



COLLEGE OF SOCIAL SCIENCE AND HUMANITIES

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DEPARTMENT OF HISTORY AND HERITAGE MANAGEMENT

**AN AGRO-ECOLOGICAL HISTORY OF JARDAGA JARTE DISTRICT, HORRO GUDURU
WALLAGGA ZONE, Ca. 1900-2000**

BY

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JULY, 2020

JIMMA

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**A THESIS SUBMITTED TO DEPARTMENT OF HISTORY AND HERITAGE MANAGEMENT
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Key to Transliteration System

All none English words are spelled according to both the writing and reading system in Afan Oromo and Amharic alphabate. Afan Oromo has five vowels (short and long).

Short Vowels

a

e

i

o

u

Long Vowels

aa

ee

ii

oo

uu

Length in vowels bring in meaning changes

Examples: - laga (River)

- Laagaa (Esophagus)

Sequence of more than two vowels is possible only if separated by glottal.

Example: - Re'ee (Goat).

Oromo Consonants (phonemes) are stressed (produced) by doubling similar phonemes and clustered by devoicing two consonants.

Example: *Baddaa* (highland)

There are paired consonants that are formed by two different consonants in Afan Oromo. These are ch, dh, sh, ny, Ts and ph.

Example:- sh: shaashoo (white), ch: dalaacha (brown), dh: dhadhaa (butter), ph: teepha (rope), ny: sanyii (seed) and etc.

Moreover, c, q, and x have different sounds from the English consonants.

c: as in caama (dry)

q: as in qilleensa (air)

x: as in xaxamaa (complex)

- For Amharic transliteration system, the following symbols are used.

I. Consonant, which have palatalized sound represented in the following way

ሻ=Sh. Example ;- Shaambuu

ቸ=Ch. Example ;- *kallacha*

ኸ=Ny. Example ;- *Neftenya*

II. Consonant, which Glottalized sound is represented as follows:

ጠ=Ta . Example ;- *Taqelay Gizat*

ቀ=Qa. Example;- *Qanyazmach*

ጮ=Ca Example ;- *Caar*

ጰ = ph example ;- *tepha*

Acronomy

ADLI: Agricultural Development Led Industrialization.

CSA: Central Statistical Authority.

DAP: Applied Diamond Phosphate.

E.C: Ethiopian Calendar.

EPRDF: Ethiopian Peoples Revolutionary Democratic Front.

FDRE: Federal Democratic Republic of Ethiopia.

FMD: Foot and Mouth Disease.

FTC: Farmers Training System.

IAR: Institute of Agricultural Research.

MOA: Ministry of Agriculture

MPP: Minimum Package Program

PADEP: Peasant Agricultural Development Extension Project

RHC: Relief and Rehabilitation Committee

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Abstract

Jardaga Jarte is the area where the Maccaa Oromo have lived in all over the district starting from earlier. The compound name Jardaga Jarte was derived from two sources i.e., the place name Jardaga and Jarte. Jardaga is the place located in southern direction upto Laga Farso boundary between Horro and Jardaga Jarte, Garchi River between Abe Dongoro and Jardaga Jarte. Jarte is the name of place located in northern direction upto Abbay River. The Oromo people have dominated Jardaga Jarte District since the 16th century. However, for a long time, Jardaga Jarte has continuously attracted diverse groups of peoples since the late 19th century. The demographic features of the area greatly have been changed. In the post 1960s period there was a continuous resettlement programme by different Ethiopian regimes. The settlement was mainly from Shawa, Wollo, Gojjam and Tigray. There was also a settlement in FDRE government; the settlers were from Hararge and Arsi areas. As a result of this settlement and traditional land use, the agro-ecology of Jardaga Jarte was seriously affected. This thesis examines the agro-ecological history of Jardaga Jarte by focusing on the local information. It attempts to describe changes in the demography and landscape. It also gives attention on changes in population settlement pattern, land use pattern, crops types and vegetation types. It analyzes how the area was known for its teff, maize, barley, wheat and sorghum. It also describes the lack of infrastructure: lack of transportation system, absence of hospital, veterinary medicine for their livestock and lack of market for some remote areas of the peoples living in the district from their administrative town of Alibo. Farm tools and production technique are also a part of my study in this research. Backward technology and farming techniques greatly affect the peoples and their production.

Preface

This study focuses on the agro-ecological history of Jardaga Jarte District. In this thesis, I have attempted to reconstruct the agro-ecological history of Jardaga Jarte from 1900 to 2000. The research has examined the extent to which demographic, agricultural and environmental issues are interconnected in Jardaga Jarte. It draws some lights on how the demographic pressure brought about substantial influence on the agro-ecological features of Jardaga Jarte. Since it is written from a grass root level, the researcher hopes, it will reduce some of the shortcomings that occur due to the absence of historical literature to the area.

However, the task was not easy to fulfill due to the following reasons. Firstly, oral traditions, upon which the research has highly depended, have their own shortcomings. They could be affected by informant's thoughts, general view point and remembrance. Secondly, lack of any major works (published or unpublished) on the history of Jardaga Jarte is the major hindrance to reconstruct the dynamics of rural life and rural agro-ecological changes.

Nevertheless, the researcher was able to consult some documents from various institutions. Those were Administration; Culture and Tourism; Rural Land Administration and Use; Water, Mine and Energy; Irrigation Authority; Environmental Protection and Forest Management and Agricultural Offices of Jardaga Jarte as well as Agricultural Office of Horro Guduru Wallagga Zone and National Archive Center. For the demographic aspect, data gathered from the Central Statistical Authority are very important. Different literature on Ethiopia and Wallagga's agricultural and environmental history are extremely important for comparative analysis. Thus, varieties of literature have been consulted. Above all, oral data are exceptionally significant. There are prominent informants, who have good knowledge and experiences on most of the topics discussed in this research. Their information is very useful to understand the local history from the farmers themselves. The information had been collected during my three and more times fieldwork in the study area in October, February and March 2018/19. It is on the basis of these kinds of information that I have attempted to write this research.

The thesis is divided into four chapters. The first chapter introduces the geographical and historical background of Jardaga Jarte District in general. It throws some lights on the economic, social and political features of Jardaga Jarte for extended period. Chapter two tries to describe the most important features of demographic change; since population pressure is the main drive in agro-ecological changes. The third chapter explores the history of agriculture in Jardaga Jarte. I have made great efforts to get more data on this issue than others since it is the core of my thesis. However, I encountered great methodological problems in historicizing some of the illustrations given by the informants. Most of my informants do not give specific periods to the emergence and development of some of the agricultural processes. I have tried to resolve these problems by comparing the oral information with some related written sources. Yet very deep and substantiated description work requires comprehensive close investigation. The fourth chapter tries to point out the factors that affect the expansion of agricultural production in Jardaga Jarte.

CHAPTER ONE

GEOGRAPHICAL AND HISTORICAL BACKGROUND OF JARDAGA JARTE

1.1. Geographical Background

Jardaga Jarte is located in north western part of Horro Guduru Wallagga zone of Oromia Regional State. It is one of the 11 (eleven) districts of the Horro Guduru Wallagga zone. It is bounded by Abbay Comman district to the East, Amuru and Kiramu districts to the west, Horro Bulluq and Abe Dongoro districts to the south and Eastern Gojjam zone of Amhara Regional State to the north. The district was located within $9^{\circ} 10' 53'' - 10^{\circ} 17' 03''$ N latitudes and $36^{\circ} 39' 36'' - 37^{\circ} 40' 13''$ E longitudes. The total area of the land of the District is about 103,801 km². Nowadays, the district is sub-divided into 24 *kebele* associations for administrative purposes of which three of them are urban and Alibo is the capital town, about 55 km far from the zonal capital Shambu and 369 km from Addis Ababa.¹

The relief of the district is found in the North Western part of the Ethiopian plateau that extends from the East to West and South of Abbay River. The district has moderately diversified physical landscape and it is characterized by large variation of altitude. These land features of the district consist of mountains, plateaus, hills, plains, marshlands and etc. The relief of the area ranges from the high altitude of *Tullu Okkotee* (Mount *Okkotee*) and *Tullu Caar* (Mount *Char*) within 2597-2396 meters above sea level; located in eastern and north eastern part of the district respectively.²

The principal mountain areas include tall mountain tips, long and strip slopes and rivers dissected valleys. The middle land areas have plateaus and ragged topography. The wide plain land areas are found around Abbay River, Angar River and Fincaha Valley. The altitude of the District ranges from 2597-860 masl. The average elevation of Jardaga Jarte District is about 1728.5 masl, the variety in altitude resulted differences in temperature and Agro-ecological zone. According to the Culture and Tourism Office of the District, there are more than ten (10) natural sites of attraction in the Jardaga Jarte including *Hora Dika*, *Hora Ballataa*, *Hora Roka*, *Laga Biloo*, *Holqa Kofalte*, *Holqa Godi*, *Holqa Uragee*, *Humishoo*, *Barjii*, *Tullu Gindabarat*, *Tullu Char* and *Tullu Okkote*.³

¹Asfaw Lamessa, "Analysis of Technical Efficiency of Maize Production of Small holder Farmers: The Case of Jardaga Jarte District,(M.Sc , Departement of Economics, Wollega University, 2018), p.21; Informant: Fikadu Megarsa.

²Culture and Tourism Office of Jardaga Jarte, Report, No. file. 03; Informant: Abebe Wako.

³Amsaaluu Gindaaba and Tafarra Raggasa, "Seenaa Aanaa Jardaga Jarte (1928-1983 A.L.H.)", (Alibo, 1998), p.4.



Figure 1. Mountain *Char* (*Tullu Caar*)

Source: Taken by Researcher Camera on 6 February 2019

The district shares Northwestern climatic condition. As compared to other parts of the country rainfall starts in March and ends in late October. The first three months (March, April and May) have moderate type of rain and June, July & August have a rainy season. At the beginning of September and all the month of October the amount of rain decreases.⁴ It has a tropical highland climate, which is characterized by heavy rainfall at highland areas of the district and moderate type of rainfall at its lowland areas. The amount of mean annual rainfall ranges between 1500 and 1800mm. Rainfall is very abundant in the highland areas of the district. Large parts of the Jardaga Jarte receive the high amount of rainfall. The main rain times are from May to September, with highest rainfall in June, July and August. The district receives the amount of rainfall slight showers from the end of September to the December. A relatively short dry season comes in late October and continues up to early January. The coldest months are October and December while the hottest months extend from February up to April.⁵

Jardaga Jarte has unfair distribution of temperature. At the highland areas of the district prevails medium temperature of 20°C and in western lowland region of the district varies from 22°C-26°C. Its temperature is high at the dry season (December, January and February). The temperature of this region has been increasing from year to year because of expansion of agriculture resulting in deforestation.⁶

The temperature of Jardaga Jarte is highly modified by altitude. However, the latitudinal extension of the district also illustrates that it is appeared near the equator with high temperature and rainfall. Based on

⁴Agricultural Office of Jardaga Jarte, Report, No. file.05.

⁵Agricultural Office of Jardaga Jarte, Socio-Economic Data of 1998, p.35.

⁶*Ibid.*

varied natures of the topography coupled with other environmental features of the district have resulted in variety of agro-ecological zones. According to the altitude of the Jardaga Jarte, there is a classification of land in the district into three agro-ecological zones appeared. These are highland (*Badda*), a midland (*Badda Daree*) and lowland (*Gammoojjii*). These agro-ecological zones as described by the district office of agricultural are subdivided into three divisions are listed below.

Badda: this highland area that ranges between 1876 and 2380 masl and covers 10% of the district. The amount of rainfall is estimated between 1700 and 1800 mm per year. The mean annual temperature ranges from 20°C-22°C.

Badda Daree: this covers large parts of the district (65%) with moderate climate. It is considered as a mid highland area between 1500 and 1876 masl. The annual rainfall in these areas ranges between 1500-1700 mm. It is also a zone characterized by relatively warm temperature ranging between 22°C-24°C.

Gammoojjii: this is a lowland area in the case of Jardaga Jarte between 860 and 1500 masl. It covers 25% and 26°C. It has dry weather with medium rainfall up to 1200 mm. This agro- ecological zone is mainly concentrated in and around southwestern and northern parts of the district. And it is also located at the edge of eastern, north eastern and south western parts of the district.⁷

Jardaga Jarte has different types of rivers in its many directions. The most important rivers flow from different directions of the district and drain to the Abbay River. Some dominant rivers in Jardaga Jarte are *Angar Qalla, Choggo, Jalliwan, Garchi, Sanqalle, Nadhii, Asatti, Anchach and Gabate*.⁸

The eastern border of Jardaga Jarte is separated from Abbay Comman district by Nadhii River. Angar River in western is between Jardaga Jarte and Amuru district. Laga Farsoo and Assattii Rivers in south are between Horro and Jardaga Jarte. The Garchi River separated Jarte Jardaga and Abe Dongoro through South west. In the northern Abbay River separate Jardaga Jarte from the Eastern Gojjam. *Angar Qalla, Choggo, Sanqalle, Nadhii, Asatti and Gabate* Rivers are the main tributaries of Abbay River. The existence of Abbay Brigde is used to make strong connection between Jardaga Jarte and Eastern Gojjam. Starting from June to September, *Choggo* River isolates the traders of Akkayyuu and Alibo because of high volume of water difficult to cross and absence of bridge on the river. There is traditional bridge between Akkayyuu and Alibo. Local peoples used this traditional bridge.⁹ The following picture illustrates traditional bridge of *Choggo*.

⁷*Ibid.*

⁸Office of Rural Land Administration and Use of Jardaga Jarte, Report, No. file. 05, 2001; Informant: Tuli Dereje.

⁹Informant: Debelo Tolera.



Figure 2: Photo of Choggo River

Source: Researcher Camera on 7 February 2019.

Most of the above-mentioned rivers have high potential for irrigation in the district especially in *kola* or *gammojji* area. However, land under irrigation is very little. Some high land areas of the district practiced cultivation of sugarcane, onion, carrot, red potato, cabbage, tomato, avocado, papaya, apples and banana using small stream in their field.¹⁰

Jardaga Jarte has diverse types of soil. The district is dominated by red, black and brown soil types. *Biyyo guracha* (mollisol) refers to black soil with high organic matter. It is the most fertile soil that covers most parts of the district. There are also *koticha* and *borale* on the summit under forest or newly deforested area. This soil is suitable for all crops growing even without fertilizer. *Biyyo Diima* (Nitosol) sometimes called *Dimile* or *Borale* describes red soil with low organic matter, low fertility and exposed due to soil erosion. This type of soil is common in Jardaga Jarte high land (*badda*) and *badda daree* areas. *Biyyoo cirrachaa* (sandy soil) soil occurs on the summit where there is high rate of erosion. It is exposed after the removal of red soil (sub soil) due to erosion. Clay soil also existed in the district.¹¹

In fact, Jardaga Jarte was not well exploited regarding its mineral resources. Therefore, there are only few minerals namely iron, sand stone, gold, marble and mineral water. One important resource of Jardaga Jarte is iron ore (hematite and limonite). This ore is located in Jaro Sire with elevation 2599 meter, *Laga Michaa* with elevation 2477 meter and Haro Dadhi with elevation 2498 meter. Minerals like marble are

¹⁰Irrigation Authority Office, Extension Department of Irrigation of Jardaga Jarte, Report, No. file. 03, 2008; Informant: Marga Labata.

¹¹Office of Water, Mine and Energy of Jardaga Jarte, Report, No. file. 053, 2011; Informant: Melkamu Amante.

available in the *kebeles* of Hagamsa and Dandi near Haro Lago. The sand stone found in all *kebeles*. The unemployed youth organized on it, but not well exploited for economic use.¹²

Another large important mineral resource found in Jardaga Jarte is mineral water or *hora*. The *hora* or mineral water is very important for livestock. The peoples of the district used this water for the drink of animals like cattle, donkeys, horses and mules. This mineral water is located in different parts of the district. Some mineral waters found in the district are *Hora Dika* in Jaro Sire; *Hora Ballata* in Haro Bukume; *Hora Roka* in Janjimar; *Hora Borotu* in Tullu Nono and *Hora Witar* in Darge Koticha.¹³

Jardaga Jarte has relatively good natural vegetation and a major part of it is sheltered with intensive forest. The presence of various climatic conditions contributed to the development of different types of vegetation cover. There is about 8790 hectares of natural forest. There has been a diverse ecosystem, which has supported a wonderful variety of flora from Afro-alpine to Gallery vegetation, which is a direct reflection of the relief and climatic conditions. The major forest cover is tropical Montana rainforest with an under store. The remains of tall tropical thick stem, hardwood, greater than 40 meters in height, that is broadleaf forest withground cover bushes, are found. The fundamental mountain chains of Jardaga Jarte have troubled great forest. The huge forest in the district include Mexxi forest about 400 hectares, Marma forest about 30 hectares, Goma Forest about 25 hectares, Sanja forest about 50 hectares, Gaddad and Jogga. The lowland (*Gammojji*) of the Fincaha valley and Abbay valley consist of bushes, shrubs and woodlands. In the valleys of low lying plains, there are seasonally waterlogged, marsh grasses and any of various types of tall stiff perennial grass like plants growing together in group near water.¹⁴

Some indigenous plant species in Jardaga Jarte include *Baddeessaa* (*Slvyzgium guineensis*), *Birbirii* (*Millettia ferruginea*), *Ejersa* (*olea Hoth Setteri*), *Harbuu* (*Ficus specius*), *Hoomii* (*Pygeum africanum*), and etc.¹⁵Jardaga Jarte is a house of wildlife. Just like the vegetation cover, the wildlife has been deteriorated due to the activities of human beings. Some of the major activities of men pressed on natural resources. This was the result of among others population growth, deforestation, agricultural land expansion to forestland and uncontrolled hunting of animals. There were no games and park where wildlife could be reserved. Some wild animals in Jardaga Jarte include *Bosonu* (Reedbuck), *Gadamsa*

¹²*Ibid.*

¹³Culture and Tourism Office of Jardaga Jarte ; Informants: Fekadu Leta and Dumessa Leta.

¹⁴Beyene Tolera and Zariyun Aseffa, “Wajjira Lafaa fi Eegumsa Naannoo Aanaa Jardaga Jarte, Manuwaalii:-Dangessu Bosona Ummata Gara Bosona Motummatti”, (Alibo, 2003), P.8.; Office of Environmental Forest, Climate Change Authority of Jardaga Jarte, Report, No, file.06, 2010; Informant: Abdisa Itichaa.

¹⁵Informants: Nagash Kinatti, Dagitu Nagasa and Fiqaadu Lataa

(Greater Kudu), *Gafarsa* (African Buffalo), *Jaldessa* (Anubis Baboon), *Karkarroo* (Warthog), *Kuruphee* (Red Duiker), *Sardiida* (Common Jackal) and etc.¹⁶

There are also small wildlives in forests of Jardaga Jarte; especially tree living animals are common in different parts of the district like monkeys, Apes and etc. The birds in Jardaga Jarte include *Arraagessa* (Pied Crow), *Culullee* (Swallowtailed Kite), *Cuquliisa* (Starling), *Gogorrii* (Francolin), *Hummoo* (Nubian wood pecker), *Rumicha* (Egyptian Vulture), *Sololiyaa* (Tufted Guinea fowl), *Quroo* (Eagle) etc.¹⁷ Also, there are many types of insects and snakes. Those wild lives, birds and insects were founded in dense forest of low land area of the district. The wild life like lion, buffalo, tiger and wild Dog (*Yeyyii*) were in danger because of hunting from district and from Horro district. These wild lives were hunted for personal fame or glory. A person who kills those above animals traditionally called *Ajjeesa* (hero). Animals like Reedbuck, Bushbuck, pig and greater kadu (*Gadamsa*), red duiker (*kuruphee*), warthog (*karkarroo*) were hunted for food. Animals like grivet, monkey, pig and crested porcupine are hunted to protect fields of crops like maize, barley, wheat and tef from damage. Yet, columbus monkey hunted for skin. Some other wild animals hunted for medicinal purpose and for their skin.¹⁸

Animals like buffalos, lions and leopard are on the disappearance for the reason that peoples not give protection for the animals. In the forest clearing techniques using fire and the continuous resettlement programe during the reign of Haile sellase, *Dargi* and EPRDF arise additional factors for reducing of wild animals in the district. As a result of above mentioned problems wild animals in Jardaga Jarte with the destruction of forest the living condition of wild animals becomes in danger. The highland indigenous people of the district from Jarro Sire, Dima Jokke and expansion of agricultural investment also a factor for the destruction of the low land forest in the Abbay valley and Fincaha valley. Those people used shifting cultivation in forest of the low land areas. The people of high land slashed and burn forest and cultivate maize for one year and another forest area for the next year. Even the people of high land area of the District call as *laga boqqolloo* meaning the place of maize the slashing and cutting of forests for the purpose of maize cause great forest destruction in the distrct.¹⁹

¹⁶Informants: Hinsarmuu Birruu, Barasa Negash and Shumate Galaye.

¹⁷Informants: Baroo Negash, Boonsa Fekadu and Luccee Gutema.

¹⁸Beyene Tolera and Zariyun Aseffa, P.8.; Office of Environmental Forest, Climate Change Authority of Jardaga Jarte; Informant: Abdisa Itichaa.

¹⁹*Ibid.*



Figure 4: Lowland forest of Fincaha valley

Source: Taken by Researcher Camera on 9 February, 2011

People also use methods such as fencing of areas with wood and iron, destroying wildlife caves and ditches, using traps, smoking fire versus wildlife and chasing with dogs to drive out or kill wildlife. Utilization of wildlife resource has not so far materialized. There is no attention given for conservation. There are no national parks and game reserves or sanctuaries. As a result, an income that would have been generated and the satisfaction that would have been derived from wildlife as recreational attractions and medicinal benefits as well as maintaining an ecological equilibrium are not maintained.²⁰

1.2. Historical Background

According to the local elders, the naming of Jardaga Jarte is related to two different names. These are a place name, Jardaga and Jarte. Initially the name Jardaga itself was derived from two words called *Jaarii* and *Dagaa* which is located at about 8 km distance from present day Alibo town, today's capital of the Jardaga Jarte. *Dagaa* is the name of Person. He had three sons. They were *Iluu Dagaa*, *Guuta Dagaa* and *Abbuu Dagaa*. Those three brothers celebrated *Jaarii* (cattles ceremony) under the tree every year. This tree became known as *Jaarii Dagaa*. From this the name of Jardaga was derived.²¹

The second one is the meaning of Jarte. Jarte comes from the word *Jaartii* meaning old woman. This was the time when the soldiers of *Dalle* came to Jarte. According to the local elders *Dalle* was the governor of Jardaga. He invaded Jarte. Then, when his soldiers arrived at the present day of Alibo (Jarte), all peoples escaped those *Dalle* soldiers. Only old woman who was unable to run left at home. When they had been arrived at Jarte no one is left at home except *Jaartii* (old woman). Therefore, *Dalle* soldiers said "*Biyya kana jaartii malee namni tokko illee hin jiru*" jedhan. This means "in this place there is no people except

²⁰*Ibid.*

²¹Amsaaluu Gindaba and Tafarra, p.8.

old women.” Though, Jarte derived from a word *Jaartii*. However, Jardaga and Jarte came together during the reign of Urgoo Afasaa.²² The Jardaga is located south of the district and Jarte is located north of the district from the capital of the district formerly known as *Somboo* and was renamed Alibo at the beginning of 19th century. The word Alibo derived from the famous trader of butter called Ali, who resided in the area. Ali wore a shoe called *bootti*. From this they called Alibo.²³

Jardaga Jarte has been associated with the historical processes of the *Maccaa* Oromo expansion. They were well organized under the *gadaa* system and had upper hand over their adversaries. As a result, they managed to expand their territories in different directions.²⁴ The *Maccaa* Oromo of Wallagga had able to occupy the whole land mass between the Abay River in the north and Dabus River. They were settled in the more fertile land and dense forest of area. After their settlement in the region, the *Maccaa* Oromo gradually, became sedentary agriculturalists and came to engage in crop cultivation and animal rearing.²⁵

Jardaga Jarte region is endowed with various climatic conditions and divergent land features with fertile soils that are good for different agricultural activities such as keeping cattle and food crop production that attracted the attention of the rulers of Gojjam, which brought them into protracted conflict with *Maccaa* Oromo in Horro-Guduruu in general, and Jardaga Jarte region in particular. However, the balance of power was maintained until the 19th century as the Oromo people survived for several centuries by defending their territories from rival neighboring groups. Before their incorporation of into the Ethiopian Empire, the Oromo of the region led their life by their own tradition and lived independently. This balance of power was changed and Oromo lost military supremacy that they had in previous centuries.²⁶

A number of both internal and external factors contributed for the failure of the *Maccaa* to defend themselves from external attacks and the success of the Gojjam forces over the *Maccaa*. The first and the most important factor for the conquest of the *Maccaa* Oromo by the forces of Adal Tesema was the decline of the *Gadaa* system among the *Maccaa* Oromo of the region. The decline of the *Gadaa* System affected the Oromo in all dimensions. It destroyed unity and power of the Oromo people. Under the *Gadaa* system, the Oromo male members were organized into age groups and had strong unity and strong commitment for the well being of the societies. Under the *Gadaa* organization, the Oromo forces went to the war and fought either to win or to die. Following the decline of the *Gadaa* system, it was not

²²*Ibid*; Informant: Gammachuu Lataa.

²³Informants: Asaffa Asrassee, Amade Amdurman and Lammii soorii.

²⁴Tariku Ragassa, “Agro-Ecological History of Abe Dongoro District, Horro Guduru Wallagga Zone ca. 1941-2004” (MA Thesis, History, Jimma, 2017), p. 14.

²⁵Tesema Ta’a, “Bribing the Land”: *An Appraisal of the Farming System of the Maccaa Oromo in Wallagga.*” *Northeast African Studies*, Volume 9, Number 3 (Michigan State University Press, ²⁵2002), p.103.

²⁶*Ibid*; Informant: Abdisa Iticha

uncommon to see differences and dissatisfaction among the Oromo leaders. The habit of solving conflict through peaceful means had wiped out and eroded with the *Gadaa* system.²⁷

The second factor that led to the domination by Adal Tesema was lack of unity among the *Maccaa* Oromo on the eve of the Gojjam conquest. Internal conflicts and lack of unity weakened the power of the *Maccaa* Oromo to defend themselves against the Gojjame invading force.²⁸ The Gojjam conquest of the Amuru Jarte region coincided with the period when the *Maccaa* Oromo tried to establish monarchical states following the transformation of the *gadaa* system.²⁹ The process of state formation was held through forceful subjugation. There was great competition among *Abbaa Duulaas* to be ahead of each other and to take the final authority as *Mootii*. The *Jaawwii* clans tried to establish small monarchical states. Unfortunately, they were not lucky to form a single organized state in the area. Thus, every *Abbaa Duulaa* became *Mootii* on their respective clans: Garbaa Addaamoo of Kiiramu, Odaa Jimmaa of Giddaa, Birraa Wakkee of Challiya, Kaasaa Gudduu of Limmuu, Kachir Bariii of Hindee (Eebantuu), Nugusu Dallanaa and his son Batii Nuqus of Limmuu, Bareedaa Jiloo of Dirree Guddaa of Giddaa, Abishee Garba Hurruba in Horro, Qadiidaa Wannabee in Jimmaa Raaree, Soorii Galaa in Jimmaa Gannatii, Teessoo Qannoo in Amuruu. They fought wars to consolidation with spears and shields. Thus, they were called *Abbaa Eeboo*.³⁰ Dalle Gendaa of Jardaga and Qannoo Guuta of Jarte's boundary were around Qarsaa (present day of Kattalii and Dargee).³¹

There were inter-clan wars among the *Maccaa* Oromo clans to control one another and to incorporate each other. The decline of the *gadaa* system made great confusion in western Oromia and destroyed the unity of the Oromo. Because of the absence of common and single rule under one *caffee*, individuals tried their best to defend Amuru Jarte region from invasion. There were some of the rulers of the Amuru Jarte region who strongly opposed the attempted conquest made by Adal Tesema of Gojjam as Ras Daraso marched through Guduru, Amuru, and Horro.³²

Adal Tesema used the disunity of the Oromo as opportunity to break their power by using better organization and armament compared to the internally disunited and poorly armed Oromo.³³

²⁷Jabessa Ejjeta, *Seenaa Uummata Oromo Hundee irraa Hanga Ammatti (Finfinnee, 1995)*, p. 178.

²⁸Samuel Mamo, "The Administration of Arjo (Southeastern Wallaga) 1882-1936", (MA Thesis, AAU, History, 1998), p.4.; Informant: Negasa Debelo.

²⁹Ginbaar, pp.29-30; Terrefe Wolde Tsadik.1968, "The Unification of Ethiopia (1880-1935)", *In Journal of Ethiopian Studies Vol. 6 No 1* (1968), p.73.

³⁰Alessandro Triulzi, "The Guduru Oromo and Their Neighbours in the Two Generations Before the Battle of Embabo" in *Journal of Ethiopian Studies, Vol.13, No.1.*(1975),p.58

³¹Informants: Kabbadaa Kumsaa, Sooree Afataa, Dadhitu Sagni and kebabu Amanu.

³²*Ibid.*

³³Boshera, p.24.

Furthermore, Adal Tesema tried to use false treaties in which he cheated some Oromo rulers and entered into oath with Oromo rulers to live in peace and support in time of problems. This was aimed at delaying the Oromo military preparation. Under this agreement, Adal Tesema sent soldiers and fought these Oromo rulers and captured them while they were still depending on that agreement and unprepared.³⁴

The other factors that broke the Oromo forces were the use of modern weapons by Adal Tesema that Oromo did not possess. This was because; the Oromo were totally blocked by the Christian kingdom from connection with external powers and get modern weapons. Generally, the Oromo were not lucky in getting modern weapons because of lack of access to the sea and the influence of these rival groups.³⁵

Following the conquest, Menelik army or forces that known as *neftegna* began to settle in the region. My informants added that the first governor of Jardaga Jarte was Urgo Afasaa. He was succeeded by *Qeenya* Malkinee. *Grazmatch* Ayinalem was succeeded by Warqu Gizaw in 1920s. According to Culture and Tourism Office of Jardaga Jarte, from 1935-1940s Filee Mandara controlled Jardaga Jarte. This was a time when Italy invaded and occupied Ethiopia (1936-1941). They resisted the Italian rule under the man called *Qagnazmatch* FileMandara. File Mandara's residence was in present day of Jimma Rare district but, he resisted the Italian rule in areas like Horro, Amuru, Jardaga Jarte, Abe Dongoro, Jimma Ganati, Abay Coomman and Jimma Rare.³⁶ From 1941-1974 Jardaga Jarte was governed under different administrators whose periods of office were only brief. These included the following.

-*Baranbaras* Darge Gudata from 1940s

-Gamada Bojor (c.1950-60)

-Takale Gasase (c.1960-1965)

-Abdisa Iticha (c.1965-1970)

-Alamayyoo Guuta (1974-1983)³⁷

All of these were appointed directly by the central government or by the governor of the Horro Guduru province or the Horro Guduru *Awraajjaa* (*Konyaa*) governor. However, the *Abbaa qoroos* (renamed *baalabbaat*) continued to exercise their administrative power under these governors. They were responsible for the peace and security of their area. They got the title of *axbiyaa daanyaa* (local judges).

³⁴*Ibid*; Informant: Marga Labata.

³⁵Asaffaa Abbabaa, *Minilik II fi Oromiyaa* ('Menelik II and Oromiya') (Finfinnee, 1994), pp.59-60.

³⁶Tarikuu Ragassa, p. 14; Informant: Takkala Dibabaa.

³⁷Informant: Jiregna Lamuu.

Under them, there were many *abbaa gandaas* (later renamed as *ciqaa shuum*) and *abbaa Shanes* (chiefs of at least five household). These were responsible for levies on farms and other small village activities.³⁸

Table 1: list of major *abbaa Qoroos* in the Jardaga Jarte

No	Name of Abba Qoroo	Place they ruled
1	Dhinsa Gofee	Akkayyu
2	Qannoo Guuta	Jaarte
3	Daalle Geenda	Jardaga Jarmat
4	Iticha Bongase	Jardaga Bowaa
5	Dhuguma Deeyaa	Deebbisii
6	Kumsa Bojor	Suuxee
7	Mokonnon Iticha	Digaluu

Source: Office of culture and Tourism of Jardaga Jarte, p. 7

Jardaga Jarte got the status of district in during FDRE.³⁹ Alamayo Guuta governed Jardaga Jarte upto 1991. Jardaga Jarte maintained the status of province under Horro *Awraajjaa* within the Horro Guduru *Kifla-Hagar (Kutaa* or Administrative Region). It has three towns, the capital Alibo, Haro Lago and Jarmat (derived from *jaarii maatii*/family cattle ceremony). The boundaries separating one *kebeles* from the other are largely natural demarcations such as rivers or mountain chains but also randomly designated marks. Partitioning of the *kebeles* is not balanced in relation to the area. The capital of the District, Alibo is at a logical optimum site in terms of physical centrality.⁴⁰

³⁸Informants: Gammachu Lataa and Takkala Dibabaa.

³⁹Informants: Habtamu Simee and Farade Kebede

⁴⁰*Ibid.*

CHAPTER TWO

DEMOGRAPHIC PROFILE OF JARDAGA JARTE

2.1. Introduction

Human beings and the issue of agro-ecology have been strongly related to each other. Both have influenced the performance of one another. Humans have been the predominant agent in agro-ecological changes and beneficiary on their activities. People have played the great role in the outcome of agricultural expansion and environmental changes. Agriculture and its history should be a combination of a much wider ecological history, which reconstructs human relationships with the physical environment. The methodological study of population is significantly necessary since it has decisive role in agro-ecological alteration of any environment. Agriculture and its history must be a combination of a much wider ecological history, which related human beings with the physical environment. These population affairs should be seen as the main part of broader agro-ecological studies.⁴¹

Therefore, in order to understand the agro-ecological development processes of Jardaga Jarte District, it is crucial to deal with the demographic issues. This is because of the fact that Jardaga Jarte demographic features have shown some dynamic changes since the beginning of the 20th century with increasing pressure on the agro-ecological features of the district. The district has showed continual agro-ecological transformations because of population increase.⁴²

Hence, understanding of the total size, distribution pattern and sex & age structure of the population of the district is important for an authentic analysis of its agro-ecological characteristics. Until the last decade of the 20th century, there were no accurate numbers of populations for any of the inhabited parts of the district. A national population census, which is an official counting of all the people of a certain area that enables one to make a deep demographic analysis, was absent until the first national census of 1984. After ten years, the second national census was conducted in 1994. Hence, for long time, information on Ethiopian population had been primarily approximate. A few have considered taxation figures and a number of figures to guess population size but most of them simply relied on very limited observation.⁴³

In the case of Jardaga Jarte, even partial and simple calculations such as vital registration and sample survey for some practical purposes like military membership were not also undertaken. We have no evidence, which shows that Jardaga Jarte's population was carefully counted or was based on a

⁴¹ Tesfaye Tafesse, "The Predicaments of Amhara Migrant-Settlers in East Wallaga Zone, Ethiopia" *In proceeding of the 16th International Conference of Ethiopian Studies* (Trondheim, 2009), p.857.; Agricultural Office of Jarte Jarte.

⁴² *Ibid.*

⁴³ *Ibid.*

systematic estimate. One of the factors for the neglect is the most densely populated parts of the District were not located along the frequented traveler's routes and not independent district. Besides, the historical evidence of demographic variation across Ethiopia over the 1900-1984 periods is mostly qualitative, though recent information provides baselines.⁴⁴

2.2. Historical Background of Ethnic composition in Jardaga Jarte

Historically, Jardaga Jarte is belongs to *Maccaa* Oromo. The region of *Maccaa* includes most parts of Western Shawa, Wallagga, Illubabor and the Gibe region. The term *Maccaa* represents wide and large number of Oromo population.⁴⁵ *Odaa Nabee* served them as a military base for both to launch attacks against their enemy until their separation. The separation of the *Maccaa* from *Tulama* at *Oda* Nabee resulted in the formation of separate *Gada* a assembly called *Caffee* at *Odaa* Bisil. This new site became another point of departure for the *Maccaa* further west.⁴⁶

The *Maccaa* had already dominated large territory in the southwestern Ethiopia. The process of settlement was in fact not as such easy as it is usually assumed due to the existence of thick forest and wild animals. Then the first task of the settlers was to cut through the jungle to open up the land for grazing, cultivation and for human settlement.⁴⁷

Later, an increase in the population of the *Maccaa* apparently brought their split into the *Sadacha* group (the confederacy of three) and the *Afree* group (four confederacies). The *Sadacha* continued the expansion in the Gibe region and established the five Gibe Oromo kingdoms in the first half of the nineteenth century. According to Guluma Gameda, *Maccaa* Oromo started their settlement in the Gibe region after carefully observed the suitability of the land and after decisions were made to occupy the land. Similarly, the *Afre* group also expanded to Wallagga.⁴⁸ *Afree* confederacy moved to north and western direction and occupied Iluu Abbabor and Wallagga and crossed the Abay River and moved up to Wambera, present Benishangul region and western Gojjam.⁴⁹

Dereje Hinew suggested that the first trekkers to Horro Guduru were preceded by cavalry and infantry units called *lafoo* who were equipped with spears and shields. Therefore, their movement was organized and planned and was not simply guided by the actions Bulls. The first pioneers appeared at *Odaa* Bulluq,

⁴⁴Alula Abate, "Demography, Migration and Urbanization in Modern Ethiopia" In *Economic History of Ethiopia, Vol. 1*, edited by Shiferaw Bekele (Dakar: CODESRIA, 1995), p. 277; Agricultural Office of Jardaga Jaarte.

⁴⁵Tariku Ragassa, p.12.

⁴⁶Geleta Niguse, "History of Gimbii Awurajja ca.1936-1991" (MA Thesis, Jimma, 2016), p. 6.

⁴⁷*Ibid.*

⁴⁸*Ibid*; Guluma Gameda, "Goma and Limmu, The Process of State Formation Among the Oromo in the Gibe Region c. 1750-1889", (MA Thesis, Addis Ababa University, History 1984), p.105.

⁴⁹Tesemaa, pp.27-28.

the place that later became their center. The pioneers were called the *Daggal Saaqii* (openers of the forest) and *abbaa qabiyyee* (land right holders). The *daggal saaqii* were the senior representatives of their clan and had decisive role in distribution of land among the groups being collaborated with *Caffee* and the land was in fact under communal ownership.⁵⁰

However, the *Daggal Saaqii* had no individual right to occupy land than any other members of community or relatives. The *Daggal Saaqii* had responsibility to settle the late comers by the process called *qubsiisaa*. The settlement of the Oromo according to clan's family brought about the formation of groups or families occupying a given area of land, which led to the development of hierarchy of, land right and the formation of social classes.⁵¹

After their separation from Tute Bisil, the members of the Afre branches of *Maccaa* established new *Gadaa* center at Bulluq that was located in the possession of Horroo at a distance of 9km from Shambu Town and 1km from Saqalaa town in present Horro Guduru Wallaga and the *Maccaa* clans, which left Tute Bisil and moved far away from it, established it. These are Jimma, Gidda, Amuru, Guduru, Kiiramuu, Challiya and Horroo. They were administered by *seera tuuma bulluq* (literally the law making body of *bulluq*).⁵² They were ruled under one *caffee* (Oromo assembly) and the same rules and regulations. Each clan had their own leaders and *Abbaa Gadaa* that were approved by *Caffee Bulluq*.⁵³ *Oda Bulluq* served as the center of *Maccaa* Oromo without interruption until 1830 A.D until the time when Garbaa Hurruubaa (the father of Abiishee) changed it into monarchical system.⁵⁴

The issue of the date of separation of Dega and Akkayyu from *Oda Bulluq* is not exactly identified because of lack of sources. However, it might be just after establishment of *Oda Bulluq* that the *Jaawwii* clans departed from *Oda Bulluq* by taking laws and orders. During this period the leaders began to emerge and provoke their respective clans to assure and protect their respective *qabiyyee* land right independently. However, there is various information on the decisions passed by the *Caffee councils*. Boshera Jerbo asserts that, the *gadaa* officials agreed on the further expansion and distribution according to their *Obo* and *Cora* (elder-younger) relationship. Boshera also discussed that the main reasons for their further expansion were population explosions, shortage of grazing land for large number of cattle and settlement area for the Oromo themselves.⁵⁵

⁵⁰Dereje Hinew, "The History of Oda Bulluq", (BA Thesis , AAU, History.2000), p.33.

⁵¹*Ibid.*

⁵²Ginbar Nagara Kumsa, *Seenaa Abiishee Garbaa fi Gootota Oromoo Biroo ('A Histotry of Abishe Gerba and Other Oromo Heroes')* (Adama, 2010), p.9-10.

⁵³*Ibid.*

⁵⁴*Ibid.*

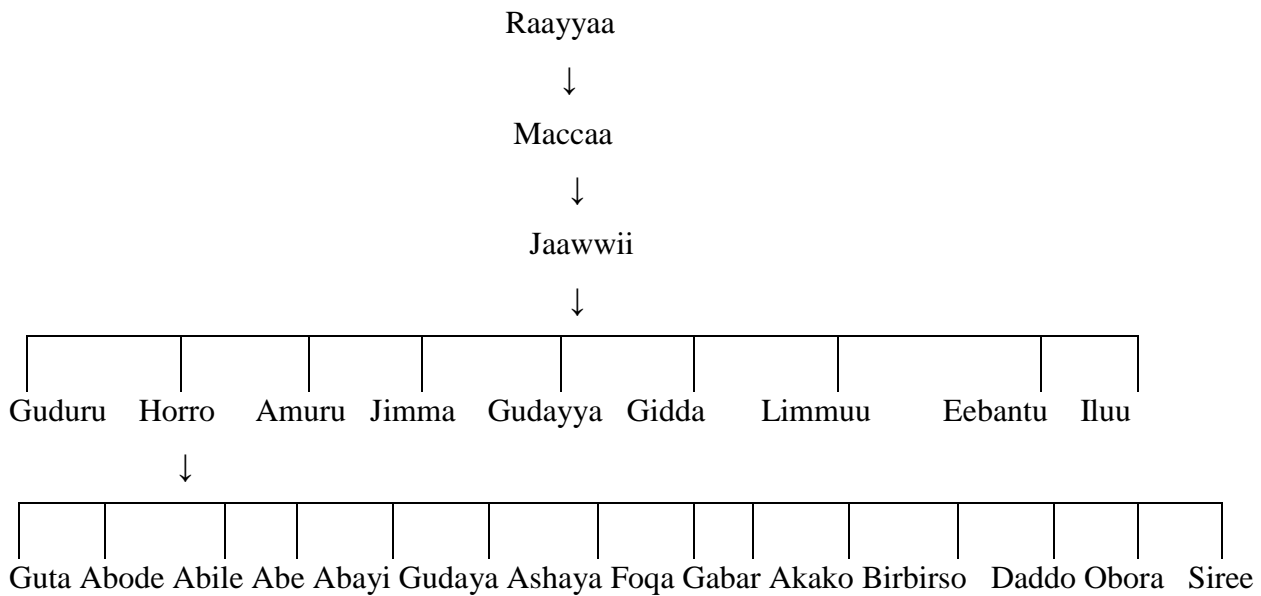
⁵⁵Boshera Jarbo, "Land Tenure System in Limmu *Wereda* Northeastern Wallaga (c.1870-1936)", (BA Thesis, Department of History, Addis Ababa University, 1988), p.7; Informant: Atinafu Dhinsa.

Beyene Biftu asserts that distribution and settlement of *Jaawwii* clans was decided by lottery method in which they slaughtered bull and divided its body parts. According to this tradition, which part of bull's body, one can get determined its share of land. In this case, the *Maccaa* called the meeting of all clans and the *angaftu* (elder) gave their blessing. On this meeting, the representatives of all clans came together, slaughtered a bull, and shared its body parts. Accordingly: Horroo (the eldest of all) got its head Guduru took its Horn, Amuru took its rib bones, Jimma took its fore limbs, Giddaa and Kiramuu took its back legs, Chaliya took its bowel, Eebantu took its backbone and Limmuu- took its tail. In this case, each clan assumed which territories would be their share. Based on this division, Guduru took the land to the east, and Horroo occupied the land between Angar and Mormor (Abay) rivers. Dega and Akkayyuu were one of the Horro clans and located south of Abbay River. They were today's inhabitants of Jardaga Jarte.

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Since the 16th century, the descendants of the *Maccaa* Oromo have inhabited in the present Jardaga Jarte District. According to informants, the genealogy of the local Oromo of Jardaga Jarte is related to the descendants of *Jaawwii Maccaa*.⁵⁷ The genealogy of local Oromo of Jardaga Jarte is described as follows:

Diagram 1: shows genealogy of *Jaawwii Maccaa*



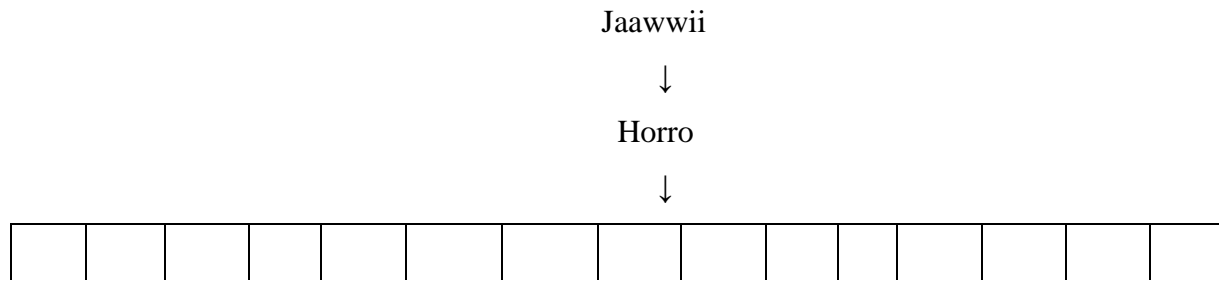
Source: Office of Culture and Tourism, p. 40

⁵⁶Beyene Biftu, "A History of the Maccaa Oromo of the Angar-Gadii Region, Ca. 1870s-1991", MA Thesis (Jimma, 2017), pp.26-27; Informant: Atinafuu Dhinsa.

⁵⁷*Ibid*; Informant: Ibsa Itichaa.

According to the Oromia Cultural and Tourism Bureau, there were fourteen (14) sons of Horro.⁵⁸

Diagram 2: shows genealogy of Jardaga Jarte clan



Guta Abode **Akayu** Abile Abe Abayi Gudaya Ashaya Foqa Gabar Akako **Dega** Birbirso Dado Obora Siree

- | | |
|---|---|
| ↓ | ↓ |
| <ol style="list-style-type: none"> 1. Burayyuu 2. Munayee 3. Maaruu 4. Warree 5. Laaloo 6. Deedde 7. Limmo | <ol style="list-style-type: none"> 1. Digaluu 2. Bowaa 3. Baantuu 4. Jaarsoo 5. Jarmat 6. Bili 7. Suuxee 8. Akaakoo 9. Daragooti |

Source: Informant: Goshuu Deressa, Seena Jardaga Jarte, p.7

2.3. Organization and Peoples Settlement of Jardaga Jarte

2.3.1. Pattern of Settlement

Settlement in Jardaga Jarte has been affected by landscape, climatic conditions and historical factors due to its closeness & strategic location and its favorable climate & natural endowment. At the beginning, the structure of the settlement pattern in Jardaga Jarte was scattered settlement but through a time the number of population increased. As a result, peoples became densely populated and they created village. However, for all places the settlement of the population was not uniform. This means that in some areas homesteads existed in group form. In other places single separated houses found with fences of natural forests surrounded them. There were small homesteads surrounded by fence of trees. The local community tended to choose mainly hillside or adjacent to hillside settlement. In post of small indigenous imperial

⁵⁸ Office Culture and Tourism of Jardaga Jarte; Informant: Feyisa Jebessaa.

period, because of increasing population, cultivation and grazing land expanded to the extent top of mountain and in lowlands especially to the Fincaha Valley, Abbay River, Angar River and Garchi River.⁵⁹

In the mid altitude (*Badda dare*) and the high land (*Badda*) areas, peoples were highly concentrated and densely populated to some extent there is relatively closer settlement pattern in *Badda* and *Badda daree* regions of the district while the structure of settlement in *Kola* or *gammoojjii* area was scattered settlement. As the result of climatic condition and prevalence of diseases such as malaria in the low land areas of the district, there were scattered small homesteads in some areas. In other place very far apart hamlets exist. The natural endowment around *Haro Kallacha* in Akkayyuu, *Jarmat* in Jardaga, *Bowa*, *Laga Micha* and Digalu area, and the construction of Shambu-Alibo-Amuru road make the condition densely settled on the main road. The three towns of the district Jarmat, Haro Lago and Alibo were markets and centers of social-economic and administrative activities. There are also densely populated along small villages established by the settlers in the area of Jardaga Jarmat⁶⁰

2.3.2. Resettlement in Jardaga Jarte from 1960s-2007

Resettling people to less populous and moistures sufficient area has been one of the policy ideals that Ethiopian governments have introduced to manage and prevent famines. Resettlement program during Emperor Haile Sellassie were constituted after Italian invading forces had been expelled in 1941.⁶¹ The history of resettlement arrangement goes back to the mid of 1960 where various localized resettlement initiatives were promoted by government mission and non-governmental agencies.⁶²

During the Imperial regime, resettlement scheme was under taken for two major objectives. The primary intention was to rationalize land use that the government owned. It aimed at raising state revenue from the land. Secondly, it aimed at providing plots of land to the victimized northern peasantry by relocating them to southern regions as there were sever environmental problems such as drought and famine in the North Ethiopia. Long period inhabited areas of northern Ethiopia particularly the region of Tigray and some parts of southern Wollo highlands frequently faced drought, soil erosion, famine, environmental degradation, land and water scarcity, decline of soil fertility and high population pressure. Because of

⁵⁹Informants: Marga Booree and Kabbada Kumsa

⁶⁰Informants: Ibsa Iticha and Tsehaye Kebede.

⁶¹Amezenech Wolde Amlak, "Resttlement program in Ethiopia", (MA Thesis, Departement of Political Science and International Relations, Addis Ababa, 1991), p.6.

⁶²Alula Pankrust and Francoies Piguët, *Peoples Space and State Migration, Resettlement and Displacement in Ethiopia*, (Addis Ababa University, 2004), p.110.

these reasons, the people of the area were affected by the shortage of food due to the absence of rainfall in the area. Their cattle were died because of the shortage of rain fall and grazing lands.⁶³

As a result of forceful conquest of Gojjam forces, a number of peasants from Gojjam (named as *Quwaritoota* by the local Oromo) had been settled in Horro Guduru from near district through southern banks of Abbay River. Since the 1950s, peasant migrations to Horro Guduru have been for seasonal labor and share croppers working with Oromo of Horro Guduru. Yet, some of them had established permanent settlement in the region and added some ingredients to the peopling of Horro Guduru Wallagga. Once they settled in the region, they attracted their relatives from Gojjam.⁶⁴

According to informants, Asfawosen, the son of Haile Selassie ordered the Wallo peasants affected by drought and famine to settle in bare areas of Wallagga. The environmental problems forced some peoples of Wallo and Gojjam to work as tenants for the Oromo *Abbaa Lafaas* (landlords) and *Balabats* in the Jardaga Jarte. *Abbaa Lafaa* was the person who controlled the land as means of *qalad*. *Cisenya* and *Gabbar* were under the control of *Abbaa Lafaa*. He was also responsible to take person who committed a crime in to law and punish him. The first aim of taking settlers from Wallo and Gojjam to Jardaga Jarte area by *Abbaa Lafaa* was to use labor forces of tenants. *Baranbaras* Daraje Kaba the son of Kaba Moroda was the person who settled great number of the Wallo peasant settlers around Jardaga Bowa in the northeastern part of the Jardaga Jarte district for the moment. Later on, they were relocated from Jaardaga Bowa and permanently settled into the Jardaga Jarmat by a person called Iticha Rorro. Ceeka Hamato is the place where Wallo settlers particularly who had come from around Dasse permanently organized.⁶⁵

Besides using labor, the *Abbaa Lafaas* settled the new comers around the border lands of the forest to protect themselves from wild animals. The settlers protected produced crops of native Oromo *balabats* of Jardaga Jarte from destruction.⁶⁶ In Jardaga Jarte District, there was large number of Wallo peasants, who settled as tenant farmers of the local *balabats* from 1969 to 1974.⁶⁷ After five years of settlement, however the *balabats* on whose land they worked as tenants gradually increased the amount of land tax. Similar to the Gojjam peasant settlers before them, the settlers also attracted their relatives from Wallo region particularly during the droughts of the late 1960s and early 1970s. The first settlers returned to Wallo and Gojjam and motivated their relatives to resettle them in the area. Gradually, the new settlers cleared the forests of the basins for farmland and building of residence. Before that the indigenous Oromo

⁶³Tesfaye Tafese, p.857.

⁶⁴Tujuba, p.9.

⁶⁵*Ibid.*

⁶⁶*Ibid.*

⁶⁷*Ibid* ,Informants: Mulee Dhinsa and Goshuu Deressa.

had protected dense forest from destruction using only areas that had not covered by forests for long years. Nevertheless, the new settlers come from Gojjam and Wallo did not worry about the forest and began to devastate it for further farmlands. Consequently, their number in Jardaga Jarte considerably grew with short span of time.⁶⁸

The particular place called Jarra which is found in Darge Koticha *kebele* was covered with dense forests and had several of wild animals. In 1972/73 during the reign of Emperor Haile Sillase, a large number of Wallo peasants settled in Darge Koticha *Kebele* of Jardaga Jarte District. The number of households that came from Wallo region and settled in Darge Koticha *kebele* deforested the area and started farming.⁶⁹ Darge Koticha settlers invited their relatives to come and settle illegally. Economically they were better off and even accumulated huge capitals. Actually, the area they settled is not favorable for transportation. The Oromo merchants around the high land areas of Horro transported their products to Saqala market by the local transportation like donkey, one of the means of transporting crops and crop products from Jarra to the local markets of Saqala. Strong trade relation has existed in between the new settlers of Jarra and neighboring Oromo community. The settlers founded a new market center called *Gabaa Sanbataa* (Sunday market). This market area later became the origin for the foundation of Sellase town.⁷⁰

However, numerous Wallo peasants have settled in the area since 1974. After that, the Wallo peasant in the area began to expand their farmland by clearing surrounding forests for further agricultural lands.⁷¹ During the *Derg* regime, resettlement scheme under the sponsor ships of the Relief and Rehabilitation Commission (RRC) was to provide a “lasting solution” for the Ethiopian famine that highly attacked the northern regions peasantry between 1984 and 1985.⁷²

The percentage of the total number of settlers from different regions is 62.4% from Wallo, 18.3% from Shewa, 15.2% from Tigray and 4.1% from Gondar and Gojjam. The percentage of the total number of settlers moving to particular regions is 43% to Wollega, 25.1% to Ilubabor, 17.2% to Gojjam and 14.6% to Gondar and Kaffa. Accordingly, Wallo, Tigre, Gondare, Gojjame and Shewans settled in Jardaga Jarte.⁷³ Beside, the legal settlers, there are also the continuous flow of illegal settlers from Amhara starting from 1985 through the Abay River and Abe Dongoro. From the district, in southwestern, Jarro

⁶⁸Informants: Mulee Umar , Goshuu Dheressa and Asaffa Asrasse.

⁶⁹Informant: Lammi Soorii.

⁷⁰*Ibid.*

⁷¹Informants: Gammachuu Lata and Hinkoshee Yadata

⁷²John Clarke, *Resettlement And Rehabilitation: Ethiopias Campaign Against Famine* (London, 1984), p.24-77.

⁷³*Ibid*; Informant: Silassu Iticha.

siree *kebele* is exposed to these illegal settlers. Those illegal settlers in the district caused a problem of forest destruction. They come to the area with war weapon from their homeland.⁷⁴

2.3.3. The 2007 Resettlement in Jardaga Jarte by Oromia Regional State

The difference between the recent and the earlier resettlement programs is the fact that the recent settlers come from the same region. In Horro Guduru Wallagga, in 1999 E.C. regional government of Oromia conducted vast resettlement programs. What makes different in the 1999 E.C. resettlement from the pervious was the settlers came only from Oromia Regional State⁷⁵. The major resettlement programs that have been carried in the lowlands of Jardaga Jarte around the place known as Daandii. The settlers came from three different zones of Oromia: Arsi, Eastern Hararghe and northern Shewa zone. The major push factor for resettlement was over population. For instance, in Harar the tradition of having more than three wives and many children contributed to dramatic increase of the number of populations and the shortage of agricultural lands. It is said that one Harar household has about twelve to fifteen children. The increase of the number of people contributed to the landlessness or the scarcity of the farm lands.⁷⁶

Dandi settlers came from districts of Badano, Girawa, Salale and Kurfa Calle. The recent settlers of Dandi settled over 1200 hect(one thousand two hundred hectares) of land that was formerly covered with desert tree and grasses. The settlers established the new kebeles called Abdi Dandi and Ifa Gudina. Ifa Gudina was resettlement station resettled by 400 (four hundred ninety-six) houses holds and Abdi Dandi by 396 (three hundred ninety-six) houses holds. Additionally, settlers came from Jardaga Jarte and Horro Districts of Horro Guduru Wallagga Zone and were settled in Dandi resettlement sites. The numbers of the settlers from Jardaga Jarte and Horro districts were estimated to be 300 (three hundred) house holds. However, many of them returned to their home after they had got money from Oromia DPPC World Food Program. The Word Food Program has continued helping the settlers still 2018 for fourth round.⁷⁷

Additionally, the settlers recieving different commodities such as wheat, oil and *boloqqee diimaa* for 5th round from the time of their settlement. Even though, the reports of the area encouraged the achievement of food security the reality of Dandi settlers shows that they have still not survived food security. The new settlers can also attract their relatives from Harar, Arsi and north Showa and they began to illegally control a land here after they stayed for one year in the area. During the resettlement, the government

⁷⁴ Informants: Daadee Hulluf and Hinsarmuu Birruu.

⁷⁵ *Ibid.*

⁷⁶ Informants: Shumate Galaye and Hinsarmuu Birruu.

⁷⁷ *Ibid.*

took one hectare of land for one household but gradually the settlers expanded their farmland by deforesting desert trees and grasses for further farmlands and planted different types of vegetables.⁷⁸

The areas of settlement were designed based on the origin of settlers. Accordingly, the Muslim Arsi settled with the Muslim of Harar and the Protestants settled with the Showan Protestants of Salale settlers in Dandi resettlement sites. In two *kebeles* Ifa Gudina and Abdi Dandi three different religion centers namely Protestant church, Orthodox Church and Mosque were established for the new settlers.⁷⁹

The new settlers of Dandi have their own cultures and their culture cannot be assimilated to the neighbouring Oromo communities of the area. The Harar use *Guza* as the helping association. During *Guza* the food which prepared for the participants was *chatt* and boiled coffee while the Salale settlers prepare *Farsoo* (local bear). Before resettlement in Abdi Dandi and Ifa Gudina the neighboring communities did not value *chatt* production. But here after resettlement, the Oromo of the high land areas produce cash crop and the Harar settlers bought to use during *Guza*. *Chatt* is the major local food prepared for *Guza* during farming, weeding and harvesting of crops among the Harar settlers. It is largely produced in the high land areas. *Chatt* made strong trade relationship among the Muslim Harar settlers with neighboring Oromo community of Jarte areas.⁸⁰

The crops produced in Dandi area sesame, sorghum, maize, *teff* and peas. The major animals reared by the new settlers are cow, goat, donkey and hens. Nevertheless, the settlers have sustained the food security the regional government of Oromia continued supporting the illegal settler that joined them from time to time. The local landless Oromo settlers from Jardaga Jarte and Horro district returned to their birth place because they could not adapt the hard climatic condition of the that desert.⁸¹

2.4. The Growth of Population in Jardaga Jarte

The population history of the Jardaga Jarte has shown dynamic changes. It has not been the same or remained constant. During the first part of Oromo settlement at the time when the people of the area got their essential provisions mostly from their livestock resources, the number of people must not have been very great. Nevertheless, as time went on the number of people living in the district kept on increasing exponentially. Rise of population was attributed to the effect of escalating crop production with much improved and increased food supply. Before the 1950s, the population augmentation had perhaps not

⁷⁸*Ibid.*

⁷⁹*Ibid.*

⁸⁰Informants: Amante Sagni and Daggituu Negaasa.

⁸¹Informants: Olaana Dhinsa and Abdisa kumsa.

been active or even stricted. The natural resources of the district were not exhausted. More than 50 percent of its land was covered by dense forest in which wild life freely existed in the area.⁸²

Elders related the rising of population of Jardaga Jarte mainly the Derg resettlement program of 1985. They point out a number of factors that attributed for the radical changes of population pattern. The acceleration of population growth in this period was result of a number of factors such as the immigration of people from different parts of Ethiopia mainly from Amhara to the district. The environment of the indegiounes Oromo people has been affected by new settlers' religious and political systems. They abandoned their indigenous tradition of maintaining natural resources and become the sedentary agriculturalists. The expansion of cultivation and the improvement of health care services contributed for the increasing of the fertility rates even though the numerical evidences were not available. The qualitative information indicates cumulative impacts of all causes for the increment of the population of Jardaga Jarte.⁸³

My informants claim that there were many factors that affected Jardaga Jarte's population. This period was happened at the beginning of the tweententh century. Population levels were subjected to sustained episodic crises, mainly diseases, which periodically checked population growth. Many diseases erupted in the area. For example, at the upto the end of 20th century the disease locally called *Golfaa* (typhus) truck across the area. It was one of the most serious scourges remembered by local people. Combined with occasional outbreaks of fatal tropical diseases the epidemic caused high mortality so that a great part of the district was left in circumstances of despair for generations. Effects of contagious or endemic disease such as typhus, cholera, gonorrhoea, measles/chicken pox, asthma, tuberculosis, dry cough, gastric, skin diseases, goiter, eye diseases like trachoma and others were also devastating. The highest mortality attacked the most vulnerable populations i.e. infants, young children and older women whose deaths would not have affected a momentary gap in fertility, though morbidity in childbearing women might conceivably have slowed fertility.⁸⁴

Also, the disease called *ya nafaas bashitaa* (disease of the wind, also popularly known in Oromo areas as *dhukkuba qilleensaa* which means air disease) was affected a people. The powerful wave of this disease caused widespread deaths from the disease itself and often from the secondary bacillic infection as the disease debilitated even those who recovered from the influenza itself. In due course, it brought a dip in population and slow growth.⁸⁵

⁸²Agricultural office; Informant: File Terafa.

⁸³Till Steel Macher, "The Institutional Sphere Coffee Forest Management in Ethiopia:Local level Findings From Kafa Zone", *International Journal of Social of Forestry Volume 2 No 4* (Addis Ababa,2009),p.15; Informant: Fufaa Guddata

⁸⁴Deresu Debu, p.35; Informant: Fufaa Guddata.

⁸⁵Informant:Hinkossa Negasa.

Also, social controls over the organization, associated with marriage or wedding, fertility and etc affected the population growth. Additionally, the settlement ways of population were shaped by social and cultural reasons like views and ways of life as well as social and political situation besides genetic factors. According to the oral tradition, late age marriage (at least thirties for male and twenties for female) and childbearing years or gap of year played great role in the population growth. This means moderation and unlimited breast-feeding keeping up fertility and widened child spacing. Every part of these cases prepared population increase secure and unhurried collective progression.⁸⁶

According to my informants, starting from the 1940s and 1950s it seems that there was general population increase. However, the numerical evidence is not fully available for the assessment of the historical demography of Jardaga Jarte. Until the 1984 national census there was no reliable information or data about the population of this district. During this national census Jardaga Jarte was not recognized as a district. It ruled under the former Amuru Jarte district. Also, the same is true with 1994 national census. Thus, because of the lack of stastical data, it is difficult to determine the population size of Jardaga Jarte until the census of 2007 except socio-economic data of the district in 1990s.⁸⁷

According to socio-economic profile, at about 1991 E.C., the population of the Amuru Jarte district was estimated to be 84, 300 of which 41,342 males and 42,958 were female. Hence, before 1994 E.C. Amuru and Jarte was one district ruled under Eastern Wollega zone.⁸⁸ After the Jardaga Jarte district split from Amuru Jarte district in 1994 E.C., another socio-economic profile was involved. According to this socio-economic profile, the total population of the Jardaga Jarte was male 21,788, female 22,676 and toally 44,464.⁸⁹

Next to this in 1999E.C. (2007 G.C.) national population census was carriedout. According to this national census population of the Jardaga Jarte explained as follows:

Table 3: Population by urban-rural residence and sex: 2007 (1999 E.C.)

No	Urban		Rural		Urban +Rural	
	Male	Female	Male	Female	Male	Female
1	2,401	2,356	22,074	22,112	24,475	24,468
Total	4,757		44,186		48,943	

Source: 2007 Census of Oromiya, p.13.

⁸⁶ Informant: Kasahun Abarra and Getachew Negash.

⁸⁷ *Ibid.*

⁸⁸ Agricultural Office of Jardaga Jarte, Socio-Economic profile of 1991 E.C.

⁸⁹ Jardaga Jarte Agricultural Office Socio-Economic Profile of 1996 E.C.

Table 4: Population of Alibo town of 2007 by sex

No	Male	2,401
1	Female	2,356
2	Total	4,757

Source: 2007 census of Oromiya, p.25.

Table 5: population of Jardaga Jarte by Religion and Sex: 2007

No	sex	Orthodox	Protestant	Catholic	Traditional	Other	Total
1	Male	10,323	7,467	13	2,838	379	24,475
2	Female	9,483	8,286	12	2,767	319	24,468
3	Total	19,806	15,753	25	5,605	698	48,943

Source: 2007 census of Oromiya, p.368.

Next to 1999 E.C census, 2000 E.C socio-economic profile of the district was carried out. This socio-economic profile put the total number of population as follows:

Table 6: 2000 E.C. socio-economic profile Results.

No		Rural population	Urban population	Total
1	Male	28,031	6,345	34,376
2	Female	22,290	10,909	33,199
	Total	56,321	17,254	73,575

Source: Agricultural Office of Jardaga Jarte Socio-Economic profile of 2000 E.C.

This census of socio-economic data was carried out after national census was carried out in 1999 E.C/ 2007 G.C.

2.5. Growth of Urbanization in the Jardaga Jarte

In Jardaga Jarte district *gabaa*/market grown into urbanization through gradual process of change. *Gabaa*/market of *Daga* which held on Thursday set up on the area now Alibo town. However, the name of *Gabaa Daga* was changed into Alibo.⁹⁰

⁹⁰Informants: Waqooyaa Lammii and Kabbadaa Kumsaa.



Figure 5: photo of Alibo town

Source: Taken by researcher camera on October 23, 2019 G.C.

Also, through the northern direction of Alibo another market called Jardaga market was founded. Jardaga market founders in 1909 were *balabat Fitwarari* Moroda Dale and *Grazmach* Tagagne Wube. Before 1954, Jardaga market was held in Friday. It was in this year that the day of Jardaga changed from Friday to Saturday. The reason for the change was Friday is considered as fasting day. *Baranbras* Daraje Kabaa Moroda changed it to Saturday. The settlers of Qiltuu Chekaa more expanded Jardaga town. It was developed in to municipal town. It contributed to for the development of Jardaga and in town, there are Amharic speaking settlers.⁹¹

⁹¹ *Ibid.*

The construction of Shambu-Alibo-Amuru road contributed for the development of this town as well as the district from south to north mainly facilitated the growth and attracted many people. Also, as a result of resettlement in Jardaga Jarte district different towns were founded by the settlers and indigenous Oromo people of the area. Qilxuu Booruu town was the new town, founded as a result of resettlement in Jardaga Jarmat. The founders of the town were the Wollo settlers that settled in the area during the *Derg* government. This small town is dominated by the settlers and some few Oromo people in the town.⁹²

Another town that has founded as a result of resettlement in Jardaga Jarte district was Chekaa Hamato town. This town was founded to the north of Jardaga town and south of Qilxuu Boru town in Harbu Nagaso. In Darge Koticha *Kebele*, Sillase town was the new established town at Jarra. Sillase town is dominated by the settlers of Darge koticha *kebele*. This newly established town was founded in the border between the Wallo settles and indigenous Oromo people that are living in the area. The major inhabitants of Cheka Hamato town are the Oromo people. The new settlers in Qilxuu Boru *kebele* also built houses in Cheka Hamato. Moreover, Habo town was founded earlier than Ceka Hamato and Qilxuu Boru towns.⁹³

The Wollo settlers in Deban Jardaga Bowa, Janjimmar, Sombo Chaffee and Haro Dadhi established their market center on Sunday at place called Haro Lago. Also, Janjimmar became a small town after resettlement was carried out in Daandii and Ifa Gudina *Kebele* in 1999. Akkayyuu town is called *Gabaa Roobii* as its market held on Wednesday weekly. Therefore, from its market the name was derived. *Gabaa Roobii* town is said to have emerged during the Italian occupation related to Italian army station just at present *Gabaa Roobii*. Before Italian times, the present day area was covered with forest and grassland. Since the Italian period, some people began to settle around Xombee near to the *Gabaa Roobii*. However, the exact date when it was established as town is unknown. According to some oral informants, Italians established school 1km far from *Gabaa Roobii* and healthy center at place called Xonbee 6km far from *Gabaa Roobii*. However, the growth of *Gabaa Roobii* is remained stagnant. There is no transportation and other facilities due to lack of government attention to that area.⁹⁴

⁹²Informants: Katamaa Fayyeeraa, Silassuu Itichaa and Hinkooshee Yadataa.

⁹³*Ibid.*

⁹⁴Informants: Adunya Amante, Atinafu Dhinsa and Waqoyya Dhaba.

CHAPTER THREE

Agricultural History of Jardaga Jarte

3.1. Theories of Agro-ecology

Agroecology is the study of ecological processes applied to agricultural production system. It also studies about the relation of agricultural crops and environment. As quoted in Nagasa Bane thesis, Altieri defined agro-ecology as “application of ecological system of agriculture”.⁹⁵ Wezel et al concluded it as a scientific discipline that questions the widespread agronomic model based on the complete use of external inputs, the leading ecological model that separates the production of biodiversity from the production of food. In this way motivated an extra duty for farmers to give the impression of being at the land and surroundings.⁹⁶

Based on classical model of population growth theory, Malthus’ Theory of Population stated as: “The power of population is indefinitely greater than the power in the earth to produce substance for man. Population when an unchecked increase in geometrical ratio substance increases only in an arithmetical ratio.... This implies as a strong and constantly operating check on population from subsistence”.⁹⁷

This shows that people could merely develop by captivating additional land in to cultivation which assumes that the most fertile land had been used at the beginning. Its productiveness would be having reduced in time. The supplementary price of production rises as the fertility of the land diminishes. Therefore, the result caused on environment implies ecological harms.

Contrary to the above theory, Boserup’s Theory of Agrarian Change stated as;

Population augmentation as external factors would contribute to technological progress. According to this theory, technological transformation is classified into three. These are the way of production, land usage pattern change and improvement of farming tools. Despite the consensus on the close ties between the natural factors and ecological changes, it is essential to see at technological factors and development leaning policies. As population size increases, the acceptance of more intensive system of land use, combined with eventual change in the method of farming and the use of improved tools become important. This theory states that in the end, total production function will always shift upward because of population pressure even though, in the

⁹⁵Nagasa Bane, “Assessment of Agro-ecology and Management Practices Effect on Crop Water Productivity of major crops at Dapo watershed, East Wollega Zone, Oromia Regional State”, (MSc Thesis , Biology and Environmental Science, Ambo University, 2013), p.5.

⁹⁶Tamam Adam, “An Agro-Ecological History of Bakko Tibbee District 1941-1991”, (MA Thesis, Department of History, Jimma, 2015), p.9

⁹⁷Paul Ekines, Economic Growth and Environmental Sustainability: The Prospects for Green Growth (London and New York, 1999), p. 23.

*short run, there may be diminishing return to labor. Boserup indentified succession of increasingly intensive system of land use in primitive agriculture and related this with accelerating population growth.*⁹⁸

This investigation with other associated harms needed an accepting of both the broader historical patterns of ecological changes and local exchanges between the environment and society. In another words, understanding of the interrelationships between ecology and society involves various interrelated approaches. Initially, the reconstruction of ecological changes and environmental problems in historical outlooks is important.

3. 2. Natural Potential of Agricultural Production

According to my informants all the land of the district was suitable for rainfed agriculture except few mountains and valley areas. The people also cultivate with irrigation due to endowment with numerous rivers.⁹⁹ Existence of different agro-ecological zones has enabled the district to produce different crops according to their adaptability. The three Agro-ecological zones of Jardaga Jarte are suitable for crop production, but the type of crops produced in *badda* (high land), *badda dare* (mid high land) and *Gammojjii* (low land) was different because of climatic need of the crops, different crops need different temperature and rainfall. Some lowland crops like maize can be observed in highlands where the altitude is not very high and some highland grains like *eragrostis teff* can be found in lowlands.¹⁰⁰

For a long time in the past, crop production was largely exercised in the mid-highland areas (*badda-daree*) which comprised most of the district agricultural land. The climate in this zone has been extremely suitable for agriculture. Its warm temperature and plentiful rainfall have been largely sufficient and favorable for many types of crops grown in the district. Most of the cereals as well as oil seeds, pulses and cash crops were produced in this zone. There could be at least two growing seasons per year under rain fed agriculture. The *baddaa* ecological zone, on the other hand, has been relatively good for settlements owing to the hospitable weather condition. This area has been suitable for a variety of highland grains, pulses and *ensete ventricosum*. Some parts of the highland were in the distant past largely covered by forest. The soil under this forest coverage area was very fertile, black in color and had good water retention capacity to produce large surpluses.¹⁰¹

The confines of mountains over looking the river valleys and hill tops yielded abundant highland products. However, farming has also been practiced in the mountain foothills and in the lower valley at

⁹⁸Tamam Adam, p.10.

⁹⁹ Informant: Fikadu Gemada.

¹⁰⁰ *Ibid.*

¹⁰¹Tamam Adam, "An Agro-Ecological History of Bakko Tibbee District 1941-1991", (MA Thesis, Department of History, Jimma, 2015), pp. 38-39.

elevations below 1500masl, which are blessed with fertile soil and abundant in water. Flat farming areas or river banks are usually more fertile than other surrounding lands. This can be attributed to the minerals and soils, which the rivers bring to these lands during the rainy season when they are flooded¹⁰²

Nevertheless, Jardaga Jarte lowlands have not been fully suitable for some rain fed crops due to the scanty nature of the rainfall. In some areas of the lowlands, in response to the variability of rainfall, farmers have shifted to short-cycle drought resistant special varieties of crops, more reliable when crops have failed due to drought, as alternative to long maturing crops. The lands, which have recently been becoming attractive for agricultural resources are wetlands. The sedge *cyperus latifolius*, known locally as *caffee* dominated all of the wetlands. As reservoirs of moisture during dry depression periods, many used these wetlands in the past, albeit on a small, informal scale. Some of the small valley head wetlands or the edges of larger wetland were drained for dry season (*bonee*) cultivation that provided an important hungry season crop of maize before the main upslope harvest was available. Indeed, wetland cultivation has been seen as a contributor to the search for food security after poor harvests.¹⁰³

3. 3. Types of Crops

3.3.1. Cereals Crops

A. *Eragrostis Teff*: is believed to be domesticated in Ethiopia some millennia ago and is endemic to Ethiopia. The abundance of several species of *Eragrostis teff* in Ethiopia and the presence of wider genetic diversity for *teff* in Ethiopia than other parts of the world implies that *teff* was originated and domesticated in Ethiopia first. The exact date and location of domestication of teff is unknown. Europeans have known *Teff* through the Portuguese in the 16th century. *Teff* is grown in almost all regions of the country. It is extensively grown between altitudes of 1700 and 2200meters above sea level. It has mostly been cultivated on fertile soil. In Jardaga Jarte district, teff is cultivated under diverse agro-climatic conditions.¹⁰⁴

There are several types of *teff* such as white, mixed, red and *saffii* (for a short season). The favorite variety is *white teff*. The reason for its popularity was its high cash value. The price of *teff* has been of course usually higher than maize, wheat and barley. Some farmers in the rural areas prefer to sale *teff* due to its better price. Yet, the majorities sell *teff* only in case of financial crisis. The other types grown on small areas and were preferred for their deliciousness and early maturity.¹⁰⁵

¹⁰²*Ibid.*

¹⁰³*Ibid*, Informant: Bekele Beyene.

¹⁰⁴ Deresa Debu, p.58.

¹⁰⁵*Ibid*, Informant: Bekele Beyene.

Hence, even though precondition for preparation of land for *teff* is very difficult, the majority farmers of Jardaga Jarte largely produce *teff* for local consumption or for themselves. It is considered as the food of the elite and the common people. The peoples of the district produce *teff* for essential food *injera* (Ethiopia's distinctive thin flat sour fermented batter pancake bread), *cafaqoo*, *Cumboo* (local traditional food), forage etc. *Qixxaa* (bread prepared from *teff*) was the main staple food at other meals. It is selected more during festivals, weddings and mourning. Women used *teff* for their ceremony of *atete* and *Dhabata Giifti*, during which local drink was prepared from pure *teff* without mixing with other cereals. The farmers of Jardaga Jarte also used *teff* for feeding of their oxen to strengthen their oxen during plough. *Teff* straw has been the most eatable silage of livestock. It is also good for wood and mud wall houses.¹⁰⁶

B. Maize: is reported to have been introduced by the Portuguese from America to northern Ethiopia in 16th or 17th century. Later it spread very widely throughout southwest Ethiopia even if we do not have clear evidence for the exact date of its introduction to the area.¹⁰⁷ Even though the crop seems to have arrived as early as the 1600s, it was not until the 1980s that production took off in the country as a whole.¹⁰⁸ The high preference for *teff* (the main ingredient *injera*) has been the most common explanation to the comparatively late spread. Yet, now, maize has taken the lead in terms of quantity of cereals production in Ethiopia. Informants claim that it has showed tremendous expansion, has been extensively cultivated, has gradually taken the lead and becomes the single most important or principal crop.¹⁰⁹

Also, McCann stresses that since the late 20th century (as it has approached the status of a mono crop on many Ethiopian farms), maize has over whelmingly taken on the role of a staple crop in the diet. Out of the total cultivated 37,968 hectares of land in the Jardaga Jarte district, maize occupied 34.26 percent. The total productivity of maize during 2015/2016 production year of the district was 34.5 qt per hectare. As a grain, maize has yielded more food per unit of land and labor. Its cultivation has continued to spread from plots in broad leaf forest to highland plateau and from remote lowland villages to urban vacant lots. Maize has been mostly grown in the medium altitude or *badda daree* region with moderate heat and moisture. Lowland types have also been grown in the *gammoojjii* region.¹¹⁰

The ideal altitude for maize ranges from 1400-2000 masl. It is more productive in warm and humid summers. Maize could not be grown at very high altitude because it is susceptible to frost. It could be grown at lower altitude under irrigation. Never theless, it requires a large amount of water, about 500mm or at least 150 days' successive rain in the growing season. Sites for maize have been selected based on

¹⁰⁶ *Ibid.*

¹⁰⁷ Deresa Debu, p.58.

¹⁰⁸ Tariku Ragasa, P.33.

¹⁰⁹ James C. McCann, p. 23 ; Informants: Fikadu Megersa and Habtamu Simee.

¹¹⁰ McCann; Asfaw Lamessa, p. 1.

soil color. Upland soil is generally preferred to bottom lands to avoid waterlogging. In the past, maize was preferred to be the initial crop on newly cleared forest plots.¹¹¹ In the Jardaga Jarte District, maize, this considered being low and mid altitude crop is grown on the high altitude areas showing the change in climate. This was particular attributed to deforestation. Maize is cultivated in over 19 *kebeles* of Jardaga Jarte as it is more vulnerable to deficiency of water, sunlight and nitrogen than the indigenous relatively a drought crop.¹¹²

Maize is the chief source of food for peoples for living in the district. Maize is used for local alcohol called *farso* and *araqe*, roasted on the cob called *akahi* and dried maize was also boiled as a snack called *mullu*. Women used to grind its kernel for flour to be used in *buddeenaa* or *injeeraa* or as gruel. The consumption of maize has increased due to its cheapness in food deficit rural areas and low-income households in the urban areas. Almost all produce has been used for local consumption; in rare cases, small amounts have been sold. The stalk of maize has been used as animal feed, fuel and constructional material. The land planted to maize has been mostly first used as grazing by livestock and the remaining stovers have been collected for firewood.¹¹³

C. Barley: requires cool climatic condition and altitude above 1900 mean sea level. It is rarely produced below this elevation. Depending up on the sowing and its maturity period, barley is divided into three in the Jardaga Jarte district. These are *samareta*, *mosnoo* and *hanbude*. *Samareta* and *hanbudee* are plowed in winter season, sown in May and June, and harvested in September. Peoples of the district used these types of barley during the shortage of food at month of September and October. In some *baddaa* areas barley could be produced two times a year. This is called *Mosno*. *Mosnoo* was the dry season barley. It plowed, sown in September and harvested at the end of November and early December.¹¹⁴

Barley is produced for different purposes. Among the Oromo of Jardaga Jarte barley is important for the preparation of the well familiar food types: *injera*, *cuukkoo* (local Oromo food that is the mixture of powdered barley with butter), *farsoo* (local bear), *akaayii/qolo*, *akahi qori* (roasted and mixed with butter), *porridge*, local alcohol (*farso/tela*), *bassoo*, *shugii*. Barley production increment in the area might have a positive impact in the health and nutrition improvement of the farmers than the rest cereals. Processing of barley needs labor to use at the household or for local market; it is also a source of income generation for women. Women can process and sale different products from barley such as *farso/tela*, *bassoo* and complementary food to get income and fulfill their needs in the household.¹¹⁵

¹¹¹Informant: Asfaw Lamessa, p.1.

¹¹²Informants: Soore Afata and Yadate Negasa.

¹¹³ *Ibid.*

¹¹⁴ *Ibid.*

¹¹⁵ *Ibid.*

D. Wheat: is an important cool weather grown predominantly at the optimum altitude ranging from 1000-2300 meters above sea level. The wheat growing environment can be classified in to two major types: high land cool wet area (greater than 1500 meter, rain fed) and low altitude warm dry area (700 meter above sea level). Rainfall in the high land areas is bimodal and annual totals vary from 600 to 2000 millimeter. Durum (macaroni) wheat is produced exclusively by peasant farmers, covers about 60 percent of the total wheat area: the remaining 40 percent covered by bread wheat. Most of the wheat crops produced in Jardaga Jarte during the main rainy season, June to July. The years 1967 up to 1990 have been an important era for wheat production in the district with establishment of IAR (Institute of Agricultural Research), 1966 and other scientific wheat diversity access to the farmers. The discovery of new variety of wheat, they locally called *sanyii filatama* facilitated the expansion of wheat production.¹¹⁶

On the high land area farmers sow at the beginning of July but at *badda daree* the farmers sow at the end of July and beginning of August month. The short stick wheat (*qamadii biilaa*) yields more grain products than the long stick wheat (*Qamadii molgoo*). Wheat can need high grain fall during its planting and farming, but damaged by some day rain and cloud during harvesting. Wheat produced for different purposes: *injera*, *akayii*, bread, porridge, *tella* (local bear) and for sale.¹¹⁷

E. Finger Millet/Dagusa: African millet is originally native to Ethiopia and introduced in to India approximately 4000 years ago. It is an annual plant widely grown in the arid areas, but very adaptable to higher elevations and is grown up to 2300 meters in elevation. The cultivation of this crop is relatively easy and it has been found to be reliable under circumstances where other cereal crops would have failed due to drought or would have given negligible yield. The seed should have planted in to a well prepared seed bet, not deeper than 2-3cm. Finger millet requires a well distributed rainfall during growth, due to its extensive but shallow root system. It requires with average annual rainfall above 800-900mm.¹¹⁸

In Jardaga Jarte, farmers who live remote areas produce finger millet but the Amhara peoples of the district have good experience than the Oromo of the area. Areas around Laga Mica, Daandii, and Gaddad area were the most leading places for finger millet production. Finger millet is produced for the use of food and local drinks of *farso* and *araqe*. Finger millet is very important for the food of the oxen. It gives force and fatness for ox, even for human being. There is a *gerarsa* concerning the above use of finger millet. Also, they interconnected ways of crops they produced and they express their hardship lives with this cultural song (*geerarsa*)

¹¹⁶Tariku Ragassa, p. 36 ; Rabira Gulumma , “Agro-Ecological History of Angar and Siddan River Basin in Horro Guduru Wallaga(ca. 1941-2010)”, (MA Thesis, History, Jimma, 2010), p. 16; Informant: Bonsa Fekadu.

¹¹⁷Informants: Boonsaa Fekadu and Daggituu Abbayya

¹¹⁸Ministry of Agriculture, ”Animal and Plant Health Regulatory Directorate” *Crop Diversity Registration Issue No.15*(Addis Ababa, 2012), p.58.; E.G.Damon, *Cultivated Sorghums of Ethiopia, Experiment Station Bulletin, Imperial Ethiopian College of Agriculture and Mechanical Art* (Jimma,1962),P.6.

Afaan Oromo	English translation
<i>Yaa abba abba koo</i>	oh! My father
<i>Sittan hima aariikoo</i>	I will tell you my angryness
<i>Aariikoo hin dhumne kana</i>	this unendless my angry
<i>Moloqqoqaa boqolloo</i>	the peel of the maize
<i>Laga ciraattin bare</i>	I learnt at clearing forest
<i>Dalga galee bubbuluu</i>	I know to live with up and down
<i>Ittan beeka kormikee</i>	I know it.
<i>Namni dagussa nyaatu bifa baha jedhu</i>	a person who eats finger millet is said to become fat
<i>Akkamin bifa baha</i>	how he/she becomes fat
<i>Dagussa nyadhen bifa bahuun dadhabe</i>	I ate dagussa and could not be fat
<i>Namni waan gudda yaadu bira gaha jedhu</i>	who wishes better, can be successful
<i>Akkamin bira gaha</i>	how he/she becomes successful
<i>Waan gudda yaadeetan bira gahu dadhabe</i>	I wish a better but unsuccessful. ¹¹⁹

F. Sorghum: is reported to have been domesticated in Ethiopia over 5000 years ago. Deressa Debu avers that sorghum was probably the earliest crop, given Cushitic root of its Oromo name. It was a crop ideal for forest clearings since its root structure helps break down clods of virgin soil. It is relatively drought resistant. It could be grown where rainfall has been short and erratic but is not grown in extreme highlands. It has often followed maize or *teff* and has been grown on fields that have been thought to be unproductive since compared to other cereals; sorghum output per hectare has been considered the lowest. The largest part of the sorghum harvest has been primarily consumed at home and a small quantity might be sold. It could be used in *buddeena* and *farsoo*. The most widely grown variety has been *anciroo*, which is white colored, highly palatable and has high market value. *Hoffaa* is widely grown white-seeded. *Dooppaa* has been only grown in small amounts since it is less palatable, unless mixed with *teff* in *buddeena*. Yet, it has been advantageous for the poor since it is cheaper. Its stalk has been used for constructional material, fuel and animal feed.¹²⁰

¹¹⁹Informants: Mabire Raajii and Dofee Nagasaa

¹²⁰Deressa Debu; Informant: Tesfaye Duressa.

3.3.2. Pulses

Pulse production includes peas and beans. Pulse production in the district has no equal distribution, they vary from high land to low land area. Peas and beans are produced for preparation of *wott* cook and for the preparation of *mulluu* (boiled) during *daboo*, *daadoo* and *qaboo*.¹²¹

3.3.3. Oilseeds

Oilseeds include *nuugii* (*guzotia abyssinica*), linseed (flax), rapeseed, sunflower, safflower, sesame and fenugreek. The most important oilseeds are *nuugii* and linseed in terms of volume of output in Jardaga Jarte. *Nuug* is an indigenous crop and the major oilseed produced by the farmers. Oilseeds have mainly been sown during rainy season largely in the high lands of district around Jardaga, Jarmat, Akkayu, Sombo kumii, Haroo lagoo, Irroo, Digaluu and Jardaga Bowa neighbouring mainly for cash. The farmers of the region used *nuugii* as the source of acquisition of soil fertility and they rotate their lands with *nuugii*. The land that planted wheat or teff must be replaced by *nuugii*, because both *teff* and wheat decrease the soil fertility while *nuugii* sustains the soil fertility. *Nuugii* is the only crop that does not need chemical fertilizers. *Telba* is also produced for cash in the small amount. The production of *telba* is conducted around the infertile border areas. Most of the time the farmers of the area use *telba* as fence that means to protect farm land of its fertility. Sesame (*saliixii*) is produced in the *gammoojjii*.¹²²

3.3.4. Root, Fruits, Vegetables and other crops

These include leafy plants, grounds, cassava, enset; vegetables included potato, sweet potato, onions, garlic, carrot, cabbage, cut flowers; fruits including papaya, orange, lemon, banana, mango and sugar cane. Most of the people in high land and lowland region produce white onion (*qullubbii adii*) and red onion (*qullubbii diimaa*) for market. Garlic was purchased by the lowland people because they used as a medicine for protecting malaria disease. Garlic is very expensive in the market of Jardaga Jarte because of high consumption of the low land people in the district. During autumn (*birra*) season, a person who goes to the low land area should have to carry onion on his hand for the protection of malaria. Physician does not discover this fact but it is adapted by the people of the area.¹²³

The people of Jardaga Jarte have produced some of these crops in the gardens surrounding their houses and around the edges of their fields. Some of these crops have been security crops for the farmers. Some have been purposefully kept for consumption during periods of food shortage. Root crops like *musee/*

¹²¹Informants: Fekadu Leta, Degitu Negasa and Negash Kinatti

¹²² *Ibid.*

¹²³Informants: Bayise Fufa, Kumbe Namomsa and Fekadu Leta.

potato, *cabbage* and Oromo potatoes have compensated for gaps in the annual food calendar, particularly in the months of June through October.¹²⁴

3.3.5. Cash Crops

Important cash crops in Jardaga Jarte include sugarcane, cotton, *chat*, tobacco and different variety of garden crops like *Zinjibila* (zinger), *ogiyo* (*kororima*), farmers largely produced coffee and *zingibil*. They earn high money from the cash crops produced around their areas. Except coffee and *chat* the rest crops like *zingible*, *kororima*, *sunqo* or *abish* and *dibilal* were cultivated with the force of women.¹²⁵

3.4. Livestock Rearing and other Economic Activities

Livestock production is generally larger in the mid-high lands than in the lower areas mainly because of ecological sustainability. Among the animals reared in the region; cattle, sheep, goat, horse, mules, donkey and hens are the major ones. Of these animals, cattle constituted the highest percentages. The Oromo of the region raise very large horned cattle locally called *Bota* for oxen and *Bote* for cows. These long horns are very important raw material for the decorated *Waancaa* (local drinking cup). *Waancaa* also used as the material of measurement of tributes during the period of *Abbaa Lafaa* and the items that measured by the *Waancaa* were different cereal crops and honey. Early in the morning the Oromo of the area driven the cattle to pasture and watered once or twice per a day. During dry season the animals had to be protected from the heat and thus to be taken under large trees, usually after watered. The place locally called *bakka oolmaa horii* (literally where cattle taking rest).¹²⁶

In the month of August, they took their cattle very far distance from the home is called going *Darabaa*. While going to *Darabaa* they can select each other and go to the area by group, they have also prior prepared *Galaa* (lit. provision). The food which prepared for the people who can go *darabaa* is based on the ability and the economy of the peoples, how ever its criteria were food that would not be polluted like *injera*, bread and forage. Some prepare from powdered barely and *nug* and locally known as *Shugii* (mixed powder of barely and *nuug*). Other additional local food that prepared during *darabaa* was *Cuukkoo*. It is prepared from powdered barely and butter and stay for long time. During *darabaa* people arranged the turn with staying with their cattle. The main importance of taking cattle to *darabaa* was to get enough grass and water, to become fat, they can also largely be breeding because cattle get enough grazing and water during *darabaa*.¹²⁷

¹²⁴ *Ibid.*

¹²⁵ *Ibid.*

¹²⁶ *Ibid.*

¹²⁷ *Ibid.*

Before resettlement, the Oromo around the high lands of Horro and Jardaga Jartee high lands took their cattle to *Hora* (mineral water) every month or two month based on the availability and distances from *Hora*. Cattle were taken to *Hora* not only for feeding but also for it is believed cure medicine against parasites. The places where *Hora* found are Qurcinni in Darge koticha *kebele*, *Hora* Agul and Dika in Jaro Sire *kebele*, which found in Jardaga Jarte district. The Oromo of Jardaga Jarte districts such as Akkayu, Jarte and Jardaga have their own symbols on their cattle while going to *Hora*. These symbols used to identify the cattle during the intermixing of heads of cattle. The symbol is called *Gubaa* (literally a symbol by heated material on the body of the cattle by knife). *Guba* is like code number of the car. When cattle of Akkayu, Jarte and Jardaga mixed, they simply identify by looking the *guba* Jarte, *guba* Akkayu and *guba* Jardaga in the places of *Hora*. *Guba* also represented the symbol of clan for their cattle. Among them, *gubaa limmoo* and *gubaa munayee* were the most common.¹²⁸

In the evening, the animals had been driven to the main homestead (*qee'ee*). Some had to be tied up while the others were driven in the *dallaa*/fence. The building of *dallaa* and its rotation from one place to another was very common for every cattle owner. They rotate the corral for two different purposes; first, it was the means of preventing the ground from becoming too muddy for the safety of animals and secondly it is used to fertilize the farmland and earn more crops around the homestead (*maasii*) to be used for agriculture. Traditionally, the Oromo of the area considered their cattle as the symbol of status, the larger heads of cattle added to other factors such as wisdom and age for instance the higher status. Among the Oromo, who have owned one hundred cattle was expected to wear *Garaacha* (rumen) of the cattle after slaughtering a cow for such ritual ceremony. The tradition is locally known as *Garaacha uffate* (he wears cattle stomach). The slaughtered cow and a cultural food called *Cumboo* would be prepared with different local drinks. All neighboring and relatives invited to the ritual to eat and drink without any payment for their eating and drinking. His wife led the ceremony but not allowed to wear the rumen in the presence of her hundred. If he was able to possess two hundred, he did twice. This tradition provided the person the wealthiest person in the community.¹²⁹

The whole owner of cattle prepared a large wooden container called *Bidiru* and pouring milk and expected to swim into it besides the wearing of cattle rumen. The tradition called *Aannan daakuu* (swimming milk). The tradition of milking cows exclusively left for females. Male individuals expected to milk cow only while taking their cattle to *Hora*, where females are absent. According to tradition, each head of cattle has a name like human beings given by the owner based on their culture and physical appearances. For examples *Dimaa* for red bull, *Dimee* for red cow, *Gurra* for black bull, *Gurre* for black

¹²⁸ *Ibid.*

¹²⁹ *Ibid.*

cow, *Shasho* for white bull, *Shashe* for white cow are common names of the cattle of the Oromo of Jardaga Jarte area.¹³⁰



Figure 6: photo of Loon Horro (Horro Cattle) in Jardaga Jarte

Source: Taken by Researcher Camera on 9 February, 2019

Besides cattle raising, the Oromo of the area raised long tailed high land sheep called *Hoolaa* Horro Guduru and few goats. Both sheep and goats rose for *cash* and meat during the holiy days. According to the tradition, the Oromo of the area tied the skin of goats and sheep to the horn of their cattle locally known as *Jaarii loonii* (cattle holiyday). Horse was important animal for the Oromo of Jardaga Jarte and special care be taken than other pack animals: donkeys and mules. Traditions of peoples of the area pool their limited livestock to grazing areas at day time and turned them into the *dallaa*. Nevertheless, this was not for horses that need special care for its special services. The purpose of horses was more than other pack animals for wars, for different ceremonies like *gada*, burial and marriages. Therefore, special horses called *Sangaa Fardaa* (war horse) are not taken outside their home. They provided grain with salt grass and sometimes the shelters constructed for them. The practices were locally known as *Farda Sooruu* (feeding horses). These special horses, which are reserved for war and big ceremonies, are taken out side only for training and it took place at the end of the week. The body of the horse would be washed with soap at the end of training.¹³¹

¹³⁰ *Ibid.*

¹³¹ *Ibid.*

Jardaga Jarte is covered by very dense and ever green forests. The forests are divided into different layers; upper layer, which consists of very big trees; middle layers' big trees but less than the upper layer and lower layer that contains small trees, bushes and grasses. Traditionally the Oromo of the area have their own principles of conserving of forests. Forests are used as the home of wild animals, source of rainfall and source of income. Forests of the region were served as the source of honey. Forest honey means the honey that is produced naturally in the forests without the engaging labor of human beings. Three types of forest honey were found in the region. These are *Holqaa*, *Gophoo* and *damma Baalaa* (Honey that obtained on the leaf of dense forests). Traditionally the forest honey collected by the materials called *Faaggaa* and *Qalqalloo*. *Faaggaa* is the container of honey that contains about ten kilogram of honey whereas *Qalqalloo* is a big container of honey that contains about fifty to sixty kg of honey. *Qalqalloo* is the product from the skin of goat.¹³²

A person who engaged in such activity was called *sorobduu* and act of collecting is known as *soorobina* (literally meaning hunting bee). According to Oromo tradition, *sorobduu* was guided by a bird called *mukee*. *Muke* birds were directing individuals where forest honey was available. The main factor that involved *muke* in guiding forest honey collectors was the extraction of huge larva (*jisaa*) from forest honey that largely eaten by *muke* birds. A local drink which is made from honey is called *Dadhii* (in Amahric *tej*) and *bulbula dammaa* (in Amaharic *birz*) common in Jardaga Jarte. The mixture of honey and farsoo is called *arrabsiisaa*. They also use honey as a source of income. Therefore, Jardaga Jarte Oromo have a big tree near their residence called *muka gaaguraa* (literally meaning beehives tree).¹³³

¹³² Rabbirra Gulumma , p.13; Informant: Olkaba Furi

¹³³ *Ibid.*



Figure 7: photo of *muka gagura*

Source: Taken by Researcher Camera on 12 February, 2019

The following picture also indicates the honey produced around the home and under the home called *guurii*.



Figure 8: photo of *Guurii*

Source: Taken by Researcher Camera on 12 February, 2019

3.5. Farming Method of the Region

Traditional farming land lead to low level of production in the region. Also, the fragmentation of agricultural land and inappropriate farming techniques lead to low crop productivity. However, farmers of the region gradually developed complex farming methods and cropping patterns in response to ecological diversity. The accumulation of traditional experiences helped the farmers to propose crop and farmland, to protect soil erosion, to protect ecology and to reduce the loss of crop. This reflects the effective experiences of knowledge that built the development of agricultural system and minimizes the problem. In Jardaga Jarte district both traditional and modified methods of crop production have been involved. But, not used as equal level. The agricultural equipments were used in large quantities with the existence of iron tools and wooden tools.¹³⁴

The people of Jardaga Jarte, similar to other Oromo groups have their own farm equipments made up of iron and trees. Informants assert that throughout the period under discussion, the ox-plough farming complex has mostly been practiced in all parts of the district. For such long time, local farmers have tilled their land mainly with a plough pulled by a pair of oxen. Jardaga Jarte plough that is a kind of bended at back side/behind and straight at front has consisted of about eleven basic parts. These are the beam (*gindii*), the plow share (*maarashaa*), the sheath (*qognee*), the stilt (*hordaa*), a rope (*dhiitaa*) to tie the sheath to the beam, one flat piece of wood inserted into the sheath (*babattee* or *digarii*), a yoke (*waanjo/qambarri*), a strap (*homocii*) to tie the beam to the yoke, a piece of wood (*muka funyaan*) to keep the yoke(*Qanbarrii*) in the strap, four wooden tools (*qincirtii*) to keep the yoke on the oxen and two smaller ropes(*hudhaa*) to tie the two *qincirti* together on both sides.¹³⁵

¹³⁴*Ibid.*

¹³⁵*Ibid.*



Figure 9: Photo of Farming Tools.

Source: Ox-Plough Complex of Jardaga Jarte, Photo Taken by the Author on February 20, 2019.

The ox-plough complex worked with two oxes. This system used to make the plough is easy. As a result, this agricultural system has depended on an easy and brightly acceptable farm. It also made saving of human labour. The weight of beam (*gindii*) and yoke (*qanbarrii*) is light enough because it used to carry long distances from field to field, home and for oxen to pull easily. Its principle has permitted farmers to farm extremely according to soil property at diverse altitudes and elongated remoteness. The cultivation of a land depends on its topography.¹³⁶

¹³⁶ *Ibid.*



Figure 10: Photo of Beam (*gindii*) and Yoke (*qanbarri*).
Source: Photo Taken by the Author on February 20, 2019

Farmers have adjusted the angle of the pull to the desired plowing depth by the share and ear length, adjusting the angle between share and beam or exerting down ward pressure on the handle during plowing. In some cases, farmers might simply shorten the angle of the plow share to cut more shallowly. Farmers thus have regularly adjusted their plows for the conditions of each of their fields and whether they have been making a first pass (a shallow angle) or a seed-covering pass (deep angle). Light beam and narrow *babattee* or *digarii* have been used for first plowing after which a wider *digarii* or *babbattee* has been used for subsequent plowings for widening the furrow. Yoke design has also over time adapted to local conditions and farmers' preference. In rocky areas, wide yoke beams permit cultivation around large rocks and stumps or on slopes. Longer yokes suit the easy turning of the oxen on slopes or along stone-fenced borders. Sometimes farmers have preferred shorter yoke beams, which they argue concentrated draft power on heavy soils and yoke beams with special extrusions to protect the oxen humps.¹³⁷

Although plowing procedure and the skill of individual farmers are central to the success of the system as a whole, there might be a slight variation in the number of plowings depending on the conditions of each

¹³⁷*Ibid.*

field like soil circumstance, the slope, drainage status, prior field use, the crop to be sown and the availability of oxen. Some farmers have plowedless due to unavailability of oxen. Since cereals are smaller with fragile seed coats, they require several more plowings and heavily worked soil. Some fields for cereal crops like maize and *teff* have been commonly plowed above four to five times. Nevertheless, in some cases, particularly as garden crop, maize requires comparatively low labor cost and could be sown after a single or two passes, but generally the land of maize ploughed four to five times in preparation period, and then sown as usual through *baqbaqaa* of the fields. In contrast, *teff* needs repeated passes and high labour cost of production. In some areas *teff* requires up to eight passes and the final soil clumps might be broken by driving cattle (in some cases donkeys, mules and horses) repeatedly across the surface to break down the clods and compact the soil before a final seed covering pass. Pulses need only two or three passes. Land preparation has started early, soon after harvesting has been completed and before the beginning of rain. Maize land preparation has started between December and February. This early starting has been done for three reasons. First to expose the soil to dry weather conditions so that soil-borne diseases, which later affect the seedlings, might die, to give time for the decomposition of the residue left on the field and to make later plowing easier.¹³⁸

Teff land preparation for hard soils has started in May. If the soil is soft, preparation might begin as late as July. Maize plantings have taken place in April and May. Maize has been planted in March if the rain begins early and May if the rain is late. Planting has been done when farmers are assured that the rain would fall continuously. *Teff* has been sowed from early July to late August. The following period is indicating the duration when *teff* have been sowed for the Oromo of Jardaga Jarte.

- The period from 5 July-12 July is called *Arawato*
- The period from 13 July-19 July is called *kurnan*
- The period from 20 July-26 July is called *salgan*
- The period from 27 July-3 August is called *saddettan*
- The period from 4 August-10 August is called *torban*
- The period from 11 August-17 August is called *jahan*
- The period from 18 August-24 August is called *shanan*.¹³⁹

Accordingly, informants assert that the above periods have different behavior. Then, *teff* that sowed during *arawato* and *kurnan* is called *mataa* (excellent *teff*). The kind of *teff* might be *xaafii adii* (white *teff*). But, the kind of *teff* that sowed from *torban* to *shanan* is called *saffii*. This was especially in lowland areas of the district. If rainfall begins late, farmers have sometimes grown *teff* on the fields intended for

¹³⁸Informant: Abebe Wako.

¹³⁹ Informant: Fekadu Leta.

maize, fearing that the rainy season would be too short for maize. All the same, *teff* requires a precise sowing schedule.¹⁴⁰

In the past farmers used to broadcast maize seeds onto prepared plots with a layer of fine soil. More recently, Jardaga Jarte farmers have practiced row planting across the slope for maize as they had done for long time for crops called *tooraa*. This was a precursor of modern agronomic techniques to control plant population, facilitate weeding and allow timely fertilization with nitrogen-based chemicals such as UREA and DAP fertilizer. Seeds have been put in the furrow at about two footstep distance between the seeds. Farmers have then covered the seeds by plowing with the wider *digarii* between adjacent planted rows. Farmers have justified row planting of maize by saying that it has saved seed and fertilizer even though it has been labor intensive as compared to broadcasting. Farmers have preferred their high seed rates and populations to protect them against the risk of low germination percentage due to diseases and the risk of low plant population due to oxen cultivation (*baqbaqaa*) for weeding. Nevertheless, the first oxen cultivation has taken place about a month after planting or when the plant has been below or at knee height. The next step is weed control plowing (*baqbaqaa*) using oxen and the weeds would be cut with a sickle. Farmers have practiced *baqbaqaa* since it is important to control weeds, expose the soil, maintain the required plant population through thinning as well as prevent plant falling by slowing down plant growth and to initiate support roots growth. Weeding through the help of *baqbaqaa* has been practiced rigorously for about one time.¹⁴¹

After the *baqbaqaa*, there is also weeding. This weeding could be done after three weeks or one month depending on the speed of weed growth. Therefore, weeding might be practiced by hand pulling and use of hammer to cut weeds. Still today large number of farmers use traditionally called *dabo* or *jigii* to control weeds.¹⁴²

Among the main advantages of maize are its short maturation cycle (except the very recent hybrid) and its resistance to field damages. The early planted, early maturing maize varieties have been harvested for green cobs at its milky stage starting from July or only after 3 months. Late maturing varieties have been harvested in August for green cobs. Once matured, dried ears of maize could stay on the stalk in the farm field without damage by rain awaiting harvest until after other crop harvests ended. Thus, maize is far less sensitive to the timing of its harvest and transfer from field to storage.¹⁴³

Therefore, in the past, the maize harvest started in November or December. Nevertheless, with the increasing population farmers have preferred to harvest earlier and grow crops for a second or even a

¹⁴⁰ *Ibid.*

¹⁴¹ Agricultural Office of Jardaga Jarte.

¹⁴² *Ibid.*

¹⁴³ *Ibid.* .

third time per year. There are three methods of harvesting maize. The most popular maize harvesting method involved removing cobs from the erect maize stalk and dehusking them right there; then breaking the stalks. Immediately after harvesting has been completed, the maize has been transported to the store unshelled. The second method involved piling stalks in small spots and some days later farmers have started dehusking. The maize should be guarded before dehusking. The third one involved cutting and piling stalks in a few large piles. After about one month, they have dehusked.¹⁴⁴



Figure 11: Photo of harvesting maize

¹⁴⁴*Ibid.*

Source : Taken by researcher camera on 28, December 2019.

The advantages of this method have been that the stover could be kept dry with grain over this period and labor for dehusking could be spread out for other duties. Nowadays the latter two practices are rare because of the labor required. Also, maize have been cut with a sickle and piled on top of *saqala*, a wooden structure about two or more meters from the ground usually near to home. The storage systems, farmers have attempted to get maximum protection against weevil attack and to keep the crop dry. Maize has been stored in the local granary (*gumbii* or *gombisaa*) or in open cribs. Local stores have been made of sticks and dried mud and kept in the house or outside. Farmers have built granaries just before the harvest, when they could make accurate assessment of their storage needs for crop. Recently nearly all farmers have used chemicals on stored maize to protect them from diseases.¹⁴⁵

Teff weeding has started in September and ended in October. *Teff* has been weeded once intensively if planted on black soils and twice on red soils. Farmers who have bitterly hated the weed problem have used seedbed flooding to control weeds. By building temporary channels and dikes and flooding a field after its first plowing, farmers have suffocated weeds and then followed with three more plowings, breaking of clods and sowing.¹⁴⁶

Teff harvesting has started at the end of October and ended in February. *Teff* has been reaped and heaped in the field or taken to the storage bin near the house and temporarily stored. Threshing *teff* and other short-stem crops has been uniform in its methods across the whole area and across time. Common dry-season scenes in the countryside have always included men preparing the open-air threshing floor that has been well leveled and consolidated with white earth and cow dung. Threshing has been performed by tramp of muzzled oxen and then cleaned in the open air by means of crooked sticks (*qoorbii*) until the grain has been entirely separated from the straw. Farmers have started to thresh *teff* in January-February when cash has been needed for payment of the fertilizer debt. Clothing has been also purchased with cash from the sale of *teff*. If *teff* production is high, farmers might store it for consumption in case they run out of maize.¹⁴⁷

¹⁴⁵Informants: Dubbaalee Geramu and Admasu Tadesa.

¹⁴⁶ *Ibid.*

¹⁴⁷ *Ibid.*



Figure 12: Photo of collected teff (*Tuullaa*)

Source: Taken by researcher camera on 20 December, 2019

Seed stocks appear to have been selected carefully and stored within the house in considerable safety. In the past, farmers stored ears of maize heads selected for size and uniformity. Seed selection for maize took place in two ways. If the area to be planted in the next season was large as has mostly been the case, seed selection took place at planting time when the crop was in the store. At planting larger cobs with large seeds used to be removed from the store and put aside for seed. If the area to be planted in the next season was small, for a homestead field, seed selection took place at harvest time. Large ear size and large grains near the bottom of the cobs were the main criteria to be used for sowing. The selected cobs for seed used to be suspended from rafters of the houses near the fire place under the roof over the chimney where smoke dried the kernels to prevent them from germinating and to get protection from insect or rodent damage. Also, *teff* has the longest storage period (the most storable and can not be eaten by maggots). Other seed stocks have been stored separately in earthen jars and periodically checked for damage¹⁴⁸

¹⁴⁸ *Ibid.*

In recent food crises, seed stocks appear to have been well preserved in both their variety and amount. In order to enhance the fertility of the land, farmers have applied different methods. A long time ago, before overcrowding of the land by the high growth rate of the population fallowing was practiced. If rain fell continuously in the months of March and April, farmers preferred to let their cultivated fields remain fallowed and to bring the available virgin land or long fallowed land under cultivation. This was done to avoid the risk of heavy weed infestation on continuously cropped fields. The virgin grassy land was first burnt and then tilled. If there was such a possibility to bring virgin land under cultivation, it was allotted to maize for about three years.¹⁴⁹

Nevertheless, with increasing population pressure, fallowing dropped and crop rotation was substituted. Where the fertility of the soil was outstanding and when some people could not afford to leave their fertile land fallow, it was possible to do without fallow. In this case, the only requirement was using a suitable crop rotation (cultivating different cereal crops in a sequence or alternately) and this was exactly done in Jardaga Jarte. On the same field, maize is usually cultivated for one year and for next year another crop. For a long time, rotation of *nuug* with maize or *teff* and barley with maize was practiced to a limited extent on a small portion of fields. The fields of *nug*, barley and beans were very suitable for maize. Thus, fallowing was gradually restricted to areas with a relatively scarce population and less problem of shortage of land, and sometimes in less fertile places where farmers were compelled to do so. Nonetheless, generally the soils of the area required only a short fallow of two or three years after five years of only cereal crop rotation. The reason for changing the crop is to increase soil fertility and productivity. Rotation was also used to break the reproduction rate of crop-specific pests.¹⁵⁰

There are some other methods, which have persisted in Jardaga Jarte. Intercropping or growing crops between the rows of other growing crops especially legumes with cereals have been used occasionally to keep the soil from exhaustion. Growing haricot bean and cabbage in maize fields has been common. Intercropping has maximized land use efficiency, increased variety and quantity as well as reduced losses due to pests. Terracing (step like farming) was rarely used in the area. Recently soil bunds have been constructed around farm plots to form bench terraces and minimize erosion. In some areas, though stones covered much of the soil surface, they have been left in place since farmers claim that they have retained soil moisture and prevent soil run off in heavy rain. Using grass strips at certain intervals in the farm has also been applied in some areas. In some cases, farmers have controlled drainage and soil erosion through contour/curved line plowing along the slope (not up and down) and the use of broad bed drainage furrows. On plots with a slope, farmers have plowed along the contour with subsequent intersecting

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*

furrows either on or just off the contour. In flood-prone areas, farmers have dug trenches at three to seven meters' intervals after seed germination to take out unnecessary water from the farm field or to divert flood water so that washing away of seeds would be avoided.¹⁵¹

Although undertaken from time to time, irrigation was not practiced on any large scale in Jardaga Jarte. Irrigation of the area has historically consisted of small-scale use of gravity-fed rivulets captured from small streams or springs in every situation where a supply of water could be procured without much trouble. The common mode practiced consisted of digging small channels from the higher parts of the stream and conducting them across the plain that could be divided into square compartments. In other cases, irrigation has brought water from upslopes to terraced crops.¹⁵²



Figure 13: Photo of Irrigation

Source: Taken by Researcher Camera on 13 February, 2019 .

Farmers intensively applied organic matter for long time up to the introduction of modern chemical fertilizer. Most of the farmers of Jardaga Jarte use manuring of fields. In most cases farmers used to

¹⁵¹ Informants: Barasa Negash, Getachew Negash and Soreetti Alamuu

¹⁵² Ibid.

construct a rectangular enclosure on a plot of land upon which cattle spent more than five days based on a season. The process proceeded until all the land was manured in turn. This system of changing the pen of community's animals is locally known as *dallaa geeddaruu* (shift of cattle's fence). In the distant past, farmers also used to leave uprooted weeds to rot in farm plots called *tortorsaa* (compost), and then dried and burnt them. They also burnt crop residues and other materials known as *cidii gubuu*. The ashes were dispersed some days before the rains on the farm fields.¹⁵³

For fields near homesteads, maize was broadcasted and manure applied instead of fertilizer until recently. Some farmers also reported that if fertilizer was not available for their main fields, they used to broadcast maize. Yet, all *teff* growing farmers have used DAP depending on cash availability and the area. Since planting of *teff* has been late in the season, fertilizer has been available at its planting time. The assured availability of fertilizer for *teff* relative to maize has been an incentive for increasing production. Farmers claim that because sorghum yield per unit area has been low, without fertilizer has no problem on the profit. Moreover, sorghum yields have been acceptable without fertilizer.¹⁵⁴

In addition, Farmers used shift of crops in order to protect the yield of soil. For instance, maize could be sown on the fields of *nug*, wheat and bean. *Teff* could be sown on the fields of *nug*, wheat and others. *Nug* basically sown on fields of *Teff*. Yet, if the soil of the field is becoming poor, farmers left that field after sowing either *nug* or *telba*.¹⁵⁵

In the works of the field either sowing or harvesting, farmers of the Jardaga Jarte used different traditional methods. Therefore, they worked as families which were the main source of labor. Women also have great role in agriculture. Especially in homestead gardens, they have played extremely great roles. They have also participated in making tools like baskets, sieves, containers and mats, which have paramount importance for agricultural products. Managing stored food has been an acutely gendered process in which women retained sovereignty. They have played a prerogative role in converting the stored food into household consumption.¹⁵⁶

In the past, sometimes family labor was supplemented by indigenous labor exchanges and less often by hired labor. Exchange of labor among farmers was a common strategy in solving labor shortages during the busy periods. The most acute labor peaks extended from March to June, which requires land preparation and planting and September to December, which requires harvesting. The most important traditional labor exchange was working in *daboo* or *jigii* or *qaboo* (a cooperative work party) on a single

¹⁵³ *Ibid.*

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.*

¹⁵⁶ Informants: Olkaba Furi and Gemada Kumsa.

plot at a time. When a man needed a lot of help for plowing or harvesting, he let it to be known that he would give a *daboo*. The man whose fields were being worked on was expected to provide great quantities of local beer, cooked maize or mixed cook of maize and bean what is locally called *mullu* and bread or roasted parched grains for all his helpers. Such an affair might draw from twenty to sixty men and generally lasted half a day. If he needed just a few extra hands, he could enter into mutual agreements (*daadoo*) with a few other men who also needed just a little extra help. Much of the heavy labor was accomplished through this community cooperation.¹⁵⁷

Some farmers those who unable to participate on mutual agreement (*daadoo*) during harvest on their field individually, they hired labor. Therefore, a minority of farmers hired labor at the rate of 400-420 *birr* per hectare for harvesting. Hired laborers either local people or migrated from the areas of Gojjam to work in the study area particularly during the harvest time. Also, a farmer worked in the fields along with his families.¹⁵⁸

In another way, for farming land there is social institutions for borrowing, sharing and exchange of oxen appear to have played an important role in households' agricultural strategies and in structuring rural oxen resource problems. A man who has not owned a team of oxen for plowing might contract to plow another man's land for two days in order to borrow the oxen for one-day work on his own land (*humnan qixxee*). There has also been a possibility of hiring oxen (*cimaada*) for a season or more in exchange for payment in kind at harvest. Such type of economic collaboration has not been based on kinship, but has merely been formed from free choice and economic need.¹⁵⁹

3.6. Expansion of Agricultural Production in Jardaga Jarte

Jardaga Jarte has great agricultural potential because of its vast area of fertile land, diverse climate generally adequate rainfall and large labor pool. Therefore, agriculture has taken a crucial position in economic progress of the district. Certainly, the district economy has been greatly predisposed by practice of agricultural sector.¹⁶⁰ The agricultural land expansion accelerated from time to time. In Jardaga Jarte, the main inputs of traditional agriculture have been namely land and labor. Labor increase has been because of the increase in population. Relatively large number of population might have contributed to the progress of agriculture. Increase in cultivated land has been due to immense

¹⁵⁷Informants: Gemada Kumsa , Damitu Lata, Daggituu Negasa and Bojaa Adugna.

¹⁵⁸ *Ibid.*

¹⁵⁹ *Ibid.*

¹⁶⁰Informants: Adugna Kabada and Abdisa Tolera

deforestation at alarming rate at expense of forest, bushes and uncultivated land. Clearance has prepared the way for widespread farming and cultivable land could be persistently enlarged.¹⁶¹

My informants state that even though the population was rising, agricultural production was in surplus and Jardaga Jarte was able to export to Gimbii and Addis Ababa for many years, especially the period with the expansion of the transportation system. The presence of markets enhanced the income of the farmers to produce more. There were three major markets in Jardaga Jarte to which the people could take their products for sale. These were the *Gabaa Dagaa (Kamisaa)* market of Alibo on Thursday, the Saturday Market of Jardaga and the Sunday market of Haroo Lagoo. The former two markets are located on the main highway of Shambu to Amuru. Food demand in these markets inspired agricultural expansion. High productivity and the rise improved the standard of revenue gained by the rural population. It was also on the basis of agricultural products that these markets developed into towns. An expanding agricultural production supplied relatively plentiful food for the increasing urban population. The increased income from agricultural products in turn believed to have generated increased farmers demand for the goods and services produced in urban areas, mainly agricultural utensils. The increasing availability of locally produced agricultural equipment in these markets contributed to raise further agricultural production. This created conducive occasion to extend the home markets.¹⁶²

In Jardaga Jarte most of cereals revealed extensive growth. It is characterized by the important increase in area of growing wheat, barley, nug, maize and *teff*. A large increase in area of maize over the year also reveals the mounting relevance of maize in the system. The total productivity of cereals showed better progress throughout the period largely because of the significant improvement in productivity of maize, wheat and *teff*. The growing of productivity of maize and wheat were as the result of positive influence of research on these crops. Agricultural expansion was also facilitated by the introduction of modern inputs. Among the variety of inputs required by the agricultural crop production sector are chemical fertilizer, high yield variety seeds, biocides (pesticides, insecticides and herbicides), improved farm tools and extension services. Rural modern inputs began to be introduced to Jardaga Jarte at the end of imperial regime.¹⁶³

However, during the imperial period, the development of the agricultural sector was retarded by a number of factors including tenancy and land reform problems, the government's neglect budget allocation for agricultural sector and lack of technological development. In 1971 the Ministry of Agriculture (MOA) introduced the Minimum Package Program (MPP) to bring about economic social changes. The

¹⁶¹*Ibid.*

¹⁶²*Ibid*

¹⁶³ Agricultural Office of Jardaga Jarte.

Minimum Package Program included credit for the purchase of items such as fertilizers, improved seeds , pesticides and planting method. Thus, Jardaga Jarte benefited from these improved varieties as well as the introduction of fertilizer to the areas.¹⁶⁴

The introduction of fertilizer brought about increasing yield and initiated the peasants to increase land under cultivation. During the *Derg* regime, the distribution of inputs carried out through different government institutions and cooperatives. Another major component of the *Derg's* agricultural policy was the development of large scale-state farms. The primary motive for expansion of state farm was the desire to reverse drop in food production that has continued since the revolution. The Peasant Agricultural Development Extension Project (PADEP) was also formed to decentralize the tasks of the Ministry of Agriculture. In the 1980s, a Peasant Agriculture Development Program was launched with the objective of providing the extension services to farmers with the necessary inputs.¹⁶⁵

EPRDF government introduced new economic policy. The main strategy adopted by the present government in the post-1991 and period is known as the Agricultural Development Led Industrialization (ADLI). The approach gives importance for the agricultural sector as the engine for economic growth making a guarantee to food self-reliance. During FDRE the Farmers Training Centers (FTC) established to enhance agricultural production. In Jardaga Jarte, improving the performance of agriculture has given prominence under this strategy. It has tried to increase the annual volume of production by increasing cultivation of land. Farmers Training Center (FTC) planned to develop agricultural production by increasing the distribution of farm inputs, utilizing natural fertilizer or composts and wisely utilizing cultivable land. Also, it created farmers awareness through different conferences to improve working culture. This center used developing teams as a nucleus and encouraging women's participation to reach its goal.¹⁶⁶

Irrigation also utilized in the district. The utilization of irrigation land in Jarte area constructed irrigation canal on the Choggo River, Angar and Garchi River. Agricultural production has shown a slight increase in the post-reform period between 1991 and 1994 monetary years and post 1994/95 severe drought while per capital value added of the sector has been increased. The period after 1995 was particularly favorable to cereal production due to weather conditions and increasing usage of inputs. Still, agricultural growth has not moved at the same pace with population increase.¹⁶⁷

¹⁶⁴ *Ibid*; Tamam Adam, p.73

¹⁶⁵ *Ibid*.

¹⁶⁶ *Ibid*.

¹⁶⁷ *Ibid*.

Chapter Four

Factors That Affect Agricultural Production

Agricultural production can be affected by different factors. Therefore, a number of different factors can cause agricultural productivity to increase or decrease. As a result, those factors can be divided into natural and human factors.¹⁶⁸

4.1 Natural Factors

4.1.1. Unpredictable Weather Conditions

In this world agricultural production is affected mostly by natural factors. Here, unusual weather patterns, such as drought, a prolonged rainy season, early or late frosts and other factors can ruin crops and bring decline of productivity. Ecological problems consisted of serious environmental hazards such as land degradation, loss of wild life and loss of forest resources. Land degradation is loss of soil and water, loss of soil nutrients and biological degradation. The environmental problems resulting in serious threats to livelihood, cause conflict over land resources, depletion of forest cover and disappearance of the wild life. In specific study, due to the access of large forest (Caatoo) in Horro Guduru Wallaga zone, high land areas of Jardaga Jarte got a moist laden wind that have good chance for rain fall.¹⁶⁹ Yet, unreliable rainfall distribution has been an important climatic influence on crop production.¹⁷⁰

The major problem of Jardaga Jarte for a long time in the past was not shortage of rainfall but heavy rainfall. Official records show that many years repeated untimely and unfavorable heavy hailstorms and excessive rains substantially damaged various crops at developing, fructification and harvesting times resulting in a significant yield reduction. The unwanted rainfall can come during harvesting season *birraa* (autumn). This unseasonal rainfall further damaged the crop products. Sometimes, late onset of rains for the main cropping season has in turn delayed planting times. In the lowlands areas the late onset of rainfall has contributed to the risk of food shortage. It has caused farmers to plant fewer types of crops increasing the menace of crop loss and has extended periods of food shortage. Currently the rainfall of the area is small and late in coming. The decline of rain from time to time contributed to the decrease of crop products that need much water.¹⁷¹

Under normal condition, the period from March to September has accounted for more than 85% of annual mean rainfall of Jardaga Jarte. Monthly rainfall in the main growing months (July to August) has ranged 1800 mm, from May to June rainfall ranged 1400-1600 mm and from September to October it ranged

¹⁶⁸ *Ibid.*

¹⁶⁹ *Ibid.*

¹⁷⁰ Agricultural Office of Jardaga Jarte.

¹⁷¹ Informants: kumbale Nemomsa and Luccee Gutema.

1200 mm. The number of rainy days within the main growing season has varied from about 15 in March to 30 days in July. The intra-annual variability of rainfall has affected agricultural output in general and crop production in particular. Unreliable rainfall distribution has been an important climatic influence on crop production. Effects of climatic variation from month to month and year to year have had a serious impact upon agricultural activities of Jardaga Jarte. Since the agricultural cycle of the district has reflected primarily the regime of rainfall. Most of the farming and livestock rearing practiced in Jardaga Jarte have been dependent on the amount of rainfall due to the nature of the district rain-fed agriculture.¹⁷²

According to the report of zone Agricultural Desk, due to the delayed on-set of the rain, lack of oxen, lack of adequate marketing facilities and lack of access to credit due to the un paid debates from previous years. Around the Jardaga Jarte the presence of malaria in lowland areas and rampancy of animal disease like *gandii* is another problem that resulted reduction of crop production in the area. These situations coupled with the absence modern medicine the lack of proper know how to control the problem. This was resulted due to the fluctuation of rain. Currently the fluctuation of rain can cause crop disease called *waagii* (wheat crop disease). The beginning of November is the season of starting harvesting crops in the area. However sometimes the rain come during this season and destroys crops like wheat and *teff*.¹⁷³ The problem has been further exacerbated by lack of draft animals since the poor rains have also affected the availability of forage for livestock. This adverse situation has resulted in a much-diminished livestock where livestock has been an essential component of the household economy.¹⁷⁴

Sometimes farmers have been forced to feed their animals with small amounts of ever green leaves. In some areas, the major constraint on livestock husbandry has been severe shortage of pasture during the long dry season. Large numbers of animals have died due to drought and the recovery from the loss has taken a much longer time. For instance, in the drought years between 1983 and 1985, many of the people lost their livestock. Also, recently in 1990s due to the shortage of rainfall, farmers of the different *kebeles* like Jarro siree, Janjimmar, Daban, Haro Dadhi, Dima Jokke and Haro lagoo lost their cattle. This resulted in the outbreak of famine in the district. The possible solution to solve the shortage of rainfall peoples should have developed the habit of irrigation use.¹⁷⁵

4.1.2. Soil Erosion

In similar way, the forest coverage declined because of the over increase of peoples. As the result, the destruction of forests contributed the fast speed soil erosion and land degradations because of the absence

¹⁷² Agricultural Office of Jardaga Jarte.

¹⁷³ Agricultural Office of Horro Guduru Zone, Report, No. file.063, Shambu, 2009.

¹⁷⁴ *Ibid.*

¹⁷⁵ *Ibid.*

of forest coverage. During rainy season thousands tones of soil degraded in low lands areas of Jardaga Jarte. Similar situation also happened in all parts of the district.¹⁷⁶ The period upto the end of the 1980s, forests were not totally cleared and there no serious land degradation in the area. In this period forest highly cleared. But, at the end of 1980s and in 1990s forest highly cleared. But, during the reign of EPRDF the attention turn to the keeping the forest. However, it was not effectively worked. The current government of Ethiopia largely engaged in building of tracing to protect land degradation. It reduced run-off water that erodes useful nutrients from the region. Topography, rainfall, wind, lack of vegetation cover, soil properties and land use management practices are the immediate cause of soil erosion. There are also underlying distance causes such as population pressure, poverty high cost of increase ability of inputs insecure land tenure lacks of appropriate production and conservation technologies and many of these are further influenced by government policies.¹⁷⁷

Additionally, the high land areas of the district have intensively cultivated with continues loss of soil. In the distance past, the mountain tops were remote and difficult to reach and were not cleared as much as forest of mid latitude areas for agricultural purposes. Recently even these have been cleared and these high lands have been intensively eroded by heavy rainfall since soil has been easily washable from the high lands. Suitable agriculture had been badly affected by the higher degree of soil erosion in this district. Because of land degradation, some high land parts have progressively become less productive. Crop yields have decreased in terms of producer per unit of land output per unit of labor and output per productive unit.¹⁷⁸

The major human action that causes soil erosion is deforestation. Vegetation cover can increase organic matter content or nutrient structure and protect the soil from direct solar heat or from rain and wind that would otherwise wash or blow it away. Almost all dwellers of the district (both rural and urban) have used fuel wood for cooking. It is generally acknowledged that with the rapid increase in the number of people and higher rates of urban population growth, the need for fuel as a source of energy continues to grow. As fuel wood consumption increases, so does the diminishing of forests. In fact, urbanization seems to have a direct effect on the loss of forests as the spread of deforestation near the urban areas.¹⁷⁹

Indeed, since the last half of 20th century deforestation has accelerated the dramatic change of the rural landscape. Deforestation has been conducted by using a machete and a short-handled axe. Then the

¹⁷⁶Informant: Diribe Negasa and Adugna Negasa.

¹⁷⁷Bezuaelem Tefera, Gezahegn Ayele, Yigezu Atnafe, "Nature and causes of Land Degradations in Oromia Region: A Review Ethiopian Agricultural Research Organization Oromia Natural Resource Development and Environmental Protection", (Addis Ababa, 2003), pp.18-19.

¹⁷⁸ *Ibid.*

¹⁷⁹ *Ibid.*

farmers have cleared more by setting fires to the base of large trees in the dry season to make land ready for planting during the rainy season. This has led to the depletion of natural forest, the peril of the environment and the disruption of the natural ecosystem. Artificial and less complex ones have substituted the natural and complex ecosystem. The unrestricted ruthless clearance of forest led to runoff—offs together with dry up of ground waters, the disturbance of hydrological cycles and depressed ecological balance. The combined effect of these chains of processes has been the deterioration of agricultural production.¹⁸⁰

The medium altitude of Jardaga Jarte has been densely populated implying the extreme scarcity of land. In some places, population growth appears to have reached a threshold where the local ecology can no longer cope. Thus, the over populated land has been parceled out into minuscule holdings and every piece of it, including valleys and mountain slopes, has been cultivated. Losses of vegetation cover, little grass and intensive land use have characterized this zone. Soils of the area have been used for many generations, being cultivated every year. Due to over cultivation (repetitive farming without fallowing) and overgrazing (keeping too numerous animals on small land), the soil has been exhausted and exposed to severe erosion which has eroded the material base of village life. The old communal grazing especially deteriorated the stocking capacity of the land. The absence of forest cover has led to the inability to check erosion and declining soil fertility. High intensity of land use has caused land degradation. This area has been highly degraded. The intensive land degradation in turn affected soil fertility. Low conservation based farming practice worsened the problem. Under intensive land use, traditional technology encourages erosion.¹⁸¹

This has forced farmers to change cropping patterns and increase application of expensive inorganic chemical fertilizer to boost yield with high environmental and public health risks since fertilizer (especially together with biocides) create environmental hazards.¹⁸² The lowlands remain with much irrigation potential not yet exploited. Nevertheless, peasants viewed permanent habitation of the vast plain towards the Daandii settlers and around Fincaha valley as risky due to the prevalence of malaria that is the major disease and endemic in the lowlands.¹⁸³

A shortage of wetland plants has affected the supply of fruit food, medicinal materials and craft industries, which were important sources of rural income, especially when harvests were poor. Following the 1984 famine, the process of villagisation in the late 1980s, through which the *Dargi* Regime tried to concentrate the dispersed rural population into villages, also had impacts upon wetlands. This created

¹⁸⁰ Deresa, p.100

¹⁸¹ *Ibid*; Informant: Fekadu Leta

¹⁸² *Ibid*.

¹⁸³ Agriculture Office of Jardaga Jarte.

intense pressure upon the wetlands nearest to the sites of the new villages and many sedge beds were seriously reduced in quality for a number of years. Large numbers of the springs in Jardaga Jarte have also dried up forcing women to walk further to collect water and upsetting considerably their workload and family health. In the past water sources both for human and livestock were easily accessible with a walking distance not exceeding minutes but now many springs are dry. Such dried springs include Badda Siree, Jarroo, Daban, Darge, Wato, Qunacoo, Irroo, Haboo, Jokkee, Digaluu etc.¹⁸⁴

In some communities, wetlands have been drained in depth and degrading these rich areas, which have ended up as rough grazing grounds for cattle. This in turn has often been a short-lived benefit as the trampling action of cattle aided the process of soil compaction and erosion.¹⁸⁵

4.1. 3. Crop, Animals and Human Diseases

Also, the disease of crop, animal and human affects agricultural production. However, existence of the Jardaga Jarte people is directly or indirectly dependent on livestock and plant. Different diseases and pests starting from past time attacked cereals and livestock's in the region. These various diseases of animals, plants and human affected the productivity of agriculture. From plant or crop diseases in JardagaJarte, the most serious one is *geerri* (*worm*), the most destructive pest. In 1996 E.C. earthworms (particularly the worm locally known as *geerrii*), are reported to be the most devastating worms equal to locusts. This destruction of crops resulted hunger of people in the area. For this problem government gave aid for the farmers. The distruction of pied crow (*quroo*) is also another problem for crop damage. Pied crow damaged maize in field during maturation. Because of pied crow, different birds, doges and wild animals like grivet, ape, monkey, *xaddee* (porcupine) and pig peoples fear for farming of maize and sorghum, pigs and eagle. Crop disease like fungai (*waagii*) is another problem in the area. This disease seriously attacked especially wheat. Some of the weeds like *bidense pachyloma* (*cuqii*), *bidense paternata* (*hadaa*), *aramaa horro*, *snowden spp.* (*mujjaa*) were the most problematic in the district not even controlled by herbicide (*qoricha aramaa*).¹⁸⁶

Another problem beyond the farmers was livestock disease. Due to the lack of rain, their livestock were attacked by parasites like *dhulandhula* (water living worm). This worm enters in to the animal's mouth when they drink water. The worms live under their tongue and sacked their blood, specially oxen and cow. The death of oxen leads to the decline in crop production.¹⁸⁷

¹⁸⁴ *Ibid.*

¹⁸⁵ *Ibid.*

¹⁸⁶ Agriculture Office of Horro Guduru Wallaga.

¹⁸⁷ *Ibid.*

According to my informants there are many fungal, protozoa, bacterial and virus diseases. In many areas, livestock rearing has been limited due to the infestation of tsetse fly that transmits trypanosomiasis or sleeping sickness (*gandii*), which has been the most important threat for animal husbandry and periodically thinned herds. Epizootic diseases such as foot and mouth disease (*gollobaa*), pasteurellosis (*gororsaa*), anthrax (*abbaa sangaa*), black leg (*abbaa gorba/bubbutaa*), pink eye, bovine pleural pneumonia, rinderpest (cattle plague), and lymphatages (*biichee*) have increased the mortality and morbidity of animals.¹⁸⁸

Endemic problems such as liver flukes, intestinal worms, lungworm and ticks have reduced productivity at lower elevations, where open pasturage has been more available. There are also birds known as *cirri* that have attacked livestock particularly the cattle's skin. Some of the diseases have rotted grasses and attacked cattle indirectly. Farmers also distinguish certain type of grasses (like *siddisaa*), which if eaten by animals causes almost immediate death in one or two weeks and even in a day. Farmers often complain about the diseases that cause drastic reduction to yield and even turn the milk of the cows to blood. Some dangerous wild beasts like jackals, wild dogs, lions, hyenas, buffalos, hippopotamuses etc also seriously attacked domesticated animals.¹⁸⁹

Livestock resource has lacked quality and productivity due to health conditions which have a tremendous impact on the livestock output. Although most of the above-mentioned diseases are episodic, they never totally disappear and intermittent livestock loss has significantly determined the economic viability of the peasant households. Drought diminished forage has disappeared well before household food resources and this has subjected the animals to the diseases. Calves are the major categories of animals that are susceptible to plenty of diseases and suffer from them. Especially in the lowlands and mid highlands, there has been high calf mortality due to diseases. Activities of livestock treatment, vaccination and preventive measures have not been satisfactory. Veterinary services have been very much limited, to a veterinary clinic. Farmers claim that the medicines they used to get in the past including the *Dargi* period were less effective. Breeding better and improved breeds, which are resistant to the diseases have been almost nil.¹⁹⁰

Human disease in lowland parts of Jardaga Jarte is also a factor for decreasing in crop production. Malaria disease is very high and serious in lowland. Different farmers sleep with this disease at September, October and December months of every year. Many people were died of malaria in places like *Daandii*, *Dikaa*, *Lallee* and *somboo chaffee areas*. The transmission of malaria is however on

¹⁸⁸ *Ibid.*

¹⁸⁹ Informants: Dumessa Lata, Armasu Tadesa and Dagitu Negasa.

¹⁹⁰ *Ibid.*

decreasing level, because of the treatment of the disease and awareness given by extension workers. in different *kebeles* of the district ¹⁹¹

4.2. Human Factors

4.2.1. Problem of Governmental Policy on Land Right

Agricultural production is also affected by human factors. Among them, governmental policy is a main factor. The security of Land and land right question in countryside were the basic element that might need to be address in emergent sustainable land management. Farmers' Rights recognized as rights a rising from the past contributions of farmers in conserving, improving and making available plant genetic resources for food and agriculture. Favorable institutional provision and agricultural land policy are significant for long-term sustainable development. Lack of security in land may lead to improper use of common resources and reduction in output. According to my oral informants prior to the feudal order the land possession had not been a problem in Jardaga Jarte District.¹⁹²

There fore, lack of useful land right is one of the basic problem. A certain region had belonged to a certain clan, various clans with their component families settled in distinct localities. Each clan had known its right and responsibilities. Usually the region that belonged to a certain group named after the group. Each family in the clan settled anywhere they prefer for their residence in the land the clan possessed. However, the right of holding land ended by the conquest of the region. Land was confiscated by the new feudal administration. Higher government officials, church dignitaries and soldiers who settled in the area representing the authority of the central government snatched the communal land of former possession of extended families. Land alienation was the most enduring effect of the feudal system administration.¹⁹³

The communal ownership by the local Oromo people disrupted and eventually the local people reduced to *gabbar* or tenant. They were forced to pay tribute and give corvee labor. The major types of tribute were land tax and rent tax. The price of the land tax differed based on the fertility of the land that graded as *lammaret* (fertile land), *lem-tef maret* (semi fertile land) and *tef-maret* (unproductive land). *Lammaret* (fertile land) was the land that well cultivated land. *Lem-tef maret* (semi-fertile land) was the land of fair fertility. *Tef-maret* (unproductive land) was the land of less productivity. To retain the right to use a piece of land owned by the settlers, each *gabbar* was forced to render special service to the *neftegna* or the

¹⁹¹ Informants: Fikadu Lata and Olkaba Furi.

¹⁹² *Ibid.*

¹⁹³ Informants: Dhugasa Horro, Kibbitu Abbaba and Gewwalee Fufaa

landowner. To retain right to use a piece of land owned by the settlers, each *gabbar* was forced to render special service to the *neftegna* landowner.¹⁹⁴

Types of tenancy that prevalent in Jardaga Jarte area during the Emperor Haile Silassie period included *Ekul Arash*, *Siso Arash*, *Irbo Arash* and contract. The landlords in *Ekul Arash* system would provide oxen for poughing and seeds. The crop is shared on equal amount. Under *Siso Arash* share cropper usually has his own oxen and seeds. The share cropper obtains two third of the crops and the landlord got one third of the productivity. In *Irbo Arash*, the share cropper has his own oxen and seeds. The share of the crop is three fourth for the tenant and one fourth for landlord. In most cases, the share croppers pay *asrat* (tithe) before they share the crop. Contract is a fixed amount of money paid every year for the use of the land.¹⁹⁵

In general government uses the system of *Gabbar*, *Semon*, *Mar* and *Gendebel*. *Gabbar* was a system of land tenure under which a person who has acquired land by purchase, gift or inheritance pays land tax to the government. *Semon* was land of which the primary interest has vested in church. The income goes to the church. *Mar* was in which the owner used to pay tax with honey. *Gendebel* was land, which given to an individual, for the services he has rendered in army during the war. *Mar* and *Gendebel* was less prevalent in Jardaga Jarte. The most prevalent tenure was *Gabar* and *Semon*.¹⁹⁶

Informants emphasize that in the post-1941 period, there were considerable efforts by there turning government of Hayila-Sillaasee and newly appointed officials to alienate the local holders from their possession of land. There were two major ways through which some of the local owners were forced to lose their holdings. Some of them were accused of failing to pay tax. The vicious effect of revenue collection became one of the major burdens on the peasantry and facilitated the process of dispossession. Failure to pay tax for three consecutive years resulted in the loss of land. Defaults on heavy taxes appear to have become one of the principal factors behind the loss of land by the local people. Most of such government lands were soon sold to officials at apparently cheaper price.¹⁹⁷

The land reform (proclamation No. 31/1975) of Derg truly abolished the landlordism and all rural land became communal property of people.¹⁹⁸ It restricted the right to use the land by prohibiting the lease

¹⁹⁴ *Ibid.*

¹⁹⁵ Informants: Gabayo Leta and Abbaba Aragga.

¹⁹⁶ *Ibid.*

¹⁹⁷ Informants: Dugasa Horro and Calqitu Dugasa

¹⁹⁸ Makakis and Nega Ayele, *Class and Revolution in Ethiopia Shama Books*, (Addis Ababa, 2006), p. 155; Randi Ronning Balsvik, "Addis Ababa University: In the Shadow of the Derg 1974-1991", *In proceeding of the 16th International Conference of Ethiopian Studies*, Editors ,Svein Ege, Harold Aspen, Birhanu Tefera and Shiferaw Bekele, Trond Heim 2009, P. 261; Dassalegn Rahmato and Meheret Ayelew, "Democratic Transition in Post-Conflict Society's Project: Democracy Assistance to Post-Conflict Ethiopia, Building Local Institution. *Conflict Research Unit Netherlands Institute of International Relations 'Clingendael' in Cooperation with Forum for Social Studies (FSS)*, Addis Ababa July 2004?", Working Paper 27, p. 3.

(rent, donation, sale, exchange, mortgage and inheritance (except minor child run of the land). *Derg* also enacted a proclamation No. 47/1975 that nationalizes all urban lands and extra houses (houses other than those that are occupied by family for residential purposes) without compensation.¹⁹⁹

As its rural counter part, it allowed all tenants to maintain and use the houses they rented from land lords and made them free from any rent obligations or dept. The administrations of urban houses were given to *kebele* (sub-districts) and the ministry of housing based on the values of the houses. At the earlier the rural farmers were in better position in terms of production process, deciding what to produce on the land, Yet, later erroneous policies and repeated land reforms made them to benefit little from it. The government, as an owner of the land, conducted repeated land reforms as a result farmers lost tenure security.²⁰⁰

The collectivization of rural land and working in cooperation did not enhance the productivity, rather farther exhausted the farmers working habit because peasants looked it as forced production and had no awareness of what cooperation meant. In addition, peasants could not sale their products with better price due to quota's restriction.²⁰¹

Moreover, the Derg's policies of villagization (putting all rural farmers at one spot), and resettlement in the 1980s evicted peasant from their homestead without their interest and collected them at identified place what called *Mender mesreta*. The moving of people away from their lands led to a decline in agriculture as the distance to travel to these plots became extreme and their separation made them difficult to protect against wildlife. Despite the long established hill sided homesteads, the new villages were built on the plains land. Thus, the best agricultural fields in turn led to decline of crop production.²⁰²

After the downfall of the Derg in May 1991, Transitional Government disbanded all collectivization and villagization programs based on the consent of the people. Collective farms were privatized to individual farmers; the government stopped the grain requisition program allowing peasants to sell their produce at market value. However, in 1995 (as proclamation No 1/1995), it decided to keep all rural and urban land under public ownership.²⁰³

¹⁹⁹Tadesse Kuma, *Trends in Agricultural Production, Technology Dissemination and Price Movements of Out Puts and In Putes; Ethiopian Development Research Institute* (Addis Ababa),p.37.

²⁰⁰ Dessalegn Rahmato, *The peasant and the State; Studies in Agrarian Change in Ethiopia 1950s-2000 s* (Addis Ababa University Press, 2009), p.173.

²⁰¹Andargachew Tiruneh, *The Ethiopian Revolution1974-1987: A Transformation From an Aristocratic to a Totalitarian Autocracy*. (Cambridge University Press, New York, 1993), P. 347.

²⁰² *Ibid.*

²⁰³Daniel, p.10.

4.2.2. Land Fragmentation

Like another factor, land fragmentation also a factor for affecting agricultural production. Since time of imperial, the kings and the ruling elites in Ethiopia controlled land. Because of the expansionist war of the ancient Ethiopian rulers with their neighbouring tribes, the state could manage to include vast territories to its rule. Land was granted by the imperial power to individual people or peasants in the form of private *rist* (hereditary land right). The peasants were allowed using, rent, and inheriting the land to family members, but selling the land to non-family members was prohibited. In exchange, peasants were obligated to make different kinds of land related tax payments. Land given in live of salary might be reversed to the state in the event of non-fulfillment of the obligation by the holder of the land. Land was then transferred in the form of inheritance from family to children for generations with over time reduced the size of the farmlands.²⁰⁴

Land was granted to individual people or peasants in the form of *rist*. The peasants were they allowed using, rent, and inheriting the land to family members. In exchange, peasants were obligated to make different kinds of land related tax payments. Selling the land to non-family members was prohibited. Land was then transferred in the form of inheritance from family to children for generations with over time reduced the size of the farmlands. Land was also provided to the church that was considered as a major all to the imperial power. The church is a major possessor of material wealth. Because of selling salvation in return for treasure and land, perpetuating imperial power over the people. The church played a major role in propagating the mass to obey the king. Obedience to the king was justified in many of the Christian writings and the day-to-day teachings. Land owned by the government was distributed to different people on the condition of serving the state at different levels.²⁰⁵

²⁰⁴Paul C. Hebert, "*Feed the World*": *Food, Development, Aid and Hunger in Africa, 1984-1985*, (Concordia University, Quebec, Canada, 2008), p. 32.; Informants: Negash Kinati and Getachew Negash.

²⁰⁵ Daniel Walde Gebriel, *Land Right in Ethiopia; Ownership, Equity and Liberty in Land use Rights* (Rome,2012),pp.1-2.

Immediately after the revolution and the assumption of power by *Derg* and subsequent land reform it conducted, various insurgent group lifted arms against the *derg*. The current incumbent EPRDF won the war and replaced the *Derg* in 1991. After the downfall of the *derg* in May 1991, the new Transitional Government disbanded all collectivization and villagization programs based on the consent of the people. Collective farms were privatized to individual farmers, the government stopped the grain requisition program farmers, and the government stopped the grain requisition program allowing peasants to sell their produce at market value. In December 1992, it adopted a new economic policy where by the government declared that until a new constitution would be in place, land would remain under state ownership. However, when it finally came out in 1995 (as proclamation No 1/1995), it decided to keep all rural and urban land under public ownership. According to the FDRE constitution, all urban and rural land is the property of the state and the Ethiopian people. Article 40/3 of FDRE constitution accordingly, sale, exchange and mortgage of land are prohibited. For all land was under the control of few people who has a position during the *derg*. New generations of Ethiopia general, Jardaga Jarte in particular was still land less. They took share of crop with their labor after farming the land.²⁰⁶

4.2.3. Lack of Modern Technology

Additionally, lack of modern technology also included under factors that affect expansion of agricultural development. Even though industrious, the peasants have followed less productive traditional agricultural methods, which could not give them a better life. The technological transformation in agriculture has been inert and there has been no significant technological innovation made to improve agricultural techniques throughout the period under discussion. The basic tools of agricultural production have been crude implements and few of the basic parts of the plough have been changed over the course of the plow's recorded history. Ethiopian farming systems have not transformed themselves beyond the basic technology of an archaic plough, which was adapted to upholding of long fallow periods.²⁰⁷

Factors for the unchanging technology include the problems of difficult topography had its own contribution in impeding the use of new technological innovations like tractors and mechanization. In some cases, peasants' indifference to the use of modern technology was presented as the main obstacle to the development of peasant agriculture. Occupations such as crafts, which could have triggered large-scale development of engineering skills, were unloved. But, the main factor is the problem of government strategy.²⁰⁸

²⁰⁶ Daniel, p.10.

²⁰⁷ Deressa Debu, p.124 ; Informants: Calqituu Dugasa and Takala Raje.

²⁰⁸ *Ibid*; pp.124-125.

The land tenure system especially after the introduction of the northern system militated against farm improvements and innovation by tenants since increased productivity would only result in increased extraction by the landlord. Conversely, the landlords themselves showed less interest in technical changes and improved farming methods. Unfortunately, the state policies that rested on large-scale extraction became the betenoire, pauperizer and oppressor of peasants and the culprit that caused agrarian crisis, without giving any incentive to revolutionize smallholder productivity. Ironically, peasant agriculture benefited the least from the public investment throughout the old regime. The *Dargi* land policies that put land under government ownership some how hampered moving to large scale production.²⁰⁹

The historical dominance of small-scale subsistence peasant agriculture that has constituted the backbone of the agricultural sector rather than the development of plantations or other forms of direct wealthy elite involvement in agriculture has also tended to discourage innovation. Farmers have adopted low input methods and farmed less than one hectare of land under rain-fed farming systems with traditional technologies depending on weather.²¹⁰

Nevertheless, through time government could not effectively subsidize imported input since its price was increasing in the international market. Limited supply of fertilizer was crucial problem to the farmers. The seed was also not reliable quality and not attractive to peasants. Therefore, farmers went on using previous seeds.²¹¹ On the other hand, there was an inadequate market for outputs. The price of the farmers' product was very low in comparison with the price of imported fertilizer and there were limited market incentives for farmers.²¹² However, there have been still some important problems that put the sustainability of agriculture under question. These include derisory supply of inputs, weak agricultural research and insufficient extension service. The delayed delivery of inputs has made farmers late in planting which in turn has reduced the yield.²¹³

Fertilizer cost has been rising following the 1992 devaluation and the subsequent depreciation of Ethiopian currency. The majority of peasants have acquired improved seeds by preserving seed for planting from their own production or by purchasing from local markets where there has been no reliable seed quality and the seed quantity available has not been satisfactory.²¹⁴ On the other hand, fluctuation of the price of agricultural products has affected the peasants' productivity. Farmers had no gained access of credit for the small farmers within the district.²¹⁵ Demand for credit in the rural areas was occasionally met through friends and relatives as well as village money lenders who in many cases have charged high

²⁰⁹ *Ibid.*

²¹⁰ *Ibid.*, pp.124-125.

²¹¹ Informant: Fufa Gudata.

²¹² *Ibid.*

²¹³ Agricultural Office of Jardaga Jarte.

²¹⁴ *Ibid.*

²¹⁵ *Ibid.*

interest rates. Because of these factors, not all proportion of the farmers used fertilizer. Still the seed and fertilizer have been impure and unsatisfactory.²¹⁶

4.2.4. Lack of Basic Social Infrastructure

Poor infrastructure in the rural areas of Jardaga Jarte has been another major problem of the agricultural production. Transportation and communication facilities were poorly developed in the district. It was only when the Addis Abbaba--Shambu road was built traversing the district from east to west. This has brought the district into the economic life of the country. Also, the Shambu-Alibo road was developed into an all- weather road and this more facilitated the internal communication of the district. The roads are very much limited in rural areas. A large numbers of rural households have been located far away from all weather roads, making transportation and distribution of inputs as well as collection and marketing of surplus output difficult. The use of traditional transport has dominated the rural areas. Pack animals or human porters have transported the bulk of the farm output. The rugged topography of the district, lack government attention and shortage of capital have made construction and maintenance of rural roads difficult.²¹⁷

Some villages in the district live many hours away from the nearest basic social services. Still access to these social services are poor, because the road system is poorly maintained and frequently in accessible during and after rains. This shortage of road causes a problem in multi-directions. Most of the social services in the district were constricted along the main road except few of them. There were no high schools up to 1995 E.C. The students learned high school in Shambu after long journey. For this problem, many students especially females dropped out their education in high school.²¹⁸

More than half of kebeles in district have been travelling on foot and back animals in scattered settlement that contribute to obstacle in the rural villages' youth, women, children and disabled people in accessing some of the basic social services. The cost of transportation is higher for those villages, as the functions of longer trip travelled to work and other activities, the poorer families count, the higher proportions of income spent on transportation. In general, transportation has a great impact for agricultural development and selling their produced cereals to the market. As a result, the economic development of farmers decreased.²¹⁹ The lack of hospital service is another problem behind the people. Still today, the district has no hospital services in their area except a little clinic (*tenatabiya* or *bufata fayyaa*). The peoples were

²¹⁶ *Ibid.*

²¹⁷ *Ibid.*

²¹⁸ *Ibid.*

²¹⁹ *Ibid.*

treated in Shambu and Nekemte hospital. The main market centers in the district are two: one is the district head quarter, Alibo and the other is Jarmat, which are mainly local trading centers.²²⁰

²²⁰ *Ibid.*

Conclusion

Jardaga Jarte has favorable climatic condition for the life of the peoples. For a long period of time the region was covered with a dense forests and it was the home for various wild animals. The ecological history of the region was gradually changed from time to time because of self centered and government initiate resettlement program. During recent three governments of Ethiopia a large resettlement plans were conducted in Jadaga Jarte. The resettlement program was conducted through two different methods. It includes self-initiate and government initiated resettlements.

Agriculture is the main economic activity for the district. Agriculture of the area includes the production of crops and rearing of animals. The agricultural activities of the region are back ward system that cannot change the life of the people. The agricultural activities of the area have limitations and weakness that can be measured more of subsistence.

The ecological history of Jardaga Jarte is changing from time to time as the result of the decrease of forest coverage, land degradation and soil erosion commonly occuring in the area. The peoples of the district lead their life engaging to different works. There were many agro-ecological problems around all over the whole parts of Jardaga Jarte *kebeles*. The major agro-ecological problem of the region includes soil erosion, land degradation and wild animal problems. For long year, due to its remoteness from zonal town of Shambu social service and infrastructures were insufficient for the people living in the district.

GLOSSARY

<i>Abbaa lafaa</i>	Landlords
<i>Akayi</i>	Roasted crop
<i>Awurajja</i>	Administrative sub-province
<i>Birraa</i>	Autumn
<i>Biyyoo cirrachaa</i>	Sand soil
<i>Biyyoo Guraacha</i>	Black soil
<i>Cumboo</i>	Traditional food of Oromo of Horro Guduru Wallaga
<i>Daanyaa</i>	Local jugde
<i>Daggal saaqi</i>	Openers of forest
<i>Dallaa</i>	Fence
<i>Faaggaa</i>	Ten kilogram container of honey
<i>Faarsoo</i>	Local bear
<i>Fitwrari</i>	Commander of the vanguard, a military title below <i>Dejjazmach</i>
<i>Gabaa Kamisaa</i>	Local market held on Tuesday
<i>Geerii</i>	Earthworm
<i>Geraarsa</i>	Heroes song
<i>Grazmatch</i>	Commander of the left, a politico-military title, non-hereditary right to collect tribute from landowners
<i>Gumbii</i>	Local granary used to store crop
<i>Hora</i>	Mineral water
<i>Jaarii</i>	Cattle's ceremony
<i>Laga boqollo</i>	place where maize sown
<i>Mullu</i>	a cooked maize, wheat or bean
<i>Qalqalloo</i>	Container of honey that made from skin of goat
<i>Sorobduu</i>	a person engaged on finding honey of bee in the forest
<i>Waagii</i>	Wheat crop disease.

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List of Informants

No	Name	Sex	Age in years	Place of interview	Date of interview	Remark
1	Abbaba Aragga	M	80	Ciracha bakakka	20/02/2011	Elder who best know about previous settlements in the area.
2	Abebe Wako	M	52	Alibo	07/7/2011	Head of communication bureau.
3	Abdisa Iticha	M	68	Alibo	20/02/2011	Government employer and former <i>Derg</i> official
4	Abdisa Toleera	M	49	Daaddee	13/02/2011	Former head of Jarro siree kebele
5	Admasu Tadese	M	76	Ciracha Bakakkaa	10/7/2011	He is farmer and his descenders were come from Gojjam.
6	Adugna Kebede	M	74	Abbayyii	20/02/2011	His descendent came from Gojjam during Haile Sellasie
7	Amade Abdulraman	M	67	Alibo	13/02/2011	Trader
8	Amante Sagni	M	86	Jarrod	14/02/2011	He was known as <i>Ajjesa</i> and one of the user of hora dika in earlier
9	Asaffa Asrasse	M	73	Alibo	13/02/2011	Elder of the area
10	Barasa Negash	M	40	Dagagaa	20/02/2011	Leader of Oromo <i>Kerro</i>
11	Bayise Fufa	F	50	Jarrod	14/02/2011	<i>Shanee</i> of <i>Qaalluu</i>
12	Bekana Mijana	M	70	Jaarrod	14/02/2011	He is known as <i>Gagurtee</i>
13	Boonsa Fekadu	M	27	Nonno	09/9/2011	Teacher
14	Daade Hulluf	M	61	Tullu noonno	14/07/2011	This man came from Tigrai during Rettlements. However, when his relatives back to Tigrai he left in the region.
15	Dadhitu Sagni	F	54	Dagaga	20/02/2011	Farmer
16	Debelo Tolera	M	75	S/ kattalii	15/02/2022	Elder of the area
17	Degitu Negasa	F	58	Dagaaga	11/07/2011	<i>Shanee</i> of <i>Qaalluu</i>
18	Dugasa Horro	M	93	Ciracha bakakka	14/07/2011	His father was abba qoroo and he has plenty information about Horro as whole.
19	Dumessa Leta	M	56	Dagagaa	10/07/2011	Farmer and known by breeding

						bees
20	Fekadu Leta	M	58	Dagagaa	10/07/2011	He was leader of kebele during Derg period
21	Fekadu Megarsa	M	56	Shambu	09/07/2011	Government employ
22	Feyisa Jebessa	M	70	Alibo	08/07/2011	Elder of the area
23	Fufa Gudata	M	60	Jarrod	10/07/2011	Possessed by Ayyana of <i>Qaalluu</i>
24	Gemachu Leta	M	75	Jarmat	14/07/2011	He know about Jardaga Jarmat
25	Goshu Deressa	M	66	Alibo	08/07/2011	Elder of the area
26	Habtamu Simee	M	49	Alibo	08/07/2011	Leader of Tourism bereau
27	Hinkoshe Yadata	F	52	Qiltuu cheka	14/07/2011	Elder of the area
28	Hinsarmu Birru	M	53	B/siree	20/02/2011	Limmo clan
29	Ibsa Iticha	M	78	Alibo	07/02/2011	Elder of the area
30	Jiregna Lamuu	M	62	Alibo	12/07/2011	He ruled Jardaga Jarte
31	Kebabu Amanu	F	45	C/ bakaka	14/07/2011	Af-yaa'ii
32	Kebada Kumsa	M	69	Alibo	12/07/2011	Elder of the area
33	Lemi Sori	M	57	Alibo	12/07/2011	Elder of the area
34	Melkamu Amante	M	31	Suuxee kattalii	12/07/2011	He know abou Jardaga Jarmat very well.
35	Merga Bore	M	55	Haroo Lagoo	18/07/2011	Elder of the area and he know about somboo chaffee, Jardaga Bowa, haro lago and Jardaga as whole.
36	Merga Lebata	M	73	Haroo lagoo	13/02/2011	He is very know about minerals in the district. One of experts of water and mine Office of Jardaga Jarte
37	Mule Dhinsa	M	57	Alibo	12/07/2011	Elder of the area
38	Negasa Deballo	M	112	Abbillee	10/07/2011	He has brilliant intellent information about Horro Guduru as whole before and after Italian Occupation.
35	Olana Dhinsa	M	65	Badda	20/02/2011	He was ruler of kebele during

				siree		villagization of Derg
38	Takala Dibaba	M	71	Haroo lagoo	18/07/2011	Elder of the area and he know about daban, waatoo and daandii.
39	Takala Raje	M	62	Haroo Dadhii	13/07/2011	He has full information about Daandii settler, daban and Tullu Okkotee
40	Tsehaye Kebede	F	58	Alibo	12/07/2011	Elder of the area
41	Shumate Galaye	F	48	Gaddad	14/07/2011	He know about qiltuu chekaa, haboo, and around it very well.
42	Silasu Iticha	M	55	Haroo haboo	20/02/2011	She is known as Walloyyee because she is one illegal settlers in the area
43	Yedate Negasa	F	71	Abbillee	10/07/2011	She has brilliant information about caato, settlers in Jardaga Jarte.

Appendix II

በአርባያ ክልል ሆ/ኮ ዞን ለጆርጂ ጃርቴ ወረዳ መንገድ ስለሚያስገባ የምግብ እርዳታው ቀርቶ በገንዘብ ለ3ኛ፣ 4ኛና 5ኛ ዙር 2010 ዓ.ም ለምግብ መግባት የሚውል የገንዘብ ድጋፍ

ተ.ቆ	ዞን	የቤተሰብ ብዛት	የተረፎ ቁጥር	አንድ ሰው በወር 5 ቀን ቢሰራ በPSNP Ration Rate	ምግብ መግባት የሚያስፈልገው የገንዘብ መጠን(ብር)	ምግብ ነክ ላልሆኑ ድጋፎች ለ1 ቢተሰብ በ2500 ብር ላይ	ሥራ ማሰኔጃ 5 በመቶ	ጠቅላላ የሚያስፈልገው ብር	መግለጫ
1	ሆ/ኮ/ወለጋ	0	4778	46	3,296,820	-	33,250	-	-
	ድምር	0	4778		3,296,820	-	33,250	3,330,070	
መግለጫ:- ኢትዮጵያ ንግድ ባንክ የባንክ ሒሳብ ቁጥር 1000050499972 የሚገባ									



Appendix III

Guyyaa 21/06/2017

Qaboo ya'ii
 Koreen rabsaa midhaan gargaarsaa rabsaa midhaaniif babbo'e wal ga'ii godhatee
 -bakka wal ga'ii ganda Jan Jimmaar bakka addaa kooyyaa jedhamuuttii.
 -yeroo 500

❖ Hirmaattootni

1. obbo Girmaa Namee - walitti qabaa
2. obbo Dirribaa Nyalee - Barreessaa
3. obbo Haynuu Garbi - Misarsa
4. obbo Ahmed Abduramaan - " dlt ganda #LG
5. obbo Nagaroo Garbi - "
6. obbo Daani'eel Gammachuu - "
7. obbo Mohaammed Ahmed - " dlt ganda #Aaandis ta'anii bakka argamanittii wal ga'ii itti fuje.

❖ Ajandaa marii

Midhaan gargaarsaa mana kuusaa jiru haala itti rabsamuu irrattii mariyaachuu ta'a.

Qabxii mariif dhiyaatee irrattii walitti qabaaan ibsa ergaa ibsaanii baada oja'a rabsaa xalayaa lakk 21/06/17/15

Guyyaa 20/06/2017 wajjiraa bulchiinsa A/1/laarteeaa barreefamee irraatti hundaa'uun ganda Abdii Dandiif 1. Qammaadii kuntalaa 364.8 2. Zayitaa nyataa kuntalaa 10.94 (ittira 194.4) obba Warraa 513

Maatii 2013 w/g lubbuu 2432 3. SCB(fameeksii)kuntalaa 37.6 lubbuu 836 fi yommuu ta'u Gandaaf ifaa Guddinaaf 1. Qammaadii kun 351.7 2. Zayitaa nyataa kun 10.46 (ittira 1045.6) obba 479 maatii 1867

W/G lubbuu 2346 3. SCB(fameeksii)kuntalaa 37.6 lubbuu 836 fi ta'a.

Murtoo

Walii gala kan gandoota lammanii Qammaadii kuntalaa 716.5 Zayitaa nyataa Kun 21.4 (ittir 2140) SCB(fameeksii kun 75.25) A/W 898 maatii 3880 W/G lubbuu 4778 ta'anif akka rabsamuu ta'ee akka ganda abdi daandiitti midhaan gargaarsaa lubbuu armaan oliitti eramanif obbo Mohaammed Ahmed kan ifaa guddinaa immoo obbo Ahmed Abduramaan Girmaa Namee

B/bu'aa hojjetaa kussaa maeshaa HSB A/1/laartee obbo Daani'eel Gammachuu irraa akkataa normii ta'a'en fudhaanii akka rabsaan modelaa 22'nis ba'ii godhaanii akka rabsaan yodda garagartummaa hin qabneen murta'eeraa.

Girmaa Namee Daani'eel Gammachuu
Dirribaa Nyalee
Haynuu Garbi Mohaammed Ahmed
Nagaroo Garbi
Ahmed Abduramaan

Appendix IV

