



GLOBAL ENVIRONMENT FACILITY
PROJECT DOCUMENT



PROJECT TITLE: Integrating climate resilience into agricultural and agropastoral production systems through soil fertility management in key productive and vulnerable areas using the Farmer Field School approach	
PROJECT SYMBOL: GCP/ANG/050/LDF	
Recipient Country:	Angola
Resource Partner:	Global Environment Facility/Least Developed Country Fund (GEF/LDCF)
FAO project ID:	621891
GEF/LDCF/SCCF Project ID:	5432
Executing Partner(s):	Ministry of Environment (MINAMB - Ministerio do Ambiente), Ministry of Agriculture (MINAGRI - Ministerio da Agricultura), Ministry of Commerce (MINCO), Provincial Governments of Bie, Huambo, Malanje and Huila.
Expected EOD (starting date):	June 2016
Expected NTE (End date):	May 2021
Contribution to FAO's Strategic Framework ¹	<ul style="list-style-type: none"> a. Strategic Objective/Organizational Result: SO-2.01.03 b. Country Programme Framework: <ul style="list-style-type: none"> <u>Priority Area 1: Strengthen smallholder production and productivity to improve food security and nutrition.</u> <ul style="list-style-type: none"> a. <i>Outcome 1:</i> Farmer Field School members systematically apply improved production techniques. <u>Priority Area 2: Management of natural resources by local authorities and community groups</u> <ul style="list-style-type: none"> b. <i>Outcome 2:</i> Management of natural resources by local authorities and community groups improved <u>Priority Area 3: Increase Resilience of Rural Livelihoods to Climatic Shocks and Climate Change</u> <ul style="list-style-type: none"> c. <i>Outcome 3:</i> Farmers and national authorities' capacity to prepare for and respond to climate change and climatic shocks strengthened
GEF Focal Area/LDCF:	Climate Change (Adaptation)
GEF/LDCF Strategic Objectives:	

¹ For projects operated by country offices, it is necessary to link projects in FPMIS at OR level. For all other projects, linkage at product/service level is necessary

CC-A – 1:	Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change
CC-A – 2:	Strengthen institutional and technical capacities for effective climate change adaptation
CC-A - 3:	Integrate climate change adaptation into relevant policies, plans and associated processes
Environmental Impact Assessment Category (insert √): A B C √	

Financing Plan: GEF/LDCF allocation:	USD 6,668,182
<u>Co-financing:</u> MINAMB:	
- In-kind	USD 200,000
- Contente	USD 2,000,000
- Novo Rumo	USD 1,125,000
MINAGRI:	
- Smallholder Agriculture and Development Commercialization Project	USD 13,500,000
MINCO:	
- PMIDRCP	USD 2,494,230
FAO:	
- Terra	USD 4,000,000
- In-kind	USD 300,000
Subtotal Co-financing:	USD 23,619,230
Total Budget:	USD 30,287,412

EXECUTIVE SUMMARY

Angola is located in the inter-tropical zone of the South-West coast of Africa, covering a vast area of 1,252,145 km² (INE, Censo 2014). The coastline of Angola on the Atlantic Ocean is 1,650 km long, and the land border with the Democratic Republic of Congo, Zambia and Namibia is 4,837 km long in total. Angola is home to over 24 million inhabitants (INE, Censo 2014), with just below 40% of the population living in rural areas. Angola is among the poorest and most vulnerable country in the world, as it is ranked 149 out of 187 countries in terms of Human Development Index (2014). The civil war and the dependence on the oil and extractive industries have rendered the country dependent on food imports rather than producing their own crops.

The War has affected the meteorological infrastructure in the country; as a result, the analysis of climate change in Angola is difficult due to a lack of data from recent years. There are many uncertainties, but climate projections agree that surface temperatures in Angola could rise and an increase in the occurrence of extreme climate events, an expansion of arid and semi-arid regions, a

shift in seasonal rainfall, a rise in sea level, an increase of wildfires and changes in river flows could happen. Available projections agree that there will be a decline in the length of the agricultural growing period in southern Angola and along the coast, while areas in the north that currently benefit from two growing seasons may in the future only experience one. If such predictions were to become true, given the rainfall dependency of most staple crops, combined with unsustainable agricultural practices and prevalent soil erosion, it would have severe impacts on smallholder farmers.

In response to the above challenges, the objective of the proposed project is to *“integrate climate resilience into agricultural and agropastoral production systems through soil fertility management in key productive and vulnerable areas using the Farmer Field School (FFS) approach”*.

The objective of the project is to strengthen the climate resilience of the agropastoral production systems in key vulnerable areas in the Provinces of Bié, Huambo, Malanje and Huila. This will be achieved through: (i) mainstreaming Climate Change Adaptation (CCA) into agricultural and environmental sector policies, programmes and practices; and (ii) capacity building and promotion of CCA through soil fertility and Sustainable Land Management (SLM) practices using the FFS approach. The project strategy is built on four main components. The first is to strengthen knowledge and understanding of climate change vulnerability and adaptation. The second is scaling up of improved CCA/SLM practices through FFS. The third is mainstreaming CCA into agricultural and environmental sector policies and programmes. The last component focuses on monitoring and evaluation.

In order to deliver the above-mentioned objective, and in line with the four components, the project includes four outcomes.

The first expected outcome is: *the strengthening of the adaptive capacity of MINAMB, MINAGRI, MINCO, provincial governments, civil society, INAMET and GSA staff to minimize climate risks in both agropastoral and agricultural production systems.*

The second expected outcome is: *115 000 farmers adopt CCA/SLM practices.*

The third expected outcome is: *environmental and agriculture policies and programmes at national and decentralized levels integrate CCA aspects.*

And the fourth expected outcome is: *project implementation based on results based management and application of project lessons learned in future operations facilitated.*

Directly, the project will support at least 150 000 farmers through an existing network of 5 150 FFS to develop and implement new approaches and practices to increase climate resilience. The project will train FFS Master Trainers and facilitators to disseminate climate resilient strategies and practices. The project will closely liaise and collaborate with the FAO Sub-regional Office for Southern Africa (SFS) FFS Network, to optimize support to FFS development. The project will also build institutional capacity and strengthen cross-sector coordination for implementing approaches to mainstream CCA in rural development and the agricultural sector.

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LIST OF ABBREVIATIONS AND ACRONYMS

Acronym	Full Name
AEA	Association of Ecologists and Environmentalists of Angola
AGROMERCAS	Agro-pastoral production collect and marketing centres
AIA	Angolan Industrial Association
AMAT	Adaptation Monitoring and Assessment Tool
APFS	Agro-pastoral Field Schools
ASCOFA	ex-FAPLA Fighters Support Association
AWP/B	Annual Work Plan and Budget
AWS	Automated Weather Stations
BH	Budget Holder
CBD	Convention on Biological Diversity
CCA	Climate Change Adaptation
ECP	Strategy Against Poverty – <i>Estrategia de Combate à Pobreza</i>
EDA	Agrarian Development Station
ENSAN	National Food Security and Nutrition Strategy – <i>Estrategia de Segurança alimentar e Nutricional</i>
FAO	Food and Agriculture Organization
FFS	Farmer Field School
FLO	Funding Liaison Officer
FPMIS	Field Programme Management Information System
GCU	GEF Coordination Unit
GDP	Gross Domestic Product
GSA	Food Security Office - <i>Gabinete de Segurança Alimentar</i>
IDA	Agrarian Development Institute – <i>Instituto de Desenvolvimento Agrario</i>
IIA	Agricultural Research Institute – <i>Instituto de Investigação Agronómica</i>
INAMET	National Institute of Meteorology and Geophysics - <i>Instituto Nacional de Meteorologia e Geofisica</i>
INGA	National Institute for Environmental Management – <i>Instituto Nacional de Gestao Ambiental</i>
IPPM	Integrated Production and Pest Management
ISV	Veterinary Services Institute - Instituto dos Serviços de Veterinária
LoA	Letters of Agreements
LDCF	Least Developed Country Fund
LTO	Lead Technical Officer
LTU	Lead Technical Unit
MINAMB	Ministry of Environment – <i>Ministerio do Ambiente</i>
MINCO	Ministry of Commerce
M&E	Monitoring and Evaluation
MINAGRI	Ministry of Agriculture, – <i>Ministerio da Agricultura</i>
MOSAP	Market Oriented Smallholder Agriculture Project
MTE	Mid-term Evaluation
MTTI	Ministry of Telecommunications and Information Technologies
NAPA	National Adaptation Plan of Action
NCU	National Coordination Unit
NPC	National Project Coordinator
NPSC	National Project Steering Committee
NRM	Natural Resource Management
PAPAGRO	Programme for the Acquisition of Agro-Pastoral Production
PCU	Project Coordination Unit
PIR	Project Implementation Report
PMIDRCP	Integrated Municipal Program for Rural Development and the Fight Against Poverty

PPR	Project Progress Report
PSC	Project Steering Committee
PTF	Project Task Force
RF	Result Framework
SADCP	Smallholder Agriculture Development and Commercialization Project
SFS	FAO Sub-regional Office for Southern Africa
SHARP	Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists
SLM	Sustainable Land Management
SPFS	Special Programme for Food Security
UCAN	Catholic University of Angola
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change

1 SECTION 1 – RELEVANCE AND GENERAL CONTEXT

1.1 INTRODUCTION

Geographic Location

1. Angola is located in the inter-tropical zone of the South-West coast of Africa, covering a vast area of 1 252 153 km². The coast line of Angola on the Atlantic Ocean is 1 650 km long, and the land border with the Democratic Republic of Congo, Zambia and Namibia is 4 837 km long in total.
2. The project will intervene in four provinces, namely Bié, Huambo, Huila and Malanje.

Socio economic characteristics

3. Angola is home to over 24 million inhabitants³, 62 percent of which are living in urban areas while the other 37.7 percent live in rural areas⁴. The economy is mainly based on oil exploration, which represented 58 percent of the GDP in 2011⁵. Despite a foreign direct investment rate among the highest in Africa and one of the highest average GDP growth rates in the world, the GDP *per capita* is only at USD 4 451/year⁶ and 54 percent of the population still lives with less than USD 1.25/day. Angola is among the poorest and most vulnerable countries in the world, as it is ranked 149 out of 187 countries in terms of Human Development Index (2014) and records an infant mortality rate of 22 percent⁷. The economic successes from the extractive industry such as oil and diamond have definitely boosted the overall economic growth of the country, but haven't benefited the majority of the people or the agricultural sector on which they depend and are highly affected by global markets.

Climate

4. Angola is located within an arid and semi-arid zone in the south and a humid area in the north. It includes the three following main agro-ecological zones:
 - The Northern Region, which is characterised by a humid tropical climate, with an annual rainfall over 1 600 mm;

Figure 1 Administrative map of Angola



² Republic of Angola. *Relatório Nacional, Ministério do Planeamento*. 2005

³ www.ine.gov.ao

⁴ Plano de Desenvolvimento de Medio Prazo do Sector Agrario, 2012

⁵ Africa Economic Outlook 2011

⁶ World Bank 2010

⁷ UNDP 2011

- The Central region which has a temperate tropical climate modified by altitude, which ranges from 1 000 to over 2 500 meters above sea level. This high plateau is characterised by an annual rainfall from 1 250 mm to 1 500 mm; and
- The Southern region which is largely characterised by a dry climate, ranging from tropical desert (Namibe Province) to tropical dry (Cunene Province), with annual rainfall between 100 and 500 mm on average)⁸.

5. Average annual rainfall and temperatures are represented in the maps below.

Figure 2: Average annual rainfall⁹

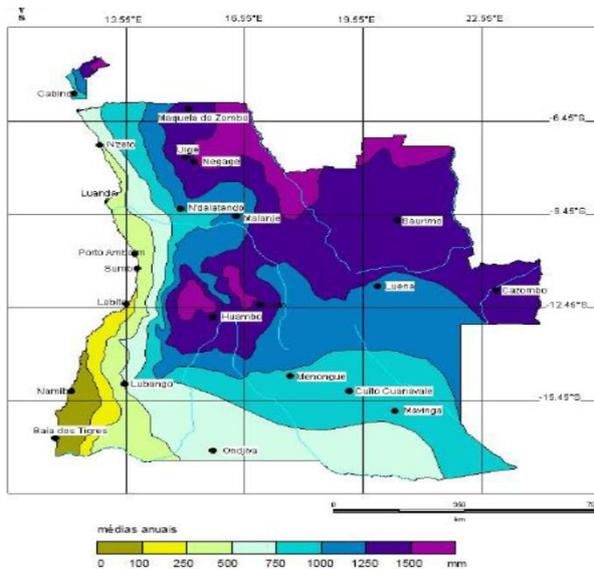
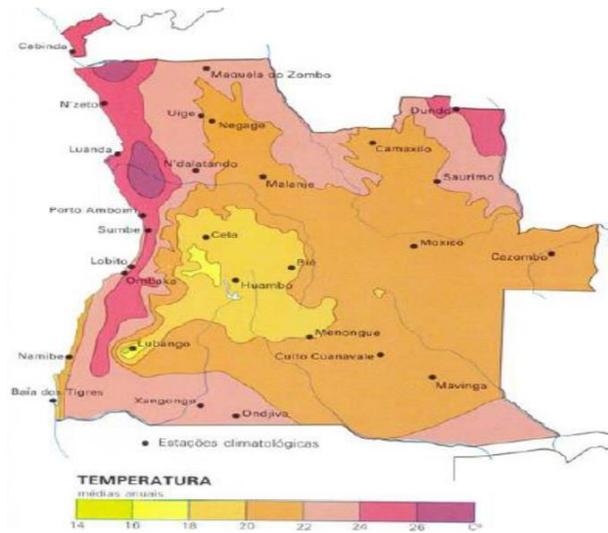


Figure 3 Average annual temperatures¹⁰



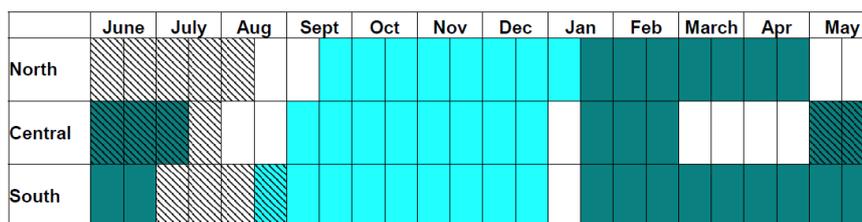
6. The Northern and Central regions experience two rainy seasons: September to December and February to April. In the Southern region, there is only one rainy season, from October to March, during which planting takes place from October to December. During the dry season, farmers plant in low areas called “nakas”, which are close to the water tables and allow the root systems to reach moisture easily. The graph below indicates when harvesting takes place depending on the region. Among our four provinces of interventions, Bié and Huambo are part of the Central Region; while Huila is part of the South and Malanje part of the North.

⁸ PPG Agro-meteorology sectoral report

⁹ Republic of Angola. National Adaptation Plan of Action. 2011

¹⁰ *Idem.*

Figure 4: Crop Calendar for Northern, Central and Southern regions of Angola¹¹



Source: CFSAM 2005 derived from 'Seasonal Calendar'

1st Harvest

2nd Harvest

Wetland Harvest

- North: Zaire, Uige, Malanje, Kuanza Norte, Bengo, Lunda Norte, Lunda Sul & Cabinda.
- Centre: Benguela, Bie, Huambo, Moxico & Kuanza Sul.
- South: Huila, Cunene, Kuando Kubango & Namibe.
- In most regions cropping is carried out three times a year consisting of 1st, 2nd and Wetland seasons. The corresponding harvest is depicted in the chart.
- Harvest periods generally follow each other. However, in Central, the 1st and 2nd harvests overlap for two-and-half months (May, June and first half of July).
- Periods during which there are no harvest in the three regions:
 - North: 2 months (1 month in May; 1 month August/September)
 - Centre: 3-½ months (1 month in August; ½ month in first half of January; and 2 months in March and April).
 - South: ½ month (first half of January).

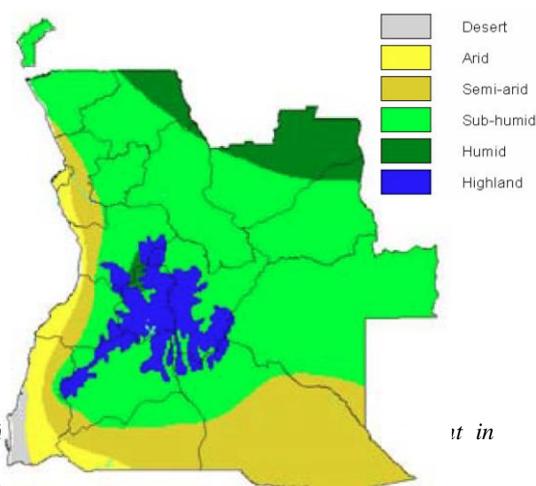
7. The analysis of climate change in Angola is difficult due to an extreme lack of data from recent years. There are many uncertainties but climate projections agree that surface temperatures in Angola could rise from 3 to 4°C in the east in the next 100 years, with a slightly smaller increase in the coastal and northern regions¹². Another scenario¹³ indicates that the mean annual temperature is projected to increase by 1.2 to 3.2°C by the 2060s, and 1.7 to 5.1°C by the 2090s. The projected rate of warming is faster in the continental interior, eastern regions of Angola, and slower in the western, more coastal areas. Apart from increased temperature, there is no consensus on rainfall projections for Angola but climate models do predict an increase in the occurrence of extreme climate events, an expansion of arid and semi-arid regions, a shift in seasonal rainfall, a rise in sea level, an increase of wildfires and changes in river flows¹⁴. Available projections agree that there will be a decline in the length of the agricultural growing period in southern Angola and along the coast, while areas in the north that currently benefit from two growing seasons may in the future only experience one¹⁵.

Agro-ecological zones

8. Given the variety of temperature and rainfall patterns within the country, the vegetation is very diverse in Angola, ranging from steppes and desert to savannahs or humid dense forests. Figure 5 represents the different agro-ecological zones of the country.
9. Regarding the four provinces of intervention:
- Malanje is located in the sub-humid agro-ecological zone;

Figure 5: Agro-ecological zones of Angola

Source: FAO 2005



¹¹ FAO.2006. <ftp://ftp.fao.org/docrep/fao/009/j8081e/j8081e00.pdf>

¹² SARUA. *Climate Change Counts: Strengthening University Contri Southern Africa*. Angola Country report. Volume 2. 2014

¹³ UNDP Climate Change Country Profiles: http://www.geog.ox.ac.uk/research/UNDP_reports/Angola/Angola.lowres.report.pdf

¹⁴ *Idem*.

¹⁵ NORAD: <http://www.norad.no/globalassets/import-2162015-80434-am/www.norad.no-ny/filarkiv/review-of-the-embassys-development-assistance-portfolio-climate-change-and-environment-climate-proofing-and-greening-of-the-portfolio-angola.pdf>

- Huila is mostly in a sub-humid agro-ecological zone with some highlands areas; and
 - Huambo and Bié are mostly highlands, with some sub-humid areas in Bié.
10. Angola has many valuable natural resources, such as fertile soils (in some regions), biodiversity, water resources and aquatic biological resources.

Agricultural and livestock sectors

11. Although the country's economic growth relies mostly on the extractive industries, agriculture remains the main economic activity for the Angolan population¹⁶ and therefore represents a strategic priority. According the National Adaptation Plan of Action (NAPA), the rural sector - including farming, forestry and fisheries – is the second largest productive sector of the country and contributes to 8 percent of the GDP¹⁷. In the four provinces of intervention the majority of the population is involved in agricultural and agro-pastoral activities.
12. Angola has abundant agricultural resources with 57.4 million ha of arable land, but only 5 to 8 million ha¹⁸ are used for cultivation. In Huila province for instance, while the arable land represents 60 percent of the total area of the province, only 20 percent is occupied for the practice of agriculture. Before independence, agriculture was the main sector of the economy and the country was a net exporter of crops such as corn, cotton, sisal and coffee. However, the civil war from 1975 to 2002 devastated the country and the agricultural sector was particularly affected. During the conflict, about 4 million people migrated, abandoning their agricultural land to escape the fighting¹⁹.
13. Before the civil war, the country was self-sufficient regarding the main staples of the Angolan diet, with the only exception of wheat; and agricultural exports represented more than 50 percent of all exports. However, since the end of the civil war, the country has been chronically dependent on massive imports of cereals and horticultural products to meet their food needs, it is estimated that more than half of all grains and plant products consumed in Angola are of foreign origin²⁰.
14. Despite the damages caused by the civil war, agriculture remains a key sector as half of the population depend on it for subsistence. Most agricultural activities are concentrated in the central highlands of Angola, representing approximately two thirds of the country. While the provinces of Huambo and Bié, in the central plateau region, were considered one of the biggest food producers before independence, the civil war severely impacted the agricultural sector in the region, leaving the population in a state of extreme poverty²¹.
15. Main crops grown in Angola include maize, cassava, beans, millet, sorghum, sweet potatoes, reindeer potatoes, peanuts, horticultural and fruits (banana, avocado and mango)²². The table below shows the evolution of food production in the country between 2008 and 2013 for the following categories: cereals, legumes, roots and tubers, vegetables, and oils.

¹⁶ Ministério do Planeamento. *Relatório Nacional*. 2005

¹⁷ Republic of Angola. *NAPA*. 2011

¹⁸ Republic of Angola. *NAPA*. 2011

¹⁹ FAO. *Diagnostico Agrario Territorial Da Provincia Do Huambo*. 2013

²⁰ *Idem*

²¹ FAO. 2014. *Land, Territorial Development and Family Farming in Angola: a holistic approach to community-based natural resource governance*.

²² Ministério do Planeamento. *Relatório Nacional*. 2005

Table 1: Food production annual increase (t) > 2008-2013

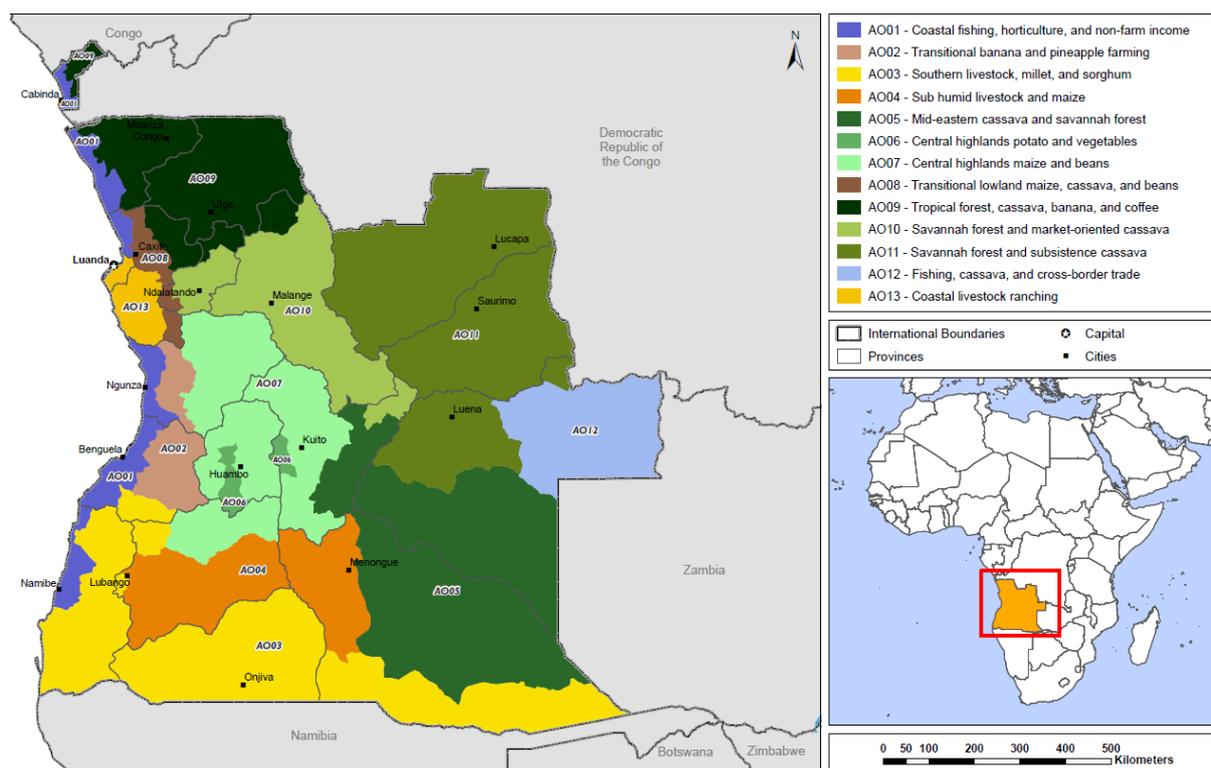
QUADRO - A.2						
PRODUTO	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
CEREAIS	-39 009	314 890	125 103	230 876	910 447	1 097 140
LEGUMINOSAS	133 286	133 286	7 290	101 012	347 677	556 494
RAÍZES E TUBÉRCULOS	3 355 079	3 355 079	1 053 089	533 342	2 150 199	2 393 539
HORTÍCOLAS	2 442 416	1 865 586	114 357	460 739	329 815	402 634
OLEAGINOSAS	ND	ND	1 293	1 466	2 646	2 380
ACRÉSCIMO TOTAL	3 449 356	5 668 841	1 301 132	1 327 435	3 740 784	4 452 187

Fonte: Campanhas Agrícolas Anuais. GEPE e GSA/MINADER.

16. More specifically, the map below presents the main livelihood zones of the country. The four regions of interventions of the project have the following characteristics:

- Malanje: savannah forest and market-oriented cassava;
- Bié and Huambo: central highlands maize and beans; and
- Huila: sub-humid livestock and maize in the south; central highland maize and beans in the North, and Southern livestock, millet and sorghum in the Northeast.

Figure 6: Angola Livelihood Zones²³



17. In terms of livestock, the country's cattle herd is estimated at more than 3 million heads; Huila and Cunene being the main livestock production centers with respectively 1.2 million and 1 million heads of cattle. The graph below shows the number of livestock heads for the four project provinces of intervention.

²³ FEWS-NET. 2013. www.fews.net/sites/default/files/documents/reports/AO_Livelihoods_0.pdf

Figure 7: Number of livestock heads in the provinces of intervention (Source ISV, 2015)²⁴

FAMILY AGRICULTURE ACTUAL LIVESTOCK 2012-2013							
Provinces	Cattle	Goat	Sheep	Pork	Poultry	Equine	Asinine
Malanje	20770	290297	9401	51578	-788506-	0	0
Bié	43473	94 418	5 228	54 572	----	0	0
Huambo	103503				----	0	0
Huíla	1 139999	979526	207669	246763	857618	----	----
TOTAL	1 307745	1520823	230270	647369	3397124		

Provinces of Intervention

18. The **province of Malanje** is located in the north of Angola and its height ranges from 500m to 1 500m above sea level. The climate is dry, mesothermal humid tropical and varies from 20 ° C to 25 ° C. The coldest month is June with an annual average of 21 ° C and the hottest months are March and April, with an average of 25°C. Throughout the year there are two seasons: a rainy season from September to May, and a dry season from May to August. Its vegetation consists of forests, grasslands and mixed forest-savannah and balcedo-savannah. The province is rich in some plant species of high timber value as the black dick, the panga-panga and kibaba, among others. Regarding minerals, Malanje has the following: diamond, limestone, uranium and phosphates. The region has a rich fauna as it is home to the Cangandala National Park, as well as large protected areas at the north and southeast of the city of Malanje such as the Milando Reserve Park and Reserva Natural Integral do Luando.
19. The province covers an area of 97 502 km² and a population of 968 135 inhabitants.²⁵ The province has 14 municipalities, while the city of Malanje is the provincial capital founded in 1852. Malanje is a primarily agricultural province, especially for the production of the following crops: cassava, rice, cotton, corn, sweet potatoes, peanuts, sunflower, beans, soybeans and vegetables. In terms of livestock, the province includes cattle, goats, pigs and sheep.
20. **The province of Bié** is located in the center of the country, with an area of 70 314 km². A considerable part of the territory is occupied by open and savannah forest, cut by mountains, rivers and valleys and it is considered that the arable land represents 60 percent of its total area, of which only 20 percent is occupied for the practice of agriculture, the main economic activity of the population. In water terms, the province is served by a large basin formed by the river Kwanza and its tributaries Cutato, Luando, Cunhinga, Cunje, Cuquema and Cuiva. At the administrative level, Bié includes 9 municipalities, a population of 1 338 923 and a population density of around 18.9 inhabitants per km².²⁶ The climate is temperate and dry, temperatures range from 19 ° C to 21 ° C and there are two seasons: October to April, which is hot and rainy; from May to September that is dry, with average temperatures of 2 ° C and 10 ° C degrees during the months of greatest cold and 18 ° C to 25 ° C during periods of warmer climate.
21. The **Huambo Province** is located in the center of the country, it includes 11 municipalities, and covers an area of 34 274 square kilometers. It has 1 896 147 inhabitants and a population density of 56.9 inhabitants/km². The climate is tropical of altitude, with a dry and cold season and a rainy season, characterized by dry heat and continuous rainfall. The annual average temperatures are below 19°C.

²⁴ IDA. *Agricultural Year Report 2012-2013* quoted in *Angola Economic Report*. CEIC-UAN (2013)

²⁵ Found at: www.citypopulation.de/php/angola-admin.php

²⁶ *Ibid.*

22. The population of Bié and Huambo is characterized by the Ovimbundo ethnic group, and while the official language is Portuguese, the most widely spoken national language in the province is the Umbundo. The agriculture sector encompasses the majority of the population in small family farms that practice subsistence agriculture. The main agricultural productions are: citrus, potatoes, sweet potatoes, rice, maize, beans and cassava and vegetables of all kinds. Livestock is a subsystem of family farming and includes chicken, some goats, and a few pigs. In addition to agriculture, Huambo has other economic activities such as forestry, animal husbandry, tourism and some industry (food, textiles, wood, furniture, etc.).
23. The **province of Huila** is a southern province, consisting of 14 municipalities. It has about 2 354 398 inhabitants and is the second most populous province of Angola after the capital Luanda. It covers an area of 75 002 square kilometers and is characterised by a population density of 29.9 inhabitants/km².²⁷ Its capital is the city of Lubango. Huila province is located almost entirely above 1 000 meters altitude, in the Basin of Cunene River; the extreme west of the territory belongs to the Southwest basins, the temporary flow of rivers that cross the province of Namibe before emptying into the Atlantic Ocean and the extreme east of the Cubango basin. The climate of the province ranges from tropical in higher altitudes in the North and Centre to semi-arid areas in lower altitude in the south. There are two seasons: (i) a rainy season from October to April, characterized by average temperatures between 19 and 21°C and rainfall averages between 600 and 1 200 mm; and, (ii) a dry season, in the remaining months of the year, with average temperatures ranging between 15.5 and 19°C, marked daily temperature ranges, lack of rainfall and consequently quite low air humidity.²⁸
24. The population includes mainly the agro-pastoral ethnic group of Nyaneka-Humbe, as well as the ethnic group Mwila. The most spoken language in the province is Olunyaneka-Nkumbi even though a number of ethnic languages are spoken throughout the province.

1.2 RATIONALE

1.2.1 Baseline Situation

Existing policies, strategies and platforms related to Climate Change Adaptation (CCA)

25. Since 2000, Angola has shown its commitment to combating climate change through the implementation of the United Nations Framework Convention on Climate Change (UNFCCC), which is regarded as a national priority.
26. Angola adopted its *National Adaptation Programme of Action* (NAPA) in 2011. The objective of the NAPA aims to contribute to reducing the country's vulnerability in relation to the consequences of climate change, as well as to creating adaptation conditions in accordance with the urgent measures and sectoral priorities identified. The NAPA gives an overview of the priority and urgent activities to be undertaken to cope and adapt to climate change. These adaptation measures are in line with Angola's ratification of international conventions such as the UNFCCC, the United Nations Convention to Combat Desertification (UNCCD), and the Convention on Biological Diversity (CDB). The priority adaptation actions identified in the NAPA show among others a commitment to Sustainable Land Management (SLM), proactive adaptation, the creation of early warning systems, measures against soil erosion, crop diversification; and they cover various sectors such as water, energy, animal husbandry, forestry, fisheries, infrastructure and policies.

²⁷ *Ibid.*

²⁸ Found at: www.huila.gov.ao/InformacoesProvinciais.aspx?tipo=Perfil

27. In 2009, the *National Food Security and Nutrition Strategy* (ENSAN) was approved, and it has since been integrated within the Integrated Municipal Program for Rural Development and the Fight Against Poverty (PMIDRCP). Its overall objective was “to help ensure that all Angolans enjoy availability of food of adequate quality and variety at all times, as well as physical and economic access to this food, so that they may contribute to the human, economic and social development of Angola”. The Strategy recognizes the right to food as fundamental and aims to create conditions to guarantee that every Angolan citizen has access to food security, reducing the level of inequality in income distribution and structurally reducing extreme poverty. The objectives of the strategy consist of: increasing and diversifying agricultural, livestock and fishery production in a sustainable way to improve the standards of the populations' food supply and their living conditions; creating and implementing national and local rapid warning systems, monitoring systems for food and nutritional security, as well as mechanisms for communicating with and providing information to families; and creating an inter-sectoral platform for coordinating policies and actions in matters of food and nutritional security, with participation from civil society.
28. In terms of civil protection, progress has been seen with the approval of the *National Plan for Preparation, Contingencies, Response and Recovery from Calamities and Natural Disasters 2009 - 2014*, in 2009. The general objective of the National Plan for Preparation, Contingencies and Response is to define the lines of force that guide a suitable and concerted response, the conditions and the essential means to minimize the adverse effects of serious accident or catastrophe that affects the Angolan population. The planned response is given in the legal framework for Civil Protection and international standards. The involvement and participation of national and international partners when necessary must consist of supporting Government actions to provide assistance, in a coordinated way, to save the lives of those at risk and meet the humanitarian needs of the population. The Plan sets out scenarios for (i) Floods and mudslides that may be: Localised (activating the Provincial Plan); Medium (activating the National Plan); or Exceptional (activating the National Plan), with a declaration of a state of emergency and a request for international health; (ii) Drought: activation of provincial or national plans depending on the magnitude of the phenomenon. Different Ministries are involved in its implementation, MINAMB having implementation functions of the national and decentralized processes of preparation and coordination, the Ministry of National Defense being in charge of implementing safety and public order, the Ministry of Interior the Coordination of the political level decisions and the Ministry of Territorial Administration the implementation of actions of preparation and response²⁹.
29. A strong focus will be given to building the capacity of FFS expertise within Angola. It is essential that the project will benefit from the *FFS sub-regional network in SFS (FFS-SFS)*³⁰, exchanging technical expertise and materials within the sub-region. This will be done in part through broadening the base of experts in FFS to include civil society organizations, academia, research institutions, rural extension agencies and public servants. The goal will be to adapt FFS to Angola, initially through external experts, but then increasingly from within so that it is adopted and championed through local organizations. Capacity building activities will take into consideration existing knowledge and best practices from other Portuguese speaking countries and other countries within and outside SFS sub-region with evidence-based experience, through south-south cooperation and inter-country exchanges. The ‘peasant to peasant’ training methodology from civil society organizations such as La Via Campesina, can

²⁹ International Federation of Red Cross and Red Crescent Societies. *Background Report. Law and Regulation for the Reduction of Risk from Natural Disasters in Angola. A National Law Desk Survey*. October 2012

³⁰ Although not providing co-financing, the project will also leverage on the recently established Farmer Field School Network for Southern Africa (FFS-SFS) that connects practitioners, farmers, pastoralists and NGOs who are interested in FFS. The group works as an online platform to share knowledge, resources and collaborate on training. Members from Angola participated in December 2014 at a workshop in Zambia and further training workshops are planned for 2016.

be a useful tool to build on the existing expertise of local organizations and disseminate knowledge on agroecology FFS schools.

30. An *inter-ministerial commission for biodiversity and climate change*, and a *multi-sectoral commission for the environment* are in place in Angola. The proposed project will closely collaborate with these fora, in particular during the implementation of Component 3.
31. Additional national policies are described in section 1.6 below.

Baseline projects and programmes

32. The proposed project will build upon existing policies and strategies related to CCA in Angola, but also upon previous and ongoing baseline projects. The main baseline projects that will provide cofinancing to the proposed project include: The Smallholder Agriculture Development and Commercialization Project (SADCP), the Integrated Municipal Programme for Rural Development and the Fight Against Poverty (PMIDRCP), and Angola Contente and Novo Rumo projects. They are described in more details in the following paragraphs.

- **MOSAP**

33. The World Bank funded the Market Oriented Smallholder Agriculture Project (MOSAP) from 2008 to 2014, with an 11-month prolongation until March 2016. The objective of the project was to increase agricultural production through the provision of improved agricultural services and investment support to smallholder farmers in 25 communes from 12 municipalities in the Provinces of Bié, Huambo and Malanje. FAO Angola was contracted to provide technical assistance for the implementation of the Farmers Fields Schools (FFS) under the MOSAP project. The results of the first 5 years of project implementation (before the prolongation) can be summarized as follows:

- 64 master trainers trained;
- 1 087 facilitators participated in the training sessions;
- 490 FFS were created in the 3 Provinces; and
- 14 297 FFS members took part in the training sessions³¹.

34. The 11-month project extension (still ongoing) adds on to these results with the following objectives:

- Consolidation of the FFS results achieved during the first 5 years of implementation by reinforcing the capacity of FFS master trainers and facilitators, and by completing the FFS training cycles guaranteeing a regular and effective follow up in the field;
- Creation of 200 extra FFS in order to reinforce the capacities of 6 000 extra farmers;
- Creation of new theme modules to be included in the third FFS cycle on alphabetization, adult's education and organizational management;
- Formulation of a commercialization strategy;
- Strengthening of the internal system of Monitoring and Evaluation (M&E) and support to the global M&E system from MOSAP; and
- Specific trainings organized in agribusiness, FFS M&E, agricultural policies and strengthening the capacities of associations/cooperatives³².

35. MOSAP also supports capacity building activities for IDA staff in targeted provinces and municipalities. In addition, MOSAP contributed to an increase in agricultural production (the main supported crops were maize, beans, cassava and Irish potatoes) and the adoption of improved technologies in project sites.

³¹ MOSAP 2015 First Quarterly Progress Report. July 2015.

³² MOSAP 2015 First Quarterly Progress Report. July 2015.

36. MOSAP will finish by March 2016 and should therefore not be ongoing when the proposed project will start. However, the World Bank is currently developing a MOSAP follow-up through a project called Smallholder Agriculture Development and Commercialization Project (SADCP). For ease of reference, this project will be referred to as MOSAP II throughout this document. MOSAP II will be implemented from March 2016 to June 2021, with a total budget of USD 95 million, and is expected to benefit to around 175 000 rural households from 80 communes of 26 municipalities in the Provinces of Bié, Malanje and Huambo.
37. MOSAP II aims to increase public and private investment in the agriculture sector to: (i) ensure institutional continuity and scaling up support to smallholder farmers in Angola, which includes the strengthening of smallholder farmers and farmers' organizations through FFS; (ii) promote the diversification of the economy; and (iii) ensure sustainable use of natural resources. MOSAP II, while closely aligned and be similar to the previous MOSAP project, will broaden the scope of the latter and will include a sub-component on small scale irrigated agriculture. In addition to food crops, MOSAP II will also support the production of high value crops such as horticulture, and it will further strengthen the commercialization of the agriculture sector.
38. The main focus of the trainings to be provided in the FFS will be: (i) establishing and strengthening smallholder farmer organizations; (ii) strengthening farmers' knowledge about improved agricultural practices, modern agricultural technology, use of improved agricultural inputs and agricultural marketing; (iii) strengthening functional literacy and numeracy of farmers; (iv) improving household nutrition through crop diversification, use of more nutritious crops and crop varieties and better food preparation techniques. HIV/AIDS and gender awareness will be systematically integrated in the FFS, as cross-cutting issues. During the second cycle training, the following themes will be promoted, as shown in the table below.
39. Under (MOSAP II, the capacity of smallholder farmers and farmers' organizations will be strengthened in all critical aspects related to agriculture by using and scaling up the FFS approach. Over a 5 year period, MOSAP II will implement approximately 5 000 FFS with 30 participants each, effectively training about 150 000 smallholders in 80 communes in 26 municipalities. MOSAP II will also train master trainers and FFS facilitators. The FFS training cycle for MOSAP II will be similar to MOSAP I, as presented in the table below.

Table 2: FFS training cycle under MOSAP II

1 st cycle – Basic crops	2 nd cycle - Diversification	3 rd cycle - Consolidation
<ul style="list-style-type: none"> - Participatory diagnostics - Organization of the FFS programme - Production techniques for the main crops of the area (cassava and beans for Malanje and maize, potato and beans for Huambo and Bié) or of by-products - Social themes on gender, basic sanitation, HIV/AIDS, planning, etc. 	<ul style="list-style-type: none"> - Reinforcement of the themes of the 1st cycle - Diversification of crops: (beans, vegetables, potatoes etc.) - Climate-smart agriculture: soil management, irrigation, soil improving plants, agro-forestry, crop rotation, composting - Rational use of chemical fertilizers - Social themes as per 1st cycle, and nutrition (to accompany crop diversification) 	<ul style="list-style-type: none"> - Sustainable management of soils - Reinforcement of the structure and management of farmer organizations - Integration of agriculture-livestock, forestry - Commercialization, processing and micro credit - Social themes: literacy and numeracy

40. The GEF/LDCF project will particularly cooperate with MOSAP II during that second and third cycle training. The GEF/LDCF project will provide technical support and expertise in: i) the development of specific training curricula on CCA and SLM practices and activities; ii) the provision of refresher trainings to master trainers; and iii) the provision of refresher trainings to facilitators. The GEF/LDCF technical support will be provided progressively and according to the MOSAP II work plan, to master trainers and facilitators that would have been

recruited and initially trained within the MOSAP II structure in the three provinces of intervention of MOSAP II (Malanje, Bié and Huambo).

41. The GEF/LDCF project will provide technical support and expertise through updated AP/FFS curricula focusing on: i) improving soil fertility and integrated nutrient management through agroecological practices (including specialized trainings); ii) providing training and curricula on agroecology and environmental practices related to soil conservation, rational use of water, fertilizers, integrated nutrient management and promoting integrated pest management; iii) the use of FAO developed tools such as the Land Degradation Assessment in Drylands (LADA) tool and Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists (SHARP). These tools will be employed to assess and build capacity in assessing land degradation and climate resilience respectively.
42. FAO will be involved in the implementation of the FFS for the first three years of implementation of MOSAP II, including through the proposed project that will focus in particular on CCA and SLM practices. During the first three years, FAO will train a team of Government experts to become FFS Master Trainers, who will take over the responsibility for FFS programme implementation starting in year 4. In addition, the current project will strengthen the institutional capacity of the ministry in order to establish the FFS approach as nation-wide extension system.

- **PMIDRCP**

43. In 2010, the Government merged the Strategy against Poverty (ECP – *Estrategia de Combate a Pobreza*) and the National Food Security and Nutrition Strategy (ENSAN – *Estrategia de Segurança Alimentar e Nutricional*), resulting in the Integrated Municipal Program for Rural Development and the Fight against Poverty (PMIDRCP). The general objective of this national programme is to reduce levels of extreme poverty in Angola and particular in rural areas, promoting access to basic public services and turn Angola into a prosperous country with social justice. The PMIDRCP is a yearly rolling-out program. Some of the strategic objectives of the PMIDRCP by 2017 include: access to food and opportunities in rural areas; ensure the availability, stability and sustainability of food supply, favouring connection between areas with surpluses and higher consumption capacities in order to restore the internal market; and territorial organization and planning, decentralization and de-concentration. The municipal level activities implemented under the PMIDRCP include the Programme for the Acquisition of Agro-pastoral Production (PAPAGRO - *Programa de Aquisição de Produtos Agro-Pecuários*) which provides financial and technical support to economic operators and strengthen the connection between farmers and these operators mainly through infrastructure development. The program supports the National Food Security and Nutrition Strategy by aiming to increase the income of smallholder farmers and provide them with access to market opportunities for their production. The main areas of activities include: eliminating obstacles and contingencies confronted the commercialization of agriculture products, promoting the integration of rural and urban regions and zones; supporting dynamic rural livelihoods; supporting governmental policies; having a positive impact on poverty reduction; and, improving the quality of life of Angolans and increasing food security.
44. The GEF LDCF project will collaborate with the PMIDRCP and the PAPAGRO mainly in Huila Province where it will support the establishment and implementation of 150 new FFS. In Huila Province, PAPAGRO has supported the creation of Agro-pastoral production collect and marketing centres (AGROMERCAS) and works with five cooperatives created under two different associations (Cooperativa. Empresarial do Lubango, Cooperativa Empresarial de Caluquembe and Cooperativa. Empresarial de Cacula which form part of the Angolan Industrial Association (AIA); Fazenda do Malipi and Fazenda do Guingui which form part of the ex-FAPLA Fighters Support Association (ASCOFA) and one rural logistical agent (private operator). These operators are being supported through the provision of 3 percent loans and some transportation means such as trucks. Farmers that will benefit from the trainings,

equipment and inputs in the 150 new FFS that will be created under the GEF/LDCF project will be connected to these 6 economic operators in order to strengthen their access to market.

- **Angola Contente**

45. The MINAMB, in association with the Catholic University of Angola (UCAN), and the Association of Ecologists and Environmentalists of Angola (AEA) have been implementing the project *Angola Contente* since 2013. It is a yearly rolling-out project that will still be running in 2016 and 2017. The project is a nationwide initiative that aims to promote the development of training in environmental and social education, as well as other sectors which aims at improving the quality of life of the population. This project was expected to train a number of activists in environmental education, concerning the role of local government in environmental conservation, the role of gender in environmental protection as well as providing training and skills for the dissemination of good environmental practices.

46. The project undertook such activities as mobilization and environmental awareness through tree planting campaigns, community clean-up, and door to door canvassing. The activities showed a large interest with a number of youth signing up to be activists: 480 in the province of Luanda, 312 in the province Huambo, 378, in the province of Cuanza-Sul, 287 in the province of Cuanza-Norte, and 493 in the province of Benga. The programme also created 30 municipal focal points in those provinces which provide environmental education, and a variety of environmental education programming, including six in the province of Huambo. The GEF/LDCF project will closely collaborate with *Angola Contente* in mainstreaming CCA aspects and environment concerns at the local and provincial level. In Huambo, trained activists will be associated to the training on CCA and SLM aspects that will be conducted under component 1 and could also be recruited as Master Trainers for the FFS network to be put in place under MOSAP II.

- **Novo Rumo**

47. The MINAMB is supporting the Novo Rumo project that aims to reduce the vulnerability of families in rural and peri-urban areas to environmental impacts through social education of families and targeting women as they are often in charge of daily activities. The main activities of this project are to: (i) raise awareness on the main challenges in combating poverty and how to minimize these challenges within the community through environmental conservation; (ii) inform different local stakeholders regarding environmental issues through the coordination of working groups on key issues and how to improve the management of local resources; (iii) help local organizations to support municipalities in environmental management and building capacity of women to become activists and agents for eco-development, to prevent environmental damage and to keep communities in environmental health; and, (iv) support local administration in the development of local educational programs, recreational activities that encourage environmental education, and in urban areas education programs on hygiene and environment.

48. This project started in 18 provinces in October 2014. It is a yearly rolling-out project that will still be running in 2016 and 2017. In all four targeted provinces, the GEF/LDCF project will closely collaborate with Novo Rumo project in all trainings and awareness raising sessions as part of Component 1, complementing with new themes including CCA and SLM the initial awareness raising sessions that were conducted under the Novo Rumo project. Under Component 3, the GEF/LDCF project will work with municipalities supported by Novo Rumo in environmental management, further strengthening their capacities to manage land and natural resources.

- **TERRA programme**

49. FAO has been implementing the TERRA Programme in Angola, which was aimed at strengthening the capacities of local governmental and non-governmental actors towards a

decentralized and community-based Natural Resources Management (NRM) framework supportive of equitable and sustained growth in rural areas.

50. A follow up to the TERRA programme, called “TERRA: waking rural communities up – institutional support for improved land governance, tenure and management to promote family farming and equitable rural development in Angola”, will start in August 2016 (expected date) under FAO implementation. For ease of reference, this programme will be referred to as TERRA throughout this document. The TERRA programme’s objective is to improve the livelihoods of the most vulnerable rural population in the Central Highland and South of Angola through securing and improving equitable access to land and natural resources for food security and socio-economic development. The outcome of the programme is to promote an improved and more gender equitable governance of communal land and natural resources tenure by supporting local stakeholders, both state and non-state, to strengthen the corresponding institutional framework in Huíla, Bié and Huambo province. In Huila, TERRA will be implemented in the municipalities of Lubango, Chiange, Humpata, Cacula, Caluquembe, Quilengues, Caconda, and Quipungo. In this province, the GEF/LDCF project will be active in the municipalities of Cacula, Caluquembe and Quilengues as well (see description below part 2.1.2 Project Intervention Areas). In these 3 municipalities, both projects will closely collaborate in mapping family agriculture, land tenure and natural resource use systems and in developing appropriate management tools together with the municipalities. Complementary trainings on the use and application of legal land rights packages and on implementing climate resilient investments will be provided to municipal administrations. Complementary to the municipal inclusive land use planning work to be conducted by TERRA under its first output, the GEF/LDCF project will support municipalities in developing an inclusive land and natural resources management system including CCA considerations. This will be extended to the fourth municipality supported by the GEF/LDCF project in Huila Province as well.

51. The baseline project and programmes that will co-finance the proposed project are summarized in the table below:

Project name	Lead agency	Duration and budget
MOSAP II	World Bank, MINAGRI/IDA (Institute of Agrarian Development)	March 2016 – June 2021 USD 95 million Co-financing amount: USD 13,500,000
PMIDRCP	MINCO	Will be running until 2017 Yearly rolling-out project Co-financing amount: USD 2,494,230
Angola Contente	MINAMB	Will be running until 2017 Yearly rolling-out project Co-financing amount: USD 2,000,000
Novo Rumo	MINAMB	Will be running until 2017 Yearly rolling-out project Co-financing amount: USD 1,125,000
TERRA	FAO	August 2016 – July 2020 USD 4 million Co-financing amount: USD 4 million

1.2.2 Challenges

Agricultural sector challenges and food insecurity

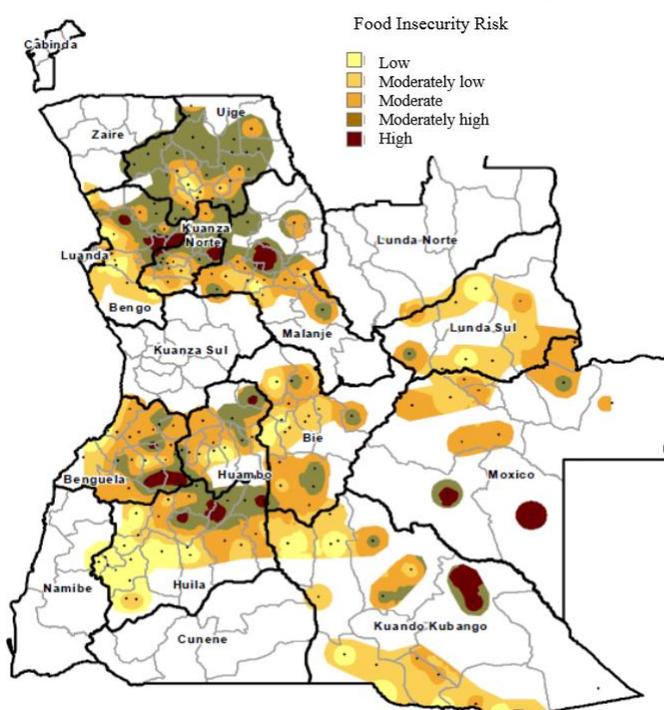
52. The agricultural sector in Angola faces several challenges. Even though the country has very different climate and relief, constituting different agro-ecological zones that favour the development of well diversified farming practices, the agricultural sector has been strongly affected by the civil war from 1975 to 2002. While Angola was a major exporter of agricultural products during the colonial era, it is nowadays an importer of basic food products. The civil war resulted in a significant exodus of the rural population to urban peripheries, leading to situations of extreme poverty and food insecurity³³. The map below shows that the provinces of Malanje, Huambo and Huila have areas of high food insecurity risks and all provinces have areas of low to moderately high risks of food insecurity.

53. The agricultural sector was also affected by the crisis generated by the domestic debt in 2010. As a result, the main agricultural production programmes were greatly harmed due to the scarcity of financial resources. From 2008 to 2010, the weight of the agriculture sector in the national budget reduced from 4.45 percent to 1.97 percent, which is equivalent to a reduction from over USD 1.5 million to less than USD 0.7 million³⁴.

54. The agricultural sector also has to cope with weak technical and institutional capacities, which represent a significant challenge to address both agricultural and natural resources management issues. The civil war affected capacities in both the public and private sectors, which are now insufficient to provide the services and technologies needed by smallholder farmers to improve their knowledge and farming practices. This is highly exacerbated in rural areas of Angola, given the rural to urban migration, provinces with high agricultural dependent populations such as Bié do have access to a weak municipal agricultural extension services or provincial level services.

55. Aside from the lack of capacities, the agricultural sector also suffers from a limited access to inputs and tools for the management of their production. For instance, farmers no longer attempt to grow traditional high value crop such as peanuts, soy or potatoes because of a lack of access to quality seeds and tools, and access to market³⁵. In most communities, agriculture only allows for subsistence, and the lack of investments towards livestock production, infrastructure and support systems for production and commercialization represents a significant challenge for farmers to access markets.

Figure 8: Level of Food Insecurity Risk in Angola¹



³³ Diagnostico Agrario Territorial da Provincia do Huambo, FAO and acid, 2013.

³⁴ *Relatório de Segurança Alimentar*, 2012

³⁵ Project Identification Form

Climate change and environmental challenges

56. The analysis made for the IPCC 2007 report in the Angolan central plateau predicts a combination of increased aridity, temperatures, and extreme rainfall events. If such predictions were to become true, given the rainfall dependency of most staple crops, combined with unsustainable agricultural practices and prevalent soil erosion, it would have severe impacts on smallholder farmers who do not have the technical and capacities to properly adapt to these changes³⁶. This is relevant to the provinces of intervention, where the majority of the population are subsistence farmers.
57. Climate change could also have an impact on the spread of animal diseases, which are dependent to a certain extent on temperature and humidity. For instance, Northern Angola is a tsetse fly area, and even though control measures have been put in place to limit the epidemic to this area, changing temperature and rainfall pattern could lead to the spread of the disease elsewhere³⁷.
58. Angola's ecosystems are diverse and offer significant natural resources. However, the country does not have the necessary legal framework and oversight to effectively manage and protect its forest resources³⁸. The overall weak natural resources governance also led to the degradation of agricultural resources, in particular because of unsustainable farming methods and overgrazing.
59. Soil erosion is another significant issue in Angola which has negative implications on sedimentation in the fluvial basins, soil nutrient depletion in agriculture, as well as on the industry and infrastructure sectors. Human-induced activities such as mineral extraction, wood and timber exploitation are common in the country, although they leave the ground bare, without protection or vegetation cover, which aggravates the risk of soil erosion. Vegetation and organic material protect soil surfaces during the rainy season as they limit the movement of water on the surface and foster infiltration into the soil, thereby reducing the speed of surface run-off. Where human-induced activities are too intense, the soil tends to be deprived of organic matter, leaving the surface bare, which prevents water from soaking into the soil, thus leading to increased surface water runoff. More extreme rainfall events induced by climate change has already increased surface runoff that has led to massive landslides in some poorly constructed urban areas, as well as on bare or deforested slopes. Soil erosion and the risks it entails are therefore likely to be intensified with the impacts of climate change in Angola.

Land tenure issues

60. Land tenure issues are one of the contributing factors to environmental degradation and the over exploitation of natural resources. The legal and political gaps after the civil war encouraged spontaneous occupation of agricultural land, uncontrolled logging of hillsides and the over exploitation of other natural resources.
61. In Angola, the land belongs to the State which decides its final use and management, such as the differentiation between public and private land. In 2004, the government enacted a land law that recognized to some extent traditional land rights. However, even though the law was enacted more than 10 years ago, its implementation remains limited at the local level and most access to land and natural resources remain primarily regulated by customary rule. Smallholder farmers are particularly affected by this incomplete implementation of the legal framework since they are at the forefront when it comes to land tenure conflict from

³⁶ Republic of Angola. *NAPA*. 2011

³⁷ *Idem*.

³⁸ FAO. 2014. *Land, Territorial Development and Family Farming in Angola: a holistic approach to community-based natural resource governance*

agricultural investments, increasing impacts of climate change combined with natural resources depletion and latent food security³⁹.

Institutional Challenges

62. The institutional capacity of Angola has been weakened by the conflict and as a result, the amount of staff and expertise available is quite limited. It is especially true for the planning and management of natural resources at municipal levels. The lack of capacity is aggravated by the lack of information systems and technical expertise⁴⁰.
63. There is little institutional support for research and extension services on land issues, climate change and family farming. As knowledge production was interrupted during the conflict, the transmission of knowledge was not effectively carried out⁴¹. For instance, rural agricultural extension officers at the provincial level have very limited knowledge on resilient farming practices⁴².
64. In addition, the institutional collaboration between the environment and agriculture sectors has been weak with regards to the management of climate change impacts.

Agro-meteorological sector challenges

65. In Angola the meteorological observation networks are under the responsibility of INAMET (National Institute of Meteorology and Geophysics - *Instituto Nacional de Meteorologia e Geofisica*) on one side, IDA (Institute of Agrarian Development - *Instituto de Desenvolvimento Agrario*) and Civil Protection Services and Food Security (GSA) on the other side. The mandate of INAMET is to provide meteorological services to the economic sectors as recognized by the Government's laws, but the lack of financial sustainability has caused a low level of efficiency in this institution. More than technological, the gap is institutional and organizational within and among these institutes and there is a real need to develop an integrated and coordinated meteorological information management system to avoid duplication. The main challenges for improved agro-meteorological information are: (i) to integrate the two meteorological networks of INAMET and IDA/GSA; (ii) to increase the density of INAMET observing network particularly in agricultural areas; (iii) to standardize data collection and archiving and for the creation of a unique database; (v) to build a real agro-meteorological capacity at INAMET and at GSA (Food Security Office - *Gabinete de Segurança Alimentar*); (vi) to de-centralize the management information system in order to be able to provide tailored information to various users at Provincial level.
66. In the agro-meteorological sector, among other duties, INAMET ensures the functioning of the network of automatic stations and conventional observations of atmospheric parameters, carrying data storage, processing and dissemination. INAMET is represented across the country through its provincial departments. However, the infrastructure and human resources capacity of INAMET have deteriorated over the years and as a result, the density of the weather monitoring network is very low. The number of stations decreased from almost 500 to 20 during the course of 1975 which means that in Angola the only acceptable meteorological records are from 1945 to 1975. A considerable number of climate records available remain in analogue format, but with a lot of gaps in the sequence of climate data records between 1961 and 2000. The lack of meteorological data since the war has had severe consequences on climate analysis at national, provincial and local level and is a significant hindrance for present and future climate change impact assessments on the agricultural sector. The meteorological stations network has been affected by the civil unrest. Before the war, 32

³⁹ FAO. 2014. *Land, Territorial Development and Family Farming in Angola: a holistic approach to community-based natural resource governance*

⁴⁰ *Relatório Nacional*, Ministério do Planeamento, 2005

⁴¹ *Idem*

⁴² PPG report on the agro-meteorology sector

synoptic stations, 225 climatological stations and 282 rainfall stations were functional while today, only 29 synoptic stations, 23 of which are operational (12 Automatic Weather Stations (AWSs) and 11 conventional) remain, together with one operational rainfall station at the national level⁴³. The lack of financial resources in the agro-meteorological sector is a serious challenge as it prevents INAMET from properly maintaining existing weather stations.

67. Human resources are understaffed within INAMET with only 8 meteorologists at the national level, which means that the institution does not have the capacity to meet all the World Meteorological Organisation's weather monitoring standards. INAMET is also not able either to implement proper agro-meteorological activities on the ground due to this lack of staff. In addition to the limited number of staff, INAMET also lacks skilled professionals to properly analyse data and produce information.
68. Apart from the lack of capacity within INAMET, the agro-meteorological sector faces communication challenges. Communication systems are still dependent on phone lines and the installation of a more reliable internet communication is needed to allow real time data and information exchange between the Provinces and the Forecasting Centre at INAMET in Luanda. The dissemination of climate information is particularly poor in rural areas due to: (i) lack of an efficient communications system at provincial level; (ii) language of communication, mainly in Portuguese, which is not understood by a larger number of rural communities; (iii) limited media communicating the information, which is mainly through radio and television; (v) lack of communication experts able to deliver clear and understandable messages to end users who can make use of the information for adaptation measures.

Gender issues

69. Angola's constitution grants the same rights and protection to men and women. Women have the right to own land separately and jointly with their husband, however in practice the men are the landowners through inheritance, while the women tend to move to their husband's land. In case of separation or death, the women return to their family's land. Women have less political representation and economic powers than men⁴⁴. Women represent approximately 70 percent of the agricultural workforce and 75 percent of the livestock raising labour but are a minority when it comes to land ownership⁴⁵. In the livestock sector, while men own most of the large herds and mostly cattle, women are involved in the rearing of small ruminant and poultry for household consumption and food security rather than offering commercial opportunities and economic and social empowerment⁴⁶. Even though they represent a major portion of the workforce, women have less access to agricultural resources and support mechanisms⁴⁷. Regarding political representation, women are underrepresented in national decision making positions as well as in the local decision making bodies. It is estimate that less than 1 percent of *sobas* (traditional authorities at the community level) are women⁴⁸. Aside from fewer political and economic opportunities, women have historically had less access to education and therefore have a lower literacy rate than men, the adult literacy rate female to male ratio being 71 per cent.⁴⁹

⁴³ Republic of Angola. *Initial National Communication to the UNFCCC*. 2012

⁴⁴ Rural Development Institute (2008), quoted in FAO. 2014. *Land, Territorial Development and Family Farming in Angola: a holistic approach to community-based natural resource governance*

⁴⁵ FAO. 2014. *Land, Territorial Development and Family Farming in Angola: a holistic approach to community-based natural resource governance*

⁴⁶ USAID. 2007. *Strengthening Land Tenure and Property Rights in Angola*.

⁴⁷ African Development Bank. 2008. *Angola Country Gender Profile; Agricultural and Agro-Industry Department North East and South regions*

⁴⁸ Rural Development Institute 2008 quoted in FAO. 2014. *Land, Territorial Development and Family Farming in Angola: a holistic approach to community-based natural resource governance*

⁴⁹ For 2008 – 2012, Found at : http://www.unicef.org/infobycountry/angola_statistics.html

70. In the traditional land system, inheritance of livestock predominantly happens through a matrilineal system according to which land assets go from the male household head to his sister's son (nephew of the household head). While women play an important role in determining when and how assets will be used and allocated, this system prevents them from explicitly owning and accessing land independently⁵⁰, which negatively impact their economic opportunities.

1.2.3 Additionality

71. In the baseline, the co-financing projects MOSAP II, PMIDRCP, Angola Contente, Novo Rumo and TERRA provide entry points for addressing some of the challenges described in the previous section that are likely to be aggravated with climate change. This constitutes a cost-effective opportunity to finance the additional costs of adaptation using LDCF funds.
72. With additional financing from LDCF, the proposed intervention will: (i) develop the basic foundations for mainstreaming CCA into rural development and agriculture policies and strategies; (ii) develop the tools and capacities for delivering in a cost-effective manner, climate change support and advice to vulnerable rural communities; (iii) provide and disseminate resilient agro-pastoral practices and measures to a sizeable number of rural communities; and (iv) ensure sustainability by integrating CCA into key policy initiatives and ensuring lessons are learned and disseminated. Specifically, the proposed project will work through the following three components:

Component 1: Strengthening knowledge and understanding of climate change vulnerability and adaptation

73. LDCF and cofinancing funds under this component will be used to strengthen the adaptive capacities of MINAMB, MINAGRI, MINCO, provincial governments, civil society organizations, INAMET and GSA. This will be achieved by providing training on CCA and SLM to the staff of the different institutions and civil society organizations, as well as by conducting rapid climate change vulnerability/resilience assessments and training meteorological staff to regularly update vulnerability information.
74. As mentioned above, Angola's institutional capacity is weak, with particularly limited expertise on planning and management of natural resources. In addition, research and extension services on land issues, climate change and family farming remain limited and rural agricultural extension officers at the provincial, municipal and communal level lack basic knowledge on resilient farming practices. Such lack of institutional capacities is partly addressed by baseline projects such as MOSAP. For instance, MOSAP supported capacity building activities for IDA's staff, and provided trainings on: agricultural markets, commercialization, processing and agricultural production, as well as on monitoring and evaluation of FFS. However, the trainings provided under MOSAP did not focus particularly on CCA or SLM and the capacity gap remains significant. Additional LDCF funds will be used to complement baseline projects by specifically strengthening capacities on CCA and SLM practices in crop-livestock production systems for MINAMB, MINAGRI, MINCO, provincial government and civil society organizations. The project will build upon the Angola Contente and Novo Rumo programme implemented by MINAMB that raised awareness and trained extension staff on environmental issues.
75. In addition, as stated above in the challenges section, the Angolan agro-meteorological sector significantly lacks data and capacities. While baseline project such as MOSAP and PMIDRCP

⁵⁰ FAO. 2014. *Land, Territorial Development and Family Farming in Angola: a holistic approach to community-based natural resource governance*

contribute to the improvement of smallholder farmers' livelihoods, agro-meteorological considerations are out of their scope of intervention. However, the lack of meteorological data in Angola has severely impacted climate analysis at the national, provincial and local levels, which is a hindrance to measuring and adapting to climate change impacts in the agricultural sector. Additional LDCF funds will contribute to filling this gap by providing adequate theoretical and practical agro-meteorology training to INAMET and GSA staff. The proposed project will also support INAMET and GSA in the consolidation of historical climate archive and meteorological database. Finally, under this component, LDCF funds will be used to perform a rapid climate vulnerability assessment in the regions of interventions. Improved agro-meteorological capacities and data in Angola will benefit to other ongoing and future projects that will be able to base their intervention on accurate meteorological information and analysis.

Component 2: Scaling up of improved CCA/SLM practices through Farmers Field Schools

76. In the baseline, MOSAP has been implementing a network of FFS in Huambo, Bié and Malanje provinces, but they do not particularly focus on CCA and SLM practices. The MOSAP project is coming to an end but the follow up project is planned through MOSAP II, which will continue expanding the network of FFS in Huambo, Bié and Malanje provinces.
77. Additional LDCF funds will be used in several ways to complement baseline projects and strengthen the FFS network in Angola. First, the LDCF contribution will be used to develop specific training tools on CCA, agroecology and SLM practices (including FAO CCA tools including SHARP). The proposed project will provide training or re-training on CCA, agroecology and SLM practices for master trainers and facilitators that would have been recruited and initially trained within the MOSAP II structure in the three provinces of intervention (Huambo, Bié and Malanje).
78. LDCF funds will strengthen the existing network of FFS in the country by setting up new FFS in Huila Province, which is not covered by MOSAP II. These new FFS will focus in particular on showcasing CCA and SLM practices to smallholder farmers. Master trainers and facilitators will be recruited and trained in this province through support from the GEF/LDCF project. 150 new FFS will be established and a 3 cycle training course will be provided to the participants of these new FFS. Equipment and inputs will also be provided.
79. In the baseline, the PMIDRCP/PAPAGRO aims to improve the nutrition and food security of smallholder farmers through the implementation of a series of municipal level activities. Among other activities, PAPAGRO provides technical and financial support to 6 economic operators in Huila province to strengthen their operational capacities to buy and market agricultural production. The proposed project will create links and connections with these 6 operators, strengthening the potentialities of farmers participating in the FFS to sell their products and access to the market.

Component 3: Mainstreaming CCA into agricultural and environmental sector policies and programmes

80. As mentioned in the challenges section above, Angola faces limited institutional capacities and collaboration across sectors is not yet effective on climate change issues. This aspect is not addressed by baseline projects. Additional LDCF funds will allow the proposed project to support several institutional bodies for a better inter-sectoral collaboration and coordination on climate change related issues. In the baseline, an inter-ministerial commission for biodiversity and climate change, and a multi-sectoral commission for the environment are already in place, but they lack operational and technical capacities on CCA. LDCF funds will be used to strengthen the technical component of these existing commissions and create institutional capacity to drive these commissions after the end of this project. Furthermore, the proposed project will also set up a specific inter-sectoral task force gathering MINAMB, MINAGRI, MINCO, civil society organizations, academia and research institutions to increase their collaboration on climate change issues.

81. MINAMB has implemented some environmental education and awareness raising programmes such as the projects Angola Contente and Novo Rumo at the municipal level. However, this kind of programme did not focus specifically on CCA and SLM related issues, but rather on environmental campaigns on tree planting or waste for instance. The GEF/LDCF project will work with municipalities supported by these two projects in environmental management, further strengthening their capacities to manage land and natural resources.
82. Furthermore, the institutional capacities within MINAMB remain very limited in terms of CCA and SLM. To fill the capacity gap in the environmental sector, additional LDCF funds under this component will be used to formulate and implement a 5 year strategy to help MINAMB, MINAGRI and MINCO planning teams mainstream CCA and SLM into future sectoral planning and budgeting.
83. Finally, as mentioned in the challenges section above, Angola faces land tenure issues. Through the TERRA Programme, FAO has been engaged in land issues in Angola and was successful in registering the rights of customary communities in Huila and Bié Province for instance. The project also supported land-rights workshops and institutional capacity-building, development of public awareness materials, and support for land-rights formalization. Despite these efforts and the existing legal framework, the implementation of land-related legislation remains weak in Angola. The TERRA Programme financed by the Spanish cooperation ended in April 2014 and was extended through an agreement with the NGO World Vision. It will be followed up by a new phase financed by the European Union and expected to start in August 2016, which will continue the work of the TERRA Programme on land tenure and will focus on strengthening the land management framework in municipalities. Additional LDCF funds will be used to complement the work of the TERRA Programme and will in particular contribute to provide complementary trainings on the use and application of legal land rights packages and on implementing climate resilient investments to 3 municipal administrations also targeted by Terra. Complementary to the municipal inclusive land use planning work to be conducted by Terra under its first output, the GEF/LDCF project will support these 3 municipalities in developing an inclusive land and natural resources management system including CCA considerations. This will also be extended to the fourth municipality supported by the GEF/LDCF project in Huila Province.

1.3 FAO's Comparative Advantage

84. FAO is the lead UN agency for agriculture, fisheries, forestry and rural development. Its mandate is to offer Member States the policy and technical ability to raise their levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy while safeguarding natural resources. The proposed project is aligned with FAO's comparative advantage on multiple levels: (i) FAO's experience in dealing with food security and rural production; (ii) FAO's experience with the FFS approach; and (iii) FAO's existing involvement in crop and animal production and land/range management in Angola.
85. In terms of food security and rural production, FAO has in-house technical expertise in the wide variety of disciplines related to rural development as well as a capacity to respond to the needs of specific countries. These areas include, among others, policy and strategy development, crop and livestock development, forestry, agriculture and food security information systems, early warning systems, agribusiness and enterprises, sustainable land management and planning, forestry, CCA, and livestock and fisheries systems. At a policy level, FAO has promoted and facilitated coordination between different governmental institutions and relevant stakeholders, all involved in rural development.
86. FAO plays a key role in terms of land management and land-related policies. For instance, FAO has been the driving force to develop and formulate the voluntary guidelines on the

responsible governance of tenure of land, fisheries and forests. These guidelines serve as a reference and set out principles and internationally accepted standards for practices for the responsible governance of tenure at national levels through all regions. In Angola, FAO is involved in the implementation of the TERRA Programme since 1999, which aims to deliver quality and adapted institutional support and capacity building to the institutions dealing with land tenure and management through the promotion of family farming and equitable rural development.

87. The proposed project also supports up-scaling of the FFS approach developed by FAO and which will be used for relevant technology verification and implementation, adoption and related capacity building activities. FAO's Department of Agriculture and Consumer Protection recently completed a review of 20 years of FFS experience, which will lead to the elaboration of a FFS-efficiency Monitoring System and facilitate access to additional funding for FFS-based activities under a results-based framework, including in Angola.
88. Finally, FAO gained extensive experience with FFS through the implementation of a series of projects since 2001. In Angola, FAO has been supporting the efforts to develop a National Food and Nutritional Security Strategy, to implement FFS, and to improve livestock management and land planning. In particular, FAO has recently been scaling up and implementing the FFS approach through the MOSAP. FAO has thus gained valuable experience during the implementation of these projects and has a solid knowledge of the current FFS network in Angola, which represents a significant advantage that will benefit the proposed LDCF project. A sub-regional FFS network is available in SFS, of which Angola is a member, with the aim to support the development of the FFS approach and to exchange relevant expertise, information and training materials, therefore this project will benefit from active participation in this network.
89. The FAO has been working in a number of countries to increase resilience of livelihoods to threats and crises that affect agriculture, food and nutrition. The FAO has been working in three key areas, namely natural hazards, food chain threats, and protracted crises. Its regional work in Southern Africa has focused on strengthening resilience of vulnerable people in Africa's drylands, in conflict areas, or areas with socio-economic crises, areas with transboundary plant and animal pests and diseases, high levels of poverty, food insecurity and malnutrition. The organization has been committed to promoting resilience strategies and policies by promoting institutional capacity, monitoring risk and providing early-warning, community level resilience, and preparedness and response to hazards.

1.4 PARTICIPANT AND STAKEHOLDER ANALYSIS

90. The main stakeholders from the government of Angola that will be involved in the project are the following.
91. The **Ministry of the Environment (MINAMB)** is the central government body responsible for the coordination, development, implementation and enforcement of environmental policies, particularly in the areas of biodiversity, environmental technologies and the prevention and assessment of impacts as well as the environmental education. The MINAMB's Organic Statute (approved by Government Order 201/10) establishes that among the National Environmental Directive's competencies are: (i) Promoting and coordinating the development of policies, programmes and actions for the control and reduction of GHG emissions; (ii) Adopting and promoting strategies to educate citizens about the environment; and (iii) Participating in and conducting studies and programmes to collect environmental indicators that would contribute to the equilibrium and quality of the environment. There are four directorates, namely:
 - National Directorate for Environmental Management;
 - National Directorate for Biodiversity;

- National Directorate for Environmental Technologies; and
- National Directorate for the Prevention and Evaluation of Environmental Impacts⁵¹.

MINAMB will be the lead Government Counterpart and coordinating agency of the project. In particular, MINAMB will be closely involved in the Government capacity building trainings on CCA and SLM (Output 1.1), in the inter-sectoral task force on CCA (Output 3.1), and in the capitalization of project's best practices and lessons learned (Output 4.3).

92. The **Ministry of Agriculture (MINAGRI)** is responsible for agricultural, rural development and the forestry sector, its mission is to undertake the design and implement agricultural and food security policy, ensure sustainable rural development, oversee the welfare of rural communities, as well as ensure sustainable fisheries and aquatic biological resources and forestry. MINAGRI will have a co-leading role in the project and will be closely involved in the capacity building trainings on CCA and SLM (Output 1.1), in the inter-sectoral task force on CCA (Output 3.1), and in the capitalization of project's best practices and lessons learned (Output 4.3).

MINAGRI comprises the following institutes relevant to the project:

- *The Agrarian Development Institute (IDA)* which is responsible for defining and implementing extension services to support small farmers through the Provincial Agriculture Offices and the Agrarian Development Stations (EDA). IDA will be involved in the provincial training sessions on CCA (Activity 1.1.3), in the elaboration of Climate Vulnerability Assessment (CVA) (Activity 1.2.3), and in setting-up FFS under Component 2; and
- *The Food Security Office (GSA)* which is a technical support entity within MINAGRI in charge of defining and following-up on the implementation of policies and strategies that allow the improvement of food security; calculating the food deficit, alerting the government about the magnitude of the situation and proposing alternative measures to mitigate its effects through a rapid alert system; conducting studies about the use of the safety stock in case of emergencies; elaborating socioeconomic studies to track the evolution of the poverty level in rural and urban areas, and its effect on the country's different social classes. GSA will be involved in the training and development of CVA (Output 1.2).

93. The **Ministry of Trade (MINCO)** is responsible for the preparation, implementation, monitoring and control of trade policy, aimed at regulating and disciplining the exercise of trade activity, to promote the development, planning and modernization of business infrastructure as well as ensuring free and fair competition between traders, and safeguarding the rights of consumers. MINCO is implementing the co-financing project PMIDRCP. The ministry will play a co-leading role in the project and will be closely involved in the capacity building trainings on CCA and SLM (Output 1.1), in the inter-sectoral task force on CCA (Output 3.1), and in the capitalization of project's best practices and lessons learned (Output 4.3).

94. The **National Institute of Meteorology and Geophysics (INAMET)** is the national institution with mandate for monitoring the weather and climate. It is also a research organization and provides scientific services in the fields of meteorology and geophysics under the Ministry of Telecommunications and Information Technologies (MTTI). INAMET ensures the functioning of the network of Automatic Weather Stations (AWS) and conventional observations of atmospheric parameters, carrying data storage, processing and dissemination. INAMET is represented across the country through its provincial departments. Under the project, INAMET will be closely involved training and development of CVA (Output 1.2).

⁵¹ Found at : <http://www.minamb.gov.ao/VerImagem.aspx?Imagem=229&tipo=CI>

95. **Decentralized Government services at provincial and municipal level** will also be involved in the project's implementation, namely:
- *The Provincial Governments* of Bié, Huambo, Malanje and Huila. They will take part in the training on CCA and SLM provided at the provincial level (Activity 1.1.3), and in the development of land and resources managements systems including CCA (Output 3.2);
 - *Agrarian Development Stations* (EDA) which links the IDA with small-scale farmers. EDA will be closely involved in setting-up FFS under Component 2, and in the development of land and resources managements systems including CCA (Output 3.2);
 - The Veterinary Services Institute (ISV) will provide support in FFS implementation; *and*
 - *Municipal Administrations* will be involved in FFS implementation (Component 2), as well as in the development of land and resources managements systems including CCA (Output 3.2).
96. At the local level, collaboration will be promoted with stakeholders from different **Civil Society Organizations** considered relevant to the objectives of the project. They will take part in the training sessions on CCA and SLM provided at the national level (Activity 1.1.2), will be closely involved in the FFS trainings to be provided under Component 2, and in the development of land and resources managements systems including CCA (Output 3.2). Some CSOs relevant to the project include:
- Farmers, agropastoralists, herders, and women's groups;
 - The Angolan national farmers' union (UNACA);
 - Federação Dos Sindicatos dos Trabalhadores da Agro-Pecuária, Pescas e Derivados de Angola (FSTAPPD);
 - Association for field support and development (ADAC); and
 - *NGOs:*
 - ADRA – Acção para o Desenvolvimento Rural e Ambiente (Angola NGO, currently working both in Huila, Cunene, Benguela, and other provinces). ADRA has potential and capacities for FFS implementation in Huila, Huambo and Malange provinces and could be associated to setting-up FFS in Huila;
 - World Vision has potential and capacities for FFS implementation in Bié, Huambo and Huila and could also be associated to setting-up FFS in Huila;
 - Centro de investigaciones aplicadas al desarrollo ambiental (IDAF);
 - Cruz Vermelha de Angola (in Bié and Huambo); and
 - CODESPA (currently working with FAO/MOSAP). This is a FFS implementing structure in Bié and Huambo.
97. **Academic and research institutions** will take part in the trainings on CCA and SLM to be provided by the project (Output 1.1), and include:
- Universidad Jose Eduardo dos Santos (Faculdade de Ciencias Agrarias, Faculdade de Veterinaria);
 - Universidad Agostinho Neto;
 - Agriculture Research Institute (Instituto de Investigação Agronómica) in Huambo; and
 - Instituto Marques de Val Flor (working in Huambo).
98. The **project beneficiaries** will be smallholder farmers from a total of 30 municipalities from the provinces of Bié, Huambo, Malanje and Huila (26 municipalities targeted by MOSAP II in Bié, Huambo and Malanje and 4 additional municipalities in Huila). The project is based on a wide involvement of farming communities in order to decrease the overall vulnerability of smallholder farmers and pastoralists. Smallholder farmers will be closely involved in the FFS trainings to be provided under Component 2. Through 5 150 FFS, LDCF funding will therefore directly reach around 154 500 beneficiaries, including 30 percent women.
99. The **private sector** and cooperatives will also be involved in the project to provide adequate equipment and input for FFS implementation and to strengthen access to markets to farmers.

They will include the 5 PAPAGRO supported cooperatives in Huila province, namely: Cooperativa Empresarial do Lubango, Cooperativa Empresarial de Caluquembe and Cooperativa Empresarial de Cacula which form part of the AIA; Fazenda do Malipi and Fazenda do Guingui which form part of the ASCOFA; and the private operator also involved with PAPAGRO.

100. The project will also promote the participation of representatives from Portuguese-speaking countries actively engaged in CCA/SLM practices through FFS, enabling a wider knowledge exchange through south-south cooperation initiatives. A diverse variety of actors will include government representatives, academia and research institutions, as well as civil society organizations working in that field.

1.5 LESSONS LEARNED FROM PAST AND RELATED WORK (INCLUDING EVALUATIONS)

From FAO's experience on FFS

101. The FFS concept moves away from a traditional top-down approach to agricultural extension services. The FFS approach recognizes that farmers already have experience with and knowledge of agricultural practices. Farmers play a key role in the FFS process, and the different activities lead them to develop individual capacities in order to properly identify, analyze and interpret what happens in the field. This approach helps farmers take appropriate decisions based on their own experimentation. Farmer participation is a key component that needs to be applied in the proposed project to ensure the local ownership and project sustainability in the long term.
102. The project will follow the successful FFS example in East Africa which presents a holistic method and are now being used in other areas. Findings from the article "Farmer Field Schools in rural Kenya: a transformative learning experience" (Duveskog *et al.* 2010) revealed significant impacts demonstrated by a personal transformation; changes in gender roles and relations, customs and traditions, community relations, and an increase in the economic development of households. Friis-Hansen *et al.* 2012, also suggested that the most significant impact of FFS could be viewed in terms of building the capacity of local people to make choices and make decisions that ultimately lead to an increased uptake of agricultural innovations, access to services and markets, as well as collective action. A major conclusion of the study is that agricultural development programmes should focus more on the processes of empowering farmers as opposed to technical solutions that characterize most programmes, in order to create an appropriate mix of technological and social advancements for a more sustainable development process.
103. With the aim of discussing the impacts of FFS at a global area and to confront opinions in future development of FFS, FAO organized a FFS global review, reflecting a global consensus on the FFS success stories. The focus was not on "production" as the forum widely discussed the shift in the FFS's concept to other expected impacts. One central comment describes that "a field school lies in the methodology of delivery for which there might be certain uniformity despite the subject in focus. This is characterizing the ongoing shift that FFS have taken from IPPM (Integrated Production and Pest Management) FFS, to poultry FFS, forestry FFS, climate change FFS, pastoral FS, etc. Integration and holistic planning is the issue here"⁵². In brief, successful integrated ecosystem management can only be achieved through involving a wide range of stakeholders.

⁵² Comment from a participant to the FAO Global FFS review that took place in 2012.

104. In fact, while certain actions can only be handled by the communities, others require the government, local leaders and indigenous groups to be actively involved in the process to realize success and achieve wider impacts. Also, certain actions may require specialized institutions to tap into the cohesive strength of the FFS. For this, the method also has to build the capacities of different stakeholders to support certain activities. The kind of information/training passed on to the different levels of stakeholders is different. What is appropriate and relevant to the farmer will differ from what is appropriate and relevant to government officials. With this expanded FFS concept, a forum member from Kenya reported that “livelihood improvement for the beneficiaries is enormous and sustainability aspects have been ensured while commercialization of most activities was achieved as farmers understood the science associated with each technology”⁵³. A comment from a post-socialist country, Kyrgyzstan, explains that the “FFS served the goal of facilitating the change from collectivity-based to private farming. However, when visiting FFS training programmes at that time, one got the distinct impression that they were of considerable value to farmers in increasing their self-confidence and self-reliance in coping with the new challenges”⁵⁴. This expanded FFS system is based on endogenous farmers’ and herders’ knowledge. It supports expanded community and decision makers’ capacity building, and harmonizes various approaches into a single methodology and will be the foundation leading to the success of the present project.

From FFS projects in Angola

105. The project draws on lessons learned from a number of FAO supported projects as well as initiatives in Angola related to FFS. The technical capacities and growing experience of FAO in the FFS approach started in Angola in 2005 by the FAO Special Programme for Food Security (SPFS) project and continued within the project “Support to cassava value chain in Angola”. The FFS’s experience gained during the SPFS was fully recognized by MINAGRI through the IDA as a suitable and valid approach to providing extension services in rural areas. The FFS’s approaches have also been scaled up by the World Bank funded MOSAP and the GEF funded project “Land rehabilitation and rangelands management in smallholders agro-pastoral production systems in south western Angola” (RETESA). The main lessons learned and recommendations from these past experiences are listed in the table below.

*Table 3: Lessons learned and recommendations from the Angola FFS network*⁵⁵

Lessons Learned	Recommendations
Appropriate timeframe is needed depending on local conditions	The introduction of a new technical approach requires time and must necessarily take place over several steps until it can be fully introduced and adopted because of the complexity of the technique and approaches. This applies in particular contexts to Angola (post-conflict situation)
Planning is needed to maximize efficiencies and improve effectiveness	Proper planning and detailed monitoring should be used as a management tool
Coordination is essential to ensure complementarities and synergy creation between various projects / programmes	Conceptual technical approaches should be clearly coordinated between projects / programmes (including FAO projects)
Conditions might vary and the project needs to be adapted	Flexibility and complementarity of the whole implementation and monitoring systems is needed especially among farmers and local

⁵³ *Idem*

⁵⁴ *Idem*

⁵⁵ Lessons drawn from the Project Document: “Land rehabilitation and rangelands management in smallholders agro-pastoral production systems in south western Angola” – GCP/ANG/048/GFF, combined with lessons learned from MOSAP.

	partners of the project involved within an appropriate institutional set-up, financial management and long term sustainability of the project. This complementarity should lead to operational partnerships registering in time
Bottom-up, community-driven approach is effective in promoting smallholder agricultural development	The impact of the switch from top-down to community-driven development has been very positive, both in terms of communities' incomes and their capacity to identify and implement development activities. The community-level training and local leadership capacity building activities are key in this process
Accelerating implementation from the start is critical to achieve results	To accelerate implementation, from the start, a strong commitment of the Government is key as well as the involvement of qualified service providers and consultants when needed
The FFS approach is effective in transferring knowledge on improved agricultural practices and technology to smallholder farmers	FFS as an extension approach is able to train and equip smallholder farmers with the skills and experience needed to engage in commercial agriculture
Improving governance and building government capacity accelerates project implementation and increases country ownership of results	Government capacity building has proved to be essential, especially to improve the competence and motivation of government staff involved in the supervision of extension agents and to address structural constraints through enhancing agricultural sector policy dialogue
FFS are effective for reaching women	A good proportion of women participate in FFS activities. However, as their impacts on community decisions can remain limited, an extra attention is needed to further involve women, especially in community leadership

1.6 LINKS TO NATIONAL DEVELOPMENT GOALS, STRATEGIES, PLANS, POLICY AND LEGISLATION, GEF/LDCF AND FAO STRATEGIC OBJECTIVES

106. Since the civil war, Angola has been focused on development planning for long-term sustainable growth in the country. Angola is aiming to revive the agricultural sector in order to move from an importing sector to an exporting one through its policies and plans. The project is aligned with the following development goals, plans, policies and legislation.

Alignment with national development goals, strategies, plans, policy and legislation

Legislation:

107. **The Land Law** (Law 9/04 of 25th November) establishes that the occupation, use and enjoyment of the land are subjected to environmental protection norms, specifically related to landscape, flora and fauna protection, preservation of the ecological balance and the right of citizens to a healthy unpolluted environment. These activities must be executed in a way that does not compromise the regeneration capacities of fertile land and the maintenance of the respective productive aptitude.

108. **The Planning and Urbanism Law** (Law 3/04 of 25th June) attributes to the State the duty to organize the territory, with local authorities being obliged to intervene in areas under their jurisdiction, and rural communities having the power to participate in actions related to the organization and preparation of territorial plans. Inhabitants have a right to information about the content of and alterations to the plans, both in the publicizing stage of projects and

after their publication. The principles guiding State interventions are: environmental defence; rational use of natural resources; sustainability and public participation.

109. **The Agrarian Development Law** (Law 15/05 of 7th December) includes forestry as part of agriculture, and integrates the sustainable development principle and environmental considerations explicitly. The law aims to foster the rational use of natural resources in order to achieve a sustained and sustainable increase in productivity, having as fundamental principles the protection of the soil's productive capacity (respect for regeneration), the preservation of the availability and quality of water resources, and the conservation of the biodiversity associated with the flora and the fauna. The law charges the State with the responsibility of supporting the development of activities associated with agricultural exploration, especially in rural areas or specific ecosystems. This implies the need for climate change adaptation activities.

National plans and strategies

110. **National Adaptation Program of Action** (NAPA, 2011). Angola submitted its NAPA to the UNFCCC in 2011, the project is aligned with the following priorities set out by Angola: (9) Soil erosion control through organic methods, and (10) Diversify crops to less climate sensitive cultures, the use of locally adapted varieties. Along with the objective to "Strengthening the national capacity in Angolan specialties in the area of vulnerability and adaptation to climate change, thereby guaranteeing a favourable environment for implementing the UNFCCC"
111. **Angola Development Strategy for 2000 – 2025**. The objectives of the Government's Long-Term Strategy entitled Angola Visao 2025 are to eradicate famine and poverty (therefore giving importance to production sector such as agriculture), natural resource protection, and halting natural resources misuse. The project is more specifically aligned with the objective "to guarantee the sustainable use of the environment, natural resources, and to fight desertification".
112. **Strategy to Combat Poverty** (ECP, 2009). The ECP Strategy, approved by Resolution 9/04 of 4 June, includes the reinforcement of agricultural production as one of the key constraints to food security, as well as environmental considerations in accordance with the Millennium Objectives relating to climate change.
113. **National Strategy for Food and Nutritional Security** (ENSAN, 2009). The strategy sets a range of specific objectives to reduce vulnerability to food insecurity by increasing and diversifying agricultural production and productivity in a sustainable manner; ensuring availability and sustainability of food supply chains; improving food accessibility; improving basic health, education and sanitation to minimize levels of malnutrition; establishing and implementing early warning and monitoring systems; and protecting public health by ensuring food safety and drinking water.

Sectoral policies, plans and programmes:

114. **Agricultural Sector Mid-term Development Plan 2013 – 2017** (PDMPSA, 2012). The LDCF project supports the second objective of this Plan which is "to implement a process of agrarian transformation and rural development based on family farming, cooperatives and in public-private partnerships".
115. **Integrated Municipal Program for Rural Development and Combating Poverty** (PMIDRCP, 2010). The major objective of the PIDRLP is to quickly overcome the economic dependence on the oil and mining sectors by developing the agricultural sector and by pursuing the fighting against poverty, the eradication of food insecurity and agricultural intensification. The programme is aimed at improving the food security and nutrition of smallholder farmers.
116. **National Action Plan on Food Security and Nutrition** (PASAN). The Strategy recognizes the right to food as fundamental and aims to create conditions to guarantee that

every Angolan citizen has lasting food security, reducing the level of inequality in income distribution and structurally reducing extreme poverty. The Plan is associated with ENSAN which describes the specific actions to be implemented under the five strategic priority, though diverse areas of intervention, however, most of the work has been directed towards objective 1 and 3, which include such interventions as: production, value-added, supply and trade of agricultural goods, access to food supply, health and nutrition, education, water, energy, and basic sanitation, and family competencies.⁵⁶

117. **The National Environmental Management Plan for 2012-2017.** Establishes key priorities for the conservation and sustainable use of natural resources and thus supports the mainstreaming of sustainable land management practices into sector policies.

118. **National plan for preparation, contingencies, response and recovery from calamities and natural disasters.** The general objective of the National Plan for Preparation, Contingencies and Response is to define the lines of force that guide a suitable and concerted response, the conditions and the essential means to minimize the adverse effects of serious accident or catastrophe that affects the Angolan population.

Alignment with GEF/LDCF Strategic Objectives

119. The proposed project is in line with the GEF-LDCF objectives. Specifically, the project supports objectives CCA-1, CCA-2 and CCA-3 under the Climate Change Adaptation focal area, working directly towards the following outcomes:

Table 4: Alignment of Project Outcome with GEF CCA Objectives and Outcome

LCDF CCA Objectives and Outcomes	Related and Aligned Project Outcomes
CCA-1: Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change	
Outcome 1.3: Climate-resilient technologies and practices adopted and scaled up	Outcome 2: 115 000 farmers adopt CCA/SLM practices
CCA-2: Strengthen institutional and technical capacities for effective climate change adaptation	
Outcome 2.3: Access to improved climate information and early-warning systems enhanced at regional, national, sub-national and local level	Outcome 1: The adaptive capacity of MINAMB, MINAGRI, MINCO, INAMET, GSA, provincial governments, civil society organizations, academia and research organizations, to minimize climate risks in both agropastoral and agricultural production systems, is strengthened.
Outcome 2.4: Institutional and technical capacities and human skills strengthened to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures	Outcome 1: The adaptive capacity of MINAMB, MINAGRI, MINCO, INAMET, GSA, provincial governments, civil society organizations, academia and research organizations, to minimize climate risks in both agropastoral and agricultural production systems, is strengthened.
CCA-3: Integrate climate change adaptation into relevant policies, plans and associated processes	
Outcome 3.1: Institutional arrangements to lead, coordinate and support the integration of climate change adaptation into relevant policies, plans and associated processes established and strengthened	Outcome 3: Environmental and agriculture policies and programmes at national and decentralized level integrate CCA aspects
Outcome 3.2: Policies, plans and associated processes developed and	Outcome 3: Environmental and agriculture policies and programmes at national and decentralized level integrate CCA aspects

⁵⁶ Found at: www.sadc.int/files/7113/5293/3509/Regional_Agricultural_Policy_Review_Reports_2011.pdf

strengthened to identify, prioritize and integrate adaptation strategies and measures	
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Alignment with FAO Strategic Objectives

120. The project addresses FAO's Strategic Objective (SO) 2 – Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner; and more specifically the following organizational outcome:

- Organizational Outcome 2.1 - Producers and natural resource managers adopt practices that increase and improve the provision of goods and services in the agricultural sector production systems in a sustainable manner
- Organizational Output: 2.1.3 - Organizational and institutional capacities of public and private institutions, organizations and networks are strengthened to support innovation and the transition toward more sustainable agricultural production systems

121. The project will be developed in conformity with the Angola FAO Country Programme Framework⁵⁷ (CPF, 2013 – 2017), which puts an emphasis on sustainably increasing food security and nutrition by building institutional and smallholder capacities in production, the sustainable management of natural resources while at the same time increasing the resilience of rural livelihoods to climatic shocks and threats. The project is more specifically aligned with the following priority areas and expected outcomes:

- Priority Area 1: Strengthen smallholder production and productivity to improve food security and nutrition.
 - *Outcome 1:* Farmer Field School members systematically apply improved production techniques
- Priority Area 2: Management of natural resources by local authorities and community groups
 - *Outcome 2:* Management of natural resources by local authorities and community groups improved
- Priority Area 3: Increase Resilience of Rural Livelihoods to Climatic Shocks and Climate Change
 - *Outcome 3:* Farmers and national authorities' capacity to prepare for and respond to climate change and climatic shocks strengthened

122. The FAO Representation in Angola is staffed with operational personnel and can mobilize complementary national and international technical expertise within the pool of projects it manages and provide in-country support for the execution of the proposed project.

⁵⁷ Found at : <http://ftp.fao.org/TC/CPF/Countries/Angola/CPFAngolaSummaryMatrix.pdf>

2 SECTION 2 – PROJECT FRAMEWORK AND EXPECTED RESULTS

2.1 PROJECT STRATEGY

123. The objective of the project is to strengthen the climate resilience of the agropastoral production systems in key vulnerable areas in the Provinces of Bié, Huambo, Malanje and Huila. This will be achieved through: (i) mainstreaming CCA into agricultural and environmental sector policies, programmes and practices; and (ii) capacity building and promotion of CCA through SLM practices using the FFS approach.

124. The project strategy is built on four main components. The first is to strengthen knowledge and understanding of climate change vulnerability and adaptation. The second is scaling up of improved CCA/SLM practices through FFS. The third is mainstreaming CCA into agricultural and environmental sector policies and programmes. The last component focuses on monitoring and evaluation.

125. In order to deliver the above-mentioned objective, and in line with the four components, the project includes four outcomes.

- The first expected outcome is: the strengthening of the adaptive capacity of MINAMB, MINAGRI, MINCO, provincial governments, civil society, INAMET and GSA staff to minimize climate risks in both agropastoral and agricultural production systems.
- The second expected outcome is: 115 000 farmers adopt CCA/SLM practices
- The third expected outcome is: environmental and agriculture policies and programmes at national and decentralized levels integrate CCA aspects.
- And the fourth expected outcome is: project implementation based on results based management and application of project lessons learned in future operations facilitated.

126. Directly, the project will support at least 150 000 farmers through an existing network of 5 150 FFS to develop and implement new approaches and practices to increase climate resilience. The project will train FFS Master Trainers and facilitators to disseminate climate resilient strategies and practices. The project will closely liaise and collaborate with the SFS Sub-regional FFS Network, to optimize support to FFS development. The project will also build institutional capacity and strengthen cross-sector coordination for implementing approaches to mainstream CCA in rural development and the agricultural sector.

2.1.1 The agro-ecological FFS Approach

127. FFS⁵⁸ is an approach to extension that is based on the concepts and principles of people-centred learning and was developed as an alternative to the conventional, top-down, extension approaches. It uses innovative and participatory methods to create a learning environment, including learning networks, in which land users have the opportunity to learn for themselves about particular production problems, and ways to address them, through their own observation, discussion and participation in practical learning-by-doing field exercises. The approach can be used to enable farmers to investigate, and overcome, a wider range of problems, including soil productivity improvement, conservation agriculture, control of surface runoff, water harvesting and improved irrigation.

128. The FFS approach was originally developed for training rice farmers on integrated pest management in Southeast Asia. The farmers meet every week from planting to harvest to

⁵⁸ Source: www.fao.org; FAO 2013 (op cit.)

check on how the crops are growing, look at the amount of moisture in the soil, and count the numbers of pests and beneficial creatures, such as earthworms and spiders. They do experiments in the field. Over the years, FFS has evolved to be used on many crops and to address many issues in many geographical settings across the world. A group of farmers gets together in one of their own fields to learn about their crops and things that affect them. They learn how to farm better by observing, analyzing and trying out new ideas on their own fields. They are supported by a facilitator, who is trained and may be responsible for more than one FFS. The facilitators are trained by master trainers through the use of detailed curriculum and training modules. The facilitators also ensure that a range of top-level scientific expertise is brought to FFS through the master trainers and the training modules. The FFS are therefore an ideal approach for linking field to extension services to scientific research, with, most importantly, information and knowledge flowing equally in all directions.

129. Master trainers can come from the government, local extension staff, civil society organizations, local organizations and can also be previous FFS facilitators. Building a pool of master trainers is of crucial importance to ensure a better sustainability in the training of FFS facilitators and to facilitate the appropriation of CCA practices and technologies within the agricultural sector in Angola in the long term.
130. The facilitator of an FFS is normally an extension worker or another farmer who has “graduated” from another field school and has received training from a Master trainer.⁵⁹ The facilitator guides the group, helps them decide what they want to learn and to think of possible solutions, and advises them if they have questions. The farmers draw on their own experience and observations and make decisions about how to manage the crop. During a cropping season, the supported group is required to hold two or more open field days to show other farmers what they are doing in order to encourage the spread of best practices and encourage interaction.
131. The farmers also host exchange visits for members of other field schools, and visit the other field schools themselves. This allows them to share ideas and see how others are dealing with similar problems. At the end of the cropping season, the farmers graduate: i.e. they receive a certificate from the field school organizer. The members are then qualified to start a new field school as a facilitator. The curriculum of the field schools includes team building and organization skills, as well as covering special topics suggested by the field school members themselves. The field schools are a way for farming communities to improve their decision making skills and to stimulate local innovation for sustainable agriculture. The emphasis is on empowering farmers to implement their own decisions in their own fields.⁶⁰
132. FFS is an empowering approach. A typical FFS will have 15-25 members, who, through the FFS experience, become empowered to identify, analyze and understand challenges and mobilize solutions. This organizational capacity can be applied to many challenges, not just productivity. Notably, the organizational capacity can be applied throughout the value chain - to credit and other financing modalities, to processing, to marketing and to sales and investments.
133. The FFS approach has been found to be effective in enhancing farm incomes, technical expertise and yields. As they represent an effective mechanism for group training that can reach thousands of small-scale farmers with knowledge and technical content that each can adapt to their own unique circumstances. These processes empower farmers, both individually and collectively to more effectively participate in the process of agricultural development. From a sustainability point of view, it is recommended that the FFS approach

⁵⁹ His/her competency is based on field experience and update training and not necessarily on formal training. Notably, in West Africa there is not diplomas, there is no graduation document, nor graduation procedure

⁶⁰ As mentioned above in West Africa there is no graduation process or certificate. However, a Facilitator can only start a new FFS if s/he has completed a cycle

should be used as a means or platform for disseminating CCA technologies among farmers. Attention should be given to training strong FFS master trainers, as the basis of FFS programme sustainability.

134. Among the CCA technologies to be covered by the FFS trainings, the LDCF project will promote the agroecology concept that offers opportunities to adapt to climate change. More specifically, the FFS CCA/SLM training package will include: i) improving soil fertility and integrated nutrient management through agroecological practices; ii) agroecology and environmental practices related to soil conservation, rational use of water, rational use of fertilizers, integrated nutrient management and promoting integrated pest management. Agroecology is particularly well-fitted for the FFS approach since it is at the same time a science, a practice and a social movement (Wezel *et al.* 2009⁶¹). Agroecology addresses multiple challenges among which the conservation of the environment, food security, and resilience to climate change. Incorporating agroecology into the FFS approach is therefore crucial to reach the objectives of the LDCF project. Fostering collaborations with civil society organizations within the FFS agroecology approach will contribute to the consolidation and systematization of existing knowledge and capacities on agroecology, as well as ensuring a long-term ownership by local communities of such models and practices.
135. The FFS approach aims at reinforcing rural populations' CCA capacities. The concept spread through the integration of new resilient practices such as the use of meteorological data in farmer decision processes, use of resilient seed varieties, integrated pest management, etc.

2.1.2 Project Intervention Areas

136. The project will aim to work in 30 municipalities in four provinces in Angola; Malanje, Bié, Huila, and Huambo. The project will cover the 26 municipalities of intervention of the MOSAP II where it will train master trainers and facilitators recruited through the MOSAP II on CCA and SLM aspects based on a specific training package focusing on the different aspects mentioned above. The proposed project will also intervene in 4 municipalities in Huila where it will establish and implement 150 new FFS to expand the geographical scope of the FFS network in Angola. The four provinces are described in the introduction section above.
137. The table below presents the selected municipalities for the proposed project, and the alignment to baseline projects.

Table 5: Municipalities of intervention for the proposed project

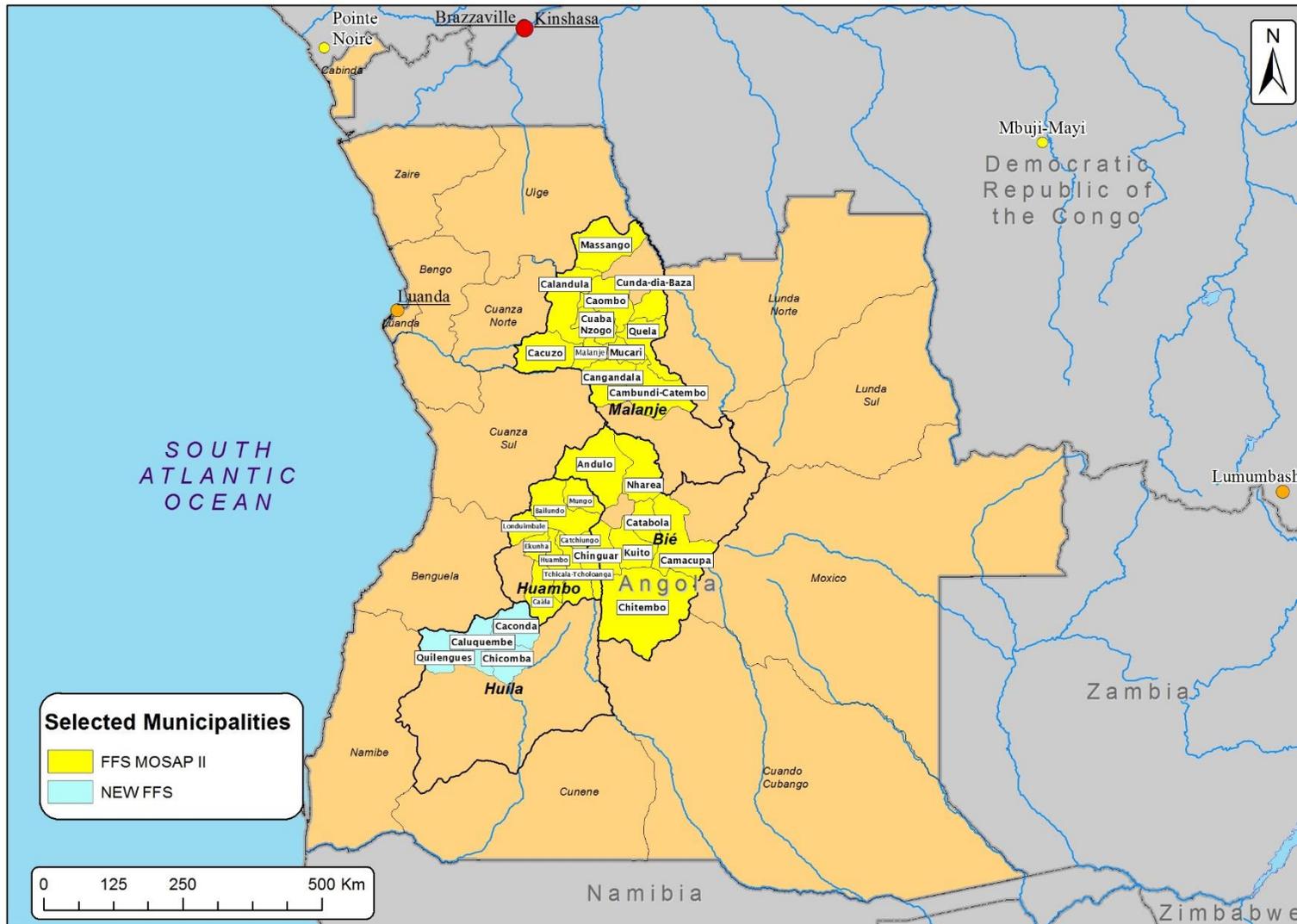
Provinces	Municipality	Baselines
Malanje	Cacuso	FFS MOSAP II Novo Rumo and Contente Projects
	Calandula	
	Mucari	
	Caombo	
	Cambundi-Catembo	
	Cangandala	
	Cunda dia baza	
	Massango	
	Quela	
	Malanje	
	Cuaba Nzoji	
Bié	Andulo	
	Catabola	

⁶¹ <http://agroeco.org/socla/wp-content/uploads/2013/12/wezel-agroecology.pdf>

	Chinguar	
	Camacupa	
	Kuito	
	Nharea	
	Chitembo	
Huambo	Bailundo	
	Londumbale	
	Mungo	
	Catchiungo	
	Caala	
	Ekunha	
	Huambo	
	Tchicala-Tcholoanga	
Huila	Caluquembe	
	Chicomba	
	Quilengues	
	Caconda	

138. The map below locates the 30 municipalities of intervention.

Figure 9: Map locating the 30 municipalities of intervention



2.2 PROJECT OBJECTIVE

139. The objective of the project is to strengthen the climate resilience of the agropastoral production systems in key vulnerable areas through: (i) mainstreaming of CCA into agricultural and environmental sector policies, programmes and practices; and (ii) capacity building and promotion of CCA through soil fertility and SLM practices using the FFS approach.
140. To achieve this general objective, activities have been organized in the four components. The specific objectives, methodologies, activities and key outputs of each component are described in further detail below.

2.3 EXPECTED PROJECT OUTCOMES, INDICATORS AND TARGETS

141. In order to deliver the above-mentioned objective, and in line with the four components, the project includes four main outcomes that are as follows:
142. **Outcome 1:** The adaptive capacity of MINAMB, MINAGRI, MINCO, INAMET, GSA, provincial governments, civil society organizations, academia and research organizations, to minimize climate risks in both agropastoral and agricultural production systems, is strengthened.
- **Outcome Indicator 1.1:** (AMAT indicator 10): Capacities of regional, national and sub-national institutions to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures
 - The baseline for this indicator is that institutions currently have a low capacity and limited knowledge on CCA and SLM practices in crop-livestock production systems.
 - The target is that 15 MINAMB, 15 MINAGRI, 15 MINCO, 10 civil society organizations, 40 provincial government and 10 academia and research institution staff are trained on CCA and SLM practices in crop-livestock production systems.
143. **Outcome 2:** 115 000 farmers adopt CCA/SLM practices
- **Outcome Indicator 2.1:** (AMAT indicator 4): Extent of adoption of climate resilient technologies/practices
 - The baseline is that farmers are already involved in FFS and improved agricultural practices, but they do not focus specifically on CCA and SLM practices to improve their resilience to climate change.
 - The target is that around 5 150 FFS will be supported (including 150 new ones that will be established in Huila) through the project. Each FFS will have around 25-30 participants, which means that around 154 500 farmers will benefit from FFS CCA and SLM training. Among these beneficiaries, the target is that 75 percent of FFS participants will adopt climate resilient technologies/practices, which is equivalent to at least 115 000 farmers (including 30% women).
144. **Outcome 3:** Environmental and agriculture policies and programmes at national and decentralized level integrate CCA aspects
- **Outcome indicator 3.1:** (AMAT indicator 13): sub-national plans and processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures
 - The baseline is that CCA is not systematically integrated into annual sectoral budgeting and planning. In addition, the legal framework on land tenure has been strengthened by the TERRA Programme but several municipalities do not have a land and natural resources management system including CCA considerations in place.

- The target is the development of a 5-year strategy to mainstream CCA into annual sectoral planning and budgeting, as well as the development and implementation of land and natural resources management systems including CCA considerations in 3 municipalities covered by the project in Huila.
145. **Outcome 4:** Project implementation based on results based management and application of project lessons learned in future operation facilitated
- **Outcome Indicator 4:** Fulfilment of planned M&E activities including establishing baseline values for all project indicators, yearly updating of indicators, a mid-term evaluation/review and a final project evaluation.
 - The baseline for this indicator is non-applicable.
 - The target will be that each planned activity in the M&E plan is completed.

2.4 PROJECT OUTPUTS AND ACTIVITIES

146. A set of outputs and related activities will lead to the four substantive outcomes listed above, as described below.

Component 1: Strengthening knowledge and understanding of climate change vulnerability and adaptation

Outcome 1: The adaptive capacity of MINAMB, MINAGRI, MINCO, INAMET, GSA, provincial governments, civil society organizations, academia and research organizations, to minimize climate risks in both agropastoral and agricultural production systems, is strengthened.

Output 1.1: 105 staff from MINAMB, MINAGRI, MINCO and provincial government staff as well as civil society organizations, academia and research institutions, trained and aware of CCA and SLM practices in crop-livestock production systems

147. In the baseline, projects such as MOSAP have contributed to strengthen institutional capacities but no training and awareness raising activities were conducted specifically on CCA and SLM practices in crop and livestock production systems.
148. With additional LDCF funding, the proposed project will further strengthen institutional capacities by developing training material on CCA and SLM, and raising awareness among 105 staff of MINAGRI, MINAMB, MINCO, provincial governments, civil society organizations, academia and research institutions.
149. The following activities will be organized:
- Activity 1.1.1: in PY1, develop training materials, adapted to the capacity needs of MINAMB, MINAGRI, MINCO, provincial governments and civil society organizations, academia and research institutions, on CCA and SLM practices in crop-livestock production systems.
 - Activity 1.1.2: in PY2, organize training sessions at the national level to train and raise awareness among 15 MINAMB, 15 MINAGRI, 15 MINCO, 10 civil society organizations representatives, and 10 academia or research institution staff on CCA practices and SLM in crop-livestock production systems.
 - Activity 1.1.3: in PY2, organize training sessions in each of the 4 provinces of intervention to train 10 staff in each provincial government on CCA and SLM practices in crop-livestock production system.
150. The training will be provided with a training package including guidelines on best practices, which will be adapted throughout project implementation based on the results of the interventions on the field. This will ensure a good project knowledge management and adaptive learning, as well as the sustainability of the trainings in the long term.

Output 1.2: Rapid vulnerability assessment conducted and relevant staff trained to ensure regular updating of vulnerability information

151. In the baseline, data and capacities from the agro-meteorological sector are limited in Angola. In addition, no climate vulnerability assessments were conducted in the four Provinces of intervention although it is a key prerequisite to identify appropriate CCA practices.
152. With additional LDCF funding, the proposed project will build capacity within INAMET and GSA on the theoretical and practical aspects of agro-meteorology. This training will enable INAMET and GSA staff to consolidate climate archive and meteorological database for the 4 provinces of intervention. Additional LDCF funds will be used to conduct climate vulnerability/ resilience assessments in Bié, Huambo, Huila and Malanje Provinces in order to identify suitable CCA options for the project intervention areas.
153. The following activities will be organized:
- Activity 1.2.1: In PY1, provide training to relevant INAMET and GSA staff on theoretical and practical aspects of agro-meteorology, including on how to assess and update vulnerability information.
 - Activity 1.2.2: In PY1, PY2, PY3 and PY4, support INAMET and GSA in the consolidation of the historical climate archive 1971-2000 and meteorological database 2005-2015 for all available stations in the Provinces of Bié, Huambo, Huila and Malanje.
 - Activity 1.2.3: In PY1, design and perform a rapid Climate Vulnerability Assessment (CVA) in collaboration with INAMET and GSA for each of the four Provinces and, in collaboration with IDA, to identify suitable adaptation options for main crops and livestock based on the outputs of the CVAs.

Component 2: Scaling up of improved CCA/SLM practices through Farmers Field Schools (FFS)

Outcome 2: 115,000 farmers adopt CCA/SLM practices

Output 2.1: A core group of master trainers and FFS facilitators involved in MOSAP II trained in CCA and SLM practices

154. In the baseline, FFS have already been established in Bié, Huambo and Malanje provinces through the MOSAP project; some FFS master trainers and facilitators have therefore received basic training in these provinces. However, the FFS implemented under MOSAP did not focus particularly on CCA and SLM practices. As a result, no master trainers and FFS facilitators have been trained specifically on CCA and SLM practices.
155. With additional LDCF funding, the proposed project will develop training tools on CCA and SLM (including FAO CCA tools) taking into account the result of the climate vulnerability assessment to promote practices that are adapted to the area of intervention. Based on this updated training material, the proposed project will provide re-training on CCA and SLM practices for previous master trainers and facilitators from MOSAP, and for future master trainers and facilitators initially trained under MOSAP II in the three provinces of intervention (Bié, Huambo and Malanje).
156. The following activities will be organized:
- Activity 2.1.1: In PY2, develop training tools for master trainers on CCA and SLM practices to be integrated into existing and new FFS, taking into account the results of the CVA (activity 1.2.2). The training package will include: (i) improving soil fertility and integrated nutrient management through agroecological practices; ii) agroecology and environmental practices related to soil conservation, rational use of water, fertilizers, integrated nutrient management and promoting integrated pest management; and iii) the use of FAO developed tools such as the Land Degradation Assessment in Drylands (LADA) tool and Self-evaluation

and Holistic Assessment of climate Resilience of farmers and Pastoralists (SHARP). These tools will be employed to assess and build capacity in assessing land degradation and climate resilience respectively. FAO will use the lessons learned and capacity developed during (and ongoing) in the RETESA⁶² FAO/GEF project to help support the LDCF project through backstopping.

As mentioned above, a strong focus will be on building the capacity of FFS expertise within Angola through the FFS sub-regional Network in SFS. This will be done in part through broadening the base of experts in FFS to include civil society, universities, research institutions, rural extension agencies and public servants. The goal will be to adapt FFS to Angola, initially through external experts, but then increasingly from within so that it is adopted and championed through local organizations.

- Activity 2.1.2: In PY2, PY3 and PY4, train and equip master trainers involved in MOSAP II from the Provincial and municipal agricultural extension staff on the identified CCA and SLM practices, and FAO CCA tools. In PY2, the master trainers to be trained will be previous master trainers from MOSAP. In PY3, PY4 and PY5, master trainers initially trained under the MOSAP II will benefit from refresher trainings specifically on CCA and SLM aspects. The master trainers will come mostly from the provincial and municipal agricultural extension staff.
- Activity 2.1.3: In PY2, PY3, PY4 and PY5, according to the updated curricula on CCA and SLM practices and FAO CCA tools, re-train and equip FFS facilitators involved in MOSAP II. Facilitators will be selected among farmers in the local communities where the FFS are established. Facilitators to be re-trained will be previous facilitators trained under MOSAP or MOSAP II. Facilitators will be trained by master trainers trained under Activity 2.1.2. Logistical and technical support will be provided to undertake these trainings. Master trainers will each train between 4 and 10 FFS facilitators.

Output 2.2: 150 new FFS in Huila trained on CCA/SLM

157. In the baseline, FFS have already been established under MOSAP in the provinces of Bié, Huambo and Malanje, and this existing network of FFS will be further expanded in these three provinces under MOSAP II. However, this FFS network will not cover Huila province.
158. With additional LDCF funding, new FFS will be established and implemented in Huila province. Each FFS will comprise around 25-30 participants, including a minimum of 30 percent women. Adequate equipment and inputs will be provided to FFS participants according to the developed curricula. Some activities promoted under the FFS will specifically target women while others be more targeted towards men. The proposed project will also create links and connections between farmers supported under the new FFS and the 6 economic operators supported by the PAPAGRO project in Huila Province. Part of the agricultural production from the supported FFS will be sold to these operators through support from the PAPAGRO which will strengthen the access to markets for these farmers.
159. The following activities will be organized:
- Activity 2.2.1: in PY2, PY3 and PY4, train and equip master trainers and facilitators in Huila Province.
 - Activity 2.2.2: In PY2, PY3, PY4 and PY5, support the establishment and implementation of 150 new FFS in Huila Province, focusing on CCA and SLM practices. Through FFS implementation, part of the agricultural production will be sold to the economic operators supported by the PAPAGRO in order to strengthen farmers' access to markets.

⁶² *Land rehabilitation and rangelands management in smallholders' agro-pastoral production systems in southwestern Angola project.*

Component 3: Mainstreaming CCA into agricultural and environmental sector policies and programmes

Outcome 3: Environmental and agriculture policies and programmes at national and decentralized level integrate CCA aspects

Output 3.1: Inter-sectoral task forces in place/strengthened, defining integrated CCA agendas and tailoring them into sector-level programming

160. In the baseline, on the one hand the collaboration between the environmental and agricultural sectors regarding CCA related issues is weak in Angola. No institutional mechanisms are in place for MINAMB, MINAGRI and MINCO to collaborate on these issues. On the other hand, an inter-ministerial commission for biodiversity and climate change, and a multi-sectoral commission for the environment are already in place, but they lack operational and technical capacities on CCA. No strategy is in place to systematically integrate CCA consideration into planning and budgeting exercises.

161. With additional LDCF funding, the proposed project will support the development of a proposal to fill the operational gaps in terms of CCA in the inter-ministerial commission for biodiversity and climate change, and in the multi-sectoral commission for the environment. LDCF funds will also be used to support the establishment of an institutional task force including MINAMB, MINAGRI, MINCO and civil society organizations to improve inter-sectoral coordination on climate change issues.

162. The following activities will be organized:

- Activity 3.1.1: In PY2 and PY3, strengthen the technical component on CCA of (i) the inter-ministerial commission for biodiversity and climate change, and (ii) the multi-sectoral commission for the environment by assessing their functioning; and by developing a technical proposal to address the main operational gaps of these two commissions.
- Activity 3.1.2: In PY2, set up an institutional task force comprising representatives from MINAMB, MINAGRI, MINCO and civil society organizations for a better inter-sectoral coordination on CCA. Terms of Reference for the task force as well as a memorandum of understanding between the different partners will be developed and approved by all parties.
- Activity 3.1.3: In PY3, PY4 and PY5, support bi-annual meetings of the institutional task force, the commission for biodiversity and climate change, and the commission for environment.
- Activity 3.1.4: In PY3, support the task force in developing a 5-year strategy to mainstream CCA considerations into future sectoral programming and budgeting.
- Activity 3.1.5: In PY4 and PY5, based on the 5-year mainstreaming strategy, provide support to the teams in charge of annual planning and programming within MINAMB, MINAGRI and MINCO to mainstream CCA and SLM practices into annual planning and budgeting.

Output 3.2: Climate change adaptation integrated into an effective land and natural resources management system in 3 municipalities

163. In the baseline, the legal framework on land tenure has been strengthened by the TERRA Programme but several municipalities do not have a land and natural resources management system in place that takes CCA considerations into account. The legal framework on land tenure in Angola is not fully implemented and does not systematically consider CCA issues.

164. With additional LDCF funding, the proposed project will add onto the work carried out by Terra and will develop and support the implementation of a land and natural resources management system including CCA considerations in 3 municipalities covered by the project.

165. In the 3 common municipalities of intervention (Caluqembe, Quilengues and Caconda), both projects will closely collaborate in mapping family agriculture, land tenure and natural resource use systems and in developing appropriate management tools together with the municipalities. Complementary trainings on the use and application of legal land rights packages and on implementing climate resilient investments will be provided to municipal administrations. Complementary to the municipal inclusive land use planning work to be conducted by Terra under its first output, LDCF funds will support municipalities in developing an inclusive land and natural resources management system including CCA considerations.

166. The following activities will be organized:

- Activity 3.2.1: In PY2 and PY3, organize trainings at municipal level in 3 targeted municipalities (Caluqembe, Quilengues and Caconda which are also municipalities supported by the TERRA programme) for administrative staff and civil society representatives on the use and application of legal land rights packages and on implementing climate resilient investments;
- Activity 3.2.2: In PY3, PY4 and PY5, in the 3 municipalities of Huila province, develop an inclusive land and natural resources management system including CCA considerations.

Component 4: Project Monitoring and Dissemination of results

Outcome 4: Project implementation based on results based management and application of project lessons learned in future operation facilitated

Output 4.1: Project monitoring system providing systematic information on progress in meeting project outcomes and output targets

167. According to the Project Results Framework (Appendix 1), the activities listed in the Work Plan (Appendix 2) and the Risk Matrix (Appendix 4), the project will develop a detailed monitoring and evaluation plan. During PY1, the project will hire a Chief Technical Advisor (CTA) to advise the Project Coordination Unit (PCU) in the design and establishment of an M&E system to obtain information on progress in meeting targets, evaluating results and facilitating the systematization of experiences. Throughout the duration of the project, monitoring reports will be prepared according to the M&E system. During PY3, mid-term evaluation/review, and at the end of PY5, end of project evaluation will be conducted. Both review/evaluation will be conducted by experts selected by FAO with the approval of the Project Steering Committee (PSC).

Output 4.2 Project-related “best-practices” and “lessons learned” disseminated via publications and other means

168. This output will ensure that the project experiences are captured and shared. From end of PY1, an annual project newsletter will be produced every year with support of the CTA, National Project Coordinator (NPC) and the country office. The PCU will facilitate the information collection by coordinating with all the executing and other partners. At the end of the project (PY5), as a part of the terminal workshop, the key lessons learnt and the experiences gathered through the project will be shared, and a project publication will be produced to facilitate wider dissemination.

2.5 ADAPTATION BENEFITS

169. The LDCF project is expected to increase resilience to climate change in the intervention areas through an integrated ecosystem-wide approach. The project will generate both direct and indirect adaptation benefits for smallholder farmers in the project’s intervention areas. The project will directly support at least 154 500 farmers, including at least 30 percent of women, through 5 000 FFS established by MOSAP II and 150 new ones to

develop and implement CCA technologies and approaches that increase climate resilience. The project will build institutional capacity and cross-sector coordination for implementing approaches to mainstream CCA in the rural development sector.

170. The project will strengthen the adaptive capacities of MINAMB, MINAGRI, MINCO provincial governments, civil society organizations, academia and research institutions, INAMET and GSA to minimize climate risks in both agropastoral and agricultural production:

- By training and raising awareness of 105 staff from MINAMB, MINAGRI, MINCO provincial government staff, civil society organizations, academia and research institutions to CCA practices in crop-livestock production systems;
- By conducting rapid vulnerability assessments and training relevant staff to ensure regular updating of vulnerability information.

171. The project will assist 154 500 farmers to adopt CCA/SLM practices:

- A core group of master trainers and FFS facilitators will be trained in CCA and SLM practices;
- CCA/SLM training will be provided to 150 new FFS in Huila Province and 4 000 farmers (at least 30 percent women) will adopt improved CCA and SLM practices to increase their climate resilience.

172. The project will increase integration of CCA into policies and programmes at national and decentralized levels:

- An Inter-sectoral task force will be set in place/strengthened to define and integrate CCA in agendas and tailoring them to sector-level programming;
- A 5 year strategy will be formulated and implemented to foster mainstreaming of CCA into future sectoral budgeting and programming;
- Climate change adaptation will be integrated into an effective land and natural resources management system in 3 municipalities.

2.6 COST EFFECTIVENESS

173. The proposed project design is expected to be highly cost-effective since it builds upon and expands the scope of an existing FFS network (MOSAP) that is already operational in several provinces, including Bié, Huambo and Malanje. The project will seek synergies and complementarities with on-going initiatives and programs having similar objectives while avoiding overlaps. In that sense, all interventions will be coordinated closely with other relevant on-going initiatives implemented in the country. At Sub-regional level, the project will coordinate activities closely with the SFS-FFS Network, that will provide technical and methodological support to the improvement of the FFS quality.

174. Throughout the project's duration, capacities will be strengthened – mainly in CCA, FFS and agro-meteorological products - in different institutions at national, provincial and local level. The staff with strengthened capacity while staying in the country after the end of the project will be able to upscale awareness on CCA and FFS, which will allow the project to limit the use of international experts in a cost-effective manner. Notwithstanding, where national expertise is not available, making international expertise unique or exceptionally credible, international expertise will be used. However, priority will be given to FFS expertise available in the Southern Africa Sub-region in support of south-south cooperation.

175. The proposed project will establish some new FFS in Huila which is not covered by MOSAP, but will above all build directly upon an existing FFS network, established through support from the MOSAP I and MOSAP II projects, which will allow for a significant

reduction in costs. It will also build on lessons learned and capacities developed through RETESA. These projects have created a core capacity of technical expertise and experience on FFS and APFS in Angola that will be used by the proposed project. This includes political and technical capacity in the government and extension services as well as technical expertise for FFS master trainers and facilitators that have previously worked in FFS. By building on these past initiatives, the project capitalizes upon previous work to include CCA aspects into the existing FFS curricula and trainings.

176. In the preparation of the FAO/GEF project “Integrating climate resilience into agricultural production for food security in rural areas of Mali”, a comparison of costs for FFS and standard training approaches to extension was undertaken. Although not directly transferable to this project, the findings were that “building upon 400 existing FFS and 233 experienced facilitators (for crops such as rice, cotton and vegetable gardening) will save 251 540 USD in training costs alone and 220 000 USD in FFS operation over the project cycle.” Although not a solid economic analysis, this does strongly indicate the cost-effectiveness of the FFS approach.
177. Cost-effectiveness will also be achieved through knowledge management, synergies and complementarities. Previous knowledge on climate change threats and mitigation practices and strategies does exist both at grass-roots and institutional levels, but it is poorly systematized, shared and disseminated. The first component will be dedicated to training the government and the civil society in CCA and SLM, which will ensure solid capacities in the long term.

2.7 INNOVATIVENESS

178. The most significant innovation brought by the project is the mainstreaming of CCA and SLM in the current FFS network in Angola, and in collaborating with the SFS-FFS network in order to tap into a rich pool of FFS knowledge and experience. Mainstreaming will be done through the integration of CCA and SLM practices into training curricula (improving soil fertility and integrated nutrient management through agroecological practices; agroecology and environmental practices related to soil conservation, rational use of water, rational use of fertilizers, integrated nutrient management and promoting integrated pest management) and into master trainers and facilitators’ trainings. Although FFS are already in place in Angola, the climate resilient practices have not been integrated in these previous initiatives.
179. The innovativeness of the project is the FFS approach that will be employed to build the capacity of communities to adapt to climate change. FAO and other development organizations have been promoting FFS – an innovative approach to adult education first developed in Southeast Asia for pest management – to improve land and water management in Africa. Unlike traditional approaches to agriculture extension, which rely on extension workers providing advice to farmers, farmer field schools enable groups of farmers to find out the answers for themselves. That means the farmers can develop solutions to their own problems. This approach is particularly important in Angola where war has affected the extension capacities to provide quality and appropriate services and technologies to smallholder farmers. The FFS approach is also innovative in terms of initiating and accompanying adaptive learning process for the local population.
180. The proposed project will also introduce new climate resilient and participatory tools such as SHARP. The tool provides a framework for farmers and herders to self-assess their climate resilience. It has been developed in collaboration with the University of Leeds, UK, and has been tested in various FAO FFS projects in Africa. Moreover, the tool is being used in a number of FAO GEF projects working in land degradation and climate adaptation through FFS. In Angola, this tool has been used through the RETESA project in field schools and as a

baseline. The scheme takes place within the initial FFS community dialogues and baseline assessments and allows for an assessment of climate resilience during different phases of project implementation.

181. As part of the CCA and SLM training package, the project will promote the innovative agro-ecology approach. Agroecology is increasingly recognized by the scientific community as three-fold purpose: it is at once a science, a practice and a social movement (Wezel *et al.*, 2009⁶³). As a science, agroecology integrates multiple disciplines into a “trans-discipline”, drawing on fields such as ecology, agronomy, political, economy and sociology. As a set of practices, it can provide multiple benefits to society and the environment, from reducing pollution from agriculture and supporting the conservation of the environment to boosting nutritional security and improving resilience in a changing climate. As a movement, it can address the vitally important issues of distributive and procedural justice in food and agriculture—that is, who gets access to what resources and how to decide⁶⁴. In 2014, FAO officially recognizes agro-ecology as “a promising approach to moving food production onto a more sustainable path”⁶⁵. As such, incorporating agro-ecological farming into FFS curricula is an effective way to enhance agricultural systems management in order to make them both more productive and better at conserving natural resources.

182. The project will also introduce a new and innovative policy instrument: the Voluntary Guidelines on the Responsible Governance of Tenure, which will be useful in particular to develop land and natural resources management systems including CCA considerations in Huila Province (activity 3.2.1). The *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security* promote secure tenure rights and equitable access to land, fisheries and forests as a means of eradicating hunger and poverty, supporting sustainable development and enhancing the environment. They were officially endorsed by the Committee on World Food Security on 11 May 2012. The Guidelines promote responsible governance of tenure of land, fisheries and forests, with respect to all forms of tenure: public, private, communal, indigenous, customary, and informal. Their overarching goals are to achieve food security for all and support the progressive realization of the right to adequate food in the context of national food security. While supporting efforts towards the eradication of hunger and poverty, the Guidelines are also intended to contribute to achieving sustainable livelihoods, social stability, housing security, rural development, environmental protection, and sustainable social and economic development. The Guidelines are meant to benefit all people in all countries, although there is an emphasis on vulnerable and marginalized people⁶⁶.

⁶³ <http://agroeco.org/socla/wp-content/uploads/2013/12/wezel-agroecology.pdf>

⁶⁴ www.iatp.org/blog/201409/scientists-praise-and-challenge-fao-on-agroecology#sthash.DLh56nNA.dpuf

⁶⁵ www.fao.org/news/story/en/item/247782/icode/

⁶⁶ www.fao.org/nr/tenure/voluntary-guidelines/en/

3 SECTION 3 – FEASIBILITY (FUNDAMENTAL DIMENSIONS FOR HIGH QUALITY DELIVERY)

3.1 ENVIRONMENTAL IMPACT ASSESSMENT

183. Based on the project objective, outcomes and outputs, adverse environmental or social impacts are not likely, and the project conforms to FAO's pre-approved list of projects excluded from a detailed environmental assessment (i.e. Category 'C'). To the contrary, the project and the GEF resources invested are expected to have positive impacts on agricultural lands by safeguarding ecosystem services. The project will support the sustainable use of natural resources, which will create global environmental benefits. The investments in rural areas for SLM and CCA will follow Angola's standards and legislation



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3.2 RISK MANAGEMENT

3.2.1 Risks and mitigation measures

184. A detailed risk table including identified potential risks to the project, estimated levels of risks, and proposed mitigation measures for each risk is provided in Appendix 4.

3.2.2 Fiduciary risk analysis and mitigation measures

185. N/A

4 SECTION 4 – IMPLEMENTATION AND MANAGEMENT ARRANGEMENT

4.1 INSTITUTIONAL ARRANGEMENTS

4.1.1 General institutional context and responsibilities

186. The different national and provincial institutions to be involved in the project, and their respective responsibilities, are described below:

At the National Level

187. The **Ministry of the Environment (MINAMB)** is the central government body responsible for the coordination, development, implementation and enforcement of environmental policies, particularly in the areas of biodiversity, environmental technologies and the prevention and assessment of impacts as well as the environmental education.

188. The Ministry of Trade (**MINCO**) is responsible for the preparation, implementation, monitoring and control of trade policy, aimed at regulating and disciplining the exercise of trade activity, to promote the development, planning and modernization of business infrastructure as well as ensuring free and fair competition between traders, and safeguarding the rights of consumers.

189. The **Ministry of Agriculture (MINAGRI)** is responsible for agricultural, rural development and the forestry sector, its mission is to undertake the design and implement agricultural and food security policy, ensure sustainable rural development, oversee the welfare of rural communities, as well as ensure sustainable fisheries and aquatic biological resources and forestry. MINAGRI includes:

- **Institute of Agrarian Development (IDA)** is responsible for defining and implementing extension services to support small farmers through the Provincial Agriculture Directions and the Agrarian Development Stations (EDA); and
- **Food Security Office (GSA)** is a technical support entity within MINAGRI in defining and following-up on the implementation of policies and strategies that allow the improvement of food security. GSA is responsible for the collection of meteorological data to operate the agrometeorological crop monitoring and crop yield forecast system for food security.

190. The **National Institute of Meteorology and Geophysics (INAMET)** is the national institution in charge of monitoring the weather and climate. It is also a research organization which provides scientific services in the fields of meteorology and geophysics under the *Ministry of Telecommunications and Information Technologies (MTTI)*. INAMET ensures the functioning of the network of Automatic Weather Stations (AWS) and conventional observations of atmospheric parameters, carrying data storage, processing and dissemination. INAMET is represented across the country through its provincial departments.

At the Provincial Level

191. The **Provincial Governments** of Bié, Huambo, Malanje and Huila.

192. The **provincial Directions of MINAGRI, MINCO and MINAMB** are executive departments of the provincial administration who work mainly in partnership with the central organs of the ministry for all matters related to technical issues.

193. Within the provincial Direction of the MINAGRI also acts IDA, headed by a Chief of Department appointed at the level of MINAGRI. IDA has provincial offices that provide

support for all Agrarian Development Stations (EDA), acting to direct the municipal level and in contact with the farmer, performing training activities and technology transfer.

At the Local Level

194. **Agrarian Development Stations (EDA)** which links the IDA with small scale farmers. They are a direct link between MINAGRI and producers by providing inputs and recommendations.

4.1.2 Coordination with other ongoing and planned related initiatives

Coordination with Initiatives in Angola

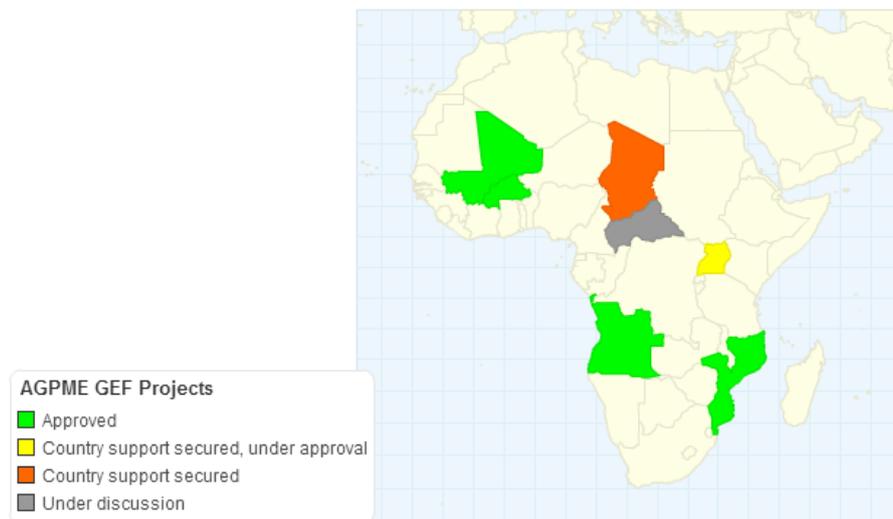
195. MINAMB and MINAGRI will ensure coordination with national initiatives, while FAO office in Angola will facilitate coordination with internationally supported initiatives and with initiatives in other Eastern African countries. Coordination mechanisms will be supported by the project staff and the project coordination unit.
196. The project will be implemented in close collaboration with a number of partner projects, and coordination across the projects will be important. The collaboration with projects will take the form of co-financing agreements and/or sharing of best practices and lessons learned. These partner projects fall into two categories: (i) baseline projects in Angola (discussed earlier), which are the related projects and programmes that the present project will directly collaborate with through co-financing arrangements; and (ii) related projects with which coordination will focus on exchanging lessons and sharing inputs and technical expertise.
197. In this second category, the project will collaborate in particular with:
- **RETESA.** The FAO-GEF project RETESA from 2014 to 2018, “land rehabilitation and rangelands management in smallholders’ agro-pastoral production systems in southwestern Angola” is a joint effort by the MINAMB, MINAGRI, MINCO, and provincial government in Namibe, Huila and Benguela. The project aims to: (i) pursue land degradation neutrality by enhancing the capacity of southwestern Angola’s smallholder agro-pastoral sector to mitigate the impact of land degradation processes and to rehabilitate degraded lands by mainstreaming SLM technologies into agro-pastoral and agricultural development initiatives (environmental objective) and, (ii) to simultaneously improve the livelihoods of targeted communities by introducing locally adapted SLM approaches and by strengthening and diversifying livestock and non-livestock based value chains. This project will use and develop the network of FFS/Agro-pastoral Field Schools (APFS) to enable effective participatory planning to take place at local and transhumance route scale. Although RETESA will not provide co-finance, the GEF/LDCF project will built on lessons learned, best practices and capacities developed through this on-going initiative, including the work conducted in training master trainers and facilitators, the setting-up of APFS and the development of training curricula;
 - The GEF/UNDP Project **Promoting Climate-resilient Development and Enhanced Adaptive Capacity to Withstand Disaster Risks in Angola in the Cuvelai River Basin;**
 - The GEF/AfDB Project **Integrating Climate Change into Environment and Sustainable Land Management Practices;** and
 - **TERRA Programme** described in more details in the baseline.
198. This collaboration will include informal communications as well as exchange of information and outreach materials between projects. The proposed project will also seek coordinating with other initiatives outside of Angola.

Coordination with Climate Change Resilience Projects in Africa

199. FAO AGPME works in synergy with a number of partners to operate projects aimed at improving the resilience of farmers and herders in an effort to safeguard their traditional way of life, preserve their local indigenous knowledge and improve the livelihoods of their communities. To date, FAO projects support the implementation of 4 500 Farmers Field Schools in several African countries aiming at rehabilitating 67 000 hectares of soil.

200. The map below shows the climate resilience and agro-ecology projects implemented by the LTU in Africa.

Figure 10: Map locating AGPME projects in Africa⁶⁷



201. Among these AGPME projects, the proposed LDCF project will collaborate in particular with the following projects in Burkina Faso, Mozambique and Mali by exchanging best practices and lessons learned and organizing south-south exchanges for some of the FFS beneficiaries:

- *Integrating Climate Resilience into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas through the Farmer Field School Approach in Burkina Faso - GCP/BKF/054/LDF.* This project in Burkina Faso aims to enhance the capacities of the agricultural and pastoral sectors to cope with climate change through CCA integration into agricultural development initiatives and policies, and through a network of established FFSs;
- *Strengthening capacities of agricultural producers to cope with climate change for increased food security through the Farmers Field School approach in Mozambique.* The objective of the project is to enhance the capacity of Mozambique’s agricultural and pastoral sectors to cope with climate change, by up scaling farmers’ adoption of CCA technologies and practices through a network of already established FFS, and by mainstreaming CCA concerns and strategies into on-going agricultural development initiatives, policies and programming; and
- *Strengthening resilience to climate change through integrated agricultural and pastoral management in the Sahelian zone in the framework of the Sustainable Land Management approach in Mali.* This project aims at enhancing the capacity of Mali’s agro-pastoral sector to cope with climate change, by mainstreaming CCA strategies, practices, and technologies adoption into ongoing agro-pastoral and agricultural development initiatives in the framework of the national Sustainable Land Management approach and programme (CSI-GDT).

202. As mentioned earlier, the project will also collaborate closely with the *SFS Sub-regional FFS Network* that was an output of the 5 day regional workshop on FFS in Dakar in

⁶⁷ Source: www.fao.org/agriculture/crops/thematic-sitemap/theme/spi/climate-change-resilience-in-africa-agpme-projects/en/

December 2015. The network is a regional network of committed specialists across Central and Western Africa to support the quality of FFS. It will in particular:

- Build an information platform for sharing experiences and expertise;
- Provide technical / methodological assistance for enhancing FFS capabilities;
- Help ensure the quality of FFS by harmonizing approaches; and
- Carry out advocacy for FFS institutionalization, resource mobilization and visibility⁶⁸.

4.2 IMPLEMENTATION ARRANGEMENTS

4.2.1 Roles and responsibilities of the executing partners

203. The **FAO** will be the GEF agency responsible for monitoring and providing technical backstopping during project implementation. FAO's role and responsibilities are described in sub-section 4.2.2 below. In addition to FAO as GEF agency, the project will have the following executing partners.

At the National Level

204. The **Ministry of Environment (MINAMB)**, will be the lead government counterpart and coordinating agency in this project. In light of this, MINAMB will play the overall lead role in the execution of project activities as well as the day-to-day monitoring. The ministry will be responsible for ensuring the overall coordination of the project's implementation, as well as coordination and collaboration with partner institutions, local community organizations and other entities participating in the project. The **Ministry of Agriculture (MINAGRI)** and **Ministry of Commerce (MINCO)** will take over a co-leading role and support the project execution in their respective expertise, roles and responsibilities vis-a-vis the delivery of the project's components. FAO will sign a Government Cooperation Project (GCP) Agreement with MINAMB. The GCP Agreement will outline the roles and responsibilities of the FAO and MINAMB, including legal aspects of collaboration such as responsibilities for facilitating inputs, copyrights among others.

205. The technical execution of the project will be supported by the Government of Angola represented by MINAMB for overall climate change policy coordination and implementation of project Component 3, and MINAGRI and MINCO for implementation of Components 1 and 2. Overall responsibility for project implementation and management remains with MINAMB. FAO will provide technical, methodological, administrative and procurement support to the execution of the project, in close cooperation with MINAMB, MINAGRI and other stakeholders.

206. In addition to these main Ministries, the Ministry of Territorial Administration and Ministry of Planning will also be involved in the project, as well as international donors and technical partners (African Development Bank; European Union, World Bank, among others).

At the Provincial Level

207. A Project Coordination Unit (PCU) will be hosted in the Provincial Government Office of Huila Province. A technical liaison officer will be based at MOSAP II coordination office hosted in IDA in Luanda.

208. The PCU will interact with other IDA Provincial Departments through a focal point designed in all 4 IDA Provincial Departments, which will participate to the Project Steering Committee (PSC).

⁶⁸ <http://www.fao.org/ag/portal/agp/agp-news/detail/en/c/381950/>

At the Municipal level

209. Based on the implementing agreement set at the national level, the Agrarian Development Stations (EDA) will be the executing structures at the municipal level. For this purpose, technical experts will be seconded to EDA, and paid by the project while EDA will provide necessary support – e.g. office spaces etc. in order to guarantee the involvement of the EDAs in the project while strengthening their capacities. PCU and Project experts will give technical and methodological support for activities implementation.

Project Coordination

210. The responsibility for the daily project management and implementation will be with the PCU (see Section 5.2.3) based in the Provincial Government of Huila and actuating for implementation of Components 1 and 2 in the three other provinces through the IDA Provincial Departments, and for Component 3 through the Environment Provincial Departments. IDA will be involved in technical oversight, planning and monitoring and evaluation of the project activities in the respective provinces. The project will achieve a number of key outputs through letters of agreements (LoAs) and individual contracts. These letters and individual contracts will be elaborated and signed between FAO and collaborating partners (including service providers). The service provider will then be administratively managed by FAO Angola. Funds received by the service provider under a LoA or an individual contract will be used to execute the project activities in conformity with FAO's rules and procedures. The respective LoAs are listed under the “Contracts” budget line of the project budget.

Table 6: Proposed LoA and individual contracts for project implementation

Expected outputs	Activities	Service Providers and Individual Experts
1.1	Activity 1.1.1: develop training materials, adapted to the capacity needs of MINAMB, MINAGRI, MINCO and civil society organizations, academia and research institutions,, on CCA and SLM practices in crop-livestock production systems	International capacity building expert
	Activity 1.1.2: conduct training sessions at the national level to train and raise awareness among 15 MINAMB, 15 MINAGRI, 15 MINCO and 10 civil society organizations representatives on CCA practices and SLM in crop-livestock production systems	International capacity building expert and national climate change trainer
	Activity 1.1.3. conduct training sessions in each of the 4 provinces of intervention to train 10 staff in each provincial governments on CCA and SLM practices in crop-livestock production system	International capacity building expert and national climate change trainer
1.2	Activity 1.2.1: provide training to relevant INAMET and GSA staff on theoretical and practical aspects of agro-meteorology, including on how to assess and update vulnerability information	University of Liege or other Portuguese speaking countries International specialist in agro-met/CVA software development
	Activity 1.2.2: support INAMET and GSA in the consolidation of the historical climate archive 1971-2000 and meteorological database 2005-2015 for all available stations in the Provinces of Bié, Huambo, Huila and Malanje	African Centre of Meteorological Applications for Development (ACMAD Centre, Niamey, Niger) or with the International Environmental Data Rescue Organization (IEDRO, USA)
	Activity 1.2.3: design and perform a rapid Climate Vulnerability Assessment (CVA) in collaboration with INAMET and GSA for each of the four Provinces and, in collaboration with IDA, to identify suitable adaptation options for main crops and livestock based on the outputs of the CVAs	International expert in agro-met/CVA software development
2.1	Activity 2.1.1: develop training tools for master trainers on CCA and SLM practices to be integrated into existing and new FFS, taking into account the results of the CVA (activity 1.2.2), and including FAO CCA tools	International FFS trainer and implementer National FFS expert

	Activity 2.1.2: train and equip master trainers involved in MOSAP II from the Provincial and municipal agricultural extension staff on the identified CCA and SLM practices, and FAO CCA tools	NGO (ADRA, World Vision or CODESPA) – ADRA and World Vision have potential and capacities for FFS implementation in Bié, Huila, Huambo and Malange. CODESPA is considered as an FFS implementing structure in Bié and Huambo. International FFS trainer and implementer, and selected staff from what national institution to become FFS Master Trainers National FFS expert
	Activity 2.1.3: according to the updated curricula on CCA and SLM practices and FAO CCA tools train and equip FFS facilitators involved in MOSAP II	NGO (ADRA, World Vision or CODESPA) International FFS trainer and implementer National FFS expert
2.2	Activity 2.2.1: in PY2, PY3 and PY4, train and equip master trainers and facilitators in Huila Province.	NGO (ADRA, World Vision or CODESPA) International FFS trainer and implementer
	Activity 2.2.2: support the establishment and implementation of 150 new FFS in Huila Province, focusing on CCA and SLM practices	NGO (ADRA, World Vision or CODESPA) International FFS trainer and implementer National FFS expert
3.1	Activity 3.1.1: strengthen the technical component on CCA of (i) the inter-ministerial commission for biodiversity and climate change, and (ii) the multi-sectoral commission for the environment by assessing their functioning; and by developing a technical proposal to address the main operational gaps of these two commissions	National expert in intersectoral coordination
	Activity 3.1.2: set up an institutional task force comprising representatives from MINAMB, MINAGRI, MINCO and the civil society for a better inter-sectoral coordination on CCA	
	Activity 3.1.3: support quarterly meetings of the institutional task force, the commission for biodiversity and climate change, and the commission for environment	N/A
	Activity 3.1.4: support the task force in developing a 5 year strategy to mainstream CCA considerations into sectoral programming and budgeting	International and national experts in mainstreaming of CCA considerations into sectoral programming and budgeting
	Activity 3.1.5: Based on the 5-year strategy, provide support to the teams in charge of annual planning and programming within MINAMB, MINAGRI and MINCO to mainstream CCA and SLM practices into annual planning and budgeting	
3.2	Activity 3.2.1: Organize trainings at municipal level in 3 targeted municipalities for administrative staff and civil society representatives on the use and application of legal land rights packages and on implementing climate resilient investments	International expert in the use and application of legal land rights and natural resources management systems National experts in the use and application of legal land rights
	Activity 3.2.2: In 3 municipalities of Huila Province, develop a land and natural resources management system including CCA considerations	International expert in the use and application of legal land rights and natural resources management systems Local NGO (ADRA, World Vision or CODESPA)

4.2.2 FAO’s role and responsibilities, as the GEF Agency, including delineation of responsibilities internally within the FAO

FAO’s role in the project governance structure

211. FAO will be the **GEF Agency of the Project as well as the financial and operational executing agency**. As financial and operational executing agency, FAO will provide procurement services and financial management services for GEF resources. As the GEF Agency, FAO will supervise and provide technical guidance for the overall implementation of the project. The administration of GEF grants will be in accordance with

FAO rules and procedures and in accordance with the agreement between FAO and the GEF Trustee. As the GEF agency for the project, FAO will:

- Administrate funds from GEF in accordance with the rules and procedures of FAO;
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers and the rules and procedures of FAO;
- Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;
- Conduct at least one supervision mission per year; and
- Report to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, on project progress and provide financial reports to the GEF Trustee.

212. FAO will also be the **executing agency of GEF resources**, including financial management, procurement of goods and contracting of services, according to FAO rules and procedures. As financial executor, FAO will provide to the Project Steering Committee semi-annual reports including a financial statement of project expenditures.

213. In accordance with the Project Document and the AWP/B(s) approved by the Project Steering Committee (PSC), FAO will prepare budget revisions to maintain the budget updated in the financial management system of FAO and will provide this information to the PSC to facilitate the planning and implementation of project activities. In collaboration with the PCU and the PSC, FAO will participate in the planning of contracting and procurement processes. FAO will process due payments for delivery of goods, services and products upon request of the PCU and based on the AWP/B and Procurement Plans that will be annually approved by the PSC.

FAO's roles in internal organization

214. The roles and responsibilities of FAO staff are regulated by the *FAO Guide to the Project Cycle, Quality for Results*, 2015, Annex 4: Roles and Responsibilities of the Project Task Force Members, and its updates.

215. The **FAO Representative in Angola** will be the **Budget Holder (BH)** and will be responsible for the management of GEF resources. As a first step in the implementation of the project, the FAO Representation in Angola will establish an interdisciplinary Project Task Force (PTF) within FAO, to guide the implementation of the project.

216. The PTF is a management and consultative body that integrates the necessary technical qualifications from the FAO relevant units to support the project. The PTF is composed of a Budget Holder (BH), a Lead Technical Officer (LTO), the Funding Liaison Officer (FLO) and one or more technical officers based on FAO Headquarters or Decentralized Offices.

217. In consultation with the LTO, the FAO Representative in Angola will be responsible for timely operational, administrative and financial management of the GEF project resources, including in particular: (i) the acquisition of goods and contracting of services for the activities of the project, according to FAO's rules and procedures, in accordance with the approved AWP/B; (ii) process the payments corresponding to delivery of goods, services and technical products in consultation with the PSC; (iii) provide six-monthly financial reports including a statement of project expenditures to the PSC; and (iv) at least once a year, or more frequently if required, prepare budget revisions for submission to the FAO-GEF Coordination Unit through the Field Programme Management Information System (FPMIS) of FAO.

218. The FAO Representative in Angola, in accordance with the PTF, will give its non-objection to the AWP/Bs submitted by the PCU as well as the Project Progress Reports (PPRs). PPRs may be commented by the PTF and should be approved by the LTO before being uploaded by the BH in FPMIS.

219. The **Lead Technical Officer** (LTO) for the project will be Team leader of the Ecosystem Management team of the FAO's Agricultural Plant Production and Protection Division (AGPME). The role of the LTO is central to FAO's comparative advantage for projects. The LTO will oversee and carry out technical backstopping to the project implementation. The LTO will support the BH in the implementation and monitoring of the AWP/Bs, including work plan and budget revisions. The LTO is responsible and accountable for providing or obtaining technical clearance of technical inputs and services procured by the Organization.

220. In addition, the LTO will provide technical backstopping to the PTF to ensure the delivery of quality technical outputs. The LTO will coordinate the provision of appropriate technical support from PTF to respond to requests from the PSC. The LTO will be responsible for:

- Review and give no-objection to ToRs for consultancies and contracts to be performed under the project, and to CVs and technical proposals short-listed by the PCU for key project positions, goods, minor works, and services to be financed by GEF resources;
- Supported by the FAO Representation in Angola, review and clear final technical products delivered by consultants and contract holders financed by GEF resources before the final payment can be processed;
- Assist with review and provision of technical comments to draft technical products/reports during project execution;
- Review and approve PPRs submitted by the NPC, in cooperation with the BH;
- Support the FAO Representative in examining, reviewing and giving no-objection to AWP/B submitted by the NPC, for their approval by the PSC;
- Ensure the technical quality of the six-monthly PPRs. The PPRs will be prepared by the NPC, with inputs from the PTF. The BH will submit the PPR to the FAO/GEF Coordination Unit for comments, and the LTO for technical clearance. The PPRs will be submitted to the PSC for approval twice a year. The BH will upload the approved PPR to FPMIS.
- Supervise the preparation and ensure the technical quality of the annual PIR. The PIR will be drafted by the NPC, with inputs from the PTF. The PIR will be submitted to the BH and the FAO-GEF Coordination Unit for approval and finalization. The FAO/GEF Coordination Unit will submit the PIRs to the GEF Secretariat and the GEF Evaluation Office, as part of the Annual Monitoring Review report of the FAO-GEF portfolio. The LTO must ensure that the NPC and the PTF have provided information on the co-financing provided during the year for inclusion in the PIR;
- Conduct annual (or as needed) supervision missions;
- Review the TORs for the mid-term evaluation/review, participate in the mid-term workshop with all key project stakeholders, development of an eventual agreed adjustment plan in project execution approach, and supervise its implementation; and
- Provide inputs for the TORs of the final evaluation as requested by FAO Office of Evaluation.

221. The **HQ Officer** is a member of the PTF, as a mandatory requirement of the FAO Guide to the Project Cycle. The HQ Officer has most relevant technical expertise - within FAO technical departments - related to the thematic of the project. The HQ Technical Officer will provide effective functional advice to the LTO to ensure adherence to FAO corporate technical standards during project implementation, in particular:

- Supports the LTO in monitoring and reporting on implementation of environmental and social commitment plans for moderate projects. In this project, the HQ officer will support the LTO in monitoring and reporting the identified risks and mitigation measures (Appendix 4) in close coordination with the project partners;
- Provides technical backstopping for the project work plan;

- Clears technical reports, contributes to and oversees the quality of Project Progress Report(s) (PPRs);
- May be requested to support the LTO and PTF for implementation and monitoring; and
- Supports the LTO and BH in providing inputs to the TOR of the Final Evaluation as requested by OED.

222. The **FAO-GEF Coordination Unit** will act as **Funding Liaison Officer (FLO)**. The FAO/GEF Coordination Unit will review the PPRs and financial reports, and will review and approve budget revisions based on the approved Project Budget and AWP/Bs. This FAO/GEF Coordination Unit will review and provide a rating in the annual PIRs and will undertake supervision missions as necessary. The PIRs will be included in the FAO GEF Annual Monitoring Review submitted to GEF by the FAO GEF Coordination Unit. The FAO GEF Coordination Unit may also participate in the mid-term evaluation/review and final evaluation, and in the development of corrective actions in the project implementation strategy if needed to mitigate eventual risks affecting the timely and effective implementation of the project. The FAO GEF Coordination Unit will in collaboration with the FAO Finance Division request transfer of project funds from the GEF Trustee based on six-monthly projections of funds needed.

223. The **FAO Financial Division** will provide annual Financial Reports to the GEF Trustee and, in collaboration with the FAO-GEF Coordination Unit, request project funds on a six-monthly basis to the GEF Trustee.

4.2.3 Project technical, coordination and steering committees

224. The institutional arrangements are described in the organization chart below.

National Project Steering Committee

225. Project implementation will take place through the national Project Steering Committee (PSC), which will have the role of overseeing and coordinating the project's planning and implementation. It will be chaired by MINAMB and will be comprised of representatives of the following institutions: FAO, MINAMB (climate change cabinet and FAO focal point), MINAGRI, MINCO, INAMET, 4 Provincial Government Representatives (Provincial Environmental Department, Provincial Agricultural Directorate, IDA Provincial Department, Provincial Department of Commerce), the GEF focal points. The PSC will meet at least once a year to:

- Provide guidance to the Project Coordination Unit (PCU) to ensure project implementation is in accordance with the project document;
- Review and approve any proposed revisions to the project results framework and implementation arrangements;
- Review, amend (if appropriate) and endorse all Annual Work Plans and Budgets;
- Review project progress and achievement of planned results as presented in six-monthly Project Progress Reports, Project Implementation Reviews (PIRs) and Financial Reports;
- Ensure that co-financing support will be available on time;
- Advise on issues and problems arising during project implementation;
- Facilitate cooperation between all project partners and facilitate collaboration between the Project and other relevant programmes, projects and initiatives in the country; and
- Approve ToR for midterm and final evaluations.

226. The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will (i) technically oversee activities in their sector, (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project, (iii) facilitate coordination and links between

the project activities and the work plan of their agency, and (iv) facilitate the provision of co-financing to the project.

Liaison Committee

227. For strategic project decisions between MINAMB, MINAGRI and MINCO, a Liaison Committee (Inter-sectoral task force) will be established under project Output 3.1. Its main function is to provide an exchange platform on CCA efforts in this project, to discuss necessary cross-cutting policy amendments and to facilitate the replication and mainstreaming process of best practices experiences to be replicated at the national level. Detailed ToR on the function and tasks of the liaison committee will be developed in the early stage of project implementation.

Project Coordination Unit

228. A Project Coordination Unit (PCU) funded by the GEF will be established in the Province of Huila, and will include:

- a full time National Project Coordinator (NPC), leader of the PCU;
- a full time Chief Technical Advisor International who will support the M&E activities and also take over Technical Advisory related services;
- a technical liaison officer based in IDA/MOSAP II offices in Luanda and ensuring the collaboration with MOSAP and IDA;
- a full time operation and administration officer (based at FAO Luanda).

229. This PCU will be closely linked to the MOSAP II management structure, strengthening the collaboration between both projects. To foster this collaboration, the technical liaison officer will be hosted at MOSAP II coordination office in Luanda.

230. The ToRs of PCU's staff are provided in Appendix 5. The PCU staff will be recruited by the project and will report (through the NPC) to the BH. The PCU will carry out its functions in line with FAO rules and regulations. The PCU will act as Secretary for the national PSC. It will interact with Ministries for operational and institutional matters. Some key functions of the PCU are:

- Technically identify, plan, design and support all activities;
- Liaise with government agencies and regularly advocate on behalf of the project;
- Prepare the Annual Work Plan and Budget (AWP/B) and monitoring plan;
- Be responsible for day-to-day implementation of the project in line with the AWP;
- Ensure a results-based approach to project implementation, including maintaining a focus on project results and impacts as defined by the results framework indicators;
- Coordinate project interventions with other ongoing activities;
- Monitor project progress;
- Be responsible for the elaboration of FAO Project Progress Reports (PPR) and the annual Project Implementation Review (PIR); and
- Facilitate and support the mid-term evaluation/review and final evaluation of the project.

231. PCU's staff will be supported by national and international consultants which will be contracted during project implementation for shorter periods on an ad-hoc basis.

National Project Coordinator

232. The National Project Coordinator (NPC) will lead the PCU and work closely with FAO offices and MINAMB, MINCO and MINAGRI. The NPC reports to the BH on operational issues and to the CTA on technical issues. The NPC will be in charge of daily project management and technical supervision including:

- Coordinating and closely monitoring the implementation of project activities;
- Day-to-day management;
- Coordination with related initiatives;

- Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;
- Tracking the project's progress and ensuring timely delivery of inputs and outputs;
- Supporting the CTA in implementing and managing the project's monitoring and communications plans;
- Organizing annual project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan (AWP/B);
- Submitting the PPR with the AWP/B to the PSC and FAO;
- Acting as Secretary of the PSC;
- In cooperation with the CTA preparing the PIR, and supporting the organization of the mid-term evaluation/review and final evaluation;
- Under FAO rules and procedures and in conformity with this project document and the AWP/B, identify expenses and disbursements that should be requested to FAO for the timely execution of the project; and
- Monitor, provide technical support and assess the reports and outputs of the project's national consultants (financed by GEF funds).

Chief Technical Advisor

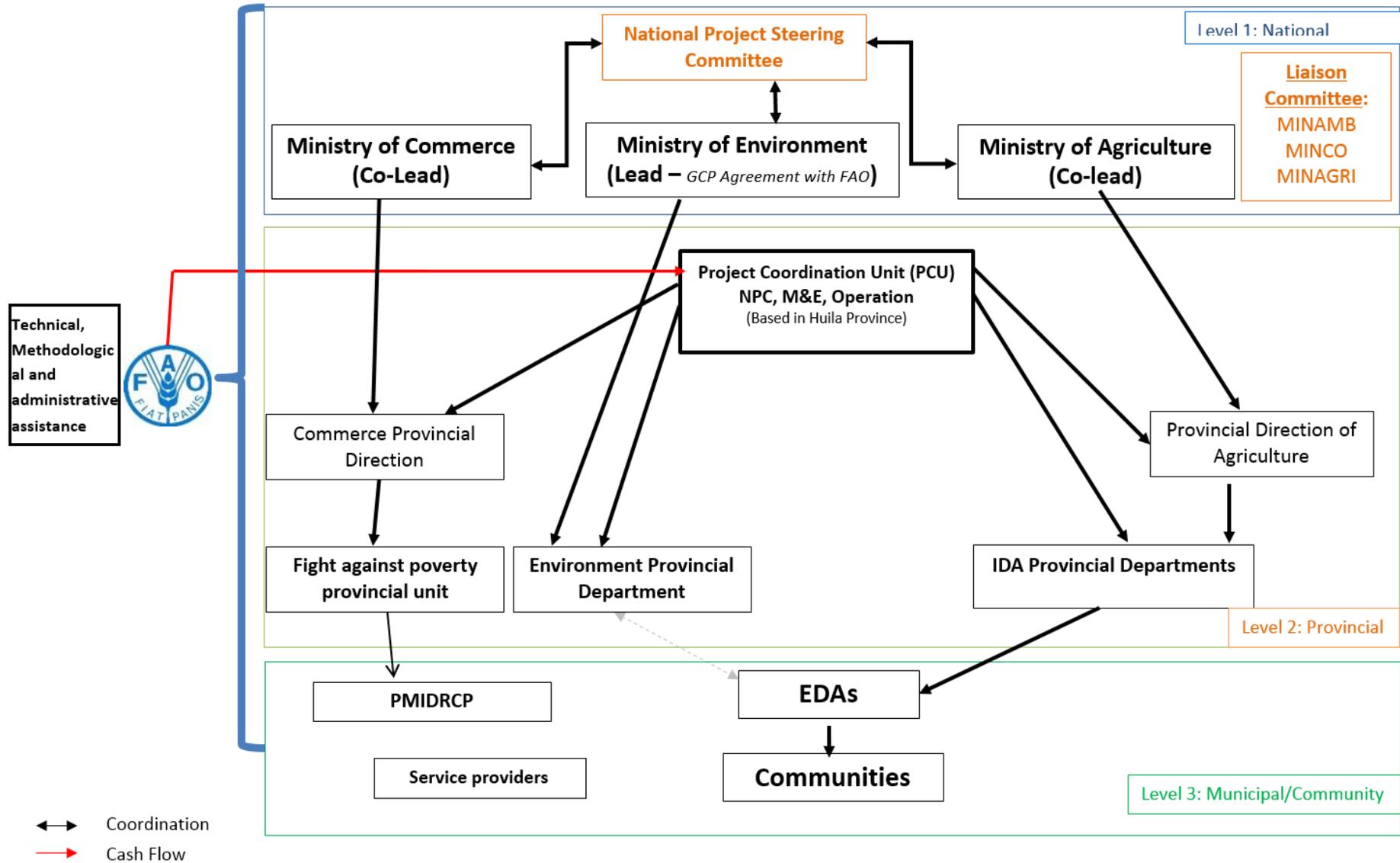
233. The CTA is part of the PCU, will ensure the sound implementation of project activities jointly with the NPC, and will ensure best international technical and management practices.
234. The CTA will be responsible in coordination with NPC for the operational planning, management and monitoring & evaluation (M&E) of all project activities. He/she will provide technical support to the NPC and ensure a good implementation of the activities in line with the project result framework, work plan and approved budget (see TORs Annex 5).

Operation and Administration Officer

235. An Operations and Administration Officer, under the direct supervision of the FAO BH and in close consultation with the NPC, the LTO and the lead executing partners, will ensure a smooth and timely implementation of project activities in support of the results-based work plan, through operational and administrative procedures according to FAO rules and standards.
236. Draft Terms of Reference (TOR) for the positions above are listed in Appendix 5.

4.2.4 Organizational chart

Figure 11: Project's Institutional Arrangements



4.3 FINANCIAL PLANNING AND MANAGEMENT

4.3.1 Financial plan (by component and by co-financier)

237. The total cost of the project will be US\$ 30 287 412, to be financed through a US\$ 6 668 182 GEF/LDCF grant and US\$ 23 619 230 in co-financing from:

- MINAMB: US\$ 200 000 in-kind, US\$ 1 125 000 from Novo Rumo project and US\$2 000 000 from Contente project;
- MINAGRI: US\$13 500 000 from MOSAP II
- MINCO: US\$ 2 494 230 from PMIDRCP/PAPAGRO; and
- FAO: US\$ 4 300 000

238. The table below shows the costs by component and by sources of financing. FAO, as the GEF agency, will only be responsible for the execution of the GEF resources and FAO co-financing. All co-financing letters can be found in Appendix 6.

Table 7: Summary of Financial Contribution per outputs and co-financing partners

Component/output	MINAMB	MINAGRI/M OSAP II	MINCO	FAO	Total Co- financing	% Co- financing	GEF	% GEF	Total
Component 1: Strengthening knowledge and understanding of climate change vulnerability and adaptation	831 250	2 700 000	-	1 290 000	4 821 250	83%	970 000	17%	5 791 250
O 1.1 95 staff from MINAMB, MINAGRI, MINCO and provincial government staff as well as civil society trained and aware of CCA and SLM practices in crop-livestock	831 250	2 000 000	-	1 290 000	4 121 250	90%	456 996	10%	4 578 246
O 1.2 Rapid vulnerability assessment conducted and relevant staff trained to ensure regular updating of vulnerability information	-	700 000	-	-	700 000	58%	513 005	42%	1 213 005
Component 2: Scaling up of improved CCA/SLM practices through Farmers Field Schools (FFS)	-	6 750 000	2 494 230	2 279 000	11 523 230	74%	4 023 181	26%	15 546 411
O 2.1. A core group of master trainers and FFS facilitators involved in MOSAP II trained in CCA and SLM practices	-	6 750 000	-	-	6 750 000	77%	2 024 728	23%	8 774 728
O 2.2 CCA/SLM training is provided to 150 new FFS in Huila and 4,000 farmers (at least 30% women) are adopting improved CCA and SLM practices to increase their climate resilience	-	-	2 494 230	2 279 000	4 773 230	70%	1 998 454	30%	6 771 684
Component 3: Mainstreaming CCA into agricultural and environmental sector policies and programmes	2 493 750	2 700 000	-	430 000	5 623 750	85%	1 010 000	15%	6 633 750
O 3.1 Inter-sectoral task forces in place/strengthened, defining integrated CCA agendas and tailoring them into sector-level programming	200 000	2 700 000	-	430 000	3 330 000	88%	471 396	12%	3 801 396
O 3.2 Climate change adaptation integrated into an effective land and natural resources management system in 4 municipalities	2 293 750	-	-	-	2 293 750	81%	538 605	19%	2 832 355
Component 4: Project Monitoring and Dissemination of results	-	675 000	-	-	675 000	66%	350 000	34%	1 025 000
O 4.1 Project monitoring system providing systematic information on progress in meeting project outcomes and output targets	-	400 000	-	-	400 000	61%	260 000	39%	660 000
O 4.2 Project-related "best-practices" and "lessons learned" disseminated via	-	275 000	-	-	275 000	75%	90 000	25%	365 000
Project Management	-	675 000	-	301 000	976 000	76%	315 000	24%	1 291 000
Total Project	3 325 000	13 500 000	2 494 230	4 300 000	23 619 230	78%	6 668 182	22%	30 287 412

4.3.2 GEF/LDCF/SCCF inputs

239. The GEF funds will finance inputs needed to generate the outputs and outcomes under the project. These include:

- Local and international consultants for technical support and project management;
- Support to designing and establishing an improved approach to FFS, incorporating CCA, in Angola;
- Support to direct monitoring activities;
- Support through LoA/contracts with technical institutions and service providers supporting the delivery of specific project activities on the ground;
- International flights and local transport and minor office equipment; and
- Training and awareness raising material. GEF resources will also finance publications for awareness raising and education on adaptation best practices.

4.3.3 Government inputs

240. As detailed in the table above:

- MINAMB will provide US\$ 200 000 in kind cofinancing consisting mainly of staff time; as well as in-cash cofinancing through the Projects Novo Romo (US\$ 1 125 000) and Angola Contente (US\$ 2 000 000);
- MINAGRI will provide US\$ 13 500 000 in-cash cofinancing through the MOSAP II project;
- MINCO will provide US\$ 2 494 230 in-cash cofinancing through the PMIDRCP/PAPAGRO program; and
- The Provincial Government of Huila will host the PCU and will therefore provide office space and related utilities.

4.3.4 FAO inputs

241. The FAO will provide provide US\$ 4 000 000 in-cash co-financing through the TERRA programme and US\$ 300,000 in-kind cofinancing, and as well technical assistance, support, training and supervision in the execution of activities financed by GEF resources.

4.3.5 Financial management of and reporting on GEF/LDCF/SCCF resources

Financial management and reporting in relation to the GEF resources will be carried out in accordance with FAO's rules and procedures, and in accordance with the agreement between FAO and the GEF Trustee. On the basis of the activities foreseen in the budget and the project, FAO will undertake all operations for disbursements, procurement and contracting for the total amount of GEF resources.

Financial Records

242. FAO shall maintain a separate account in United States dollars for the project's LDCF resources showing all income and expenditures. Expenditures incurred in a currency other than United States dollars shall be converted into United States dollars at the United Nations operational rate of exchange on the date of the transaction. FAO shall administer the project in accordance with its regulations, rules and directives.

Financial Reports

243. FAO-Angola as the BH shall prepare six-monthly project expenditure accounts and final accounts for the project, showing amount budgeted for the year, amount expended since the beginning of the year, and separately, the un-liquidated obligations as follows:

1. Details of project expenditures on a component-by-component and output basis, reported in line with project budget codes as set out in the Project Document, as at 30 June and 31 December each year;

2. Final accounts on completion of the project on a component and output-by-output basis, reported in line with project budget codes as set out in the Project Document; and
3. A final statement of account in line with FAO Oracle project budget codes, reflecting actual final expenditures under the project, when all obligations have been liquidated.

Financial statements: Within 30 working days of the end of each semester, the FAO Representation in Angola shall submit six-monthly statements of expenditure of GEF resources, to present to the Liaison Committees and the Project Steering Committee. The purpose of the financial statement is to list the expenditures incurred on the project on a six monthly basis compared to the budget, so as to monitor project progress and to reconcile outstanding advances during the six-month period. The financial statement shall contain information that will serve as the basis for a periodic revision of the budget.

The BH will submit the above financial reports for review and monitoring by the LTO and the FAO GEF Coordination Unit. Financial reports for submission to the donor (GEF) will be prepared in accordance with the provisions in the GEF Financial Procedures Agreement and submitted by the FAO Finance Division.

The BH in accordance with FAO standard guidelines and procedures will prepare **semi-annual budget revisions**.

Responsibility for Cost Overruns

244. The BH is authorized to enter into commitments or incur expenditures up to a maximum of 20 percent over and above the annual amount foreseen in the project budget under any budget subline provided the total cost of the annual budget is not exceeded.
245. Any cost overrun (expenditure in excess of the budgeted amount) on a specific budget subline over and above the 20 percent flexibility should be discussed with FAO GEF Coordination Unit with a view to ascertaining whether it will involve a major change in project scope or design. If it is deemed to be a minor change, the BH shall prepare a budget revision in accordance with FAO standard procedures. If it involves a major change in the project's objectives or scope, a budget revision and justification should be prepared by the BH for discussion with the GEF Secretariat.
246. Savings in one budget subline may not be applied to overruns of more than 20 percent in other sublines even if the total cost remains unchanged, unless this is specifically authorized by FAO GEF Coordination Unit upon presentation of the request. In such a case, a revision to the project document amending the budget will be prepared by the BH.
247. Under no circumstances can expenditures exceed the approved total project budget or be approved beyond the NTE date of the project. Any over-expenditure is the responsibility of the BH.

Audit

248. The project shall be subject to the internal and external auditing procedures provided for in FAO financial regulations, rules and directives and in keeping with the Financial Procedures Agreement between the GEF Trustee and FAO.
249. The audit regime at FAO consists of an external audit provided by the Auditor-General (or persons exercising an equivalent function) of a member nation appointed by the governing bodies of the Organization and reporting directly to them and an internal audit function headed by the Inspector-General who reports directly to the Director-General. This function operates as an integral part of the Organization under policies established by senior management, and furthermore has a reporting line to the governing bodies. Both functions are required under the Basic Texts of FAO which establish a framework for the terms of reference of each. Internal audits of interest accounts, records, bank reconciliation and asset verification take place at FAO field and liaison offices on a cyclical basis.

4.4 PROCUREMENT

250. The BH, in close collaboration with the NPC, the LTO and the Budget and Operations Officer will procure the equipment and services provided for in the detailed budget in Appendix 3, in line with the AWP and Budget and in accordance with FAO's rules and regulations.
251. Careful procurement planning is necessary for securing goods, services and works in a timely manner, on a "Best Value for Money" basis, and in accordance with the Rules and Regulations of FAO. It requires analysis of needs and constraints, including forecast of the reasonable timeframe required to execute the procurement process. Procurement and delivery of inputs in technical cooperation projects follow FAO's rules and regulations for the procurement of supplies, equipment and services (i.e. Manual Sections 502 and 507). Manual Section 502: "Procurement of Goods, Works and Services" establishes the principles and procedures that apply to procurement of all goods, works and services on behalf of the Organization, in all offices and in all locations, with the exception of the procurement actions described in Appendix A – Procurement Not Governed by Manual Section 502. Manual Section 507 establishes the principles and rules that govern the use of Letters of Agreement (LoA) by FAO for the timely acquisition of services from eligible entities in a transparent and impartial manner, taking into consideration economy and efficiency to achieve an optimum combination of expected whole life costs and benefits ("Best Value for Money").
252. As per the guidance in FAO's Project Cycle Guide, the BH will draw up an annual procurement plan for major items, which will be the basis of requests for procurement actions during implementation. The first procurement plan will be prepared at the time of project start-up, if not sooner, in close consultation with the NPC and LTU. The plan will include a description of the goods, works, or services to be procured, estimated budget and source of funding, schedule of procurement activities and proposed method of procurement. In situations where exact information is not yet available, the procurement plan should at least contain reasonable projections that will be corrected as information becomes available.
253. The procurement plan shall be updated every 12 months and submitted to FAO BH and LTO for clearance, together with the AWP/B and annual financial statement of expenditures report for the next instalment of funds.
254. The BH, in close collaboration with the NPC, the LTO and the Finance Officer will procure the equipment and services provided for in the detailed budget in Appendix 3, in line with the AWP and Budget and in accordance with FAO's rules and regulations.

4.5 MONITORING AND REPORTING

4.5.1 Oversight and monitoring responsibilities

255. The M&E tasks and responsibilities, specifically described in the Monitoring and Evaluation table (see Section 4.5.4), will be achieved through:
- Day-to-day monitoring and supervision missions of project progress (PCU);
 - Technical monitoring of indicators (PCU);
 - Field School-level monitoring activities (PCU and local technical services);
 - Mid-term evaluation/review and final evaluation (independent consultants and FAO Office of Evaluation); and
 - Continual oversight, monitoring and supervision missions (FAO).
256. At the beginning of the implementation of the GEF project, the PCU will establish a system to monitor the project's progress. Participatory mechanisms and methodologies to support the monitoring and evaluation of performance indicators and outputs will be developed during the project inception workshop (see Section 4.5.3 below). The tasks of monitoring and evaluation will

include: (i) presentation and explanation (if needed) of the project's Results Framework with all project stakeholders; (ii) review of monitoring and evaluation indicators and their baselines; (iii) preparation of draft clauses that will be required for inclusion in consultant contracts, to ensure compliance with the monitoring and evaluation reporting functions (if applicable); and (iv) clarification of the division of monitoring and evaluation tasks among the different stakeholders in the project. The CTA (see TORs in Appendix 5) will prepare a draft monitoring and evaluation matrix that will be discussed and agreed upon by all stakeholders during the inception workshop. The **M&E matrix** will be a management tool for the NPC, and the Project Partners to: i) bi-annually monitor the achievement of output indicators; ii) annually monitor the achievement of outcome indicators; iii) clearly define responsibilities and verification means; iv) select a method to process the indicators and data.

257. The **M&E Plan** will be prepared by the CTA in the three first months of the PY1 and validated with the PSC. The M&E Plan will be based on the M&E Table below and the M&E Matrix and will include: i) the updated results framework, with clear indicators per year; ii) updated baseline, if needed, and selected tools for data collection (including sample definition); iii) narrative of the monitoring strategy, including roles and responsibilities for data collection and processing, reporting flows, monitoring matrix, and brief analysis of who, when and how will each indicator be measured. Responsibility of project activities may or may not coincide with data collection responsibility; iv) updated implementation arrangements, if needed; v) inclusion of the tracking tool indicators, data collection and monitoring strategy to be included in the mid-term review and final evaluation; and vi) calendar of evaluation workshops, including self-evaluation techniques.

258. The day-to-day monitoring of the project's implementation will be the responsibility of the NPC and will be driven by the preparation and implementation of an AWP/B followed up through six-monthly PPRs. The preparation of the AWP/B and six-monthly PPRs will represent the product of a unified planning process between main project stakeholders. As tools for results-based-management (RBM), the AWP/B will identify the actions proposed for the coming project year and provide the necessary details on output and outcome targets to be achieved, and the PPRs will report on the monitoring of the implementation of actions and the achievement of output and outcome targets. Specific inputs to the AWP/B and the PPRs will be prepared based on participatory planning and progress review with all stakeholders and coordinated and facilitated through project planning and progress review workshops. These contributions will be consolidated by the NPC in the draft AWP/B and the PPRs.

259. An annual project progress review and planning meeting should be held with the participation of the project partners to finalize the AWP/B and the PPRs. Once finalized, the AWP/B and the PPRs will be submitted to the FAO LTO for technical clearance, and to the Project Steering Committee for revision and approval. The AWP/B will be developed in a manner consistent with the Project Results Framework to ensure adequate fulfillment and monitoring of project outputs and outcomes.

260. Following the approval of the Project, the PY1 AWP/B will be adjusted (either reduced or expanded in time) to synchronize it with the annual reporting calendar. In subsequent years, the AWP/Bs will follow an annual preparation and reporting cycle as specified in Section 3.5.3 below.

261. Following the approval of the project, the project's first year AWP/B will be adjusted (either reduced or expanded in time) to synchronize with an annual reporting calendar. In subsequent years, the project work plan and budget will follow an annual preparation and reporting cycle as specified in section 4.5.3 below.

4.5.2 Indicators and information sources

262. In order to monitor the outputs and outcomes of the project, including contributions to adaptation benefits, a set of indicators is set out in the Project Results Framework (Appendix 1). The Project Results Framework indicators and means of verification will be applied to monitor both project performance and impact. Following FAO monitoring procedures and progress reporting

formats, data collected will be sufficiently detailed that can track specific outputs and outcomes, and flag project risks early on. Output target indicators will be monitored on a six-monthly basis, and outcome target indicators will be monitored on an annual basis, if possible, or as part of the mid-term and final evaluations.

263. Project output and outcome indicators have been designed to monitor both biophysical and socioeconomic impacts. The main sources of information to support the M&E plan include: i) participatory project monitoring systems (supported by SHARP); ii) participatory workshops to review progress with stakeholders and beneficiaries; iii) in-situ monitoring of the implementation of best SLM/CCA practices; iv) progress reports prepared by the NPC with input from the in-country partners, project specialists and other stakeholders; v) consultancy reports; vi) training reports; vii) mid-term evaluation/review and final evaluation; viii) financial reports and budget reviews; ix) PIRs prepared by the FAO LTO with the support of the FAO Representation in Angola; and x) FAO-supervised mission reports.

Project Inception Report

264. After approval of the project, an inception workshop will be held. Immediately after the workshop, the NPC will prepare a Project Inception Report in consultation with FAO LTO, BH and national partners. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B and the M&E Matrix (see above). The draft inception report will be circulated to FAO and the PSC for review and comments before its finalization, no later than three months after project start-up. The report will be cleared by the FAO BH, LTO and the FAO/GEF Coordination Unit. The BH will upload it in FPMIS.

Results-Based Annual Work Plan and Budget (AWP/B)

265. The NPC will present a draft AWP/B to the PSC no later than 10 December of each year. The AWP/B should include detailed activities to be implemented by project outcomes and outputs and divided into monthly timeframes and targets and milestone dates for output and outcome indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The FAO Representation in Angola will circulate the draft AWP/B to the FAO Project Task Force and will consolidate and submit FAO comments. The AWP/B will be reviewed by the PSC and the PCU will incorporate any comments. The final AWP/B will be sent to the PSC for approval and to FAO for final no-objection. The BH will upload the AWP/Bs in FPMIS.

Project Progress Reports (PPRs)

266. PPRs will be prepared by the PCU based on the systematic monitoring of output and outcome indicators identified in the project's Results Framework (Annex 1). The PPRs are used to identify constraints, problems or bottlenecks that impede timely implementation and take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Framework (Appendix 1), AWP/B and M&E Plan. The Budget Holder has the responsibility to coordinate the preparation and finalization of the PPR. Each semester the NPC will prepare a draft PPR, and will collect and consolidate any comments from the FAO PTF. The NPC will submit the final PPRs to the FAO Representative in Angola every six months, prior to 10 June (covering the period between January and June) and before 10 December (covering the period between July and December). The July-December report should be accompanied by the updated AWP/B for the following Project Year (PY) for review and no-objection by the FAO PTF. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

Annual Project Implementation Review (PIR)

267. The BH will be responsible for the preparation of an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the FLO for review and approval no later than (check each year with FAO GEF Coordination Unit but roughly end June/early July each year). The FAO GEF Coordination Unit will submit the PIR to the GEF Secretariat and GEF Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio. PIRs will be uploaded on the FPMIS by the FAO GEF Coordination Unit.

Key milestones for the PIR process:

- **Early July:** the LTOs submit the draft PIRs (after consultations with BHs, project teams) to the FAO GEF Coordination Unit (faogef@fao.org , copying respective GEF Unit officer) for initial review;
- **Mid July:** FAO GEF Coordination Unit responsible officers review main elements of PIR and discuss with LTO as required;
- **Early/mid-August:** FAO GEF Coordination Unit prepares and finalizes the FAO Summary Tables and sends to the GEF Secretariat by (date is communicated each year by the GEF Secretariat through the FAO GEF Unit);
- **September/October:** PIRs are finalized. PIRs carefully and thoroughly reviewed by the FAO GEF Coordination Unit and discussed with the LTOs for final review and clearance;
- **Mid November 17:** (date to be confirmed by the GEF): the FAO GEF Coordination Unit submits the final PIR reports -cleared by the LTU and approved by the FAO GEF Coordination Unit- to the GEF Secretariat and the GEF Independent Evaluation Office.

Technical Reports

268. Technical reports will be prepared by national, international consultants (partner organizations under LOAs) as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the PCU to the BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

Co-financing Reports

269. The BH, with support from the PCU, will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document/CEO Request. The PCU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and BH. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in the PIR.

GEF/LDCF/SCCF AMAT Tracking Tool (TT)

270. Following the GEF policies and procedures, the tracking tool for climate change adaptation area will be submitted at three moments: (i) with the project document at CEO endorsement; (ii) at the project's mid-term evaluation/review; and (iii) with the project's terminal evaluation or final completion report. The TT will be uploaded in FPMIS by the FAO GEF Coordination Unit. The TT are developed by the Project Design Specialist, in close collaboration with the FAO Project Task Force. They are filled in by the PCU and made available for the mid-term review and again for the final evaluation.

Terminal Report

271. Within two months before the end date of the project, and one month before the Final Evaluation, the PCU will submit to the BH and LTO a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how

the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project, without unnecessary background, narrative or technical details. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for insuring sustainability of project results.

4.5.3 Monitoring and evaluation plan summary

272. The table below provides a summary of the main M&E reports, responsible parties and timeframe.

Table 8: Summary of M&E Related Costs:

Type of M&E Activity	Responsible Parties	Time-frame	Estimate of costs
Inception Workshop (IW)	PCU, supported from the LTO, BH, and GEF Coordination Unit (GCU)	Within two months of project start up	USD 15,000
Surveys to determine AMAT baseline values	PCU and service providers	Within three months of project start up	USD 0 - data is collected by the PCU.
Project Inception Report	PCU, cleared by FAO LTO, LTU, BH, and the GCU	Immediately after the workshop.	USD 0 - project inception report is developed by the PCU.
Field based impact monitoring	PCU, MINAMB and other relevant agencies – including regional and provincial - to participate.	Periodically - to be determined at inception workshop.	USD 30,000
Supervision visits and rating of progress in PPRs and PIRs	PCU; FAO (FAO Angola, LTO). FAO-GCU may participate in the visits if needed.	Annual or as required	The visits of the LTO and the GCU will be paid by GEF agency fee. The visits of the NPC and CTA will be paid from the project travel budget
Project Progress Reports	BH with support from PCU, with inputs from MINAMB, PSC members and other partners	Semi-annual	USD 0 (as completed by CTA and PCU)
Project Implementation Review report	BH (in collaboration with the PCU and the LTO) Drafted by the NPC, with the supervision of the LTO and BH. Approved and submitted to GEF by the FAO-GCU	Annual	Paid by GEF agency fee
AMAT	PCU supported by the LTO	Project start-up, mid-Term and project end.	USD 0 - data is collected by the PCU.
Co-financing Reports	BH with support from PCU and NPC with input from other co-	Annual	Completed by NPC and CTA

financiers			
Technical reports	PCU, BH, LTO & Participating Units	As appropriate	USD 10,000 (Report on best practices and lessons learned)
Mid-term Evaluation (MTE)/Review (MTR)	MTE: FAO Independent Evaluation Unit in consultation with the project team, including the FAO-GEF Coordination Unit and others MTR: FAO Angola, External consultant, in consultation with the project team, including the FAO-GEF Coordination Unit and others	At mid-point of project implementation	USD 40,000 for independent consultants and associated costs. In addition the agency fee will pay for expenditures of FAO staff time and travel
Final evaluation	Under the responsibility of FAO Office of Evaluation in consultation with the project team including the GCU and other partners	At the end of project implementation	USD 40,000 for external, independent consultants and associated costs. In addition the agency fee will pay for expenditures of FAO staff time and travel
Terminal Report	PCU, LTO, TCSR Report Unit	At least two months before the end date of the Execution Agreement	USD 8,000
Total Budget			USD 143,000

4.6 PROVISION FOR EVALUATIONS

273. A Mid-Term Review/Evaluation will be undertaken at project mid-term to review progress and effectiveness of implementation in terms of achieving the project objectives, outcomes and outputs. Findings and recommendations of this review/evaluation will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project's term. FAO will arrange for the mid-term review/evaluation in consultation with the project partners. The evaluation will, inter alia:

- Review the effectiveness, efficiency and timeliness of project implementation;
- Analyze effectiveness of partnership arrangements;
- Identify issues requiring decisions and remedial actions;
- Propose any mid-course corrections and/or adjustments to the implementation strategy as necessary; and
- Highlight technical achievements and lessons learned derived from project design, implementation and management.

274. It is recommended that an independent Final Evaluation (FE) be carried out three months prior to the terminal review meeting of the project partners. The FE will aim to identify the project

impacts and sustainability of project results and the degree of achievement of long-term results. This evaluation will also have the purpose of indicating future actions needed to sustain project results and disseminate products and best-practices within the country and to neighbouring countries.

4.7 COMMUNICATION AND VISIBILITY

275. Giving high visibility to the project and ensuring effective communications in support of the project's message will be addressed through a number of activities that have been incorporated into the project design. The activities related to national and local level capacity building under Component 1 and 2 will have high visibility as all the key sectors and respective technical officers, and the civil society will be involved in a participatory manner. The establishment of the inter-sectoral task force and the development of a CCA mainstreaming strategy envisaged under Component 3 will be carried out through extensive consultations with all relevant national and regional stakeholders, this will inherently raise the visibility of the project. Activities under Component 4 will ensure that the project's progress and especially key lessons learned will be captured and effectively communicated to all stakeholders on a regular basis.

- Component 1: The development of training materials on ecologically sustainable CCA practices will be produced and disseminated through national level workshops for MINAMB, MINAGRI and civil society representatives on CCA practices; along with workshops in each of the four provinces to train staff at provincial levels on ecologically sustainable CCA practices (Output 1.1).
- Component 2: The development of more specific training tools on the integration of CCA and SLM practices that will be used to update the current FFS curricula will be promoted by providing training to FFS Master Trainers, facilitators, programme managers, trainers, and extension staff (Output 2.1).
- Component 3: Integrating CCA into policies and programmes will be done by working with an inter-sectoral task force that will develop a strategy for mainstreaming CCA. Trainings will also be provided at the provincial level for administrative staff and civil society representatives regarding legal land rights and climate resilient investment (Output 3.2).
- Component 4: Project progress reports, the mid-term evaluation/review and final evaluation will be valuable document for all partners that will intervene in the future in the region (Output 4.2). The project will also publish and disseminate a best practices and lessons learned report (Output 4.3).

5 SECTION 5: SUSTAINABILITY OF RESULTS

5.1 SOCIAL SUSTAINABILITY

276. The proposed project has a fundamental participatory approach. The involvement of national, provincial and local institutions and partners as well as local communities will be sought throughout the intervention of the project. The participatory and didactic approach adopted at the grass-root level in the project through the FFS system will contribute to avoiding elite capture and to minimizing marginalization at the community level.
277. In order to ensure that communities' perceptions are well represented in project, the SHARP tool will be promoted in the project. One of the aims of the tool consists of empowering farmers and rural communities to self-assess their resilience to climate change. SHARP can also be used following a gender disaggregated approach in order to specifically promote self-assessment of women resilience to climate change. The tool can be used for instance to assess the baseline situation and the effects of the project intervention on production, livelihoods, and environmental conservation. SHARP also analyses local level policy frameworks regarding climate resilience.
278. The FFS curricula that will be developed under the proposed project will be demand driven and the input of rural communities, including women, will be sought during their development. The identification of integrated local adaptation options at FFS level will be done in a participatory manner in order to take into account and build upon local habits and the available indigenous knowledge. This participatory process will also be gender sensitive ensuring women's perceptions are well represented.
279. All envisaged project activities under Component 2 are geared towards safeguarding ecosystems services in order to foster food security. This will be done by promoting agro-ecology in a holistic manner hence linking ecology, culture, economics, and society to sustain agricultural production and healthy environments to the targeted farming communities.
280. Throughout the project, several demonstration sites will be implemented to show the effects and impacts of different techniques. These sites will allow farmers to experience the benefits of these new techniques, get familiar with them and use their own judgment to adopt them or not. These techniques will therefore not be forced onto the farmers but rather proposed and promoted as a sustainable alternative. Specific techniques will be promoted to women.
281. Finally, since the project respects and strengthens existing decision-making processes and institutions at all levels, it should ensure that, although new approaches and technologies will be introduced, they do not lead to social dysfunction or negative social impacts. On the contrary, the project is designed to strengthen social capital, providing a good basis for social sustainability.

5.2 ENVIRONMENTAL SUSTAINABILITY

282. A vast majority of the population in the project intervention areas depends directly on natural resources for their livelihoods; one of the main issues addressed by the project includes the impacts of the ongoing environmental degradation and depletion of natural resources on the agricultural sector. The project aims to safeguard natural resources and strengthen sustainable agricultural practices in Angola in order to reinforce the resilience to climate change of rural communities in the provinces of intervention.
283. The FFS model being promoted under this project integrates an ecosystem-based approach to the agricultural sector. This approach aims at developing and scaling up CCA practices and technologies for local communities through practical activities in the field. The FFS approach promotes the adoption of CCA practices by local communities, likely to be adopted at a larger scale

after the end of the project, which will foster the resilience of the environment and the agricultural sector in the long term.

284. The project will durably strengthen the ability of local communities to cope with climate change and hazardous climate events that are likely to be more frequent in the future. The CCA practices to be promoted under the FFS and adopted by farmers should allow local communities to be more resilient to climate change in the future and at the same time better protect the environment. In addition, INAMET and GSA staff will be trained to consolidate climate archive and meteorological database and ensure regular update of vulnerability information. As the FFS curricula will be based on the results of CVA, FFS activities will strongly promote the management and adaptation of future risks climate change risks.

5.3 FINANCIAL AND ECONOMIC SUSTAINABILITY

285. By making smallholder farmers more resilient to climate change in the provinces of intervention, the project will strengthen their economic development. The intervention will enable its beneficiaries to better cope with climate change and adapt their agricultural practices. This will minimize the negative impacts of climate change on their crops and income in the long term, therefore contributing to the economic sustainability of the targeted regions. In addition, farmers will have better access to markets through the collaboration with PAPAGRO, which will help them acquire equipment and input and as a result increase their yields, and therefore their income in the long term. Furthermore, MOSAP II also includes agricultural value chain support, as part of component II: Support for Increased Production and Commercialization, which will strengthen agro-pastoral production marketing in the provinces of Bié, Malanje and Huambo.

286. The changes introduced by the project will be developed in a participatory manner and will respect local needs, local resources and local capacity. Hence, the local communities will be able to sustain the economic improvements after the project. Moreover, by strengthening the existing extension system and the capacity of technical agencies (both governmental and non-governmental), the project creates an institutional capacity that can continue support local communities after the project has been completed.

287. With regards to the provision of extension support, the FFS approach to extension introduced by the project is low-cost and relatively easy to maintain, with early gains. Previous Field School experience, including in Angola, demonstrates that with limited governmental input the structure can continue to function and sustainability should be achievable.

288. At a broader scale, the project will support the mainstreaming of CCA into ministries planning and programming, which should ensure that some resources will be allocated to improve CCA in the long term.

5.4 SUSTAINABILITY OF CAPACITIES DEVELOPED

289. The project will develop capacity at many levels which will contribute to the overall body of capacity related to FFS and extension systems in Angola. This capacity will all be aligned to, and integrated into, existing organizations, both governmental and non-government, and therefore will have a sustained use after the project. The project will not support new structures, or support organizations on issues for which they do not currently have a mandate on.

290. The project will strengthen the capacity of planners and technical decision makers on climate resilient approaches to agriculture. It will develop materials that can be used for training, awareness raising and dissemination, and which (based on past experience) will continue to be used after the project. The project will also build capacity of provincial governmental and non-governmental agencies by supporting extension systems. Moreover, the project will directly train in CCA a core group of master trainers and facilitators, and at least 154,500 farmers through the FFS network. In

each case the training will be designed in a participatory manner to respond to the needs and resources of the beneficiaries, it will be a focused, demand-driven, needs-driven training. The FFS approach is based on a learning-by-doing process and the recipients of the training are well placed to immediately apply the contents of the training to their work. By addressing the immediate needs of farmers, there is a strong reason to believe it will be used after the project is finalized. FFS are “grass-root labs” that, through using participatory monitoring, will increase local leadership, strengthening long-term farmers’ capacities in the adaptive management of their land.

291. The project, through a collaboration with the PAPAGRO project, will improve farmers’ access to market, creating connections between the producers and the markets that could remain after the end of the project, which could improve in the long term the production and incomes of farmers.

5.5 APPROPRIATENESS OF TECHNOLOGIES INTRODUCED

292. The project will test, validate and promote local knowledge-based technologies (agricultural measures and practices) to increase sustainability and diversify production. Technologies will be introduced based on participatory requests from FFS or communities and will only include sustainable CCA technologies and approaches that also meet social acceptance and that are environmentally sound. The Project will use training methodologies and technical assistance approaches currently used by FAO that are known and accepted by technical experts and producers (such as FFS and SHARP). Technologies and approaches introduced will be tailored for men and women and will be in line with their needs and traditions.

5.6 REPLICABILITY AND SCALING UP

293. The project will partner with and complement other projects and programmes, which is a good opportunity for exchange and scaling up of the successful CCA practices in Angola. Supporting CCA mainstreaming into planning and programming in a cross-sectoral manner by establishing a cross-departmental task force (Liaison Committee) should enable the FFS approach to expand beyond the areas targeted for this project. Moreover, the fact that the project focuses on four different provinces will facilitate replicability in the country.

6 APPENDICES

6.1 APPENDIX 1: RESULTS MATRIX

Results Chain	Indicators	Baseline ⁶⁹	Milestones				End of Project Target – year 5	Means of Verification and Responsible Entity	Assumptions
			Year 1	Year 2	Year 3	Year 4			
<p>Project Objective/Impact To strengthen the climate resilience of the agropastoral production systems in key vulnerable areas through: (i) mainstreaming of CCA into agricultural and environmental sector policies, programmes and practices; and (ii) capacity building and promotion of CCA through soil fertility and Sustainable Land Management (SLM) practices using the Farmers Field School (FFS) approach</p>	<p>Objective indicator: (AMAT indicator 2) Type and extent of assets strengthened and/or better managed to withstand the effects of climate change</p>	<p>Farmers in target areas currently have a low capacity and limited knowledge on CCA and SLM practices</p>					<p>Institutional capacities of MINAMB, MINAGRI, MINCO civil society, provincial government, INAMET and GSA staff strengthened.</p> <p>115,000 farmers (75% of the beneficiaries, of which at least 30% are women) adopt resilient technologies/practices</p> <p>5-year strategy to mainstream CCA into sectoral planning and budgeting in place and under implementation</p>	<p><u>Means:</u> Interview with training beneficiaries Progress reports Training attendance sheets 5 year strategy document <u>Resp:</u> Project team</p>	<p>Close involvement of national institutions after the end of the project CC impacts remain in the scale of what was projected Buy-in by local communities of adoption technologies Political stability</p>
<p>Outcome 1 The adaptive capacity of MINAMB, MINAGRI, MINCO, INAMET, GSA, provincial governments, civil society organizations, academia and research organizations, to minimize climate risks in both</p>	<p>Outcome Indicator 1.1: (AMAT indicator 10) Capacities of regional, national and sub-national institutions to identify, prioritize, implement, monitor and evaluate</p>	<p>Institutions currently have a low capacity and limited knowledge on CCA and SLM practices in crop-livestock production</p>		<p>MINAMB, MINAGRI, MINCO, Provincial Government, Academia and research institution, and Civil</p>			<p>15 MINAMB, 15 MINAGRI, 15 MINCO, 10 Civil Society Organizations, 40 Provincial Government 10 academia and</p>	<p><u>Means:</u> Training attendance sheets and reports Interviews with training beneficiaries <u>Resp:</u></p>	<p>Relevant institutions participate actively in project's trainings and workshops Meteorological data is</p>

⁶⁹ Value in the case of quantitative indicators and description of situation in the case of qualitative indicators. Please insert the year of the baseline

Results Chain	Indicators	Baseline ⁶⁹	Milestones				End of Project Target – year 5	Means of Verification and Responsible Entity	Assumptions
			Year 1	Year 2	Year 3	Year 4			
agropastoral and agricultural production systems, is strengthened.	adaptation strategies and measures	systems No climate vulnerability assessments have been conducted in any of the 4 provinces of intervention		Society staff trained, aware of CCA and SLM practices, and aware of the results of the CVA			research institutions staff have increased capacity and knowledge on CCA and SLM practices including on climate vulnerability assessment	Project team Service Providers	sufficient to inform the climate vulnerability assessment
Output 1.1 105 staff from MINAMB, MINAGRI, MINCO and provincial government staff as well as civil society organizations, academia and research institutions, trained and aware of CCA and SLM practices in crop-livestock production systems	Number of individuals trained. Training material.	Institutions currently have a low capacity and limited knowledge on CCA and SLM practices in crop-livestock production systems		Training provided to 15 MINAMB 15 MINAGRI 15 MINCO 40 Provincial Government 10 academia and research institutions 10 Civil Society representatives Results of the CVA presented to MINAMB, MINAGRI, MINCO and provincial governments			15 MINAMB 15 MINAGRI 15 MINCO 10 Civil Society 10 academia and research institutions 40 Provincial Government staff received training Training material on CCA best practices available and disseminated.	<u>Means:</u> Training and workshop attendance sheet and agenda <u>Resp:</u> Project team Service Providers	
Output 1.2 Rapid vulnerability assessment conducted and relevant staff trained to ensure regular updating of	Vulnerability Assessments (4) Climate database (incl. historical data)	Lack of data and capacities in the agro-meteorological sector No climate	Training provided to relevant INAMET and GSA staff	1 CVA realized in Bié 1 CVA realized in Huambo		Historical climate archive 1971-2000 consolidated Meteorological database 2005-	Relevant INAMET and GSA staff trained 4 CVA realized Consolidated Historical climate	<u>Means:</u> Trainings attendance sheets Interviews with training	

Results Chain	Indicators	Baseline ⁶⁹	Milestones				End of Project Target – year 5	Means of Verification and Responsible Entity	Assumptions
			Year 1	Year 2	Year 3	Year 4			
vulnerability information		vulnerability assessment has been conducted in any of the 4 provinces of intervention		1 CVA realized in Huila 1 CVA realized in Malanje		2015 consolidated	archive 1971-2000 Consolidated Meteorological database 2005-2015	beneficiaries CVA report Historical Climate Archive Meteorological Database <u>Resp:</u> Project team Service Providers	
Outcome 2 115,000 farmers adopt CCA/SLM practices	Outcome Indicator 2.1: (AMAT indicator 4) Extent of adoption of climate resilient technologies/practices	Farmers already involved in FFS but not specifically adopting CCA and SLM practices to increase their resilience		3,000 farmers adopt resilient technologies/practices	30,000 farmers adopt resilient technologies/practices	65,000 farmers adopt resilient technologies/practices	115,000 farmers (75% of the beneficiaries, of which at least 30% are women) adopt resilient technologies/practices	<u>Means:</u> Trainings attendance sheets Field visits Interviews with FFS beneficiaries Progress reports Household survey (SHARP representative sample) <u>Resp:</u> Project Team Service Providers	Interest in FFS remain constant Activities respond to the real needs of farmers (including women) Farmers and relevant institutions participate actively in the trainings provided
Output 2.1 A core group of master trainers and FFS facilitators involved in MOSAP II trained in CCA and SLM practices	# master trainers and facilitators trained	No FFS master trainers and facilitators have been specifically trained on CCA and SLM practices		Training tools on CCA and SLM based on CVA developed FFS curricula updated Master trainers and facilitators recruited and having received basic training from MOSAP II in	Master trainers and facilitators recruited and having received basic training from MOSAP II in year 2 are re-trained on CCA and SLM	Master trainers and facilitators recruited and having received basic training from MOSAP II in year 3 are re-trained on CCA and SLM	Master trainers and facilitators recruited and having received basic training from MOSAP II in year 4 are re-trained on CCA and SLM – Note: exact number of trainers/facilitators will be determined as soon as MOSAP II is operational.	<u>Means:</u> Training tools FFS curricula Attendance sheets <u>Resp:</u> Project team Service Providers	

Results Chain	Indicators	Baseline ⁶⁹	Milestones				End of Project Target – year 5	Means of Verification and Responsible Entity	Assumptions
			Year 1	Year 2	Year 3	Year 4			
				year 1 are re-trained on CCA and SLM					
Output 2.2 150 new FFS in Huila trained on CCA/SLM	# FFS trained	No FFS are in place in Huila		FFS CCA/SLM curricula developed 5 Master trainers trained and equipped 10 facilitators trained and equipped 10 new FFS established	Additional Master trainers trained and equipped 30 additional facilitators trained and equipped 50 New FFS established	At least 100 facilitators trained and equipped 90 FFS established Part of FFS agricultural production sold to PAPAGRO-supported economic operators	150 FFS established Part of agricultural production sold to PAPAGRO supported economic operators	<u>Means:</u> Trainings attendance sheets Interviews with trainings beneficiaries Field visits Receipts from production sales <u>Resp:</u> Project team Service Providers	
Outcome 3 Environmental and agriculture policies and programmes at national and decentralized level integrate CCA aspects	Outcome indicator 3.1: (AMAT indicator 13): sub-national plans and processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures	At national level: no strategy to integrate CCA into sectoral annual budgeting and planning is in place Municipalities in Huila do not have a land and natural resources management system including CCA considerations in place				5-year strategy to mainstream CCA into sectoral planning and budgeting in place	CCA aspects are being mainstreaming in annual MINAMB, MINCO and MINAGRI sectoral planning and budgeting 3 municipalities in Huila Province have an inclusive land and natural resources management system	<u>Means:</u> Task force's TOR and MoU Technical proposal Quarterly meeting agendas Land and natural resources management document Progress reports 5-year CCA mainstreaming strategy <u>Resp:</u> Project team Service Providers	Relevant institutions are willing to cooperate Relevant institutions participate actively in the activities organized by the project The two commissions remain relevant and in place for the duration of the project

Results Chain	Indicators	Baseline ⁶⁹	Milestones				End of Project Target – year 5	Means of Verification and Responsible Entity	Assumptions
			Year 1	Year 2	Year 3	Year 4			
<p>Output 3.1</p> <p>Inter-sectoral task forces in place/strengthened, defining integrated CCA agendas and tailoring them into sector-level programming</p>	n/a	<p>No inter-sectoral task force exists between MINAMB and MINAGRI</p> <p>An inter-ministerial commission for biodiversity and climate change, and a multi-sectoral commission for the environment are already in place, but lack operational and technical capacities on CCA</p> <p>CCA is not systematically integrated into environmental policies and programmes</p>		<p>Inter-sectoral task force MINAMB/MINAGRI established</p> <p>Technical proposal to address the main operational gaps of the inter-ministerial commission for biodiversity and climate change, and the multi-sectoral commission for the environment</p>	<p>Bi-annual meeting of the task force, inter-ministerial commission for biodiversity and climate change, and the multi-sectoral commission for the environment</p> <p>5 year strategy to mainstream CCA in future sectoral planning and budgeting developed</p>	<p>Quarterly meeting of the task force, inter-ministerial commission for biodiversity and climate change, and the multi-sectoral commission for the environment</p> <p>Support provided to the planning and budgeting teams within MINAGRI, MINAMB and MINCO</p>	<p>Task force established and meeting quarterly</p> <p>Technical proposal developed</p> <p>The two commission meet quarterly</p> <p>5 year CCA mainstreaming strategy developed and used for planning and budgeting exercises</p>	<p><u>Means:</u></p> <p>Task force's TOR</p> <p>Task force's MoU</p> <p>Technical proposal</p> <p>Quarterly meeting agendas</p> <p>CCA mainstreaming strategy</p> <p><u>Resp:</u></p> <p>Project team</p> <p>Service Providers</p>	
<p>Output 3.2</p> <p>Climate change adaptation integrated into an effective land and natural resources management system in 3 municipalities</p>	n/a	<p>The legal framework on land tenure in Angola is not fully implemented and municipalities in Huila don't have a land and natural resources</p>		<p>Trainings provided to 1 targeted municipalities on the use and application of legal land rights packages and on implementing climate</p>	<p>Trainings provided to the 2 other targeted municipalities on the use and application of legal land rights packages and on implementing</p>	<p>Process of development of the land and natural resources management system initiated for the 3 municipalities</p>	<p>Land and natural resources management system is developed in 3 municipalities in Huila</p>	<p><u>Means:</u></p> <p>Land and natural resources management documents</p> <p>Progress reports</p> <p>Training attendance sheets and curricula</p> <p><u>Resp:</u></p> <p>Project team</p>	

Results Chain	Indicators	Baseline ⁶⁹	Milestones				End of Project Target – year 5	Means of Verification and Responsible Entity	Assumptions
			Year 1	Year 2	Year 3	Year 4			
		management system in place that takes CCA considerations into account.		resilient investments	climate resilient investments			Service Providers	
Outcome 4 Project implementation based on result-based management and application of project lessons learned in future operations facilitated.	Fulfilment of planned M&E activities including establishing baseline values for all project indicators, yearly updating of indicators, a mid-term evaluation/review and a final project evaluation	n/a		30% progress in achieving project outcomes.	60% progress in achieving project outcomes	80% progress in achieving project outcomes	Project outcomes fully achieved and showing sustainability	<u>Means:</u> PIRs Midterm and final evaluations <u>Resp:</u> Project team	The M&E team provides quality reports in a timely manner Accurate data is available to perform project M&E tasks
Output 4.1: Project monitoring system providing systematic information on progress in meeting project outcomes and output targets	n/a	n/a	Data collection system developed and operational Two six-monthly progress reports prepared. (one PPR and one PIR)	Monitoring of results Two six-monthly progress reports prepared. (one PPR and one PIR)	Monitoring of Results Two six-monthly progress reports prepared. (one PPR and one PIR) Mid-term evaluation/review conducted		Final performance framework developed Six-monthly progress reports prepared and submitted. (one PPR and one PIR) Mid-term evaluation/review and final evaluation conducted.	<u>Means:</u> Performance framework PIRs PPRs Mid-term review/evaluation and final evaluation reports <u>Resp:</u> Project Team	
Output 4.2. Project-related “best-practices” and “lessons learned” disseminated via publications and other means	n/a	n/a	Newsletter 1	Project best practices and lessons learned collected Newsletter 2	Project best practices and lessons learned collected Newsletter 3	Project best practices and lessons learned collected Newsletter 4	Project best practices and lessons learned collected, compiled and disseminated through annual newsletters, and reports	<u>Means:</u> Lessons learned report Website Progress report <u>Resp:</u> Project team	

6.2 APPENDIX 2: WORK PLAN

Output	Activities	Responsible institution/ entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
Recruitment of PCU and key consultants		FAO, MINAMB,MINAGRI, MINCO																				
Component 1: Strengthening knowledge and understanding of climate change vulnerability and adaptation																						
<u>Output 1.1:</u> 105 staff from MINAMB, MINAGRI, MINCO and provincial government staff as well as civil society organizations, academia and research institutions, trained and aware of CCA and SLM practices in crop-livestock production systems	Activity 1.1.1: develop training materials, adapted to the capacity needs of MINAMB, MINAGRI, MINCO and civil society organizations, academia and research institutions, on CCA and SLM practices in crop-livestock production systems	MINAGRI MINAMB MINCO																				
	Activity 1.1.2: organize training sessions at the national level to train and raise awareness among 15 MINAMB, 15 MINAGRI, 15 MINCO and 10 civil society organizations representatives on CCA practices and SLM in crop-livestock production systems	MINAGRI MINAMB MINCO CSO																				
	Activity 1.1.3. organize training sessions in each of the 4 provinces of intervention to train 10 staff in each provincial governments on CCA and SLM practices in crop-livestock production system	MINAGRI MINAMB MINCO IDA																				
<u>Output 1.2:</u> Rapid vulnerability assessment conducted and relevant staff trained to ensure regular updating of vulnerability information	Activity 1.2.1: provide training to relevant INAMET and GSA staff on theoretical and practical aspects of agro-meteorology, including on how to assess and update vulnerability information	INAMET GSA																				
	Activity 1.2.2: support INAMET and GSA in the consolidation of the historical climate	INAMET GSA																				

Output	Activities	Responsible institution/ entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
	archive 1971-2000 and meteorological database 2005-2015 for all available stations in the Provinces of Bié, Huambo, Huila and Malanje																					
	Activity 1.2.3: design and perform a rapid Climate Vulnerability Assessment (CVA) in collaboration with INAMET and GSA for each of the four Provinces and, in collaboration with IDA, to identify suitable adaptation options for main crops and livestock based on the outputs of the CVAs	INAMET GSA IDA																				
Component 2: Scaling up of improved CCA/SLM practices through Farmers Field Schools (FFS)																						
<u>Output 2.1:</u> A core group of master trainers and FFS facilitators involved in MOSAP II trained in CCA and SLM practices	Activity 2.1.1: develop training tools for master trainers on CCA and SLM practices to be integrated into existing and new FFS, taking into account the results of the CVA (activity 1.2.2), and including FAO CCA tools	IDA																				
	Activity 2.1.2: train and equip master trainers involved in MOSAP II from the Provincial and municipal agricultural extension staff on the identified CCA and SLM practices, and FAO CCA tools	IDA EDA																				
	Activity 2.1.3: according to the updated curricula on CCA and SLM practices and FAO CCA tools re-train and equip FFS facilitators involved in MOSAP II	IDA EDA CSO																				
<u>Output 2.2:</u> 150 new FFS in Huila trained on CCA/SLM	Activity 2.2.1: Train and equip master trainers and facilitators in Huila	IDA EDA																				
	Activity 2.2.2: Support the establishment and implementation of 150 new FFS in Huila Province, focusing on CCA and SLM practices.	IDA EDA CSO																				

Output	Activities	Responsible institution/ entity	Year 1				Year 2				Year 3				Year 4				Year 5				
			Q1	Q2	Q3	Q4																	
Component 3: Mainstreaming CCA into agricultural and environmental sector policies and programmes																							
<u>Output 3.1:</u> Inter-sectoral task forces in place/strengthened, defining integrated CCA agendas and tailoring them into sector-level programming	Activity 3.1.1: strengthen the technical component on CCA of (i) the inter-ministerial commission for biodiversity and climate change, and (ii) the multi-sectoral commission for the environment by assessing their functioning; and by developing a technical proposal to address the main operational gaps of these two commissions	MINAMB MINAGRI MINCO																					
	Activity 3.1.2: set up an institutional task force comprising representatives from MINAMB, MINAGRI, MINCO and the civil society for a better inter-sectoral coordination on CCA	MINAMB MINAGRI MINCO																					
	Activity 3.1.3: support quarterly meetings of the institutional task force, the commission for biodiversity and climate change, and the commission for environment	MINAMB MINAGRI MINCO																					
	Activity 3.1.4: support the task force in developing a 5 year strategy to mainstream CCA considerations into future sectoral programming and budgeting	MINAMB MINAGRI MINCO																					
	Activity 3.1.5: Based on the 5-year strategy, provide support to the teams in charge of annual planning and programming within MINAMB, MINAGRI and MINCO to mainstream CCA and SLM practices into annual planning and budgeting	MINAMB MINAGRI MINCO																					
<u>Output 3.2:</u> Climate change adaptation integrated into an effective land and natural resources management system in 3 municipalities	Activity 3.2.1: organize trainings at municipal level in the 3 targeted municipalities (Caluqembe, Quilengues and Caconda) for administrative staff and civil society	EDA																					

Output	Activities	Responsible institution/ entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
	representatives on the use and application of legal land rights packages and on implementing climate resilient investments																					
	Activity 3.2.2: In the 3 municipalities of Huila Province, develop a land and natural resources management system including CCA considerations	EDA CSO																				
Component 4: Project monitoring and dissemination of results																						
<u>Output 4.1:</u> Project monitoring system providing systematic information on progress in meeting project outcomes and output targets	Activity 4.1.1: development of a performance framework (M&E plan) defining roles, responsibilities, type and frequency for collecting and compiling data to assess project performance	FAO CTA																				
	Activity 4.1.2: After 30 months of project implementation, a mid-term project evaluation/review will be conducted by an external consultant, who will work in consultation with the project team including FAO-GEF Coordination Unit, the LTO (Lead Technical Officer), and other partners	FAO CTA																				
	Activity 4.1.3: At the end of project implementation a final project evaluation will be conducted under the supervision of FAO Office of Evaluation, OED, in consultation with the project team including FAO-GEF Coordination Unit, the LTO, and other partners	FAO CTA																				
<u>Output 4.2:</u> Project-related “best-practices” and “lessons learned” disseminated via publications and other means	Activity 4.3.1: collect, synthesize and report project-related best practices and lessons learned along project implementation	FAO MINAMB MINAGRI MINCO																				
	Activity 4.3.2: publication and dissemination of	FAO																				

Output	Activities	Responsible institution/ entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
	a report compiling project's best practices and lessons learned	MINAMB MINAGRI MINCO																				

6.3 APPENDIX 3: RESULT BUDGET



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6.4 APPENDIX 4: RISK MATRIX

	Risks	Impact	Probability of occurrence	Degree of Incidence	Mitigation Actions	Responsible party
1.	<u>Climate contingency risk:</u> High-probability of increased occurrence of extreme weather events which may affect crop and livestock cycles and increase food/nutritional insecurity.	Moderately high. FFS agricultural production would be affected	Moderately high	Amber	<p>The project will mitigate those risks by supporting the implementation of CCA practices and measure to strengthen proactive and coordinated responses as well as setting multi-stakeholder community-based capacity building initiatives and by linking with on-going initiatives. The core of the project is to enhance the resilience of farming systems as a whole in an adaptable manner by e.g. introducing viable agro-ecological approaches such as the diversification of agroecosystems accompanied by organic soil management and water conservation and harvesting (Huila Province).</p> <p>Pest and diseases outbreaks will be taken into consideration by strengthening capacity of rural stakeholders in sustainable crop/pastoral management and rehabilitation strategies. As well, Integrated Production Pest Management is an effective method to reduce the risk of pest and diseases attacks and it will be integrated in FFS curricula. Finally, the project will address this risk by fostering community field observation capacities.</p>	IDA EDA
2.	<u>Institutional risk at the national level</u> Difficulties in institutional	High. This would affect overall project coordination and therefore implementation	Moderately Low	Amber	MINAMB and MINAGRI will benefit from several trainings and an inter-sectoral task force including both ministries, MINCO and	MINAMB MINAGRI

	<p>cooperation between MINAMB, MINCO and MINAGRI may constitute a challenge</p> <p>Risk of management change in local institution</p> <p>Decrease in project ownership and support from government.</p>				<p>the civil society will be set up under Component 3 in order to ensure cross-sectoral project coordination.</p> <p>A medium risk of ongoing modification within the framework of the local institutional settings is present. The risk will be addressed by strongly involving local institutions at all level, and building appropriate programmes for the involvement of relevant officers and institutional sectors.</p> <p>The strong interest of the key GoA stakeholders has been verified through a first project identification mission, while the project identification phase was officially requested to FAO through a letter sent by the MINAMB. The GoA has strongly endorsed and has been fully behind the preparation of this concept. Also, all concerned governmental institutions will be fully involved in project preparation and implementation. The project design has taken into consideration the need of achieve results in the short term to show the importance of the objectives and activities of the project. Finally, FAO's long standing relations with both the MINAMB and the MINAGRI will represent a key asset for mitigating this specific risk.</p>	MINCO
3.	<p><u>Risk of cooperation:</u> Partnership-building capacities to ensure mainstreaming into on-going initiatives may constitute a challenge</p>	<p>Moderately High: this would affect project implementation as the proposed project is strongly building on existing initiatives</p>	<p>Moderately Low</p>	<p>Amber</p>	<p>Since the LDCF-funded activities and management will be closely inter-linked to the MOSAP, Terra and PMIDRCP projects, this risk is considered to be low.</p>	PCU

					The project is also expected to specifically strengthen capacities and mechanisms for mainstreaming CCA into programs and planning.	
4.	<u>Social risk:</u> Reluctance to endorse and participate in the project activities by stakeholders and reluctance/ slowness of local institutions to agree on project activities	High as the FFS approach promoted by the project is strongly participatory and required the involvement of all stakeholders	Moderately Low	Amber	The risk of reluctance of stakeholders is low. Nevertheless, it will be addressed through local participation in project implementation, and in particular through the FFS participatory approach. Achievements on the ground that bring benefits to local producers will be demonstrated during the project to overcome skepticism. Regarding local institutions, common objectives will be established by giving emphasis on local ownership of the process as well as capacity.	PCU IDA EDA
5.	<u>Socio-economic risk:</u> Lack of adequate human and material resources for the implementation of this project could disturb the implementation of the various activities of the project.	Moderately High as this would impact the smooth running of FFS	Moderately Low	Amber	This risk will be mitigated by mobilizing and articulating the capacity of different actors, projects, programs and bilateral agencies to work intensively with government and gradually transfer skills to government counterparts. In addition a close collaboration with the baseline projects such as MOSAP, Terra and PAPAGRO will provide strong additional resources as well as opportunities for farmers to sell their products.	PCU IDA EDA

APPENDIX 5: TERMS OF REFERENCE (ToRs) OF KEY STAFF

This Appendix provides Terms of reference for:

- PCU Staff
 - National Project Coordinator (NPC);
 - Chief Technical Advisor (CTA);
 - Administration and operation officer; and
 - Driver

- Project Steering committee

- Internationally recruited consultants
 - International capacity building expert;
 - International specialist in agro-meteorology;
 - International FFS trainer and implementer;
 - International expert in the use and application of legal land rights and natural resources management system;
 - International expert in mainstreaming of CCA considerations into sectoral programming and budgeting;
 - International resilience expert.

- Nationally recruited consultants
 - Technical liaison Officer;
 - National climate change trainer;
 - National expert in intersectoral coordination;
 - National experts in mainstreaming of CCA considerations into sectoral programming and budgeting;
 - National FFS expert;
 - National expert in the use and application of legal land rights.

NATIONAL PROJECT COORDINATOR (NPC)

1. Scope

This position is full time for the entire duration of the project. Total input: 60 months.

Under the supervision of: FAOR, LTO

Reporting to: FAOR, LTO

Nationally recruited

Based in Huila Provincial Government

2. Objective

To ensure the smooth running of the project and the timely provision of high quality inputs as needed.

3. Tasks

The NPC will be responsible for the operational planning, management and monitoring of all project's activities, as indicated in the project document. The NPC will provide technical, logistics and managerial support and ensure a good implementation of the activities in line with the project result framework, work plan and approved budget. This will include:

Manage Project Coordination Unit

- Organize and lead the inception workshop and prepare inception report;
- Prepare annual and quarterly work plans and prepare ToR for all inputs;
- Lead process to mobilize PCU staff, project consultants and sub-contracts;
- Lead process to finalize 'letters of agreement' with implementation partners;
- Ensure all PCU staff and all consultants fully understand their role and their tasks, and support them in their work;
- Oversee day-to-day implementation of the project in line with the work plans;
- Organize regular planning and communication events, starting with inception mission and inception workshop;
- Oversee preparation and implementation of M&E framework;
- Oversee creation of a participatory monitoring system for the Project's work;
- Ensure real-time monitoring of project progress and the alerting of MINAMB, BH and LTO of potential problems that could result in delays in implementation;
- Help identify consultant candidates and work with the BH to ensure their timely recruitment;
- Ensure the project's effective and efficient work with stakeholders in the pilot areas;
- Help organize and supervise consultant inputs;
- Oversee preparation and implementation of project communication and knowledge management frameworks;
- Prepare progress reports and all monitoring reports. This includes the six monthly progress reports and contributions to the annual Project Implementation Review (PIR); and
- Prepare and organize the PSC meetings.

Lead interactions with stakeholders

- Liaise with government agencies;
- Regularly advocate on behalf of the project to partners;
- Coordinate project interventions with other ongoing activities, especially those of co-financers and other GEF projects;
- Regularly promote the project and its outputs and findings on a national, and where appropriate, regional stage; and
- Coordinate activities with co-financing donors and other projects related to FFS.

Technical support

- Oversee development of the approach to climate change resilient FFS in Angola;
- Support development of project strategic approach;
- Ensure quality of project activities and project outputs;
- Support development and preparation of training materials;
- Oversee creation of the Project's approach to managing and sharing knowledge, and to identifying and disseminating lessons learned;
- Communicate, advocate and engage in policy dialogue; and
- Take a lead in the organization and technical implementation of several activities.

4. Qualifications

- Higher degree related to natural resources management;
- At least ten years' experience in the Angola agricultural sector;
- At least five years' experience working with local communities in Angola;
- Solid experience in project management and in particular results based management;
- Demonstrated previous experience working with the field school approach to extension or with similar approaches;
- Previous experience working with international partners on related issues;
- Demonstrated expertise in agro-ecology, conservation agriculture;
- Demonstrated commitment to participatory natural resource management techniques; and
- Portuguese language skills preferential, English language skills an asset.

CHIEF TECHNICAL ADVISOR

1. Scope

This position is full time for the entire duration of the project. Total input: 60 months.

Under the supervision of the FAO Representative in Angola

Reporting to: FAO Representative, FAO LTO-

International recruitment

2. Objective

To directly support the NPC and the PCU and ensure best international technical and management practices are integrated into the Project work plan and activities.

3. Tasks

The CTA will be responsible in coordination with NPC for the operational planning, management and monitoring of all project's activities. He/She will provide technical support and ensure a good implementation of the activities in line with the project result framework, work plan and approved budget. This will include:

Support to the NPC and PCU:

- Ensure that latest and best international practices and approaches are reflected in the design and planning of project activities;
- Support the organization and implementation of the inception workshop and compile inception report in close cooperation with the NPC;
- Contribute directly to all technical activities, notably:
 - o Negotiations with partners and development of joint work programmes and budgets.
 - o Analyse training materials and technical options for implementation of climate resilient Farmers Field Schools.
 - o Identify Sustainable Land Management (SLM) and Climate Change Adaptation (CCA) practices including irrigation that meet the agro-ecological environment and the farmers' needs.
- Prepare annual workplans in collaboration with NPC, PCU and LTU;
- Support real-time monitoring of project progress and the alerting of the BH and the LTO to potential problems that could result in delays in implementation;
- Help identify consultant candidates;
- Provide technical advice as required to project experts, consultants, and contractors and help to organize and supervise consultant inputs; •
- Support the organization of regular trainings, including Farmer Filed School master training, and the coordination of high-level stakeholder events;
- Support design of the project's work with stakeholders in the pilot areas;
- Propose an approach to managing and sharing knowledge, and to identifying and disseminating lessons learned;
- Provide on-the-job capacity development to all members of the PCU;

- Communicate, advocate and engage in policy dialogue;
- Support all aspects of the day-to-day execution of the project;
- Provide technical advice and assistance to the mid-term and final evaluations of the project; and
- Support the NPC in reporting on project progress, and contribute to the development of semi-annual PPRs and annual PIRs.

Compile a comprehensive M&E matrix and plan:

- Define methodologies for measurement and monitoring of indicators and information sources; Make sure baseline is established for all indicators;
- Define responsibilities and frequency for data collection and monitoring of indicators;
- Allow for adaptive management of project execution;
- Document institutional memory of the project; and
- Facilitate project progress reporting and communication of results.

4. Qualifications

- Higher degree related to natural resources, environment management and rural development;
- Experience in establishing project results and progress monitoring systems;
- Solid experience in project management and in particular results based management;
- At least five years' experience working with local communities in the agricultural sector in Angola or Central Africa;
- Demonstrated previous experience working with the field school approach to extension or with similar approaches in the context of climate change;
- Demonstrated previous experience with sustainable land management practices in the context of climate change including irrigation methods taken the agro-ecological approach into consideration;
- Demonstrated previous experience working with the monitoring field schools or similar extension approaches;
- Previous experience working with international partners on related issues;
- Portuguese language skills preferential, English language skills an asset; and
- Knowledge of FAO's project management systems is an asset.

NATIONAL OPERATIONS AND ADMINISTRATION OFFICER

1. Scope

This position is part-time over the entire duration of the Project and will be based at FAO Luanda.
Total input: 60 months Under the supervision of: FAO BH, Reporting to: FAO BH

Nationally recruited.

2. Tasks

Under the direct supervision of the FAO BH and in consultation with the NPC, the Operations and Administrative Officer will have the following responsibilities and functions:

- Ensure smooth and timely implementation of project activities in support of the results-based work plan, through operational and administrative procedures according to FAO rules and standards;
- Coordinate the project operational arrangements through contractual agreements with key project partners;
- Arrange the operations needed for signing and executing Letters of Agreement (LoA) with relevant project partners;
- Maintain inter-departmental linkages with FAO units for donor liaison, Finance, Human Resources, and other units as required;
- Day-to-day manage the project budget, including the monitoring of cash availability, budget preparation and budget revisions to be reviewed by the NPC;
- Ensure the accurate recording of all data relevant for operational, financial and results-based monitoring;
- Ensure that relevant reports on expenditures, forecasts, progress against work plans, project closure, are prepared and submitted in accordance with FAO and GEF defined procedures and reporting formats, schedules and communications channels, as required;
- Execute accurate and timely actions on all operational requirements for personnel-related matters, equipment and material procurement, and field disbursements;
- Participate and represent the project in collaborative meetings with project partners and the Project Steering Committee, as required;
- Undertake missions to monitor the outputs-based budget, and to resolve outstanding operational problems, as appropriate;
- Be responsible for results achieved within her/his area of work and ensure issues affecting project delivery and success are brought to the attention of higher level authorities through the BH in a timely manner;
- In consultation with FAO Evaluation Office, the LTU, and FAO-GEF Coordination Unit, support the organization of the mid-term and final evaluations, and provide inputs regarding project budgetary matters;
- Provide inputs and maintain the FPMIS systems up-to-date; and
- Undertake any other duties as required.

3. Qualifications

- University Degree in Economics, Business Administration, or related fields;

- Three years of experience in project operation and management related to natural resources management, including field experience in developing countries;
- Proven capacity to work and establish working relationships with government and non-government representatives;
- Portuguese language skills preferential, English language skills an asset; and
- Knowledge of FAO's project management systems is an advantage.

DRIVER

1. Scope

1 Driver for the entire project, full time.

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

Nationally recruited

2. Context

Standard FAO driver TOR

3. Tasks

The driver will be responsible, but not limited, to perform the following tasks and duties:

- Maintain the project vehicles in clean and good conditions;
- Responsible for the day by day maintenance for the vehicles;
- Daily update of vehicle log books;
- Transport staff and/or equipment within the duty station and to/from other locations; and
- Meets official personnel at the airport and facilitates immigration and customs formalities as required.

4. Qualifications

At least three-year experience as driver.

PROJECT STEERING COMMITTEE

Role of the Project Steering Committee (PSC)

The PSC will be the policy setting body for the project. As and when required, the PSC will be the ultimate decision-making body with regard to policy and other issues that may affect the achievement of project objectives. The PSC will be responsible for providing general oversight of project execution, and will ensure that all activities in the LDCF/GEF project document are adequately prepared and carried out. In particular, the PSC will:

- Take decisions in the course of the practical organization, coordination and implementation of the project, and provide overall guidance to the PCU;
- Advise the PCU on other on-going and planned activities facilitating collaboration between the Project and other programmes, projects and initiatives;
- Facilitate that co-financing support is provided in a timely and effective manner;
- Review six-monthly Project Progress Reports (PPRs), and provide overall oversight of project progress and achievement of planned results as presented in the PPRs;
- Ensure all project outputs are in accordance with the LDCF/GEF project document;
- Review, amend if appropriate, and approve the draft Annual Work Plan and Budget (AWP/B) for submission to FAO;
- Provide inputs to the mid-term and final evaluations, review findings, and provide comments for the Management Response;
- Ensure the dissemination of project information, lessons learnt, and best practices; and
- Facilitate cooperation between MINAMB, MINAGRI and FAO, and project participating partners at the local level.

Meetings of the PSC

- The PSC meetings will be normally be held annually. Nevertheless, the PSC Chairperson will have the discretion to call additional meetings, if this is considered necessary. PSC meetings would not necessarily require a physical presence, and could be also undertaken electronically. No more than 7 months may elapse between PSC meetings; and
- Invitations to a regular PSC meeting shall be issued not less than 90 days in advance of the date fixed for the meeting. Invitations to special meetings shall be issued not less than 40 days in advance of the meeting date.

Agenda

- A provisional agenda will be drawn up by the NPC and sent to PSC members following the approval of the Chairperson. The provisional agenda will be sent not less than 30 days before the meeting date;
- A revised agenda including comments received from PSC members will be circulated 5 working days before the meeting date;
- The agenda of each regular meeting shall include:
 - A report of the NPC on project activities during the inter-sessional period;
 - A report and recommendations from the NPC on the proposed AWP/B and the proposed budget for the ensuing period;
 - Reports that need PSC intervention;
 - Consideration of time and place of the next meeting;
 - Any other matters as approved by the Chairperson.

- The agenda of a special meeting shall consist only of items related to the purpose for which the meeting was called.

The PSC Secretariat

The PCU will act as Secretariat to the PSC, and be responsible for providing PSC members with all required documents in advance of PSC meetings, including the draft AWP/B, and independent scientific reviews of significant technical proposals or analyses. The PCU will prepare written report of all PSC meetings and be responsible for logistical arrangements regarding the holding of those meetings.

Election of Chairperson and Vice-Chairperson

The PSC will be chaired by MINAMB. A Vice-Chairperson for PY1 will be nominated by PSC members at their first PSC meeting. The Vice-Chairperson will serve up to the PSC meeting in PY2, finishing her/his term upon the completion of the PSC meeting held closest to one year after selection. At this point, a successor Vice-Chairperson shall be chosen by the PSC members in similar manner.

Functions of Chairperson and Vice-Chairperson

The Chairperson shall exercise the functions conferred on him/her in these TORs, and in particular shall:

- Declare the opening and closing of each PSC meeting;
- Lead the PSC meeting discussions, ensuring the observance of these TORs, accord the right to speak, enounce questions, and announce decisions;
- Rule on point of order;
- Subject to these TORs, manage the proceedings of the meetings;
- Ensure circulation of all relevant documents to PSC members through the PSC Secretariat;
- Sign approved AWP/B and any subsequent proposed amendments submitted to FAO;
- In liaison with the PSC Secretariat, the Chairperson shall be responsible for determining the date, site, and agenda of the PSC meeting(s), and chairing these meetings; and
- The Vice-Chairperson shall exercise the functions of the Chairperson in the Chairperson's absence or at the Chairperson's request.

Participation

The PSC will include representatives from: FAO, MINAMB (climate change cabinet and FAO focal point), MINAGRI, MINCO, INAMET, 4 Provincial Government Representatives (Provincial Environmental Department, Provincial Agricultural Directorate, IDA Provincial Department, Provincial Department of Commerce). The NPC and an official from the FAO GEF Coordination Unit shall be represented on the PSC, in ex-officio capacity. The NPC will also be the Secretary to the PSC. Other institutions active in the 4 provinces may also be requested to participate as observers.

Decision-making: All decisions of the PSC shall be taken by consensus.

Reports and recommendations

- At each meeting, the PSC shall approve a report text that embodies its views and decisions, including, when requested, a statement of minority views;
- A draft report shall be circulated to the PSC Members after the meeting for comments. Comments shall be accepted over a period of 20 days. Following its approval by the Chairperson, the final report will be distributed among PSC members and shall be uploaded to the MAG website.

Official language: The official language of the PSC will be Portuguese.

INTERNATIONAL CAPACITY BUILDING EXPERT ON CCA AND SLM PRACTICES IN CROP-LIVESTOCK PRODUCTION SYSTEMS

1. Scope

This position is for 9 months during the first two years of the project.

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

The expert will support the following activities:

- Assess the capacity and needs of MINAMB, MINAGRI, MINCO, provincial governments, civil society organizations, academia and research institutions, on CCA and SLM practices in crop-livestock production systems
- Develop training material accordingly on CCA and SLM practices in crop-livestock production systems
- Organize training sessions at the national level to train and raise awareness among 15 MINAMB, 15 MINAGRI, 15 MINCO, 10 civil society organizations, and 10 academia and research institutions staff;
- In collaboration with the national Climate Change Trainer, organize training sessions in each of the 4 provinces of intervention to train 10 staff in each provincial government on CCA and SLM practices in crop-livestock production systems;
- The trainings will be provided with a training package including guidelines on best practices, which will be adapted throughout project implementation based on the results of the interventions on the field. This will ensure a good project knowledge management and adaptive learning, as well as the sustainability of the trainings in the long term.

3. Qualifications and Selection criteria

- Higher degree related to agriculture and natural resources management;
- Strong knowledge of CCA and SLM in a Southern African context;
- Previous experience in providing training
- Experience working with government agencies responsible for management of natural resources (at least five years);
- Good knowledge of Portuguese.

INTERNATIONAL SPECIALIST IN AGRO-METEOROLOGY/CVA SOFTWARE DEVELOPMENT

1. Scope

This position is for 12 months over the first two years of implementation of the project.

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

Internationally recruited

2. Tasks

- Defining a detailed work plan to cover the duration of the assignment and to be agreed with NCU and CTA;
- Coordinating, guiding, monitoring and supervising the implementation of all activities under output 1.2 and related outputs including the recruitment of national staff, consultants and development related Terms of Reference;
- Compiling and preparing the necessary documents for the procurement of services, goods and supplies under the project;
- Develop training material on theoretical and practical aspects of agro-meteorology, including on how to assess and update vulnerability information;
- Provide training to INAMET and GSA staff on theoretical and practical aspects of agro-meteorology, including on how to assess and update vulnerability information;
- Support INAMET and GSA in the consolidation of the historical climate archive 1971-2000 and meteorological database 2005-2015 for all available stations in the Provinces of Bié, Huambo, Huila and Malanje;
- Install a Climate Vulnerability Assessment Software and provided training on how to use it for INAMET and GSA staff;
- Support INAMET and GSA in designing and performing a rapid CVA for each of the four Provinces and, in collaboration with IDA, to identify suitable adaptation options for main crops and livestock based on the outputs of the CVAs;
- Undertake any other duties as may be required by the NPC and CTA; and
- Providing a detailed end-of-assignment report describing the work undertaken, progress towards achieving assignment objectives together with a detailed work plan concerning the activities to be performed by national staff.

3. Qualifications

- Master's degree in agro-meteorology, meteorology, agronomy, environmental studies or closely related fields. Technical and practical knowledge of the impacts' assessment of climate variability and climate change on agriculture is critical.
- A minimum of 7 years of progressive and relevant experience in the field of operational agro-meteorology.
- Experience in providing trainings to a varied audience;

- Experience in agro-meteorology activities for agriculture and food security, particularly in developing countries.
- Experience in the use of specific agro-meteorological software for crop monitoring and yield forecasting.
- Experience in producing and disseminating agro-climate information for rural farming communities.
- Excellent understanding of the linkages among agriculture, climate variability and climate change adaptation in rural farming communities.
- Past working experience in Southern Africa would be an asset.
- Excellent knowledge of English including writing and communication skills.
- Good knowledge of Portuguese, spoken and written

INTERNATIONAL FFS TRAINER AND IMPLEMENTER

1. Scope

This position is for 36 months during year 2, 3 and 4 of project implementation

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

In collaboration with the national FFS expert, the international expert will support the following activities:

- Develop training tools for master trainers on CCA and SLM practices to be integrated into existing and new FFS, taking into account the results of the CVA (activity 1.2.2), and including FAO CCA tools. The training package will include:
 - o improving soil fertility and integrated nutrient management through agroecological practices;
 - o agroecology and environmental practices related to soil conservation, rational use of water, fertilizers, integrated nutrient management and promoting integrated pest management;
 - o the use of FAO developed tools such as the Land Degradation Assessment in Drylands (LADA) tool and Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists (SHARP)
- Provide training and equip master trainers involved in MOSAP II from the Provincial and municipal agricultural extension staff on the identified CCA and SLM practices, and FAO CCA tools;
- Provide training and equip new FFS trainers in Huila Province;
- Support the establishment and implementation of 150 new FFS in Huila Province, focusing on CCA and SLM practices, in collaboration with the National FFS expert, and
- Ensure collaboration with the SFS sub-regional Network on FFS

3. Qualifications and Selection criteria

- Higher degree related to agriculture and natural resources management;
- At least 10 year experience in working on agricultural or natural management issues;
- Strong knowledge of CCA and SLM in a Southern African context;
- Previous experience in providing training to local communities;
- Previous experience in Angola is an asset;
- Good knowledge of the FFS system; and
- Good knowledge of Portuguese.

INTERNATIONAL EXPERT IN THE USE AND APPLICATION OF LEGAL LAND RIGHTS AND NATURAL RESOURCES MANAGEMENT SYSTEM

1. Scope

This position is for 12 months during year 3 and 4 of project implementation

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

The expert will support the following activities:

- Liaise with the TERRA Programme on what has been done to strengthen the legal framework on land tenure and on the development of natural resources management systems;
- In the three municipalities of Caluqembe, Quilengues and Caconda, support communities in mapping family agriculture, land tenure and natural resource use systems;
- Develop appropriate management tools together with the municipalities;
- Provide training to municipal administration and civil society representatives on the use and application of legal land rights package and on implementing climate resilient investments; and
- In collaboration with the TERRA Programme, support the three municipalities in the development of an inclusive land and natural resources management system including CCA considerations

3. Qualifications and Selection criteria

- Advanced post-graduate degree in rural development, agronomy, or a related discipline;
- Several years of work experience in one or more of the above fields preferably in land tenure, land use planning and management, land resources management, and natural resources management;
- Deep understanding of the concept of tenure governance, Climate Change Adaptation, and sustainable land management;
- Knowledge of the Farmer Field School approach is an advantage;
- Experience in conducting multi-stakeholder consultations and participatory processes; and
- Good knowledge of Portuguese.

INTERNATIONAL EXPERT IN MAINSTREAMING OF CCA CONSIDERATIONS INTO SECTORAL PROGRAMMING AND BUDGETING

1. Scope

This position is for 9 months during year 3, 4 and 5 of project implementation

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

In collaboration with the national expert on CCA mainstreaming, the international expert will support the following activities:

- Support the institutional task force comprising representatives from MINAMB, MINAGRI, MINCO and civil society organizations for a better inter-sectoral coordination on CCA, in developing a 5 year strategy to mainstream CCA considerations into sectoral programming and budgeting; and
- Based on the 5-year strategy, provide support to the teams in charge of annual planning and programming within MINAMB, MINAGRI and MINCO to mainstream CCA and SLM practices into annual planning and budgeting.

3. Qualifications

- Post-graduate degree in political science, management of Administration or related degree;
- At least 10 year experience working with national institutions on Climate Change issues;
- Deep knowledge of Climate Change Adaptation;
- Previous experience in supporting Institutions in their programming and budgeting;
- Knowledge of Portuguese;
- Knowledge of the Angolan institutional context is an asset.

INTERNATIONAL RESILIENCE EXPERT

1. Scope

This position is for 30 months spread over year 2, 3, and 4 of project implementation

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

3. Tasks

The expert will develop and help roll out the SHARP methodology through the following activities:

- Provide training to project staff on the use of SHARP;
- Support field level assessment of resilience actions to be undertaken in the establishment of FFS (assessment of FFS baseline situation, and development a community action plan) through the duration of the project;
- As necessary, review and modify the assessment methodology in order to (i) adapt to local circumstances; (ii) provide information needed for GEF LDCF AMAT indicators;
- Analyze data collected from the SHARP surveys;
- Report data from SHARP to the international expert, working in close collaboration with the FFS training expert, the local consultants, and the service providers;
- Support farmers in the undertaking of their self-assessment and the use of best practices based on their resilience self-assessment;
- Support FFS master trainers and facilitators in the use self-assessment information;
- Support community decision-making to change their activities and practices in response to self-assessment; and
- Support the design of FFS curricula including SHARP as appropriate based on project experience.

4. Qualifications and Selection criteria

- Higher degree related to agriculture or natural resources management;
- At least five years working on climate related issues in agriculture;
- A demonstrated understanding of the barriers to increasing climate resilience;
- Experience working with government agencies responsible for management of natural resources;
- Experience working with local communities in climate change in Angola;
- Previous experience working on with international partners on related issues;
- Familiarity with the SHARP resilience tool;
- Demonstrated commitment to participatory agriculture or natural resource management techniques; and
- Proficient in English with some Portuguese language skills.

TECHNICAL LIASON OFFICER

1. Scope

Full time for the entire project

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

Based in Luanda

Nationally recruited

2. Tasks

Based in Luanda, the technical liaison officer will support the NPC in ensuring the coordination between all relevant stakeholders during project implementation. In particular, he/she will make the link between:

- Project Coordination Unit base in Huila;
- National institutions;
- IDA at the provincial level; and
- EDA at the municipal level.

He/She will also coordinate closely with baseline projects and in particular with the MOSAPII coordination unit.

3. Qualifications

- Higher degree related to natural resources management;
- At least three years' experience in the Angola agricultural sector;
- At least two years' experience working with local communities in Angola;
- Demonstrated previous experience working with the field school approach to extension or with similar approaches;
- Previous experience working with national and provincial partners on related issues;
- Demonstrated commitment to participatory natural resource management techniques, agro-ecology, conservation agriculture; and
- English language skills.

NATIONAL CLIMATE CHANGE TRAINER

1. Scope

This position is for 12 months during year 1 and 2 of project implementation.

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

- Assist the project management in programming the technical assistance that will be provided through the project;
- Assess all project training and capacity building activities, identify entry points for integrating climate change, and develop material in order to integrated climate change;
- Review and revise training programmes for managers;
- Ensure that updated best practices are transferred in a simple and concise manner into training material and training activities;
- Undertake field visit and provide examples on how FFS could drive CCA practices and climate resilience in partners' programmes; and
- In collaboration with the international capacity building expert, organize training sessions in each of the 4 provinces of intervention to train 10 staff in each provincial government on CCA and SLM practices in crop-livestock production systems.

3. Qualifications and Selection criteria

- Higher degree related to resource management, agriculture or climate change science;
- At least five years working on climate change related issues in Angola;
- Experience working with local communities in the agriculture sector in Angola;
- Previous experience working with international partners on related issues;
- Demonstrated commitment to participatory sustainable agriculture techniques; and
- English language skills preferential.

NATIONAL EXPERT IN INTERSECTORAL COORDINATION

1. Scope

This position is for 6 months during year 2, 3 and 4 of project implementation.

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

The expert will support national institutions for the following activities:

- Assess the functioning of i) the inter-ministerial commission for biodiversity and climate change, and (ii) the multi-sectoral commission for the environment, regarding CCA-related issues;
- Develop a technical proposal to address the main operational gaps on CCA of these two commissions;
- Help set up an institutional task force comprising representatives from MINAMB, MINAGRI, MINCO and the civil society for a better inter-sectoral coordination on CCA.

3. Qualifications and Selection criteria

- Higher degree in political science, management of administrations or related degree;
- At least 15 years experience working with national institutions on Climate Change issues;
- Deep knowledge of Climate Change Adaptation-related issues;
- Good Knowledge of the Angolan institutional context.

NATIONAL EXPERT IN MAINSTREAMING OF CCA CONSIDERATIONS INTO SECTORAL PROGRAMMING AND BUDGETING

1. Scope

This position is for 18 months during year 3 and 4 of project implementation

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

In collaboration with the international expert on CCA mainstreaming, the international expert will support the following activities:

- Support the institutional task force comprising representatives from MINAMB, MINAGRI, MINCO and civil society organizations for a better inter-sectoral coordination on CCA, in developing a 5 year strategy to mainstream CCA considerations into sectoral programming and budgeting; and
- Based on the 5-year strategy, provide support to the teams in charge of annual planning and programming within MINAMB, MINAGRI and MINCO to mainstream CCA and SLM practices into annual planning and budgeting.

3. Qualifications

- Higher degree in political science, management of administrations or related degree;
- At least 15 years experience working with national institutions on Climate Change issues;
- Deep knowledge of Climate Change Adaptation-related issues;
- Good Knowledge of the Angolan institutional context.

NATIONAL FFS EXPERT

1. Scope

This position is for 48 months during year 2, 3 and 4 of project implementation

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

In collaboration with the international FFS trainer and implementer, the national FFS expert will support the good implementation of all FFS- related activities under component 2. In particular, he/she will support the following activities:

- Develop training tools for master trainers on CCA and SLM practices to be integrated into existing and new FFS, taking into account the results of the CVA (activity 1.2.2), and including FAO CCA tools. The training package will include:
 - o improving soil fertility and integrated nutrient management through agroecological practices;
 - o agroecology and environmental practices related to soil conservation, rational use of water, fertilizers, integrated nutrient management and promoting integrated pest management;
 - o the use of FAO developed tools such as the Land Degradation Assessment in Drylands (LADA) tool and Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists (SHARP)
- Provide training and equip master trainers involved in MOSAP II from the Provincial and municipal agricultural extension staff on the identified CCA and SLM practices, and FAO CCA tools;
- Provide training and equip new FFS trainers in Huila Province;
- Support the establishment and implementation of 150 new FFS in Huila Province, focusing on CCA and SLM practices, in collaboration with the National FFS expert, and
- Ensure collaboration with the SFS sub-regional Network on FFS

3. Qualifications and Selection criteria

- Higher degree related to agriculture and natural resources management;
- At least 3 years experience in working on agricultural or natural management issues;
- Strong knowledge of CCA and SLM in the Angolan context;
- Previous experience in providing training to local communities; and
- Good knowledge of the FFS system.

NATIONAL EXPERT IN THE USE AND APPLICATION OF LEGAL LAND RIGHTS

1. Scope

This position is for 8 months during year 2 and 3 of project implementation

Under the supervision of: CTA, NPC

Reporting to: CTA, NPC

2. Tasks

In collaboration with the international expert in the use and application of legal land rights and natural resources management systems, the expert will support the following activities:

- Liaise with the TERRA Programme on what has been done to strengthen the legal framework on land tenure and on the development of natural resources management systems;
- In the three municipalities of Caluqembe, Quilengues and Caconda, support communities in mapping family agriculture, land tenure and natural resource use systems;
- Develop appropriate management tools together with the municipalities; and
- Provide training to municipal administration and civil society representatives on the use and application of legal land rights package and on implementing climate resilient investments.

3. Qualifications and Selection criteria

- Higher degree in rural development, agronomy, or a related discipline;
- At least 3 years of work experience in one or more of the above fields preferably in land tenure, land use planning and management, land resources management, and natural resources management;
- Deep understanding of the concept of tenure governance, Climate Change Adaptation, and sustainable land management in Angola;
- Knowledge of the Farmer Field School approach is an advantage; and
- Experience in conducting multi-stakeholder consultations and participatory processes.

6.5 APPENDIX 6: COFINANCING LETTERS



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6.6 APPENDIX 7: RESPONSES TO COMMENTS RECEIVED AT PIF APPROVAL

Germany Comments

#	Comment	Response
1.	<p>Germany welcomes the coherent project structure outlined in the PIF. In particular, Germany appreciates employing the Farmer Field Schools (FFS) approach to empower farmers and facilitate adaptation in vulnerable areas. As noted in the PIF there is only limited data available on expected climate change in Angola which underlines the importance of vulnerability assessments to identify climatic and non-climatic stressors and their interrelationships. Whilst component 1 proposes "rapid vulnerability assessments", no further details are provided, i.e. on whether these assessments will be carried out by the project or whether staff will be trained. Germany therefore kindly asks that the PIF provides further information on how the "provision of systematic information on climate change and vulnerability" will be addressed by the project under this component.</p>	<p>The comment has been taken into consideration during the project design and is addressed under Output 1.2 INAMET and GSA staff will receive comprehensive trainings and follow-ups on how to conduct climate change vulnerability assessments covering the four provinces; they will therefore be able to regularly update vulnerability information during and after project implementation.</p> <p>Activity 1.2.1 will provide training to INAMET and GSA staff on theoretical and practical aspects of meteorology. This training will include a module on how to conduct a vulnerability assessment and how to update vulnerability information.</p> <p>Activity 1.2.3 will consist in conducting a Climate Vulnerability Assessment (CVA) in the four provinces of intervention. Experts in the field will be contracted by the project to support the realization of the CVA which will be done in close collaboration with INAMET and GSA staff that were trained in Activity 1.2.1.</p>
2.	<p>Germany appreciates that the project intends to provide funding to implement adaptation measures identified in the Farmer Field Schools through the establishment of a Local Investment Fund for Adaptation to Climate Change (LAIF). For this fund, which is not listed as expected output of component 2, it remains unclear how the fund would operate and what exactly would be funded. Germany therefore kindly asks to further explain the intended mode of operation of the fund and how it relates to the expected output 3.2.1, namely the proposed government</p>	<p>Projects outputs have been updated during the PPG and a Local Investment Fund for Adaptation to Climate Change is not part of the project anymore. The project will instead create links with the existing PAPAGRO project through the implementation of FFS to provide adequate access to market and equipment, inputs and products to FFS participants. In Huila, PAPAGRO has supported the creation of Agro-pastoral production collect and marketing centres (AGROMERCAS) and works with five cooperatives created under two different associations and one rural logistical agent</p>

	investment plan to support small credits.	(private operator). These operators are being supported through the provision of 3% loans and some transportation means such as trucks. Farmers that will benefit from the trainings, the equipment and inputs in the 150 new FFS that will be created under the GEF/LDCF project will be connected to these 6 economic operators in order to strengthen their access to market.
3.	Component 3 proposes the establishment of a "national (high level) mechanism for climate change adaptation activities" focusing mainly on agricultural and environmental policies and programming. In case Angola decides to start a National Adaptation Plan (NAP) process, Germany suggests working with the Government of Angola on how the proposed mechanism can be linked to or become part of the NAP process	The NAP process hasn't fully started but Angola is considering giving the inter-ministerial commission on biodiversity and climate change the role of steering committee to support the NAP preparation and implementation ⁷⁰ . As the proposed project will directly work with this commission to strengthen its capacities and fill its operational gaps under Activity 3.1.2, the projects and the mechanisms it will support will be fully linked to the NAP process.
4.	Germany appreciates that the PIF includes a specific component on project monitoring and dissemination of results (component 4). Unfortunately the PIF does not provide any description of this component. Germany therefore kindly asks to supply further details, in particular in regard to the proposed "system for collection of field based data" (expected output 4.1.1)	Component 4 is now included and detailed in the description of the project strategy (Section 2.4). The system for collection of field based data will consist in a performance framework (M&E plan) that will define roles, responsibilities type and frequency for collecting and compiling data to assess project performance. It will be developed under Activity 4.1.1

⁷⁰ Interview with the Climate change focal point in Angola (2014): www.youtube.com/watch?v=QAY241IDk6s

STAP Comments

#	Comment	Response
5.	<p>In the full proposal, STAP recommends providing documentation, from local or regional data, on how climate variability and change are affecting agricultural production and food security in Angola. The PIF states that production is being affected, but not how and through which mechanisms. When providing that documentation, it would be helpful to be clear on climate variability vs. climate change. For example, changing rainfall patterns in 2011 and 2012 would be expressions of climate variability not demonstrations of climate change.</p>	<p>A Section on climate has been added in the introduction with some elements on the impacts on agricultural production and food security. However, as noted in the project document, the analysis of climate change in Angola is difficult because of an extreme lack of data from recent years due to the civil war. The project will address this gap by supporting INAMET and GSA in the consolidation of the historical climate archive 1971-2000 and meteorological database 2005-2015 for all available stations in the Provinces of Bié, Huambo, Huila and Malanje and by providing training on assessing and updating vulnerability information (see also # 6 below).</p>
6.	<p>Component 1 states that incorporating climate risks into activities requires provision of systematic information on climate change vulnerabilities and risks, so the component will support modelling work on crops and land suitability. Further information is needed on what is envisioned for the modelling, the extent to which the models will take into consideration a range of possible climate and development (e.g. possible demographic change and changes in land use) scenarios, the temporal and spatial scale of the modelling, and other relevant factors. The framing of the components suggests that the modelling may be more focused on seasonal forecasts. In that case, it would be possible to build on some of the considerable on-going efforts by a variety of organizations to provide seasonal forecasts. Further understanding is needed of the project plans.</p>	<p>Component 1 refers now to Climate Vulnerability Assessment (CVA) in collaboration with IDA to identify suitable adaptation options for main crops and livestock based on the output of the CVA. The details of the CVA will be defined further at the time of implementation of Activity 1.2.3, taking into account the training provided in Activity 1.2.1, and the consolidated historical climate archive and meteorological database developed under Activity 1.2.2.</p>
7.	<p>Component 2 would build on recent efforts to improve agricultural production by upscaling practices through farmer field schools. STAP</p>	<p>The resilience to potential climate change scenarios is embedded in the FFS approach that promotes Climate Change Adaptation, agroecology and</p>

	<p>suggests including in this component an activity to evaluate the extent to which current practices could be resilient to a range of possible future climate and development scenarios. While reducing current vulnerability to climate variability is very important, projects also should consider what a changing climate could mean for particular practices as changes in temperature and precipitation patterns potentially further alter soil moisture. These changes may mean that some current practices may not be effective in a future climate.</p>	<p>Sustainable Land Management Practices. In addition the FFS curricula under the project will be developed taking the results of CVA and the historical climate data analysis into account (results of Component 1)</p>
8.	<p>In Component 3, STAP would appreciate further specification of who will undertake the proposed activities and the plan for how these activities will be accomplished. Further, FAO may want to give consideration to the implicit assumption that the year in which farmers attend the school is a "normal" year</p>	<p>Additional information on Component 3 is provided in Section 2.4 Project Outputs and Activities</p> <p>The component is divided in the two following outputs:</p> <p>Output 3.1: Inter-sectoral task forces in place/strengthened, defining integrated CCA agendas and tailoring them into sector-level programming; and</p> <p>Output 3.2: Climate change adaptation integrated into an effective land and natural resources management system in 3 municipalities.</p> <p>Under Output 3.1, the following activities will be organized:</p> <ul style="list-style-type: none"> • <u>Activity 3.1.1</u>: In PY2 and PY3, strengthen the technical component on CCA of (i) the inter-ministerial commission for biodiversity and climate change, and (ii) the multi-sectoral commission for the environment by assessing their functioning; and by developing a technical proposal to address the main operational gaps of these two commissions. This activity will be supported by the National Expert in intersectoral coordination. • <u>Activity 3.1.2</u>: In PY2, set up an institutional task force comprising representatives from MINAMB, MINAGRI, MINCO and civil society organizations for a better inter-sectoral coordination on CCA. Terms of

		<p>Reference for the task force as well as a memorandum of understanding between the different partners will be developed and approved by all parties. This activity will be supported by the National Expert in intersectoral coordination.</p> <ul style="list-style-type: none"> • <u>Activity 3.1.3:</u> In PY3, PY4 and PY5, support bi-annual meetings of the institutional task force, the commission for biodiversity and climate change, and the commission for environment. • <u>Activity 3.1.4:</u> In PY3, support the task force in developing a 5-year strategy to mainstream CCA considerations into future sectoral programming and budgeting. This activity will be supported by the international and national experts in mainstreaming of CCA considerations into sectoral programming and budgeting. • <u>Activity 3.1.5:</u> In PY4 and PY5, based on the 5-year mainstreaming strategy, provide support to the teams in charge of annual planning and programming within MINAMB, MINAGRI and MINCO to mainstream CCA and SLM practices into annual planning and budgeting. This activity will be supported by the international and national experts in mainstreaming of CCA considerations into sectoral programming and budgeting. <p>Under Output 3.2, the following activities will be organized:</p> <ul style="list-style-type: none"> • <u>Activity 3.2.1:</u> In PY2 and PY3, organize trainings at municipal level in 3 targeted municipalities (Caluqembe, Quilengues and Caconda which are also municipalities supported by the TERRA programme) for administrative staff and civil society representatives on the use and application of legal land rights packages and on implementing climate resilient investments. This activity will be supported by the international expert in the use and application of legal land rights and natural resources management systems; and the national expert in the use and application of legal land rights
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		<ul style="list-style-type: none"> • <u>Activity 3.2.2:</u> In PY3, PY4 and PY5, in the 3 municipalities of Huila province, develop an inclusive land and natural resources management system including CCA considerations. This activity will be supported by the international expert in the use and application of legal land rights and natural resources management systems; and local NGOs. <p>Regarding a “normal” year in the region, these are increasingly difficult to predict. We will be focusing the FFS not on a specific climate, but rather with a focus (each year) on adapting to a changing climate as there may not be any more “normal” years in the future.</p>
9.	Section B indicates the project will have four components, with the fourth on project monitoring and dissemination of results. Both are important to a successful project. However, the PIF does not provide any description of this component beyond what is that section	Component 4 is now explicitly mentioned and detailed in Section 2 with outputs and activities: project strategy.
10.	STAP welcomes the focus on women and other vulnerable groups and hopes the gender aspects will be further developed and specified in the full proposal.	Gender aspects are included throughout the project document and the project specifically target at least 30% of beneficiaries to be women. The FFS approach is generally gender sensitive ensuring women’s perceptions and needs are well represented. This is also ensured through the SHARP tool which follows a gender disaggregated approach in order to specifically promote self-assessment of women resilience to climate change.
11.	In considering appropriate stakeholders to consult for the project, the Ministry of Health could provide important perspectives on ensuring the proposed activities also promote human health	The project focuses on the collaboration between MINAMB, MINAGRI and MINCO. However, the NPC and the CTA will ensure the collaboration with all relevant stakeholders during project implementation, future consultation with the Ministry of Health in therefore not excluded.
12.	In the section on sustainability, STAP suggests incorporating information on how the proposed activities will promote managing the	The following paragraph has been added in the environmental sustainability section: “The project will durably strengthen the ability of local

	future risks of climate change.	communities to cope with climate change and hazardous climate events that are likely to be more frequent in the future. The CCA practices to be promoted under the FFS and adopted by farmers should allow local communities to be more resilient to climate change in the future and at the same time better protect the environment. In addition, INAMET and GSA staff will be trained to consolidate climate archive and meteorological database and ensure regular update of vulnerability information. As the FFS curricula will be based on the results of CVA, FFS activities will strongly promote the management and adaptation of future risks climate change risks.”
13.	STAP welcomes the discussion of the potential for scaling up. It would be helpful to understand whether the plan is to use seasonal forecasts and the source of those forecasts	See response to comment 6. Activities under Output 1.2 are described in more details in Section 2.4.
14.	In sections A.2 and A.4, another source for climate forecasts for Africa is CORDEX, based at the University of Cape Town.	Thank you, this is well noted and will be taken into consideration when implementing Component 1.
15.	The full proposal should provide specific information on how the proposed project would coordinate and collaborate with the GEF/UNDP project on sustainable land management capacity building in Angola, along with other relevant projects noted in the PIF	GEF/UNDP project on sustainable land management capacity building in Angola has ended in 2013, the proposed projects will therefore not be able to directly collaborate with it. However, other projects to collaborate with are listed in Section 1.2.1 on the baseline situation, and in Section 4.1.2 Coordination with other ongoing and planned initiatives.
16.	While not discussed, medium to longer-term adaptation options require consideration of projected changes in climate change, including extreme weather and climate events, and consideration of how development patterns could alter vulnerability. FAO could consider developing regional scenarios including emission pathways (RCPs) and shared socioeconomic pathways (SSPs) that can inform identifying adaptation options robust against a range of future climates and societal changes.	This information will be taken into account when implementing Activity 1.2.3 in PY1, which consists in designing and performing a rapid Climate Vulnerability Assessment (CVA) in collaboration with INAMET and GSA for each of the four Provinces and, in collaboration with IDA, to identify suitable adaptation options for main crops and livestock based on the outputs of the CVAs.

	Further information on the development of these new climate scenarios can be found at http://www2.cgd.ucar.edu/research/iconics	
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