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HISTORY OF CAMIEL VAN BILLOEN'S COMMERCIAL AGRICULTURAL FARMS IN TENA WOREDA (ARUSSI) 1936-1974

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A THESIS SUBMITTED TO THE GRADUATE PROGRAM OFFICE OF ADDIS ABABA UNIVERSITY COLLAGE OF SOCIAL SCIENCE DEPARTMENT OF HISTORY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN HISTORY

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Approval Sheet

ADDIS ABABA UNIVERSITY

DEPARTMENT OF HISTORY

History of Camiel Van Billoen's Commercial Agricultural Farms in Tena *Woreda* (Arussi) 1936-1974

This is to certify that the thesis proposal prepared by Alaro Tito entitled "History of Camiel Van Billoen's Commercial Agricultural Farms in Tena *Woreda* (Arussi) 1936-1974", which is submitted as in partial fulfillments of the requirements for the degree of Master's Degree of Arts (MA) in history complies with the regulation of the University and meet the accepted standard with respect to originality and quality.

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Abbreviations and Acronyms

AAU	Addis Ababa University
CSA	Central Statistics Agency
EPRP	Ethiopian People's Revolutionary Party
FDRE	Federal Democratic Republic of Ethiopia
HDC	Horticulture Development Corporation
UAAIE	Upper Awash Agro-Industry Enterprise

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Abstract

The study aimed to reconstruct the "History of Camiel Van Billoen's Commercial Agricultural Farms in Tena Woreda (Arussi) 1936-1974". Tena Woreda is located in Arsi Zone, Oromia Regional State, Ethiopia. The study particularly focused on Kereyu and Sole Haji Shale Balabats. The Commercial Agricultural Farms in Sole Haji Shale Balabat were undertaken by Elias Pappasinos, Greece citizen, from 1924 to 1936 before it was sold to Camiel Van Billoen in 1936. Thus, the farms in Kereyu and Sole Haji Shale Balabats were undertaken by Camiel Van Billoen from 1936 to 1974. Elias Pappasinos, a Greece, who came to Ticho town in the 1917/18 while Camiel Van Billoen was a Belgian who came to Ticho town in 1922/23 respectively. He eventually got acquainted with the officials and important persons that would assist him to start his farms in Tena district. His farms were known as Hassan Osman Coffee Plantation Company in Belgium. The thesis discusses the history of the farms including the process of land acquisition, the infrastructure the entrepreneurs built as a prelude to the beginning of the farms and particularly irrigation facilities and the organization of production and distribution in the farms as well as their economic import. In reconstructing the history of Camiel Van Billoen's farms, relevant historical sources were collected, compiled, collated, evaluated and utilized in accordance with their validity. Accordingly, oral sources (knowledgeable oral informants, eye-witnesses' accounts), librarian of the Federal government of Belgium, Consul of Belgium Embassy at Addis Ababa, two written documents archived at Tena district Culture and Tourism Office, and many archived books, literature and manuscripts deposited at the Federal library of Belgium were utilized. The commercial farms established by Camiel Van Billoen transformed the environmental landscape of parts of the district from dense forests lands into capital-intensive commercial agricultural farm lands. Camiel Van Billoen highly succeeded in developing, managing and operating the farms besides producing coffee and exporting their products to French and Belgium markets. The thesis argues that commercial farms gave several benefits to the local communities, the province and the country during its life times and then after up to the present time. Among some of the major benefits, the workers enjoyment of built-up residential houses and other basic necessities freely, construction of church and a modern school for local communities, the construction road of about 121 km joining Sire and Ticho towns, 12 km road joining Ticho and Kella towns, and about 29 km road connecting Kella with Gobesa towns, motivation of local investors such as Merid Biru and Eshetu Wolde Tsedik to commercialize traditional agricultural activities in Hetosa district, creation of employment opportunities for hundreds of jobless poor, transferring agricultural and industrial technologies to the farm sites, introduction of Grain Mill and food oil refinery simplified lifestyles of nearby residents, the flowing of foreign currency amounting to 1, 000, 000 (1 million pounds) in the late 1930s with annually increasing amounts from the 1940s to the 1974 to the country and several others were worth mentionable.

Chapter One

Introduction: Geographical and Environmental Settings

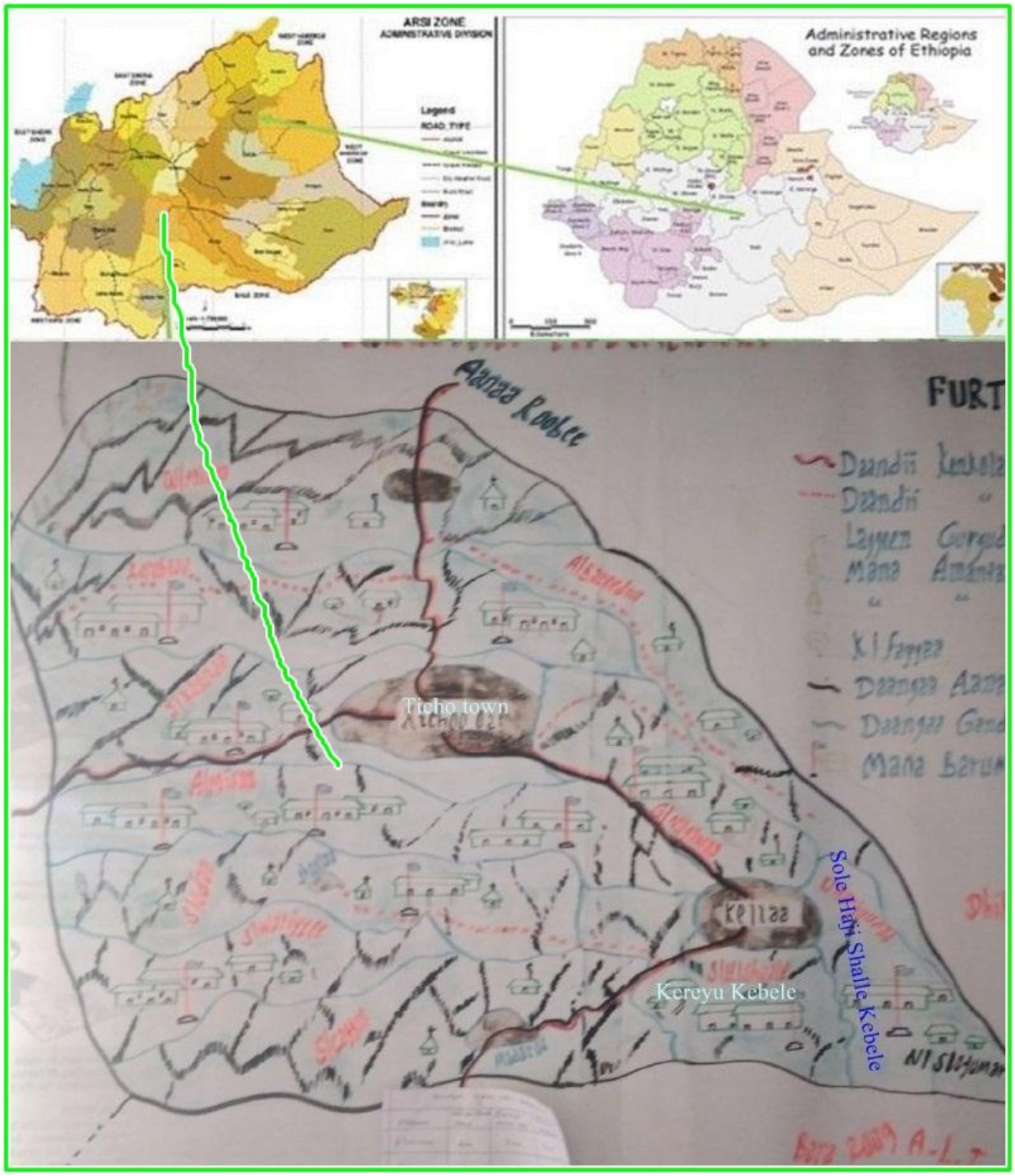
1.1. Location, Topography, Climate and Drainage System

At present, Tena is one of the districts in the Oromia Region of Ethiopia and is part of the Arsi Zone that is bordered in the south by Shirika *Woreda*, in the southwest by Bekoji *Woreda*, in the west by Digeluna Tijo *Woreda*, in the northwest by Hetosa *Woreda*, in the north by Sire *Woreda*, in the northeast by Sude *Woreda* and in the east by Robe *Woreda*. Ticho town is the administrative center of the *Woreda*. It is located in Eastern Arsi Zone at about 152 km far from Asella, the capital of Arsi Zone, in the north eastern direction, and 252 km far from Addis Ababa in the south east direction. There are thirteen rural administrative *Kebeles* and five urban administrative *Kebeles* in Tena *Woreda*. The *Woreda* is located between 7º44´59.99''-7º74'99.97''N latitudes and 39º24'59.99''-39º41'66.65''E longitudes.[1] Specifically, the study covered Kereyu Gerjeda and Sole Haji Shale Rural *Kebeles* that are depicted schematically in the figure shown below (Figure 1.1). Ticho town, the capital of the district, is located between 7°38'50.02''-7°64'72.20''N latitudes and between 39°40'39.03''-39°67'73.68''E longitudes at the altitude of 2494.00 m.a.s.l.[2]

[1] GPS coordinates of Tena (Woreda), Ethiopia. Latitude: 7.7500 Longitude39.4200. Accessed from the website https://latitude.to/articles-by-country/et/ethiopia/226080/tena-woreda on 5 January 2023.

[2] Longitude latitude in Ticho, Oromia, Ethiopia GPS coordinates. Accessed from the website http://www.longitude-latitude-maps.com/city/66_810,Ticho,Oromia,Ethiopia on 5 January 2023.

Figure 1.1: Location of Tena *Woreda* and Camiel Van Billoen's commercial agricultural farm



Source: Maps taken from national, Arsi Zone and Tena district and merged together by author

The topographic features of the study area are mostly rugged and undulating (non-uniform and gorge, valleys, hills and mountainous) which represents about 58.6% while 41.4% is

characterized by flat plains.[3] The altitude of this *Woreda* ranges from 1800 to over 4100 meters above sea level. The highest point in the *Woreda* is Mount Bada (4195 meters above sea level).[4]

Moreover, the 66 kilometers of the Hararghe River and its waterfall, Mt. Bada (4195 meters) and Galama Mountain are some of the major scenes found in the *Woreda* as tourist attraction sites and recreational places (Figure 1.2).[5] This proves that the district has much surface waters with beautiful land marks that can serve as attraction sites for tourists and visitors. In addition, it is one of the rivers used for irrigation purpose on commercial farms established by Elias Pappasinos.

Figure 1.2: Hararghe River's waterfall

[3]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Tanku Mule and *Ato* Nega Genamie, Kella town, 27/03/22.

[4]Socio-economic profile of Arsi Zone, Government of Oromia Region (last accessed 4 December, 2022).

[5]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

Source: Photo by Efrem Alaro

Tena *Woreda* has three major agro-climatic zones. Of these, 85% is *Dega* or cold/temperate climate, 10% is *Woina Dega* or sub-tropical/moderate and 5% is *Qolla*–tropical/hot agro-climatic zones. The average annual temperature ranges between 15°C to 28°C while annual rain full lies between 765mm to 2567mm.[6] More specifically, the agro-climatic conditions of the rural *Kebeles* where the Commercial Agricultural Farms took place is *Qolla*, which is dry and hot. The annual mean rainfall and temperature of the *Woreda* are 894mm and 26^0C, respectively.

There are two major rainy seasons in Tena *Woreda*. These are *Gannaa* or the big rainy season and *Baaligii* or the little rainy season. The big rainy season, during which almost 65% of the total amount of Tena *Woreda*'s rainfall falls, begins in June and ends in September. The maximum amount of rainfall recorded during the big rainy season of year was 2881mm while the mean annual rain fall of the district is 2143 mm. The little rainy season, which constitutes 35% of the total amount of Tena *Woreda*'s rainfall catchment, begins in March and ends in May. The minimum amount of rainfall recorded so far during the little rainy season is 282mm.[7]

The district is well known for its water resources. Most intermittent (seasonal) streams and perennial rivers have either their source in the springs of these highlands or flows through the district. These perennial and intermittent (seasonal) rivers join Wabe Shebelle River system as tributaries.[8] According to the unpublished report of the *Woreda*'s Culture and Tourism Office, there are nine rivers that drain it which originate from the top of Mt. Galama from the west side and flowing through the land of the district towards the east and join the Wabe Shebelle River. In addition to those nine rivers, there are more than 120 springs in the *Woreda*. These rivers include Hulul, Alkaso, Ennamora, greater and smaller Walkessas, Demasho, Sarbona, Hararghe and Tarana rivers.[9] Thus, Tena *Woreda* is rich in water resources and it could be considered as the water tower of Arsi Zone and also of Oromia

[6]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[7]Informant: *Ato* Ture Alo, Robe *Woreda* Natural Resources Conservation Expert; 13/05/2022.

[8]Tena Woreda Culture and Tourism Office, "Unpublished Report: Socio-economic Profile of Tena *Woreda*", 2018. pp.11-13.

[9]Ibid. p. 12; Socio-economic profile of Arsi Zone, Government of Oromia Region (last accessed 4 December, 2022); Informant: *Ato* Ketema Bejiga, Kella town; 02/10/2022.

National Regional State.[10] An unpublished report by the District's Culture and Tourism Office indicates that these perennial rivers and springs have the potential to irrigate about 355.64 km^2 acres of land.[11]

1.2. Population of Tena *Woreda*

The total population of Tena *Woreda* in 2022/23 is about 104, 844. Of the total populations, 52,737 (50.30%) are males while the rest are females.[12] The 2007 national census reported a total population for this *Woreda* of 66,203 peoples of whom 33,231 were men and 32,972 were women. Of the total inhabitants of the *Woreda*, 6,252 (9.44%) were urban dwellers. Also, the majority of the inhabitants were Muslims, with 54.33% of the population reporting they observed this belief, while 44.18% of the population practiced Ethiopian Orthodox Christianity.[13]

Still, based on figures published by the Central Statistical Agency in 2005, the district had estimated total population of 129,191 persons, of whom 65,009 were males and 64,182 were females; 10, 500 (8.13%) of its population are urban dwellers, which is less than the Zone average of 12.3%. The possible reasons for the discrepancies between 2007 and 2005 population numbers could be the inclusion of some rural *Kebeles* under Shirika district in 2007 but under Tena district in 2005; for instance, Sole H/Shale was under Tena district in 2005 which later on was put under Shirika district in 2007. With an estimated area of 783.44 square kilometers, Tena has an estimated population density of 164.9 people per square kilometer. That figure is greater than the Zonal average of 132.2 persons per km square.[14] According to the 1994 national census report, a total population for this *Woreda* was 91,418, of whom 45,601 were men while 45,817 women. Out of the total populations, 8,721 (9.54%) were urban dwellers at that time. The two largest ethnic groups reported in Tena *Woreda* were the Oromo (83.06%), and the Amhara (15.91%) ethnic groups while all other ethnic groups made up 1.03% of the total populations. Oromiffaa (Afan Oromo) was spoken as a

[10] Tena Woreda Culture and Tourism Office, "Unpublished Report: Socio-economic Profile of Tena *Woreda*", 2018. pp.11-13.

[11] Tena Woreda Culture and Tourism Office, "Unpublished Report: Socio-economic Profile of Tena *Woreda*", 2018. pp.11-13.

[12] Tena *Woreda* Administration Office, "Unpublished annual report of Tena *Woreda* Administration Office for the fiscal year 2022/23", Ticho, 2022/23.

[13] 2007 Population and Housing Census of Ethiopia: Results for Oromia Region, Vol. 1. Tables 2.1, 2.5, 3.4 (accessed 13 January 2022)

[14] CSA 2005 National Statistics. Tables B.3 and B.4

first language by 78.26%, and 21.61% spoke Amharic while the remaining 0.13% spoke all other primary languages reported for the district. The majority of the inhabitants were Muslims, with 54.62% of the population having reported to practice that belief while 44.99% of the population said that they professed Ethiopian Orthodox Christianity.[15]

There are various ethnic groups that have been living in Tena *Woreda* since its establishment in 1948, such as the Arsi Oromo (Muslims), Shewa Oromo (Christians), Gurage, Amhara, and small numbers of other ethnic groups in the urban centers of Ticho and Kella towns. These different ethnic groups have their own languages, history and culture. They also have mutual interactions.

The total estimated population of Ticho town, the capital town of Tena *Woreda*, is 8, 307 [M= 4, 148; F= 4, 159] in 2022/23. There are 1, 978 households in the town. The town has one urban *Balabat* only, 5 zones and 396 *gots*, smallest administrative unit of Balabat comprising of five household heads.[16]

1.3. Socio-Economic Activities and Natural Resources

Climate is one of the physical factors that influence human activity especially in agricultural societies through its impacts on soils and vegetation cover of an area. In Tena *Woreda*, there are three major agro-climatic zones that create suitable condition for the growing of different crops that range from warm to cool thermal zone (*Dega)*. Tena *Woreda* has a dominantly rural society who depends on agriculture as its basic way of life. About 98% of the population depend on rainfed agricultural activities mainly characterized by cereal cropping along with livestock raring are the major source of food and income.[17]

A survey of the land in this *Woreda* shows that 34.4% is arable or cultivable, 7% pasture, 10.2% forest, and the remaining 48.4% is considered swampy, mountainous or otherwise

[15]1994 Population and Housing Census of Ethiopia: Results for Oromia Region, Vol. 1, part 1. Tables 2.1, 2.13, 2.16, 2.20 (accessed 6 November 2022).

[16]Ticho town Municipality, "Unpublished Report: Socio-economic Profile of Ticho town in 2022", Ticho, pp. 5-6.

[17]Socio-economic profile of Arsi Zone, Government of Oromia Region (last accessed 4 December, 2022).

unusable. Onions, pepper and sugar cane, are important cash crops.[18] Although coffee is also an important cash crop, less than 20 km^2 are planted with it.[19]

Agriculture in Tena *Woreda* is carried out by small scale farmers which is supported by family labor; which is also subsistence in nature. Tena *Woreda* farmers practice crop production, livestock rearing and bee-keeping activities. Based on the climatic zones of the district, various crops like barley, wheat, sorghum, maize, coffee, kidney beans and cow peas are grown in district. Among these crops *teff*, barley and wheat are the major staple crops.[20]

Pulses such as, chickpea, haricot bean, and field pea and vegetables like pepper, potato, tomato, carrot, cabbage, lettuce, onion and beet root are also widely grown in the *Woreda*. Coffee, sugar cane, hops, chat (*Catha edulis*), lemon, and banana constitute the important cash crops grown in the *Woreda*.[21]

The peasants in the *Woreda* depend basically on summer (*Gannaa*) season rain for agricultural production. Crop production takes two seasons, the *Makaraa* (September to December) rainy season and the *Baaligii* season (March, April and May). In the *Dega* (high altitude) climatic zone potato, pea, bean, and barley (*Hordum bulgaris*) were commonly grown. *Teff* (*Eragrotis teff*), maize (*Zea mays*), wheat (*Triticum*), and sorghum were also grown in large amount in the *Woina Dega* climatic zone. Pepper, sesame, and chickpea were more of *Qolla* crops. Based on annual production report, *teff* (*Eragrotis teff*), coffee, and maize (*Zea mays*) were the leading crops in the *Woreda* during the period under study.[22]

Concerning domestic animals, there are cattle, sheep, goats, horses, mules, donkeys, poultry and beehives in the *Woreda*. Animal diseases have become a very serious challenge to the inhabitants. Among the commonly known diseases in the area are; Blackleg, Rinderpest (*daseta*), Anthrax (*Abba Sengga*), pasteurellosis, external and internal parasites, and Coccidiosis which attack domestic animals in the area. The various crops and animal

[18]Socio-economic profile of Arsi Zone, Government of Oromia Region (last accessed 4 December, 2022).

[19]Coffee Production-Archived 2016-08-15 at the Wayback Machine, Oromia Coffee Cooperative Union website.

[20]Informant: *Ato* Sime Tsegaye, Agriculture and Rural Land Administration Officer of Tena *Woreda*; 17/05/2022.

[21]*Ibid*; Informant noted in No. 21.

[22]Informant: *Ato* Ture Alo, Tena *Woreda* Natural Resources Conservation Expert; 13/05/2022.

products from the *Woreda* are used at home and the surplus products after consumption in the area were often brought to markets.[23]

Trade is one of economic activities that supplemented agriculture in the district. Besides agriculture it plays a pivotal role in the history of the people of Tena *Woreda* particularly in the towns.[24] Accordingly, some of the inhabitants of Ticho and Kella towns are small scale traders.

Tena *Woreda* is rich in natural resources and the natural vegetation. The district has different forests and grass types.[25]

Before the second half of twentieth century, the region was renowned for different types of plants and was home to a variety of wild animals. There are various indigenous tree species in the *Woreda* such as *Wanza* (*Cordia africana*), *Korch* (*Erythrina bruci*), *Besana* (Crotonmacrostachys), *Yeferanji tid* (*Cupressus lusitanica*), *Yebesha tid* (*Juniperus procera*), *Birbira* (*Millettia ferruginea*), *Zigiba* (*Podocarpus falcates*), *Shola* (*Ficus sure*), *Warka* (*Ficus vasta*), *Nech Baher Zaf* (*Eucalyptus australyna*) and *Qey Baher Zaf* (*Eucalyptus camaldulesis*). However, the indigenous tree species have been significantly reduced as a result of frequent cutting of forests for crop cultivation, wood for fuel for making charcoal, and for the building of houses and fences. This great amount of clearing and burning of trees has led to serious soil erosion and environmental degradation.[26]

1.4. Arussi, Tena *Woreda* and Local Developments to 1974

Tena district witnessed many significant events and far reaching political, economic and social transformations during Italian occupation and then after until 1974. Like the country, the district also, retained its essential agricultural character where land tenure, land holding and farming rights were governed by the feudal system throughout these developments. The political and economic developments (changes and continuities) in the district in the early period of the commencement of Commercial Agricultural Farms of Camiel Van Billoen in Tena *Woreda*; i.e., the 1935 to the 1940, was a time of political instability, social unrest and

[23]Informant: *Ato* Takelgn Zewuge, Tena *Woreda* Animal Health and Veterinary Clinician; 17/05/2022.
[24]Informant: Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.
[25]Informant: *Ato* Ture Alo, Tena *Woreda* Natural Resources Conservation Expert; 13/05/2022.
[26]Informant: *Ato* Ture Alo, Tena *Woreda* Natural Resources Conservation Expert; 13/05/2022.

warfare as well as famine because the war between Italy and Ethiopia that began on October 3, 1935.[27] The Italians began that war through invasion by deploying chemical weapons, aeroplane raiders and bombing Red Cross ambulances. After they controlled the country, they also massacred most of the country's educated elite.[28] The destruction of property, cereal crops and natural resources of the country led local populations to flee away to forests and caves before being caught and kept captives and humiliated by the Italian soldiers all over the country.

Consequently, local populations started counter-insurgency strategies consisted in attempting to buy off the leaders of the rebellion with promises of rank and riches while wreaking destruction on the rural people in the rebellious area. The inhabitants of an insurgent area within the empire were treated no differently to a newly-conquered "enemy" population.

Starting from 1935, the political and economic situation in Tena *Woreda* continued to worsen from year to year with agriculture until the liberation period or 1940 since the peasants, adults and soldiers were concentrated on defecting the Italians rather than engaging in agricultural production, and the aggressors controlled most parts of the country. Thus, the years from 1935 to 1940 in the *Woreda* were characterized by social mobility (population and societal movement) and unrest, political instability, economic backslide and stagnation, resistance against the modern weapon equipped Italian soldiers through formal and informal types of warfare among many others. These periods were periods of emigration and stagnation of economic development in Ethiopia too due to the aforementioned conditions and reasons.[29]

The fascist Italian forces were defeated by the combined forces of Ethiopian patriots and the British forces.[30] Leading the victorious combined Ethiopian patriots and British force, Haile Selassie I entered into Addis Ababa on May 5, 1941. The restoration of imperial power

[27]Nymeyer, E. R., 'The Italian-Ethiopian crisis of 1934-1936 and its influence on the formation of American foreign policy', Unpublished thesis submitted to Texas Tech University, 2003.

[28]An Africa Watch Report, Evil Days: 30 Years of War and Famine in Ethiopia. (Africa Watch; Washington, 1991).

[29]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[30]Daniel Gemechu, "A Nation in Perpetual Transition: The Politics of Changes in Administrative Divisions and Subdivisions, in Ethiopia" Papers in Proceeding of 12th International Conference of Ethiopian Studies (1994), pp. 96-97; Ya Agar Gezat Maşehet, 1st year No. 5 (Tahesas 16, 1954 E.C), p. 13.

marked the end of Fascist rule in Ethiopia.[31] When Haile Selassie was restored to power, the reality of Ethiopia was not as it had been before the year 1935. The emperor inherited a country whose administrative framework had been laid down like western colonial powers to some extent. That administrative framework was evident from the structure and administration systems in various sectors such as military, financial, educational and administrative sectors.[32]

Although fascist occupation of Ethiopia ended by the combined effort of Ethiopians and the British, peace and stability was not easily restored after independence. Looting and killings were common as a result of the desperate activities of some fascist remnants and their supporters after immediate liberation of the country.[33] Thus, in order to restore peace and stability in Tena *Woreda*, Haile Selassie administration resorted to the use of local institutions like the *Gada* system together with modern bureaucratic institutions since he realized that the *Gada* systems acknowledge traditional dispute settlement mechanisms, traditional system of governance and also it has unique attributes of leadership that fulfills special social needs of a community unlike modern political institutions of the emperor.[34]

After liberation of the country from Italian yoke, Haile Selassie I promulgated several decrees concerned with land, administrative reforms and economic development polices. Administrative centralization, industry and agriculture development decree of 1963 and 1973 (1955 and 1967 E. C.), investing capital on development activities in Ethiopia, decree of 1967 (1959 E. C.) which exempted foreign investors from income and custom duty excise taxes and foreign goods importing tax (AAU, 1969:720), and many others were the major developments both at country and local levels.[35] However, there was no policy related to agricultural development and commercialization before 1960s till the official issuance of

[31]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[32]*Ibid*.

[33]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022*Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[34]*Ibid*.

[35]የቀዳማዊ ኃይለ ሥላሴ ዩኒቨርሲት የሕግ ፋኩልቲ። *የተጠቀለሉ የኢትዮጵያ ሕጎች፣ ፩ኛ እና ፪ኛ መጽሐፎች*። አድስ አባበ፤ ሴንትራል ማተሚያ ቤት፣ ፩፱፷፰። ገጽ 950-1010።

policy during the third five year plan (1968-1973) intended to inspire rural change and agricultural progress.

The administrative hierarchies under the reign of Menilik comprised of *Balabat (Kebele)*, *Woreda*, *Awuraja*, *Kifle Hagar* and *Hagar* from lowest to the highest while it was restructured as *Balabat*, *Woreda Governor*, *Awuraja*, *Teqlay Gezat* and *Hagar* under the reign of Haile Selassie I.[36] Accordingly, Arussi province restructured as General Governorate of Arussi (Arussi *Teqlay Gezat*) from 1942 to 1946 when Ticho was the capital of Arussi *Teqlay Gezat* and the capital was transferred to Asella since 1947 based on the 1942 administrative decree. Consequently, Ticho was restructured as *Awuraja* from 1947 to 1974 and the administrators were appointed centrally by the Emperor himself. Arussi *Teqlay Gezat* was administered by seven administrators from 1942 to 1974 that had no formal education except *Dajezmach* Daniel Abebe who was a polytechnic graduate.[37] Those were *Dajezmach* Amade Michael (1941-1944), *Dajezmach* Asrate Kassa (*Leul*) (1945-1950), *Dajezmach* Menegesha Seyoum (1951-1954), *Tsehafi T'ezaz* W/Giorgis W/Yohannes (1955-1957), *Dajezmach* Geresu Duki (1958-1961), *Dajezmach* Daniel Abebe (1962-1967), and *Dajezmach* Sahlu Defaye (1968-1974). On the other hand, Ticho *Awuraja* was administered by *Girazmach* Beyene *Abba* Garie (1928-1944), *Qegnazemach* Yekunoamlak (1945-1949), Makshon (1950-1951), *Dajezmach* Abay Kassa (1952-1959), and *Fitawurari* Bekele Ogato (1960-1974) respectively.[38]

In order to ensure the continuity of government revenue, land tenure was declared in 1941. Haile Selassie's government land tenure proclamation[39] has been the first radical measure taken to legalize the payment of tribute with cash. Land was classified based on ownership into *rest* (communal ownership), government land, *maderia,* church land and *siso.* Land tax depended on the fertility of the land and the number of people settled on it. For this purpose,

[36]Informant: *Ato* Worku Shibeshi, Asella via telephone on 10/11/2023.

37Various archives written by Tena *Woreda* to Arsi *Teqlay Gezat* from 1948-to-1974; Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Nigus Nega, Kella town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Girma Kedir, Kella town, 26/10/2022.

[38]Informants: *Ato* Worku Shibeshi, Asella town via telephone on 09/08/2023; *Ato* Reta Dessie, Robe town, 05/08/2023; *Ato* Negash Endale, Robe town, 06/08/2023.

[39]Informants: *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

the proclamation classified the land into *lem, lem tef* and *tef* with cash tax amounted to 15, 12, 4.5 Ethiopian birr per *gasha*, respectively.

The 1944 land reform was the continuation of the 1941 land proclamation except the increase in amount of tax and the transfer of church *tithe* to be paid by land user together with land tax. In this proclamation land tax per *gasha* increased to 50, 40 and 15 for *lem*, *lem tef* and *tef* land, respectively.[40] The proclamation also declared that church *tithe* to be paid in lieu with land tribute. The justification for this was its administrative cost effectiveness.[41]

People in Tena district seriously opposed such land tax reforms directly through peasants' revolts and indirectly by resisting forces imposed on them to pay tax revenue. In response, the government and its officials forced the people to accept the land tax reform using the *Mikitil Woreda* governor's propaganda to pay the tax urgently by informing them the consequences of not obeying the orders/commands as well as by frequently informing and re-informing the peasants.[42] According to their propaganda, peasants who were in this district could assure their land as their own property if and only if they could pay tax for it. Even if the government used various strategies and several campaigns to make people accept the land tax reforms, all the people of the district expressed their grievances through successive petition to the *Awuraja* and *Teqlay Gezat* as well as to the central government.[43] They asked for reduction of tax taking into account the life of the poor peasants. The imperial government, however, did not give urgent solution.[44]

Generally, in Ticho *Awuraja* and particularly Tena district, the amount of income collected from the rural population and from other social services in the towns far outweighed by the expenditures cost which the central government provided for different social and political services. Thus, peasants, who lived in great discontented situations, and who were denied fair

[40]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022.

[41]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022.

[42] Articles in Haile Selassie I Decree 1/1942; Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Nigus Nega, Kella town, 26/10/2022.

[43] Informants: *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[44]Articles in Haile Selassie I Decree 1/1942; Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022.

justice for their cases sought for great changes in state structure and for better living conditions.[45]

Three successive five year plans were developed by the Emperor. Except the third five-years plan, the rest two five years' plans failed to focus on agriculture development and commercialization of farms. Consequently, the lives of peasants deteriorated eventually starting from the 1960s and paved a way to massive revolts and struggles against the government of Haile Selassie I. Such organized revolts and struggles led to the overthrow of the Imperial government in 1974. Following the overthrow of the Emperor and his administrative system, land was confiscated by *Dergue* and distributed to the landless peasants in the district in accordance to rural and urban land decree of the military government in 1975. So, private holdings of land and Commercial Agricultural Farms in the district came to the end as the military junta that took power after the revolution pursued a socialist strategy and distributed the land to the peasantry, but kept ownership in the hands of the government.

1.5. Development of Commercial Agriculture in Ethiopia and Role of Foreigners

Historians and scholars discussed the commercialization of agriculture using irrigation in small farms by Menilik II, Imperial government, enterprises and foreigners.[46] Those commercial agricultural farms played several roles in the transformation of agrarian and subsistence farming activities into commercial activities; and in technology transfer, and pulling foreign capital to the country in general and to Tena district in particular. In relation to these, there were a number of foreigners that engaged in Commercial Agricultural Farms in Ethiopia.

[45] Articles in Haile Selassie I Decree 1/1942; Informants: Ato Begashaw Nigussie, Robe town, 26/10/2022; Ato Getu Alembow, Robe town, 27/03/2022; Ato Tesfaye Asnake, Robe town, 17/05/2022; Ato Habtamu Kebede, Robe town, 13/05/2022.

[46] Awulachew, S. B., Yilma, A. D., Loulseged, M., Loiskandl, W., Ayana, M., Alamirew, T. "Water Resources and Irrigation Development in Ethiopia." Colombo, Sri Lanka: International Water Management Institute, (Working Paper 123), 2007. p. 78; Girma Negash, "The Historical Evolution of Land Tenure and Mechanization in Hetosa Warada Arssi Region 1880-1974" Senior Essay, Department of History, Addis Ababa University, 1982; Seifu Gebre/Mariam. "Commercial fruit production in Ethiopia." Ethiopian Agricultural Research Organization; Melkasa Agriculture Research Center, n.d.; Pankhurst, R. (1967). Menilik and the Utilization of Foreign Skills in Ethiopia. *Journal of Ethiopian Studie*s, 5(1):29-86.

To begin with, Richard Pankhurst noted that economic development during the Menilik period to a large extent based on land grant by the Emperor for concessions and monopolies to foreigners of various nationalities who were deemed capable of exploiting the country's potentialities in one field or another.[47] Some of the most important of those concessions described in the Pankhurst's historical essay emphasized that Ilg was granted such rights in Wollega and an Englishman, G. W. Lane was granted such rights in Beni Shangul. Also, the right to exploit the country's rubber resources was entrusted to a British company known as the Ethiopian Rainproof Monopoly Company in 1905 and founded by the Syrian merchant Ydelbi. Still, Régie Co-interessée des Tabacs de l'Empire Ethiopie was given such rights in 1905 to a Lesghian, M. Hanefi, a Greek, M. Kekatas, and an Ethiopian nobleman, but it was transferred in 1908 to the Indian merchant, Mohamedally, and in 1909 to the Armenian trader, Matig Kevorkofif in the field of tobacco monopoly.[48]

The French merchant Savouré acquired concessions to grow bananas, papayas, pomegranates and vegetables as well as high-quality cotton near Awura Melka on the Asabot road. According to the review of Pankhurst, he also attempted to produce rubber commercially and established a Sanseviera plantation at Harar which was later transferred to his compatriot Guignony. Moreover, the Russian Babitchev firm ran a model farm with fruit trees and coffee bushes with number of employees ranging from 100 to 120 at Ada'a to the east of Addis Ababa. Baron Alfons Mylius, of German citizenship, obtained a concession to grow cotton in Kaffa, but, despite big plans, appears soon to have abandoned the project. The Italian Bertolani, who had been attached to the telephone service, was later given a large concession in Arussi. The French missionary, Möns. Taurin, had a farm in the Harar area, while one of his compatriots, M. Bavelaire, also grew coffee and citrus fruits not far away. An Italian, Ottorino Rosa, had a four-hectare coffee plantation near Harar which he had obtained from an Egyptian cavalry officer who left the country at the end of the Egyptian occupation in 1885.

A Greek trader Gerolimato had a cotton plantation at Erer, also in the Harar area, and seems to have introduced fruit cultivation there. Another Greek, Diamantopoulos, who came to

[47]Richard Pankhurst. Menilik and the Utilization of Foreign Skills in Ethiopia. *Journal of Ethiopian Studies*, 5(1):1967. pp.29-86.

[48]Richard Pankhurst. 1967. p. 70.

Ethiopia around 1898, had another plantation near Harar, where he grew coffee, tobacco, bananas, prickly pears and various vegetables and fruits which he had imported from Greece. A third Greek, Manjola IClabutaki, also held a stretch of land just outside Harar which he had obtained in the 1880's: besides coffee he cultivated oranges, lemons, bananas, papayas and various plants from India. The Armenian Serkis Terzian had an estate at Amaresa near Harar and another at Akaki. A compatriot of his called Artin had a coffee plantation in the Harar area and also grew dates.

Another Armenian, Caspar, held land at Maroco in Guragé, while a third grew fruit at Sofi in the Harar area. Still Garakian, another Armenian, grew bananas somewhere in the same region. The Swiss firm of Dubail had an agricultural concession at Hirmata in the west, while the Syrian Ydelbi seems to have grown cotton some-where in that area. A French woman, Madame Terrasse, wife of a hotel-keeper of that name, introduced the cultivation of strawberries in Addis Ababa.

There is record also of at least two other Frenchmen, a Swiss and a Greek, all of whom attempted to grow coffee, cotton, fruit and vegetables in the Dankali area, a German who tried to produce cotton in Aussa, and an unidentified Arab farmer further south. Many of these lands were given in perpetuity, others at the pleasure of the king, while in the Harar area Michel tells us that they were usually given only for a period of ten years. The Armenians who, unlike most of the foreigners, arrived with their women folk and settled on a more or less permanent basis were largely responsible for the cultivation of grapes, peaches, figs, quinces and tomatoes, as well as tobacco.[49] However, there were no other commercial agricultural farms ran by foreigners in the province except the above ones and that of the Italian Bertolani who had been later given a large agricultural concession in Arussi.

In the same conjectures, Pankhurst attributed the economic development during the Menilik II period to the grant offered by the Emperor to foreigners of various nationalities who were deemed capable of exploiting the country's potentialities in one field or another through concessions and monopolies. Also, there were a sizable number of foreign horticulturalists who played a significant role in the introduction of new types of fruits to the country. Those immigrants were

[49]Pankhurst, R. (1967). pp. 70-71.

largely responsible for the cultivation of grapes, peaches, figs, quinces and tomatoes, as well as tobacco.[50]

The commercial grinding of grain was initiated early in the twentieth century by a Frenchman, Stévenin, whose mill was fitted with a petrol engine in 1909; the Armenian Serkis Terzian and an Italian, Torinelli who also entered the industry around 1905 and 1906 respectively, while a second Italian Vaudetto was yet another early mill-owner. However, he indicated that the majority of the millers were Greeks such as Costas Kotsifis, who began operations in 1905; Polydoros Zecou in 1906; P. Sarris in 1911; and N. A. Halcoussis in 1912.[51] Therefore, foreigners played several roles in the transformation of agrarian and subsistence farming activities into commercial agricultural activities; in transferring modern agricultural technologies, and pulling foreign capital to the country in general and to Tena district in particular. Moreover, the roles of foreigners in establishing and developing capital-intensive commercial agricultural farms specialized in the production of variety of fruits, crops and plantations in Ethiopia don't arouse question. Thus a number of foreigners played vital roles in the initiation of commercial agriculture through irrigation in Ethiopia almost parallel to the commencement of large federal projects in the 1930s to 1960s in USA.[52] Thus, the roles of foreigners in establishing, knowledge transfer and experience sharing in relation to commercial agriculture through irrigation are undeniable.

[50]Pankhurst, R. (1967). pp. 69-70.
[51]Pankhurst, R. (1967). pp. 71-73.
[52]Evett, S. R., Colaizzi, P. D., Lamm, F. R., O'Shaughnessy, S. A., Heeren, D. M., Trout, T. J., Kranz, W. L. and Lin, X. (2020). pp. 705-706.

Chapter Two

Foundation and Early History of the Farms (1917-1937)

2.1. Brief History of Elias Pappasinos and Camiel Van Billoen

Elias Pappasinos was borned.in Greek in 1888. However, Camiel Van Billoen was borned in Belgium in 1896.[1] Elias Pappasinos lived from 1888 to 1972 while Camiel Van Billoen lived from 1896 to 1964.[2] Both Elias and Camil that engaged in developing commercial coffee farms initially came to Ethiopia as employees the Société des Plantations d'Abyssinia. Camiel Van Billoen died in 1964 in Addis Ababa and buried at St. Peter Church in Addis Ababa whereas the place of death of Elias Pappasinos was not available. I like to add that Elias Pappasinos was known as Muse Elias and Camiel Van Billoen was known as Muse Van Billoen by oral informants and residents of Tena, Shirka, Robe Didea and other districts of Arussi Zone except George C. Van Billoen, son of Camiel Van Billoen bornt to an Ethiopian wife named *W/o* Yewubdar Kassa to settle the potential ambiguity and confusion among local readers who know them as Muse Elias and Muse Van Billoen.

2.2. Elias Pappasinos and Camiel Van Billoen in Ethiopia

Belgians came to Ethiopia probably after Ethiopia concluded trade agreement with Belgium in 1906 during the reign of Menilik II while Greek had a long contact with Ethiopia. After the conclusion of trade agreement with Ethiopia, Blains and Baijeot, Belgian concession holder companies specialized in commercial coffee agriculture entered Ethiopia and started to develop commercial coffee agricultural farms in Wendo Genet of Sidamo province and then in Minie Gololcha, one of the districts located in Arbagugu province.[3] The information I got from the Federal Government of Belgium's Federal librarian indicated that in the early 20th century, there were two (the first was Blains[4] and the other was a company called Baijeot[5]) Belgian companies in Ethiopia that merged in 1912 and formed the Société des Plantations d'Abyssinia. Also, he informed me that a Belgian website lists the Société des

[1]Informant: Mr. George Banbilu via telephone on 08/08/2023.

[2]Informants: *Ato* Tanku Mule, Kella town, 27/03/2022; Mr. George Banbilu via telephone on 08/08/2023.

[3]Norberg, V. H. *Swedes in Haile Selassie's Ethiopia, 1924-1952: A study in early development cooperation*. Uppsala: Scandinavian Institute of African Studies; Sweden. 1977. p. 56.

[4]Informant: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023.

[5]Pankhurst, R. Menilik and the Utilization of Foreign Skills in Ethiopia. *Journal of Ethiopian Studies*, 5(1):29-86, 1967, p.76.

Plantations d'Abyssinia as a company that operated between 1913 and 1970.[6] On the basis of these information, it is possible to infer that Elias Pappasinos and Camiel Van Billoen came to Ethiopia as employees of the two companies that merged and formed the Société des Plantations d'Abyssinia. However, there was no oral traditions on the two merger companies and the formed Société des Plantations d'Abyssinia.

According to historical Richard Pankhurst, Belgian trading firm called Baijeot operated in Ethiopia. The company was running by citizens of different nationalities.[7] Thus, that Belgian trading firm was one of the two merger Belgian companies to form the Société des Plantations d'Abyssinia and engaged in commercial coffee farms establishment in Wendo Genet of Sidamo and Minie Gololcha of Arussi provinces in 1912.

Montandon described that there was one Belgian trading firm known as Baijeot in Ethiopia during the reign of Menilik.[8] When these two historical evidences are analyzed and extrapolated, it is possible to suggest that Elias Pappasinos was the employee of a Belgian concession company named Blains which operated in Wendo Genet of Sidamo Camiel while Van Billoen was the employee of the Belgian Baijeot operated in Minie Gololcha of Arussi province engaged in establishment and development of commercial coffee farm in Wendo Genet of Sidamo province and Minie Gololcha of Arussi province from which the two Elias and Van Billoen came to Ticho and Tena *Woreda*.

They came to Ticho as it was the capital town of Arussi *Teqlay Gezat* (Governorate General) on the bases of informants' accounts and served as the center of governmental income and property tax collection center for Arussi and Sidamo during the reigns of Menilik II (1889-1913), *Lij* Iyasu (1913-1916), Empress Zewidtu and *Ras* Teferi (1916-1930), Emperor Haile Selassie I (1931-1935), Italians period (1936-19400 and after restoration of Emperor Haile Selassie I back to the throne once again (1941-1946).[9]

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[6]Ukers, W. H. and Bitting, K. G. All About Coffee (2nd Ed.). New York: The Tea and Coffee Trade Journal Company; 1935. p. 170.

[7]Richard Pankhurst. 1967. p. 76.

[8]Richard Pankhurst. 1967. p. 76.

[9]Informants: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022.

Norberg reported that there were 28 Belgians in Ethiopia that worked in government departments such as Ethiopian Special Military Army in the rank of Major and lieutenants, and there were also some that engaged in agricultural activities, Industry and Handicraft, Trade and Communication, Administration and domestic work during the reigns of Menilik II (1889-1913), Lij Iyasu (1913-1916), Empress Zewidtu and *Ras* Teferi (1916-1930), and Emperor Haile Selassie (1930-1974) in different provinces and districts of the country.[10]

Elias Pappasinos and Camiel Van Billoen came to Ethiopia as employees of the Belgian companies that entered Ethiopia to develop commercial coffee farms and aimed at exporting produced coffee back to Belgium. Elias Pappasinos lived in Ethiopia from 1917/18 to 1957 while Camiel Van Billoen lived in Ethiopia from the 1922/23 to 1964 respectively.[11]

My informants noted that they don't know the exact jobs of both Elias and Van Billoen in the companies for which they were working for except mentioning that they were employees. However, based on the fact that they came to Ticho to pay taxes, one could infer/guess that they might be the financial managers and/or accountants of a company for which they were working for.[12]

Elias Pappasinos and Camiel Van Billoen seem to have been attracted to Ticho and/or Tena district for several reasons. To begin with, Elias Pappasinos might have been attracted to commence his own Commercial Agricultural Farms by the agro-climatic conditions and especially availability of water for irrigation, and the scarce settlement of the land and availability of large plots of land for agricultural purposes.[13] Elias Pappasinos on the other hand used to return to Sidamo using the road that passed through Ticho-Kella-Shirika Gobessa-Bekoji-Sagure-Asella-Ziway-Sidamo. This meant that he got several chances to

[10]Norberg, V. H. *Swedes in Haile Selassie's Ethiopia, 1924-1952: A study in early development cooperation*. Uppsala: Scandinavian Institute of African Studies; Sweden. 1977. pp. 66 and 93.

[11]Informants: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[12]In the present private and governmental organizations either the financial managers and/or the accountants are responsible for paying taxes as well as journalizing the transactions to settle the accounts. Therefore, based on this real world tasks of financial managers and/or accounts, the author argue that they were either financial managers or accountants or both.

[13]Informants: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Tanku Mule, Kella town 27/03/22.

observe the suitability of the places he would in the future establish his commercial agricultural farm on during these trips. Again, Camiel Van Billoen used to return to Minie Gololcha using the road that passed through dense and abandoned forest lands of Tena, Robe, Amigna and Seru districts. This meant that he got several chances to observe the suitability of the places he would in the future establish his commercial agricultural farm on during these trips.

In addition to these, they were attracted by water potentials of the Tena *Balabats* (*Kebeles*). That is, Kereyu *Balabat* is drained by the 66 kilometers of the Demasho perennial River, the 58 kilometers of the Sarbona perennial River and the 39 kilometers of larger the Walkessa perennial River. Similarly, Sole H/Shale *Balabat* is drained by the 13 kilometers of the Hararghe perennial River and the 15 kilometers of the Tarana perennial River. There are rivers like the *Hadha Ware* River, the Boranticha River and the 12 kilometers of smaller Walkessa perennial Rivers in the later *Balabat.* Thus, the availability of surface and ground water potentials (perennial in type) along with the springs together with their *Qolla* agro-climatic conditions made them the two *Balabats* good candidate sites and *Balabats* to attract both capital and labor intensive and experienced foreign and/or local investors to establish commercial agricultural farms through irrigation.[14]

2.3. Early Inceptions of Camiel Van Billoen's Commercial Agricultural Farms

The highlands and lowlands, and *Qolla* agro-climatic zones of Arussi such as Gololcha, Sole Haji Shale and Kereyu *Balabats* of Tena *Woreda*, Ziway Dugda, Dodota, Merti, etc. are the key areas for commercial coffee, sugarcane, pepper and tomato agricultural production through irrigation throughout Ethiopia. However, the presence of such diversified potentials (climate, water resources and huge vacant fertile lands) for establishment and development of commercial agricultural farms in the country, there were none in Tena district prior to the 1920s except the one developed by Elias Pappasinos in 1924.[15]

The possible reasons for the inception of Elias Pappasinos and Camiel Van Billoen's commercial farms could be many. The first probable reason for the conception of the farms

[14]Informants: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

[15]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

could be profitability of Belgian companies in Ethiopia that developed commercial coffee farms in Sidamo and Minie Gololcha. This meant that the inception of the ideas of Elias Pappasinos's and Camiel Van Billoen's commercial agricultural farm might be linked with the realization of the profitability of Belgian company engaged in commercial coffee farm development and exporting coffee to Belgium after the trade agreement[16] was concluded between Ethiopia and Belgium in 1906. The potentials of Tena district and specifically Kereyu and Sole H/Shale *Balabats* that attracted them was the second probable reason.

The information Elias Pappasinos and Camiel Van Billoen obtained from several individuals and companies engaged in commercial coffee farming in different provinces and districts in the eastern, southeastern and southern parts of the country prior to them and their operational successes and profitability seems to have been the other reason why the two individuals picked up the project. Elias Pappasinos communicated with different land owners in the district and contacted his farm lands from three land lords in the district.

The third probable reasons that encouraged them to start commercial coffee farming, was the success histories and profitability of a number of commercial agricultures through irrigation in Ethiopia that were previously established from 1890s to 1920s. For instance, the Upper Awash Agro-Industry Enterprise (such as Aware Melka Farm, Merti Jeju Farm, Nura Era Farm, Tibila Farm and Merti Processing Plant), Fruit and Vegetable Marketing Enterprise (such as Citrus, Banana, Mango Passion fruit, Fruit Sell, Average Fruit Price and Unmarketable Fruits), Coffee Plantation Development Enterprise (such as Bebeka, Gojeb and Tepi), Abadir Farm, Tony Farm and Melkasedi Farm.[17]

Elias Pappasinos preceded Camiel Van Billoen in coming to Ticho *Woreda* and in commencing commercial agricultural activities. His Commercial Agricultural Farms were established in Sole Haji Shale *Balabat at* a place locally called *Uta*. On the contrary, Camiel

[16]Norberg, V. H. *Swedes in Haile Selassie's Ethiopia, 1924-1952: A study in early development cooperation*. Uppsala: Scandinavian Institute of African Studies; Sweden. 1977. p. 56.

[17] Seifu Gebre/Mariam, "Commercial fruit production in Ethiopia." Ethiopian Agricultural Research Organization; Melkasa Agriculture Research Center, n.d.

Van Billoen came later in 1922/23 to Tena and commenced Commercial Agricultural Farms at a place called Kereyu Gergeda *Balabat* later than Elias Pappasinos.[18]

Thus, Elias Pappasinos and Camiel Van Billoen's farms emerged in Sole Haji Shale and Kereyu *Balabats* of Tena *Woreda* in the Ethiopian economic landscape in 1924 and in 1936 within 12 to 13 years' intervals preceding one another, respectively.

Informants noted that Elias Pappasinos sold his farm to Camiel Van Billoen in 1936 for 36, 000 *lire* for unknown reason(s) and established an Ouzo liqueur company under his own name in Addis Ababa.[19]

Accounts by key informants show that the land acquisition processes undergone by Elias Pappasinos and Camiel Van Billoen were different. Elias Pappasinos directly contacted the contractors through his legal advisor five *gashas* land from three land owners situated in Sole Haji Shale rural *Kebele*. *Gerazemach* Kawo Kero, *Memhrie* Mekonnen and *W/o* Wubshet Manayie who were residents of Sole Haji Shale *Balabat* of Tena *Woreda* around 1919 and 1920. According to the contract, he leased five (5) *gashas* for 40 to 50 years. This contract led to the realization of Elias Pappasinos's idea of establishing a commercial agricultural farm in the area.[20] Unlike Elias Pappasinos, Camiel Van Billoen was invited by *Gerazemach* Beyene *Abba* Garie, the administrator of Ticho *Awuraja* to start the work. *Gerazemach* Beyene *Abba* Garie, the administrator of Ticho *Awuraja*, invited Camiel Van Billoen to ensure continuous commercialization of free nearly unpopulous lands in the district probable due to the real influence of a prior success of Elias Pappasinos in commercializing small scale farm lands to establish Commercial Agricultural Farms in the then vacant forest land in Kereyu rural Balabat. The invitation of *Gerazemach* Beyene *Abba* Garie in the case of Camiel Van Billoen seems have convinced him about possibilities of getting farm lands through contracts and lease. This appears to have been the last reasons why Camiel Van

[18]Informants: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023; *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022.

[19]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Genene Kassa, Addis Ababa, 12/08/2023 via telephone; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022.

[20]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

Billoen was encouraged to start commercial coffee farms in the district.[21] The land was the property of *Ato* Desalegn Bortole and it was exactly seven (7) *gashas* he was granted by the Emperor for free.[22] Camiel Van Billoen replied that since he was not an Ethiopian, he lacked legal capacity to enter sales contract with Ethiopia based on the then civil law. Hence, *Gerazemach* Beyene contacted *Ato* Desalegn Bortole and asked him whether he would sell his land or not. *Ato* Desalegn affirmed his willingness to sell his seven *gasha* of land for 15 Maria Theresa Thalers. *Gerazemach* Beyene asked him to reduce the price of one *gasha* and finally, he agreed to sale each *gasha* 12 Maria Theresa Thalers. *Gerazemach* Beyene then informed Camiel Van Billoen that the owner has agreed to sale the land. Camiel Van Billoen then gave 84 Maria Theresa Thalers to *Gerazemach* Beyene and the sum was paid to *Ato* Desalegn Bortole. To that end, *Gerazemach* Beyene and Camiel Van Billoen made a lease agreement lasting for 90 years.[23] So, Camiel Van Billoen leased the land based on the agreement between him and *Gerazemach* Beyene.

In addition to the purchased five *gashas* of farm lands and leased seven *gashas*, Camiel Van Billoen also contracted about eight *gashas* of lands from different landlords that owned lands in the areas adjoining his already developed farms.[24] Thus, the total land used for the commercial farms amounted to about twenty *gashas*. His farms were known as Hassan Osman Coffee Plantation Company in Belgium. The official seat of the company was Brussels, Belgium.

The farm had two general managers. The farms situated in Sole H/Shale *Balabat (Kebele*) were managed by *Ato* Mule Guale while the farms located in Kereyu *Balabat* were managed by *Ato* Kassa Bogale. The overall operations and activities of the farms in both *Balabats* were managed, led, directed and operated by Mr. Van Billoen, the owner of Hassan Osman

[21]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

[22]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

[23]Informants: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[24]Informant: *Ato* Genene Kassa, Addis Ababa via telephone on 09/08/2023.

Coffee Plantation Company until his death in October 1964. From November 1964 to 1974, the later tasks were transferred to his son, George C. Van Billoen.[25]

When contrasted with other commercial agricultural farms developed by foreigners of various nationalities in Ethiopia, the Commercial Agricultural Farms in Tena district were established by Camiel Van Billoen through purchase of developed coffee farms, lease and contract agreements. In contrary, most of other foreigner commercial farmers who preceded them obtained farm lands through a number of concessions and monopolies to foreigners of various nationalities granted by the Emperors ruling the country when they started the commercial agricultural activities. Thus, having started commercial farms through purchase of developed coffee farms, lease and contract make Camiel Van Billoen different from other commercial farmers that preceded them and the commercial agricultural farms operated by the Belgian Baijeot company in Sidamo and Minie Gololcha that developed commercial coffee plantation farms in 1912.[26]

Furthermore, the researcher would like to pose one important question. How Camiel Van Billoen was allowed or permitted to engage in both capital and labor intensive Commercial Agricultural Farms in Ethiopia when he was non-Italians and the whole country was invaded and controlled by Fascist Italy in 1936. In relation this question, Weller (1942) asserted that being blitzed at dose quarters in Europe, Belgium has crossed the entire continent of Africa to take revenge on the Axis. In a tropical campaign whose like for continuous and varied hardship has not yet been witnessed in this war, Belgium has bested or defeated Italy in Ethiopia.[27] Also, informants noted that Ms. Van Billoen, an Italian citizen wife of Camiel Van Billoen, stood at the center of Ticho town waved an Italian flag while the aeroplane of Italian passed over the town.[28] This meant that the wife of Camiel Van Billoen was an Italian and that might be another reasons as to why they were permitted to operate their farms peacefully.

[25]Informant: *Ato* Genene Kassa, Addis Ababa via telephone on 08/08/2023.
[26]Pankhurst, R. 1967. p. 71.
[27]Weller, G. *The Belgian campaign in Ethiopia: A trek of 2,500 miles through jungle swamps and desert wastes*. New York: Belgian Information Center; 1942. p. 2.
[28]Informants: *Ato* Tanku Mule, Kella town, 27/03/2022; *Ato* Belay Abebe, Kella town, 26/10/2022.

Since the Italians focus on urban centers than the rural areas, it is possible to infer that the Commercial Agricultural Farms of Camiel Van Billoen failed to gain the focus and interests of the Italians to interfere with the undertakings of Camiel Van Billoen in Tena *Woreda*.[29] They also argued that the Italians weakened and destroyed non-Italian foreign firms and replaced them with governmental enterprises that controlled the industry, trade and agriculture in the economic respect. Thus, the Italians were relatively successful in the sectors of trade and industry as compared to the agricultural sector. For instance, they planned to settle Italian farmers in selected Ethiopian areas such as Wegera, Chercher and Jimma. However, their agricultural plan was failed (they only accomplished 10%) due to their failure to secure the control of the rural areas due to the patriotic movement.[30]

Consequently, no question arises as how Camiel Van Billoen was allowed or permitted to engage in both capital and labor intensive Commercial Agricultural Farms in Ethiopia when they were non-Italians and the whole country was invaded and controlled by Fascist Italy.

2.4. Construction of Residential Houses and Other Infrastructures

Prior to the establishment of farms, both Elias and Camil constructed their residential houses in the respective rural *Kebeles*. The residential houses of both Elias Pappasinos and Camiel Van Billoen were constructed from wooden materials, muds and the roofs of the houses were made from *Tid* timbers. In addition to his own residential house, Elias Pappasinos also constructed a residential house for his advisor, *Ato* Mule Guale. The materials used to construct the house of his advisor were the same as the materials used for constructing his own residential houses except differences in dimensions, facilities and equipment (Figure 2.1, Figure 2.2 and Figure 2.3). My informants noted that the engineer and the house builders were Armenians.[31] The presence of Armenian builders in the country during then were mentioned by Richard Pankhurst too[32] and this resolve the ambiguity that might be raised on how Elias Pappasinos and Camiel Van Billoen got Armenian house builders.[33] The tools,

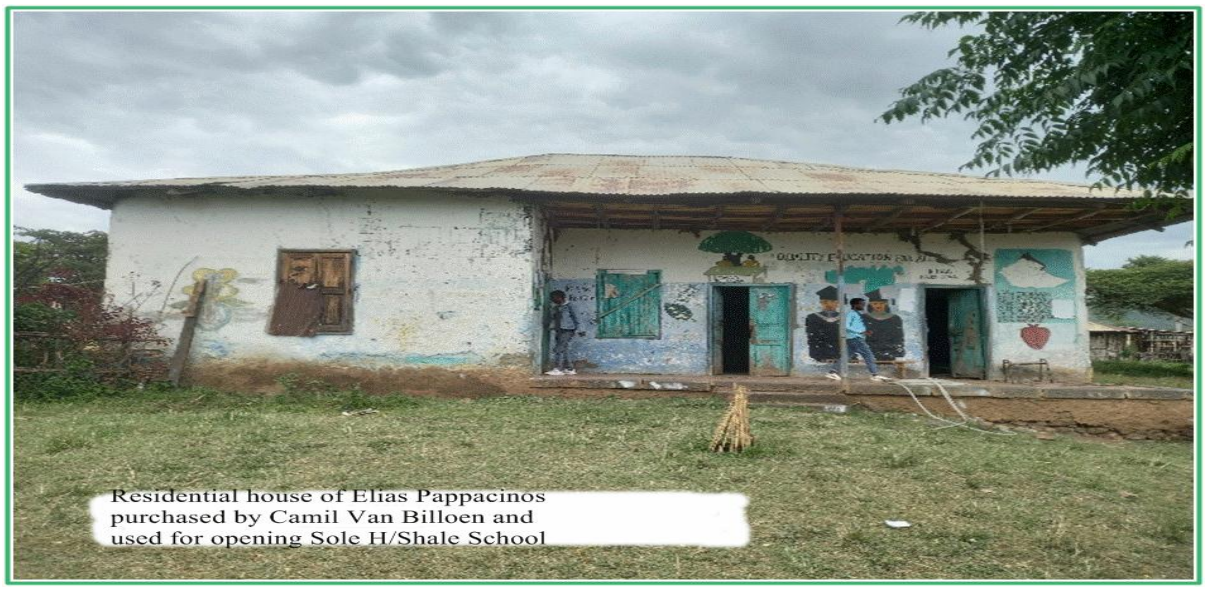
[29]Surafel Gelgelo, Deressa Debu, Dereje Hinew and Meseret Worku (2020). pp. 143.
[30]Surafel Gelgelo, Deressa Debu, Dereje Hinew and Meseret Worku (2020). pp. 143.
[31]Informant: *Ato* Tanku Mule, Kella town, 27/03/2022.
[32]Pankhurst, R. 1967. pp.8, 16, 31, 36, 38, 44, 46, 48, 58, 59 and 67.
[33]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

materials, machines and equipment not available at local market were imported free from custom duty tax and goods importing tax.

The construction of residential houses, acquisition of lands and signing of contract agreements with the contract grantors and through 90 years' lease heralded the foundation of the commercial farms of both Elias Pappasinos and Camiel Van Billoen.

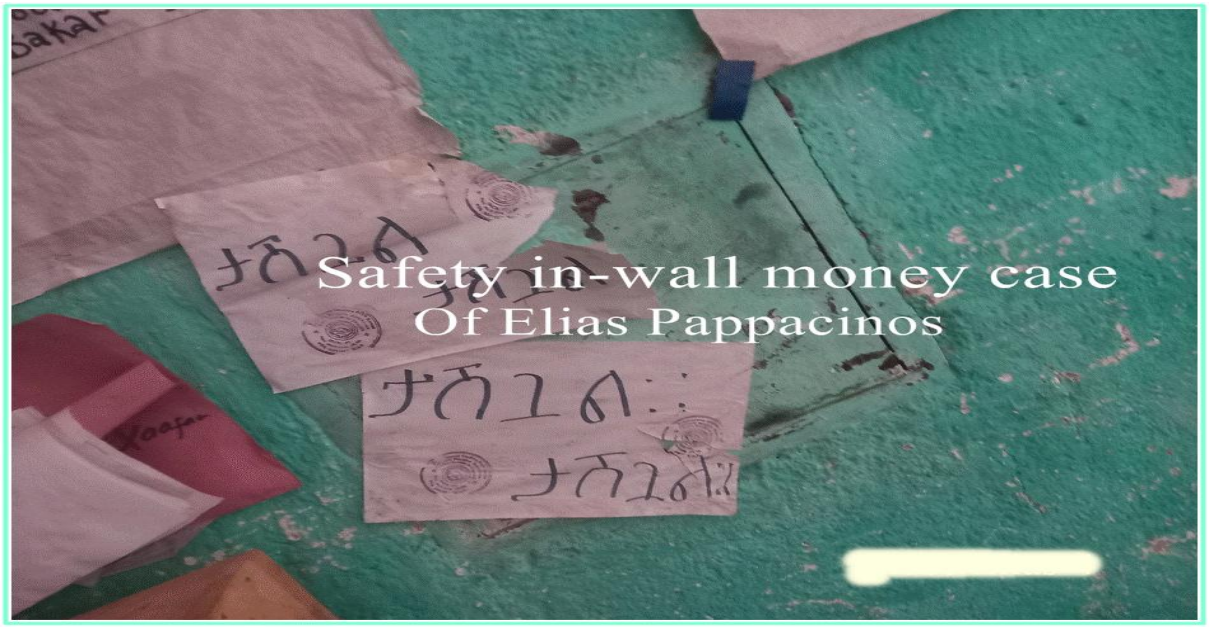
Elias Pappasinos's residence had a safe built into the wall for safety purpose and to avoid easy access by potential robbers and thieves. The money store or bank of Elias Pappasinos looked like the window for outsiders and visitors that didn't know the reasons why it was sealed based on the interviewed informants (Figure 2.1).[34] Camil on all figures have to be read as Camiel.

Figure 2.1: Ex-Elias Pappasinos's and his ex-advisor's residential houses

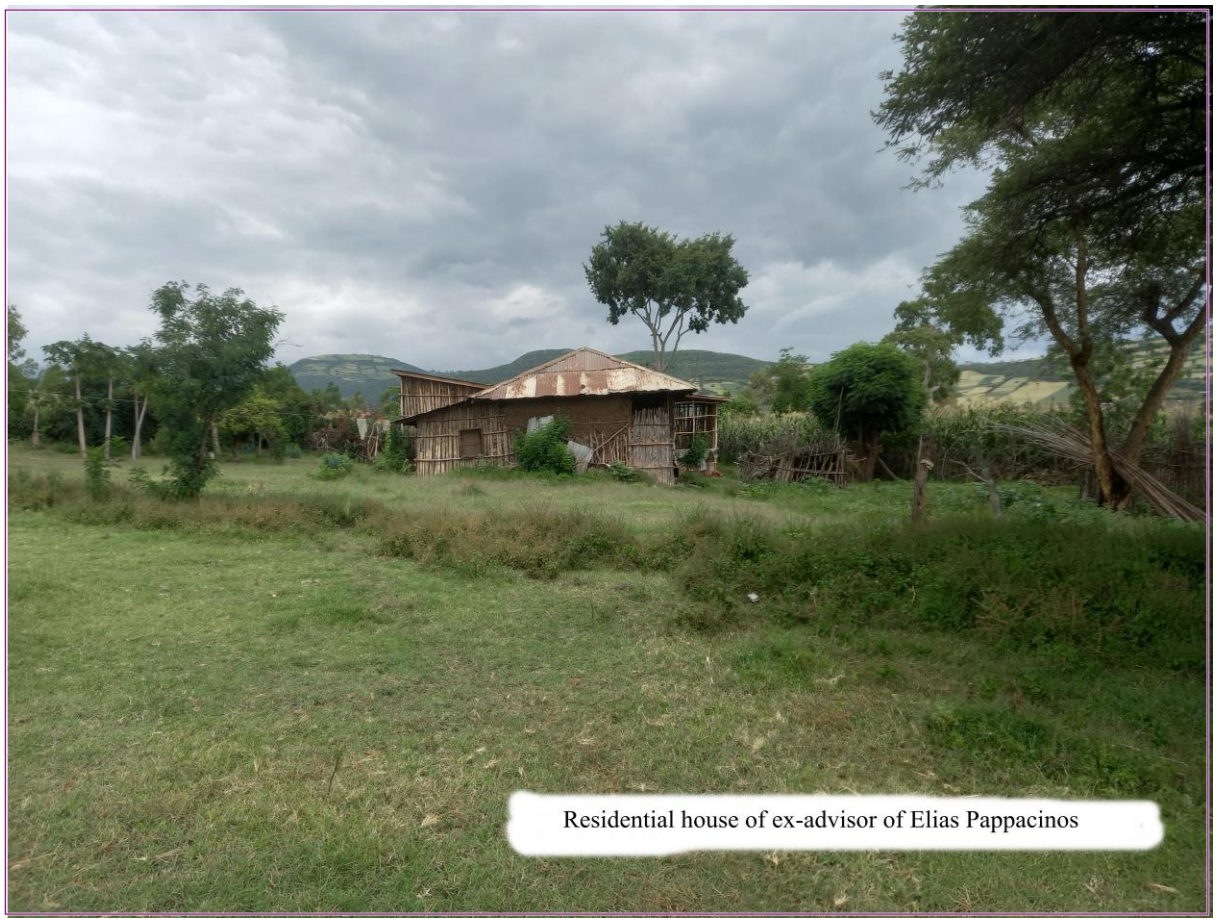


Source: Photo by Efrem Alaro

[34]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.



Source: Photo by Efrem Alaro



Source: Photo by Efrem Alaro

Figure 2.2: Some of the kitchen wares of Elias Pappasinos

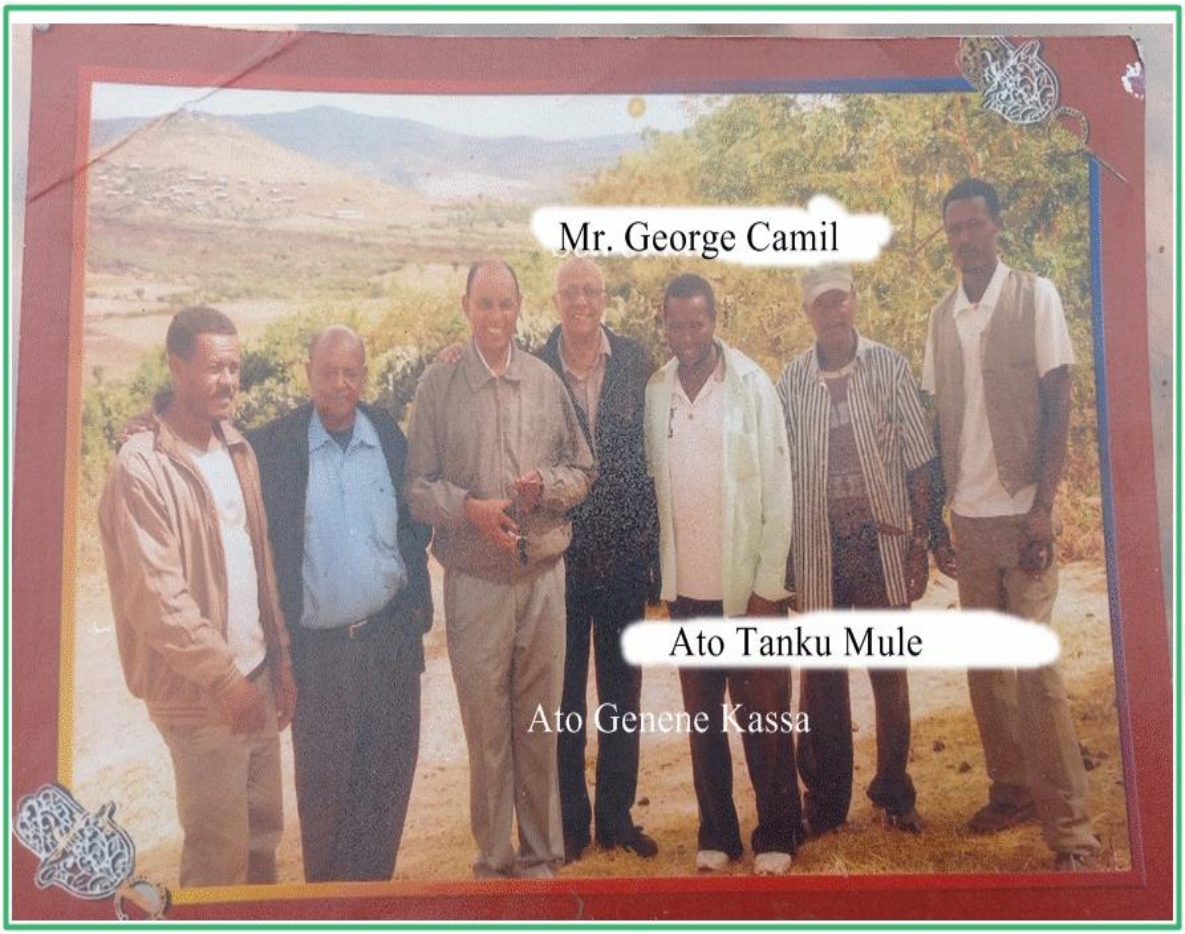
Source: Photo by Efrem Alaro

Figure 2.2: Some of the kitchen wares of Elias Pappasinos

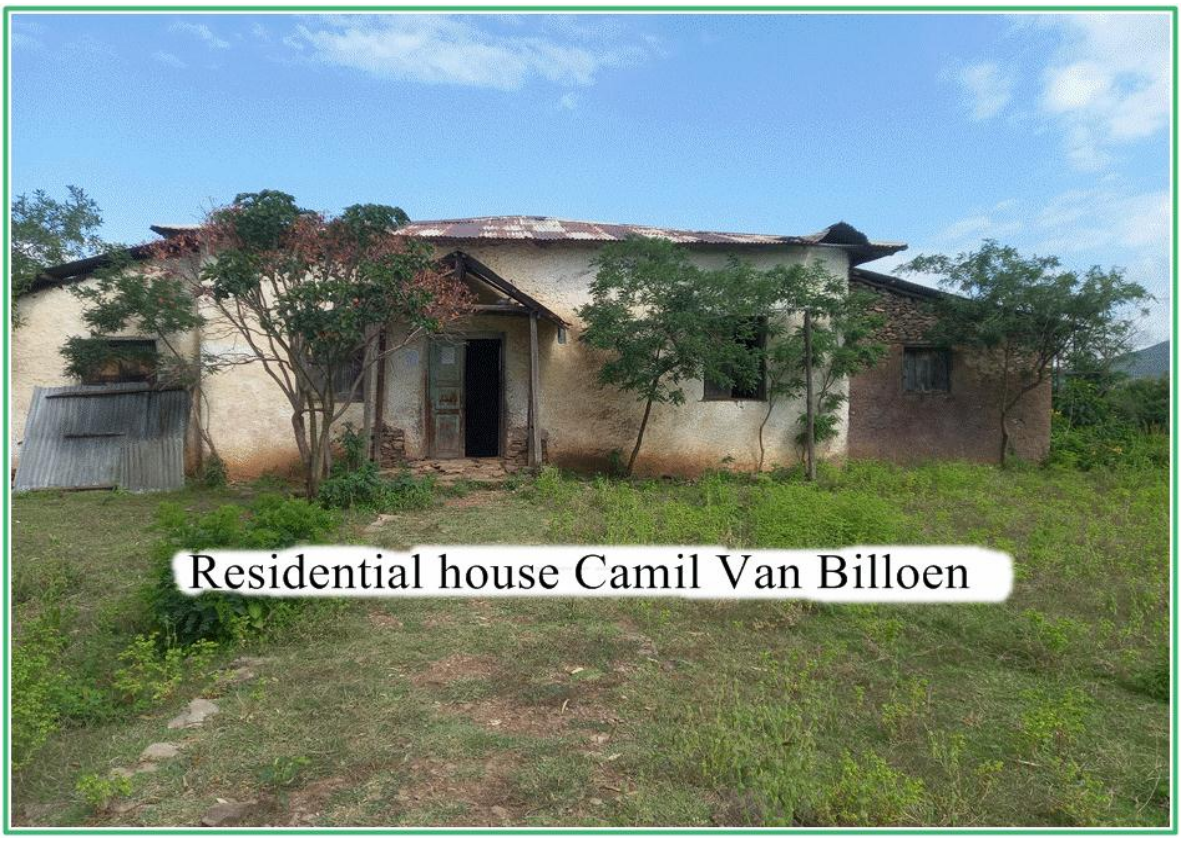
Source: Photo by Efrem Alaro

Figure 2.3: Camiel Van Billoen, his son, residential house and bell for calling workers

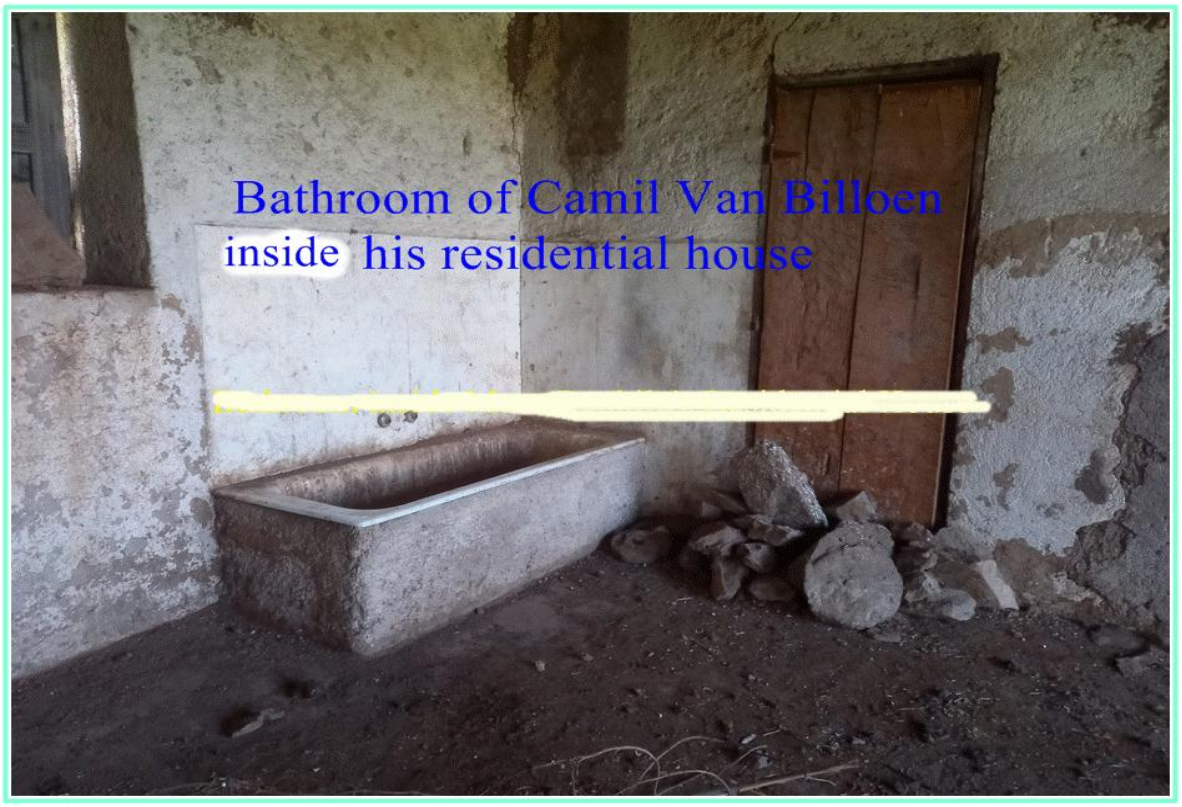
Source: Photo by Efrem Alaro



Source: Photo by Efrem Alaro



Source: Photo by Efrem Alaro



Source: Photo by Efrem Alaro

Source: Photo by Efrem Alaro

Chapter Three

Camiel Van Billoen's Commercial Agricultural Farms (1938-1974)

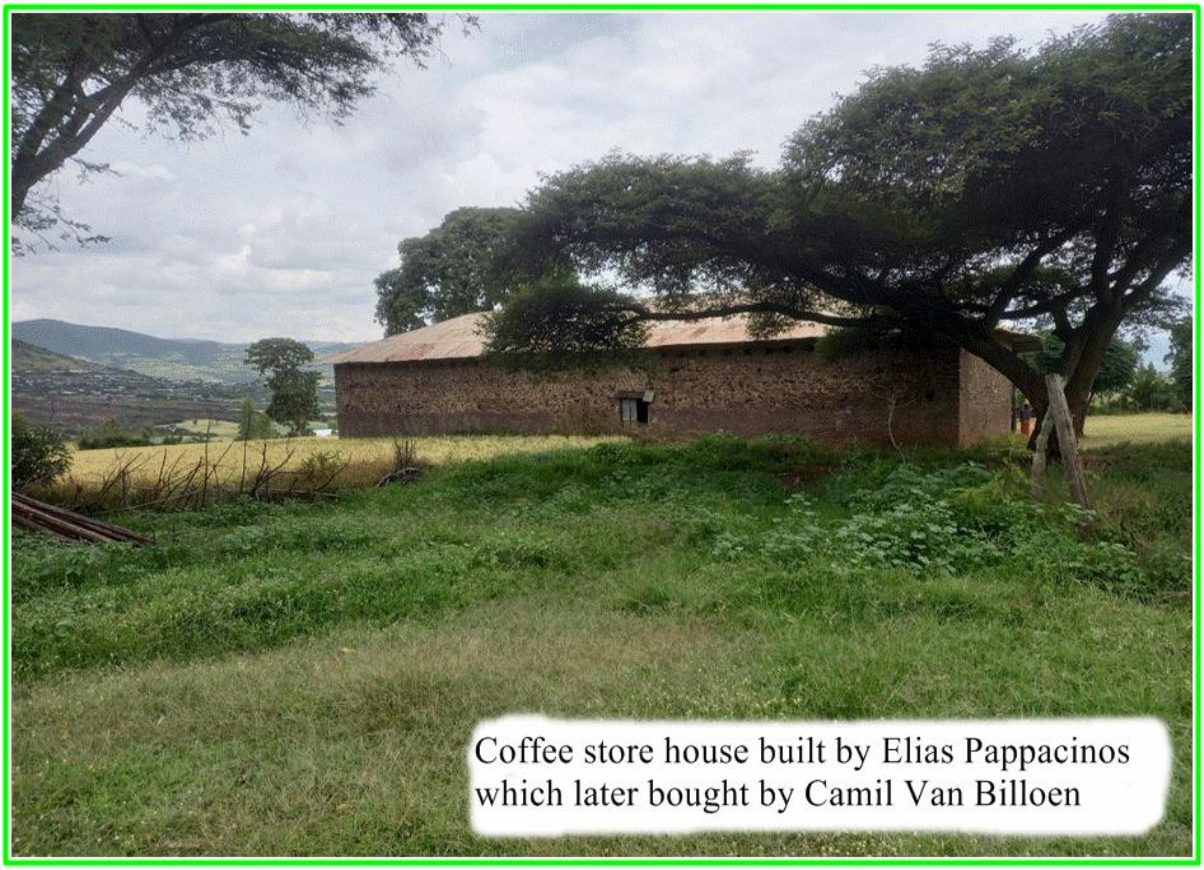
This chapter discusses about infrastructure and facilities developed, recruitment and employment of workers, irrigation development, establishment of nursery beds and planting the farms. Also, it narrates about major agricultural activities undertaken by Camiel Van Billoen and how the farms were managed as well as the inputs utilized and how the farms were irrigated, and pests and diseases were managed by the respective farmers. Moreover, it reconstructs how the important agricultural products such as coffee, green peppers, oranges, sugar canes and others were harvested and processed, the production amounts of coffee and other products of the farms, and how the produces were stored, transported and marketed. Finally, important changes, continuities, developments and the ways of the phasing out of the farms are dealt with in depth.

3.1. Development of Infrastructure

In order to successfully operate their farms, both Elias Pappasinos and Camiel Van Billoen had to develop prerequisite infrastructures. One of these was laying irrigation system. Thus, Elias Pappasinos developed irrigation system on the Hararghe River and Camiel Van Billoen developed his irrigation system on the Demasho River. Camiel Van Billoen also used the Sarbona perennial river for irrigating the coffee nursery sites. The second necessary infrastructure was building stores and accordingly they developed their own stores in their respective *Balabats* where they built their residential houses. In addition to these, since they became residents of the two *Balabats*, the development of grain mill houses, food oil refinery and irrigation channels, onsite water storage ponds, locally known as *Kure*, roads and other similar ones were very essential and they did so for same ends (Figures 3.1 to 3.10).[1]

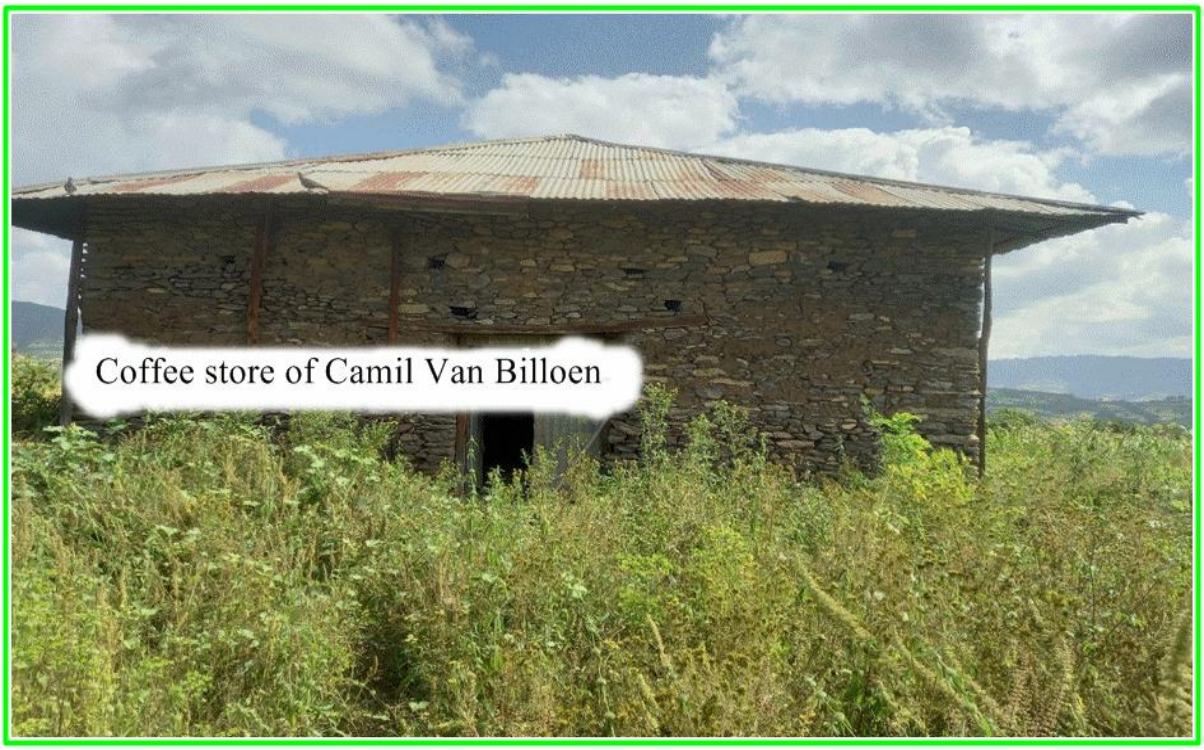
[1]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

Figure 3.1: Processed and dried coffee storage houses of Elias Pappasinos



Source: Photo by Efrem Alaro

Figure 3.2: Processed and dried coffee storage houses of Camiel Van Billoen



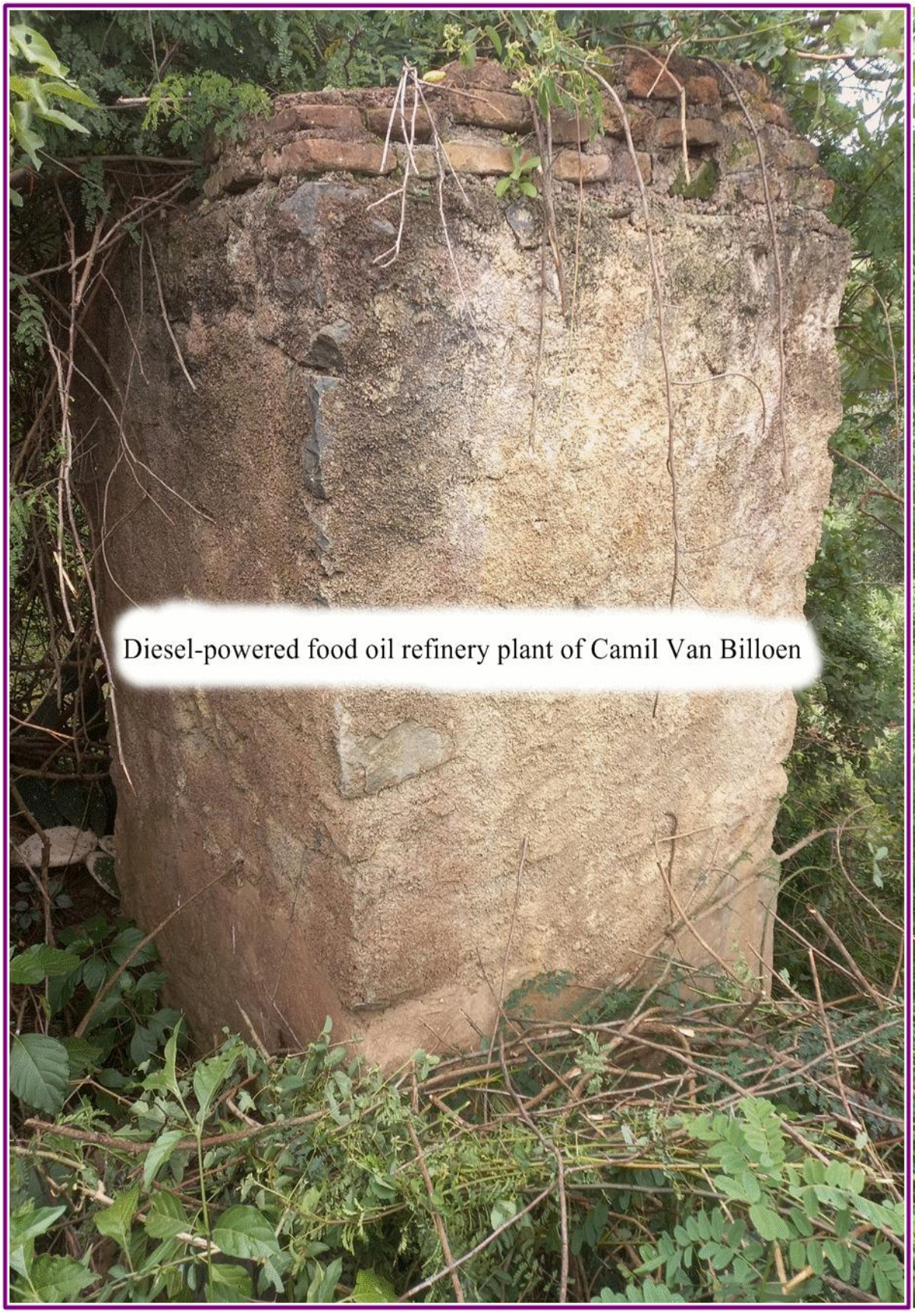
Source: Photo by Efrem Alaro

Source: Photo by Efrem Alaro

Figure 3.3: Hydraulic Grain Mill house of Camiel Van Billoen

Source: Photo by Efrem Alaro

Figure 3.4: Diesel-powered Food oil refinery of Camiel Van Billoen



Source: Photo by Efrem Alaro

Source: Photo by Efrem Alaro

Employment of Workers for the Farms

The operation of commercial agricultural farms needed permanent, contract and daily laborers. This meant that the farms had to employ workers through different arrangements. The major types of employees they hired included advisors, supervisors, cleaners, gardeners, ploughers, daily laborers, liaisons, chauffeurs, food oil refiner operators, mill operators, guards, plumbers, and many others. The advisors, supervisors, store managers, general managers and drivers were paid 40, 25, 30, 35 and 20 Maria Theresa Thalers while daily laborers were paid 0.50 Maria Theresa Thalers on monthly bases. The daily laborers that

were tickling coffee plants were paid 0.50 Maria Theresa Thalers per one hundred coffee plants tickled on daily bases and coffee cherry collectors were initially paid 0.25 Maria Theresa Thalers and gradually increased to 0.50 Maria Theresa Thalers and higher per one jerry can full coffee cherry collected on daily bases. Later on commencing from about 1943, the payments were changed to Ethiopian dollars or Haile Selassie I's dollars. Although my informants fail to remember, one of them notes that the payments for all groups of employees had kept on raising from 1936 till 1974 but he is not sure about the changes or percent of increments in the payments that Camiel Van Billoen and the final Ethiopian managers made for their employees.[2]

Camiel Van Billoen used the same approaches applied by Elias Pappasinos in getting workers that worked on their farms. For instance, each of them convinced one person to fled with them from Baijeot company for which they were initially working for. Then, they used that person to go back to Sidamo (Wendo Genet where a concession ran by a Belgian company named Blains was situated) and Minie Gololcha, Adama and others to contact and convince as many as possible workers of Baijeot company and other jobless persons in Sidamo *Teqlay Gezat*, Minie Gololcha, Adama and others to bring back with them. This meant that the persons fled with them served them as brokers in getting other employees and workers with agreed upon terms to be paid one Maria Theresa Thalers per one convinced and brought back worker besides bonus payable. Thus, it was easy for the farmers to get and employ the workers. Moreover, they recruited ploughers from local communities by giving them tracts of lands to be used freely and ploughed using their oxen on Sunday per week.[3]

Totally there were 46 permanent employees during the initial commencement of the farms. But the numbers of permanent employees and daily laborers such as coffee cherry collectors, cleaners and sewers on both farms varied depending on the years of the production and the estimated amount of farm products to be produced.[4]

Since predominant employees came from faraway places like Sidamo *Teqlay Gezat*, Minie Gololcha, Adama and the likes, they were compelled to construct residential houses and

[2]Informant: *Ato* Tanku Mule, Kella town, 27/03/2022.
[3]Informant: *Ato* Tanku Mule, Kella town, 27/03/2022.
[4]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

provide other basic necessities for the workers. Camiel Van Billoen, for instance, allowed lands located on the hills to be cleared and used for constructing residential houses for his workers. Food was also provided for the workers by Camiel Van Billoen themselves. This meant that they gave about one kilogram of flour for each person on daily bases.[5]

In addition to these, Camiel Van Billoen built St. Medhanealem Church to be used as the church for practicing of the Christianity religion in Kereyu *Kebele*. The Holy Seal was obtained based on the request of *Fitawurari* Jenberu from Arussi Teqlay Gezat Orthodox *Tewahdo* Office and Ticho *Abbo* Church. The construction of the Church was completed in 1923/24 and started giving its services for the followers of Christianity religion workers and the residents of the *Balabats* that were observed to practice Christianity. The church was also intended as burial place for employees. It seems that the building of the Church strengthened the loyalty and faithfulness of the employees to their employers.[6]

In terms of the ethnicity of the workers employed on Camiel Van Billoen's farms, they belonged among others to Amhara, Sidama, Wolaita, Oromo, and Gurage groups. Over the course of the history of the farms from 1920s to 1974, members of these ethnic groups contracted marriages and developed close social ties among themselves as well as we with local residents.

Irrigation Development

The agro-climatic conditions of Kereyu and Sole H/Shale *Balabats* is *Qolla* and hence it is hot and dry. Also, both Kereyu and Sole H/Shale *Balabats* are rich in water resources. They are drained by several perennial Rivers. Thus, the availability of surface and ground water potentials along with springs were very high. Camiel Van Billoen had well-developed experiences of developing irrigation systems like Elias Pappasinos while they were working for the companies that employed them.[7]

[5]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Nigus Nega, Kella town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Girma Kedir, Kella town, 26/10/2022.

[6]Informant: *Ato* Tanku Mule, Kella town, 27/03/2022.

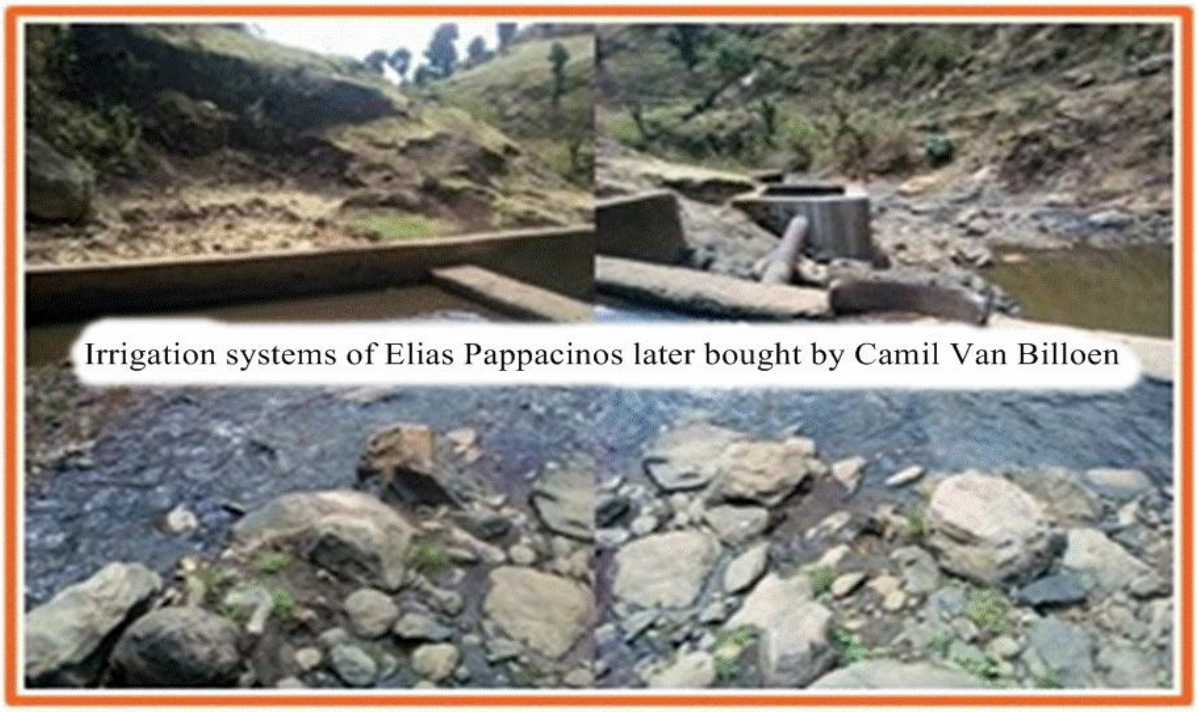
[7]*Ibid.*

Their irrigation infrastructures consisted of onsite ponds (*Kure*), built source outlets to channels, inlets to the ponds and outlets from the ponds.[8] Irrigation infrastructure of Camiel Van Billoen was relatively larger than that of Elias Pappasinos which became part of Camiel Van Billoen's farm after 1936 following sales to Camiel Van Billoen. Those infrastructures are illustrated in Figures 3.5 depicted below.

Figure 3.5: On-site water storages, water inlets to storages and irrigation channels

Source: Photo by Efrem Alaro

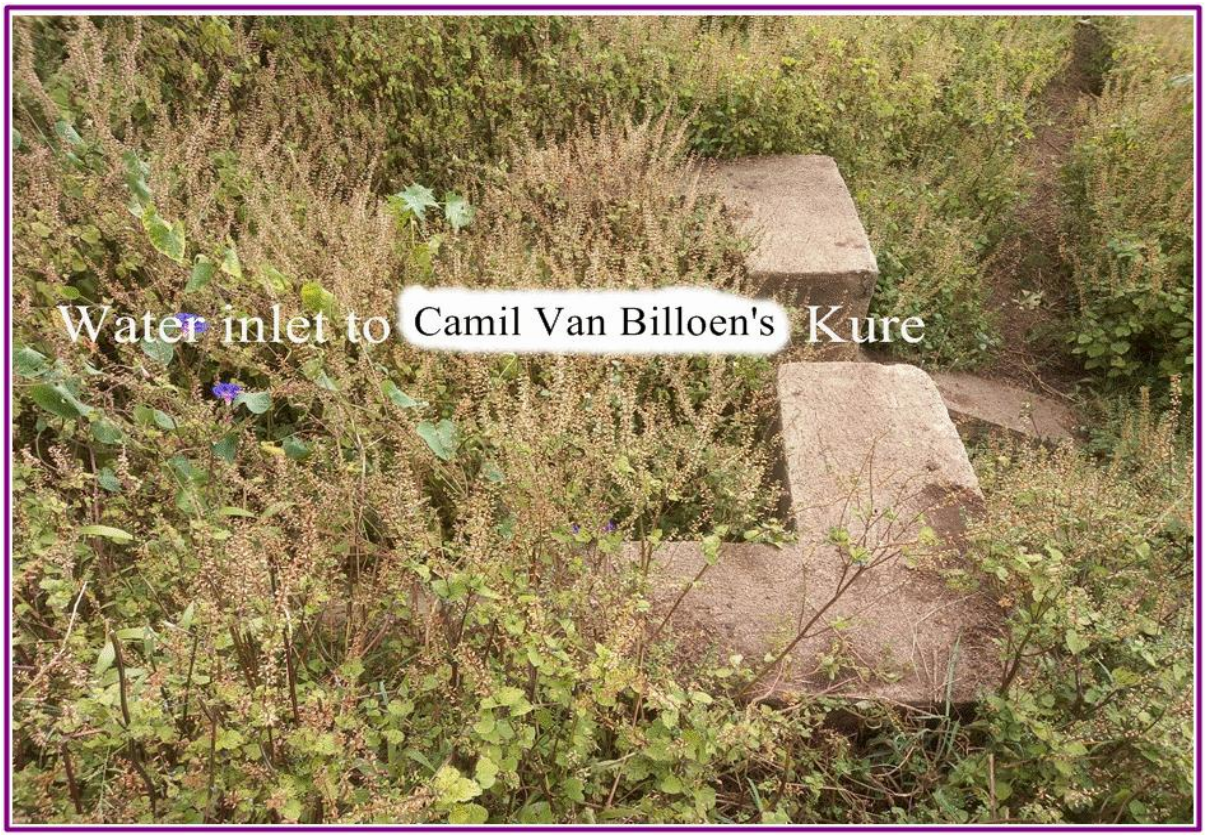
[8]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Nigus Nega, Kella town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Girma Kedir, Kella town, 26/10/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.



Irrigation facilities of Elias Pappasinos built on Hararghe perennial River

Source: Photo by Efrem Alaro

Source: Photo by Efrem Alaro



Source: Photo by Efrem Alaro

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Source: Photo by Efrem Alaro

Land Clearing, Leveling and Preparations

Camiel Van Billoen decided to focus on the production of coffee like his predecessor Elias Pappasinos rather than other kinds of crops. This was probably for two main reasons. The first probable reason was the existence of high demand for Ethiopian organic coffee in many European countries including Belgium, France and others. Hence, the market for Ethiopian organic coffee was highly profitable. Concerning organic nature of their coffee, informants noted that the coffee cherry was collected from coffee trees of the Baijeot company that was grown without the applying chemical fertilizers.[9] This meant that the mother source coffee trees were organic. Also, Camiel Van Billoen used burnt, chopped and grinded animal bones as fertilizers. Thus, their coffee was surely organic. Secondly, they had better experience and acquaintance with coffee farms and productions than other crops and horticultural plants because of their involvement in the works of the Belgian company called Baijeot.

[9]Informants: *Ato* Ketema Bejiga, Kella town, 02/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

Coffee plants prefer well-drained and airy soils. They can grow in shallow ground, due to their network of surface roots. Humus-rich, lightly acidic soils are beneficial; the best conditions are those to be found on virgin soils of volcanic origin. The ideal temperature range for *Coffee arabica* coffee plants lies between 18°C and 24º C. At higher temperatures, bud formation and growth are stimulated, but the greater proliferation of pests increases the risk of infection and quality sinks. Coffee plants are susceptible to frost, temperatures below 10ºC inhibit growth. Coffee plants react positively to a dry period, that should nevertheless not be longer than 3 months. The rainfall should be evenly spread throughout the rest of the year. Irregular rainfall causes uneven blossoms and fruit maturity. Coffee is a half-shade plant, that can only utilize around 1% of the sunlight (ideal is around 1500 hours per year) photosynthetically. At leaf temperatures over 34ºC, assimilation is practically zero, meaning that the rate of photosynthesis of a shaded plant is actually higher than that of a plant fully exposed to the sun.[10]

Based on the above prerequisite conditions, land clearing, leveling and preparations were essential activities to be carried in order to establish and develop coffee farms. The selected rural localities where Camiel Van Billoen established his farms were initially covered with dense evergreen forests like that of his predecessor Elias Pappasinos. Consequently, both entrepreneurs cleared trees on their leased and contracted lands except acacia trees that were located around the borders of their farms. The acacia trees were left behind to serve as windbreakers. The roots and twigs of the cleared trees were dug out and removed. Ploughing, leveling, making waterways, planting windbreaker and shade trees, preparing or digging holes for coffee seedlings to be transplanted were the major activities carried out by both farmers while establishing coffee nursery beds. Informants recounted that they performed these tasks about six months during the dry season before developing the commercial coffee plantations.[11]

According to informants, Camiel Van Billoen had one hundred oxen that were used for ploughing his lands. The workers were made to plough the lands in two shift system; workers

[10]Kuit, M., Jansen, D. M. and Thiet, N. V. (2004). Coffee Handbook: Manual for Arabica cultivation. Cam Lo: Tan Lam Agricultural Product Joint Stock Company and PPP Project "Improvement of Coffee Quality and Sustainability of Coffee Production in Vietnam"; Vietnam. PP 213.

[11]Informants: *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

that ploughed in the morning shift were made free in the afternoon; and those that were free in the morning shift were made to plough the farm lands in the afternoon shift. All employees were allowed to take a pair of oxen and permitted to plough or till their own tracts of lands they got from Camiel Van Billoen freely as strategy to motivate to work for him on his farm on Sunday's every week. That tracts of lands given for the workers freely were situated on the hills side of the leased land. They ploughed and tilled the commercial lands in such ways while the coffee nurseries were under development and sowed coffee seeds germinate and grow to the height needed for transplantation.[12]

The farmers prepared the land during the dry season and removed all tree stumps and roots to minimize fungal diseases. The process of the removal of the largest trees started one year in advance when their barks were removed so that they became dry and easier for cutting and removing. They left some mature trees to serve as shade trees and most of the trees that were left as noted earlier were acacia trees. The acacia trees that were left on the farms were spaced 20m x 20m apart. That gave a good shade cover while not creating competition for water and nutrients. Perennial weeds were removed using herbicides or digging and handpicking them from the ground. They applied soil and water conservation measures like contour trenches, contour terraces, vegetative barriers, bands, grass strips and cut-off drains to avoid soil and nutrient loss since their commercial farms were sloped terrains.[13]

Shade trees in an agroforestry system maintain the microclimate of the farm and its surrounding. In coffee agroforestry systems, shade trees protect the coffee trees from increased air temperature. Coffee trees under shade experience less stress than those with no shade. Litter leaves of shade trees in coffee agroforestry systems provide additional nutrition for the soil and maintain soil humidity particularly during prolonged drought and when air temperature increase.[14] Shade horticultural plants such as pepper during first year and orange trees then after were planted one year before the coffee seedlings were transplanted. The shade trees were spaced by 1.5 x 1.5 m for pepper but and 5m x 16m for orange trees while

[12]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[13]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[14]Martini, E., Riyandoko and Roshetko, J. M. *Guidelines for establishing coffee-agroforestry systems.* Bogor, Indonesia: World Agroforestry Centre (ICRAF) Southeast Asia Regional Program, 2017. **ISBN** 978-979-3198-97-2. pp. 8-50.

coffee trees were spaced by 3m x 3 m.[15] The acacia trees were spaced 5mx5m apart and planted in the borders of the coffee farms while sugar canes were spaced by 2m x 11m (Figure 3.6).[16] Scholars argued that leguminous cover crops are sometimes used to good effect in coffee plantations and serve many of the same functions as mulch, with the added advantage of nitrogen fixation.[17]

Windbreakers are an essential part of the coffee plantation or canopy. Sugar canes and acacia trees were used as windbreaker trees on Camiel Van Billoen's farms. The shade trees provided shadow in addition to limiting the damage from strong winds to the coffee trees. Additionally, the use of windbreakers helped conserve soil moisture, limit soil erosion and increased biodiversity of the farms. This was why on sloping land of Camiel Van Billoen's commercial farms the spacing between windbreaks were close.[18] Windbreakers were positioned perpendicular to the prevailing wind direction. Theoretically, as a rule of thumb a windbreak is needed every 30-50m. Optimally the windbreaks are planted at least one year before coffee planting starts.[19]

Figure 3.6: Spacings of coffee trees (triangles), acacia (stars), sugar canes (rectangles), pepper plants (heart shaped) and orange trees (circles) used on the commercial farms

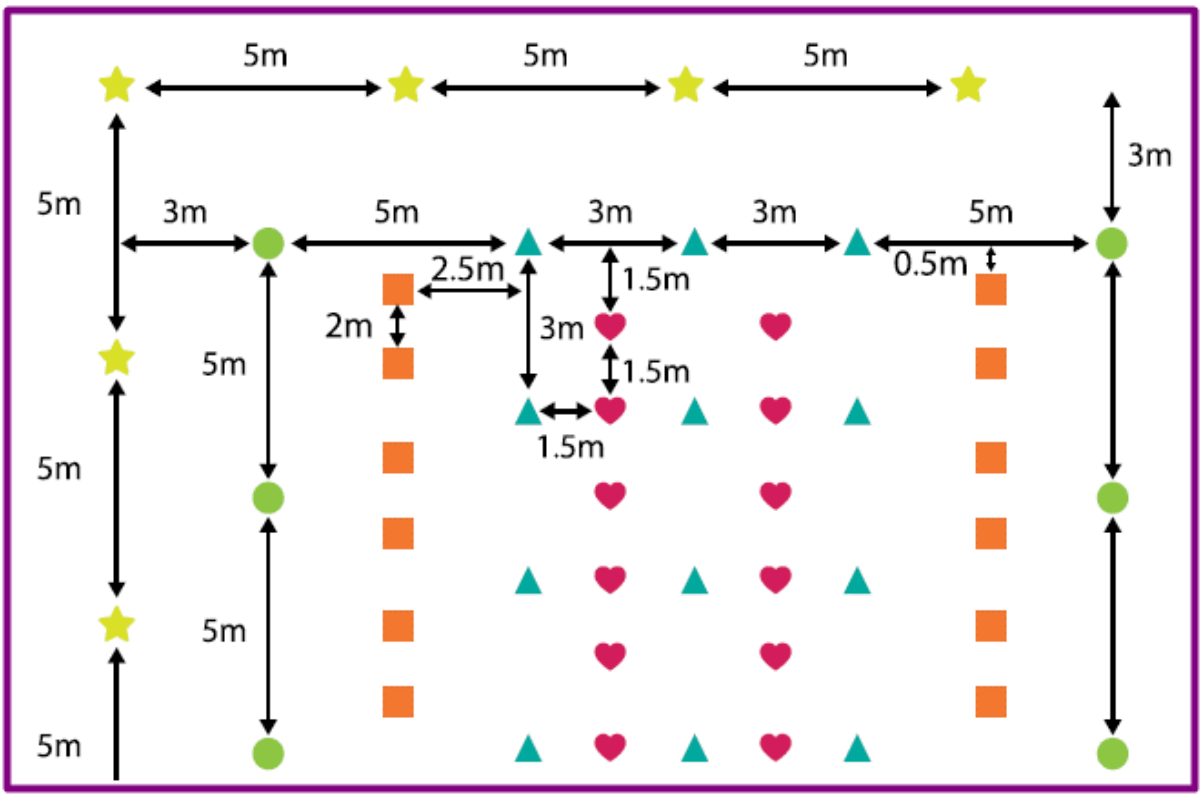
[15]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Demelash Admasu, Robe town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22

[16] Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Nigus Nega, Kella town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Girma Kedir, Kella town, 26/10/2022.

[17]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022.

[18]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Tanku Mule, Kella town, 27/03/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[19]Martini, E., Riyandoko and Roshetko, J. M. (2017). pp. 8-50.



Source: Schematized by author based on data collected

Establishment of Nursery Beds

According to Hulupi and Martini (2013), generative propagation by planting seeds is the best method for the propagation of *Coffee arabica*.[20] Camiel Van Billoen employed seed for the propagation of the seedlings of the coffee plants like his predecessor Elias Pappasinos. Camiel Van Billoen followed the following steps in collecting and selecting mother plants of the seeds, nursery sites, watering, sowing and managing the nursery sites like his predecessor Elias Pappasinos.[21]

Mother trees were selected based on the criteria of normal physical attributes, healthy and resistant to pests and diseases, gone through at least two harvesting cycles to ensure that the

[20]Hulupi, R. and Martini, E. *Guidelines for Cultivation of Coffee*. Bogor: World Agroforestry Centre (ICRAF), Southeast Asia Regional Program, 2013.

[21]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

trees are fruiting on time with high quality production, and resistant to extreme climate events.[22]

When collecting seeds, they assured or checked whether they collected from 30 mother trees to maintain genetic diversity of the coffee. Seeds that were fresh and had uniform large size were collected. Then they cleaned the seeds and had it air-dried for 1–3 days.[23]

They selected a location that was flat, near water supply, protected from strong winds and livestock, and received sufficient sunlight as their nursery sites. Then they prepared nursery beds with width 1–1.2m and length adjusted based on their needs. The overall area of the nursery sites was about two hectares.[24]

A nursery plot consists of a raised piece of land. Ideally it should be 1.2m wide and 20cm deep. The bed consists of fertile topsoil mixed with sand. The soil should be clean, so remove any old roots, sticks and stones.[25] The parchment was sown at a depth of 1cm. Distance between the parchment was 2-3 cm, and the distance between the rows was 3cm. The first 20 days the nursery was kept dark by placing straw on the nursery beds. After this initial stage, the nursery was shaded to control light intensity, temperature and humidity. Planting holes were about 40 x 40 x 40 centimeters and 4 seedlings were placed in each about 25 centimeters apart in the form of a square.[26]

Water application was done 2-3 times up to a month before planting. The timing for application was dictated by seedling health, and application was done when deficiency symptoms were spotted.[27]

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[22]Informants: *Ato* Tanku Mule, Kella town, 27/03/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[23]Informants: *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[24]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[25]Martini, E., Riyandoko and Roshetko, J. M. *Guidelines for establishing coffee-agroforestry systems.* Bogor, Indonesia: World Agroforestry Centre (ICRAF) Southeast Asia Regional Program, 2017. **ISBN** 978-979-3198-97-2. pp. 8-50.

[26]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[27]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

Coffee seedlings require shade during the early stages of growth. The depth of shade is gradually decreased and the space between containers increased to prevent etiolation as the young plants are hardened off.[28] The practiced shading system of Van Billoen was consistent with these theoretical principles like his predecessor Elias Pappasinos.[29]

Another important activity practiced by employees of Camiel Van Billoen that were working at the nursery sites was weed removal and/or weed control and management, which was best done as soon as weeds appeared. Normal watering was aimed at keeping the soil moist. They considered the coffee seedlings as ready to be planted out in the field when the seedlings had 5-7 pairs of leaves.[30]

Planting the Farms

Transplantation was carried out in the wet season and young plants were normally transported to the field uprooted with the soil on the nursery beds. Only healthy, vigorous coffee seedlings that appeared true to type were transplanted. One of the most important precaution they followed while transplanting the seedlings was ensuring that the taproot was not bent.[31]

They made coffee seedlings transplanted and planted 2 to 4 weeks after the onset of the rainy season by carefully loosening caked soil around the roots to ease water uptake and root development. Burnt, chopped, broken and grinded animal bone flour was put inside the holes prepared for the seedlings to be transplanted. The transplanted seedlings were placed in the hole with the collar at level with the surrounding soil or slightly higher to allow for some sinking when soil settles. The planted seedlings were watered before and immediately after planting. They were regularly inspected to identify dead plants and replace them as soon as

[28]Kuit, M., Jansen, D. M. and Thiet, N. V. *Coffee Handbook: Manual for Arabica cultivation*. Cam Lo: Tan Lam Agricultural Product Joint Stock Company and PPP Project "Improvement of Coffee Quality and Sustainability of Coffee Production in Vietnam"; Vietnam, 2004. p 213.

[29]Informants: *Ato* Tanku Mule, Kella town, 27/03/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[30]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[31]Kuit, M., Jansen, D. M. and Thiet, N. V. *Coffee Handbook: Manual for Arabica cultivation*. Cam Lo: Tan Lam Agricultural Product Joint Stock Company and PPP Project "Improvement of Coffee Quality and Sustainability of Coffee Production in Vietnam"; Vietnam, 2004. p 213.

possible; and protected each seedling from sunshine through the prior planted pepper plantations and orange plants to serve as shade trees.[32]

The density and type of cultivation of the coffee bushes should be determined according to local experience and knowledge, according to variety and the amount of cultivation carried out.[33] The densities of the coffee bushes were about 1, 800 plants per hectare in order to leave enough standing room for the shading trees.[34]

The interrelationship between crop management practices is more apparent in coffee than perhaps for some other crops, beginning with nursery management and proper crop establishment in the field. Soil fertility and shade management interact to affect yield as well as susceptibility to pests and diseases. The importance of markets and the impact that world overproduction has had on the livelihoods of small producers has been painfully evident in the new millennium. Coffee producers, particularly smallholders in developing countries, are able to invest in sustainable crop management practices when they are sure of a market for their crop and a fair return on their effort and investment. This principle has been recognized by some large coffee-marketing companies who have seen an opportunity to market specialty coffees by working with growers to promote sustainable cultivation practices.[35]

3.2. Major Agricultural Activities on the Farms

Coffee Plantation

The developed coffee plantations covered about 18.5 *gashas* of land and located in Kereyu and Sole H/Shale *Balabats* of Tena *Woreda*. The plantation was productive during the active

[32]Informants: *Ato* Tanku Mule, Kella town, 27/03/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[33]M. Kuit, D. M. Jansen, and N. V. Thiet. *Coffee Handbook: Manual for Arabica cultivation*. Cam Lo: (Tan Lam Agricultural Product Joint Stock Company and PPP Project. Improvement of Coffee Quality and Sustainability of Coffee Production in Vietnam, 2004). p. 213.

[34]Informants: *Ato* Tanku Mule, Kella town, 27/03/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[35]Waller, J. M. Bigger, M. and Hillocks, R. J. *Coffee Pests, Diseases and Their Management*. London: Printed and bound in the UK by Biddles, 2007. ISBN-10: 1 84593 129 7 and ISBN-13: 978 1 84593 129 2.

periods of the commercial farms. Irrigation of the plantation was done by developed irrigation channels and infrastructures using flow irrigation system (Figure 3.7).[36]

Figure 3.7: Some of the coffee plants planted by both Elias and Van Billoen and their workers

[36]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

Source: Photo by Efrem Alaro

Source: Photo by Efrem Alaro

Sugar Cane Plantation

The sugar cane plantation served both as windbreakers and shade trees for the coffee plantation. In addition to that, they were consumed by the gardeners and daily laborers working on the farms to restore their energy demanded for undertaking the hard labor work. The sugar canes were sold to local merchants for 3 to 4 birr per donkey back pack from 1938 to about 1949. Then the price per donkey back pack kept on rising but informants failed to remember the exact selling price since 1950.[37] Probably the leaves of the sugar cane plantation might be served as mulching plant materials for the coffee plantation.[38]

[37]Informants: *Ato* Belay Abebe through phone from Robe town, 07/08/23; *Ato* Tanku Mule through phone from Robe town, 09/08/23.

[38]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

Orange Plantation

The orange plantation served h as the shade trees for the coffee plantation. In addition to that, they were sold to consumers in the nearby markets as well as on the farms. Wikifarmer (http://www.wikifarmer.com) describes that a productive lifespan of orange tree is 50-60 years; and added that some well-cared trees live up to 100 years or more. Thus, the ages of the orange trees of Camiel Van Billoen were about 91 and 80 years old, respectively. Probably the leaves of the orange plantation might be served as mulching plant materials for the coffee plantation (Figure 3.8).[39]

Figure 3.8: Some of the orange plants planted by Elias Pappasinos and his workers in 1924

Source: Photo by Efrem Alaro

Food Oil Production

The developed hydraulic food oil refinery plant around the residential house of Camiel Van Billoen to produce food oil for the consumption of the founders, the workers and also for marketing. The food oil refinery plant initially established operated using diesel power. Eventually, they changed to hydraulic power to cut-down production expenses. Excess food oil was sold to the local inhabitants of Tena, Robe and Shirika districts of Arussi province at the site of production as well as in Arussi Robe, Ticho, Gobessa towns and surrounding communities. The introduction of that plant benefited and opened local market for Robe *Woreda Nueg* producer farmers. Robe/Didea is renowned for *Nueg* production and Tena district is the highest producer of pulses such as flaxseed (*Linum usitatissimum*) and others. Thus, flaxseed producer farmers of Tena district and *Nueg* producer farmers of Robe/Didea

[39]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

district got attractive markets at nearest place for their corresponding producers. The farmers took their produces to the commercial farm site and sold to the founders of the food oil refinery plant and bought food oil and a donkey pack of sugarcanes from the farms at relatively cheapest prices.[40]

Figure 3.9: Hydraulic food oil processing plants established by Camiel Van Billoen during then

Source: Photo by Efrem Alaro

[40]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

Grain Mill House

They also introduced grain grinding mills that operate using hydraulic system. The mills were used for grinding grains both for the owners of the commercial farms and the local inhabitants of Tena and Shirika districts of Arussi province besides grinding the burnt, broken and chopped bones collected from various areas which was used as fertilizer for coffee plants (Figure 3.10).[41]

Figure 3.10: Hydraulic grain grinding plant established by Camiel Van Billoen during then

Source: Photo by Efrem Alaro

3.3. Farm Management System

Inputs and Application of Agricultural Inputs

Coffee requires fertile soils with high levels of nitrogen, phosphorus and potassium. The fertilizer requirements are dependent on the inherent soil fertility status, soil pH, level of production and usage of cultural farming practices like mono farming of cereal crops, mulching, using manure and irrigation.[42] However, since the soils on which Camiel Van Billoen developed the commercial agricultural farms were virgin, rocky, well-drained, fertile and with appropriate pH requirements of coffee plants, the only applied and used input was

[41]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22.

[42]Hulupi, R. and Martini, E. *Guidelines for Cultivation of Coffee*. Bogor: World Agroforestry Centre (ICRAF), Southeast Asia Regional Program, 2013.

burnt, broken, chopped and mill-grinded animal bones of different types collected from all over Tena, Shirika, Robe, Digeluna Tijo and Tiyo districts as far as Asella town. The grinded flours of animal bones were applied during the transplantation before putting the seedlings inside the holes prepared for same purpose.[43]

Also, the grinded animal bones were applied as fertilizer and as anti-nematocidal and insecticide after the transplanted new coffee plantations were established about twice per year during rainy seasons. The reason why only grinded flours of animal bones were applied might be linked to high fertility of the soils and planting of the coffee seedlings widely spaced under shade which needed less fertilizer than coffee grown at close spacing without shade.[44]

Again, leaves falling from shade trees and sugar canes could also serve for mulching purpose to provide additional significant amounts of organic matter and nutrients.[45] Organic matter also has the important function of improving soil structure, increasing cation exchange capacity and alleviating mineral toxicity in some situations. In general, young coffee plants have a high requirement for nitrogen (N) and phosphorus (P) while in mature bearing plants the greatest need is for nitrogen (N) and potassium (K).[46]

Mulching consists of covering the topsoil with organic residues to protect the soil from erosion by heavy rainfall, to retain moisture and to decrease surface soil temperature. Mulching also reduces weed establishment, helps to maintain soil structure by adding organic matter, enhances the microbial activity in the soil and adds nutrients as it decomposes.[47] Mulching is highly beneficial in tropical zones with long dry seasons by preventing loss of

[43] Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[44] Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[45] Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022.

[46] Hulupi, R. and Martini, E. *Guidelines for Cultivation of Coffee*. Bogor: World Agroforestry Centre (ICRAF), Southeast Asia Regional Program, 2013.

[47] *Ibid*.

topsoil and fertilizer, increasing rainfall penetration and reducing moisture loss through evaporation.[48]

Mulching replaces nutrients removed by the coffee crop and that was why he used mulching on his coffee farms. This practice is in parallelism with the results reported from Tanzania show that annual application of a mulch of dried banana leaves (at 25 tons/ha) more than replaced the nutrients removed at harvest.[49] Also, mulching was shown to increase yields by up to 150%, the best sources of mulch being *Tripsacum laxum* (Guatemala grass) and *Chromolaena odorata* (Siam weed), which improved yields considerably more than either coffee husk or banana trash in Ghana.[50]

Irrigating the Farms

Irrigation may be used to supplement rainfall in areas with a long dry season or prone to periods of drought, more commonly encountered in non-equatorial areas. Irrigation is more applicable to coffee arabica cultivation. Irrigation is used in parts of East Africa, India, Brazil and Vietnam, but mainly in areas with a fairly level topography.[51] To maximize the benefits of fertilizer, the soil must be moist throughout the period of flower and fruit development so that irrigation is required in areas experiencing dry conditions during this time if die-back is to be avoided. Irrigation of young, establishing coffee trees encourages root growth in the upper soil layers and may hinder development of deeper axial roots unless sufficient irrigation water is applied to penetrate below the root zone and the soil is allowed to dry out between irrigations. This can make the plants more susceptible than non-irrigated trees to drought if irrigation ceases to be available.[52] In line with these theoretical principles and/or experiences grained in home country, Camiel Van Billoen developed proper irrigation

[48]Pereira, H. C. and Jones, P. A. The maintenance of fertility in dry coffee soils. *East African Agricultural Journal*, 15, 1950. pp.174–179.

[49] Robinson, J. B. D. and Hogwood, P. H. Effects of organic mulch on fertility of a lactosolic coffee soil in Kenya. *Experimental Agriculture*, 1, 1965. pp.67–80.

[50]Afrifa, A. A., Ofori-Frimpong, K., Appiah, M. R. and Halm, B. J. Effect of mulching on soil nutrients and yield of Robusta Coffee. *Tropical Agriculture*, 80, 2003. pp.105–109.

[51]Descroix, F. and Wintgens, J. N. Establishing a coffee plantation. In: Wintgens, J. N. (ed.). *Coffee: Growing, Processing and Sustainable Production*. Belin: Wiley-Verlach, Weinheim, 2004. pp. 178–245.

[52]*Ibid*.

systems and practiced irrigating the commercial agricultural farms during dry seasons through flow irrigation techniques.[53]

Management of Pests, Weeds and Diseases

The principles of controlling pests and diseases practiced by workers of Camiel Van Billoen commercial agricultural farms comprised of inhibiting growth of weeds that decrease coffee's yields, preventing pests and diseases can be done by providing sufficient nutrition for the crops or livestock and maintaining sanitation of the farm. In addition, the following activities were undertaken to control pests and diseases; i.e., identifying and increasing the population of the natural enemies of the pest or disease in order to prevent insect pests, planting cover crops with white or yellow flowers can increase the number of natural enemy agents, applying biopesticide, burning or removing the infected plants or animals, and using chemical pesticide as the last option.[54]

3.4. Harvesting and Processing of Products

When the cherry has matured and is ready for picking, it usually turns from green to slightly red and then to glossy red when fully ripe. Another test for maturity for harvesting is if the seeds (the parchment coffee with bean inside) can be squeezed out by hand. If the fruit is hard and the seed cannot be squeezed out, the fruit is too immature to pulp. Under conditions of overbearing dieback, the fruit may turn from green to reddish brown. These fruits are usually smaller than normal and probably contain immature, low-quality beans; these fruits generally float and are removed during processing.[55]

The equipment needed for hand-harvesting coffee that were used by the daily laborers of the commercial farms of Camiel Van Billoen were baskets for the individual picker, holding hooks for bringing branches into position for picking, and burlap bags for transporting cherries from the orchard to the processing area. The holding hooks were usually made of 3–4-foot long sticks of locally available strong wooden sticks, probably made from *Chekata*

[53]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[54]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[55]R. Hulupi, and E. Martini. *Guidelines for Cultivation of Coffee. Bogor*: (World Agroforestry Centre (ICRAF), Southeast Asia Regional Program, 2013).

tree sticks to which a cord was attached. The length of the cord was adjusted to the picker's height in relation to the average height of the trees. The sticks were usually about 1.5 inches in diameter at the thickest end. A loop of wire tied onto the cord affords a place for the picker's foot which can be inserted to hold the hooked branch in place while the picker removes coffee with both hands free. The hook-end was simply the stump of a branch and/or a metal hook screwed into the stick. The picker instructed not to bend branches to the breaking point, and keep harvested coffee cherries in baskets.[56]

Upon arrival of the pickers to the cemented field prepared for drying coffee cherries, the volumes of picked coffee cherries were measured using plastic buckets prepared for same ends and payments were 0.50 Maria Theresa Thalers per the plastic buckets. If the picker picked four bucket full coffee cherries, (s)he was paid two Maria Theresa Thalers. The same procedures were employed in making payments for the other pickers too.[57] Camiel Van Billoen practiced dry coffee processing method. The payment was later changed to Haile Selassie I's (Ethiopian) dollar.[58]

Then cherries were sorted according to size, density and color of beans. Sorted beans were dried on the cemented lawn prepared for the same purposes using sun light. Immature, diseased, pest infested, over ripe cherries and discolored or green cherries were sorted out and discarded to process them separately. Again, all extraneous materials such as twigs, leaves, stems and stones were removed and discarded out. Moreover, freshly harvested cherries were put into sufficient water and floating unfilled fruits and extraneous materials were separated and thrown away. Then coffee cherries were spread over the cemented drying field for drying. These processing was done by hand.[59]

The next step was drying. The beans (or parchment coffee as it is called after fermentation and washing) were dried in the sun on the cemented drying field. As from 11:30am to 2:30pm the sun is too strong, the parchment was moved to the shadow to ensure even drying.

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[56]Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Teshale Worku, Ticho town, 26/10/2022.

[57]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022.

[58]*Ibid*.

[59] Informants: *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Nigus Nega, Kella town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Girma Kedir, Kella town, 26/10/2022.

At night and during rain the parchment was moved into the house to avoid rewetting. On the second day, the parchment was turned every third hour. The following days, the parchment was turned every 4 hours. At around 25% moisture content, the drying was finished. The parchment now looked white and was tight around the beans. The color of the beans was bluish. The final step of processing was the removal of pea berries, broken and insect invested parchment as well as parchment with more than 2 beans. Coffee fruit on a tree does not mature all at once, several stages of cherry development were found on a coffee tree. Therefore, coffee harvesting was practiced more than three to five times on the respective commercial agricultural farms.[60]

Portable Coffee Hullery Machine was used to remove dried husk and parchment. Hulled coffee beans were blown by wind to separate rubbish and pulps from coffee seeds. The processed coffee beans were ranked and filled in sacks containing 85 kilograms. Then, the sacks were temporarily stored in the storages built for the same purposes. Each sack of coffee constituted five (5) *Feresulla* and hence one *Feresulla* made up 17 kilograms. Coffee huller or manual coffee bean huller machine was used for processing dried cherries of coffee by Elias Pappasinos and Camiel Van Billoen was illustrated in the figure below (Figures 3.11 and 3.12).[61]

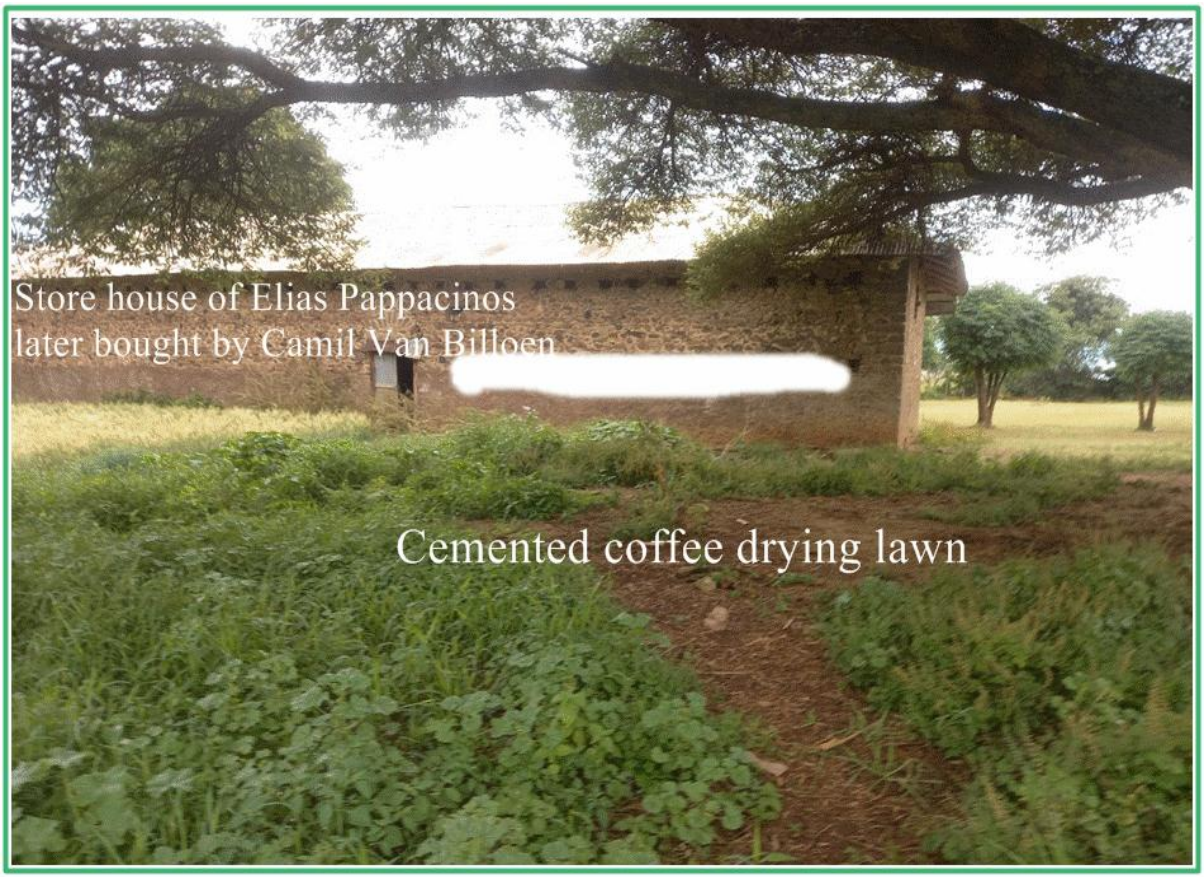
Figure 3.11: Portable manual coffee beans huller used during then by Camiel Van Billoen

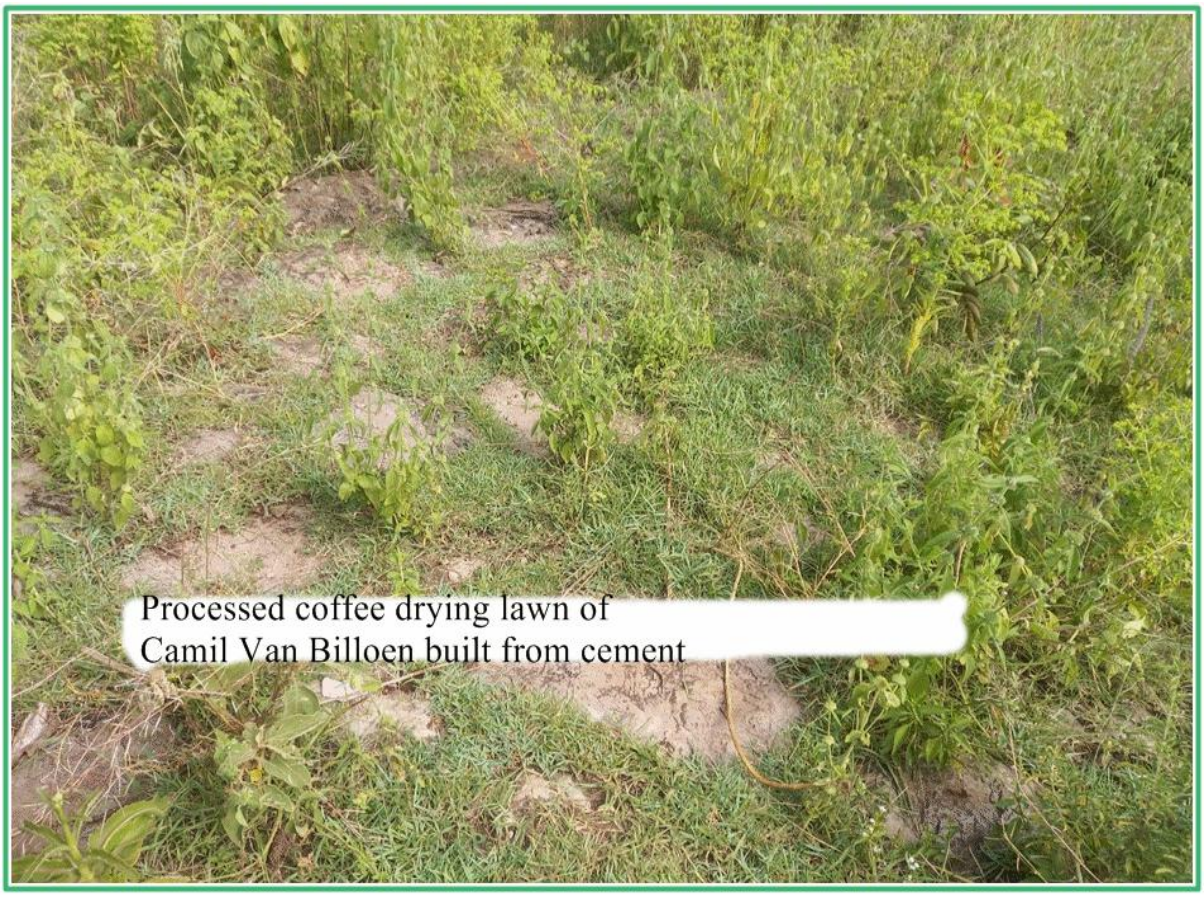
[60]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[61]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Nigus Nega, Kella town, 26/10/2022; *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Girma Kedir, Kella town, 26/10/2022.

Source: Photo by Efrem Alaro

Figure 3.12: Cemented field for dry processed coffee built during then by Camiel Van Billoen





Source: Photo by Efrem Alaro

3.5. Production and Marketing

In the second year after transplanting, a few hundred kilograms per acre of cherry coffee were produced on the Camiel Van Billoen commercial agricultural farms. In the third year**,** with optimum rainfall and good management of fertilizer and weeds, production may be in the neighborhood of 80 bags per acre (8000 pounds) of coffee cherry. In the fourth year**,** 100 bags of coffee cherry were produced under Elias and Van Billoen commercial agricultural farms.[62]

However, the total volumes of processed coffee on Camiel Van Billoen commercial agricultural farms ranged from 240 bags (20, 400 kg or 1, 200 *Feresulla*) to 360 bags (30, 600kg or 1, 800 *Feresulla*) per pear commencing from the fifth year of the establishment of Camiel Van Billoen commercial agricultural farms in the two *Balabats* of Tena district. However, informants failed to provide annual production volumes for pepper, sugar cane and

[62]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

orange plantations. Also, I was unable to get estimates for the production capacity of the food oil refinery plant and grain-mill per day.

Pepper, sugar cane and orange plantations were not the main target of both farmers. Rather, pepper was used as shade tree during the first few years of transplanting coffee seedlings from nursery beds to the main farm. Similarly, orange plantations were utilized as permanent shade trees for coffee trees and hence lasted until the end of the farm. Thus, pepper crop terminated after coffee trees started producing coffee cherries. Sugar canes were used as windbreakers and lasted until the end of the farms.

During the early years (1938-ca. 1945), the sacks were transported by camel caravans to Djibouti. Processed and cleaned coffee were packed in sacks containing 85 kilograms or five *Feresulla*. The packed sacks were stored in the respective store houses until they were transported to Addis Ababa from 1946 to 1974.[63] They were transported to Addis Ababa by Orlando Terenta and Scania lorries of carrying capacity of 120 sacks of coffee as the road joining Sire town to Ticho was built. During these later years of operation of the commercial farms, about two to three full of Orlando Terenta were used to be transported to Addis Ababa until 1974.[64]

Then, they were transported to Djibouti from where they were shipped via the Franco-Ethiopian Railway. Shipped sacks of coffee were marketed in Havre (France), and Antwerp (Belgium) coffee marketing towns. The average annual selling price of coffee produced by the specified commercial farms were about 1, 000, 000 (1 million pounds) in the late 1930s with increasing amounts per year from 1940s to 1974 to the country. Thus, approximately the commercial farms sold the coffee for about 35 million pounds during its periods of operation.[65]

[63]Informants: *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[64]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[65]Ukers, W. H. and Bitting, K. G. All About Coffee (2nd Ed.). New York: The Tea and Coffee Trade Journal Company; 1935. p. 170.

3.6. Changes, Continuities, Developments and Phasing Out of the Farms

During the active life times of the commercial farms (i.e., 1930s to 1974), a number changes, continuities and developments were witnessed by the farms in the district. The major changes, continuities and developments witnessed by those commercial farms were of multi-dimensional aspects. The most important ones are discussed below.

The dense forests lands in the two *Balabats* of the district were transformed into capital-intensive commercial agricultural farm lands. Rainfed small householder private farming systems were shifted to irrigation-based commercial farming systems. Consequently, the numbers and ethnic diversity of the employees of the commercial farms kept on increasing from year to year with pick number of employees during coffee harvesting periods. Following the diversifications in number and ethnicities of the employees, various social changes took place. As a result of the effected social changes, inter-societal and inter-ethnic as well as inter-citizen intermingling and marriages happened in the course of the life time of the commercial farms.[66]

Two years later, the farms started producing coffee, food oil, sugar canes, oranges, pepper and grinding grains. These in turn widened social images and operation spheres of the commercial farms. The outputs of the farms gradually increased; and hence, camel based transportation system was changed to vehicle based transportation system.

In 1936, Elias Pappasinos sold his farms to Camiel Van Billoen for unknown reason(s). Hence, the ownership of his commercial farm was transferred to Camiel Van Billoen for 36, 000 lire including his residential house, that of his advisor and the stores as well as his irrigation infrastructure. Moreover, manual processing of coffee shifted to semi-automatic processing method using the portable dry coffee huller machine.[67]

The commercial farms became local marketing areas for Robe *Woreda Nueg* farmers. Influx of workers started to flow to the *Balabats* as the popularity and/or social images of the farms increased. Eventually, transportation networks joining Kella town to Gobessa town, and Sire

[66]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022.

[67]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022.

town with Ticho town were built and stores were constructed in Arussi Robe town and other places.[68] They became sources of foreign currency for the country. Bell system of calling workers for meetings was introduced. They also served as sources of incomes for number of job-less and landless inhabitants of the local communities, the district, the province and the country.[69]

Finally, as the Imperial government was overthrown in 1974, the commercial farm compelled to stop its agricultural and operational activities. Thus, the farm ownership transferred to *Dergue* government. Following the land for the tillers proclamation of 1975, the farm was partitioned and distributed to the residents of the *Balabats* and the workers of the farm. That heralded the phasing out of the commercial agricultural farm in the two *Balabats* of Tena district.[70]

[68]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022.

[69]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022.

[70]Informants: Informants: *Ato* Dejen Masresha, Kella town, 27/03/2022; *Ato* Nega Negawo, Sole H/Shale Kebele, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022; *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

Chapter Four

Benefits and Significance of the Commercial Farms

4.1. Importance for Local Communities

The importance of the farms to the local communities could be seen from two parallel points of perspectives. The first one is, while the commercial farms were operating, they rendered a number benefits to the local communities. To begin with, they became sources of incomes and livelihoods for a number of jobless and landless poor citizens of the country. In relation to this, excluding daily laborers and short-term workers about 46 persons and their families earned their means of livelihoods from the farms.[1] They became role models for local investors and capable farmers to engage in commercial farms through irrigation. One notable example with this regards was the development of Nura Era irrigation-based horticultural plantations in the districts of Tena and Robe in Arussi province.[2] Moreover, the farms opened local markets for the farmers participated in merchandizing sugar canes, pepper and end-products of processed coffee. Once more, the inhabitants of Robe, Tena and Shirika districts were able to get processed food oil and to have their grains grinded. They also served as experience sharing and technology transferring farms.[3]

The employees of the commercial farms also enjoyed built-up residential houses and other basic necessities freely offered by Camiel Van Billoen. Camiel Van Billoen allowed lands located on the hills to be cleared and used by the employees/workers of the commercial farms as places of constructing residential houses and production of crops for their basic necessities. Food was also given for the workers by Camiel Van Billoen themselves before they produced that amounts needed for their personal consumption. Again, church was built and opened to serve them practice their religion as well as burial places after death. That has increased and escalated the bonds of linkages between the employees and the workers of the commercial farms as well as the local populations. That means Camiel Van Billoen also

[1]Informants: *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[2]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022.

[3]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022.

participated in philanthropic and humanitarian activities which benefited the workers and the local communities too.[4]

The second perspective is still during the active phase of the farms ranged from 1958 to 1974 focusing on different types of services and infrastructural networks. With this regards, Camiel Van Billoen opened a modern primary school in the residential houses of Elias Pappasinos he bought for the children of the workers and children of local community by employing teachers in 1964. The opening of the school was inaugurated by the administrator of Arussi *Teqlay Gezat*, *Dajezmach* Daniel Abebe (1962-1967), in 1965.[5] Also, the store house of ex-Elias Pappasinos residential house and that of Camiel Van Billoen serve as the office of Sole H/Shale and Kereyu *Balabats* of Tena district. The then built and furnished St. Medhanealem Church still served the local communities by giving burial places and for observing their religion. Moreover, the coffee plants planted then by both Elias and Banbilu were the sources of income and livelihoods for a number of smaller farming households in the two *Balabats*. Transportation networks started during then extended to Ticho then to Kella towns of the district by later governments. The irrigation infrastructures developed during then still served as irrigation water sources for the small holder farming households in the *Balabats* of the district (Figure 4.1 to Figure 4.4).[6]

[4]Informants: *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022.

[5]Teshale Worku. "Who were Muse Elias and Muse Banbilu?" Tena district Culture and Tourism Office, Ticho, Ethiopia, 2018. P. 8

[6]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

Figure 4.1: The current Elementary school of Sole H/Shale *Balabat* and prior residential house of Elias Pappasinos

Source: Photo by Efrem Alaro

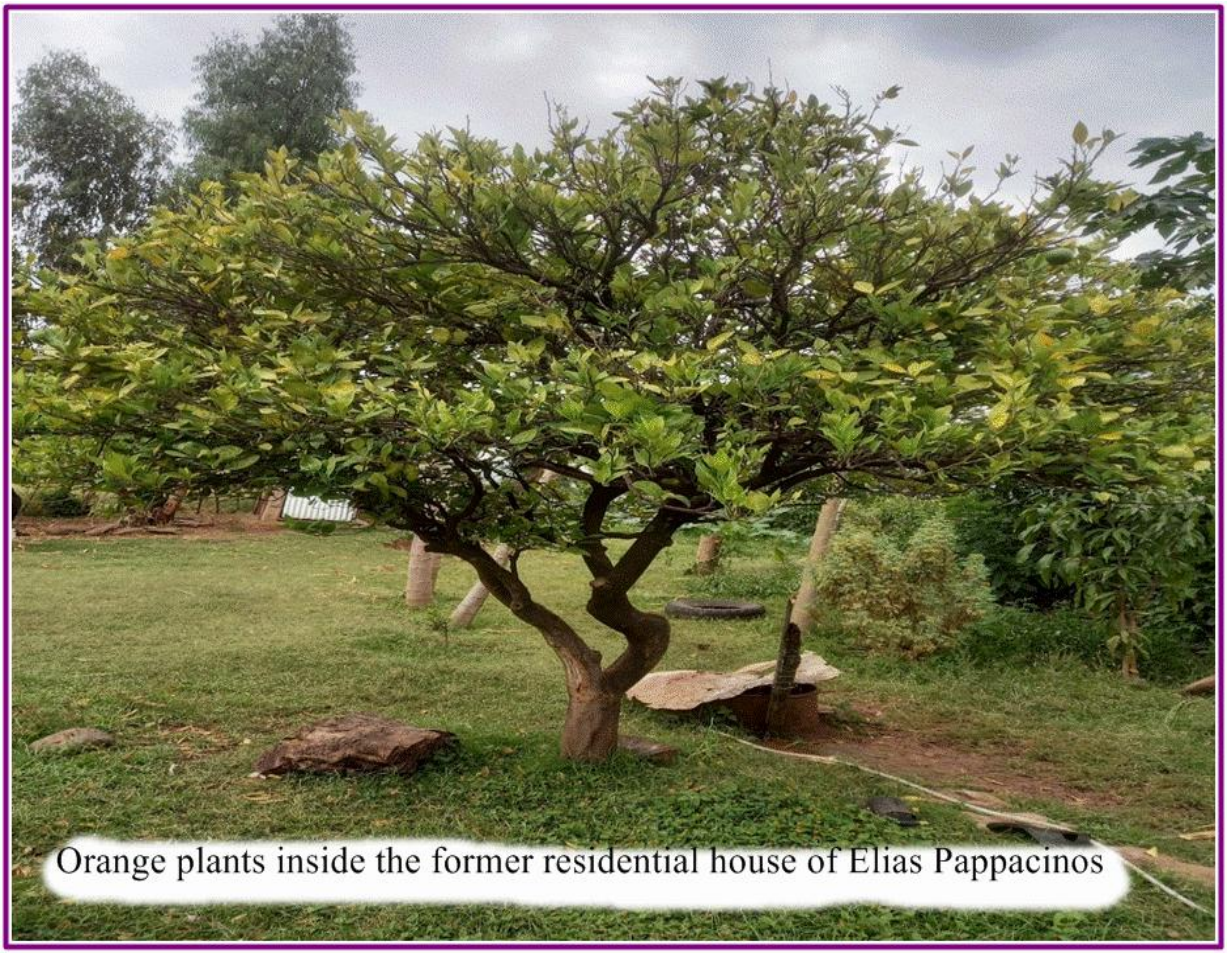
Figure 4.2: The current Office of Sole H/Shale *Balabat* and prior residential house of Elias Pappasinos

Source: Photo by Efrem Alaro

Figure 4.3: The then planted still productive coffee and on use irrigation systems

Source: Photo by Efrem Alaro

Figure 4.4: The then planted still productive orange tree and still in use



Source: Photo by Efrem Alaro

4.2. Importance for the Province and the Country

The benefits of the commercial agricultural farms to the province and the country could be perceived and constructed from two different points of perspectives. The first point of perspective is the importance of the commercial farms during its active life times while the second point of perspective deals with the passive (or from its compulsory phasing out period; i.e., 1974 to the present times) periods.

During the active periods of the operations of the commercial farms, roads many towns; i.e., road joining Sire town to Ticho town of about 121 kilometers, road connecting Ticho town with Kella town of 12 km, and road joining Kella town with Gobesa town of 29 km were built. The construction of that road by the owners of the commercial farms saved potential money to be spent by the province and the country towards same ends. The built up road facilitated previously inaccessible towns and unconnected populations to become accessible and connected with one another. That played paramount roles in the development

transportation networks and necessary infrastructures for the province and the country too. Again, the marketing of produced coffee in Havre (France), and Antwerp (Belgium) coffee marketing towns made the country to earn about one million pounds per year which resulted in the influx of 35 million pounds' foreign currency influx to the country. This in turn solved some proportions of the problems of foreign currency influx (in flow) to the country and the province. Furthermore, Camiel Van Billoen's commercial agricultural farms in the two *Balabats* of Tena district played important part in developing inter-ethnic interactions, peaceful coexistence and societal harmonization; and strengthened intra- and inter-ethnic social ties. In addition to these, Camiel Van Billoen's commercial farms of the district under consideration facilitated technology transfer, experience sharing and foreign capital influx to the country and the province. Again, the farm introduced commercial grinding of grains and hydraulic food oil processing plant to the province and the country.[7]

Contrary to the significance of the commercial farms during its active life periods, the then constructed residential and store houses saved the amount of national money to be spent on the construction of Sole H/Shale primary school in the same *Balabat* of Tena district and on the construction of the office of the same *Kebele*. Moreover, the irrigation infrastructures developed during then reduced the amount of national money to be spent on the developing of the irrigation system from scratch during the *Dergue* and FDRE government' periods. Because the *Dergue* and the FDRE governments only upgraded the already constructed or developed irrigation infrastructures. Still, increments in the incomes of small holder farming households accompanying the upgraded irrigation systems in Sole H/Shale and Kereyu *Balabats* of Tena district contributed both directly and indirectly to provincial and national economic and/or GDP growth. This contribution, one way or another, is attributable to the phased out commercial agricultural farms of Camiel Van Billoen, the Belgian coffee farmer.[8]

[7]Informants: *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Tesfaye Asnake, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022.

[8]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Begashaw Nigussie, Robe town, 26/10/2022; *Ato* Tomas Mekonnen, Robe town, 26/10/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

Therefore, the establishment, development and operation of commercial agricultural farms of Camiel Van Billoen in Tena district benefited the province and the country during the reigns of Empress Zewditu and *Ras* Tafari (1916-1930), Emperor Haile Selassie I (1930-1974), the *Dergue* (1974-1991) and EPRDF as well as Prosperity (1991-2023).

4.3. Influences and Impacts of the Farm on Other National Investors

As time passed, social images of the commercial farms magnified and its popularity widened and far reached as far as Gojjam and beyond. That far reached popularity and magnified social images of the farms, one way or another, exerted tangible and intangible impacts and influences on various segments of the populations such as job-seekers, potential local capable investors and others. Again, the profitability of the farms motivated such potential capable investors lived in some adjoining districts like Lode Hetosa, Hetosa, Ziway Dugda and other districts of Arussi province to engage in commercial and contract farming systems in the late 1960s.[9]

In relation to these, one could cite many motivated and influenced local investors as examples such as Merid Biru, son of *Ras* Biru Wolde Gabriel, who mechanized land amounting to 87.9 *gashas* according to Girma Negash in Hetosa district from 1960s to 1970; Eshetu Wolde Tsedik who commercialized land amounting to 30-40 *gashas*; Tedla Abebe that commercialized about 25 *gashas* of land through irrigation in Ziway Dugda *Woreda*; Asras Abay who commercialized comparable amount of lands around Boru Jawi town in Hetosa district; *W/o* Tenegnework who commercialized about two hectares of land on Gonde River in Hetosa district; unnamed persons that commercialized about 4-5 *gashas* of lands located at the borders of Robe and Tena districts in the place called Nura Era among many others.[10] These could be justified by absence of local investors engaged in commercial farms prior to Elias Pappasinos and Camiel Van Billoen's farms coming the agricultural scenes though there were other several foreigner commercial farmers in the country since the reign

[9]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

[10]Informants: *Ato* Teshale Worku, Ticho town, 26/10/2022; *Ato* Getu Alembow, Robe town, 27/03/2022; *Ato* Abay Hussien, Robe town, 17/05/2022; *Ato* Habtamu Kebede, Robe town, 13/05/2022; *Ato* Ketema Bejiga, Kella town; 02/10/22; *Ato* Bekele Senbetu, Kella town, 26/10/22; *Ato* Belay Abebe, Kella town, 26/10/22; *Ato* Nega Genamie, Kella town, 27/03/22.

of Menilik. Merid Biru, son of *Ras* Biru Wolde Gabriel, and Eshetu Wolde Tsedik seem influenced having continuously watching and seeing the trucks and lorries of Camiel Van Billoen passing through Eteya town of Hetosa district where Merid Biru was living and Dera town where Eshetu Wolde Tsedik was living while they were transporting tools, materials and equipment for constructing their residential houses as well as their produced coffee to the market abroad every now and then. Moreover, the unnamed persons that commercialized about 4-5 *gashas* of lands located at the borders of Robe and Tena districts in the place called Nura Era were living close to where the farms of both farmers were located.

In summary, Camiel Van Billoen's commercial farms in Tena district of Arussi province exerted both direct and indirect, visible and invisible, and tangible and intangible impacts and influences on several potential capable local investors to participate and take their parts in the commercialization of agricultural farms in Arussi province and might be somewhere else in Ethiopia.

Conclusions

The Commercial Agricultural Farms through irrigation in Sole Haji Shale and Kereyu *Balabats* were established by Camiel Van Billoen. They were commercial agricultural farms operated by Belgian foreigner. Camiel Van Billoen's commercial agriculture activities developed in Kereyu *Balabat* in 1936 and he also bought the farms developed by Elias Pappasinos in Sole Haji Shale *Balabat* situated at a place called Uta in 1936 which was developed in 1924. Elias Pappasinos sold his farm to Camiel Van Billoen in 1936 for 36, 000 lire for unknown reason(s).

The land acquisition processes undergone by Elias Pappasinos and Camiel Van Billoen were different. Elias Pappasinos directly contacted the land from private contract grantors through his legal advisor. On the other hand, Camiel Van Billoen leased, purchased and contracted his farm lands from *Gerazemach* Beyene *Abba* Garie for 90 years who bought the land from *Ato* Desalegn Bortole for 84 Maria Theresa Thalers, from Elias Pappasinos and various landlords.

Camiel Van Billoen developed and constructed necessary infrastructures, transportation networks, residential houses, irrigation facilities, food oil refinery, grain mill houses, stores, church, modern school, and others in the respective rural *Kebeles*. Coffee nursery beds, land clearing, ploughing, coffee seedling planting holes, shade trees and horticultural plants, windbreaker trees and oranges were prepared and planted on the farms of Camiel Van Billoen. a year later than the respective commencement of their farms.

Appropriate coffee cherry picking, drying, sorting, processing, packing, storing and transporting methods were utilized by Camiel Van Billoen on their farms. Total volumes of processed coffee on Camiel Van Billoen's farms ranged from 240 bags (20, 400 kg or 1, 200 *Feresulla*) to 360 bags (30, 600kg or 1, 800 *Feresulla*) per pear commencing from the fifth years of the establishment of the farms. He used to export his coffee to Havre (France), and Antwerp (Belgium). The average annual selling price of his produces contributed to about 1, 000, 000 (1 million pounds) in the late 1930s with increasing amounts of foreign currency influx per year from 1940s to 1974 to the country.

Several services, facilities, infrastructures and technologies were transferred from Belgium and other European countries due to the establishment of the farms in the district from 1924/1936 to 1974 by the founders of the farms. Local farmers got many services from the

farms and other agricultural activities established by the founders, and attractive local markets emerged for the farmers for their agricultural produces. The farms heralded the transformation of abandoned and unpopulous dense forests lands into capital-intensive commercial farms; shifting of rainfed small householder farming systems to irrigation-based farming systems; and facilitated inter-societal and inter-ethnic as well as inter-citizen intermingling and marriages.

Foreigners played significant roles in establishing and developing capital-intensive commercial agricultural farms specialized in the production of variety of fruits, crops and plantations in Ethiopia. Thus, a number of foreigners played vital roles in the initiation of commercial agriculture through irrigation in Ethiopia almost parallel to the commencement of large federal projects in the 1930s to 1960s in USA.

The farms effected both direct and indirect, visible and invisible, and tangible and intangible impacts and influences on several potential capable local investors to participate and take their parts in the commercialization of agricultural farms in Arussi province and might be somewhere else in Ethiopia. For instance, Merid Biru who mechanized 87.9 *gashas* of land in Hetosa district from 1960s to 1970; Eshetu Wolde Tsedik who commercialized 30-40 *gashas* of land in the same district; Tedla Abebe that commercialized about 25 *gashas* of land through irrigation in Ziway Dugda *Woreda*; Asras Abay who commercialized comparable amount of lands around Boru Jawi town of Hetosa district; unnamed local investor that commercialized about 4-5 *gashas* of lands located at the borders of Robe and Tena districts in the place called Nura Era among many others were either directly or indirectly influenced and motivated by Camiel Van Billoen's farms, their operational successes and profitability.

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Appendices

Annex I: Email Sent to Michiel Ceulemans, Belgium Diplomat in Ethiopia

Requesting information related to company and Muses' described hereunder

Esan Demissie <esandemissie951@gmail.com> Mon, Jan 9, 2023 at 10:34 PM

To: Belgium Embassy, Addis Ababa <AddisAbaba@diplobel.fed.be>

Dear Sir/Madam,

I am an Ethiopian and currently writing up MA thesis on the 'History of Muse Banbilu's Commercial Agricultural Farms in Tena *Woreda* of Arussi Zone (1936-1974).

There was the Belgian company in Ethiopia in the 1900s that developed commercial coffee farm in Sidamo and Minie Gololcha, Sidamo and Arsi Province. But, I tried hard and failed to get its name. Again, there were four Belgians that came with the company; namely, Muse Justa, Muse Pappalinos, Muse Elias and Muse Banbilu. I wondered that how those four Belgians named Muse.

Muse Elias and Muse Banbilu were the employees of Belgian company and founded Commercial coffee farm in Tena in the 1920s and 1930s.

To this, I want to get full information on both Muses' and the Belgium company to properly reconstruct the history on the specified title. Thus, your help towards same ends have paramount importance in finalizing my thesis. I am looking forward hearing from you in the near future.

Thank you in advance!

Sincerely yours,

Esan Demissie

Annex II: Response of Michiel Ceulemans

Ceulemans Michiel - Belgium - Addis Ababa <michiel.ceulemans@diplobel.fed.be> Tue, Jan 10, 2023 at 1:17 PM

To: esandemissie951@gmail.com <esandemissie951@gmail.com>

Cc: Embassy of Belgium in Addis Ababa <addisababa@diplobel.fed.be>

Dear Sir,

We unfortunately have no archives from that period anymore as we periodically send these to Brussels for safe storage. You might try to contact the archive service of Federal Public Service of Foreign Affairs in Belgium to get more information but I'm afraid they do not do any research for other people and only give people permission to physically search for themselves in the archives.

Best regards,

Logo

Michiel Ceulemans

Consul

Embassy of the Kingdom of Belgium to Ethiopia & Djibouti

Comoros Street, Yeka Sub-City, Addis Ababa •

michiel.ceulemans@diplobel.fed.be

•www.ethiopia.diplomatie.belgium.be

•www.diplomatie.belgium.be • Logo Twitter Logo Facebook Logo Instragram

Logo LinkedIn

[Quoted text hidden]

Annex III: Email Communication with the Librarian

[Business Reference] Dear Sir/Madam, I am an Ethiopian and currently writing up MA thesis on the 'History of Muse Banbilu's Commercial Agricultural Farms in Tena

Business Reference <business@ask.loc.gov> Thu, Jan 12, 2023 at 9:06 PM

To: Esan Demissie <esandemissie951@gmail.com>

--# Type your reply above this line #--

Business Reference Librarian

Jan 12 2023, 01:06pm via System

Hi Esan,

I am attaching some photos from a book the Library has called *All About Coffee* that has some information about coffee trade from Ethiopia (or Abyssinia as they refer to it). On page 170, they mention that in the early 20th century, two (unnamed) Belgian companies merged to form the Société des Plantations d'Abyssinia. There is a Belgian website that lists the Société Des Plantations d'Abyssinie as a company that existed between 1923 and 1970.

The Library of Congress has a guide on Doing Company Research which includes research on international companies, although these mostly focus on current businesses. There is also a guide on Doing Historical Company Research, but the focus is on companies in the U.S. Unfortunately, I wasn't able to find any information on this company in our resources. I did find this article with some information from the time of the 1920's and 1930's that relates to coffee production in Ethiopia: https://www.jstor.org/stable/pdf/41931280.pdf but it doesn't specifically mention the Société des Plantations d'Abyssinie. You may look into searching local archives or historic newspapers for more information on the company or on those individuals. The Library of Congress Newspapers and Current Periodicals Reading Room has some foreign language historic newspapers, so you may want to look at those holdings to see if any of them might be of interest.

Business Reference Services / KB

Library of Congress

https://www.loc.gov/rr/business/

https://blogs.loc.gov/inside_adams/

Attached Files

coffee_1.jpg

coffee_2.jpg

Original Question

Jan 10 2023, 05:10pm via System

Dear Sir/Madam,

I am an Ethiopian and currently writing up MA thesis on the 'History of Muse Banbilu's Commercial Agricultural Farms in Tena

Dear Sir/Madam,

I am an Ethiopian and currently writing up MA thesis on the 'History of Muse Banbilu's Commercial Agricultural Farms in Tena *Woreda* of Arussi Zone (1936-1974).

There was the Belgian company in Ethiopia in the 1900s that developed commercial coffee farm in Sidamo and Minie Gololcha, Sidamo and Arsi Provinces. But, I tried hard and failed to get its name. Again, there were four Belgians that came with the company; namely, Muse Justa, Muse Pappalinos, Muse Elias and Muse Banbilu. I wondered that how those four Belgians named Muse. Muse Elias and Muse Banbilu were the employees of Belgian company and founded Commercial coffee farm in Tena in the 1920s and 1930s.

To this, I want to get full information on both Muses' and the Belgium company to properly reconstruct the history on the specified title. Thus, your help towards same ends have paramount importance in finalizing my thesis.

Would you mind of either emailing or telegramming me materials that help me in relation to my specified endeavor. I am looking forward hearing from you in the near future.

Thank you in advance!

Sincerely yours,

Esan Demissie

Thank you for using Answers!

This email is sent from Ask a Librarian in relationship to ticket #10753840.

Annex IV: List of Oral Informants

No	Title	Informants	Age	Interview date	Interview place	Remark
1	Ato	Ketema Bejiga	75	02/10/2022	Kella town	Van Billoen's shepherd and ploughers; provided detailed information on agricultural activities, the two Belgian farmers, farms, benefits of the farms and local developments and changes and the administrators
2	Ato	Belay Abebe	82	26/10/2022	Kella town	Van Billoen's farm worker son and worker on the farm; provided detailed information on agricultural activities, the two Belgian farmers, farms, benefits of the farms and local
3	Ato	Nega Ganamie	90	27/03/2022	Kella town	Elias's worker; provided detailed information on agricultural activities, the two Belgian farmers, farms, benefits of the farms and local developments and changes and the
4	Ato	Bekele Senbetu	88	26/10/2022	Kella town	Van Billoen's shepherd and ploughers; provided detailed information on agricultural activities, the two Belgian farmers, farms and benefits of the farms
5	Ato	Demelash Admasu	55	26/10/2022	Robe town	Geography teacher, eye-witness bornt in Sole H/Shale Kebele; provided detailed information on agricultural activities and farms
6	Ato	Takelgn Zewuge	52	17/05/2022	Ticho town	Veterinary doctor; provided information on the major cattle diseases in the district
7	Ato	Sime Tsegaye	48	17/05/2022	Ticho town	Agricultural officer; provided information on agriculture and rural land administration
8	Ato	Ture Alo	45	13/05/2022	Ticho town	Natural resources conservation expert; provided information on the district's natural resources
9	Ato	Tanku Mulugeta	48	27/03/2022	Kella town	Son of Elias advisor; provided detailed information on agricultural activities, the two Belgian farmers, farms, benefits of the farms and local developments and changes and the administrators
10	Ato	Teshale Worku	55	26/10/2022	Ticho town	Historian who wrote brief history of Elias and Van Billoen; provided information on natural resources that attracted both farmers, major rivers and the likes
11	Ato	Getu Alembow	50	27/03/2022	Robe town	Borned in Kereyu Kebele; provided information on non-technical aspects of the farms and local developments and changes and the
12	Ato	Begashaw Nigussie	70	26/10/2022	Robe town	Borned in Sole H/Shale Kebele; provided information on non-technical aspects of the farms and local developments and changes and the administrators
13	Ato	Tomas Mekonnen	48	26/10/2022	Robe town	Borned in Kereyu Kebele; provided information on non-technical aspects of the farms
14	Ato	Abay Hussien	43	17/05/2022	Robe town	Eye-witness veterinarian; provided information on non-technical aspects of the farms
15	Ato	Tesfaye Asnake	46	17/05/2022	Robe town	Eye-witness animal production expert of Robe district bornt in Kereyu Kebele; provided information on non-technical aspects of the
16	Ato	Habtamu Kebede	34	13/05/2022	Robe town	Eye-witness merchant and former resident of Kereyu Kebele; provided information on non-technical aspects of the farms

17	Ato	Nega Negawo	68	27/03/2022	Sole H/Shale	Eye-witness farmer living in Sole H/Shale Kebele; provided information on non-technical aspects of the farms
18	Ato	Nigus Nega	48	26/10/2022	Kella town	Eye-witness farmer living in Sole H/Shale Kebele; provided information on non-technical aspects of the farms
19	Ato	Dejen Masresha	60	27/03/2022	Kella town	Eye-witness farmer living in Sole H/Shale Kebele; provided information on non-technical aspects of the farms
20	Ato	Reta Dessie	98	05/08/2023	Robe town	Merchant and hotel owner; provided information on the administrators of Arsi *Teqlay Gezat* and Ticho *Awuraja*
21	Ato	Negash Endale	85	06/08/2023	Robe town	Merchant and hotel owner; provided information on the administrators of Arsi *Teqlay Gezat* and Ticho *Awuraja*
22	Ato	Girma Kedir	60	26/10/2022	Kella town	Eye-witness farmer living in Sole H/Shale Kebele; provided information on non-technical aspects of the farms
23	Ato	Genene Kassa	69	08/08/2023	Addis Ababa	Brother of Yewubdar Kassa, mother of George Van Billoen; provided detail accounts of the farms and personal biodata of Camiel Van Billoen
24	Mr.	George C. Van Billoen	68	08/08/2023	Brussels	Son of Camiel Van Billoen bornt from Yewubdar Kassa, the Ethiopian wife of Van Billoen; provided information and personal details on the two Belgian farmers
25	Ato	Worku Shibeshi	70	09/08/2023 and 10/11/2023	Asella	Auditor in various zonal sectors of Arsi, an accountant and secretary of Amhara Development Organization; provided information on the administration periods of the administrators of Arsi *Teqlay Gezat*