



ADPP ANGOLA

REPORT OF THE ASSESSMENT AND CONSULTATIONS IN THE MUNICIPALITIES OF CUANGAR, CALAI E DIRICO (CUANDO CUBANGO PROVINCE)

January 2020

Elaborated by:

- Paulo Vicente
- Anna Johansson

Table of Contents

INTRODUCTION.....	2
ADMINISTRATIVE ORGANIZATION IN ANGOLA.....	3
GOVERNMENT PARTNERS	3
CUANDO CUBANGO PROVINCE	4
CONSULTATION WITH STAKEHOLDERS.....	7
A. CUANGAR MUNICIPALITY.....	7
B. CALAI MUNICIPALITY	14
C. DIRICO MUNICIPALITY	19
SUMMARY OF THE CHARACTERIZATION OF THE AGRICULTURE SECTOR IN THE TARGETED MUNICIPALITIES.	22
GENERAL RECOMMENDATIONS FOR THE ADSWAC PROJECT:	26
ANNEX: LIST OF PEOPLE CONSULTED.....	28



Figure 1: Angola

JANUARY 2020

RAPID ASSESSMENT AND CONSULTATIONS

MUNICIPALITIES OF CUANGAR, CALAI, DIRICO E RIVUNGO

CUANDO CUBANGO PROVINCE

INTRODUCTION

This rapid assessment was conducted within the scope of data collection for the future transboundary regional community-project "*Building adaptive capacity and climate resilience of drought-affected communities in southwest Africa*" to be submitted to the Adaptation Fund. It will be implemented in four (4) municipalities, located on the cross-border area of South East Angola, in the province of Cuando Cubango, in Angola. The targeted municipalities are: **Cuangar, Calai, Dirico** and **Rivungo**. For this purpose, a team of ADPP Angola, composed of Anna Johansson, coordinator of the Program to combat malaria in the Province of Cunene (E8) and supervisor of that program for the southern region of Cuando Cubango, and Paulo Vicente, Officer of the partnership team of ADPP's headquarters in Luanda, paid a visit to Cuando Cubango from 20 to 30 January this year. The team had the support of the Toyota Land Cruiser vehicle from ADPP's office in Cunene, linked to the E8 project and the respective driver of the project, Mr. Ricardo Ambrósio.

The team organized meetings at the provincial capital, Menongue, with several government actors and local institutional partners, who were instrumental in obtaining relevant information for the project. The information collected from possible sectoral consultations with different key stakeholders was complemented with others collected during the field visit to the targeted municipalities. The field visits, in addition to the meetings with the authorities and other local stakeholders, also made it possible to make a visual portrait of the ground. In all meetings, a summary introduction of the main activities of the project was made, with emphasis on its two main components.

The assessment was done to capture the sensibility of the stakeholders related to the opportunity, its relevance, the pertinence of the proposed initiative and the interest and potential collaboration during the project. In turn, the consulted parties provided further information and clarifications about ongoing actions in the province and the targeted municipalities, the main challenges related to climate change in general and specifically to the drought problem that affected the communities and their livelihoods.

The initiative was widely welcomed by each of the consulted parties, having generated a great hope that the project will become concrete and its activities can get the most out of it as quickly as possible. A matrix of the stakeholders consulted is attached to this report.

ADMINISTRATIVE ORGANIZATION IN ANGOLA

The Angolan territory is subdivided into Provinces, and these into Municipalities and Communes. At the level of the respective divisions, the highest authorities are represented by the Provincial Governor, the Municipal Administrator and the Communal Administrator. The Provincial Governor is supported by Vice-Governors for the different areas, and Municipal and Communal Administrators by a Deputy Administrator.

In turn, each commune is subdivided into villages, which is administered by a chief of village. Each village integrates a greater or lesser number of communities or neighborhoods, which are managed by Neighborhood Coordinators. Communal Administrators and Heads of Settlement are those who work most closely with traditional authorities, supposedly by their advisors. Similarly, urban areas are subdivided into Neighborhoods.

The studied region is an integral part of the Cuando Cubango Province (with Menongue as capital), which consists of 9 municipalities. The Executive functions are on a centralized basis. Local governments at all levels, from the provincial to the communal, basically seek to serve as administrators of policies formulated at higher levels. The Provincial Governor is the representative of the central administration, responsible for conducting the governance of the province and ensuring the normal functioning of the local governmental administration (*Article 202 of the Constitution of the Republic of Angola, 2010*). There are no executive bodies elected locally.

Administrators, at both municipal and communal levels, are appointed by the Provincial Governor. The articulation of the Provincial Government with is established through the Ministry of Territory Administration, the Council of Ministers and, methodologically, by the sectoral ministries. The provincial directorates have a double subordination: one direct, in relation to the provincial government, the other, methodological, in relation to the ministries of tutelage.

GOVERNMENT PARTNERS

The **Ministry of Agriculture and Forestry** (MINAGRIF) includes two State Secretariats, one for Agriculture and the other for Forest Resources. Support for livestock activities is attributed to the Veterinary Services Institute (ISV), inserted in the Secretariat of State for Agriculture. Their Provincial Departments depend on the General Directorate of the ISV but, at the provincial level, they respond to the respective provincial directorates of MINAGRIF. Below the Provincial Department there are the Livestock Areas, each grouping several municipalities and headed by a Chief of Livestock Zone. In each municipality there is a Municipal Section of the ISV headed by a Head of Section. In areas with greater population of livestock, there are Sanitary Formations, the latter being veterinary intervention units, which are responsible for the epidemiological surveillance of a certain area and the application of primary care of a prophylactic nature. Research in the livestock sector is the responsibility of the Veterinary Research Institute (IIV), which is also part of the Secretariat of State for Agriculture.

The **Ministry of the Environment** (MINAMB) is the Ministerial Department whose mission is to propose the formulation, and to conduct, execute and control the Executive's policy regarding the environment in a perspective of protection, preservation and conservation of environmental quality, pollution control, areas of conservation and enhancement of natural heritage, as well as the preservation and rational use of natural resources.

The **Ministry of Health** (MINSa) is the Ministerial Department whose mission, among others, is to develop and conduct the national health policy, and to ensure its correct implementation, monitoring and periodic evaluation, to promote the country's health development in coordination with the related national sectors and partners of the national and international communities, to promote the control and fight against endemic-epidemic diseases, to promote the health of the population in general, and in particular of the vulnerable population, mainly children and women, taking necessary measures to ensure equity and accessibility to health care.

The **Ministry of Social Action, Family and Promotion of Women** (MASFAMU) has, among others, the following duties: to define and propose specific policies and strategies within the framework of social action, as well as to promote and ensure the formulation and implementation of integrated programs, aiming the protection, assistance and development of vulnerable groups, the promotion of women, gender equality and equity, community development and family unity and cohesion.

MASFAMU also has the mandate to coordinate the implementation of the social assistance policy for vulnerable groups; to support the strengthening of institutional capacity of structures linked to the defense of the rights of women and families, and to develop and maintain mechanisms for implementing policies, programs and projects aimed at improving the living conditions of vulnerable groups and the community; to promote and participate in specific programs to strengthen the role of the family and young women in combating hunger and poverty, as well as in reducing maternal and perinatal mortality; to promote gender equality and equity in decision-making bodies and women's full integration into the country's political, economic, scientific, professional, cultural and social life.

The **Provincial Government** is the decentralized body of the central administration that aims to ensure the performance of the functions of the State at the level of the province. In carrying out its powers, the Provincial Government is accountable to the Council of Ministers, and the Ministry of Territory Administration is responsible for ensuring, coordinating and controlling the execution of the Government's policy on the political, administrative, economic, social and cultural development of the province.

It is also the responsibility of the Provincial Government to implement the policies defined by each sector. The Provincial Government is responsible for promoting and guiding socio-economic development, based on the principles and strategic options defined by the Central Government, as well as ensuring the provision of public services in the respective geographical area.

CHARACTERISTICS OF CUANDO CUBANGO PROVINCE



Figure 2: *Província do Cuando Cubango*

GEOGRAPHIC CONTEXT

Cuando Cubango is the second largest province in Angola, occupying an area of 199,049 km², representing 15.9% of the national territory, being the second largest after Moxico, however, being one of the provinces with the lowest population density.

It consists of 9 Municipalities: Cuchi; Menongue; Cuangar; Nankova; Cuito Cuanavale; Mavinga; Calai; Dirico and Rivungo. The Provincial Capital is Menongue, a city founded on the banks of the Kuebe River. Cuando Cubango has international borders with Namibia and Zambia. Its border position has not contributed particularly to its economic development, being one of the least developed provinces in Angola.

However, formerly called lands of the end of the world, they may become the lands of opportunity and of the future because, the economic potential is absolutely virgin, and there is a strong will to relaunch economically and socially which was one of the most harassed provinces during the war.

SOCIO-ECONOMIC CONTEXT

Demography

According to data from the National Statistics Institute (INE), the population in the province of Cuando Cubango, at the date of the census, 16 May 2014, is 534,002 people, however estimates on the ground indicate that the population of the Province is more than 700,000 people, with over 62% of the population living in rural areas.

Poverty Index

Despite all the progress that has been made, the harsh reality determined by strong social and economic needs, makes Cuando Cubango still one of the Provinces with the highest poverty rate, having the second highest index of poverty in the country.

TRANSPORT

The difficulties imposed by the great inter-municipal distances and between the Province and the rest of the country are aggravated by the characteristics of the soils and the deficient services of conservation and maintenance of road networks. The greatest difficulties are related to the means of public transport for traveling to Municipalities and Communes, since these are not adapted to the terrain.

With regard to this difficulty, it should be noted that local government agencies have been obliged to make a strong investment in robust means of transport suitable for difficult terrains, in order to transport essential goods, raw materials and materials for agricultural activities.

Cuando Cubango is served by two airports that allow large planes to land - the Airport of the Provincial Capital Menongue - Comandante Kwenha Airport and Cuito Cuanavale Airport, a modern airport infrastructure. We can affirm that these two airport platforms, as well as the various existing aerodromes, are the guarantee that, in terms of air transport, there will be no economic strangulation or isolation from the interior of Cuando Cubango.

BIOPHYSICAL AND ENVIRONMENTAL CHARACTERIZATION

Climate

The altitude invariably decreases from the Northeast to the Southeast, from 1,500 to 900 meters, which causes the waters of numerous rivers that limit and run through the Province to converge in the extreme Southeast, where the Cuando and the Cubango rivers flow into the desert sands of the Kalahari Desert. The entire Province is a gentle slope, only marked by a thin line of heights that separates the hydrographic basins from the two great rivers that identify the region.

The annual average temperature is above 20°C, fitting in the tropical region of hot climate. Rainfall also decreases from the Northwest to the Southeast, from the level of 1,400 to that of the annual 600 mm, so the climate changes from "humid" in Menongue to "semi-arid" in Mucusso, where the influence of the Kalahari Desert is well known. This is confirmed by the variation in temperatures, thermal amplitudes and the degree of humidity.

In the same way, the soils have different agricultural aptitudes in the different parts of the Province, being the most suitable area for agriculture, the Northwest.

There are two typical seasons: the rainy season, which runs from November to March, considering April and October as months of transition; the dry season, which extends from May to August, with the months of June and July as the coldest months of the year.

Hydrography

The Province has a wide range of rivers, the Cubango and Kuito rivers being navigable. This vast hydrographic resource has a great fish richness, made even more appealing by its easy capture in shallow waters.

Fauna

The fauna is very diverse, with wild animals found in the existing reserves, with special emphasis on the following species: elephant, palanca royal, rhinoceros, hippopotamus, nguelengue, ngunga, leopard lion, hyena, jaguar, pacaça, boar, mabeco, tortoise, ostrich.

Vegetation and flora

The morphological situations of the plateau and the valley condition the various types of existing vegetation. The vegetation of the Province is characterized by: dense dry forest and savanna with shrubs and trees in the North; savanna with bushes, woods and forests in the South region; bush savannah in the Northwest region; exotic woods, especially Mussivi, Girassonde, Mumue, Mupanda and Muiunga in the Southwest region.

The main activities are still limited to artisanal fishing; beekeeping; subsistence agriculture and livestock. However, it is known that the Province has very high potential for mining diamonds, gold and copper.

Its climate is tropical in altitude and the average annual temperature is 20 degrees.

LINGUISTIC MOSAIC OF CUANDO CUBANGO

Cuando Cubango is a cosmopolitan province, whose main language is the Ngangela language. The ethnolinguistic mosaic of Cuando Cubango is vast and very rich.

The geographical position of this region means that several languages cohabit to the point that some are “almost” international, because they are spoken in Cuando Cubango (Angola), Rundu (Namibia), Zambia and Botswana. Many of them have achieved the status of official language in these countries and are inserted in the education system with a very advanced literacy degree; but for Cuando Cubango they are only variants or dialects, taking into account the number of speakers.

In addition to the “Ngangela” language, there are other languages such as: Cokwe, Mbukushu (with alternative names: Cusso, Gova, Kuso, Manbukushu, Thimbukushu). Mbukushu gives name to one of the Communes of Diricom while there are also a considerable number of native speakers in the Republic of Namibia.

We also find “Orukwangali” with alternative names: Kwangali, Cuangar, Kwangare, Kwangari, Sikwangali, “Rudiriku” and Diriku with alternative names like Manyo, divided between the kingdoms of “Kalihonda, Kushakare and Sambyu”. Kalihonda Tchivela, son of Tchivela and Mashola, was in the area of Mavengi, municipality of Kalay, province of Cuando Cubango, but later moved from Mavengi to Kumbero, municipality of Dirico, later he went down the river Kuito. When he arrived at Dirico, he found the tribe of “Vamanyo” (Dirico), on the bank of the Kuvango River, belonging to the Republic of Namibia, and this king Kalihonda prevented the crossing of people to Angola.

After his death, his sister Kashova, who, due to her advanced age, lost her sight, having called for her replacement her grandson “Ndumba ya Tchimpulo” who was in Ntontowe near Mulemba. This returned to Mavengi. After this came “Kalihonda II, son of Ndumba, continuing his reign in Mavengi, with a short duration, because he died very early. After his death the Portuguese arrived, thus beginning the colonial administration; for the indigenous administration, the king “Minjenge” came up, who, having seen the geographic dimension of his kingdom, appointed his grandchildren to the categories of sobas and governors who helped him with the permanence of the host in Mavengi and the rest were distributed among the Kanyongo and Kapiku regions. The language of this tribe gives its name to the municipality; it is also spoken in the Republics of Namibia and Botswana.

ENERGY AND WATER SECTOR

The Province has a strong water and renewable energy production potential, and its morphological characteristics do not constitute a major difficulty for the development of public works. In the municipalities along the border, namely Calai, Cuangar and Dirico, Energy is supplied by Nampower-Namibia, with a total of 132 MWs. The rest are powered by generator sets with the capacity for this purpose.

Regarding the supply of Drinking Water, the Province has three collection, treatment and distribution systems, 1 in Menongue with a production capacity of 11,000 m³ / day, 1 in Cuito Cuanavale of 7,200 m³ / day and another in Calai with 5,040 m³ / day.

The rest of the Municipalities depend on surface and groundwater collection (boreholes).

WATER SECTOR

Regarding the supply of Drinking Water, it is important to note that 3 Municipalities (Menongue, Cali and Cuito Cuanavale) are served with Conventional Water Supply Systems and the remaining Municipalities await insertion in the OGE.

NOTE: A new Conventional Water Supply System is under construction in the municipality of Rivungo.

In Canguar, the population that consumes drinking water represents 80%, at Headquarters, while 20%, in peripheral neighborhoods, do not have access. For them the main source of water is the river.

CONSULTATION WITH STAKEHOLDERS

In Menongue, the ADPP team met during 5 days, five with officials and technicians assigned to different sectors, namely the Provincial Directorate of Agriculture (IDA, IDF, ISV), the Head of GABHIC Cuando Cubango, the Executive Director of the national NGO ACADIR, the Provincial Director of Health, the Provincial Director of MASFAMU, and the Head of the Provincial Department of Public Health.

The team also maintained contact with the newly appointed Provincial Director of the Environment, the Head of Department for Infrastructure in the Energy and Water Sector and also with three of the newly appointed Municipal Administrators of Cuangar, Calai and Dirico.

Eng. Paulo Vicente also had a brief circumstantial meeting with the Provincial Governor of Cuando Cubango, to whom he explained the reasons for the visit, and the Governor took good note of the content of the letter from the Directorate of ADPP Angola addressed to Municipal Administrations with references on the project and the team visit.

The trip went on from Menongue to Cuangar, Calai and Dirico where the team held meetings, with Deputy Municipal Administrators and local technical and administrative staff, also allowed a direct observation of several rural villages and areas of cultivation and pastures, in addition to the verification of the precariousness of roads and access roads. Vast flooded areas were also observed as a result of the rains that fell from December.

The information provided allowed a global diagnosis of the target municipalities and served to prepare this report. Given the time constraints and the fragile state of the institutions, the information must be viewed with the reservations that prudence advises, since it was not possible to deepen them.

The limited time, the distance and the degraded state of the communication routes did not allow a field visit to the Municipality of Rivungo. With a road network of 4,000 km, the province has only 400 km of paved roads. The lack of good roads is a condition for the development of the province's economic activity.

A. CUANGAR MUNICIPALITY

PHYSICAL DESCRIPTION OF CUANGAR MUNICIPALITY



Figure 3: Cuangar

The Municipality of Cuangar is located south of the Municipality of Menongue and is 380 km from Menongue, capital of the Province of Cuando Cubango. It is limited to the north by the municipality of Menongue and Nancova, to the east by the municipality of Calai, to the west by the municipality of Namacunde, Cunene Province and to the south by the Republic of Namibia, in particular the district of Nkurenkuru, Region Okavango West.

Territorial Extension: 18,917 Km²

Population: estimated at 50,200 inhabitants, divided into: Men: 26,000; Women: 24,200

The existence of a Municipal Development Plan was mentioned: 2017 - 2022 at the level of GEPE - Menongue. The team did not have access to that document.

INSTITUTIONAL AND DEMOGRAPHIC CHARACTERIZATION

The municipality of Cuangar is divided from the administrative point of view into three communes: Cuangar, Savate and Bondo Caíla. The population of the municipality is estimated at around 50,200 inhabitants.

Languages spoken in the municipality: Rukuangali, Ngangela, Umbundo, Cokwe, Kuanhama, Ntum (Koishan).

Political parties; MPLA, UNITA, PRS, CASA-CE, FNLA

Table 1: Demographic data by Community differentiated by gender

N/O	Commune	Community	Nº of inhabitants	Men	Women
01	Cuangar	Aldeia Agostinho	191	104	87
		Hojy -Ya-Henda	667	341	326
		Aldeia Mangondo	231	118	113
		Aldeia Marema	307	169	138
		Aldeia Nayevo	129	63	66
		Aldeia Calova	466	223	243
		Porto Cuangar	1.463	713	750
		Aldeia Massaca	247	120	127
		Aldeia Serengani	94	45	49
		Aldeia 4 de Abril	1.961	838	1.123
		Aldeia Tchimanha 1	237	114	123
		Tchimanha 2	116	59	57
		Bairro Mucucuto 2	66	29	37
		Aldeia Mungongo	242	115	127
		Aldeia Chicongo	102	53	49
		Aldeia Ngando	74	35	39
		Aldeia Muene Mbuto	80	33	47
		Aldeia Tchihango	458	208	250
		Bairro Mucucuto	450	205	245
		Aldeia Mussani 1	143	62	81
		Aldeia Mussani 2	2.386	945	1.441
		Aldeia Mapandato	204	91	113
		Aldeia Caíla	788	429	359
		Aldeia Hojy-Ya-Henda	1.722	695	1.027

02	Savate	Aldeia Muvundu	680	321	329
		Aldeia 11 de Novembro	3.440	2.217	1.223
		Aldeia 1º de Maio	583	291	292
		Aldeia Mpande	506	248	258
		Aldeia Tchimaho	1.164	492	672
		Aldeia Hojy-Ya-Henda	247	128	119
		Aldeia Mupanda 1	271	128	143
		Aldeia Ntandawe 1	665	369	296
		Aldeia Nameho	295	155	140
		Aldeia Tchizana 1	495	249	246
		Tandawe 2	617	348	269
		Bairro Nonga Kulanda	166	85	81
		Bairro Sanjala	784	368	416
		Aldeia Kahata	453	202	251
		Aldeia Tchiheke	228	117	111
		Bairro Kanhandi Sandoma	99	46	53
		Tchizana 2	168	83	85
		Aldeia Kuatir	148	87	61
		Aldeia Kassanga	681	327	354
		Aldeia Tchiconha	653	314	339
		Aldeia Cuvindi	99	53	46
		Aldeia 4 de Abril	14.754	7.937	6.817
		03	Bondo Caíla	Bairro Mungongo	242
Bairro Novo	1.113			584	529
Catava – Ponte	2.710			1.516	1.194
Mucucuto	450			205	245
Capembe	388			205	201
Omeva Macula	38			25	13
Ombili Itunga	132			106	26
Muelikola	332			199	133
Ocanhandi	271			145	126
Ompalela	127			71	56
Ocumalala	673			419	254
Omamuendi	452			328	124
Ocacangu Comiwe	237			146	91
Onaunhango	256			150	106
Ochiiva	275			160	115
Sede Olupale	2.519			1.461	1.058
TOTAL				50.202	26.059

Table 2: N° of farming families per community

N/O	Commune	Location	Nº of farming families
01	Cuangar Sede	Sergani	25
		Kandendele	35
		Kókwe	30
		Kambumbu	50
		Ndungo	60
		Mangondo Rei	67
		Tchiweka	35
		Tchimanha 1	40
		Haironga	25
		Mapandato	35
		Mussani 1	20
		Ngongoma	25
02	Bondo Caíla	Bairro Mungongo	28
		Bairro Novo	40
		Catava – Ponte	27
		Mucuacuto	35
		Capembe	46
03	Savate	Soja	48
		Centro Co Cambuandy	70
		Embala Mpande	65
		Bairro Novo – Savate	35
		Mupanda	28
		Tandawe	76
Total			945

TRADITIONAL AUTHORITIES

Table 3: N° of Traditional Authorities differentiated by commune

Nº	Commune	Soba Grande	Soba	Seculo	Adj soba grande	Adj soba	Total
1	Sede	4	17	13	4	17	55
2	Savate	2	11	6	2	11	32
3	Bondo Caila	2	9	9	2	9	31
	Total	8	37	28	8	37	118

SPORTS GROUPS

The Municipality has 24 football teams, of which 7 are female teams. (12 Cuangar headquarters, 6 Caila and 6 at Savati). There are cross-border initiatives while Caila's teams carry out games with Namibian Katwitwe teams, such as Cuangar with Nkurenkuru.

SOCIAL ASSISTANCE

In January 2019, torrential rains caused damage to some houses. 848 zinc sheets were distributed to 97 affected families.

In the context of the drought, a total of 115,295 tons of various products were distributed; rice, cornmeal, beans, sugar, condensed milk, edible oil, salt, soap, blankets, used clothes, canned meat, canned fish, dried fish, canned tuna, pasta, mineral water, milk, chorizo, sausage, pasta, corn, tomato paste, footwear, suitcases, ladies' pasta, mosquito nets, cookies, canned beans.

These products were distributed in 5 phases and in total benefited 6,563 families with a total of 39,378 households.

CHURCHES

Table 4: Denomination of the Churches present in Cuangar

Nº	Church
1	Igreja Católica
2	União de Igrejas Evangélicas de Angola (UIEA)
3	Igrejas Evangélicas Congregacional de Angola (IECA)
4	Igreja Assembleia de Deus Pentecostal (IADP)
5	Igreja de fraternidade Evangélica de Pentecostes de Agrica em Angola (Bom Deus)
6	Igrejas Evangélicas de SinodL de Angola (IESA)
7	Igreja Cheia de Palavra de Deus em Angola (ICPDA)
8	Igreja Profética Vencedora do Mundo (IPVM)
9	Igreja Adventista 7º Dias (IAD)
10	Igreja da Fé – Apostólica (IFA)
11	Igreja Nova Apostólica de Angola (INAA)
12	Igreja de Missão de Evangélica de Reconciliação (IMERA)
13	Igreja Evangélica de Baptista em Angola (IEBA)
14	Igreja Convenção Baptista de Angola (ICBA)

Source: Municipal Administration

MOST VULNERABLE GROUPS

Table 5: Nº of people with special needs

Nº	Designation	3 rd Age		Physical Deficiency		Orphans		Total
		M	F	M	F	M	F	
1	Sede Cuangar	52	203	8	12	10	31	316
2	Caila	64	116	18	15	44	31	288
3	Savate	40	110	6	10	10	21	197
4	Olupale	48	19	8	3	0	0	78
	Total	204	448	40	40	64	83	879

MINORITY ETHNIC GROUPS

Table 6: Statistical data of the Khoisans of the Municipality of Cuangar

Nº	Designação	Adultos		Subtotal adultos	Crianças		Subtotal crianças	Total Geral
		M	F		M	F		
1	Sede Cuangar	32	67	99	39	71	110	209
2	Bondo Caíla	41	59	100	43	59	102	202
3	Savate	46	68	114	63	87	150	264
	Total	119	194	313	145	217	362	675

EDUCATION SECTOR

The municipality has 10 primary schools; In the academic year 2019, a total of 9,372 students were enrolled, of which 5,670 were female. Of these 7,174 (3,985 female) passed, 594 failed (582 female) and 1,604 (1,103 female) dropped out during the academic year.

There are 5 Colleges / High Schools in the Municipality: in the academic year, a total of 1,313 students were enrolled (706 female). 1,124 passed (576 female), 114 failed (74 female) and 75 dropped out (56 female).

Adult Education (Literacy)

Enrolled (in the 3 modules): 1,330 (743 female)

Approved: 788 (377 female)

Disapproved: 191 (160 female)

Dropouts: 351 (197 female)

AGRICULTURAL SECTOR

The Agricultural Year 2018 - 2019 experienced a prolonged period of drought that affected 20,735 people, including about 4,147 families across the municipality, with a negative impact on the most practiced crops (sorghum, millet and corn), which contributed to a forced migration of populations to the neighboring Republic of Namibia.

During the drought period, there were signs of diseases that affected cattle due to the lack of water in the high areas, due to the ponds that were dry. This year it has been raining, but so far, not enough, fearing that crops may dry out. Cuangar is the municipality with the largest number of cattle producers. There are no pasture conflicts, only some conflicts reported with Namibians in the area of transhumance (Olupale).

ENERGY AND WATER SECTOR

Within the scope of the Water for All Program, inserted in the Executive Public Investment Program, whose objective is to guarantee the supply of drinking water to communities, reducing health risks due to lack of drinking water and poor sanitation services, improving quality of life in these locations and allowing for the economic development of these areas, for the municipality, a water supply system was built in the following locations: Kandendele, Mussanda, Bondo Caíla communes and the communes of Savate and of Sede.

In the commune of Sede 80%, of the population consumes drinkable water, while in the peripheral districts, 20% do not have access, with the river being the only source of water supply that is carried with containers.

The water system comprises: 4 male and 4 female changing rooms; 4 Taps; 4 Wash Tanks; 4 Fountains with 8 taps; 3 Public taps and home connections, hospital, Police Command and Churches.

This year, construction began on 2 fountains in Mangondo and 2 artesian wells in another location.

According to local authorities, water supply for the population is a burning problem, but the municipality lacks resources and means to address the plight of the inhabitants in the following locations:

Mapandato village; Mussani village; Banda Village; Aldeia do Novo; Catava village; Hoji-Ya-Henda village; Caíla settlement; Mukukutu village; Kapembe village; Omupalala village; Omamuandico village.

Crop irrigation - does not exist in the municipality

Rains occur infrequently and in small quantities each year, resulting in few harvests.

The 2019 drought was severe, resulting in a year of great hunger. There were no harvests that year.

The water table has a lot of water. There are no holes. The only hole in the town of Olupale does not work, due to insufficient technical capacity. According to the authorities, what prevents the population from not cultivating is the lack of water. Area located far from the river, next to the border with Cunene. It is the same transhumance area as cattle from Namibia.

In the Cafuma area there is a lagoon and a good and wide chana, favorable for all types of cultivation. It has the potential for 3 holes. The water table is normal and is close to the river.

The village of Candendele has 1 School, 1 Health Post, and also 1 Funding, fully equipped and functional, installed by the Portuguese Company OWINI, in 2018.

The town of Cambumbo has 1 Primary School, 1 guard, 2 local technicians, 1 Reservoir, 1 Spa and 1 fountain. The need for a borehole for agriculture was identified, as the water table is normal all year round because it is close to the river.

Cuangar Sede has many funding problems. The existing funding, which dates back to 2003, works with difficulty. Defective electric pump. With the current increase in population, it has become insufficient in the face of user demand. One with a higher capacity is required. The current existing capacity comprises 3 plastic tanks and 10 thousand liters / each of which 1 does not work, is too many holes (3 - 4) and which comprises: 1 reservoir, 1 shower room, 1 fountain, 1 guard, 2 local technicians.

B. CALAI MUNICIPALITY

PHYSICAL DESCRIPTION OF CALAI MUNICIPALITY



Figure 4: Calai

The municipality of Calai, one of the nine municipalities that make up the province of Cuando Cubango, is located in the southwest of the province, is limited to the north by the municipality of Nancova, to the northeast by the municipality of Mavinga, to the east by the municipality of Dirico, to the west by the municipality of Canguar and to the south by the neighboring Republic of Namibia.

Its surface is approximately seven thousand eight hundred and sixty-five km² (7,865 km²) and 667 km from the capital of the Province, Menongue. It consists of two communes: Mavengue and Maué. The municipality's population is estimated at 20. 464 people.

DEMOGRAPHY

Table 7: Characterization of the population by commune disaggregated by gender

Nº	Commune	Men	Women	CM	CF	TOTAL
1	Comuna Sede	4.558	4.652	4.601	4,658	18.469
2	Mavengue	294	327	334	395	1.350
3	Maué	148	161	167	169	645
TOTAL		5.000	5.140	5.102	5.222	20.464

Source: Calai Municipal Administration

MINORITY ETHNIC GROUPS

At the level of the Municipality of Calai, there are a total of 388 individuals belonging to the Khoisan ethnic group, also known as Kamussequeles, as shown in the table below. They speak the language “Kung - Ekoka”, with alternative names: Hu, Xu, Xun, Xung, Qxu.

The Khoisans are people considered to be indigenous or native to Angola, are almost extinct in Angola, but have a considerable number in the Republic of Namibia.

Table 8: Statistical data of the Khoisans in the Municipality of Calai

N/O	Localidades	Sexo		Total
		M	F	
01	Calai Sede	26	45	71
02	C. Mavengue	47	66	113
03	C. Maué	90	114	204
Total Geral		163	225	388

Source: Municipal Administration

FORMER COMBATANTS AND VETERANS OF THE HOMELAND

Table 9: Statistical Data of Former Combatants, Ascendants and Widows

N/O	Designation	Male	Female	Total
01	Former Combatants	224	244	468
02	Ascendants	15	34	49
03	Widows	0	29	29
Total		239	307	546

TRADITIONAL AUTHORITIES

The traditional power structure at the level of the Municipality of Calai consists of ninety-seven (97) traditional authorities (Sobas), of which 76 are male and 21 are female and of these, 94 are waged and three (3) are non-waged.

Among the 97 stands out a Queen of Mbunzas named Sofia Za Ngunza and three (3) Regedores (aldermen) being one (1) Municipal and two (2) Communal. Below the map of the constitution by hierarchy:

Table 10: Statistical Data of the Traditional Authorities of the Municipality of Calai

N/O	Level	Male	Female	Total
01	Queen		1	1
02	Regedores	3		3
03	Traditional Authorities	73	21	94
Total		75	22	97

HEALTH SECTOR

The staff of the Municipal Health Directorate includes a total of seventy-six (76) employees, including technicians and support service workers; one (1) Section on Public Health, Inspection and Control of Endemics and one (1) Section on Human Resources and Finance.

Within the scope of the Health Services Municipalization Program, the Municipality has nine health units (9).

Table 11: Number of health posts and centers by commune

N/O	Communes	N. OF INFRASTRUCTURES PER CATEGORY	
		HEALTH CENTRE	HEALTH POST
01	Sede Municipal	Centro de Saúde Municipal	
02	Sede Municipal	Centro Materno	
03	Aldeia do Sofe		Posto de Saúde Sofe
04	Aldeia do Mapupu		Posto de Saúde Mapupu
05	Aldeia do Cafulo		Posto de Saúde Cafulo
06	Comuna do Mavengue		Posto de Saúde de Kandjimi
07	Comuna do Mavengue		Posto de Saúde Chinhengo
08	Comuna do Mavengue		Posto de Saúde do Mavengue
09	Comuna do Maué		Posto de Saúde Maué
10			Posto de Saúde do Kambundi (Malaria Plus)

Source: Municipal Health Administration Calai

Table 12: Running Programs

N/O	PROGRAMAS	Nº DE TÉCNICOS
1	NUTRIÇÃO	1
2	PAV	2
3	CATV	1

EDUCATION SECTOR

The Municipality has made significant progress, with the widening of the primary school network, allowing the insertion of many children and young people who were outside the education system.

The staff controlled by the Municipal Directorate of Education includes a total of 127 employees, of which 97 are from Primary Education, 18 from Secondary Education of the 1st Cycle and 12 from Secondary Education of the Second Cycle.

In terms of the Administrative category, there are a total of 42 Professionals, of which 22 Directors, 15 Subdirectors, 1 Administrative Director and 4 Secretaries.

In the Municipality there are currently a total of 18 Schools of permanent construction, corresponding to 71 classrooms.

Table 13: Distribution of schools in the municipality

N/O	SCHOOL NAMES	LOCATION	Nº SALAS
1	Escola do 1º Ciclo Comandante Cuenha	Sede Municipal	12 Salas
2	Escola nº 39 Comandante Dangereux	Sede Municipal	6 Salas
3	Escola nº 48, 22 de Novembro	Sede Municipal	8 Salas
4	Escola Primária Aldeia Tchindindi	Aldeia Tchindindi	2 Salas
5	Escola Primária Aldeia Sofe	Aldeia do Sofe	6 Salas
6	Escola Primária Aldeia do Swediva	Aldeia do Swediva	4 Salas
7	Escola Primária do Vanda	Aldeia do Vanda	2 Salas
8	Escola Primária do Kafulo	Aldeia do Kafulo	8 Salas
9	Escola Primária 17 de Setembro	Sede Comunal Mavengue	5 Salas
10	Escola Primária do Swediva	Aldeia do Swediva	4 Salas
11	Escola Primária do Vanda	Aldeia do Vanda	2 Salas
12	Escola Primária do Kafulo	Aldeia do Kafulo	8 Salas
13	Escola Primária 17 de Setembro	Sede Comunal Mavengue	5 Salas
14	Escola Primária Kandjimi	Aldeia do Kandjimi	4 Salas
15	Escola Primária do Kaquene	Aldeia do Kaquene	2 Salas
16	Escola Primária 11 de Novembro	Sede Comunal do Mawé	5 Salas
17	Escola Primária Cameia	Aldeia do Cameia	3 Salas
18	Escola Primária	Aldeia do Tchinhengo	2 Salas
19	Escola Primária do Lunkululu	Aldeia do Lunkululu (Mawé)	2 Salas
Total de Salas de Aulas			69 Salas

Source: Municipal Direction for Education

Table 14: Detailed data of students outside the school system

N/O	Commune	Male	Female	Total
01	Comuna Sede	257	927	1.184
02	Comuna do Mavengue	219	337	56
03	Comuna do Maué	105	214	319
Total Geral		581	1.478	2.009

CULTURAL HERITAGE

Languages spoken in the Municipality of Calai

At the Municipality level, eight (8) languages are spoken, such as: Nganguela, Cuangar, Xambiu, Dirico, Mbucusso, Camussequele, Umbundo and Quioco.

Puberty and Circumcision

During the year, a puberty and circumcision ceremony is held, the number of participants circumcised varies from 30 to 40 of both sexes. These acts are usually carried out simultaneously in the periods between May and August, taking advantage of the harvest season. The age of puberty is from 16 years old and for circumcision the age varies from 8 years onwards.

Main Churches installed in the Municipality

In the religious domain, 17 churches are registered, 13 of which are recognized by the Angolan Government and 4 are not recognized, the latter being under the control of the ICCA - "Church of the Christian Coalition of Angola".

There is an Association of Churches with their highest representatives, named: Rer: Domingos Paulino, and his deputy, Rer: Agostinho Jamba.

Table 15: Mapping of Churches and their Leaders

N/O	Denominação	Pastor/Representantes
01	Igreja Católica	Pe. Júlio Carlos Alberto
02	Igreja Cheia da Palavra de Deus (I.C.P.D.A)	Rev. João Mbango Ngunga
03	Igreja Assembleia de Deus Pentecostal	Rev. Domingos Paulino
04	União das Igrejas Evangélicas de Angola (UIEA)	Rev. Feliciano Ndelequi Tomás
05	Igreja Convenção Baptista (ICB)	Rev. Adriano Kativa Tchintango
06	Igreja Bom Deus	Evang. Severino Ndala
07	Igreja Metodista Unida	Pr. Adriano Tchindongo
08	Igreja da Fé Apostólica Missão de Berrei	Pr. Agostinho Jamba
09	Igreja Evangélica Congregacional de Angola (IECA)	Rev. Joaquim Chialo
10	Igreja Evangélica Sinodal de Angola (IESA)	Evang. José Gabriel
11	Igreja Missão Evangélica	Evang. Pedro Ndala
12	Igreja Adventista do 7º Dia	Pr. Agostinho Tchalale
13	Igreja Profética Vencedor no Mundo	Evang. Fernando Kavipui
14	Igreja de Deus	Pr. João Ndala Kassela
15	Igreja Caminho de Jesus	Pr. João Kamenhe Kazungo
16	Igreja Evangélica Internacional (IEI)	Rev. Jonas Kapanga
17	Igreja da Fé Apostólica Missão de Canana	Evang. Fernando Njavezica

Source: Municipal Administration Calai

AGRICULTURE SECTOR

Calai is highly vulnerable to climate change. The main threats are: (1) prolonged periods of drought; (2) increased variability in the rainfall regime, (3) flooding) and (4) extreme temperatures. The existing cooperatives in Calai do not work and have no support. Calai has the largest water intake in the Province. The creation of irrigation channels has been suggested.

Improved wells for Calai are not viable due to brackish water (something that can be investigated).

Calai wants a Teacher Training School - the municipality can contribute to the infrastructure. There are no teacher trainees in the municipality.

C. DIRICO MUNICIPALITY

PHYSICAL CHARACTERIZATION OF THE MUNICIPALITY OF DIRICO

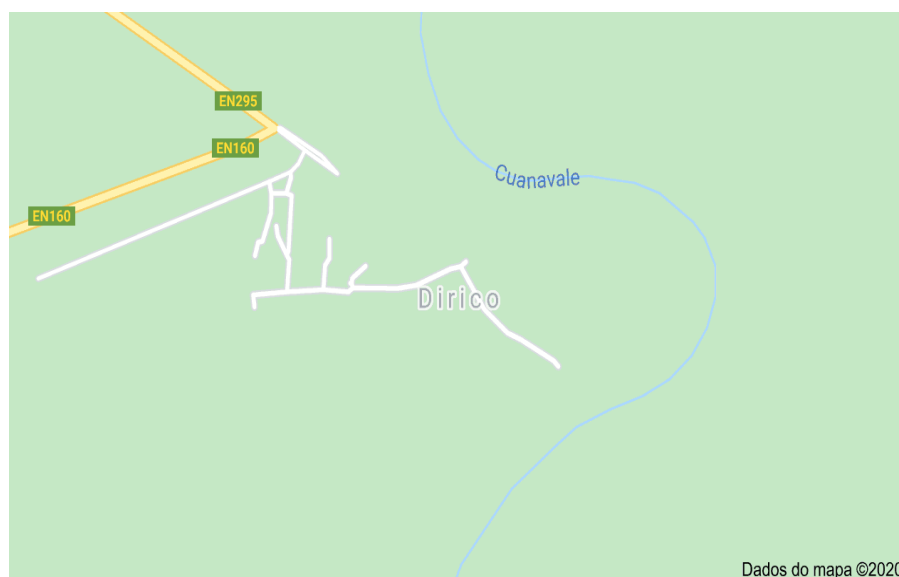


Figura 4: Dirico

Dirico is a city and municipality in the province of Cuando Cubango, in Angola. It has an area of 18,590 Km² and about 20,000 inhabitants, with a population density of 2 inhabitants/km². It is limited to the north by the municipality of Mavinga, to the east by the municipality of Rivungo, to the south by the Republic of Namibia and to the west by the municipality of Calai.

Dirico is made up of one *headquarter (HQ) community*, corresponding to the city of Dirico, and also by the communes of Xamavera and Mucusso.

The predominantly rural community in the municipality of Dirico is mostly located next to the two Cubango and Cuito rivers, constituting six main Bantu ethnolinguistic groups, namely: Diricos, Mbukushus, Sambios, Ngangelas, Ovimbundo and Tchokwe. There are also minority minority groups of non-Bantu origin, the Khoisan.

DEMOGRAPHY

Table 16: N° of inhabitants per commune and distance of HQ community

Municipality	Commune	N° Inhabitants	Distance to HQ
Dirico	Sede Dirico	6.296	
	C.Xamavera	8.967	80 Km
	C. Mucusso	5.140	120 Km
Total:		20.403	

AGRICULTURE SECTOR

Agriculture is the main activity of most rural households and is dominated by small-scale production. It is subsistence agriculture, not profitable. The harvests are low due to the low level of rain and the unstable rainfall, which makes agricultural productivity very low, making agriculture a risk.

The rainfall in the municipality is seasonal in nature as indicated by the continuity:

October / December ----- Plowing and Seeding

January / March ----- Hoeing the fields

April / May ----- Harvesting.

Millet, sorghum and corn on a small scale, are the most practiced crops.

The main difficulty lies in the dispersion of the population, which in turn hinders the organization of peasants.

Cattle raising is progressively more important, although at certain times of the year there are outbreaks of contagious bovine PPBC (Pleuro Pneumonia) (2015/2016) and scabies (2018).

Areas indicated for the project

The areas selected for the project by the local authorities are located along the Cubango and Cuito rivers, namely the locations of:

- Âmbio - has a School and Medical Center. It is about 40 km from Tuny to the West of Tuny (between Cafulo and Tuny)
- Mupupa - is 130 km north (between Tuny and Mavengue, in Calai
- Cangongo
- Mário II - located north between Tunny and Mapupa, approximately 20 km from Tuny
- Xamavera - has school, but needs rehabilitation
- Yaro - has no school. It is 10 Km from the Headquarters in a West direction
- Temuangue - there is no health post. It is after Cangongo, approximately 55 km from the headquarters, to the east of the Dirico communal headquarters.
- Bambi - before reaching Cangongo, approximately 22 - 25 km east of headquarters
- Wandumbi - has no School or Health Center. It is 120 km from the headquarters, north of the commune of Mucusso, towards Licua.

MUNICIPAL HEALTH SYSTEM

The health system faces numerous challenges and suffers from the lack of:

- Clinical Laboratory Services;
- Municipal Hospital with all services;
- Human Resources - Administrative, hospital support and protection personnel, specialized Medium technicians.

Table 17: Health system (improvement of medical and medication assistance)

Indicator	Hospital	Health Centre	Maternal and Child Centre	Health Post	TOTAL
N/O	0	1	0	4	5
Number of beds	0	23	0	30	53
Sanitary units with drinkable water	0	0	0	1	1
Units with water and energy	0	1	0	0	1
Units with fixed vaccination post	0	1	0	0	1

Constructed Units	0	1	0	4	5
Units under construction	1	0	0	0	1
Units under rehabilitation	0	1	0	0	1
Units Necessary	1	0	1	7	9
Nº of functioning ambulances	1	0	0	0	1
Nº of vehicles for logistics supply	4	0	0	0	4

EDUCATION SECTOR

Table 18: Number of Schools by Education Subsystem

Primary School		Secondary School 1 st Cycle		Secondary School 2 nd Cycle		Teacher Training School		Technical and Professional institution	
		01		01		00		00	
Number of schools									
Constructed		Under Construction		Under Rehabilitation		To be Constructud		Existing	Necessary
2		01		01		10		12	10
Number of Schools with access to School Lunch									
Initiation		Primary Schools		1 st Cycle					
1		11		00					
Number of students benefiting from School Lunch									
Initiation		Primary Schools		1 st Cycle					
1.626		4.661		00					
School Dropout rate %									
Number		%							
78									
Literacy and Education for Youth and Adults									
Nº	%	Nº	%	Nº	%	Nº	%		
		204		86		0	0		

A lack of enough teachers was reported to cover the demand of the student population, construction needs to accommodate the new Teachers to be admitted through public tenders, difficulties in access routes to some communities where schools and teachers are needed.

AGRICULTURAL AND LIVESTOCK SITUATION IN THE MUNICIPALITY**Table 19: Agriculture and Livestock in Calai**

HEADQUARTERS' COMMUNITY						
N/O	Designation	Owners	Cattle	Goat	Swine	TOTAL
01	Nº of Cattle Farmers	106	3.943	134	150	4.333
02	Nº of Farms	03 (P)				
03	Nº of Cooperatives					
04	Hectares Rangeland	26.042				
MUCUSSO COMMUNITY						
N/O	Designation	Owners	Cattle	Goat	Swine	TOTAL
01	Nº of Cattle Farmers	16	740			740
02	Nº of Farms	02 (P)				
03	Nº of Cooperatives					
04	Hectares Rangeland	28.327				
XAMAVEIRA COMMUNITY						
N/O	Designation	Owners	Cattle	Goat	Swine	TOTAL
01	Nº of Cattle Farmers	180	7.925	1.055		8.980
02	Nº of Farms	04 (P)				
03	Nº of Cooperatives					
04	Hectares Rangeland	33.672				

Table 20: Existence of Government staff in the agriculture sector in the target municipalities

	Cuangular	Calai	Dirico	Rivungo (Sede)
IDA/EDA	- Raimundo (técn méd) - Mussemunho Pedro	EDA Not present	EDA Not present	Osório (técn méd)
IDF	Nobody	Nobody	1 Fiscal	Nobody
ISV	3 técnicos - Bondo Cahila - Savati - Sede Cuangular	2 técnicos na Sede do Calai	Nobody	1 técnico básico de pecuária.
Director Municipal	Técnico Médio Agrário	Nobody	Nobody	Técnico Médio Agrário

There is a glaring lack of staff in the 4 municipalities, there are no technicians, there are no extension workers or cattle keepers.

Summary of the Characterization of the Agriculture sector in the targeted municipalities

- The predominant agricultural system, as well as the livelihoods of rural populations, are based on rainfed agriculture of the family type.
- Cultivation systems of small farmers are fragile, characterized by post-harvest losses, price volatility, forced migration.
- Communities are highly vulnerable to climate change induced extremes, variability and impacts of climate change.
- Mainly cultivated are Sorghum, Millet and Corn. There is some small-scale horticulture, which is recommended to encourage.
- Diversification of cultures is recommended with the introduction of Cassava, Macunde beans and sweet potatoes.
- The soil is generally poor and needs “correction” with dolomitic limestone.
- It is believed that fruit trees can be produced, such as: Citrus, Guava, Mango, Banana, and Papaya.
- There is a need to multiply improved seeds.
- There are many fires that contribute to the degradation of the soil, with a negative impact on the production of honey, reducing the possibility of beekeeping (chases away bees due to the absence of flowers combined with the smoke from the fires). Fires have several objectives and reasons: hunters, to facilitate hunting, small farmers to prepare the fields, drivers to improve visibility and passage, smoking accidents, children's games, among others. Firewalls (plugs) are rarely made, so that the fire often spreads beyond what was intended.
- The seeds do not arrive in time for the beginning of the planting season. The creation of seed banks is recommended. Anyone who has the possibility, buys seeds in Namibia (unverified).

IDA assistance to smallholder farmers

According to IDA sources, of a total of 65,294 smallholder families across the province, 19,377 correspond to the four target municipalities, were part of the 2019/2020 agricultural campaign, as shown in the table below.

The assistance consisted of the distribution of inputs: seeds (corn, beans, rice, millet, sorghum) and work tools (machetes, limes, axes, shovels, animal-drawn plows). The quantities and type, distributed by municipality and the beneficiaries were not provided.

According to the IDA, rainfall declined in a normal way despite the irregularities found in its distribution.

Table 21: N° of Assisted families

Municipality	N° Families
Calai	3.813
Cuangar	7.167
Dirico	2.397
Rivungo	6.000
TOTAL	19.377

Assistance to cooperatives and associations

The table below indicates that 4 cooperatives and 7 associations were assisted in the target municipalities, out of a total of 11 cooperatives, 86 Associations and 0 ECAs in the province.

Table 22: N° of assisted cooperatives and associations

Municipality	Cooperatives	Associations	ECAs
Calai	0	0	0
Cuangar	4	2	0
Dirico	0	0	0
Rivungo	0	5	0

Source: Provincial Department of IDA

Climate vulnerability

The main climatic threats that affect the agricultural sector are: prolonged periods of drought and drought, increased variability of the rain regime, floods, extreme temperatures - all have negative impacts on food security, livelihoods and the adaptability of communities vulnerable. Harvest failures induced by drought, in turn, can cause severe malnutrition in children.

The main climate-related risks include - floods, late rains, short rains, periods of prolonged drought, droughts, high temperatures.

Vulnerability to flooding, prolonged dry periods and droughts are likely to increase in frequency, which will impact agricultural production and livelihoods of farming communities.

The agricultural sector also has opportunities to mitigate climate change through initiatives related to Climate Smart Agriculture and sustainable adaptation and management practices based on agroforestry.

Lack of water capture and water use technologies.

Lack of availability and access to water induces women to walk long distances to fetch water and stops agricultural activities outside the season.

Energy subsectors, such as energy in agriculture (processing, aquaculture, irrigation), are neglected, despite their importance in this highly vulnerable sector.

Recommended measures to mitigate risks

Agriculture: Irrigation systems; Varieties of seeds tolerant to drought; Improved agricultural practices (smart agriculture); Integrated soil fertility management; Watershed management; Better access to climate information; Improve the availability of water for agricultural activities, particularly in times of drought and promotion of drought-tolerant varieties, agroforestry, integrated pest management; Improved drainage and flood control structures; Installation of agro-meteorological stations and training on the use of climate information; Dissemination of improved kitchen stoves.

Energy: Introducing electrification of villages with solar energy will allow people time to read and watch television and can improve family life. When there are families in Kimbos "Solar Home Systems" Solar systems for the home could increase productivity and income. It can also help in fighting mosquitoes and Army Worm because lamps that attract insects and kill insects using electricity, can reduce malaria and insect pests.

Small radios with solar energy are already an item that young people use to listen to music. These can be coupled with the radio programs on resilience and mitigation and climate adaptation and be another means of communication for an "Early Warning System" system. Having some solar energy will enable more people to have their phones charged so they can communicate better.

Water for the villages both for drinking, domestic consumption and to have some small gardens with irrigation. Life along the rivers is ideal because that is where people are looking for water for consumption. In order to have piped water for taps already in the villages, it will free up the strength to produce more agricultural products, so many of the usual fields cultivated with rain at the time, with mash, strawberries and corn. Some gardens can also be created with irrigation with river water.

How it could be done: With an "Irrigation Kit" worth + - 2000 USD you can buy a game (a kit) that each family can have to pump water from the river to a vegetable garden at a distance of up to 100m. The farmer can have

the Kit at home to protect it and take it to the field when he needs it, and this avoids construction costs. A kit consists of a Grundfos SQF 1-8 electro-pump with cooling sleeve, a solar panel, a switch, cables with plugs to connect the panel to the electro-pump with the respective cables and 100m of hose.

With this "irrigation kit" a family can irrigate without operating expenses. If they were watering with a motor pump, operating costs would be higher with the purchase and transport of fuel, engine oil and maintenance etc. When the family starts to have income, they can increase the volume of water pumped and buy additional solar panels. With a kit you can grow $\pm 1/4$ hectare with vegetables or $1/2$ hectare with corn, which would make families more resilient.

In order to have a more permanent system where villages already exist, thus, along the river, an improved well can be built with lined sides (*Well = Cacimba*). With 4 to 8 solar panels and an electro pump for example, a Grundfos SQF 7-4 water can be pumped up to 30m high at distances up to 2 kilometers and its capacity can be 7,000 liters per hour. Having water from a protected source will ensure water even if the river dries up. It will be clean water and will reduce the distances that women and children will travel to collect water from the river.

Animal Situation

There is a culture of animal ownership, however, on a small scale (not comparable to the existing production in other provinces, e.g. in Cunene). Almost all families are believed to have some oxen, goats and chickens. Cattle are used for animal traction and sale for the purchase of some goods, or health issues.

The practice of transhumance is not very common. Only an area of 40 km from the town of Savate (Netandau) was mentioned. From Bondo Caíla they transhumance the towns of Lokongo and Olupale. Namibian shepherds also transhumance from Namibia there.

There have been vaccination campaigns; The existence in the province of approximately: 336,305 cattle, 173,841 goats, 22,082 sheep, 89,000 pigs, 357,000 birds, 610 horses and 1,500 donkeys were inventoried, as shown in the table below.

Many chickens died from Newcastle disease this August in cross-border municipalities; There are no livestock keepers or extension agents (in case of them, one should invest in the existing ADECOS in each municipality).

Hippo meat is occasionally consumed - but hunting of Hippo and Alligator is prohibited, yet because population is growing rapidly, poaching is practiced.

Table 23: Nº of animals per Municipality

Município	Cattle	Goats	Sheep	Pigs	Birds	Horses	Donkeys
Calai	36.237	24.300	2.147	6.400	35.000	130	287
Cuangular	67.413	32.050	4.005	6.700	55.000	180	300
Dirico	27.071	18.900	1.500	6.000	25.000	100	180
Rivungo	49.022	12.600	2.438	9.000	35.000	50	123
Total:	179.743	87.850	10.090	28.100	150.000	460	890

Source: Provincial Department of ISV Menongue

Table 24: Type of pasture by municipality

Município	Mixed	Sweet
Calai		X

Cuangular		X
Dirico		X
Rivungo		X

Forestry Sector

Large-scale coal production is not felt in the coastal and river towns (probably due to the lack of a market). While in Menongue / Cuito Canavale and Cushi it is done on a large scale, which supplies coal to the Luanda market.

There is no type of forest management plan for the municipalities on the waterfront.

There is a history of devastating and uncontrolled deforestation between the years 2016 - 2018 where 116 companies were licensed to do logging. The municipalities most affected by this situation were Cuangular, Menongue, Cuito Canavale and Cushi. The species found in the province (Girassonde, Mupanda, Mucussi, Mussindi and Movala) are highly sought after in the markets of Namibia and South Africa. The exploration was mainly done by Asian companies.

The aforementioned species in principle have regenerated, but due to frequent burning the trees do not have time to grow. Such a species takes approx. 60 years to reach the desired size for exploration.

It currently has only 20 companies licensed for logging and this is controlled.

General recommendations for the ADSWAC project:

Creation of small industries that can use leftovers from other farms as raw material; Creation of nurseries in all locations; Awareness and sensitization campaigns about burning, tree felling and the importance of planting trees, and beekeeping; Coordinate with the activities of MOSAP 2, financed by the World Bank, which intends to expand Field Schools for Farmers in the same municipalities.

Government priorities

The Government of Cuando Cubango ordered the Ministry of Construction and Public Works to prioritize the rehabilitation, among others, of the road section of the EN-140 for giving access to the municipalities on the border, in the case of Cuangular, Calai, Dirico and Rivungo, in addition to serving as an important road to access countries in the SADC region, especially to Botswana, Zambia, Zimbabwe, South Africa and others, passing through Namibia.

There is also a secondary and tertiary road construction project that is estimated at over US \$ 49 million and will cover the nine municipalities that make up the province of Cuando Cubango: Calai, Cuangular, Cuchi, Cuito Canavale, Dirico, Mavinga, Menongue .

The Program of the Ministry of Construction and Public Works foresees that by 2023 Cuando Cubango will have roads in conditions, from Menongue, capital of the province, to the different points of the interior, to facilitate the movement of people and goods. The prices of the main products of the basic basket are traded exorbitantly, due to the large amount that traders pay when renting a truck to transport their goods, which is around 500 thousand kwanzas.

Intervention Municipalities of the Mosap II project and locality

Cuangular (Candendele, Kafuma, Kambumbo, Olupale e Tandawe), Nº de beneficiários/família 2.700;

Calai (Swediva, Muanaye, Mapupu, Kambundi, Massokuedi, Vimpulo e Kankoma), Nº de beneficiários/ famílias 3.429;

Dirico (Mucusso e Xamavera), Nº de beneficiários/família 2.495;

Rivungo (Ndumba, Neriquinha, São Bento e 11 de Novembro), Nº de beneficiários/família 1.470.

Other MOSAP II intervention municipalities

Mavinga (Luengue, Cutuilo, Cunjamba e Lomba Mandumba), Nº de beneficiários/família 1.869;

Nankova (Casa Branca, Liquissi, Massongue, Likolo Nguvulo, Mpalay mpalay e Liwoyo), Nº de beneficiários /família 1.471;

Villages around the headquarters of the municipalities suggested for intervention of the AC project:

Cuangar (17 de Setembro, Tchimanha I, Tchimanha II, Rey, Calova, Cangumbe, Cuito, 4 de Abril, Ponte Catava, Ngungoma, Mussany II, Mussany I, Mupondatu, Sede Savate, Novo, Tandawe, Hoji ya Henda, Mupanda, Tchicanha, Tchiheque, Tchizana I, Tchizana II, Nonga, Katava, Tandawé II, Capembe, Kaíla); Total: 27 Aldeias

Calai: Bairro Kuito, Bairro Bula, Bairro Mawe, Bairro Rainha, Bairro Vanda, Bairro Upololo, Bairro Kafulo, Bairro Ndamundamo, Bairro Kambundi, Bairro Tchindindi, Bairro Muntsintswa e Bairro Masokwedi. (Total: 12).

Dirico: Bairro Novo, Kuvango, Kuito, Machango, Ducha, Chikekete, Kasivi. (Total: 7).

Rivungo: (Mainha, Bairro real, Samatamo, Bairro 20, Lisikê, Kambala, Tchipuaku, Tchipundu, Nhungo, Bairro novo-Luiana, Muyau, Karau, Kangongo, Luiana-Bairro Paz, Mbambangando, Quinta posição, Samaria, Bairro Sakavindame, Sapalo Ngalangue, Nbambasi, Menguela, Ndemba); Total: 22 Aldeias.

Annex: List of People Consulted

Nº	Nome	Função	Município	Contacto
1	Filipe Sabino	Chefe de Departamento Provincial – GABHIC. Engº	Menongue	939377963
2	Pau lo Pereira	Director Provincial da Agricultura. Engº	Menongue	931 845 745 pvicentepereira@yahoo.com
3	Engº António Chipita	Director Executivo ACADIR (ONG)	Menongue	931 379 906 antoniochipita2012@gmail.com
4	Noel Valentino	Coordenador projecto Piscicultura do Cuangar baseado no Candedele - ACADIR		948801594 noelvalentino@outlook.com
5	Jaime Catonde	Coordenador da Agricultura de Conservação do Calai - ACADIR		925616178
6	Engº Jorge Pina	Chefe Departamento Provincial do IDA	Menongue	936483363 pina_euronaid@yahoo.com.br
7	Domingos Baptista	Chefe de Secção Técnica IDA	Menongue	923633311 nguiladomingosbaptista@gmail.com
8	Eurico Cassanga Miguel	Técnico IDA	Menongue	924029513 ecassanga1972@hotmail.com
9	Engº Benedito Tximalha Isaac	Chefe Departamento Provincial ISV	Menongue	923500010 beneditotxim@live.com.pt
10	Lucas Augusto	Chefe Departamento Provincial Vigilancia Epidemiologico Animal e Vegetal	Menongue	930620350 Lucasaugusto1968@gmail.com
11	Engº Abel Mambo	Chefe Departamento IDF	Menongue	923621457 abelmambo@hotmail.com
12	Dr. Lucas Macaio	Director Provincial de Saúde	Menongue	925 977 311
13	Engº Júlio Bravo	Director Provincial do Ambiente	Menongue	929 708 012

14	Engº Bongue Malengue	Chefe de Depto Provincial de Energia e Águas	Menongue	936 084 145 b.malengue@outlook.com
15	Dr. Júlio Bessa Sua	Excª Governador Provincial	Menongue	923325281

16		Sua Excª Vice-Governadora Provincial para Área Social	Menongue	
17	Dra. Tereza Dias	Directora do Gabinete do Governador Provincial	Menongue	923325287
18	Engº Chagas	Secretário do Governador	Menongue	928189528
19	Manuel Mariano	Assistente do governador para Área de Comunicação	Menongue	923 818 850 mmariano21858@gmail.com
20		Director Provincial Educação	Menongue	
21	Dra Isabel Ferro	Directora Provincial MASFAMU	Menongue	✓ 923965509
22		Comandante Provincial Protecção Civil	Menongue	
23		Mbankita	Menongue	
24	Dra. Cristina Luísa		Menongue	943172632 cl854042@gmail.com
25	Maria Mutango	Administradora Municipal Adjunta para Área Financeira e Orçamental	Cuanger	081 427 604 0
26	Engº Alberto Hossi	Director Municipal da Agricultura Cuanger	Cuanger	924862861
27		Director Municipal da Saúde	Cuanger	

28	Fernando Massico	Chefe de Secção da EDA - Canguar	Cuangular	928607283
29	Gomes Daniel	Director Administrativo do Hospital Municipal	Cuangular	
30	Joao Baptista Jamba	Director Municipal da Educação	Cuangular	946961560
31	Teresa Mutango	Directora Municipal de Acção Social	Cuangular	9248544665
32	José Domingos Raul	Chefe de Secção dos Serviços Técnicos	Cuangular	935190969 liulochameia@gmail.com
33	Lucas Mushongo	Administrador Adjunto para a Área Financeira e Orçamental	Calai	941754470 lekayamushongo@gmail.com
34		Director Municipal de Agricultura Calai	Calai	
35	Johnsua Paulo	Director Municipal do Gabinete Jurídico	Calai	johnsuapaulo@hotmail.com
36	Mirandala	Director Municipal da Educação	Calai	939979315
37	Teresa Mussengue	Directora do Gabintete	Calai	081 658 911 7
38	Emanuel C. Cahura	Administrador Comunal de Mavengue	Calai	923158099
39	Vasco	Comandante da Polícia	Calai	931374502 081 610
40	Wilson Tchimbende	Administrador Adjunto para o Sector Técnico	Dirico	923844758
	Júnior Dala	Administrador Adjunto para o Sector Social	Dirico	921949409
		Director Municipal de Agricultura Dirico		
Administradores Municipais nomeados				
	Amélia Cacuhó	Administradora Municipal	Cuangular	931733621

	Tiago Nunda	Administrador Municipal	Calai	923965508
	Miguel Cassela	Administrador Municipal	Dirico	923755631
	Abílio Sassungo	Administrador Municipal	Rivungo	924008550