pillar of ensuring sustainability of benefits of the proposed project. This is particularly the case given the modality that will underpin all awareness raising activities, namely social and behaviour change communication (SBCC), which is designed to go beyond raising awareness to triggering behaviour change, and thus tangible results for resilient livelihoods. It cements valuable information and lessons into community governance and livelihood systems, through which knowledge and skills dexterity is transmitted from generation to generation as communities continue to develop their short- and long-term solutions for adaptation on the basis of information received.

Embedding climate change knowledge, understanding and the necessary skills to address it into the school curriculum will involve updating and upscaling the dissemination of the climate change toolkits for teachers developed earlier by LMS. Teachers and principals will be encouraged to use these toolkits to trigger the 'The Whole School Approach' to addressing climate change. This includes action for addressing climate change in every aspect of school life, namely school governance, teaching content and methodology, and campus and facility management. Active involvement of all internal and external stakeholders (students, teachers, principals, school staff at all levels) and the wider school community (such as families, community members and private sector) in reflecting and acting on climate change safeguards the sustainability of project benefits (such as information, behaviour change, adaptation interventions, infrastructure, resources and assets) which the school has acquired through the proposed project. This is of particular importance in the project target areas where, as consultations revealed, there have been incidences of vandalism of initiatives such as tree planting and vegetable gardening programmes.

Embedded in the project is the provision and strengthening of training, technical and technological capacity building and skills transfer for community members as well as other stakeholders. This is of prime importance in ensuring that beneficiaries possess the necessary skills and competences to undertake project activities and sustain them beyond the project life.

During community consultation, it was realized that a project-based approach could have several unintended results. If communities do not understand the need for the project intervention (climate change adaptation), they may potentially think of it as a short-term income generating scheme without long-term benefits. In addition, once a project creates assets, maintaining those needs strong community ownership.

Based on guidance from district and community consultations, the project is designed to partner with and entrust a reputable local NGOs to provide relevant support during project implementation as well as oversight of activities after project completion. NGOs represent communities and are their administrative arm. As such, the NGOs are not meant to exit, but are rather expected to maintain the value-added, roll out and upscale adaptation activities, and transfer solutions to neighbouring communities.

Community-based participatory planning (CBPP) approaches are key planning tools paving the way for community ownership and sustainable benefits. Related discussions on asset maintenance and tenure aspects are essential to ensure the sustainability of asset creation schemes, cultivate community empowerment, ignite active community participation and create ownership of the project. In this way, community members will fully embrace their roles, not only as beneficiaries, but as stewards and custodians of the project.

In relation to assets maintenance, under the proposed project, two types of assets will be created: household- and community-level assets. For the community assets, three concurrent sustainability paths will be implemented. (a) At the beneficiary level, a significant amount of effort and resources will be devoted to the development of community-level management committees. These will come in several forms (e.g. community asset management committees such as, community based environmental management teams, water point committees, community council development associations, livestock management committees, farmers associations) depending on specific asset and its location. Each one of these entities is trained and becomes responsible for the maintenance of the assets after project completion. Both in Lesotho and other countries where WFP operates, such entities have been showing positive results in ensuring that assets built or rehabilitated are appropriately maintained over time, replicated and access is ensured to every member of the community. (b) At the community level, asset tenure and maintenance are discussed and agreed upon during the Community-Based Participatory Planning (CBPP) process. (c) At the institutional level, adaptation plans developed under Output 3.1 (including the assets creation interventions under Output 3.2 and their maintenance) will be integrated into District Development Plans whereby District Development Committees will ensure maintenance of the assets after project completion (through community-level management committees under point 1 above). These elements reinforce project sustainability, and assets maintenance beyond the project life. Moreover, creating/strengthening a relevant market for drought resistant crops (such as beans and sorghum) will also help sustain climate resilient practices by providing an incentive through sustained prices/incomes.

The project will contribute to gender transformation, as it will encourage both women and men to take on roles and responsibilities that have traditionally not been considered gender appropriate and have limited people's potentials. Currently, women and girls are overburdened with time consuming and physically demanding tasks, including securing adequate water for household consumption and agricultural efforts. New techniques and capacity building of water harvesting and income generation

will have a gender transformative focus and distribute the work burden between both women and men. Through selection of components and activities leading to enhancing and diversifying livelihoods for women smallholders (i.e. water harvesting, fuel-efficient stoves, horticulture, etc.) and by promoting women's participation in community planning and decision-making structures, access to technologies, information and know-how, the project is fully aligned with the Gender Policy of the AF, which will further serve to ensure sustainability of the project benefits.

K. Environmental and Social Impacts and Risks

The project has been designed to generate positive environmental and social impacts, using knowledge and best practices from other projects and through extensive consultations with the targeted communities, stakeholders and relevant authorities. The adaptation measures proposed are small-scale, culturally-appropriate activities selected by the communities and are expected to generate very limited negative environmental impacts, if they are designed and executed as proposed.

The entire project was screened for environmental and social risks according to the 15 principles outlined in the AF's Environmental and Social Policy. The results of the screening and risk assessment process is included in Annex 7. The results – potential risks identified and preventive or mitigation measures planned – are presented in Table 5 below. The project is categorized as Category B (medium risk).

Activities under Component 1 include studies, institutional capacity development and co-development of tailored climate information for communities. These activities have no environmental impact. The participatory approach adopted for delivering climate services will ensure that needs of women, youth, elderly and vulnerable groups are considered when tailoring and disseminating climate information. Activities under Component 2 include the development and implementation of an awareness raising strategy, which has no environmental impacts. An inclusive, gender-transformative, culturally sensitive approach to climate change awareness raising will be designed to ensure active engagement of men and women; boys and girls; children; youth; vulnerable groups; government authorities; private sector, media, academia, CSOs, and NGOs.

Most of the field activities that will be implemented under Component 3 will be defined at project inception through community-based participatory planning approaches. A menu of options has been pre-identified in consultation with communities. This set of options has been pre-screened during design phase and activities are expected to be categorized low to moderate risk. A detailed screening process for activities under Component 3 has been set up (see Annex 7) and will be applied as soon as activities and related locations are identified through the CBPP process. The process will allow the project team to identify concrete risks and plan for and implement corrective measures that will avoid, minimize or mitigate these risks. Should one of the activities trigger a high risk, a full environmental and social impact assessment will be carried out by relevant technical experts. The project will work to ensure that all measures are implemented to the highest standard with an emphasis on risk avoidance. An Environmental Compliance Officer will support communities in the development, implementation and monitoring of community mitigation plans.

An Environmental and Social Management Plan and Grievance Mechanism are included in Annex 7 together with more detailed risk mitigation measures for the specific risks identified in Table 5 below.

Table 5: Risk Screening of the project based on the 15 principles of the Adaptation Fund's Environmental and Social Policy

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	**No risk** Low risk- The proposed project abides by relevant national guidelines and regulations such as Environment Act 2008, Range Management Act 1993 and 2013, Water Act 2008, Food Security Act 2014, Forestry Act 2013, National Gender Policy 2015, Lesotho National Youth Policy 2017-2030.
Access and Equity		**Low to moderate risk** - The participation of representatives of the disabled, the elderly, youth, community leaders and planners in consultative process and in the upcoming CBPP processes will ensure fair and equitable access to benefits in a manner that is inclusive and does deny access of community members to other services such as clean water and sanitation; and energy and education as well as decent working conditions. Communities expressed the fear that farmers groups may disagree on issues related to levels of participation, assets contribution and benefits sharing. Income generating activities could generate new employment for a limited subset of the target group. Participatory assessment will be carried out to ensure full and equitable participation of and equal benefits to men and women and vulnerable and marginalized groups. The project will ensure that there will be neither discrimination nor favoritism in accessing project benefits. Conflict resolution committees will be set up and quarterly meetings will be arranged to ensure that any conflict that may arise is addressed and resolved in a timely manner.
Marginalized and Vulnerable Groups		**Low risk -** During consultative processes, vulnerable women, youth, the disabled, the elderly, herders, and people living with HIV/AIDS were consulted to ensure that their identified threats, challenges and priorities are reflected. The project will empower vulnerable groups to make decisions on concrete adaptation measures, valuing their traditional and local knowledge. The project will create a space for women, elders, and the youth to choose adaptation activities in a transparent and participatory manner. Additionally, the project will consider traditional belief of Basotho as well as land, property and customary rights. The elderly and the youth will be involved considering the respective value each will bring to the project. Through some project activities such as food diversification proper nutrition for community members, especially children, will be ensured to eradicate malnourishment and associated stunting**.**
Human Rights	X	**Low 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 to moderate risk** Gender inequality issues are widespread in the country. Unequal participation of women and men in the project could lead to an exacerbation of existing gender inequalities in the community. The consultative process was carried out with the participation of WFP and WILSA gender experts to ensure that consultations were responsive to various gender needs and roles such that project activities effectively respond to the unique needs of women and girls, men and boys, and promote equal opportunities to participate, and receive comparable social and economic benefits. Through their patronage, and through targeted consultations with Basotho women during consultations, extensive efforts were deployed to support and ensure that women and men, collectively, through their respective associations and individually during interviews and focus group discussions presented their views, needs, challenges and priorities. Project activities have been designed to be gender sensitive. The project will promote and empower women leadership in public spaces and decision making. WFP gender team will provide technical support to ensure that gender aspects are adequately taken into consideration during project implementation. Community plans for asset creation (3.1.2) will be screened for compliance with E&S Standards before approval.

Core Labour Rights	X	**Low risk** The project will ensure respect for international and national labour laws as prescribed by the International Labour Organization as stated in WFP's policies, as well as the Lesotho Labour Law.
Indigenous Peoples	X	**No risk** There are no nationally or internationally recognized indigenous or tribal groups in Lesotho. The consultative process for this proposal involved all socio-economic groups, including vulnerable groups, at the project area inter alia, traditional doctors and healers, women, youth from initiation/circumcision schools, traditional and religious leaders, elders and youth of various communities. Through the CBPP, views of these different groups will be taken into account. This is critical due to their interaction and use of some plant and animal species used for various cultural, spiritual and medicinal purposes around the proposed project area. In their capacity and interest, they will actively participate in relevant project activities.
Involuntary Resettlement	X	**No risk** The project will not lead to involuntary resettlement.
Protection of Natural Habitats		**Low risk** By implementing ecosystem-based adaptation activities such as agroforestry and water conservation efforts, the project will ensure the protection of natural habitats. Potential assets activities were identified taking into consideration views and recommendation of representatives of government, NGOs, CBOs, and environmental protection practitioners. Their suggestions and recommendation on how to enhance the protection of natural habitats and ecosystem such as wetlands, water bodies, will be incorporated in the project activities and include active participation of community based organizations involved in water and land conservation; training and capacity building of beneficiaries on principles of natural resources conservation and protection; strengthening the implementation of grazing policies; sustainable resources harvesting to mitigate over exploitation. Concrete asset creation activities (output 3.1.2) will be screened again upon identification taking into consideration their exact location. Should any activity trigger a high risk, a full environment and social impact assessment will be performed.
Conservation of Biological Diversity		**Low to moderate risk** Agroforestry and tree planting activities could lead to a deterioration of biological diversity if tree species are not correctly selected (e.g. inadvertent introduction of invasive species) and diversified. To ensure this risk is addressed, this project will prioritize local species and multi-species plantations and avoid the use of non-native and invasive species. Additionally, these activities will be designed in close collaboration with the Ministry of Forestry. By working with local leaders and village chiefs to rescue traditional and native plants and crop species, this project will support the conservation of biological diversity and increase ecosystem resilience. Concrete asset creation activities (output 3.1.2) will be screened again upon identification taking into consideration their exact location. Should any activity trigger a high risk, a full environment and social impact assessment will be performed.
Climate Change	X	**Low risk** The proposed project activities will not generate nor emit any significant greenhouse gases and will not exacerbate climate change by any means. On the contrary, some project activities such as restoration of wetlands and rangelands will increase national carbon sink capacity thereby enhancing the climate change mitigatory potential of the project activities. Climate change related impacts have been assessed using WFP's social and environmental screening tool and will be reassessed and verified during the CBPP process.
Pollution Prevention and Resource Efficiency		**Low to moderate risk** The project will not release pollutants. Energy efficiency, minimization of material resource use, and minimization of the production of wastes are embedded in project design. Even though the project will not lead to a significant use of water, communities have expressed concern about the wasteful use of water of some of their members. Water users' associations will be created where relevant. Concrete asset creation activities (output 3.1.2) will be screened again upon identification taking into consideration their exact location. Should any activity trigger a high risk, a full environment and social impact assessment will be performed.

Public Health		**Low risk** The project will be designed and implemented in a way that avoids any negative impact on public health. Particular attention will be given to activities related to water harvesting and storage and communities will be sensitized on how to use and store the water in a safe and efficient way. The project will ensure that the targeted populations will not face restrictions to their access to public healthcare. Concrete asset creation activities (output 3.1.2) will be screened again upon identification taking into consideration their exact location. Should any activity trigger a high risk, a full environment and social impact assessment will be performed.
Physical and Cultural Heritage		**Low risk** Under Components 1 and 2, traditional and local knowledge will be understood and enhanced with scientific information for environmental management and food security and nutrition. Consultations and engagement with stakeholders and communities (Components 2 and 3) will ensure that any physical cultural heritage present on the project site is identified and potential negative impacts are avoided through project design. Concrete asset creation activities (output 3.1.2) will be screened again upon identification taking into consideration their exact location. Should any activity trigger a high risk, a full environment and social impact assessment will be performed.
Lands and Soil Conservation		**Low to moderate risk** Through the adaptation activities in Component 3 (output 3.2), this project will aim to rehabilitate lands and restore degraded soils through natural regeneration, planting of native nitrogen-fixing plants, agroforestry and water harvesting. Some activities, however, could have negative impacts on lands and soils conservation if not designed properly. Sensitization and trainings in Component 2 will ensure these issues are well understood. The project will identify mitigation and monitoring measures to ensure that unintended negative impacts resulting from its activities are avoided or minimized. Concrete asset creation activities (output 3.1.2) will be screened again upon identification taking into consideration their exact location. Should any activity trigger a high risk, a full environment and social impact assessment will be performed.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for Project Management

The proposed project will be executed by the Ministry of Energy and Meteorology (MEM), through Lesotho Meteorological Services (LMS), and by the Ministry of Forestry, Range and Soil Conservation (MFRSC). Solid operational coordination between the two executing entities will be assured through the Project Technical Committee (PTC), comprised of representatives of the MEM, MFRSC and WFP, as described below. Both LMS and MFRSC will partner with a range of relevant partners, including NGOS, community organisations, UN agencies (e.g. FAO and Unicef) and line Ministries for execution of some activities and provision of technical assistance.

The World Food Programme (WFP), Lesotho Country Office, as Multilateral Implementing Entity (MIE), will oversee and coordinate the overall project management, oversee monitoring and evaluation, provide technical backstopping and report to the AF. WFP will provide technical, fiduciary and managerial support throughout all stages of project implementation. At the national level, the project will be coordinated through support of the WFP Country Office, with coordination at the district and community level mainly through the WFP Mohale's Hoek District Office, which is responsible for the districts of Mafeteng, Mohale's Hoek and Quthing. Additional technical support will be provided as required by the WFP Regional Bureau in Johannesburg, and WFP Headquarters in Rome, Italy.

The MEM is the Government entity responsible for advancing the mandate to address climate change in Lesotho. Through the coordination function of the LMS, the Ministry oversees the formulation and implementation of the national climate change agenda. Concretely, the LMS provides meteorological services, which enable the attainment of environmentally sound and sustainable socio-economic development of Lesotho.[87] The MEM coordinates and implements, on behalf of the Government of Lesotho, the country's international obligations on meteorology, climate change and ozone issues to which Lesotho is signatory.[88] Through LMS, the MEM also serves as the Designated National Authority (DNA) for managing applications for carbon trading through the Clean Development Mechanism (CDM).[89]

Component 1 will be directly executed by the MEM through the coordinative function of the LMS. The S2S forecasting system and SOPs for drought preparedness and early action will be established with inputs from the International Research Institute for Climate and Society (IRI), whilst studies will be undertaken in coordination with expert consultants, tailoring climate information to communities' needs and disseminating it in a culturally-appropriate, gender and age responsive way.

The MEM, through LMS, will also execute Component 2 which covers developing and implementing national and district climate change awareness raising and communication strategies. For Component 2 activities the MEM will forge collaboration with civil society organizations for awareness raising campaigns and community outreach programmes. This is of critical importance as civil society organizations have been instrumental in ensuring sustainable implementation of programmes meant for alleviating poverty and reducing vulnerabilities of local communities. Their active involvement in this proposed project is crucial for enhancing effective and sustainable implementation of climate change adaptation plans and projects through: information dissemination; provision of input to agenda-setting and policy development and review processes; assessing environmental conditions and monitoring compliance with agreements; as well as advocating for environmental and climate justice. Collaboration with Community Based Organisations (CBOs) and traditional as well as religious institutions will be strengthened to ensure engagement of various traditional, indigenous, religious institutions in the proposed project.

The LMS will further collaborate with the Ministry of Education and Training in order to engage educational and training institutions (for e.g. the National University of Lesotho) for effective integration of climate change in education/school curricula. The National University of Lesotho, Lesotho College of Education; the Lesotho Agricultural College, Leloaleng Technical School, present platforms of sustainable strategic relevance to the proposed project.

For media and information dissemination programmes, the MEM will collaborate with Ministry of Telecommunications, Science and Technology, the Media Institute of Southern Africa (MISA), and the Lesotho Telecommunications Authority (LTA). Collaboration will be forged with Institutions of Higher Learning in the area, such as National University of Lesotho, Lerotholi Polytechnic, and National Health Training College, Lesotho College of Education, and Limkokwing University of Creative Technology to

[87] Furthermore, the LMS conducts atmospheric and weather elements observations at the earth's surface and generates sound data bank and archiving systems to create the national climate records.
[88] The MEM is the designated National Focal Point of Lesotho to the UNFCCC, the Kyoto Protocol and Paris Agreement on Climate Change, Vienna Convention on Protection of the Ozone Layer, the Montreal Protocol on Substances that Deplete the Ozone Layer and the World Meteorological Organization.
[89]Ministry of Energy and Meteorology, Lesotho Meteorological Services: 2013

provide expertise needed for innovative and creative awareness raising programmes as well as the technology development and transfer process.

Agriculture-related activities for Component 3 will be implemented by the Ministry of Agriculture and Food Security (MAFS) in close coordination with the Ministry of Forestry, Range and Soil Conservation, and with support from FAO. The MAFS is tasked with participatory development and implementation of policies and programs with farmers, provision of expert advisory agricultural services to the farming community and agro-businesses leading to sustainable agriculture for the achievement of food security. The MFRSC is responsible for protecting and rehabilitating the physical environment through forestry, management of rangeland resources, control of soil erosion and harvesting of water in order to enhance means of livelihoods of local communities. Studies on post-harvest losses will be undertaken by expert consultants in direct collaboration with the MAFS. In addition, extension services at the district level are part of the MAFS and will be responsible for provision of knowledge and training at the community level.

Execution of most activities will be undertaken by community organizations after receiving training, and with assistance from consultants. More specifically, community organizations will undertake the following tasks:

- Community mobilization and organization of awareness and field training (C2 and C3);
- Supervising asset creation schemes and the maintenance thereof (C3)
- Soliciting support and technical assistance when needed on behalf of the community (C3).

Project staff

The project will engage a number of staff to ensure integrated, effective, and efficient implementation of the project. A Project Management Unit (PMU) will be set up for the implementation of the project. A fulltime National Project Coordinator (NPC) responsible for overall project implementation and coordination, will be hired and will be located within the LMS in Maseru. The project coordinator will be supported by two Technical Experts for Component 1 (one located in LMS and one in DMA); one Technical Expert for Component 3, located in MFRSC; and an M&E officer. The location of the technical experts who are part of the PMU within the two executing ministries and the DMA will promote strong coordination between the executing entities. A fulltime Communication Expert located in LMS will be responsible for the implementation of activities under Component 2. An admin assistant, a finance assistant and a procurement assistant will support the execution of this project. The WFP gender team will provide technical assistance in mainstreaming gender in all components. The project will also employ an Environmental Compliance Officer, who will be employed part-time between PY1 and PY2 to coordinate and implement the screening of resilience and adaptation options as identified through the CBPPs and to prepare ESM plans if needed. After PY1 this person will be employed for a few weeks per year to support monitoring the implementation of the ESMP and to update it if needed. A Field Officer will be employed per targeted district, to coordinate and monitor activities on the ground.

Project governance structure

High-level oversight of the project will be through a Project Steering Committee, to include senior technical representatives (Directors General) from the key Ministries including Prime Minister's Office (PMO), MEMWA, MAFS, MFRSC, MOH, Department of Environment- Ministry of Tourism, Environment and Culture, National University of Lesotho (NUL), Lesotho National Farmers Union

(LENAFU), Ministry of Local Government (MLG), and the UNFCCC, AF and GEF focal points. This will be the same PSC as that for the LMS/UNEP/GEF LDCF EW Phase II project, to promote coherent, effective and efficient implementation. The PSC will be set up in the framework of the National Climate Change Committee (NCCC), which is made up of different line ministries, development partners and private sector. The NCCC will act as a platform for coordination with other partners and initiatives and will provide advice when needed.

Technical oversight of the project will be provided by a Project Technical Committee (PTC), comprised of representatives of the MEM, MFRSC and WFP. The PTC will meet quarterly and will be responsible to manage and provide technical guidance to project implementation. The PTC is the key structure to promote sound operational coordination between the two different executing ministries, MEM and MFRSC. While interaction between project and ministry staff across the ministries will occur on a daily basis, the quarterly meetings of the PTC will provide assurance that the necessary joint working is on track. The PTC will be chaired by the NPC and will include representatives of the key executing ministries as well as a technical representative from each district.

At the district level, the project will use existing district coordination structures to facilitate integrated development and implementation of project activities on the ground. While each district has a range of different coordinating structures, the project, after discussion with the MLG and other district stakeholders, will make use of the primary structure in each district that facilitates effective functioning between the District Administrator's office and the Office of the District Council. These district coordination structures are made up of district administrator, district council secretary and heads of government departments, development partners and line ministries who are responsible for development of the district. The project is cognizant of the fact that Lesotho is in the process of harmonizing district coordination structures, and will fully comply with this process. At the community level, implementation processes will be managed through village coordinating structures that include all village authorities (community councils, which are local government structures, as well as traditional authorities), extension staff, NGOs, and the socio- economic groups established during community based participatory planning. The socio-economic groups (SEGs) will include those consulted during design, which included women, men, youth, the elderly, farmers, herders, teachers, orphans, minority groups such as people with disabilities, pregnant and lactating women, traders, local leaders, traditional healers, community-based organizations, community health workers, men's and women's initiation schools, and support groups for people living with HIV/AIDS. While a range of SEGs was consulted, the overall gender representation in the consultations was 60 percent female and 40 percent male. This is due to a variety of factors, such as high migration rates among men and higher interest of women in food security-related matters. This gender representation will be maintained in the village coordinating structures. The district coordinators will also work in collaboration with extension workers under MFRSC, MAFS etc. providing technical assistance in asset creation/restoration activities at household and community levels.

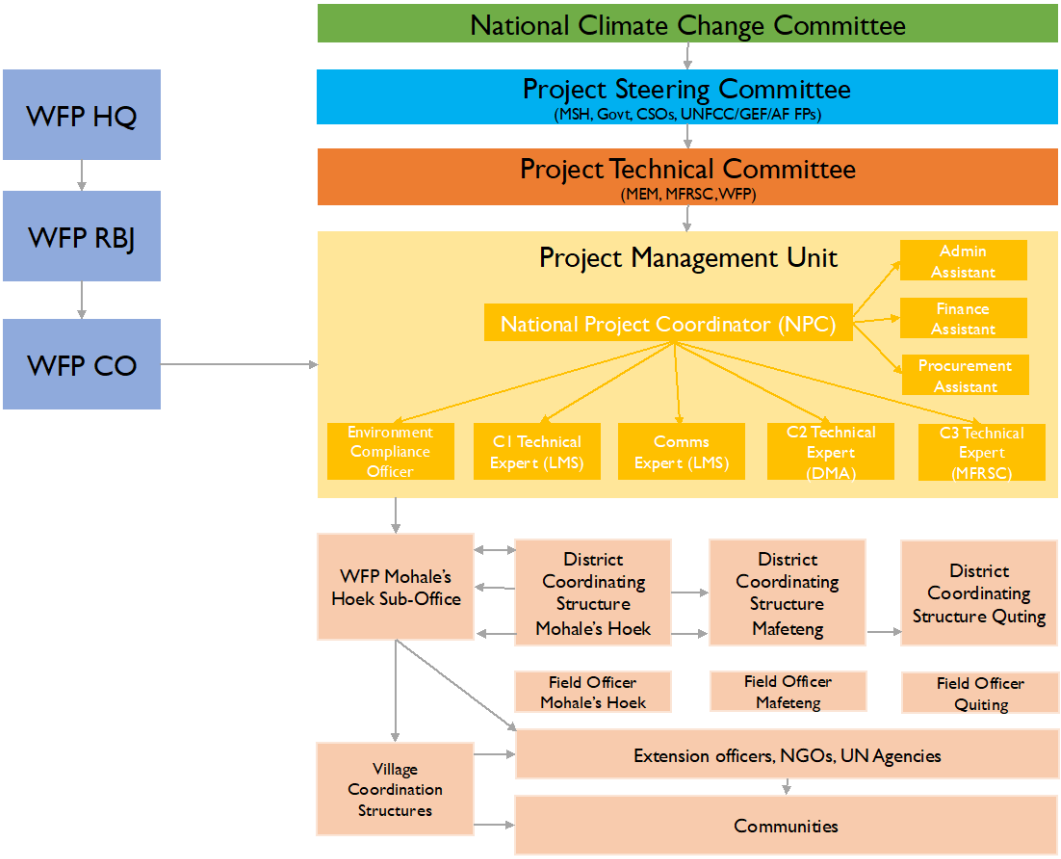


Figure 9: Organogram showing project governance and execution structures

B. Project Risk Management

Financial and project risk management measures will be assessed throughout the project design and implementation. Potential risks related to project implementation and response measures are described in Table 6.

Table 6: Financial and Project Risks and Response Measures

Risk	Ranking	Response Measure
Political Risk	Medium to low	In view of the risk that political volatility and civil unrest could interrupt the project, WFP will seek to reduce the effects by establishing strong operational partnerships with various national organizations and engaging in advocacy. WFP will strive to establish a sentiment of full ownership amongst government stakeholders.
Technical Capacity of government partners	Medium	Unexpected constraints relating to the capacities of national partners could result in delays in implementation; WFP will continue to develop partnerships with a broad range of development organizations and provide backstopping to ensure sustainability and to limit risks. A strong project management team will be put in place.
Natural disasters such as floods, drought in project sites	Medium to low	WFP will continue to prepare routine contingency plans in close collaboration with Government to detect and address risks well in advance. Project actions will develop SOPs for enhanced drought response.
Coordination among government agencies will be ineffective due to the large number of agencies involved, possible captured by sectoral interests, and multiple reporting lines	Low	This risk will be mitigated by strong leadership from senior government officials. Since the concept stage, the NDA and its technical advisors have been involved in project planning. Information will be broadly shared to identify synergies and opportunities for cooperation, and minimize the risks of competition and duplication. Further multi-stakeholder discussions will focus on identifying common issues, and finding pathways towards common goals and actions.
Environmental risk	Medium to low	Most of the field activities that will be implemented under component 3 will be defined at project inception through community-based participatory planning approaches. A menu of options has been pre-identified in consultation with communities. This set of options has been pre-screened during design phase and activities are expected to be categorized low to moderate risk. Specific community adaptation plans will be screened before their approval to assess the actual risk category of each activity, taking into consideration the location and the social and environmental context. Should a moderate or high risk be identified, the project will take adequate measures to address and mitigate the risk. A detailed description of the Environmental and Social Management Plan for this proposal is included in Annex 7.
People cut down planted trees for fuel wood (other than community forests)	Low	Community ownership and protection of natural resources as well as having alternative sources of income and fuel-efficient stoves will reduce this risk, as will the awareness raising activities under Component 2. In addition, the Government is pursuing the strategy of replacing wood with natural gas in urban centres, which are the most important market for fuel wood from rural areas. Use of fuel-efficient cook stoves is also being promoted in the rural areas.

C. Measures for Environmental and Social Risk Management

The entire project was screened for environmental and social risks against the 15 principles outlined in the AF's Environmental and Social Policy, as set out in Section K above. The project is categorized as Category B (medium risk). The results of the E&S Screening and assessment are included in Annex 7.

The project will work to ensure that all measures are implemented to the highest standard with an emphasis on risk avoidance. An Environmental Compliance Officer will support communities in the development, implementation and monitoring of community mitigation plans. The M&E officer will monitor ESMP indicators as part of the M&E system.

An Environmental and Social Management Plan (ESMP) and Grievance Mechanism are included in Annex 7 together with more detailed risk mitigation measures for the specific risks identified in Table 5 of Section K.

The ESMP designed for this project will track identified risks, or any new risks, ensuring they are properly monitored, evaluated, and reported upon. The proposed project will fully comply with national laws, the Adaptation Fund's Environmental and Social Policy and WFP's social and environmental standards. The overall objective of the ESMP is to ensure that risks are identified, and that the adequate action is taken, whether these be mitigation measures or an ESIA if high risks are identified. It also enables effective response to new issues that might emerge during project implementation. In order to ensure effective compliance with the ESMP provisions and standards, environmental and social risks compliance personnel may be engaged during project implementation period to support the project team with the implementation of the ESMP and periodical checks.

All assets identified will be screened before they are constructed. If risks are identified as "low", then the activity will proceed (with adequate monitoring, if needed). If the risks are "medium", then an environmental note will be developed that lists the risk and plans for mitigation measures. If a high risk is identified, then an ESIA will be undertaken by an expert. See the ESMP in Annex 7 for more detail.

D. Monitoring and Evaluation Arrangements

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

Inception Workshop - Inception workshop will be held at project up-start, under the chairmanship of the MEM (the Ministry within which LMS is located) and the MFRSC, and with involvement of all major stakeholders, including the Project Steering Committee and centralized and decentralized government entities. The inception report to be provided on the basis of the workshop will form the basis for the first detailed annual work plan. An in-depth baseline (to be developed within 4 months of project start) and regular follow-up reports concerning all indicators included in the project results framework form an integral part of the project, which has a strong learning dimension.

Quarterly Progress Report - Short quarterly progress reports will keep the project stakeholders at decentralized and national level abreast of the most recent developments and events, including project activities, the results of any environmental and social risk screening performed, implementation of any risk mitigation measure, results achieved, challenges encountered and plans to address them. Every fourth quarterly report will provide additional input to the project annual report (as will be defined by the project coordinator who will take into considerations the requirements of the national monitoring system under establishment for adaptation programs under the Climate Adaptation Strategy, including the Independent complaints and feedback mechanism system already set-up for WFP programmes). The cost of preparation of the reports will be covered by the Project Execution Cost; supervision and quality assurance will be covered by the IE fee.

Annual Reports - Detailed annual reports will provide full information on activities carried out, outputs produced and – to the extent possible – tendencies towards foreseen outcomes observed. The annual reports will be presented and discussed at an annual workshop, at which the advisory group and other identified stakeholders will participate. This will provide recommendations/endorsement for the proposed next annual work plan. The cost of preparation of the reports will be covered by the Project Execution Cost, supervision and quality assurance will be covered by the IE fee.

Reviews and Evaluations- An external mid-term evaluation will be carried out half way through project implementation and covered by the IE fee. A final report will summarize all project activities and results. A final evaluation will be completed within six months of project termination, the cost has been included in the Project execution cost.

E. Project Results Framework

Project strategy	Objectively verifiable indicators				
Goal	*To enhance the adaptive capacity of vulnerable communities to the effects of climate change on food security.*				
Impact: Enhanced resilience to climate shocks and reduced food and nutrition insecurity due to resilience building and adaptation measures	**Indicator**	**Baseline**	**Target (MT and End)**	**Source of verification**	**Risks and assumptions**
	Vegetation index in low-lying southern districts (as a proxy for enhanced ecosystem resilience to climate change)	High levels of land degradation in three southern districts; vegetation index baseline to be developed using Land Degradation Surveillance Framework (LDSF)[90]	10% improvement in vegetation index in low-lying project areas, as measured by the LDSF	LDSF baseline and measurement at end of project	
	Household dietary diversity score[91]	4 food items in household diet	Increased HH dietary diversity to 6 items	Project reports	

Component 1: Institutional capacity and systems building to support national and community adaptation and management of climate change impacts					
Outcome/Outputs	**Indicator**	**Baseline**	**Target**	**Source of verification**	**Risks and assumptions**
Outcome 1.1: Increased knowledge and technical capacity at national and district levels to forecast, plan and anticipate responses to climate change impacts	Capacity to produce sub-seasonal to seasonal forecasts, issue sector specific EW, develop drought preparedness protocols & respond accordingly	Limited national tools/ capacities to downscale seasonal forecast SOPs for drought preparedness based on S2S EW do not exist at national or district level	LMS has enhanced tools & capacity to downscale forecast and provide accurate drought EW SOPs based on drought EW are developed at national level and in pilot districts	Project reports District and National SOPs	National authorities are committed to strengthening their capacities for inter-sectoral drought forecasting and related responses (A)
Output 1.1.1: Strengthened sub-seasonal to seasonal (S2S) precipitation and	# Staff trained to maintain and integrate new observational data	0	MT: 12 End: 12	Pre- and post-training assessments	National authorities are committed to strengthening their

[90] ICRAF is currently developing the biophysical baseline using LDSF and will do annual monitoring for WAMPP, baseline includes a site each in Mohale's Hoek and in Quting; project will follow up on feasibility and cost of extending this to cover Mafeteng too and any associated costs of annual monitoring

[91] Used as a proxy measure of household food access, i.e. measures the impact of the project on food access

temperature forecasting to feed into National Early Warning System (to trigger early action through government safety net programs)	into database (gender disaggregated) # web-based map rooms installed in LMS to share observations, develop EW thresholds and triggers, and process S2S forecasts S2S forecasting system to cover national and sub-national levels, with 6-month horizon	 0 0	 MT: 2 End: 3 MT: Specialised S2S forecasting system operational End: As for MT	 Web-based map rooms Project reports Seasonal and sub-seasonal forecasts Project reports	capacities related to inter-sectoral drought forecasting and related responses to support local populations (A)
Output 1.1.2: Capacities strengthened through development of standard operating procedures in response to climate change-related drought shocks	Thresholds validated and triggers and actions developed for national SOPs on drought # district-level SOPs for drought that define field-level actions developed and applied Number of government staff sensitized and trained at national and district level on drought SOPs, disaggregated by sex	Thresholds, triggers and actions for national SOPs on drought outdated / not in place 0 National and district staff have limited technical capacities to develop and implement drought SOPs for early action	MT: Thresholds, triggers and actions for national SOPs on drought in place End: As for MT MT: 3 End: 3 MT: 100 officials at national level trained (50% women) End: 100	Stakeholder workshop report District drought SOPs workshop reports Pre- and post-training assessments Workshop reports	National authorities are committed to strengthening their capacities related to inter-sectoral drought forecasting and related responses to support local populations (A)
Outcome 1.2: Strengthened access to tailored climate services by vulnerable communities to improve decision making for food security and livelihoods	% of households using seasonal forecast in resilient decision making on agricultural / livelihood strategy	No targeted climate information based on sub-seasonal to seasonal forecasting reaching the targeted communities	MTR: 10% of targeted villagers End: At least 50% of community members (50% male & 50% female) in target villages use seasonal forecast in decision making	Project reports Baseline and completion survey Final project evaluation	
Output 1.2.1: Enhanced understanding of local	# of studies on local knowledge and beliefs on	No documented understanding on local	MT: 1 End: 1	Study report	

knowledge and beliefs on climate change and acceptability of climate services	climate change and acceptability of climate services	knowledge and beliefs on climate change/ acceptability of CIS			
Output 1.2.2: Strengthened access to tailored seasonal forecasts that meet the needs of vulnerable communities	# partners capacitated on using seasonal forecasts to develop culturally appropriate CIS % of targeted people understand the information	0 Community members in targeted villages do not understand nor rely on climate information	MT: 10 partners End: 20 partners MT: 50% End: At least 80% of the people having access to climate information can understand and interpret it	Training reports Project reports Baseline and final project evaluations	Communities respond positively to sensitisation and training on understanding messages and taking informed decisions (A) Religious leaders participate in conveying the messages (A)

Component 2: Increased awareness and knowledge of communities and youth on the impact of climate change and the importance of climate change adaptation.

Outcome/Outputs	**Indicator**	**Baseline**	**Target**	**Source of verification**	**Risks and assumptions**
Outcome 2.1: Strengthened awareness of climate change impact on food security amongst vulnerable communities and youth and knowledge of adaptation actions	% of targeted community members (M/F/MY/FY) receiving key messages on climate change adaptation, food security and nutrition % of people having knowledge/awareness, attitude and practice on climate adaptation initiatives	Community members often do not understand the objectives of projects and do not take ownership over adaptation plans Very few communities/households have knowledge on/ practice climate adaptation	At least 90% of community members (50% male and 50% female) in target villages are sensitized (of whom 20% are youth) At least 70% of community members have knowledge & practice adaptation actions	-Baseline and final project evaluations KAP survey in baseline and final evaluation	
Output 2.1.1: Coherent and institutionalized multi-level programme on awareness raising on climate change designed and operationalized	Presence of National Climate Change Awareness Raising and Communication Strategy (NCCAR&CS)	No coherent approach to awareness raising and communication on climate change	MT: NCCAR&CS developed and operational End: As for MT	Baseline and final project evaluations	Demand for climate change awareness and adaptive strategies among communities

Component 2: Increased awareness and knowledge of communities and youth on the impact of climate change and the importance of climate change adaptation.					
Outcome/Outputs	**Indicator**	**Baseline**	**Target**	**Source of verification**	**Risks and assumptions**
	# Gender-transformative awareness raising materials on climate change/ food security/ nutrition links for govt., youth, children, herders, etc developed	0	MT: 4 End: 10		Demand for climate information and adaptive strategies among communities
Output 2.1.2: Enhanced capacity of media houses and reporters to effectively write and publish climate change stories	# journalists trained on climate change reporting # climate change impacts and adaptation stories published	0 Climate change rarely appears in mass media	MT: 10 journalists from TV/radio/ print End: 20 journalists from TV/ radio/ print MT: At least 2 climate change stories covered per quarter per media type (TV, radio, TV, print)	Training Reports Media Reports	Media editorial policy places an importance on climate change reporting (A)
Output 2.1.3: Communities understand and use climate information and are aware of climate change threats and impacts on food security	# District CC AR Strategies and Action Plans, to interface with existing activities and ongoing projects in each of 3 districts # district and community level CC AR activities implemented # people reached through inter-personal SBCC approaches (sex- and age-disaggregated)	0 0 (under coherent district strategy) 0	MT: 2 End: 3 District CC AR Strategy and Action Plans, one in each of 3 districts MT: 2 per district End: 8 per district MT: 21,420 (50%) End: 42,840	Project reports District AR Strategies and Plans Project reports Project reports Final evaluation	
Output 2.1.4: Raised awareness of children	# teachers trained on using updated climate	0 (in targeted schools)	MT: 300 teachers End: 600 teachers	Baseline and final project evaluations	

Component 2: Increased awareness and knowledge of communities and youth on the impact of climate change and the importance of climate change adaptation.					
Outcome/Outputs	**Indicator**	**Baseline**	**Target**	**Source of verification**	**Risks and assumptions**
through integration of climate change into school curricula and training of teachers on climate change impacts	change toolkits in schools # of schools implementing CSA activities (via upscaled RVCC CSA manuals)	 0	 MT: 100 schools End: 295 schools	 Project reports	

Component 3: Strengthened resilience at community level through community-based concrete adaptation measures and improved food systems					
Outcome/Outputs	**Indicator**	**Baseline**	**Target**	**Source of verification**	**Risks and assumptions**
Outcome 3.1 Increased adaptive capacity of communities and households to respond to droughts and water-related hazards	% targeted communities where there is evidence of improved capacity to manage climate shocks and risks Coping Strategy Index	0 32% of households use stress, crisis and emergency coping strategies	At least 80% of community councils should have the capacity to manage climate shocks and risks Less than 20% HHs using stress, crisis and emergency coping strategies even during drought periods	Focus groups Household Surveys	Communities have access to diversified nutritious foods and develop Communities are open to producing e.g. indigenous vegetables, and project can source appropriate seeds (A)
Output 3.1.1: Community-based resilience and adaptation plans developed through community-based participatory approaches	# community-based resilience and adaptation plans in targeted areas # cost-benefit analyses on concrete community adaptation measures	0 - Climate risks and adaptation are not integrated into local community action plans No existing research on adaptation costs/benefits in targeted districts	MT: At least half of targeted villages have local adaptation plans End: 21 plans MT: End: Cost-benefit analyses carried out for each adaptation measure	List of community-based resilience and adaptation plans Report on cost-benefit analyses	There is a risk that communities may consider asset creation activities as social safety net programme and not take much interest in its continuity beyond the project.

Component 3: Strengthened resilience at community level through community-based concrete adaptation measures and improved food systems					
Outcome/Outputs	**Indicator**	**Baseline**	**Target**	**Source of verification**	**Risks and assumptions**
Output 3.1.2: Community nutrition-sensitive productive assets and other livelihood resources developed to support climate risk reduction and adaptation measures	# community productive assets created through the project # of target HHs (M/F headed) with natural and physical livelihood assets created and improved # fuel-efficient stoves provided, with training on their use # women supported through HH gardening to increase their income levels	0 0 0 0	MT: 50 community assets established End: 105 community assets established MT: 11,500 households (50%) End: 23,000 households MT: 100 (100% women) End: 200 (100% women) MT: 2,150 women End: 4,300 women	Project reports, site visits and attendance records Project reports Final evaluation Project reports Project reports	Adequate monitoring oversight and fiscal control mechanisms in place for effective payment delivery through existing village service delivery and farmer organizations
Output 3.1.3: Established market linkages for sustained income generation activities	# smallholder farmers supported/trained on reducing post-harvest losses # Value chain analysis studies for district-relevant drought-resistant crops # women supported to diversify livelihoods through cottage industries that produce handicrafts, and sewing groups Quantity of food procured from local farmers Quantity of fortified food including complementary foods and special nutrition products purchased from local suppliers for school feeding	0 0 0 0 MT at baseline 0 MT at baseline	MT: 1,500 End: 3,000 farmers in 3 districts MT: 2 End: 4 MT: 150 women End: 300 women MT: 0 End: 500 MT direct purchase (mainly beans) MT: 0 End: Processed fortified foods – 2,500 MT (maize and sorghum meal)	Mid-term & final project evaluations Supply chain reports Project reports Project reports Project reports	Severe recurrent drought during project implementation might limit ability of smallholders to produce surplus, despite adaptation measures (R) Data can be collected to measure post-harvest losses (A) Farmers are motivated to cooperate in order to generate volumes to meet demand (A)

F. Project alignment with the Results Framework of the Adaptation Fund

Project Objective(s)	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Component 1: Institutional capacity and systems building to support national and community adaptation and management of climate change impacts	# district-level SOPs for drought that define field-level actions developed and applied Household dietary diversity score[92]	Outcome 1. Reduced exposure at national level to climate related hazards and threats.	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis.	USD 2,556,008
		Outcome 2. Strengthened institutional capacity to reduce risk associated with climate- induced socio – economic and environmental losses.	2.1 Capacity of staff to respond to and mitigate impacts of climate-related events from targeted institutions increased	
		Outcome 3. Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1 Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	
Component 2: Awareness raising of vulnerable communities on climate change impacts and adaptation	% of targeted community members (M/F/MY/ FY) receiving key messages on climate change adaptation, food security and nutrition % of people having knowledge/awarene ss, attitude and practice on climate adaptation initiatives	Outcome 3. Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level.	3.1 Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses.	USD 1,116,428
			3.2 Percentage of targeted population applying appropriate adaptation responses	

[92] Used as a proxy measure of household food access, i.e. measures the impact of the project on food access

Component 3: Strengthening resilience at community level through community-based concrete adaptation measures and improved food systems	# target HHs (M/F headed) with natural and physical livelihood assets created and improved Vegetation index in low-lying southern districts (as a proxy for enhanced ecosystem resilience to climate change)	Outcome 5. Increased ecosystem resilience in response to climate change and variability - induced stress.	5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress.	USD 4,668,206
		Outcome 6. Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas.	6.1 Percentage of households and communities having more secure access to livelihood assets.	
			6.2 Percentage of targeted population with sustained climate-resilient alternative livelihoods.	
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Outcome 1.1: Increased knowledge, and technical capacity at national and district levels to forecast, plan and anticipate response to climate change impacts	Capacity to produce sub-seasonal to seasonal forecasts, issue sector specific drought early warning, develop drought preparedness protocols and respond accordingly	Output 2: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events.	2.1.1 No. of staff trained to respond to, and mitigate impacts of, climate- related events (by gender). 2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	USD 1,622,844
Outcome 1.2: Strengthened access to tailored climate services by vulnerable communities to improve decision making for food security and livelihoods	% households using seasonal forecast in resilient decision making on agricultural / livelihood strategy	Output 1.2: Targeted population groups covered by adequate risk reduction systems. Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities.	1.2.1 Percentage of target population covered by adequate risk- reduction systems. 3.1 No. of news outlets in the local press and media that covered the topic.	USD 933,164

Outcome 2.1: Strengthened awareness of climate change impact on food security amongst vulnerable communities and youth and knowledge of adaptation actions	% of targeted community members (M/F/MY/FY) receiving key messages on climate change adaptation, food security and nutrition % of people having knowledge/awareness, attitude and practice on climate adaptation initiatives	Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1 No. of news outlets in the local press and media that have covered the topic	USD 1,116,428
Outcome 3.1: Increased adaptive capacity of communities and households to respond to drought and water-related hazards	% targeted communities where there is evidence of improved capacity to manage climate shocks and risks Coping Strategy Index	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) 6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies 6.2.1. Type of income sources for households generated under climate change scenario	USD 4,668,206

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

	Cost category	Notes	PY1	PY2	PY3	PY4	Total
111	Project staff	Technical expert Comp. 1	15,300	15,300	15,300	15,300	61,200
	International consultants	Experts with relevant experience on seasonal forecasting, assessments and historical data analysis, database maintenance, establishment of map rooms - to train LMS	38,000	50,000	0	0	88000
	Service contracts/FLA	Includes studies, seasonal forecast support, developing thresholds and system maintenance	25,000	495,000	25,000	25,000	570,000
	Procurement	development of computing power for analysing observations and integrating into seasonal forecast	100,000	130,000	0	0	230,000
	Travel	Travel cost for international consultants and project partners to reach Lesotho	14,300	10,000	0	0	24,300
	Workshop and training	Training on seasonal forecasting, assessments and historical data analysis, database maintenance, establishment of map rooms, lessons learned exercises	75,605	20,909	909	909	98,332
	Total Output 1.1.1		268,205	721,209	41,209	41,209	**1,071,832**
112	Project staff	Technical expert comp. 1, field staff	21,900	21,900	21,900	21,900	87,600
	National consultants	To perform scoping studies on existing protocols, develop SOP and facilitate a roadmap for reorientation of DMA	0	29,000	0	0	29,000
	Procurement	One vehicle and sensitization material (to be printed)	43,000	56,700	0	0	99,700
	Travel	Travel of national staff and relevant stakeholders to participate in the workshops	0	16,000	4,000	4,000	24,000
	Workshop and training	Training and workshops to validate thresholds, develop triggers and actions at national and district level, lessons learned exercises	1,685	277,209	909	909	280,712
	Miscellaneous	Vehicles running costs	7,500	7,500	7,500	7,500	30,000

	Total Output 1.1.2		74,085	408,309	34,309	34,309	**551,012**
121	Project staff	Technical expert comp. 1, field staff	21,900	21,900	21,900	21,900	87,600
	National consultants	Study on local knowledge, beliefs and understanding of climate patterns and climate change.	0	24,000	0	0	24,000
	Workshop and training	Focus groups discussions at community level	1,755	22,909	909	909	26,482
	Total Output 1.2.1		23,655	68,809	22,809	22,809	**138,082**
122	Project staff	Technical expert comp. 1, field staff	21,900	21,900	21,900	21,900	87,600
	National consultants	Develop interface with ongoing PICSA process at district level	0	20,000	44,000	0	64,000
	Contracts	Partnerships with relevant service providers for most suited dissemination channels for CS and dissemination of information through several channels	50,000	120,000	120,000	120,000	410,000
	Travel	Travel of project staff and consultants in the districts	0	45,000	4,500	4,500	54,000
	Workshop and training	Training partners on seasonal forecast and information tailoring, focus groups discussions at community level	31,755	85,909	30,909	30,909	179,482
	Total Output 1.2.2		103,655	292,809	221,309	177,309	**795,082**
Total component 1			**469,600**	**1,491,136**	**319,636**	**275,636**	**2,556,008**
211	Project staff	Technical assistant component 2	14,250	14,250	14,250	14,250	57,000
	National consultants	Communications specialist to formulate National Climate Change Awareness Raising and Communications	70,000	0	0	0	70,000
	Contracts	Design and printing of communications and dissemination materials. Action oriented research	154,000				154,000

	Travel	Travel costs for the consultants and national staff	12,500	4,500	4,500	4,500	26,000
	Workshop and training	Workshops and focus groups discussions at community level and one national symposium on CC and nutrition	91,755	909	909	909	94,482
	Miscellaneous	Vehicles running costs	8,000	8,000	8,000	8,000	32,000
	Total Output 2.1.1		350,505	27,659	27,659	27,659	**433,482**
212	Project staff	Technical assistant component 2	14,250	14,250	14,250	14,250	57,000
	National consultants	National consultant to develop targeted press kits on climate change, food security and nutrition in Lesotho	10,000	0	0	0	10,000
	Travel	Travel cost for project staff and trainees	8,000	0	0	0	8,000
	Workshop and training	Training for journalists and editors, focus groups discussions	23,755	909	909	909	26,482
	Total Output 2.1.2		56,005	15,159	15,159	15,159	**101,482**
213	Project staff	Technical assistant component 2	14,250	14,250	14,250	14,250	57,000
	National consultants	Local consultant to design district level CC awareness raising strategy and disseminate material	49,000	4,000	0	0	53,000
	Procurement	Purchase of one vehicle to implement project activities at district level	43,000	0	0	0	43,000
	Travel	Travel of project staff in project areas	14,000	9,000	9,000	9,000	41,000
	Workshop and training	Train key project partners on awareness raising strategy and action plan - Provide support to Agricultural Resources Centres, focus groups discussions	35,755	38,409	22,909	20,909	117,982
	Total Output 2.1.3		156,005	65,659	46,159	44,159	**311,982**
214	Project staff	Technical assistant component 2	14,250	14,250	14,250	14,250	57,000

	National consultants	Design and operationalize training programmes on climate change, food and nutrition security	7,000	7,000	7,000	7,000	28,000
	Contracts	Design and printing of training material. Scale up the climate-smart agriculture manual and practices	45,000	30,000	30,000	25,000	130,000
	Travel	Travel of project staff and consultants	10,000	10,000	5,000	5,000	30,000
	Workshop and training	Focus groups discussions	6,755	5,909	5,909	5,909	24,482
	Total Output 2.1.4		83,005	67,159	62,159	57,159	**269,482**
Total Component 2			**645,520**	**175,636**	**151,136**	**144,136**	**1,116,428**
311	Project staff	Field staff (includes technical expert Component 3, Field officers and drivers)	22,600	22,600	22,600	22,600	90,400
	National consultants	Include national experts to develop an approach to link community plans to higher level plans, a GIS expert and an Environmental and social impact specialist.	47,000	1,500	1,500		50,000
	Contracts	i) Develop detailed overlay of available hazards and vulnerability context for the implementation sites; ii) Feasibility study on trees for agroforestry and iii) ESIA. Vegetation index (baseline -PY1- and end of project -PY4- measurements)	107,069	10,000	0	37,069	154,138
	Procurement	Supplies and inputs for seed banks	30,000				30,000
	Travel	Travel of project staff and local consultants	4,500	4,500	4,000	4,000	17,000
	Workshop and training	Community meeting to design CBPP and subsequent updates, development of bylaws and community action plans, focus groups discussions	47,273	16,609	5,909	5,909	75,700
	Miscellaneous	Vehicles running costs	10,000	10,000	10,000	10,000	40,000
	Total Output 3.1.1		268,442	65,209	44,009	79,578	**457,238**

312	Project staff	Field staff (includes technical expert component 3, Field officers and drivers)	22,600	22,600	22,600	22,600	90,400
	Contracts	i) develop action plan for implementation of community productive assets and ii) establishment of a feedback mechanism. Vegetation index (baseline -PY1- and end of project -PY4-measurements)	82,069	15,000	15,000	52,069	164,138
	CBT		833,508	833,508	833,508	0	2,500,524
	Financial services	Financial Service Providers (FSP) Transfer fee, bank transaction fee	10,000	10,000	10,000	0	30,000
	Procurement	Includes: i) two vehicles; ii) non-food items/tools; iii) Farming supplies	238,179	174,173	167,973	145,349	725,674
	Travel	Travel of project staff	11,000	11,000	11,000	11,000	44,000
	Workshops and trainings	Focus groups discussions	1,755	909	909	909	4,482
	Total Output 3.1.2		1,199,111	1,067,190	1,060,990	231,927	**3,559,218**
313	Project staff	Field staff (includes technical expert component 3, Field officers and drivers)	22,600	22,600	22,600	22,600	90,400
	International consultants	Support to studies on post-harvest losses, value chain and market linkages	15,000.00	40,000.00	0.00	0.00	55,000
	National consultants	Studies on post-harvest losses, value chain and market linkages	40,000	90,000	10,000	10,000	150,000
	Contracts	Engage relevant partners (FLA's/MOU's) for off-farm activities to improve livelihoods. Vegetation index (baseline -PY1- and end of project -PY4-measurements)	47,069	10,000	10,000	47,069	114,138
	Procurement	Supplies to implement actions on post-harvest losses e.g. (providing tarpaulins, metal/plastic silos, weighing scales, moisture meters, pallets)	44,311	35,162	35,311	20,440	135,224
	Travel	Travel of project staff and consultants	10,000	20,000	8,000	0	38,000

Workshop and training	National workshops, training for farmers and interactive workshops to facilitate market linkages, focus groups discussions	31,761	14,409	13,909	8,909	68,988
Total Output 3.1.3		210,741	232,171	99,820	109,018	**651,750**
Total Component 3		**1,678,294**	**1,364,570**	**1,204,819**	**420,523**	**4,668,206**
Execution cost	National Project coordinator	65,000	65,000	65,000	65,000	260,000
	Admin assistant (part time)	25,800	25,800	25,800	25,800	103,200
	Finance assistant	33,300	33,300	33,300	33,300	133,200
	Office equipment for admin staff	9,000	0	9,000	0	18,000
	Office cost (stationery, furniture & fittings)	14,750	14,750	14,750	12,000	56,250
	Inception workshop	30,000	0	0	0	30,000
	M&E workshops	9,300	9,300	9,300	9,300	37,200
	M&E Officer	24,000	24,000	24,000	24,000	96,000
	Travel of the Project coordinator	13,000	13,000	13,000	13,000	52,000
	Final financial audit + evaluation	0	0	0	90,000	90,000
Total Project execution cost		**224,150**	**185,150**	**194,150**	**272,400**	**875,850**
Total project cost		**3,017,564**	**3,216,492**	**1,869,741**	**1,112,695**	**9,216,492**
MIE Management Fees		**256,493**	**273,402**	**158,928**	**94,579**	**783,402**
Total financing request		**3,274,057**	**3,489,894**	**2,028,669**	**1,207,274**	**9,999,894**

Notes to the budget

Project staff. The project will hire the following staff: a fulltime National Project Coordinator (NPC) responsible for overall project implementation and coordination, located within the LMS in Maseru. The project coordinator will be supported by two Technical Experts for Component 1 (one located in LMS and one in DMA) and one Technical Expert for Component 3, located in MFRSC. A fulltime Communication Expert located in LMS will be responsible for the implementation of activities under Component 2. An admin assistant, a finance assistant and a procurement assistant will support the execution of this project. The project will also hire three Field Officers to facilitate the implementation of field activities in the three districts and three drivers.

CBT. The number of beneficiaries receiving the CBT is 42,840 people cumulatively, each receiving support for a cycle of three months. Cash transfers will be provided to the vulnerable food insecure households participating in creation of productive assets from January to June (6 months with 2 cycles of work of 3

months each) each entitlement value for each participant/worker has been aligned to the standard rate of USD 78 per month, as used by the government of Lesotho in the public works programme. The cost per month for the CBT has been calculated as USD 138,937.50.

Vehicle Acquisitions: Four field vehicles will be will be purchased or leased specifically for the implementation of this project and they will be used by the consultants and staff for the duration of the project. If purchased, these will be handed over to the executing ministries in the government of Lesotho after the project has ended.

Workshops and training. These include trainings on seasonal forecasting, training and workshops to validate thresholds, triggers and actions at national and district level, lessons learned exercises for the FbF case study, workshops, training and focus group discussions at community level, including CBPP workshops, training project partners on information tailoring and awareness raising, one national symposium on CC and nutrition, training for journalists and editors.

M&E. Costs for monitoring and evaluation have been divided in different parts. The mid-term evaluation will be covered, as per AF rules, by the IE fee, while the final financial audit and final project evaluation are budgeted under the project execution costs. Regular monitoring costs (including an M&E officer and M&E workshops), and the inception workshop have been included in the Execution Costs. M&E budget will cover the monitoring of Log Frame indicators and ESMP indicators. Costs for the development of the vegetation index baseline to be developed using the Land Degradation Surveillance Framework (LDSF) as well as measurement of the index at project completion is embedded in component 3 budget.

MIE Management Fees: The MIE management fees will be utilised by WFP as the Multilateral Implementing Entity to cover costs associated with the provision of the general management support in Lesotho. It covers the costs of management services provided by WFP Lesotho Country Office and WFP Headquarters in support of the implementation of the project. The table below provides a breakdown of the estimated costs of providing these services.

Breakdown of costs for the project management fees	
Finance and Budget	• General oversight, management and quality control • Ensure compliance with WFP judiciary standards and internal control processes, relevant international and national regulations and Adaptation Fund's rules and policies • Manage, monitor and track financial transactions • Manage all Adaptation Fund financial resources
Programme and performance management support	• Technical support, troubleshooting, and support missions as necessary • Specialised policy, programming and implementation support services • Provide guidance in establishing performance measurement processes
Information and Telecoms Support	• Includes maintaining information management systems and specific project management databases to track and monitor project implementation
Evaluation and knowledge management advice	• Technical support in methodologies, innovative solutions, validation of Terms of Reference, identification of experts, results validation and quality assurance • Mid-term evaluation costs • Supervision of preparation of annual project reports and project evaluation reports and quality control

Audit and inspection support	• Ensure compliance with audit requirements • Ensures financial reporting complies with WFP and Adaptation Fund standards • Ensure accountability and incorporation of lessons learned
Legal Support	• Legal advice to assure conformity with WFP legal practices and those of Lesotho and contract review

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

	Upon Agreement signature	One year after project start	Year 2	Year 3	Total
Scheduled date	June 2019	June 2020	June 2021	June 2022	
Project Funds	2,965,535	3,282,379	1,919,279	1,049,296	9,216,489
Implementing Entity (WFP) Fee (8.5%)	252,070	279,002	163,139	89,190	783,402
TOTAL	**3,217,605**	**3,561,381**	**2,082,418**	**1,138,486**	**9,999,891**

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

A. Record of endorsement on behalf of the government[93]

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:

Mabafokeng Mahahabisa, Director, Ministry of Energy and Meteorology	Date*: 19 December 2018*

B. Implementing Entity Certification

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

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
…… *Mary NJOROGE, WFP Country Director* Implementing Entity Coordinator	
Date:	Tel. +266 2232989 Email: mary.njoroge@wfp.org
Project Contact Person: Nkopo Matsepe	
Tel. +266 2232989 Email: Nkopo.matsepe@wfp.org	

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

Annex 1 List of acronyms

AF	Adaptation Fund
AfDB	African Development Bank
CC	Climate change
CRS	Catholic Relief Society
CS	Climate services
CSA	Climate-smart agriculture
CSO	Civil Society Organization
DDMT	District Disaster Management Team
DMA	Disaster Management Authority (of Lesotho)
EW/EA	Early warning / early action
FAO	Food and Agriculture Organization
FbF	Forecast-based financing
FFA	Food Assistance for Assets
FNC	First National Communication
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse gas
GoL	Government of Lesotho
HH	Household
IFAD	International Fund for Agricultural Development
LDCF	Least Developed Countries Fund
LMS	Lesotho Meteorological Services
LVAC	Lesotho Vulnerability Assessment Committee
M&E	Monitoring and evaluation
MEAs	Multi-lateral Environmental Agreements
MAFS	Ministry of Agriculture and Food Security
MDP	Ministry of Development Planning
MEM	Ministry of Energy and Meteorology
MET	Ministry of Education and Training
MoF	Ministry of Finance
MFRSC	Ministry of Forest, Range and Soil Conservation
MGYSR	Ministry of Gender and Youth, Sports and Recreation
MLGCA	Ministry of Local Government and Chieftainship Affairs
MTEC	Ministry of Tourism, Environment and Culture
MoSD	Ministry of Social Development
MoW	Ministry of Water
MT	Metric tons
MTR	Mid-term Review
MoU	Memorandum of Understanding
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action

NC	National Communications
NCCAR&CS	National Climate Change Awareness Raising and Communication Strategy
NCCC	National Climate Change Committee
NCCP	National Climate Change Policy
NDC	Nationally Determined Contribution
NISSA	National Information System for Social Assistance
NUL	National University of Lesotho
NSDP	National Strategic Development Plan
OVC	Orphans and vulnerable children
PICSA	Participatory Integrated Climate Services Approach
PHL	Post-harvest losses
PLHIV	People living with HIV
PMU	Project Management Unit
PSC	Project Steering Committee
RPWP	Rural Public Works Project
S2S	Sub-seasonal to seasonal forecasting
SBCC	Social and behaviour change communication
SNC	Second National Communication
SOPs	Standard Operating Procedures
TA	Technical assistance
TE	Terminal Evaluation
ToT	Training of Trainers
UNDP	United Nations Development Programme
UN Environment	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VDMT	Village Disaster Management Team
WB	World Bank
WFP	World Food Programme

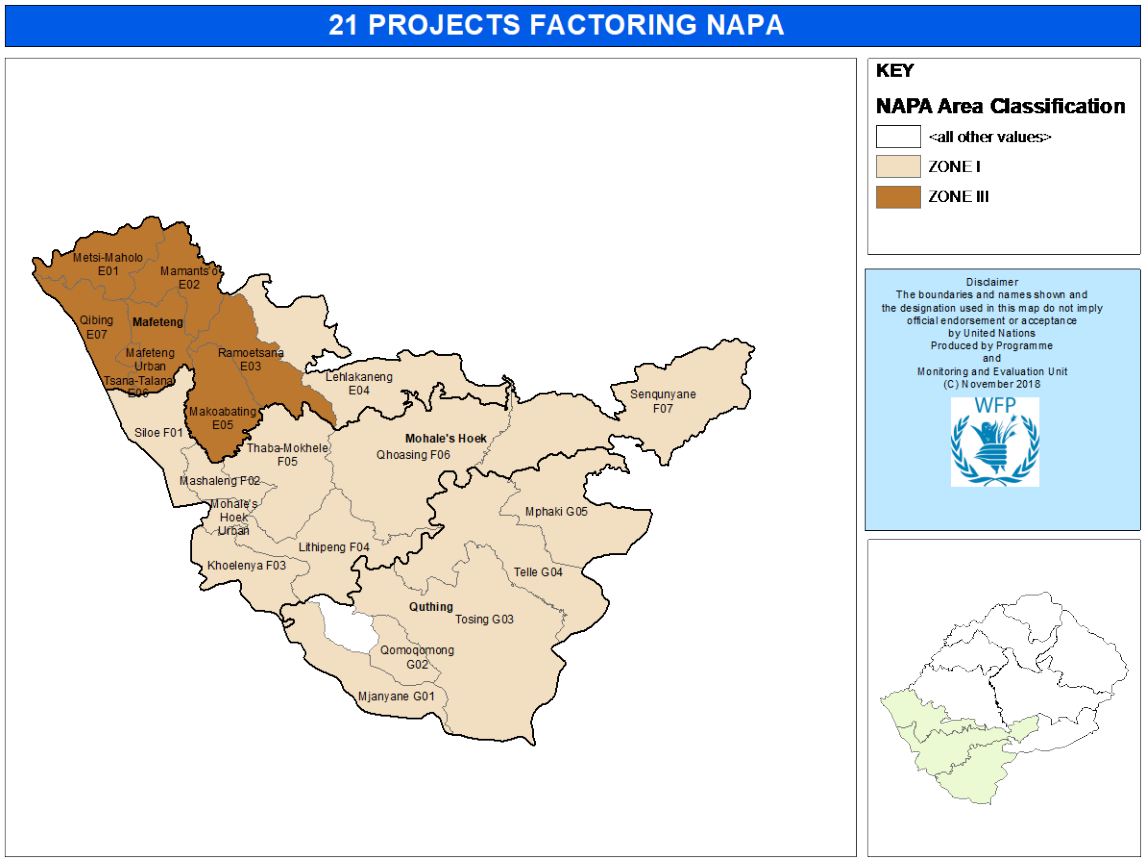
Annex 2 Estimated number of project beneficiaries

			ESTIMATED NO. OF PROJECT BENEFICIARIES			Percentage use of assets		
District	Community Council	NAPA area Classification	No. of people receiving cash transfers, inputs and technical assistance	No. of people receiving inputs, and technical assistance	No. of people benefitting from assets, CS & awareness raising	Men/ boys	Women/ girls	Youth
Mafeteng	Lehlakaneng E04	ZONE I	2040	1960	10000	4000	6000	2400
	Makoabating E05	ZONE I	2040	1960	10000	4000	6000	2400
	Mamants'o E02	ZONE III	2040	1960	10000	4000	6000	2400
	Metsi-Maholo E01	ZONE III	2040	1960	10000	4000	6000	2400
	Qibing E07	ZONE I	2040	3960	15000	6000	9000	3600
	Ramoetsana E03	ZONE III	2040	1960	10000	4000	6000	2400
	Tsana-Talana E06	ZONE I	2040	1960	10000	4000	6000	2400
	Sub-Total		**14280**	**15720**	**75000**	**30000**	**45000**	**18000**
Mohale's Hoek	Khoelenya F03	ZONE I	2040	1960	10000	4000	6000	2400
	Lithipeng F04	ZONE I	2040	1960	10000	4000	6000	2400
	Mashaleng F02	ZONE I	2040	1960	10000	4000	6000	2400
	Qhoasing F06	ZONE I	2040	1960	10000	4000	6000	2400
	Senqunyane F07	ZONE I	2040	1960	10000	4000	6000	2400
	Siloe F01	ZONE I	2040	1960	10000	4000	6000	2400
	Thaba-Mokhele F05	ZONE I	2040	1960	10000	4000	6000	2400
	Urban	ZONE I	2040	1960	10000	4000	6000	2400
	Sub-Total		**16320**	**15680**	**80000**	**32000**	**48000**	**19200**
Quthing	Mjanyane G01	ZONE I	2040	1960	10000	4000	6000	2400
	Mphaki G05	ZONE I	2040	1960	10000	4000	6000	2400
	Qomoqomong G02	ZONE I	2040	1960	10000	4000	6000	2400
	Telle G04	ZONE I	2040	1960	10000	4000	6000	2400
	Tosing G03	ZONE I	2040	1960	10000	4000	6000	2400
	Urban	ZONE I	2040	1960	10000	4000	6000	2400
	Sub-Total		**12240**	**11760**	**60000**	**24000**	**36000**	**14400**
	TOTAL		**42,840**	**43,160**	**215,000**	**86,000**	**129,000**	**51,600**

Notes

1. Vulnerable, food insecure, cash transfer beneficiaries (those most in need) will rotate after 3 months cycle of work. While the cash transfer is designed to assist people to cope during the lean season, the timing of the works will depend on several factors, including when people are available; and when the most optimal time for the activity would be – e.g. trees would be planted during the rainy season.
2. In each project site in the 21 community councils, activities will be implemented for 6 months per year, hence there will 2 cycles of work per year. The caseload has been allocated equally for the 21 sites.
3. The activities will differ according to the challenges identified in the Community Action Plans (see Component 3), however in each site a total of 68 people will be enrolled for 6 months cycle of work. There will be a different set of beneficiaries for each cycle of work for the 3 years of project implementation.
4. No. of beneficiaries receiving the CBT is 42,840 people cumulatively; cash transfers will be provided to the vulnerable food insecure households participating in creation of productive assets from January to June (6 months with 2 cycles of work) each year;
5. The average size of each household is 5, based on lessons learnt in previous FFA interventions. The entitlement value for each participant/worker has been aligned to the standard rate of USD 78 used by the government of Lesotho in the public works programme;
6. The cost per month for the CBT has been calculated as USD 138,937.50.
7. Beneficiaries in the fifth column will include smallholder farmers and other community members engaging in apiculture and off-farm livelihood diversification activities at household level. The population targeted is 40% of the total population in the council.
8. The early warning/ early action, climate services and awareness creation activities will target the entire population in the 21 community councils. The project team has used the most conservative population size available for each council. On average, one project site will benefit 5 villages, including at least 500 households with 5 members.
9. Using national demographic data, males/boys constitute 48% of the population while females/girls constitute 52% of the total population. Youth constitutes 24% of the total population. The project will target 60% female beneficiaries, and 40% male.

Annex 3 Location maps of project sites in the three southern districts



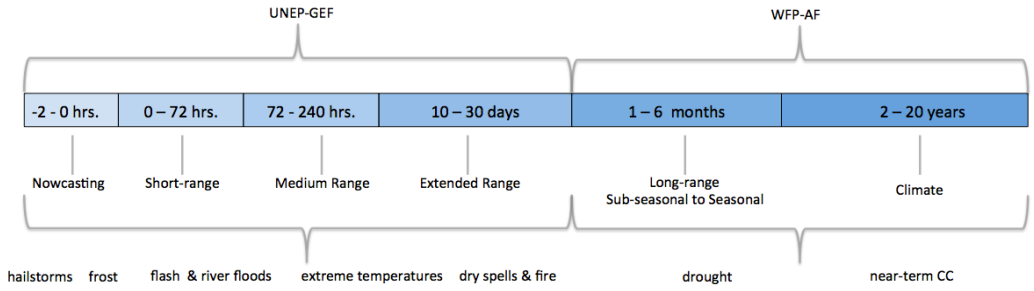
Annex 4 Summary of key refinements of components and activities

Component 1

The activities of Component 1 have been refined subsequent to the approval of the Concept Note by the AF to prevent any overlap or duplication with the UNEP/GEF LDCF EWS Phase II project (proposal under development, to begin operation in early 2019). When the AF Concept Note was developed, the project team was under the impression that the EWS Phase II would focus on the physical infrastructure (equipment e.g. additional automated weather stations) and staff capacity to operate the system within the LMS. However, it subsequently became clear that the EWS Phase II project would indeed work on the process side of the national EWS, in addition to the software, as well as on climate services. This provided the opportunity for the AF project to refine its activities under Component 1, to focus on a specific and critically important aspect of the National EWS for the vulnerable smallholder farmers in the three southern target districts, namely drought and dry spells. Thus, complementary investment is to develop a specialised sub-seasonal to seasonal (S2S) precipitation and temperature forecasting system to cover the entire country, with national and sub-national forecasts, and a subsequent focus on drought early warnings for the three southern districts: Mohale's Hoek, Quthing and Mafeteng.

Thus, the AF project effectively reduces the workload of the GEF LDCF/UNEP/LMS EWS Phase II project by working on national and district-level S2S forecasts, with associated SOPs and integrated early action system for drought. The EWS Phase II project, in contrast, proposes to forecast for additional hazards (hailstorms, frost, flash flooding, extreme temperatures, etc.) across several time horizons: nowcasting, short-range, medium-range, and extended range. This AF project will work on the framework of the S2S system at LMS including a national forecast, with further refinements (bias correction, calibration, validation, etc.) of the S2S forecast for the three southern districts. Further refinements of the national forecast for the UNEP priority districts that are not covered by the AF project would still fall under the UNEP work. Those refinements would then be fed back into the national level forecasts to improve their skill, resulting in a collaborative approach to the national S2S forecast. Climate services provided under the AF project will be those most suited to be provided based on the enhanced S2S. Delivery of climate services supported by the AF project will be strongly coordinated with the broader process of strengthening LMS capacity to develop tailored climate services using shorter-range forecasting, facilitated by virtue of the lead organisation being the same for both projects, and assisted by the TA located within LMS by the project. Please see Table 4 and the diagram below for additional detail on how the two projects are complementary.

Diagram 4.1 Differential forecast range to be supported by the UNEP/GEF and AF projects



Additional changes to Component 1 subsequent to the approval of the Concept Note concern Output 1.1.3. In the Concept Note, this output was for "Supporting studies developed to inform government on adaptation needs", with an associated budget of USD 270,000. This output has been deleted, as Study 1 of the previous Output 1.1.3 (on indigenous/local knowledge, beliefs and understanding of climate change, needs for and barriers to climate services) is now in Output 1.2.1; while Study 2 (on post-harvest losses and their impact on food security) and Study 3 (on cost benefit analysis of proposed adaptation measures) are now in Component 3, where they are a better fit logically.

Component 2

The activities of Component 2 have been refined subsequent to the approval of the Concept Note by the AF to prevent any overlap or duplication with other projects or programmes, and to ensure for a more effective and systemic approach to promote sustainability. An important change is that Component 2 will support the GoL to develop a systematic, institutionalized and multi-level approach to raising awareness and knowledge of climate change impacts and appropriate response measures, towards engendering behavioural change. This will be done by developing, at the national level, a coherent National Climate Change Awareness Raising and Communication Strategy (NCCAR&CS) to be designed and operationalized through a five year Action Plan, from within the Climate Change Unit of the Ministry of Energy and Meteorology (MEM). The Secretariat of the National Climate Change Committee, located within LMS, will interact closely with the Sub-Committee on Outreach of the NCCC in the development and implementation of the national strategy and action. The NCCAR&CS will be contextualised at district level in the form of three district-level Awareness Raising and Communication Strategies. This means that all awareness raising activities under the project will be conducted under a coherent umbrella framework, with messaging underpinned by scientific studies, including on community perceptions, and through the social and behavioural change communication (SBCC) approach, to ensure enhanced knowledge translates into effective action for resilience and adaptation.

Component 3

The activities of Component 3 have been refined subsequent to the approval of the Concept Note by development of a contextualised menu of options for resilience building and adaptation. Two of the studies that had previously been included under Component 1 – the study on post-harvest losses and the study on cost benefit analysis of adaptation options to be deployed – have been brought into Component 3 where they fit better logically. Stakeholder consultation has further refined the focus of the value chain assessments to be carried out, as set out in the detailed write up of Component 3.

Annex 5 Alignment of project components to national sustainable development strategies

INTERNATIONAL LEVEL	
The UNFCCC and Other Instruments Relevant to Climate Change	
The Paris Agreement Lesotho pledged to reduce greenhouse gas emissions by at least 20 percent by 2030; achieve 10 specific actions on adaptation to climate change, including protection of moorland and the creation of a national system of indicators to measure the traceability of climate change.	Component 1, 2 and 3
Lesotho First National Communications (FNC) to the UNFCCC FNC highlights research and systematic observation, institutional capacity building, training of teachers, journalists and media reporters, financial resources and greater coordination skills as factors of critical importance for the country to adequately address climate change in a manner that takes into account the needs and priorities of rural communities.	Component 1, 2 and 3
The Second National Communication (SNC) to the UNFCCC The SNC reiterates the impacts of reduced precipitation and increasing temperatures on climate sensitive socio-economic sectors such as agriculture, water, forestry, rangelands, land, health and cultural heritage. It identifies limited human resources capacity, systematic observation, collection and storage of climate data, institutional capacity, sustainable funding for climate change research and programme as well as lack of climate change awareness as critical issues to be addressed. The SNC recognises the need to develop programmes that enhance the resilience of the poor and vulnerable communities and household, particularly the rural population that is dependent on climate sensitive sectors as sources of their livelihood, to the negative impacts of climate change.	Component 1, 2 and 3
NATIONAL LEVEL	
Lesotho Vision 2020	
The Vision outlines Lesotho's vision to provide a long-term perspective within which national short to medium-term plans ought to be premised. The aspirations, priorities of the nation are enshrined in the Vision Statement: "By the year 2020, Lesotho shall be a stable democracy, a united and prosperous nation at peace with itself and its neighbours. It shall have a healthy and well developed human resource base, its economy shall be strong, its environment well managed and its technology well established. The Vision identifies the need to increase agricultural productivity in order to ensure and sustain the country's food security. It highlights strengthening and promoting small and micro and medium-sized enterprises and well as improving food security and eradicating hunger through the agricultural sector as strategic interventions to attain sustainable socio-economic development. The Vision calls for a citizenry empowered in designing and managing biodiversity conservation projects relevant to their own communities, for environmental education integrated at all levels of learning, and for institutional and legal frameworks that promote and protect a healthy and sustainable environment.	Component 3
Lesotho Poverty Reduction Strategy	
The Strategy outlines national priorities and strategies to reduce poverty and promote equitable economic growth. It identifies the employment creation, food security, infrastructure development, peace and security, health services, education, the environment, public services as the key priority areas.	Component 1, 2 and 3

National Strategic Development Plan 2012/13-2016/17	
The NSDP recognizes the country's vulnerability to natural disasters and climate change and the negative impacts thereof as a barrier to the attainment of country's socio – economic development goals. It therefore identifies reversing environmental degradation and adaptation to climate change, increasing national resilience to climate change, promoting and greening the economy as well as improving environment and climate change governance as the main national priorities and strategic goals to reduce poverty and achieve sustainable development. The NSDP further reiterates the susceptibility of the country's agriculture prolonged drought, floods, early and late frosts which cause highly erratic agricultural production to the detriment of national food and nutrition security. As thus, the Plan, categorizes the need to build resilience to climate change as necessary to ensuring the country's long-term security of agricultural production.	Component 1, 2 and 3.
National Climate Change Policy 2017-2027	
The National Climate Change Policy envisions a climate change resilient and low-carbon development society with a prosperous economy and sound environment. The Policy aims at increasing climate change resilience and improving the well-being of Basotho through implementing concrete measures: for adaptation and climate risk reduction as well as mitigation and low-carbon development with the aim to attain sustainable development, through active participation of all stakeholders and various social and economic sectors. The Policy further identifies, inter alia, the following key interventions: a) Strengthening climate early warning systems and improving climatic information, including Research and Systematic Observation, b)) Promoting climate-smart agriculture and food security systems, c) Implementing climate change education, public awareness and communication programmes. Furthermore, the Policy recognises:(a) capacity building (education, training and public awareness);(b) research and systematic observation; (c) scientific innovation and technology development and transfer;(d) gender (e) youth; and (f) vulnerable groups as cross cutting themes enhance effective, efficient, and sustainable implementation of proposed climate change mitigation and adaptation interventions.	Component 1, 2 and 3.
National Adaptation Programme of Action	
The NAPA reiterates the ongoing crisis of severe food insecurity, failing livelihoods and high rates of malnutrition due to the adverse impacts of climate change on agriculture. Accordingly, the programme has classified agriculture as one of the socio – economic sectors that are particularly vulnerable to climate change, which require "immediate and urgent" special attention. The NAPA categorized the targeted project, Zone 1 and 11 as areas of high chronic vulnerability with communities at high risk of climate change in urgent need for remedial adaptation activities to ease climate change impacts on the vulnerable communities. Finally activities of the proposed projects are consistent with the eleven adaptation options which denote key adaptation needs which communities need to be supported with in order to sustain livelihoods in view of climate change risks as reflected in the NAPA.	Component 1, 2 and 3.
National Resilience Strategic Framework 2017 - 2030	
The NRSF seeks to harmonize resilience-building efforts with Lesotho's Vision 2020 and National Strategic Development Plan (NSDP) by creating resilience core operating principles that will guide its operationalization, as follows: (a) Comprehensive multi-stakeholder risk analysis; (b) Integrated and holistic programing approaches; (c) Strengthening social capital and social protection; (d) Systems approach; (e) Iterative and flexible process that allows for real-time changes in programing; (f) Build national and local capacity; (g) Multi-track approach that combines humanitarian and development interventions; (h) Anchored in national and local actors' realities and contexts; and (i) Build strategic partnerships and dynamic relationships that are transformative. Operating under this common set of principles will create synergies between development and humanitarian actors, based on their individual competitive advantages. Targeting methodologies in resilience programing described include area based targeting, institutional level targeting and community level targeting, which are incorporated into the targeting of the AF project.	Component 1, 2 and 3.

The NRSF identifies four key elements of capacity, with associated resilience pillars, required to build resilience: preparedness /preventive, absorptive, adaptive, and transformational capacities, which are required at four levels: individual, household, institutional, community or societal. Amongst other objectives, the NRSF highlights the need to transform the underlying structural issues that have the potential to precipitate crisis.	
National School Feeding Policy	
The Policy aims to promote the development of children, farmers and communities across Lesotho by ensuring that school feeding is recognized as a multi-sector programme. The policy establishes specific objectives that school feeding should pursue in the sectors of health and nutrition (Reduced chronic and acute malnutrition, including protein-energy malnutrition and micronutrient deficiencies); Social development (Increased food and nutrition security for children through regular and reliable meals, and for households through increased livelihood opportunities, especially in rural areas); and Agriculture: (Increased national food production and processing). This project, in a unique way will ensure that beneficiaries can adapt to climate change while diversifying their income base and improve food security and nutrition.	Component 3.
National Environmental Act 2008	
The Act makes provision for the protection and management of the environment and the conservation and sustainable utilization of the country's natural resources to ensure intra and inter-generational equity. The Act upholds the principles of, inter alia, sustainable development, reclamation of lost ecosystems, prevention of soil erosion, reversal of natural resources degradation, prevention of interference with the climate and adverse disturbances of the atmosphere as well as environmental awareness.	Component 2 and 3
National Forestry Policy	
The Policy promotes the use and contribution of forests to poverty alleviation, livelihood security and environmental protection in Lesotho. It also enhances participation and contribution of women with regard to the following objectives and guiding principles: production and employment, environment protection and biodiversity conservation, forest protection, management and people's participation, public awareness, education and training, forestry research and gender issues in forestry development.	Component 1,2 and 3
National Disaster Management Plan	
The NDMP aims at: reducing the country's vulnerability to climate-related disasters such as sustained and severe droughts, increasing its capability to prevent, alleviate, contain, or minimize the effects of climate related disasters as well as enhancing readiness or preparedness to deal with climate-related disasters, and ensuring the country's full recovery from the impacts of disasters.	Component 1,2 and 3
Lesotho National Youth Policy 2017-2030	
The Policy identifies: the updating of climate change and environmental studies in the basic educational curriculum by 2025, and packaging thereof for out-of-school youth through youth centered and related spaces. It also recommends the establishment and operationalization of a national youth-in-environmental protection programme which targets youth for training, funding, and livelihoods development, including carbon trading programmes as key measurements standards for youth development. Furthermore, the Policy advocates for the utilization of renewable energy sources and water harvesting techniques by youth farmers, as well as the promotion and introduction climate resilient seeds, modern agricultural technologies, and advanced agro-management processes to youth farmers. In addition, it advocates for participation and involvement of the youth in agro-business.	Component 3 and 3

Annex 6 List of stakeholder consultations and issues raised

Annex 6 contains a list of the different rounds of stakeholder consultations carried out in the development of this project proposal, as indicated in Part II, Section H of the main report. This includes consultations with a range of stakeholders, both governmental and non-governmental, at the national and district level, as well as focus group discussions and household interviews at the community level.

A. Summary of consultations at the national level

Stakeholder	Main result of the consultations
Ministry of Energy and Meteorology - LMS	• Awareness raising; Water; Research; Capacities; Post harvest losses; Community outreach; Quality management systems Superstition; HIV; Gender • Working with community leaders and opinion formers (including religious leaders and traditional healers) is key to disseminate information. • Important to integrate climate change in primary education through schools. • Shepherds are a vulnerable group and should be targeted in awareness raising activities. Successful pilots will help convert sceptic communities. • Need to update definition of seasons as well as national cropping calendars. • Need to improve capacity of climate modelling at Ministry of Agriculture. SMS functions cost 3 cents per message. Suggest weather applications for smart phones. • Climate services must be preceded by awareness raising and training programs. • LMS needs high resolution maps (it was found that most forecasts are accurate, and people are generally happy with them). • Need to substantially improve capacities at national, district and community levels LMS provides probabilistic seasonal (6 month) forecast but farmers need to understand language of probability. Radio Lesotho has deep penetration and listener base in country, especially daily farmer-oriented programs by opinion formers/supporters of superstitions, religions contradict climate forecasts (case of El Niño).
Disaster Management Authority	• DMA is a coordinating agency for DRR and does not execute activities by itself; present in all districts. • Key challenges: inadequate awareness raising; national capacities and equipment. • Key focus areas of project could be EWS, resilience building, vulnerability assessments, and training on livelihood diversification. There is need to develop community preparedness plans • Information from LMS on forecasts is accurate and WFP is partner for resilience project.
Ministry of Agriculture and Food Security (Department of Corps, Department of Livestock, Department of Research)	• Key challenges: post-harvest losses; drip irrigation, updating seasonal cropping calendars. • Subject matter specialists prevalent in all 10 districts. • Farmers realize climate is changing but do not understand causes or impacts and solutions. There is general awareness of weather forecasts • Government subsidizes inputs as they are expensive • Crop farmers unions not as well organized. • Potential to develop market centers at community levels.

	• Lack of studies on PHL and CC impacts on PHL - Issue of post-harvest losses (PHL) is serious as most harvest is stored in houses and perishes. • There is a need for agro-meteorology capacity at Ministry of Agriculture as well as Lesotho Meteorological Services to complement each other. • The project is aligned to the mandate of the MAFS. • Early warning system should be strengthened through strengthening LMS, DMA and the MAFS to use climate data to guide end users (farmers) decision making processes at local level; support the provision of climate smart technologies; enhance access to climate change information. • Climate change awareness should focus on real time spatial localized data, integrate indigenous knowledge systems and local farmers knowledge, facilitates knowledge sharing and establishment of partnerships, establish a platform for engagement of all stakeholders to enhance coordination harmonization and partnerships, eradicate the existing silo approach to climate change and generate a commonness of purpose and messages which ignite the enforcement of land use and zoning regulations. • Project should deploy a highly refined targeting approach according to which beneficiaries should be categorized and support/interventions tailored accordingly. • Conflict management and dispute resolution mechanisms to be established. • Cooperative societies be established and supported through value chain addition and market linkages strengthening. • Homestead farming is in practice in Mafeteng, Mohale's Hoek and Quthing through the support of the Ministry of Agriculture and Food Security as well as the FAO. Recommended as an easy climate smart approach for ensuring year -long household food and nutrition security. It allows for the application of methods to protect crops, vegetables as well as fruits against frost, hail and extremely high as well as low temperature thereby climate proofing food and nutrition security. • The project should ensure the following: sensitization, capacity building and training for community members, establishment of market linkages generation of income for community members, support for communities to produce indigenous vegetables and fruits is encouraged as these are acclimatized to local conditions, and have higher nutritive as well as market value, diversification of crops, fruit trees and small stock. • Key interventions: Land degradation, poor quality soils o marginal potential for productivity are a major challenge at the targeted project. So integration of fodder species to improve soil quality and sustain livestock production is key. • Irrigation and water harvesting for domestic and agricultural (high value trees such as pecan nuts) use. • Sorghum as an insurance crop of importance in the targeted project areas. • Key challenges: soft skills for disseminating climate change adaptation technology are inadequate, Food loss during production and harvest as major challenge to food and nutrition security.
Ministry of Forestry, Range & Soil Conservation – Dept. of Rangeland Conservation;	• Key challenges: Invasive pests, loss of wool and mohair; variability; heavy snow followed by drought; inadequate awareness raising missing; inadequate land use planning. • Fodder production needs to be improved, bee keeping, and poultry could be alternate livelihood activities. • Climate data is not used for land use planning and hence activities fail. • The project in line with the operations of the Ministry operations focusing on Integrated Catchment Management (ICM) to address land degradation. Its main activities include soil erosion control, water conservation, rangeland management and

Department of Soil and Water Conservation	tree planting and provision of fruit tree seedlings to farmers to promote the establishment of orchards for household food security to diversify income generation for community members. • Recommended assets include: water harvesting, fodder production schemes, dairy farming, explore and industrialization medicinal and nutritive indigenous plant species, agro-forestry and livestock production. • Highlighted the need for intensive awareness creation for communities to shift from maize to crop species tolerant to local climatic regime such as fodder crops. • Project should strengthen collaboration with the MAFS to enhance agricultural productivity of assets created. • The public works programme is executed by Constituencies. Community members are involved in all decision making and management and activities. The Ministry deploys staff members and technical supervisors for quality control. There is regular monitoring and evaluation programme. Reporting done on structures, but the quantity of soil and land reclaimed not reported. Only the unemployed community members are engaged. They work for 40 days for USD 100.00 remuneration. • Support needed includes: technical assistance to develop baselines as well as monitoring and evaluation framework, capacity building to undertake; capacity strengthening to strengthen collaboration between operations of the LMS, Ministry of Agriculture and Food Security as well the Ministry of Forestry for greater impacts, research on categorization of soil types according to their tree suitability to map out potential for high value trees in Lesotho.
Ministry of Water	• Mandated with monitoring of surface water and ground water. Currently working with GIZ/EU for Integrated Catchment Management project (ICM). Ministry's inputs not considered by policy makers. Focus tends to be on supply than management of water. • Key challenges: Capacities; Monitoring equipment; Platforms for knowledge sharing with government (DMA); #Water scarcity; • South of country more prone to drought. ICM project sites selected using FAO land use map. • The Ministry should be involved in land use planning at community/council level • Confirmed the alignment of the Project with plans and programmes of the Ministry and the upcoming ICM programme under the auspices of the EU. • Confirmed the need to support and promote the use of water for productive purposes household and community socio-economic development and diversification of livelihood sources. • Identified the following interventions for strengthening community adaptive capacity, building resilience and ensuring sustainable food security: Introduction of indigenous nutritive and medicinal plant and tree species land reclamation; water harvesting, aquaculture/fishery, bee keeping, poultry, piggery, keyhole gardens, trees planting, protected agriculture (tunnels/greenhouses), wetlands rehabilitation. • Pledged to support the project and establish partnerships as deemed necessary. • Identified community awareness and mobilization as catalyst to generate the relevant mentality and behavioral shift. Project should ensure holistic management of natural resources by community members in line with ICM approach and be complimented by laws; local institutions be strengthened to sustain project assets beyond the project life; need for synergies, complementarities and coordination through hence ICM approach.

Ministry of Local Government and Chieftainship Affairs	• Coordinates all matters of decentralization to enhance service delivery and drive socio- economic development issues as dictated by various Government Ministries. • The project should ensure equitable access to project benefits for women. Water access and security be ensured to relieve women of the burden of fetching water from far off unreliable water sources such as wells. • District Development plans don't exist as such planning and coordination of district development initiatives is a challenge which results in duplication of efforts. • District and community level project institutional/ governance structures should be discussed and agreed upon with stakeholders in respective targeted project areas. • District Agriculture Resources Centres viewed as the working arrangement which has effectively enhanced decentralization of agricultural services and on which other sectors/initiatives may model or be anchored
The National University of Lesotho (NUL)	• Key challenges: funding; inadequate policy linkages; lack of capacity and equipment and researchers work as individual consultants and not as an institution; more focus is on teaching than on research; University research center dysfunctional but plans to restart. • No linkages of social protection policy with agricultural policy. No capacity or equipment to produce vulnerability modelling. • Different levels of poverty exist, and climate change adaptation projects should target most vulnerable. Most programmes target the same beneficiaries and hence create a dependency. • Potential to use radio as a platform to raise awareness and discuss research findings. Climate change should be promoted within the university to raise organizational as well as academic interest. University as a CSR activity promotes awareness raising.
Women and Law in Southern Africa (WILSA)	• WILSA will continue to support WFP in ensuring that that the project is gender transformative by ensuring the integration of a gender perspective into the preparation, design, implementation, monitoring and evaluation of the project in order to promote equality between women and men, and combat discrimination. • Project interventions be cognizant of varying degree of climate change vulnerability of men and women due to gender related inequalities as well as roles and responsibilities in Lesotho. Type of assets, distance to assets, timing of activities, labor requirements should be gender sensitive. • Project should address issues of household water, energy and food security. • Women are engaged in agriculture as the main source of livelihood for survival. They should be the primarily target. • Balanced representation in training and capacity building to ensure equitable gender representation in leadership positions. • Limited access to arable land, lack of new and productive agricultural methods, inadequate access to markets for female farmers as well as inadequate skills for food preservation exacerbate food insecurity, poverty and increase vulnerability of women to climate change impacts. • Project interventions should be assessed to ensure non - proliferation of gender-based violence, conducive market area and adequate market access, sustainable long-term benefits for women.
Lesotho National Farmers Union (LENAFU)	• In support of the projects as it is in line with national development agricultural policies and frame works. • LENAFU ready to support and explore avenues of collaboration. • Component 1 activities: build capacity building for LMS to collect, analyse and tailor and disseminate climate data in a context that is relevant to agriculture in order for farmers to undertake effective mitigation and adaptation measures, strengthen the

	capacity of respective Village Disaster Management Teams (VDMTs) to respond to climate change, farmers be capacitated with climate smart skills and technologies; procurement of advanced tools for efficiency. • Component 2. Development of a coherent policy framework for climate smart actions in the agricultural sector, strengthen the coordination of various actors through knowledge management and evidence sharing through: open public dialogue, TV and radio programmes, development of media climate change programmes, peer to peer knowledge sharing initiatives, robust engagement of youth and women forums, as well as development and dissemination of climate change information which document good practice. • Component 3 activities should build ecological (soil, seeds, livestock breeds), economic (markets linkages and diversification of economic activities) and social (knowledge, skills, research extension, education and training) resilience. • This component should promote appropriate technologies, capacity building and skill transfer as well as institutional strengthening.
National Curriculum Development Centre (NCCC)	• Education key to creating climate change awareness. • Many pupils are orphans and most vulnerable to food and nutrition insecurity. Schools be supported to be self-reliant in terms of meeting food and nutrition needs. • Advocates for practical application of knowledge on climate change at the household and community levels through the implementation of whole school approaches to effect behavioural change. • Recommended initiatives include: school water conservation renewable energy, recycling, school tree planting projects including nurseries and woodlots, establishment of climate change information and environmental centres.
Technologies for Economic Development (TED)	• Project interventions should be cognizant of varying degree of vulnerability of various sectors of the target population and tailor responses accordingly. • Recognizes the impacts of climate change on water and energy access, land productivity and food security and poverty in the rural areas and results thereof to social welfare. • Women walk for even longer distances to gather firewood and fetch water. This increases their workload and exposure to health problems as well as gender-based violence. • The project should holistically address the above challenges to enhance the well-being of vulnerable rural households, communities and the environment through : Tree planting, agro-forestry, bee keeping (fruit trees, other indigenous plants species including aloe polyphylla); appropriate technologies such as fuel efficient stoves, heat retention devices, honey extractors, solar powered dryers and packagers for food storage and preservation, sewing machines; renewable energy for space heating and lighting; market access for products; • Training and capacity building. • To ensure inclusivity and sustainability of interventions, community associations and co-operatives approach is recommended.
Solar Lights	• Ensuring energy access and efficient devices (energy efficient cooking stoves) as important adaptive measure in rural communities for reduction of over-dependence and over exploitation of biomass, supporting tree planting and reforestation for reducing land degradation; generate employment opportunities, and ease burden which firewood collection exerts on women and girls. • Underscored and lack of funding opportunities as well as land ownership as challenges to projects sustainability in Lesotho.

4D Climate Solutions (Pty) Ltd	• 4DCS is to: digitize historical rainfall, soil, range vegetation, crops, DHS, and health data to create a data hub and run data analytics to find correlation and trends among the different data sets to inform future climate change program design and implementation in Lesotho; create nation-wide climate change hotspots using the above analytics and incorporating already existing information sources such as Lesotho Land Cover developed by FAO and NISSA by Ministry of Social Development. • Recommends translation of climate information and climate change into local language; making climate change meaningful, interesting locally relevant; timely dissemination of locally relevant climate information; use of mobile based learning platforms as key strategies for effective climate change awareness creation. • The following initiatives present opportunities for collaboration and knowledge sharing: - Seed System Strengthening Project (S3P) targeting 10,000 farmers in Thaba-Tseka, Quthing, Qacha's Nek, Mokhotlong, Mafeteng, and Mohale's Hoek. • Well-being Improvement and Restoration of Ecosystems Project concept submitted to Department of Environment Food and Rural Affairs (DEFRA) of the UK Government in collaboration with a local NGO, NUL and Bangor University. • Development of mobile application using Dimagi's CommCare platform for data collection, analysis and report by Ministry of Local Government in collecting, analyzing.
United Nations Development Programme (UNDP)	• Implementing two projects focusing on sustainable land management (IGA, overgrazing solutions); Energy projects include solar systems (maintenance and battery recycling is a challenge) • Challenges encountered: Baselines are missing, and monitoring and &Evaluation is challenging nationwide. • NAP process is extremely slow while most projects align with the NAPA. • Communities need incentives to be mobilized; seasonal labour; high unemployment, weak government capacities. • Fuel for cooking and space heating is nation-wide challenge.
Food and Agriculture Organization (FAO)	• The project has the potential to complement existing FAO/UNDP projects in 4 districts and scale-up to other districts. • FAO is currently engaging EU project on Integrated Catchment Management (ICM) with the Dept. of Water Affairs. • Current project interventions include soil conservation, water management, Livelihood diversification, mapping climate risks, solar powered IGAs, VCD, CSA. • Challenges: i) Multiple projects operate in silos and there is lack of coordination; ii) Mountainous areas more vulnerable to climate impact. • Recommended interventions: Sustainable intensification of agriculture could be done using tunnels/greenhouses, drip irrigation. • Soil fertility is a challenge and investing in soil and water management is key. • Post-harvest losses are high. Most fruit trees ripe at the same time. • Community vulnerability should be key entry point over other criteria.
World Vision	• Key challenges: Land degradation, gender inequality, unemployed trained youth, outmigration. • Rainfall patterns have noticeably changed. There exists a gap in meteorological services to provide rainfall information. • Early frost is a challenge even if rainfall is timely. Hence challenges multi-fold, Drought persists even outside the El Niño phenomenon. August is no longer planting season. Cropping calendars need to be revised. • FAO promotes Conservation Agriculture Farmer managed natural regeneration programs (FMNR) to address deforestation for firewood for cooking. However, dependence on firewood leads to deforestation and sustainable interventions are missing. There is uncontrolled grazing.

	• Need greenhouses and small-scale irrigation for coping with winter and drought. • Extension services exist but not effective in providing seasonal information. Mountainous areas more vulnerable to climate impact; disasters destroy roads.
Delegation of the European Union	• Supports the Government initiatives on water and energy access, addressing environmental degradation and climate change. • Avenues of partnership with WFP in the above should be explored. • Recommendations for project sustainability: coordination, transparency, accountability, community ownership have to be ensured; project activities should demonstrate the benefits of sustainable land management. • Environmental education and climate change be integrated into Food for Assets programmes. • Nature – based adaptation solutions including rainwater harvesting, natural resources conservation be prioritized.
The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	• Highlighted land and rangelands degradation as the major cause of decline in agricultural productivity, poverty, community conflicts, and increased vulnerability to climate change in Lesotho. • Most of these resources are highly degraded as such intervention using physical structures only, as is the case with most land reclamation activities, may not yield the desired results hence the shift to holistic management approach in various projects in Mokhotlong in which the GIZ is involved. • Key lessons to ensure ownership and success of community initiatives: community sensitization and collective planning, collaboration with local authorities, collaboration with local authorities, in-depth consultations, capacity building community members including farmers and herdsmen.
Wool and Mohair Promotion Project (WAMPP) - IFAD	• Extension Officers from the Ministry of Agriculture, Forestry, and Small Business are being trained on the use of participatory tools through Participatory Integrated Climate Services for Agriculture (PICSA) to make informed decisions based accurate, location specific, climate and weather information, locally relevant crop, livestock and livelihood options. • Grazing associations receive training and equipment to collect climate data and relay to LMS. Short Message Services used to communicate climate information to farmers. • PICSA approach tailored for Lesotho is being designed. • In collaboration with NUL the project has developed a curriculum on range management. • Nationwide advocacy and follow – up on farmers after training is key.

B. Summary of district-level consultations

Five different meetings were held at the district level, with multiple representatives, as detailed below.

Minutes of Meeting with the District Administrator (DA) – Mafeteng

Agenda	• Courtesy call to the DA. • Presentation of the project to gather views, and recommendations to ensure sustainable implementation of the project in Mafeteng.
Location	Office of the District Administrator. Mafeteng
Date **Time**	25.06.2018 08:30 – 09:00
Participants	Office of the DA Mafeteng. Mr. Ntsane Mothibe - District Administrator, Mafeteng. Adaptation Fund Project Team. Ms. Keeena Malefane. Dr. Fedelis Esenjor. Mr. Rabolou Mafaesa. Mr. Patrick Oliphant.
Main points of discussion	1. Importance of the project. The project is important as it addresses the most pressing environmental and social challenges of this country, particularly the Mafeteng district which is prone to desertification, floods, drought and hunger and lack of employment. Land and rangelands degradation and has fuelled community conflicts in Mafeteng. Crime rate is high. 2. Recommended interventions for the Adaptation Fund Project The Adaptation Fund project should endeavor to undertake the following initiatives. a) Tree planting programmes. The programmes should be comprehensive enough to generate multiple benefits such as land degradation (soil erosion and desertification), enhance carbon sequestration, fruit and wood production, and act as wind breakers in settlements situated on the trajectory of hurricanes and wind storms. b) Communal Fodder Production Schemes Through the guidance of local authorities (Area and village chiefs, as well as District level authorities) land should be demarcated for the establishment of communal fodder production schemes. Drought resistant fodder crops such as lucerne and fodder sorghum should be promoted. The schemes will catalyse livestock farming for beef and dairy production hence food and nutrition security for household as well as market consumption. c) Water Harvesting schemes Mafeteng is prone to prolonged and recurrent drought which negatively affects agricultural production and the effectiveness of other social and economic sectors. As such the project should support water harvesting and conservation programmes for domestic consumption, as well as agricultural and industrial use. c) Climate smart technologies Communities to be supported with appropriate climate smart technologies such as greenhouses/tunnels, shade nets as well as irrigation machines to increase production for household consumption and for local markets.

	d) Commercialization of Agriculture Various initiatives have been undertaken to commercialize agriculture. However, not much success has been attained. Various activities under this project should be commercialized. e) Livestock production - Fast income generating livestock such as piggery, poultry, rabbits, should be prioritized. f) Entrepreneurial skills building should be an integral part of commercialization of the agriculture sector. 3. Recommendation for ensuring sustainability of project interventions a) Fuel efficiency devices be embedded into tree planting programmes. b) Tailored awareness and advocacy programmes to ignite mentality shift for pattern of life and consumption changes particularly regarding the necessary shift from traditional crops such as maize to more climate smart (heat and drought tolerant) crop varieties. c) Training and capacity building should be a cross cutting theme across all interventions to ensure sustainability. e) Initiatives should adopt an entrepreneurial approach to climate change adaptation, resilience building, as well as food and nutrition security such that they generate income for community members as well as district and community councils.

Minutes of Meeting with the District Administrator (DA) – Mohale's Hoek

Agenda	• Courtesy call to the DA. • Presentation of the project to gather views, and recommendations to ensure sustainable implementation of the project in Mohale's Hoek.
Location	Office of the District Administrator. Mohale's Hoek
Date **Time**	26.06.2018 09:00 – 10:30
Participants	Office of the DA Mohale's Hoek. Mr. Litsoeneng Tiheli– Representative of the District Administrator, Mohale's Hoek. Adaptation Fund Project Team. Ms. Keeena Malefane. Mr. Rabolou Mafaesa. Mr. Oliphant.
Main points of discussion	1. Factors to be interventions for the Adaptation Fund Project The following factors have to be taken into consideration during project planning and implementation: a) Project coverage and complementarities with ongoing projecs : Focus should be in communities in which there are no projects of similar nature to ensure equitable distribution of developmental benefits. For example, the UNDP is running a projects,

	RVCC, in Thaba-Mokhele, Khoelenya and Lithipeng. As such the Adaptation Fund project should focus on other community councils. b) Land Use Planning Regulations Encroachment of settlements into arable land is a nationwide challenge which continues to threaten food and nutrition security. This calls for harmonization and coordination of land use planning and the enforcement of regulations thereof. Operations of institutions such as Lesotho Housing, the Ministry of Local Government and Chieftainship should be synchronized and well coordinated.

Minutes of Meeting with the District Disaster Management Team – Mafeteng

Agenda	Presentation of the project to gather guidance, and recommendations to ensure sustainable implementation of the project in Mafeteng.
Location	Office of the District Administrator. Mafeteng
Date **Time**	25.06.2018 10:00 – 12:00
Participants	Members of the District Disaster Management Team (DDMT) Mafeteng. Adaptation Fund Project Team. Ms. Keeena Malefane. Mr. Rabolou Mafaesa. Mr. Patrick Oliphant.
Main points of discussion	1. Project Complementarities with Other Initiatives. The project should follow the Gerando risk identification and management model of risk on which Members of the DDMT have been trained. It should also be convergent with on – going FAO and World Vision climate change initiatives. 2. Recommended Project Approach. a) Community Disaster Risk Management Committees should be resuscitated and strengthened to play a meaningful role in the project, ensuring inclusion of unrepresented members of the society. b) There should robust community sensitization, mobilization and training of community members to ensure that community incorporation of views, needs and priorities of community members. This will enhance ownership and sustainability of project interventions. c) The project should follow an entrepreneurial approach which ensures socio- economic development for households and communities. d) Targeting of beneficiaries should be refined to ensure involvement of people with the right skills and capacities for respective activities. Projects should be categorized accordingly. e) Extension officers be trained on climate change issues. f) Harmonization of the project with the National Resilience Framework as well as the Disaster Risk Reduction Policy. 3. Recommendation to the Adaptation Fund Project. Component 1: - The project should support People Centred Early Warning Systems. - The EWS should provide long – term predictions through various media platform.

	- Indigenous and traditional knowledge systems of early warning be incorporated and promoted. - Community members should be capacitated with skills and resources (such local weather stations) to ensure the efficacy of EWS particularly at community level. Component 2: - Climate change awareness programmes should target- district administration, community governance structures (political leaders and traditional authorities including Members of Parliament and Area and village chiefs). - There should be training of trainers programmes to ensure wide and continuous dissemination of knowledge. - Synergies and partnerships with PICSA approach to be established. - Climate change related theme days such as Disaster Risk Reduction Days, Water, Forests, as well as Environment Days be commemorated in the local context using locally accepted platforms and communication locally relevant messages. - Climate change awareness creation programmes be tailored according to indigenous ways and platforms of awareness creation. For example Famo (Traditional) music is ideal for Mafeteng. - Local communities have rich indigenous knowledge on climate change adaptation and resilience building including indigenous local level early warning systems. In collaboration with community members, the project should support research and documentation as well as dissemination and adoption of such knowledge in climate change adaptation planning, resilience building and decision-making processes. - Climate Change community radio programmes and locally made billboards be used for awareness. The timing and spacing of such should ensure wide audience. DMA had such a programme which may be adopted and modified accordingly. - Information should be available on all public platforms such as libraries, health centres. Component 3: This component should explore and promote the following initiatives: - Construction of check dams in dongas to address both water shortages and land reclamation. - Establishment of fodder production schemes for local and external market. - Intensification of climate smart agriculture such as Keyhole gardening to ensure food and nutrition security at a household level. - Indigenous food (fruits and vegetables) and animal (indigenous chickens) production for household consumption and external markets. - Establishment of Rosehip plantations for land reclamation, value addition and supply to external markets. - Establishment of fishery, piggery, rabbit and poultry farms and abattoir and slaughter houses as well as processing, packaging and storage facilities. - Water Harvesting Schemes for domestic consumption as well as agricultural production. - Agro-forestry – Fruit tree planting and Beekeeping programmes for food and nutrition security as well as medicinal value. - Waste management project - recycling of paper, plastic, tyres, glass, cans be promoted. - Drought resistant and heat tolerant cereal crops (sorghum and wheat) production schemes. - Range Management and Livestock farming schemes. - Water bottling at Heremony in Qibing community council.

Minutes of Meeting with the District Disaster Management Team – Quthing

Agenda	Presentation of the project to the DDMT to: gather information on climate related community challenges, needs and priorities ; identify synergies, areas of partnerships with ongoing initiatives ; gather views, guidance, and recommendations to ensure sustainable implementation of the project.
Location	Agricultural Resource Centre. Quthing.
Date **Time**	27.06.2018 10:00 – 12:30
Participants	Members of the District Disaster Management Team (DDMT) Quthing. Adaptation Fund Project Team. Ms. Keeena Malefane. Mr. Rabolou Mafaesa. Mr. Patrick Oliphant.
Main points of discussion	1. Relevance of the Project Project directly addresses poverty, food insecurity, which are major challenges in most rural households in Quthing. The following factors have to be taken into consideration at the planning phase: - Alignment of the project with the recently developed Community Action Plans which are currently not being followed by any development partner. - Avoidance of duplication of efforts and strengthening of synergies with ongoing initiatives in order to generate greater impact. Communities which have no ongoing project should be targeted. - Ensuring periodic project monitoring and evaluation – FAO undertakes M & E every six months. - Adherence to recommended project activities and undertaking community consultation to communicate any deviation there from – this builds community confidence, as well as ownership of the project. - Undertaking all communication, and community consultations in respective local languages - Quthing is a multi – lingual district. 2. Recommended Project Activities. Component 1 - Early warning systems should focus at both the national and community/local level risks and shocks. - EWS should be built on/compliment indigenous knowledge. - Indigenous and traditional EWS be incorporated and promoted - Most community members ignore given warnings. As such mechanisms to ensure community compliance to early warning should be instituted - Information dissemination channels be strengthened, clearly defined and all communication be multilingual. Component 2: Climate Change Awareness. a) There is need for more awareness on the impacts of climate change and measures to adapt. b) Most households are very poor as unemployment is high, as such awareness creation should be complimented with necessary measures to provide food and other resources to enable household members to adapt. c) Recommended climate change awareness platforms: - Public gatherings, music competitions, sporting activities/ tournaments (these activities draw a wide audience so they are impactful).

	- Public community areas: churches, health centres, shopping centres, schools. - Local Radio Stations (Quthing has a local Radio Station). - Community Climate Change Ambassadors Programmes. - Training of teachers. - Youth and children activities. - Well-resourced community climate change centres. - Distribution of climate change information material such as pamphlets, books, magazines. d) Standardization of climate change information/messages: Key climate change messages should be standardized to ensure uniformity of messages. Component 3. - Fishery - Quthing has abundant supply of pure water and river courses are adjacent to many communities. Topography and gravity are also suitable and make the fishery industry very cost effective. - Piggery – Many women are already engaged in piggery. It is advisable that they are supported to establish cooperatives to boost production. - Poultry farms – traditional chickens which are relatively easy to rear and have high market value are encouraged. - Community slaughter houses, packaging, and storage facilities be established. - Cultivation of indigenous fruit and vegetable such as Roose (weather and soil conditions at Ha Peete and Ha Mafura are the most suitable). Most households are already generating income from the sale of Roose. - Handicrafts Schemes at Mphaki - there are very rich species of craft grasses at Mphaki. - Establishment of Prickly Pears and spiral aloe community plantations at Ha Poto, Mount Moorosi, Kroonstad, and at villages along the Senqu Valley. These are medicinal, drought resistant, and nutritive. They also have a high market value. Environmental management plans should be in place. - Fruit tree planting and Beekeeping programmes. - Establishment of community orchards for apples, peaches, prunes, pears: these will flourish as most community members have relevant skills and experience gained from Ceres in Capa–Town. - Community orchards along the Senqu River as well as in Ketane at which apples and prunes production is very high. - Food processing and packaging. - Intensification of climate- smart agricultural activities at household level. 4. Recommended Approach to Project. - Training, capacity building, skill and technology transfer for selected project interventions as well as related entrepreneurial and financial literacy are integral factors for long term sustainability. - Area and local chiefs should be actively involved, and the project should have clearly defined conflict resolution mechanisms. - The project should be weaved into existing community social groups and organizations as they are long standing community structures with by – laws. - School self – reliance projects are more sustainable way to ensure food security and income generation for schools. They should be encouraged and supported. This will compliment Ministry of Education local purchase programmes. - Each project side should have a communally appointed project guard to safeguard project activities and assets against vandalism. RSDA and Send-A-Cow do the same.

Minutes of Meeting with the District Disaster Management Team – Mohale's Hoek

Agenda	Presentation of the project to gather guidance, and recommendations to ensure sustainable implementation of the project in Mohale's Hoek.
Location	Office of the District Administrator. Mohale's Hoek
Date **Time**	26.06.2018 10:00 – 12:30
Participants	Members of the District Disaster Management Team (DDMT) Mohale's Hoek. Adaptation Fund Project Team. Ms. Keeena Malefane. Mr. Rabolou Mafaesa. Mr. Oliphant.
Main points of discussion	1. Project complementarities with on-going initiatives. The Adaptation Fund project compliments and will built on: a) The work being undertaken by the World Vision and the DDMT to strengthen Community Disaster Preparedness Plans for resilience building at the village level. Through the project, a training of trainers programme has been delivered to members of the DDMT's. There will also be processes to revive and strengthen Village Disaster Management Teams (VDMT's). Currently, this initiative is currently being undertaken in Thaba – Mokhele and Mashaleng Community Councils. It will be rolled out to other communities. b) The UNDP Project titled 'Reducing vulnerability to climate change in the lowlands and the Senqu River Valley" through which the Ministry of Forestry, Range, Soil and Water Conservation and the UNDP are creating climate change awareness, creating community assets for climate change adaptation and resilience building at community level. The project is three community councils, namely, Thaba – Mokhele, Lithipeng and Khoelenya. c) Christian Relieve Services Project in Mohales'Hoek – The CRS is undertaking resilience building work in Taung. The project has supported community members to establish vegetable and poultry project. The project has tremendously transformed the quality of life of the majority of community members. 2. Ensuring equitable sharing of the project benefits. Climate change affects different sectors of the population in different ways. Even though disabled people are more vulnerable to the impacts, their representation in decision making structures of most projects is compromised. As such the Adaptation fund project should ensure their active participation in various project planning and decision-making process to ensure that their needs are taken into adequate consideration. In addition, the project should undertake visits to the home of the vulnerable communities and households to have a deeper understanding of the degree of their suffering. 3. Recommendation to the Adaptation Fund Project. Component 1 - Early warning systems should focus at both the national and local level risks and shocks. - Indigenous and traditional EWS be incorporated and promoted. - Community members should be supported with capacity building, training and resources (such local weather stations) to undertake relevant roles in ensuring effectiveness of EWS particularly at community level. Component 2

	- Climate change awareness programmes should be at all levels, namely: district administration, community governance structures (political leaders and traditional authorities including Members of Parliament and Area and village chiefs). - The Ministry of Education and Training should be capacitated and fully engaged particularly because learners are vibrant agents of change. - Climate change related theme days such as Disaster Risk Reduction Days, Water, Forests, as well as Environment Days be commemorated in the local context. - Climate change awareness creation programmes be tailored according to indigenous ways and platforms of awareness creation. - Local communities have rich indigenous knowledge of much relevance to climate change adaptation and resilience building including indigenous local level early warning systems. In collaboration with community members, the project should support research and documentation as well as dissemination and adoption of such knowledge in climate change adaptation planning, resilience building and decision-making processes. Component 3. - Keyhole gardening should be intensified to ensure food and nutrition security at a household level. - Protected agriculture as farmers are vulnerable to early frost, hailstorms, which deter continuity of supply of agricultural produce. - Water Harvesting Schemes for domestic consumption as well as agricultural production. - Community orchards along the Senqu River as well as in Ketane at which apples and prunes production is very high. - Agro-forestry – Fruit tree planting and Beekeeping programmes. - Drought resistant and heat tolerant cereal crops (maize, sorghum and wheat) production schemes. - Food processing and packaging. - Range Management and Livestock farming schemes. - Fishery, piggery, rabbit and poultry farms. - Water bottling. 4. Recommended Approach to Project. - Harmonization of policy and agricultural subsidy programme. For example, the Government should subsidize climate smart agricultural interventions to enhance the adaption thereof. - Both communal and individual (individual farmers with proven relevant experience) projects be encouraged through the establishment of cooperative societies. - Training and capacity on best practices for respective activities as well as entrepreneurial and financial literacy be provided. - Special niche products, market linkages as well as financial assistance programs be established for vulnerable community members, women as well as the youth to ensure their full and active participation and equitable benefit sharing of project benefits. - Community conflict management mechanisms be instituted. - Engagement of local NGO for monitoring and necessary support after the project has ended.

C. Summary of community consultations

Community consultations were carried out in 16 community councils in the three targeted districts and included focus group discussions and household-level interviews. Consultations included an average of 70 people per community, with an average gender balance of 60% female and 40% male. This is due to a

variety of factors, such as high migration rates among men and higher interest of women in food security-related matters. Inclusion of all sectors of the society, particularly the most vulnerable members of the community, was ensured through engagement of representatives of all socio-economic groups in respective communities: farmers, herders, teachers, children and orphans, the elderly, minority groups such as people with disabilities, pregnant and lactating women, traders, local leaders, traditional healers, community-based organizations, community health workers, men's and women's initiation schools, and support groups for people living with HIV/AIDS. Communities highlighted that addressing climate change risks, particularly on agriculture, food security and nutrition, as well as water security, were urgent needs and priorities. In particular, women reported that climate change aggravates risks to their livelihoods and security. For instance, women indicated that collection of water and firewood is a traditional role of women and girls and some dry spells always result in water shortages and depletion of shrubs for fuelwood. As a result, women and girls are forced to travel long distances to fetch water and fuel which exposes them to rape, marriage by abduction and child marriages. Climate change has also a specific impact on youth. Youth participating in consultations indicated that as result of climate change, they are forced to migrate to urban areas or to South Africa to find job opportunities. Some of the boys and girls are compelled to drop out of schools to support their households to address food insecurity. Communities indicated that their awareness, knowledge and understanding of climate change was inadequate and underscored the need for awareness raising initiatives for the public offered to them through public gatherings and mass media (television, radio, newspapers, etc.), and locally relevant activities and resources. Regarding the creation of assets and diversification of livelihood sources for resilience building, communities identified the following interventions as key adaptation and resilience building interventions: establishment of homestead farms, support on climate-smart agriculture, support on the uses of improved seed varieties, afforestation and reforestation programmes and clean energies, the integration of climate change into education curricula at all levels including technical schools, household and community water harvesting and conservation schemes for domestic as well as other productive purposes, and income generating opportunities. On project implementation modalities, consultations highlighted the need for the project to involve local community members, at both the local and district levels, in all planning and decision-making processes. Furthermore, the adoption of gender-transformative responses to climate change was highlighted. Various government departments should also play key roles when it comes to climate change mitigation and adaptation.

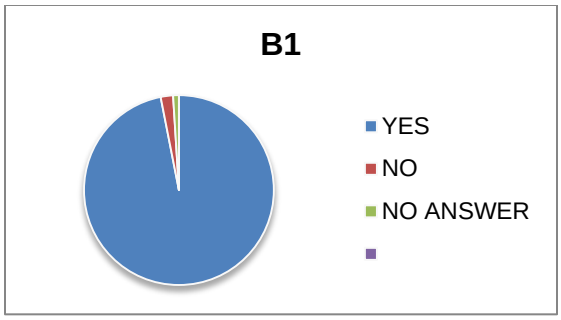
DATA GENERATED FROM HOUSEHOLD QUESTIONNAIRE

This section provides an analysis of the information obtained through the 145 household questionnaires that were administered in the three districts.

B1. Have you noticed any long-term changes in the mean temperature over the last years?
Respondents (97%) indicated knowledge of long-term changes in the mean temperature over the years as outlined in Table 1.

Table 1: Responses to Observation of Long Term Changes in Temperature.

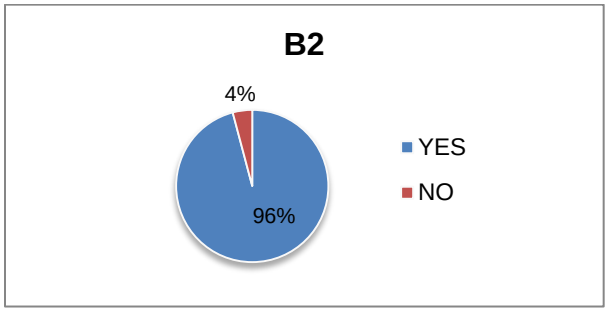
Have You Noticed Any Long-Term Changes In The Mean, Temperature Over The Last 5-10 Years, 15-20 Years? **B1**	YES	NO	EMPTY	TOTAL
	138	3	4	145
Percentage	**97%**	**1%**	**2%**	



B2. Have you noticed any long – term changes in the mean rainfall over the last years?
As indicated in Table 2, majority of respondents, 94%, agreed that there have been changes in the mean rainfall and acknowledged that there has been a decrease in the amount of rainfall over the years.

Table 2: Response to Observation of Long Term Changes in Mean Rainfall.

B2. Have you noticed any long – term changes in the mean rainfall over the last 5-10 years or 15-20 years?	YES	NO	TOTAL
	139	6	145
Percentage	**94%**	**4%**	**100%**



B3. How have changes in the mean rainfall and temperature affected your household and quality of life?
As Table 3 indicates, respondents outlined inadequate food production and starvation due to lack of rainfall as well as endless diseases as critical effects of changes in rainfall and temperature to their household and quality of life. However respondents did not mention any particular disease.

Table 3: Response on Impacts of Changes in Mean Rainfall and Temperature on household and Quality of Life.

B3. How have changes in the mean rainfall and temperature affected your household and quality of life?	No Food, Diseases	No answer	Total
	134	11	145
			100%

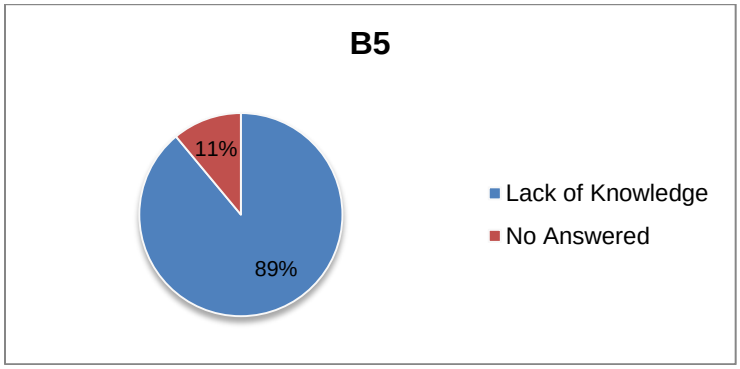
B4. How have changes in the mean rainfall and temperature affected your community?
The majority of respondents outlined starvation, high crime rate, unemployment, poverty, early marriage, as well as lack of water, floods, hail which affect crop production as main impacts of changing climatic patters to their community.

B5. In your Opinion what causes these changes in climate patterns?
Respondents demonstrated high lack of knowledge on climate change. This was made known when respondents attributed climate change lack of adherence to Basotho customs and traditions such as women not properly mourning for their late husbands, burying the deceased before midday, women wearing pants to traditional chiefs

household; rather that attributing climate change to factors of scientific and natural resources management nature as outlined in Table 5.

Table 5: Responses on the Causes of Changes Change.

B5. In your Opinion what causes these changes in climate patterns?	Lack of Knowledge	No Answered	Total
Numbers	129	16	145
Percentage	89%	11%	100%



C1A. Through which means were you able to adapt to the effect of the changing climate?
Respondents replied as shown on the following Table 6:

Table 6: Responses on the Means of Climate Change Adaptation.

Through Which Means Were You Able To Adapt To The Effect Of The Changing Climate? C1A				
	YES	**NO**	**NO ANSWER**	**TOTAL**
I. Change crop variety	85	55	5	145
II. Build a water-harvesting scheme	40	72	33	145
III. Implement soil conservation techniques	56	44	45	145
IV. Buy insurance	3	96	46	145
V. Plant trees	55	39	51	145
VI. Irrigate	46	54	45	145
VII. Change from crop to livestock	13	92	40	145
VIII. Change livestock variety	13	86	46	145
IX. Reduce number of livestock	25	68	52	145
X. Diversify Sources of livelihood	43	55	47	145
XI. Find off-farm job	25	64	56	145
XII. Lease your land	14	70	61	145
XIII. Other –Specify	1	18	126	145

Community members highlighted lack of resources, knowledge and technical skills as factors which hindered adoption of most of the adaptation measures in Table 6. When probed on future measures to adapt, diversify sources of livelihood and increase income and quality of life, community members indicated irrigation systems and climate resilient seeds, water-harvesting schemes, tree planting programmes, poultry (indigenous poultry breeds), piggery, keeping rabbits, dairy farming, fish ponds/fishery, bee-keeping, craft industries, plantation and processing of indigenous plants such as rose hip, spiral aloe and other indigenous fruits and vegetables, prickly pear, craft industries, promotion of drought tolerant crops and animals varieties, as preferred interventions.

D1. Do you receive any information on any climate shocks before they happen?

Yes /No

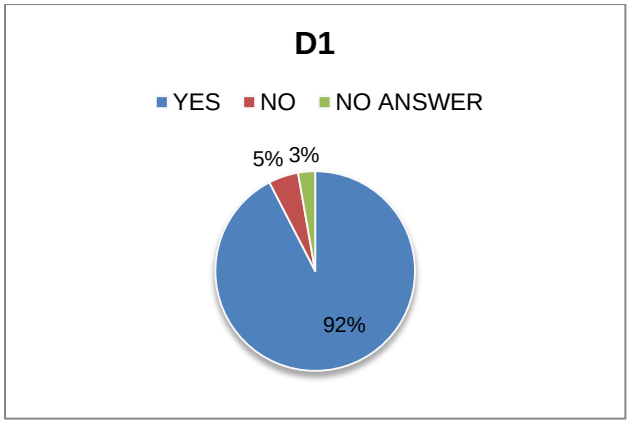
YES =134

NO=7

In response to the above question, respondents (92%) agreed that they receive climate shock information before they happen as shown on the table below.

Table 7: Responses on receipt of information on any climate shocks before they happen

Do You Receive Any Information On Any, Climate Shocks Before They Happen? **D1**				
	YES	NO	EMPTY	**TOTAL**
	134	7	4	**145**
Percentage	92%	5%	3%	**100%**

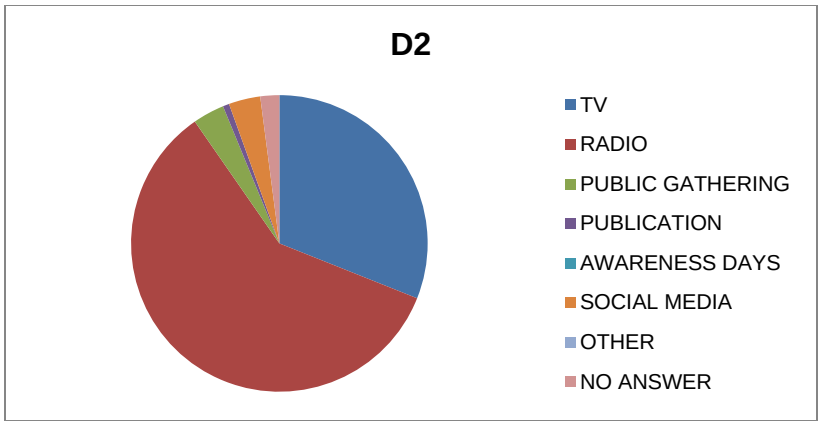


D2. Which sources of information would enable you to get enough information?

On addressing the above question, respondents (59%) preferred radio while 31% of the respondents indicated television. A few other respondents ranging from 1-4% indicated publications, social media and public gathering. Table 8 illustrates the respective responses.

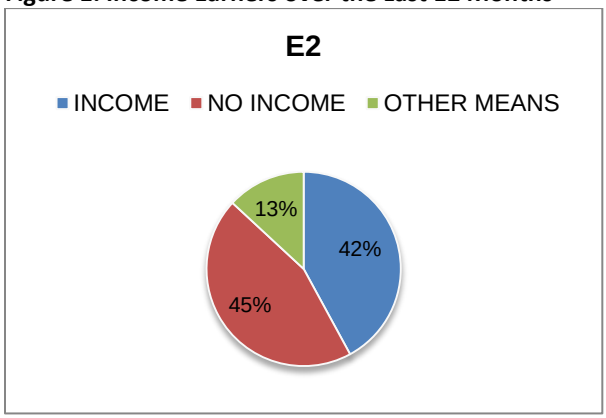
Table 8: Responses on sources of information would enable you to get enough information.

Which sources of information would enable you to get enough information? **D2**			
		Percentage	
TV	45	**31%**	
RADIO	86	**59%**	
PUBLIC GATHERING	5	**4%**	
PUBLICATION	1	**1%**	
AWARENESS DAYS	0	**0%**	
SOCIAL MEDIA	5	**3%**	
OTHER	0	**0%**	
EMPTY	**3**	**2%**	
TOTAL	**145**	**100%**	



E2. Who earned income from your household over the last 12 months?
As illustrated in Figure 1, the 'No Income' category of respondents is 45 %, whereas 42 % of respondents indicated that there is a household member who earns income. However there are household members and household heads who are engaged in subsistence farming**.**

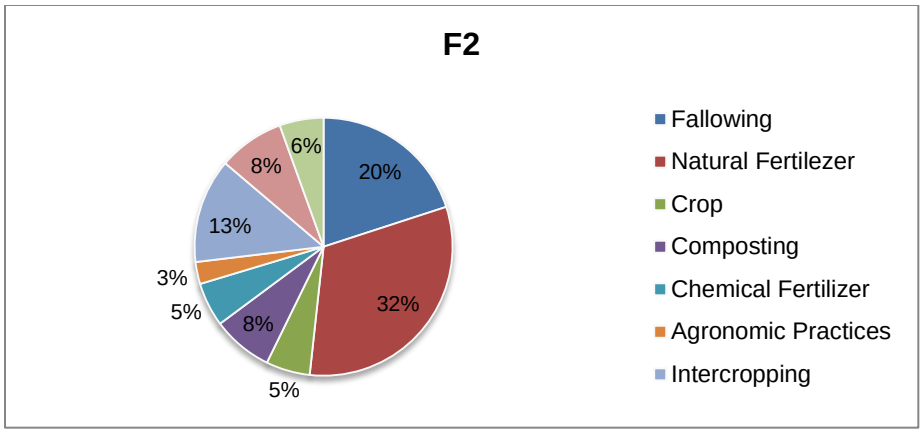
Figure 1. Income Earners over the Last 12 Months



F2. Which soil and water conservation measures do you apply?
This question is designed to test the knowledge of respondents about natural resource management. Table 9 shows respondents application and knowledge of the above question. Table 9 below shows that respondents apply natural fertilizer with 32%, fallowing 20%, intercropping 15%. Other respondents apply other measures ranging from 3-10%.

Table 9: Responses on soil and water conservation measures applied.

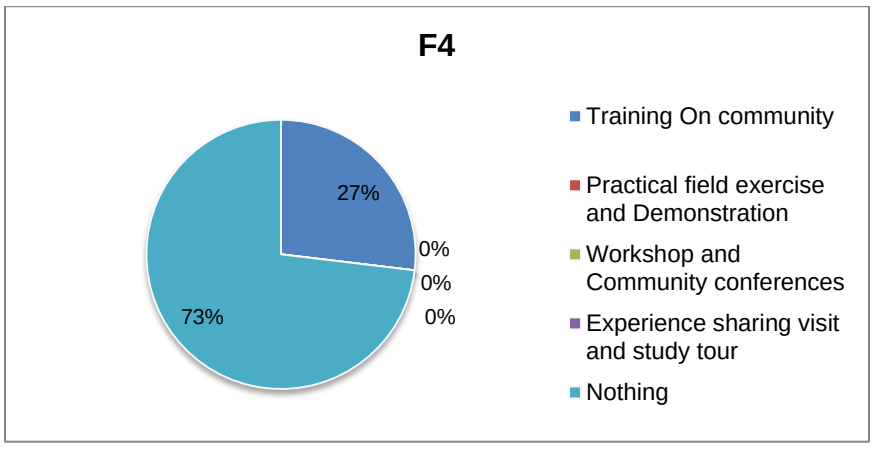
F2	Percentage
a. Fallowing	20%
b. Natural fertilizer	32%
c. Crop rotation	6%
d. Composting	7%
e. Chemical	5%
f. Agronomic Practices	3%
g. Intercropping	15%
h. Nothing	10%
i. Other Specify	7%



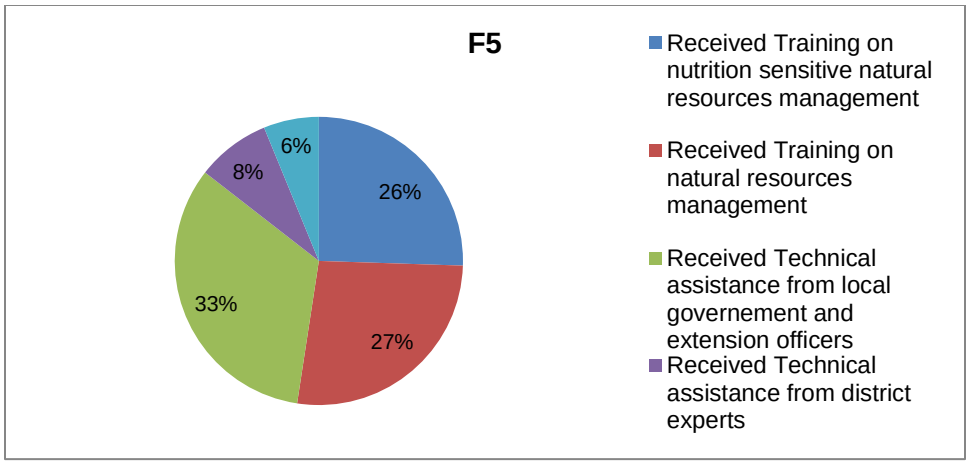
F4. Which natural resources management training did you receive?
Majority of the respondents (73%) have not received any practical training on community based natural resources management while 27% have benefitted from relevant training as indicated in Table 10.

Table 10: Responses on natural resources management training received.

F4. Which natural resources management training did you receive?	Percentage	Number
a. Training on Community based natural resources Management	27%	40
b. Practical field Exercise and demonstration	0%	0
c. Workshop and community conferences	0%	0
d. Experience sharing visit and study tour	0%	0
e. No training	73%	105



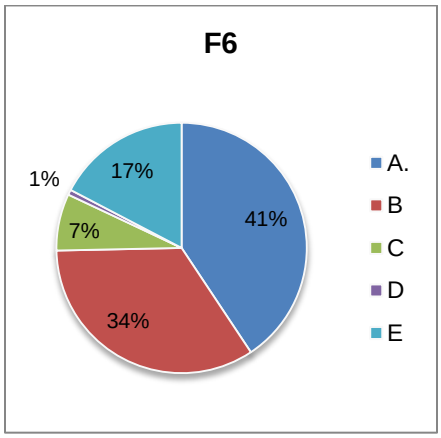
F5. Which natural resources management knowledge and skills do you have in this community?
On natural resources knowledge and skill present in the community respondents indicated their knowledge and skills as shown on Figure 2.



F6. What kind of support do you need for implementations of natural resources management technologies.

Table 11: Responses on support needed for implementations of natural resources management technologies.

What Kind Of Support Do You Need For Implementations Of Natural Resources Management Technologies?			
		Percentage	
a. Agricultural Extension Services	61	41%	
b. Soil and Water Conservation Expertise	51	34%	
c. Community watershed planning support	11	7%	
d. Other	1	1%	
e. Empty	26	17%	
TOTAL	**145**	100%	



GA. Which benefits would natural resources management bring to your community?

NEGLIGIBLE 0-5%
LITLE 5-20%
MEDIUM 20-50%
HIGH >50%
(EMPTY)

Table 12 ranks respondents opinion on the benefit of natural resources management for their community.

Table 12. Responses on benefits that natural resources management would bring to communities

Which Benefits Would Natural Resources Management Bring To Your Community? **Ga**							
		NEGLIGIBLE 0-5%	LITTLE 5-20%	MEDIUM 20-50%	HIGH >50%	NO ANSWER	TOTAL
I.	Improved knowledge on natural resources management	10	20	38	43		145
II.	Increase crop yield/production	6	22	51	40		145
III.	Increase livestock fodder production	4	19	58	31		145
IV.	Increase livestock fodder quality and quantity	5	16	66	30		145
V.	Increase animal production	4	33	54	11		145
VI.	Increase wood and biomass production	12	35	36	14		145
VII.	Reduced risk of crop production failure	8	23	36	10		145
VIII.	Improve access to drinking water	4	17	50	37		145
IX.	Increase availability of water livestock	4	21	42	38		145
X.	Increase access to irrigation water and availability	7	33	41	0		145
XI.	Reduced expenses on agriculture inputs	14	40	32	16		145
XII.	Increase income generating activities of farms	12	28	41	23		145
XIII.	Diversified householder income sources	14	32	32	21		145
XIV.	Increased production area	17	32	39	0		145
XV.	Increase production diversification and intensification	20	38	23	18		145
XVI.	Improved household food security and self-sufficiency	11	28	0	27		145
XVII.	Reduced dependency of households on external support	20	0	30	23		145
XVIII.	Improved household health and balanced diet	11	10	51	29		145
XIX.	Other	1	1	1	3		145j

GB. Which environmental benefits would natural resource management bring to your community?

The following table ranks respondents' opinion on the environmental benefits of natural resources management for their community.

Table 13. Responses on environmental benefits of natural resources management to communities.

Which Environmental Benefits Would Natural Resource Management Bring To Your Community? **GB**						
	NEGLIGIBLE 0-5%	LITLE 5-20%	MEDIUM 20-50%	HIGH >50%	NO ANSWER	TOTAL

I.	Increase water quantity and quality	9	16	46	54		145
II.	Improved runoff water harvesting	4	27	51	0		145
III.	Increase soil moisture holding capacity	2	23	45	32		145
IV.	Reduce surface runoff	6	26	45	19		145
V.	Reduce damage on farm lands, public and private infrastructures	10	0	40	30		145
VI.	Reduce downstream sedimentation and flood damage problems	12	39	32	0		145
VII.	Increase stream flow in dry season	15	34	32	16		145
VIII.	Improved recharging	21	28	20	24		145
IX.	Increase water availability	13	37	27	27		145
X.	Reduced hazard towards adverse events of drought flood, etc.	14	36	36	13		145
XI.	Improved soil cover	12	42	33	28		145
XII.	Increase soil organic matter	10	32	34	18		145
XIII.	Reduced emission of carbon and green house gas emission	31	27	23	11		145
XIV.	Reduced land degradation and loss of fertile soil	9	25	36	45		145
XV.	Other benefits	2	0	3	2		145

Community Based Participatory Planning in 5 communities

In the remaining 5 (out of 21) community councils, WFP conducted Community Based Participatory Planning exercises in January 2018, which covered the same holistic areas as were covered during the AF consultations. In these 5 communities, Community Action Plans (CAPs) outlining the challenges, risks and priority interventions were established. Thus, the AF design team did not duplicate the exercise in June 2018. Key points raised during the CBPP process are summarized below.

The community based participatory planning approach (CBPP) was undertaken 5 project sites: Ntjepeleng ED, Mashapha ED, Lithakaling ED, Mohakoana ED, and Ha Potso ED. Each CBPP covers an Electoral Division (ED) composed of several villages (5 to 14 in this case) with total population ranging from 400 to 2000. The average attendance was 35 community representatives, with representation of all socio-economic groups, including orphans, children, herders, elderly, widows, both employed and unemployed youth, people with disability, community based associations, students, youth, famers (crops and livestock), lactating/pregnant mothers, teachers, entrepreneurs, home based nurses, traditional healers, local leaders, Village Police and Disaster management committee, with an average participation of 60% women and 40% men.

The ultimate product of each CBPP is the Community Action Plan (CAP) which outlines the community

vision and planned activities/interventions in a 3 to 5 years period in efforts to address the root causes of food security and development challenges.

Main Outcomes:

Livelihoods are mostly centred on crop and animal farming in all the consulted villages. The villagers grow mainly maize. Other livelihood options often include production and sale of vegetables, sale of livestock, casual labour and sale of firewood. Remittances from relatives in South Africa are also an important part of family incomes.

Most of the households in the represented villages did not improve nor worsen their wellbeing in the past few years. In two of the CBPPs, however, the number of HH that are worse off is greater than those which remained the same and of those who improved. In none of the cases there was a majority of HH better off than a few years before. Coping strategies for difficult times include recurring to short-term and/or casual labour, petty trade, and selling productive livestock.

The main needs identified by the community representatives through CBPPs are quite similar from one ED to the other, with slight variations on the prioritization of these needs. These include: improvement of infrastructure (roads, water supply systems), better management of water (through water harvesting, better irrigation structures), resilient agricultural techniques, rangeland management, improved health and sanitation, and better access to education. Concrete adaptation measures identified and prioritized that could be implemented through the FFA modality in this project include: vegetable production, community gardens, conservation farming, mulching, composting, drought-tolerant crops, runoff water catchment, water harvesting, grazing associations, seedlings nurseries, catchment and wetland protection.

The CBPP is done in partnership with governmental structures and goes beyond a WFP programming exercise. The needs identified and prioritized by the communities and the Community Action Plans developed are then endorsed by the communities and serve as basis for government and development partners programming and planning. Needs identified that cannot be addressed by WFP – through this project or other WFP programmes – are then handed over to other partners (governmental or non governmental).

Annex 7 Environmental and social management and monitoring plan

The ESMP designed for this project will track identified risks, or any new risks, ensuring they are properly monitored, evaluated, and reported upon. The proposed project will fully comply with national laws, the Adaptation Fund's Environmental and Social Policy and WFP's environmental and social standards.

According to the Adaptation Fund's Environmental and Social policy this project has been screened for its potential environmental and social impacts. The risk screening and assessment carried out is in compliance with the 15 social and environmental principles of the AF as described in Table 5, section K. The checklist used to screen the project and assess potential environmental and social impacts is presented below. It is based on WFP's screening tool, with the screening questions adapted and rearranged in order to be fully aligned with environmental and social principles of the AF.

Activities under Component 1 include studies, institutional capacity development and co-development of tailored climate information for communities. These activities have no environmental impact. The participatory approach adopted for delivering climate services will ensure that specific needs of women, youth, elderly and vulnerable groups are taken into account when tailoring and disseminating climate information.

Activities under Component 2 include the development and implementation of an awareness raising strategy, which have no environmental impacts. An inclusive, gender-transformative, culturally sensitive approach to climate change awareness raising will be designed to ensure active engagement of men and women; boys and girls; children; youth; vulnerable groups; government authorities; private sector, media, academia, CSOs, and NGOs.

Most of the field activities that will be implemented under component 3 will be defined at project inception through community-based participatory planning approaches. A menu of options has been pre-identified in consultation with communities. This set of options has been pre-screened during design phase (see screening checklist filled-in below) and activities are expected to be categorized low to moderate risk. Specific community adaptation plans will be screened before their approval to assess the actual risk category of each activity, taking into consideration the location and the social and environmental context. Should a moderate or high risk be identified, the project will take adequate measures to address and mitigate the risk.

Risk screening and assessment results – Project level

Summary of Screening and Attestation

<table>
<tr><td colspan="6">Name and location of activity: Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho. Field activities will be implemented in the three southern districts of Mafeteng, Mohale's Hoek and Quthing.</td></tr>
<tr><td colspan="6">Responsible WFP unit: Country Office Lesotho</td></tr>
<tr><td colspan="6">Implementing partner(s): Ministry of Energy and Meteorology; Ministry of Forestry, Range and Soil Conservation</td></tr>
<tr><td colspan="6">Expected timing & duration of activity: 2019 – 2023, 4 years</td></tr>
<tr><td colspan="6">Brief summary and main elements of the activity:

The project aims to increase the knowledge and technical capacity at national and district levels to forecast, plan, and anticipate responses to climate change impacts, strengthen access to tailored climate information by vulnerable communities to improve decision making for food security and livelihoods, raise awareness of climate change impact on food security amongst vulnerable communities and youth and increase the adaptive capacity of communities and households to respond to droughts and water-related hazards, through the development of community nutrition-sensitive productive assets and other livelihood resources and the establishment of market linkages for sustained income generation activities.</td></tr>
<tr><td>Result of screening:
Category A / High degree of concern</td><td></td><td>Category B / Medium degree of concern</td><td>X</td><td>Category C / Low degree of concern</td><td></td></tr>
<tr><td colspan="6">I hereby attest that the screening has been carried out by a person or persons with suitable knowledge and experience, who has/have given undertakings that the work has been done diligently, objectively, and without known biases. The assessment is to the best of our knowledge complete and reflects a professional, evidence- and context-based assessment. Where in doubt, specialist advice and supplementary expertise has been sought.</td></tr>
<tr><td colspan="3">Name, position and signature of WFP personnel signing this attestation:</td><td colspan="3">Chiara Pili, Programme Officer, WFP Climate and Disaster Risk Reduction Programmes (OSZIR)</td></tr>
<tr><td colspan="3">Names, affiliation, and positions of personnel who did the screening for environmental issues:</td><td colspan="3">Chiara Pili, Programme Officer, WFP OSZIR
Nkopo Matsepe, Programme Associate, WFP Lesotho</td></tr>
</table>

	Dr. Esenjor Fidelis, Environmental Management and Safeguards specialist
Names, affiliation, and positions of personnel who did the screening for social issues:	Chiara Pili, Programme Officer, WFP OSZIR Nkopo Matsepe, Programme Associate, WFP Lesotho Dr. Esenjor Fidelis, Environmental Management and Safeguards specialist
Screening was done as team/group work (Yes/No)	Yes
Was additional specialist advice/support used? (Yes/No) If yes, indicate name, affiliation and specialisation.	Yes, Dr Esenjor Fidelis, Environmental Management and Safeguards specialist
Was advice sought from HQ E&S Safeguards Team? (Yes/No)	Yes
Did screening lead to changes in activity design? (Yes/No) If yes, please briefly describe how.	No

Please write any observations, uncertainties or other factors of importance here. Positive co-benefits of the activity can also be described here.
If the activity is categorised of Low Concern/Cat. C, please provide a short description explaining why.

The screening was conducted at project proposal stage and based on information available at this time. Concrete assets to be created and their exact location will be defined during PY 1 in a participatory manner through the CBPP process. Once more detailed activities will be selected, a similar screening will be repeated at activity/asset level. Based on the menu of option pre-identified, and considering that all assets will be small scale and developed by the communities, the project is categorized as category B. Should the screening process at activity/asset level identify a high risk, and ESIA will be carried out for that particular activity. Adequate resources have been set aside for this purpose in the project budget.

Screening Questionnaire

This screening tool consists of a list of around 20 general level 1 questions (indicated with two digits, e.g. 3.1) and around 60 detailed level 2 questions (indicated with three digits, e.g. 3.1.1), corresponding to the 15 principles of the Adaptation Fund Environmental and Social Policy.
The level 1 questions need to be answered first and they need to be answered ALL. If a level 1 question is answered with a 'yes', it leads to more detailed questions of level 2. All level 2 questions under a level 1 question that triggered a 'yes' need to be answered. If a level 1 question is answered with a 'no', then the corresponding level 2 questions do not need to be answered.
Answers to the detailed Level 2 questions result in one of three degrees of concern. If any Level 2 question is answered with a 'yes', the indicated degree of concern will determine the degree of concern for the whole activity. This means that if a single question indicates a high degree of concern, the activity is classified as an activity of high concern and appropriate measures must be taken. If no question is answered with a high degree of concern, but at least one medium-level concern is raised, then the activity is a medium concern activity. If no Level 1 or Level 2 questions are answered with a 'yes', then the activity is of low concern and no further action is required.
It is possible that a level 1 question is answered with a 'yes' and all associated level 2 questions are answered 'no' as they are more detailed and specific questions of the same issue. If all the level 2 questions are answered 'no', then this area will be of low concern, even if the level 1 questions was answered with a 'yes'. If a potential impact is not covered by any of the L1 or L2 questions, it can be added in the empty box at the end of each of the sections.

1. Compliance with the law				
1.1 Is there a risk that the activity would not comply with an applicable domestic or international law?			No	The proposed project abides by relevant national guidelines and regulations such as Environment Act 2008, Range Management Act 1993 and 2013, Water Act 2008, Food Security Act 2014, Forestry Act 2013, National Gender Policy 2015, Lesotho National Youth Policy 2017-2030.
	1.1.1 Is there a risk that the activity would not comply with an applicable international law?	High		
	1.1.2 Is there a risk that the activity would not comply with an applicable national or local law?	High		

2. Access and Equity

2.1 Could the activity lead to changes in local tenure arrangements for existing resources or resources created by the activity?			No	
	2.1.1 Could the activity lead to changes in tenure arrangements that potentially could put groups or individuals at a disadvantage or could lead to disagreements and conflicts?	High		
2.2 Could the activity create or exacerbate intra- or inter-community conflicts?			Yes	
	2.2.1 Could activities lead to opening up of existing or creating new minor conflicts or disagreements within or between groupings or communities?	Medium	Yes	Communities expressed the fear that farmers groups may disagree on issues related to levels of participation, assets contribution and benefits sharing.
	2.2.2 Could activities lead to opening up of existing or creating new conflicts or disagreements within or between groupings or communities which potentially could become entrenched, violent, or spread to additional groups or communities?	High	No	
	2.2.3 Could the activity bring unequal economic benefits to a limited subset of the target group?	Medium	Yes	Income generating activities such as fish farming and high-value tree planting could generate new employment for a limited subset of the target group.
	2.2.4 Could the activity lead to increased un-employment that would not be absorbed by other sectors or activities?	Medium	No	
2.3 Could the target beneficiaries or stakeholders be dissatisfied due to limited consultation during activity design or implementation (including due to inadequate Complaints and Feedback Mechanisms)?			No	An independent complaint and feedback mechanism will serve the project and project beneficiaries and other stakeholders. Information on the mechanism will be widely disseminated so that stakeholder can easily access.
	2.3.1 Could the activity lead to dissatisfaction or negative impacts due to lack of beneficiary or other stakeholder participation in planning, design, implementation, or general decision making?	Medium		
	2.3.2 Is there a risk that not all relevant stakeholders, and especially marginalised or vulnerable groups, have been identified and consulted or that they have been exposed to internal or external pressure or coercion or not able to comprehend the consultations?	Medium		

	2.3.3 Could there be negative impacts due to an inadequate Complaints and Feedback Mechanism during project implementation?	Medium		

3. Marginalized and Vulnerable Groups				
3.1 Could the activity imposing disproportionate adverse impacts on marginalized and vulnerable groups?			No	Vulnerable women, youth, the disabled, the elderly, herders, and people living with HIV/AIDS were consulted to ensure that their identified threats, challenges and priorities are reflected in project design.
	3.1.1 Is there a likelihood that the activity would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?	Medium		
	3.1.2 Could the activity potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	High		
	3.1.3 Could the activity aggravate the situation of vulnerable, marginalised, or otherwise disadvantaged individuals or groups?	High		
3.2 Could the activity lead to influx of a temporary or permanent alien workforce?			No	
	3.2.1 Could the activity lead to influx of a temporary or permanent alien workforce of relatively small size in a relatively isolated or culturally sensitive community?	Medium		
	3.2.2 Could the activity lead to influx of a relatively large temporary or permanent major alien workforce (>10% of existing community) or a smaller group which could be expected to have important cultural, health, or socio-economic impact on a local community?	High		

4. Human Rights				
4.1. Could the activity fail to respect human rights?			No	This project affirms the rights of all people and does not violate any pillar of human rights.
	4.1.1 Could the activity lead to violation of fundamental human rights as defined by international, national or local law?	High		

	4.1.2 Could the activity of partners, contractors, or suppliers, lead to violation of fundamental human rights as defined by international, national or local law?	High		

5. Gender Equality and Women's Empowerment				
5.1 Could the activity lead to gender-based inequality, discrimination, exclusion, unwanted workload, or violence?			Yes	
	5.1.1 Could the activity lead to gender-based violence?	High	No	
	5.1.2 Could the activity create or amplify conditions for gender-based inequalities?	Medium	Yes	Gender inequality issues are widespread in the country, – for example women lack powers to lease farmlands in Lesotho. Unequal participation of women and men in the project could lead to an exacerbation of existing gender inequalities in the community, in particular unequal access to income-generating activities.
	5.1.3 Could the activity lead to gender inequities in who makes decisions?	Medium	Yes	Under customary law, women in Lesotho are considered to be minors who are responsible primarily to their fathers, close male relatives and even at times their own sons and brothers. This minority status has often prejudiced women with respect to decision-making and ownership of property. Women are thus more likely to be poor, unemployed, face gender-based violence, and have high prevalence of HIV than their male counterparts across the country.
	5.1.4 Could the activity lead to increased unpaid work for women and girls?	Medium	No	

6. Core Labour Rights				
6.1 Could the activity fail to respect core labour rights?			No	
	6.1.1 Does the activity involve support for employment or livelihoods that may fail to comply with national and international labour standards (i.e. principles and standards of ILO fundamental conventions)?	High		
	6.1.2 Could the activity, or that of partners, contractors, or suppliers, involve use of child (<14y) or forced labour?	High		

7. Indigenous Peoples			
7.1 Does the activity involve indigenous peoples or could it affect indigenous peoples?		No	There are no recognized indigenous people in Lesotho.

				The consultative process for this proposal involved traditional doctors and healers, youth from initiation/circumcision schools, traditional and religious leaders, elders and youth of various communities.
	7.1.1 Could the activity negatively affect indigenous peoples, culturally or otherwise, without their specific Free, Prior, Informed, Consent (FPIC)?	High		

8. Involuntary Resettlement				
8.1. Could the activity lead to resettlement?			No	The project will not lead to involuntary resettlement.
	8.1.1 Could the activity lead to involuntary economic or physical resettlement of households or individuals?	High		

9. Protection of Natural Habitats				
9.1 Could the activity lead to negative impacts on natural habitats?			No	Sustainable agriculture practices will be promoted in agriculture land, avoiding major impacts on natural habitats. The promotion of fuel-efficient stoves will reduce pressure on forests.
	9.1.1 Could there be negative impacts on critical migration corridors of endangered or otherwise or important animal or insect species?	High		
	9.1.2 Could the activity lead to increase in unregulated or unlicensed collecting, hunting, or fishing?	Medium		
	9.1.3 Could a natural habitat be significantly degraded, fragmented, or more than half of extent destroyed?	Medium		
	9.1.4 Could a natural habitat be almost fully destroyed or degraded so that it no longer could function as natural habitat for the original fauna/flora?	High		
9.2 Could the activity lead to negative impacts in protected or internationally recognised areas?			No	The project does not foresee any activity in the proximity of protected or internationally recognized area. Project activities are not expected to lead to negative impacts to habitats.
	9.2.1 Will any major constructions be located close (<200m) to critical habitats, protected areas, or areas of particular or locally recognised ecological significance?	Medium		
	9.2.2 Could the activity lead to negative impacts on protected or internationally recognised areas?	High		

10. Conservation of Biological Diversity				
10.1 Could the activity lead to negative impacts on biodiversity or endangered species?			Yes	Sustainable agriculture practices will be promoted in agriculture land, avoiding major impacts on biodiversity. The promotion of fuel-efficient stoves will reduce pressure on forests. Yet some of the activities may have some impacts on the ecosystems if species are not selected correctly. More information below.
	10.1.1 Could the activity lead to degradation of biodiversity or significant reduction in one or more common animal, insect, or plant species?	Medium	No	
	10.1.2 Could the activity lead to loss (eradication or removal from local area) of one or more animal, insect, or plant species?	High	No	
	10.1.3 Could there be negative impact on any endangered or critically endangered animal, insect, or plant species?	High	No	
	10.1.4 Could the activity lead to introduction of invasive alien varieties or species which could influence local genetic resources?	Medium	Yes	The project will promote vegetative fencing, agroforestry with high value trees, fodder species to increase soil fertility, reforestation and afforestation. The project may also promote fish farming in micro ponds. This could lead to ecological impact if invasive or non-native species are selected for these activities.
	10.1.5 Could the activity lead to introduction of invasive alien varieties or species which potentially could eradicate, change, or significantly reduce local naturally occurring varieties or species?	High	No	
	10.1.6 Could the activity introduce genetically altered organisms?	Medium	No	

11. Climate Change				
11.1 Could the activity lead to increased exposure, increased vulnerability, or reduced resilience of beneficiaries to the effects of climate change?			No	All project components and activities contribute to increasing local capacities to sustainably face climate change in the long-term and climate variability in the short and medium terms
	11.1.1 Could the activities result in increased exposure to climate induced hazards?	High		
	11.1.2 Could the activity result in beneficiaries being more vulnerable to climate-related stresses?	High		

	11.1.3 Could the activity lead to beneficiaries having less means or options to withstand shocks resulting from extreme weather events (floods, storms, drought)?	High		
11.2 Could the activity lead to increases in greenhouse gas (GHG) emissions or to reduction of carbon sinks?			No	The project will not generate any significant emissions of greenhouse gases.
	11.2.1 Could the activity lead to significant increases in GHG emissions during operation phase?	Medium		
	11.2.2 Could the activity lead to significant degradation or destruction of elements which absorbs and stores carbon from the atmosphere (trees, plants, soils)?	Medium		

12. Pollution Prevention and Resource Efficiency				
12.1 Could the activity lead to significantly increased release of pollution to air, land, or water during construction or operation?			No	
	12.1.1 Could the activity lead to a dangerous increase in release of pollutants (incl. noise) to air, land, or water during construction or as result of accidents?	Medium		
	12.1.2 Could the activity lead to a dangerous increase in release of pollutants (incl. noise) to air, land, or water during normal operation?	Medium		
	12.1.3 Will the activity lead to any open burning of plastic waste during construction or operation?	Medium		
	12.1.4 Could the activity lead to significant negative impacts on visual aesthetic values?	Medium		
	12.1.5 Could the activity lead to discharge of untreated wastewater to the environment?	High		
12.2 Could the activity lead to procurement, transport, or use of chemicals, hazardous materials, or ozone depleting substances subject to international bans?			No	
	12.2.1 Could the activity lead to procurement, transport, or use of chemicals or other hazardous materials, including asbestos and ozone depleting gases which will not be handled and disposed of safely by following normal Standard Operating Procedures?	Medium		

	12.2.2 Could the activity lead to procurement, transport, or use of chemicals or other hazardous materials subject to international bans?	High		
12.3 Could the activity lead to increased use of agro-chemicals?			No	The project will promote IPM and the reduction of use of fertilizer, therefore the use of agro-chemicals in project intervention areas is expected to decrease
	12.3.1 Could the activity lead to use of agro-chemicals that potentially could be replaced or reduced by alternative environmentally friendly products or techniques?	Medium		
	12.3.2 Could the activity lead to use of pesticides or other chemicals, which could have an unintended effect on non-target species and environment?	Medium		
	12.3.3 Could the activity lead to use of WHO class 1a, 1b, or Class II pesticides without proper application of the International Code of Conduct on Pesticide Management?	High		
	12.3.4 Could the activity lead to use of pesticides, herbicides or other chemicals or materials containing or polluted by Persistent Organic Pollutants (POP's) as listed by the Stockholm Convention?	High		
12.4 Could the activity lead to very high resource use (such as fuel or water) during operation?			No	Not to a significant use of water, but communities have expressed concern about the wasteful use of water of some of their members, which is also a risk to be addressed.
	12.4.1 Could the activity lead to more than 100,000 litres per year of diesel, in vehicles and/or generators?	Medium		
	12.4.2 Could the activity lead to major use of water from unsustainable sources (bottled and transported, gradual depletion of ground- or surface-water, change of local waterways etc.)?	Medium		
12.5 Could the activity lead to generation or transport of hazardous or non-hazardous waste which could have negative environmental impacts?			No	
	12.5.1 Could the activity lead to significant increase in generation of waste that will not be disposed of in an environmentally friendly manner (recycled, re-used, or recovered) by WFP, beneficiaries, or third parties?	Medium		

	12.5.2 Could the activity lead to generation of hazardous waste which will not be handled and disposed of safely by following normal Standard Operating Procedures?	Medium		

13. Public Health				
13.1 Could the activity lead to increased risk to community health and safety from use of equipment, materials, transportation, or natural hazards?			No	Normally the fish ponds for fish farming or other ponds could facilitate vector growth like mosquitoes. However, there is no transmission of malaria and other vector-borne diseases in Lesotho. Should fish ponds be one of the selected assets through the CBPP, and ESIA will be performed and this risk will be further assessed.
	13.1.1 Could activities during construction or operation phase lead to increased community risks from e.g. increased traffic, inappropriate design or use of equipment and materials which would not be handled by following normal Standard Operating Procedures?	Medium		
	13.1.2 Could the activity cause community exposure to water-born, water-based, water-related, vector-born or communicable diseases?	Medium		

14. Physical and Cultural Heritage				
14.1 Could the activity negatively affect heritage?			No	
	14.1.1 Could the activity negatively impact any form of physical or cultural heritage?	Medium		

15. Land and Soil Conservation				
15.1 Could the activity lead to negative impacts on soils, groundwater, water bodies, water ways, coastal areas, or the sea			Yes	
	15.1.1 Could there be significant impacts on quality or quantity of surface- or ground-water?	Medium	Yes	During stakeholder consultations, communities identified small-scale fish farming as a potential activity they would like to conduct. This will require building small fish ponds (approximately 10mX10m, with a depth of 3m), which should have limited environmental and social impacts. The selection of the areas and beneficiaries will be aligned to the community-based participatory planning approach resulting in

				integrated community action plans outlining priority needs and interventions at community level. Depending on the exact location of this activity, some risks remain and should be adequately assessed. Potential risks are related to the quantity of water that will be diverted from rivers to service the fish ponds and possible impacts of the discharged water on water quality. Also, the project will promote community water development for small scale irrigation and domestic use, including water harvesting, family drip irrigation systems and micro ponds, which if not implemented correctly may lead to unsustainable water use, and surface- and groundwater pollution by chemicals.
	15.1.2 Could the activity lead to major changes in flow regimes of local waterways, conditions of water bodies, or coastal areas?	High	No	
	15.1.3 Could the activity lead to increased soil erosion, run-off, or significant changes to soil characteristics?	Medium	Yes	The project foresees interventions aimed to restore and rehabilitate degraded land, which might include the construction of hillside terraces, stone bunds, diversion weirs, gully reclamation, rangeland rehabilitation, brush control and reseeding, afforestation, footpaths, infiltration dishes, eyebrow basins, gully reshaping. If not implemented correctly, some of these measures can create temporary waterlogging on less permeable soils. Hillside terraces can be overtopped if the water on the bench is not properly managed. Soil and slope stability should be adequately addressed for measures affecting the soil structure such as terracing and soil bunds. Furthermore, lack of maintenance causes structures to collapse, with subsequent increases in run-off, soil erosion and flooding.
	15.1.4 Could the activity lead to serious soil erosion (e.g. major gullies, sheet erosion etc.) or major detriments to soil quality over a large or locally important area?	High	No	
15.2 Could the activity lead to negative impacts on forests, wetlands, farming or grazing land, or other landscape elements of ecological or economic importance?			No	Based on the existing Land Cover Atlas, the project will identify and rehabilitate key wetlands in the 3 southern districts. For rangeland rehabilitation and reforestation activities, the project will promote the use of indigenous trees, plants and grasses. The project will also provide fuel-efficient stoves and associated training, which are expected to decrease pressure on forests.

	15.2.1 Could the activity lead to degradation or fragmentation of local forest areas, wetlands, prime farming or grazing land, or other landscape elements of ecological or economic importance?	Medium		
	15.2.2 Could forests, wetlands, prime farming or grazing land, or other landscape elements of ecological or economic importance be almost fully destroyed or degraded or heavily fragmented?	High		
	15.2.3 Could the activity lead to significant increase in consumption of locally sourced fuel-wood?	Medium		

Risk mitigation measures for general risks identified and related monitoring arrangements

AF ESP principle	Risk identified	Possible impact	Level of Risk	Mitigation measures	Responsible	Monitoring arrangements and/or indicators
Compliance with the Law	No risks identified	NA	NA	NA	NA	NA
Access and Equity	Potentially unequal participation of members. Income generating activities could generate new employment for a limited subset of the target group	Community members could have unequal access to the assets and their benefits would be unequally distributed.	Low to moderate	The participation of representatives of the disabled, the elderly, women, youth, community leaders and planners in consultative process and in the upcoming CBPP processes will ensure fair and equitable access to benefits in a manner that is inclusive and does not deny access of community members to other services such as clean water and sanitation; and energy and education as well as decent working conditions. Specifically, the following mitigation measures will be put in place: - Assist communities set up mechanisms to ensure equal participation of and benefits for group	Gender specialist (WFP) and field project officers Environmental and social management specialist	Additional focus groups discussions and household surveys will be organized during project implementation to assess effective equal participation and benefits of members

				members, vulnerable households, men and women, youth and elders in the project. - Support the development of by-laws to norm the use of assets, ensure their sustainability, and take into consideration the needs of all groups. - All community members will be trained on how to use the project Grievance mechanism and encouraged to activate it when necessary		
	Potential disputes amongst farmers groups	Farmers groups may disagree on issues related to levels of participation, assets contribution and benefits sharing. This may lead to opening up of existing or creating new minor conflicts or disagreements within or between groupings or communities		Through the CBPP process, the project will ensure that needs and priorities of different groups in the communities are taken into account. During CBPP, where all socio-economic groups are represented, communities discuss and agree on implementation and use modalities of the assets to be created, such as selection of the project beneficiaries, users' groups, maintenance groups, working schedules, etc. Reconciliation and conflict resolution committees will be set up at Community Council level and trained. Meetings with conflict resolution committees will be organized quarterly for the first two years and thereafter, every six months to ensure that conflicts are resolved without difficulties.		

				Conflict resolution guidelines will be developed at project inception, in consultation with traditional chiefs, local government, religious leaders.		
Marginalized and Vulnerable Groups	No risks identified	NA	NA	NA	NA	NA
Human Rights	No risks identified	NA	NA	NA	NA	NA
Gender Equity and Women's Empowerment	Potential gender inequality in project participation	Women form about 51% of Lesotho population and more women reside in rural communities. Gender inequality issues are widespread in the country – for example women lack powers to lease farmlands in Lesotho. Unequal participation of women and men in the project could lead to an exacerbation of existing gender inequalities in the community, in particular unequal access to income-generating activities.	Low	The consultative process was carried out with the participation of WFP and WILSA gender experts to ensure that consultations were responsive to various gender needs and roles such that project activities effectively respond to the unique needs of women and girls, men and boys, and promote equal opportunities to participate, and receive comparable social and economic benefits. Project activities have been designed to be gender sensitive and to empower women. In addition, the project will implement the following mitigation measures: - All project staff will be trained on gender-sensitive approaches. - Incorporate gender sensitive approaches into all trainings, workshops and awareness raising activities. - Mechanisms for selection of beneficiaries will be gender-sensitive in order to ensure equal participation of	Gender specialist (WFP) and field project officers Environmental and social management specialist M&E officer	Additional focus group discussion and household surveys will be organized during project implementation to assess effective equal participation of members Gender disaggregated and gender specific targets will be monitored: % of targeted community members (M/F/MY/FY) receiving key messages on climate change adaptation, food security and nutrition # people reached through inter-personal SBCC

				men and women taking into consideration different needs. - Activities under component 3 have been designed to specifically address women needs. - A socioeconomic and gender specialist will accompany communities in the development, implementation and monitoring of the plans developed through the CBPP process.		approaches (sex- and age-disaggregated) # of target HHs (M/F headed) with natural and physical livelihood assets created and improved # fuel-efficient stoves provided, with training on their use # women supported through HH gardening to increase their income levels # women supported to diversify livelihoods through cottage industries that produce handicrafts, and sewing groups
Core Labour Rights	No risks identified	NA	NA	NA	NA	NA
Indigenous Peoples	No risks identified	NA	NA	NA	NA	NA
Involuntary Resettlement	No risks identified	NA	NA	NA	NA	NA
Protection of Natural Habitats	No risks identified	NA	NA	NA	NA	NA
Conservation of biological diversity	Possible degradation of biodiversity	The project will promote vegetative fencing, agroforestry with high value trees, fodder species to increase soil fertility,	Low to Moderate	As discussed, these risks will be assessed again for each specific asset location. Mitigation measures may include:	Whenever the screening of assets triggers a moderate or high risk, field officers, in coordination with	Vegetation index in low-lying southern districts (as a proxy for enhanced ecosystem

		reforestation and afforestation. The project may also promote fish farming in micro ponds. This could lead to ecological impact if invasive or non-native species are selected for these activities.		- Adopt closure natural regeneration techniques when feasible. - Promote multi-purpose systems and fast-growing endemic, culturally significant and/or locally adapted species. - Choose species and systems in accordance with the characteristics of soils, climate, and natural ecosystems. - Encourage endemic species and avoid exotic species.	the environmental and social management specialist, will be responsible to identify the most appropriate mitigation measures and ensure that they are included in the community plans. Monitoring of the implementation of mitigation measures will be carried out by the M&E officer, in coordination with the field officers and the environmental and social management specialist	resilience to climate change) Depending on the specificities of each asset and location, the following parameters should be monitored:
Climate Change	No risks identified	NA	NA	NA	NA	NA
Pollution Prevention and Resource Efficiency	Potentially unsustainable use of water	Communities expressed concern about the wasteful use of water of some of their members, when it comes to irrigation in particular.	Low	Water User Association will be set up at community level so as to be able to control sources of irrigation, quantity and volume of water use on irrigation. Specialized extension personnel will meet farmers and Water User Associations at quarterly intervals for training and to ensure continuous public education on water use for farming.	Field officers will support the set-up of Water User Association and organize meeting with extension officers.	

				Routine check on water sources during project implementation should be enforced by water use authorities.		
Public Health	Possible impacts of asset creation (component 3) on community health	Normally fish ponds for fish farming or other ponds could facilitate vector growth like mosquitoes. However, there is no transmission of malaria and other vector-borne diseases in Lesotho.	Low	As discussed, these risks will be assessed again for each specific asset location. Should fish ponds be prioritized by the communities, an independent ESIA will be carried out – dedicated resources have been set aside in the project budget.	Whenever the screening of assets triggers a moderate or high risk, field officers, in coordination with the environmental and social management specialist, will be responsible to identify the most appropriate mitigation measures and ensure that they are included in the community plans. Monitoring of the implementation of mitigation measures will be carried out by the M&E officer, in coordination with the field officers and the environmental and social management specialist	Depending on the specificities of each asset and location the following parameter should be monitored: Disease occurrence and other public health indicators related to water-borne diseases and infections
Physical and Cultural Heritage	No risks identified	NA	NA	NA	NA	NA
Land and soil conservation	Possible degradation of the quality or	1) Project activities may include the creation of	Low to Moderate	All asset-creation activities under component 3 are small-scale	Whenever the screening of assets	Depending on the specificities of each

	quantity of surface water or groundwater Risk of soil erosion and stability if soil conservation measures are not designed properly	fish ponds. Potential impacts are related to the quantity of water that will be harvested from the rivers to service the fish ponds and possible impacts of the discharged water on water quality. 2) The project will promote community water development for small scale irrigation and domestic use, including family drip irrigation systems and micro ponds, which if not implemented correctly may lead to unsustainable water use, surface- and groundwater pollution by chemicals. 3) If not implemented correctly, implementation of some soil restoration and rehabilitation activities can create temporary waterlogging on less permeable soils. Hillside terraces can be overtopped if the water on the bench is not properly managed.		interventions, carried out by the communities themselves, therefore risks are limited. As per WFP Environmental Policy, E&S risks will be assessed again for each specific asset, as soon as the detailed asset and location is identified (usually at CBPP). Should a medium risk be triggered, specific mitigation measures will be identified and planned for that specific asset. Should a high risk be triggered, and ESIA will be carried out – dedicated resources have been set aside in the project budget – and specific environmental management and monitoring plan (EMMP) with specific mitigation measures will be designed for the activity. Mitigation measures may include: 1) Limit the size of fish ponds; analyse the hydrology and flow and ensure that water diversion from the river to the fish pond does not exceed the relevant norms; ensure detailed E&S assessment are done should a fish pond be planned. 2) Choose measures/activities in accordance with the characteristics of soils, topography, climate, hydrology and groundwater recharge processes; Promote and integrate environmental conservation and restoration measures; Avoid the entry of contaminants into the water source; Ensure that ponds and other water reservoirs are away from farm drainage and sewage lines and that wells are at	triggers a moderate or high risk, field officers, in coordination with the environmental and social management specialist, will be responsible to identify the most appropriate mitigation measures and ensure that they are included in the community plans. Monitoring of the implementation of mitigation measures will be carried out by the M&E officer, in coordination with the field officers and the environmental and social management specialist	asset and location, the following parameters should be monitored: - Overtopping incidence - Maintenance plans - Number of stabilization measures - Water levels in wells or impoundment structures

		Stabilization problems may also arise.		a minimum distance of 30 meters from houses and rivers. 3) Integrate soil and stone bunds with fertility management measures to avoid waterlogging; Integrate terracing activities with trenches to avoid overtopping; For terracing, ensure proper management of the water on the bench; Replant trees/vegetation to improve soil/water retention; Combine soil conservation with improvements in soil quality; Choose measures/ activities in accordance with the characteristics of soils, topography, geology, climate, hydrology and topology; Integrate level soil bunds and terraces with revegetation measures to ensure proper stability (possibly with drought resistant species); Ensure adequate maintenance plans.		

Procedure to screen community-based adaptation plans

Community-based adaptation plans developed under component 3 will be screened – at activity/asset level – through the Environmental and Social Screening Tool presented above to ensure that any potential unwanted impacts of planned activities are anticipated, avoided, reduced, or mitigated. It classifies activities into risk categories, which determine what further action is required. Potential risks, whether social or environmental, will be identified at community level.

Activities will be designed by the communities through participatory community consultations that will include environmental and socioeconomic experts. Activity design will consider the Adaptation Fund's Gender Policy and Environmental and Social Policy, the WFP Gender Policy and Environmental Policy and Environmental and Social Standards and comply with WFP and national protocols and quality standards. Specific design will therefore be determined as the project progresses and will be tailored to the needs of the targeted communities.

Before an activity starts, the environmental specialist will fill in the E&S screening tool presented above including information on the planned activity at community level and information from consultation processes carried out with communities and relevant governments and stakeholders.

As a result of this screening process, any potential impacts the activity could have on the environment or communities will be identified and each activity will be classified as Category A, B or C, which will determine necessary next steps:

Low Degree of Concern (Category C) corresponds to a Category C activity and indicates minimal or no adverse impacts. Small impacts can be readily avoided or mitigated by adhering to WFP's E&S standards. No further E&S Safeguard action is required beyond the application of the guiding principles, stakeholder engagement, and stakeholder access to complaints and grievance processes. A new screening must be undertaken if there are changes in content, scope, or scale of activities. A brief statement of explaining why the activity is considered to be of low degree of concern should be included at the end of the summary form.

Medium degree of concern (Category B) corresponds to a Category B activity and indicates that there is expected to be some reversible impacts of limited magnitude and which can be mitigated. The difference between a Category A and a Category B activity is the greater possibility to prevent or mitigate some or all adverse impacts. If the impacts cannot be avoided by design changes, mitigation measures must be implemented. These measures must be described and planned in an environmental and social management note (ESMN) which often can be prepared either internally or with limited external consultant support. The mitigation measures must be integrated into the activity planning and should be monitored and reported on as part of the normal activity reporting.

High degree of concern (Category A) corresponds to a Category A activity and indicates that that highly significant or irreversible adverse impacts can be expected. If the activity design is not changed to avoid or mitigate those impacts an Environmental and Social Impact Assessment (ESIA) will be required in order to more accurately identify potential impacts and related mitigation and compensation measures. An environmental management and monitoring plan (EMMP) and possibly other plans will also need to be drawn up. The ESIAs are normally carried out by specialized consultants and costs and time required must

be included in activity planning. A typical ESIA can take 3-6 months depending on scale and complexity and national legal requirements.

Once completed, the screening form will be submitted to WFP Country Office and to the Ministry of Environment for verification and approval.

Any identified impacts will be subject to monitoring and follow-up to ensure that planned mitigation measures are implemented and effective. All activities will be monitored following schedules outlined in Section D Part III, and will comply with local, district and national laws, WFP Environmental and Social Standards and the Environmental and Social Policy of the Adaptation Fund. For a High level/Cat. A impact activity that requires an Environmental and Social Impact Assessment (ESIA), the related Environmental and Social Monitoring and Management Plan (ESMMP) must be followed.

WFP Lesotho Grievance mechanism

WFP Lesotho has established an independent complaint and feedback mechanism to allow beneficiaries to convey their complaints and grievances on all WFP interventions. The mechanism is operated by the National University of Lesotho (NUL).

NUL operates dedicated WFP toll free numbers. The system operates using both Vodacom and Econet lines and beneficiaries can call from 8 am to 5 pm or send an SMS at any time. The University receives and analyses feedback and complaints from the beneficiaries, and consolidates them in a weekly report which is transmitted to WFP Country Office management. Each complaint is transmitted to the relevant WFP division, which takes appropriate action. Beneficiaries are then given feedback on how the issues have been addressed. Should the University receive a feedback or complaint that requires urgent action, this is immediately transmitted to WFP.

WFP field offices call center operators and partners will be trained on how to handle, follow-up and process complaints to safeguard beneficiary confidentiality and dignity. Protected files will be created to store electronic data to limit access of unauthorized personnel.

To timely respond on the grievances; a minimal yet multi-sectoral committee with WFP field office included will be established; to review all grievances for documentation, collective feedback to beneficiaries and inclusion of necessary adjustments during implementation. The multi-faced nature will limit any potential biases that may emerge.

Consultations with beneficiaries of several WFP operations showed that the toll-free option is preferred to other mechanisms used, such as suggestion boxes and help desks located at distribution sites, as it is a safe mode to raise concerns on key aspects on WFP activities i.e. targeting, entitlement/transfer value, safety and security. The engagement of an independent partner enhances transparency in the handling of issues. In addition, the mechanism allows to easily detect operational bottlenecks that can be escalated and addressed by relevant units within WFP, thus improving the design, programming and implementation of WFP interventions.

However, to make sure the most appropriate mechanisms are available for each community and group additional options will be set up and made available to the communities, namely suggestion boxes, community help desks and FFA committees.

Information on the functioning of the mechanism will be widely disseminated among beneficiary communities and other communities that may be impacted by project activities. To ensure meaningful participation of beneficiaries especially women, different communication channels will be employed, ranging from public gatherings, focus groups with separate groups of women and men, use of community radios, media and brochures translated in local language to publicize the established complaints and feedback mechanisms. Project visibility materials such as sign boards will indicate the toll free number.

Annex 8 Gender Assessment

Executive summary

The gender assessment for the Lesotho AF proposal 'Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho' has been conducted as a desk study through synthesis of various different documents. This synthesis has been verified and supplemented by information obtained during the community consultations.

Women make up 51.1 percent of the population, with youth (those between 15 to 35 years) comprising nearly 39.6 percent (50.7 percent male and female 49.3 percent) of the total population. The incidence of poverty is persistently higher among female-headed households at approximately 64 percent, which is well above the national average of 58 percent and a male-headed average of 57 percent.

The Kingdom of Lesotho has signed and ratified various international and regional instruments that promote gender equality and has created an enabling policy environment for mainstreaming gender into development in the country. There is however a large gap between policy intentions and actual practice and implementation of the policies, mainly due to traditional roles. Under customary law, women in Lesotho are considered to be minors who are responsible primarily to their fathers, close male relatives and even at times their own sons and brothers. This minority status has often prejudiced women with respect to decision-making and ownership of property. Women are thus more likely to be poor, unemployed, face gender-based violence, and have high prevalence of HIV than their male counterparts across the country. To the extent that women tend to remain in the rural areas, they also tend to suffer more from inadequate access to services such as savings, credit, money transfers, insurance and information. Women consequently tend to borrow only in emergencies and are less likely to seek loans to develop businesses or invest in their farms.

Due to socially constructed roles and responsibilities, women seem to bear the most burdens resulting from climate variability impacts. Women's workloads increased as they attempted to cope with climatic stressors, such as drought and increasing dry spells. During community consultations, women reported that climate change poses more risks in their livelihoods and security as they are compelled to change their behaviors to cope. For instance, women indicated that collection of water and firewood is a traditional role of women and girls and some dry spells always result in water shortages and depletion of shrubs for fuelwood. As a result, women and girls are forced to travel longer distances to fetch water and fuel which exposes them to rape, marriage by abduction and child marriages. Climate change also leads

to an increase of youth migration to urban areas and South Africa for job opportunities, which can lead to an increased risk for girls to be victims of human traffic.

Based on the findings of the assessment, opportunities to increase women's participation in the project's activities and decision-making processes have been identified. These include: (i) inclusion of sex-disaggregated indicators and targets in the project results framework, to monitor participation of women in awareness-raising activities, capacity building, and any management committees; (ii) targeting of gender-differentiated vulnerabilities into project interventions so that groups most vulnerable to climate variability and change receive support; (iii) designing women capacity building and skills enhancement programmes; (iv) ensuring the participation of the Ministry of Gender Youth Sports and Recreation (MoGYSR) and Women in Law in Southern Africa (WILSA) throughout project planning and implementation, to ensure that gender considerations are appropriately mainstreamed into project activities.

1. Introduction

The Adaptation Fund conceptualises the initial gender assessment as a tool for identifying the differences and providing empirical evidence in the form of qualitative and quantitative data for gender roles, activities, needs, and available opportunities and challenges or risks for men and women within a particular context or sector. It is required under the GP (para.12) as part of the project/programme proposal development to ensure the integration of gender-responsive implementation and monitoring arrangements, including gender-responsive indicators.

The information and data generated by the initial gender assessment are the basis for possible subsequent gender mainstreaming actions throughout the project/programme cycle. It informs the project/programme planning and design and helps identify the gender- responsive activities needed in the implementation stage, in budgeting and in monitoring and evaluation.

The gender analysis is necessary in order to establish a data baseline at the project/programme start against which implementation progress and results can be measured later. In general, the AF requires that gathering and collecting data should be gender-responsive and reflect the realities of women and men by breaking down the data not only by sex (male/female), but ideally also by age and other diversity factors such as ethnic origin and in response to questions that consider existing gender concerns and differentials.

2. Methodology

This gender assessment for the Lesotho AF proposal 'Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho' has been conducted as a desk study through synthesis of various different documents. This synthesis has been verified and supplemented by information obtained during the community consultations. The synthesis was developed using various analyses that build on existing data, such as national gender statistics or academic field research or participation assessments of prior or similar projects.

Key sources of information used are the following:

- FAO (2016) Lesotho Country Gender Assessment for Agriculture and the Rural Sector
- Lesotho Council of Non-governmental Organisations (2015) The Status of Women in Lesotho
- Government of Lesotho (2017) National Climate Change Policy 2017 – 2027
- Government of Lesotho, Beijing Platform for Action +20
- Lesotho Common Country Analysis Report of 2016
- National Gender and Development Policy (2017)
- GenCap Mission Report; 22-31 May 2016

3. Gender-specific cultural and legal context

This gender assessment describes the gender-specific cultural and legal context in which the Lesotho AF project will operate, by spelling out the key government legislation that pertains to women and gender, and highlighting the cultural milieu in which the relationships between women and men exist.

Legal and policy environment

The Kingdom of Lesotho has signed and ratified various international and regional instruments that promote gender equality and has created an enabling policy environment for mainstreaming gender into development in the country. Relevant policy instruments include the following:

- Convention on the Elimination of all forms of Discrimination against Women (CEDAW);
- Convention on the Rights of the Child (CRC) (1989), which has a special focus on the girl child;
- Beijing Platform for Action (1995) on women's economic and political empowerment, education and training; and
- Agenda 2030 for Sustainable Development, which comprises the Sustainable Development Goals (SDGs), and includes SDG 5: Achieve gender equality and empower all women and girls.

Lesotho has also signed and/or ratified the following instruments at regional level:

- AU Solemn Declaration on Gender Equality in Africa (2004)
- Charter on the Rights of Women in Africa (2003)
- AU Gender Policy (2009)
- Southern African Development Community (SADC) Gender Declaration (1997)
- SADC Protocol on Gender and Development (2008)

Regarding national legislation, The Legal Capacity of Married Persons Act amended/repealed specific sections of laws that discriminated against women, such as the following:

- The Administration of Estates Proclamation 1935 - women married in community of property could not be administrators of deceased's estate;
- The Deeds Registry Act 1967 - women married in community of property could not hold title to land or be appointed as curators;
- The Marriage Act 1974 - treated women as perpetual minors;
- Lesotho Bank Savings and Development Act No 8 of 1971 - did not allow women to open their own bank accounts without requiring the consent of the husband; and
- Companies Act (1967) - did not allow women married in community of property to be directors of companies without the consent of the husband.

In addition, progressive legislation with provisions to address gender equity and equality have been passed, including the following:

- The Land Act (2010);
- Labour Code Wage Amendment Act (2009);
- Legal Capacity of Married Persons Act (2006);
- National Assembly Election Act (2011);
- Local Government Election (Amendment) Act (2011);
- Anti-Trafficking in persons Act (2011);
- Education Act (2010); and
- Sexual Offences Act (2003).

Whilst some progress has been made in domesticating CEDAW, the legislative framework seeking to address domestic violence has still not been approved as law. Studies (e.g. FAO 2016) indicate that much gender-based violence takes place in the home; thus approval of the Domestic Violence Bill into law would go a long way towards legislative protection of women, girls, boys and men in the home sphere.

The following gender analysis of Lesotho's agriculture- and food-related policy and legislation is taken from FAO (2016), with minor revisions.

Table 1 : Gender Analysis of Agriculture- and Food-Related Policy and Legislation

Document	Gender Analysis/Comments
Lesotho Constitution [94](1993)	Guarantees the right to equality and non-discrimination, however customary laws are exempted such as issues relating to adoption, marriage, divorce, burial, and devolution of property, death or other matters that fall under personal law or where Customary Law governs the parties concerned.
Land Act (2010)[95]	Provides for equal title to land for both women and men. Introduces lease hold in the rural areas

[94]Government of Lesotho. 1993. Constitution of Lesotho. Adopted in 1993, Amended 1996, 1997, 1998, 2001
[95] Government of Lesotho. 2010. Land Act 2010

Legal Capacity of Married Persons Act (2006)[96]	Entitles women and men to the same rights and obligations regarding their marital duties and mandates. It treats married persons equally and abolishes marital power thereby removing limitations presented by marital power. Removed minority status of women.
National Assembly Election (Amendment) Act, (2011)[97]	Requires that all political parties contesting Proportional Representation (PR) elections have to submit 'zebra' party lists.
Chieftainship Act (1968)[98]	Enables only males entitlement to inherit the office of principal chief, but occasionally women may occupy the seat of a principal chief in the place of a husband or son.
Forestry policy (2008)[99]	Acknowledges gender equality as a fundamental human right and encourages equal representation of women and men in decision making structures at all levels as well as women's full access to and control of productive resources such as land, credit, modern technology and all forestry resources development.
Gender Policy (2003)[100] and revised National Gender and Development Policy (2017)	Endeavours to establish and sustain support systems for encouraging gender equality of women and men, girls and boys in development. The policy was revised in 2017. Both the 2003 and the revised policy do not recognize & disaggregate urban and rural women's special needs.
Strategic Framework for Lesotho's Fisheries Sector 2011[101]	Takes a technical fish production approach and does not acknowledge the different roles and needs of women and men in fisheries
National Range Resources management Policy [102]	Acknowledges gender equality and mainstreaming as one of the key guiding principles but does not analyse the gender disparities in the sector.
Lesotho Food Security Policy (2005)[103]	Provides for gender mainstreaming, in terms of ensuring equitable catering for the needs of women and men, endeavouring that women's human rights and ownership of productive resources are met.
Agriculture sector Strategy 2003[104]	Does not take a gender mainstreaming approach, has not recognised that gender inequities are an underlying factor that negatively affect the performance of the sector. No evidence of gender analysis pertaining to sector done to inform the strategy.

[96] Government of Lesotho Parliament. 2006. Legal Capacity of Married Persons Act 9 of 2006
[97] Commonwealth. National Assembly Election (Amendment) Act (2011)
[98] Government of Lesotho.1968. Chieftainship Act (1968)
[99] Government of Lesotho Ministry of Forestry and lands Recretaion. 2008. National Forestry Policy
[100] GOL, 2003 National Gender and Development Policy
[101] Strategic Framework for Lesotho's Fisheries Sector 2011
[102] Government of Lesotho Ministry of Forestry and Rangelands. 2014 National Rangeland Resource Management Policy
[103] GOL. 2005. Lesotho Food Security Policy
[104]GOL.2003. Agriculture Sector Strategy

National Action Year Plan For Food Security Ten Year Plan 2007-2017	Plan is silent on gender issues although food equality issues play a key role in food security. Gender equality issues have not been included in the targets, outputs and outcomes of the strategy.
*There is a gap between policy gender intentions and actual implementation. * Some policies have been developed before gender analysis and gender consultations have been carried out.	

The analysis of the policies and discussions with stakeholders during the development of the FAO Gender Assessment (2016) revealed a large gap between policy intentions and actual practice and implementation of the policies. This was borne out during the consultations in the three southern districts, for the development of this AF proposal. The laws and policies have, however, created an enabling environment for gender equity and equality in the sector. Development partners, NGOs and some Government department have played a key catalytic role in promotion of gender equity and equality. Analysis of the policy documents also reveals that some policies or strategic frameworks have been developed before a gender analysis and gender consultation have been carried out; thus the policies end up being gender-blind.

More recent development of climate change policy has tended to integrate a gender-differentiated approach, which provides for a more gender-sensitive policy environment. For example, the National Climate Change Policy recognises that climate change impacts children, youth, women, men and other community groupings in different ways; thus adaptation is most effective when the different perspectives are taken into consideration in the design and implementation of adaptation interventions[105].

Institutional arrangements

The Ministry of Gender, Youth Sports and Recreation (MGYSR), which was established in 2000, is mandated with the responsibility to spearhead achieving gender equity and equality in the country. The National Gender and Development Policy (2017) indicates that the gender machinery is responsible for the following mandates:

- Overall coordination of the gender and development mandate;
- Putting in place, research, planning, monitoring and evaluation (including benchmarks and indicators) and implementation systems;
- Networking and provision of technical support for advancing gender equality and equity;
- Coordination of advocacy efforts on gender and development; and
- Coordination of Gender Focal Points (GFPs), management forums, parliamentary caucus structures on gender and development.

[105]Lesotho Government, 2017. National Climate Change Policy 2017 – 2027.

The MGYSR has to date supplied limited technical support to Ministries. National gender monitoring and evaluation systems have been inadequate to measure overall national progress on gender equality and equity.

The MGYSR coordinates all-inclusive Gender Technical Committee (GTC) forum meetings for key players driving and supporting the gender agenda. Stakeholders have indicated that coordination meetings have been inconsistent and largely event-driven (FAO, 2016). Thus they have not been used to draw up systematic and holistic national gender sectoral planning and progress monitoring on the development in the sector. Moreover, the attendance of GTC members in the coordination meetings has been very irregular, with organisations continuously bringing in new people during meetings, resulting in a loss of momentum and limited institutional capacity development.

The MGYSR's coordination and monitoring role has been hampered by lack of financial and human resources, as well as the changes that take place within the Ministry when a new Government comes into being. UNFPA has been providing some financial support for some of the coordination meetings. The departmental budget meant for Gender is very small. Within the Ministry, which is responsible for four key departmental facets, of (a) Gender (b) Youth (c) Sports, and (d) Recreation, out of the total Ministerial budget allocation, the department of Gender has been allocated a range of 3.4 to 5.8 percent of the total budget.[106] This could be a reflection that the department is not prioritised as a key player.

Generally there is weak gender mainstreaming in cross-sectoral planning, budgeting and reporting systems (FAO, 2016). There is limited gender disaggregated data, especially for the rural sector, yet the experiences of women and men in the rural sector are very different. There are limited consultations and collaboration between the Department of Gender, Ministry of Agriculture and FAO regarding gender integration, programming and policy in the sector. The lack of attention to gender specifics in some policies and strategic plans in the sector points to the fact that gender assessments are not always carried out to inform policy or programme formulation.

The MGYSR has established Gender Focal Points (GFPs) in the line Ministries. The GFPs have the responsibility for ensuring that gender is mainstreamed into policies and programmes in their respective Ministries and institutions, and for providing support and direction for taking gender concerns into all aspects of the institution planning. Challenges experienced by GFPs include:

- Lack of clarity and common understanding on who the GFP in the Ministries was;
- Lack of appreciation of the role of the GFP within the sector Ministries;
- Unclear terms of reference;
- Low positioning of GFP where they cannot influence planning and decision making;
- Inadequate knowledge on gender, lack of capacity to mainstream gender into policies, strategies, programmes and plans;

[106] Government of Lesotho, Beijing Platform for Action +20

- Inadequate reporting and monitoring mechanisms among different actors to facilitate proper recording and reporting;
- There is no budget for gender mainstreaming in other ministries and no gender budgeting is included in the ministerial budgeting systems.

Regarding gender mainstreaming in the agricultural sector, some of the Agriculture and Food Security policies do mainstream gender, while others are not gender inclusive. There is a gap between gender equality intentions as stated in some policies, and gender programming and implementation. Moreover, there is limited sex- and gender-disaggregated data on agricultural outcomes such as on production levels, rural assets access and ownership and post-harvest management issues.

According to FAO (2016), discussions reveal that the operational approach of the Ministry of Agriculture and Food Security (MAFS) is generally gender blind. It does not necessarily target farmers in gender-aware terms, nor does it deliberately highlight specific strategies, and possible different participation and impact of policies, on male and female staff and male and female farmers. The Ministry farmer subsidy programme has not considered the different circumstances of female-headed households (FHH) and male-headed households (MHH), resulting in inequitable benefits from the facility. The challenges mentioned above with regard to the GFPs are relevant to the MAFS as well.

Cultural context

Basotho are a patriarchal society. Under customary law, women in Lesotho are considered to be minors who are responsible primarily to their fathers, close male relatives and even at times their own sons and brothers. This minority status has often prejudiced women with respect to decision-making and ownership of property in all spheres of their lives, from the national to the sub-national levels, and right down to the household level. Women are thus more likely to be poor, unemployed, face gender-based violence, and have high prevalence of HIV than their male counterparts across the country. Poor women-headed households are vulnerable and face more risks in attaining a decent livelihood.

In terms of leadership, the majority of men in Lesotho fail to see women as their equal peers. This has often greatly compromised women's socioeconomic status and welfare. Although more women are educated than men in Lesotho, their positions in political and economic leadership roles are still very low. As of December 2014, women representatives comprised only 22 percent of National Assembly (lower house) members. There are still four men for every one woman in Lesotho's Parliament.

While the removal by law of minor status for women in 2006 improved the position of Basotho women, traditional culture still holds strong. For example, a recent study stated that "A Basotho man will still introduce his family as 'his children' and that includes his wife".[107] This example indicates the conflict

[107] Teg, C. (2015) A women's place in Lesotho: tackling the barriers to gender equality. Report prepared for the Welsh Government. https://www.cteg.org.uk/wp-content/uploads/2015/04/chwarae-teg-report-a-womans-place-in-lesotho-DT-en.pdf

between common and civil law in Lesotho. In practice, customary law can undermine civil law, so whilst legislation attempts to increase rights for women, traditional beliefs reduce the impact of these laws.

4. Demographics and gender disparities

This section provides a brief summary of Lesotho's demographics, before focusing on gender disparities with respect to access to resources, particularly in the rural areas.

Demographics and poverty

The population of Lesotho is estimated at 2 million, with over 70 percent of people residing in rural areas. Women make up 51.1 percent of the population, with youth (those between 15 to 35 years) comprising nearly 39.6 percent (50.7 percent male and female 49.3 percent) of the total population. According to 2011 statistics, 33 percent of Lesotho's population is below the age of 15, 11 percent between the ages of 15-19 and 10 percent between the ages 20-24, while 67.1 percent of the population up to the age of 24 was still attending school. Fertility rate for Lesotho is 3.3, the average age at marriage is 20.3. In terms of education, 97% women are literate and 60.4%have secondary education.

Approximately 85 percent of the population lives in rural areas and 70 percent derive all or part of their livelihood from agriculture. The variable climate, limited arable area, mountainous topography, and severe land degradation constrain the agricultural sector's ability to generate adequate levels of employment and income to support the rapidly increasing population. As a result, both absolute and relative poverty have been increasing over time amongst rural and farming communities[108]. The incidence of poverty is persistently higher among female-headed households at approximately 64 percent, which is well above the national average of 58 percent and a male-headed average of 57 percent.

Access to land and resources

A large proportion of female-headed households are poor and extremely vulnerable to climate change because they lack agricultural assets due to discriminatory customary laws and socio-cultural practices, as well as low awareness of their legal rights. Over 60 percent of the agricultural labour force is constituted by women, yet only 30 percent of women own land. Whilst women represent a large share of total employment, they occupy only one in three jobs outside of agriculture and earn close to half of what men earn. Moreover, women are less likely to hold leadership positions and have less employment security than men[109]. As a result, women constitute most of the poor in Lesotho, thus they are more vulnerable to the adverse impacts of climate change.

Health, nutrition and food security

[108]Ministry of Natural Resources, 2000. Lesotho's First National Communication under the United Nations Framework Convention on Climate Change. Lesotho Meteorological Services.
[109] United Nations Development Programme,2015. Lesotho National Human Development Report, 2014/2015.

The country is ranked second highest in HIV and AIDS prevalence (25.6 percent) in the world, with one in every three adults estimated to be living with HIV and AIDS. Females over the age of 15 years make up 56 percent of people living with HIV, with 29 percent of women in Lesotho having contracted HIV, as compared to 18.7 percent of men. New infections are most likely to occur among women.[110] The higher HIV prevalence rate among females is related to the increased prevalence of gender-based violence (GBV) and cultural practices that limit women's and girls' rights, including access to services, information and protection such as the use of condoms.[111].

The high prevalence of HIV and AIDS has inevitably led to higher morbidity and mortality rates, particularly among the most productive segments of the society. This has increased the number of orphans and child-headed households, weakened agriculture and other forms of livelihoods and coping strategies, and increased vulnerability of poor households, especially women and children, to both income and non-income poverty[112]. Furthermore, the pandemic has proliferated household food and nutrition insecurity and malnutrition, inevitably placing heavier workloads on women and girls. Lack of financial independence also makes women more vulnerable to sexually transmitted diseases in general, because it impacts the level of control they have on the situation (Teg, 2015).

Women, girls and children tend to bear a higher proportion of the nutrition-related problems in the country. About 25 percent of the total population is undernourished with 33.2 percent of children stunted and 14.8 percent severely stunted. Over 27 percent of girls and women and 14 per cent of boys and men in the 15 – 49 age range are also anaemic[113]. Nationally, the prevalence of global acute malnutrition (GAM) remains at a lower level of 2.8 percent. However, 89 percent of children aged 6-23 months do not receive a minimum acceptable diet.[114]

Inadequate access to services

To the extent that women and older people tend to remain in the rural areas, while more men and younger people migrate to the cities, they tend to suffer more from inadequate access to services. The rugged and undulating mountain terrain, long geographical distances to service centres, poor road networks, as well sparse and isolated settlements, limit access of the rural population to services such as savings, credit, money transfers, insurance and information. As this is particularly experienced by women, they consequently tend to borrow only in emergencies and are less likely to seek loans to develop businesses or invest in their farms[115]. Unfavourable terms and conditions make it difficult for them to access reliable and secure saving facilities. This situation is counterproductive to the 55,835 smallholder farmers, of whom 60 percent and 10 percent are women and youth respectively[116].

[110] The disparity in HIV prevalence by sex is most pronounced among young adults between 20 and 24 years of age, where the prevalence of HIV is most alarmingly four times higher among females (16.7 percent) than males (4 percent)
[111] Lesotho Population Based HIV Impact Assessment (LePHIA) 2017 Report.
[112] Government of Lesotho. Ministry of Natural Resources, 2007.National Adaptation Programme of Action On Climate Change under the United Nations Framework Convention on Climate Change, Maseru.
[113] Lesotho Government, 2015.National School Feeding Policy.
[114] Lesotho 2014 Demographic and Health Survey, https://www.dhsprogram.com/pubs/pdf/SR230/SR230.pdf
[115] Lesotho Transport and Infrastructure Connectivity Project, 2016. World Bank.
[116] Lesotho National Farmers Union, 2016.

A critical issue for livelihood diversification, which an important adaptation approach, relates to women and girls in the rural areas of Lesotho having great difficulty accessing credit. Most women do not meet the compliance conditions of financial institutions and do not have property to use as collateral. Legislative reforms set out above have provided a better enabling environment for access to these services. The provisions of the Land Act of 2010, which provides for inheritance of immovable property by the widow, as well as joint titling of immovable property of couples married in community of property and how the immovable property is to be disposed or burdened, provide protection of women's economic rights and give security of tenure on immovable property.[117]

Communications have helped to empower women over the last decade. Internet and mobile communication has facilitated women having better contact with others outside of the home. Where there is mobile coverage, this has helped women in rural areas who tend to be isolated. The media has provided a platform for debate, with a rising number of female presenters making sure women's issues are discussed.[118] This has helped women to have the confidence to speak out as they hear the stories of others and realise they are not alone.

While the above are some positive developments, they will require concerted and mainstreamed effort on the part of all programmes and projects, to ensure that the gains are deepened and broadened out across Basotho society.

5. Gendered division of labour and gender-based power structure

Gendered division of labour

Unemployment is higher amongst women at 25% compared with 21% for men. Many women, especially in the rural communities, carry out unpaid domestic work while the men bring in money. Teg (2015) provides a quote from a study participant describing the unpaid responsibilities for women in a rural setting:

"Women have to [be] looking after the home, ensuring that everybody in the home is provided for. Women cook the meals, make sure the home is clean, wash clothing etc. They also do a lot of work on the land. They work in the fields, they hoe, weed, harvest etc. They help with thrashing after harvest. They fetch wood and water. It requires energy to fetch them. All of this work is unpaid."

Women who have managed to find paid work outside of the home often find themselves in roles that exploit them. These roles can involve demanding physical labour and long hours. Teg (2015) highlights the vulnerability of women who cannot find paid work and then may find themselves at risk of trafficking as they are attracted by promises of work and money to live comfortably. The Anti-Trafficking of Persons Act seeks to combat this problem.

[117] http://genderlinks.org.za/programme-web-menu/lesotho-takes-steps-to-empower-women-economically-2011-09-30/

[118] Teg, C. (2015) A women's place in Lesotho: tackling the barriers to gender equality. Report prepared for the Welsh Government. https://www.cteg.org.uk/wp-content/uploads/2015/04/chwarae-teg-report-a-womans-place-in-lesotho-DT-en.pdf

The above challenges are compounded by low levels of literacy amongst women in the rural areas, also related to an increased risk of poverty. Many women rely on domestic work to generate income. Financial difficulties also mean that women are not able to take legal action against injustice (Teg, 2015).

The majority of rural women already experience poverty due to their heavy workload that combines participation in agriculture, household management as well as non-farm earning activities. Household management includes the time and energy engaged in intensive tasks of child-care, fetching water, and fuel collection as well as food processing in a context where these services are either inadequate or do not exist. These multiple gender disadvantages trigger the intergenerational transfer of poverty as evidenced by poor social development indicators such as high child mortality and morbidity and low educational attainment[119].

Gender-based power structure

As noted above, the conflict between civil law and customary practices contributes to the disempowerment of women in Lesotho. According to Teg (2015), a further conflict is the juxtaposition of traditional Basotho values and beliefs alongside Christian values. The church instils in its congregation that a woman must at all times respect her husband, which results in entrenching the power with men.

The traditional culture in Lesotho prevents women from having a say in decisions that affect them, including decisions about their own bodies such as how many children they should have. Teg (2015) reports that this is such a serious problem that some women use deception to exercise control by taking contraception and not telling their husband. Power is not only exercised by the husband but also his family. The continuous repression of women leads to very low self-esteem amongst women and girls; this has not yet been sufficiently addressed by the increasing number of women in positions of leadership such as councillors, head teachers, and business leaders.

There is an observed shift in gender roles and authority at household level due to out-migration of male heads of households to urban districts including to South Africa. This phenomenon forces females to head households and places them in decision making authority in a period of food, water and pasture crisis. These shifts in gender relations at household level and the sex and age profiles of the households remain critical in designing a response that is grounded in the social changes, and tailored to meet the needs of the affected populations.

There is a critical linkage between having work and being able to earn money, and women's empowerment. Financial empowerment reduces vulnerability for women as they feel less need to take risks to bring money into the home. It also makes them feel a greater entitlement to have a say in decisions taken in the home (Teg, 2015).

6. Differentiated climate change impacts on and capabilities of men and women

[119]African Development Bank Group, 2005. Multi – Sector Country Gender Profile: Agriculture and Rural Development North East and South Region.

Globally and in southern Africa there is increasing attention on the differentiated climate change impacts on men and women, and their differentiated capabilities to adapt to these. There is growing evidence to show how the livelihoods of both men and women may be affected differently by climate change, due to culturally established roles such as the gendered division of labour (like caring for children or fetching water/fire wood) or the legal right to landownership or property.

Currently, however, there are no in-depth studies regarding gender-differentiated impacts of climate change in Lesotho. An in-depth study carried out in South Africa can be expected to have strong correlations with the situation in Lesotho.[120] This study revealed that through socially constructed roles and responsibilities, women seem to bear the most burdens resulting from climate variability impacts. Women's workloads increased as they attempted to cope with climatic stressors, such as drought and increasing dry spells – which are key climate impacts already being experienced in the three southern districts in which the project will operate. The increased workload was related to increased efforts and time needed to provide water for the household, keep household gardens going in the face of increased dryness, deal with increased care-giving related to increased disease burden such as more respiratory diseases, and so on.

Working longer hours than men affected women not only physically, but emotionally drained them as they constantly worried about the well-being of their household members, especially children and the youth who depend on them. Although the workload of men was found to be lighter than that of women, they are also impacted by climate variability. Men's impacts are more psychological than physical, and are further compounded by unemployment resulting in negative coping mechanisms.

The above highlights the importance of addressing women's workloads, as part of an integrated response to climate change in the rural areas of Lesotho, and of paying attention to the fact that not all impacts are physical or economic, but may be psychological as well. As mentioned above, a large proportion of female-headed households are poor and extremely vulnerable to climate change because they lack agricultural assets due to discriminatory customary laws and socio-cultural practices, as well as low awareness of their legal rights. Thus integrating social and behavioural change communication (SBCC) approaches on gender equality that target both men and women is an important aspect of gender-transformative adaptation approaches.

Women play a pivotal role in the three components of food security; namely, food availability (production), food access (distribution), and food utilization.[121] Furthermore, women are involved in a wide range of activities that support agricultural development, such as soil and water conservation, afforestation and crop domestication. This is certainly the case in Lesotho.

[120] Babugura, A. (2010) Gender and climate change: South Africa case study. Prepared for Heinrich Böll Stiftung. https://www.boell.de/en/navigation/climate-energy-South-Africa-9074.html

[121] World Bank, Gender in agriculture Sourcebook (2009), World Bank, Washington, DC.

While men also play a crucial role in food production, they, face far fewer constraints than women.[122] Men in Lesotho are more likely to have access to productive resources such as land, credit and extension services. In cases of crop failure due to harsh climatic conditions, cultural traditions often make it easier for men to leave their farms in search of employment elsewhere. Women are then left behind in the rural areas, where they must struggle to feed their families and make ends meet. In many cases women have diminished assets and resources to help them plan for and potentially avert the next crisis. Moreover, women are inhibited by a diversity of gender-based barriers in access to land, financial services, social capital as well as access to technology which render them vulnerable to food insecurity.[123] Discriminatory sociocultural practices (such as customary laws on access to land), as discussed above, are among these barriers.

Lesotho's Nationally Determined Contribution - known as the (I)NDC – recognises that women have a unique relationship with natural resources, which renders them more vulnerable to climate change. They are responsible for food security of families through food collection, crop production, meal preparation, and often through cultivation techniques.

With responsibilities within the household, such as child-rearing, domestic management and meal preparation, women often work longer hours and any added challenges such as those imposed by climate change, will increase their vulnerability and workload. Therefore, climate change adaptation interventions need to include measures to reduce women's workload.

In Lesotho the formative years of the boy child are occupied by herding of livestock to the detriment of their education. Climate change will particularly affect them negatively as good grazing land is gradually pushed further away from the village by its compounding negative effects on natural resources.[124] In addition, extreme weather events like heavy snow will increase their risk of life in the remote cattle posts more than any other group in society.

The (I)NDC (2015) also recognises gender vulnerabilities to climate-change-related impacts, especially natural resources, e.g. declining quantity and quality of drinking water; environmental degradation; and erosion of basic support systems for majority of livelihoods.

An analysis of the impacts of climate change on health in Lesotho concluded that the most serious threats from climate change will be from water-borne diseases such as diarrhoea, typhoid and hepatitis A, exacerbated by increased rainfall and floods, with pneumonia an associated threat.[125] Soil-transmitted helminth infections are also likely to increase with climate change but adaptation measures such as extensive treatments on a national scale are already in place to cope with them. This increased disease

[122] Global Gender and Climate Alliance / UNDP (2011) Gender and Climate Change Africa Policy Brief 4: Agriculture and Food Security.
[123] United Nations Food and Organisation, The State of Food and Agriculture, (2011b), FAO, Rome.
[124] GoL MEM (2015) Lesotho's INDC, submitted to the UNFCCC.
[125] Cheke, R.A. (2012) Report on a consultancy for the Africa Adaptation Programme on the possible climate change effects on health in Lesotho: Technical Report.

burden can be expected to have a heavy impact on women and their workload, given their primary caregiver role, in the absence of supportive measures.

Traditional gender roles in Lesotho confer more power to men over women. Due to limited participation of women in political leadership and the labour force, and their limited access to sexual and reproductive health services, the Gender Inequality Index (GII) score of Lesotho is 0.549, ranking it 132 out of 188 countries. While the Land Act 2010 provides for equal title to land for both women and men and introduces lease holding in rural areas, customary law still considers an adult woman to be a minor and not entitled to inherit land. Thus, women are less likely to own land than men, and own smaller plots of land, reducing their active participation in productive agricultural activities, and trapping them in a cycle of poverty. Thus women constitute approximately 30 percent of rural people living in extreme poverty, and are, relatively more vulnerable to climate change-induced risks, when compared to men [126]. For example, considering the phenomena of migration, as more men move to the lowlands and urban areas, women remaining in deep rural areas are expected to take on additional household responsibilities.

Considering the link between gender and education in Lesotho, there is an overall higher enrolment of boys at primary level, except for grades 6 and 7 where more girls are represented, with 23,242 females compared with 18,339 males. In addition, there are urban and rural trends whereby more boys than girls are enrolled at primary level in urban areas, whereas the opposite stands true in mountainous rural areas, where boys often leave school early to become herders.

7. Multi-dimensional vulnerability exacerbated by climate change

Socio-economic determinants of vulnerability, including health, HIV and nutrition challenges coupled with high rates of unemployment, deep and pervasive poverty, gender inequality and isolated settlements in rugged mountainous terrain are some of the key factors that keep Lesotho and its population vulnerable to the negative impacts of climate change as outlined below. The declining agricultural productivity, linked to ongoing climatic changes and land degradation, continues to expose the majority of the population, especially the very poor and poor unemployed rural population (men and women), to chronic, irreversible and severe food and nutrition insecurity and malnutrition, as well as poverty[127].

Inequality related to gender, exclusion of those with disabilities and income inequality are some of the factors that contribute to structural inequality. This inequality predisposes groups, including women, rural communities, boy and girl children (especially orphans) to poverty and hunger. Food and nutrition insecurity and poverty, in return, subjects vulnerable households and individuals to negative, even harmful, coping strategies, including risky behaviours (e.g. transactional sex) that fuels new HIV and AIDS infections in a country that already has the second highest HIV prevalence in the world. Furthermore, drought reduces employment and income opportunities. This results in income shocks, which account for up to 20 percent of variation in HIV and AIDS prevalence across African countries[128]. This scenario further increases the vulnerability of households and communities to the negative impacts of climate change.

[126] 2014 Demographic and Household Survey (DHS)
[127] Kingdom of Lesotho. 2018 Zero Hunger Strategic Review Report.
[128] Income Shocks and HIV In Africa: http://web.stanford.edu/~mburke/papers/Income_HIV_EJ_final.pdf

In addition to the above environmental and socio-economic determinants of vulnerability, there are important contributory knowledge and governance issues. A key issue is poor access to relevant climate information, which limits the ability of people to plan ahead in dealing with current climate variability, not to mention longer-term climate change. In the absence of adaptation planning, for most farmers, climate change implies lower agricultural outputs, and declining incomes from sale of wool, mohair and other agricultural produce.[129]

8. Project target areas and gender-related issues arising from community consultations

The targeted area for the AF project lies in Zone I for Mohale's Hoek and Quthing districts and in Zone III for Mafeteng district. The targeted population in the three southern districts is identified as chronically vulnerable and most at risk to the adverse impacts of climate change[130]. This includes the poor and very poor socio-economic groups comprising of smallholder subsistence farmers, the elderly, the disabled as well as female and child-headed households, the unemployed youth and people living with HIV and AIDS.

A gendered approach was adopted for the community consultations carried out during the process of developing the AF proposal, which have fed into this Gender Assessment. Community consultations took place in the three southern districts during the first scoping mission in July 2017, further consultations took place at the district and community levels, in communities in Zone l (Southern Lowlands across the Senqu River Valley and Mountains) in Mohale's Hoek and Quthing Districts, as well as in Zone lll (Lowlands and Foothills) in Mafeteng, from 20-30th June, 2018. To ensure a comprehensive and inclusive coverage of the targeted population, consultations were carried out in 16 Community Councils, engaging community members in four villages per Community Council through workshops, Focus Group Discussions (FGD), household interviews as well community gatherings through community traditional leaders (Area Chiefs). Inclusion of all sectors of the society, particularly the most vulnerable members of the community, was ensured through engagement of representatives of all socio-economic groups in respective communities: community associations, men's initiation schools, women's initiation schools, herders, youth, widows, the elderly, orphans, traditional and political community leaders, women's traditional dance and entertainment clubs, community health workers, teachers, the disabled, and support groups for people living with HIV/AIDS.

Both men and women were consulted collectively, as well as individually as necessary, as were youth, to fully capture respective needs and priorities on climate change adaptation, resilience, food security and livelihood diversification. All engagements with community members were conducted using the local language. Regarding gender, representatives of MoGYSR, WFP Gender focal point, and Women in Law in Southern Africa (WILSA) were engaged in the consultation processes. This assisted with identifying, cultural, gender and youth sensitive methodologies to be designed and implemented in all activities.

Communities highlighted that addressing climate change risks, particularly on agriculture, food security and nutrition, as well as water security, were urgent needs and priorities. The consultations in general

[129]Lesotho Government, Ministry of Energy and Meteorology, 2012. Climate Change Affects us all.
[130]2015 Integrated Context Analysis.

highlighted the need to adopt gender-transformative responses to climate change during project implementation.

Particularly, women indicated that the impacts associated with dry spells including food shortages, famine, disease epidemics, invasion by exotic plants and destructive insects, tend to have more profound impact on women and girls. Respondents reported that women and men are differently vulnerable to climate change impacts due to existing inequalities such as their roles and positions in society. Women mentioned that climate change poses more risks in their livelihoods and security as they are compelled to change their behaviors to respond. For instance, women indicated that collection of water and firewood is a traditional role of women and girls and some dry spells always result in water shortages and depletion of shrubs for fuelwood. As a result, women and girls are forced to travel longer distances to fetch water and fuel which exposes them to rape, marriage by abduction and child marriages.

On the other hand, youth stated as result of climate change, youth migration to urban areas and South Africa for job opportunities has increased, which results in an increased risk for girls to be victims of human traffic. In addition, the food shortages within households forces some youth; boys and girls to drop out of schools to support their households to address the prevailing food insecurity.

Communities indicated that their awareness, knowledge and understanding of climate change was inadequate; and identified key adaptation and resilience building interventions.

9. Envisaged project responses to the climate change-related gender disparities

Given the differentiated vulnerability of all smallholder farmers to the interlinked challenges of climate change and land degradation, it is crucial to create more awareness amongst policy-makers about the gendered implications of these changes for the country's food security and wellbeing in the coming decades, in order to develop and implement a more enabling and gender-transformative policy environment for addressing climate change.

As identified by the National Resilience Framework, a critical issue for addressing likely increased incidence of climate-related shocks such as drought and flooding is that response strategies are not appropriately developed to fully address the needs of acute and chronic vulnerabilities.[131] The vulnerable and drought-prone southern districts of the country, namely Mafeteng, Mohale's Hoek and Quthing, would in particular benefit from enhanced predictability of drought and dry spells, and from an early warning and response system that triggers a timely and effective response.

Given their higher levels of poverty and vulnerability to climate change, it would be advisable for the project to target more female than male beneficiaries – for example, 60% female and 40% male beneficiaries. It will also be important to ensure solid participation and benefit on the part of youth, particularly girls.

A gender-transformative approach will be mainstreamed into the design and implementation of the AF project. In this sense, actions and procedures will be identified across all three components aimed at

[131] National Resilience Strategic Framework and Theory of Change, 12 July 2017 draft.

mainstreaming gender and ensuring that it provides women and men with an equal opportunity to build resilience, address their differentiated vulnerabilities and increase their capability to adapt to climate change impacts.

Mechanisms to manage potential risks to the promotion of gender equality and the empowerment of women as well are also identified. The ability of women in the three targeted districts who are involved in agricultural activities to act as agents of change will be strengthened, and specific activities have been developed that target women exclusively. Awareness raising on gender issues on its own will not deliver a gender transformative approach, and therefore a collection of communications approaches, activities, and tools will be used to positively influence behaviours. Social and behaviour change communication (SBCC) will be a central mechanism to achieve this.

In discussions during the design of the AF project, it has been agreed to target different groupings through different activities. This is spelled out further in the text on Component 3.

In the targeted communities, there is an urgent need to prevent violence against women and girls, ensure equitable access to social services and productive inputs and promote the equality of women in labour markets and decision-making processes to ensure full contribution to climate related planning, policy making and implementation. For people living with HIV, the consequences of inadequate and insufficient nutrition intake can be detrimental for the disease progression and the treatment outcomes. In addition, HIV increases the vulnerability of already economically stressed and food-insecure households caring for PLHIV and children living with HIV. Specific activities are integrated into the project design to address these issues, such as developing targeted messages on climate change, nutrition and HIV under Component 2, and ensuring that asset creation activities under Component 3 are carried out in conjunction with sensitisation and behaviour change interventions to address violence against women and girls. The WFP gender team will provide additional guidance in terms of practical tools to be used to achieve greater participation of women in integrated watershed management, climate-resilient agriculture, and associated benefits.

Opportunities to increase women's participation in the project's activities and decision-making processes have been identified. These include: (i) inclusion of sex-disaggregated indicators and targets in the project results framework, to monitor participation of women in awareness-raising activities, capacity building, and any management committees; (ii) targeting of gender-differentiated vulnerabilities into project interventions so that groups most vulnerable to climate variability and change receive support; (iii) designing women capacity building and skills enhancement programmes; (iv) ensuring the participation of the Ministry of Gender Youth Sports and Recreation (MoGYSR) and Women in Law in Southern Africa (WILSA) throughout project planning and implementation, to ensure that gender considerations are appropriately mainstreamed into project activities. In collaboration with the MoGYSR and youth organizations, the project will adopt a consultative approach specifically targeting the youth as a means to actively engage youth in asset creation and income generating activities.

Some specific gender-related activities that will be implemented include:

- The 'Climate change perceptions and climate information needs study' under Component 1 will contribute to understanding how climate change is perceived and experienced by the diverse members of the communities, from their socio-economic perspectives. This includes how gender and age may exacerbate climate change vulnerability, especially in relation to increased gender related workloads and opportunity cost associated with these workload changes. An important aspect of the study will be to understand how people take decisions related to their livelihoods, and to identify potential entry points to blend indigenous with scientific knowledge. The study will develop recommendations on engaging community leaders, opinion formers as well as vulnerable communities in a more productive and sustainable manner ensuring that women and girls are involved in the decision-making processes and will inform output 1.2.2, which aims at co-developing climate services based on sub-seasonal to seasonal (S2S) forecasts and translating them into advisories tailored to the needs of communities.

- Component 2 activities will design and implement gender-transformative and culturally appropriate awareness raising strategies at both national and district levels, on climate change impacts on various socio-economic sectors and in particular on food and nutrition security; as well as the need for adaptation. A mix of ICT and gender-transformative and age- and culturally-sensitive communication strategies and platforms will be used.

- A specific focus will be to develop clear, targeted and integrated messaging on current, near- and long-term climate change and its impact on food security and nutrition, bringing in also the interlinked aspect of environmental degradation. The 'National climate and food security analysis' will provide a strong basis for this messaging, which will be disseminated through a multi-pronged approach that targets youth, the elderly, people living with HIV, OVCs and other vulnerable groupings in a gender-transformative fashion. Needs assessments at the community level, carried out in each of the three districts under the Climate Change Perceptions study, will feed into the National Climate Change Awareness Raising Strategy.

- An inclusive, gender-transformative, culturally sensitive approach to climate change awareness raising will be designed to ensure active engagement of men and women; boys and girls; children; youth; vulnerable groups; government authorities; private sector, media, academia, CSOs, and NGOs. As the awareness raising activities will be underpinned by SBCC, and will integrate the gender inequality with respect to vulnerability to climate change, they will be designed to engender behaviour change across all sectors of society to reduce gender inequality and empower women, thus raising their adaptive capacity. The specific messaging and mechanisms for this will be developed during the strategy development process.

- The community-based planning process (CBPP) and ongoing annual community-based planning under Component 3 will include gender analysis and a gender support strategy at the community level, with gender-related technical assistance and services provided by the gender team in the WFP CO. This would result in a contextualised strategy in each district on the best approach to engage and help women, with community-level interventions in each planning process to support women. In previous community-based planning approaches for FFA, the Child and Protection Unit

under the Ministry of Police, together with Women and Law in Southern Africa Research and Education Trust (WLSA), which is an action-oriented research organisation, have been instrumental in conducting gender awareness sessions. Other potential partners will be identified during preparation for the district-level activities.

- Cognizant of the fact that climate change impacts children, youth, women, men and other community groupings in different ways, and guided by the rights-based approach to development[132], the AF-supported project will ensure that assets created respond tothe different needs of women and men, girls and boys, contribute to the reduction of workload for women, and enhance active participation of men and women, as well as female and male youth. The asset building approach will include strong gender and age analysis to ensure that assets created respond to various gender roles and contribute to the reduction of workload for women, enhance women's and youth access to income generating activities, and facilitate their active participation in the markets. Activities will also be promoted that prioritise benefits for orphans and vulnerable children (OVCs) – the exact nature of these will be contextualised during each CBPP exercise, through interaction with the OVC Support Groups in each community.

- During the CBPP sessions, the project will ensure that the choice of assets promotes resilient communities and contributes to women empowerment. FFA will be used as a pathway to disseminate gender and gender-based violence (GBV) issues, and to increase the knowledge of women on their rights - for example, the Lesotho Legal Capacity of Married Persons Act 9 of 2006, the Lesotho Land Act 8 of 2010, and other laws protecting the rights of women, so that household-level created assets are protected.

- Concerning the 'Resilience and Adaptation Menu of Options' that is being developed for Component 3, a number of these activities specifically target women, for the benefits they would confer, given the relative gender roles. One of the ways the project will ensure benefits for women will be through making the household vegetable gardens a central part of component 3, to include specific promotion of entrepreneurial opportunities for women based on this - e.g. support to access vegetable dryers, which could be done through making linkages with any appropriate rural finance / micro finance organisations operating in Lesotho, beyond this project. Implementing the recommendations of the proposed value chain analysis for indigenous vegetables and medicinal plants will further support this goal.

- Further specific market access-related activities will be included that particularly benefit women, i.e. market linkage support to existing women's cottage industries will be provided, to further diversify their livelihoods into climate-resilient options. The project will support cottage industries that produce handicrafts with sustainable harvested grasses and plants used for ecosystem regeneration purposes, as well as existing sewing groups. Women will be equipped with the

[132]Lesotho Government, National Gender and Development Policy, 2015.

knowledge, skills, equipment and material resources they require to enable their access to markets.

Annex 9 Additional information on food security and other concrete benefits of FFA and CFA

Table 3 of the proposal sets out the economic, environmental and social benefits of the intervention. This includes nutrition, health and food security benefits. The latter is an important issue, as similar past interventions have not always placed enough emphasis on tracking the benefits on food security. Despite this, there is evidence that Food for Assets (FFA) and Cash for Assets (CFA) interventions in Lesotho and in the region have delivered concrete benefits and had a positive impact on food security.

For example, a Malawi FFA programme in 2018 (SPR PRRO 200692) supporting 170,000 households across 10 disaster-prone districts showed that the proportion of FFA participants with an "acceptable" Food Consumption Score rose from 44 percent at the start of the season to 48 percent at the end of it. Analysis of coping mechanisms also demonstrated that they resorted less frequently to negative behaviours, or used less severe ones (such as reducing the number of meals or portion sizes). FFA participants rehabilitated 477 kilometres of feeder roads, improving access to markets and services; planted 4.5 million tree seedlings; developed 882 hectares of backyard vegetable gardens, increasing access to a wider range of foods; and generated 312,777 cubic meters of compost from recycled organic matter, and applied it to over 23,600 hectares of land.

In WFP's Zimbabwe- ACR, under Activity 4.1 on Food Assistance for Assets, FFA programmes were implemented in 11 districts, helping almost 55,000 people to create and rehabilitate small dams, irrigation extensions, gardens, feed and cattle dip tanks. District prioritization was guided by the integrated Context Analysis, Seasonal Livelihood Programming (SLP) and Community-Based Participatory Planning (CBPP) tools. As part of a greening initiative, and in pursuit of sustainable water sources, 12 boreholes were drilled, of which six were solar powered. This improved access to safe water in the assisted communities and reduced the burden from women having to travel long distances to fetch water. Community capacity-building was strengthened, helping to equip asset management committees with the necessary technical and soft management skills, the majority of which have women in leadership positions. Monitoring showed improvements in food consumption patterns from the baseline to the end of cycle period. The target of reducing the proportion of households with poor food consumption was reached (from 52.2% to 54.9%); and 57.1% of the population in targeted communities reported benefits from an enhanced livelihoods asset base.

In Lesotho, in the CFA pilot in Mohale's Hoek, the most immediate impact of the CFA project was the ability to purchase more and varied food items. This was in addition to other benefits such as improved intra-household relationships. Similarly, the April 2018 post-distribution monitoring report for FFA to 8,000 beneficiaries showed improved food consumption for both male- and female-headed households, with more than half of households recording acceptable food consumption. More than 90 percent of households in the two districts consumed vitamin A-rich foods every day, while more than 80 percent consumed protein-rich foods at least once a week, with female headed households showing greater improved consumption of these foods than male-headed households.

A key issue in the past for similar interventions has been the lack of targeted M&E to determine the precise benefits/impacts on food security. This has certainly been the case with the Fato-fato programme, which

has not tracked long-term impacts on food security. For this reason, the AF project will endeavour to track this outcome carefully. The AF logframe includes a number of relevant key indicators. One of the two indicators to track the project goal (which aims at reduced food and nutrition insecurity) is Household dietary diversity score. A primary focus of the awareness raising activities under Component 2 is on climate change impacts on food security amongst vulnerable communities and youth and knowledge of adaptation actions.

LESOTHO METEOROLOGICAL SERVICES
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Ref: MEM/MET/7/50 19th December 2018

Adaptation Fund Board Secretariat
c/o Global Environment Facility
Mail Stop: N7-700
1818 H Street NW
Washington DC 20433
USA.

Dear Madam / Sir,

Re: Endorsement for project titled: "improving adaptive capacity of vulnerable and food-insecure populations in Lesotho"

In my capacity as Adaptation Fund Focal Point for Lesotho, I confirm that the above project proposal is: (a) in accordance with my Government's national priorities, strategies, plans and our commitments to the United Nations Framework Convention on Climate Change; (b) was discussed with relevant stakeholders; (c) is in accordance with the Adaptation Fund's environmental and social safeguards and (d) is in conformity with relevant national laws and regulations.

I am pleased to endorse the preparation of the above mentioned project proposal with the support of WFP and I hereby communicate our no-objection to the project. I also confirm that our national processes for ascertaining no-objection to the project have been duly followed.

The total financing from Adaptation Fund being requested for this project is USD 9,999,891.00, inclusive of Implementing Entity fees for project management services.

I thank you.

Yours Sincerely,

Mrs. Mabafokeng F. Mahahabisa
UNFCCC and ~~Adaptation Fund~~ Focal Point in Lesotho

MINISTRY OF ENERGY AND METEOROLOGY
LESOTHO METEOROLOGICAL SERVICES
DEPARTMENT
2018 -12- 19
ADMINISTRATION
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PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[93]

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:

Mabafokeng Mahahabisa, Director, Ministry of Energy and Meteorology	Date: *19 December 2018*

B. Implementing Entity Certification

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

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project / programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project / programme.	
..... *Mary NJOROGE, WFP Country Director* Implementing Entity Coordinator	
Date:	Tel. +266 2232989 Email: mary.njoroge@wfp.org
Project Contact Person: Nkopo Matsepe	
Tel. +266 2232989 Email: Nkopo.matsepe@wfp.org	

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