

**THE IMPACT OF CASSAVA GROWING IN LUAPULA VALLEY, A HISTORICAL
STUDY, 1900-1980**

BY

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**A dissertation submitted to the University of Zambia in partial fulfilment of the
requirements of the Degree of Master of Arts in History.**

THE UNIVERSITY OF ZAMBIA

LUSAKA

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DECLARATION

I, Chama Kaluba Jickson, do hereby declare that this dissertation represents my own work; it has not been previously submitted for any degree at this or any other university; and does not incorporate any published work or material from another dissertation without citation.

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APPROVAL

This dissertation of CHAMA KALUBA JICKSON is approved as fulfilling the partial requirements for the award of the degree of Master of Arts in History by the University of Zambia.

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ABSTRACT

This study focuses on the impact of cassava on the diet, food security and economy in the Luapula Valley. It reveals that the colonial government did not hinder the cultivation of cassava in the Luapula Valley. The study shows that from 1964 to 1980, cassava cultivation in the valley received no government support. However, the people of the Luapula Valley from 1900 to 1980 depend on the cultivation of cassava as a source of food and income. Cassava was a crucial crop in food sustenance of communities in areas prone to droughts and those in high rainfall zones.

Most studies done on Luapula have ignored the important role that cassava played in ensuring food security and its contribution to the economy of the valley. Studies on the area have concentrated on the fishing industry. However, this study underscores the significant role that cassava played in ensuring food security and income generation among the people of Luapula Valley.

This study shows that from 1900 to 1980, cassava ensured food security especially during catastrophes such as droughts of 1980 and locust invasions of 1931 to 1935. From as early as 1906, cassava was vital in the local and export trade to the Congo mines and Copperbelt. Trade in cassava enabled the people of the Luapula Valley to access cash and other items of value. The study has also demonstrated that there was employment for traders who bought and transported cassava meal on behalf of recruiting companies in the valley. During the Second World War, cassava was a key source of food for the mine workers on the Copperbelt. During the period 1964 to 1980, the post-colonial government discouraged the cultivation of cassava in favour of maize. However, the crop continued to be vital in the valley. In the 1980s the government began to recognise cassava as a reliable famine relief crop. The study concludes that cassava played a significant role in ensuring food security and as a source of income for the people of the valley.

DEDICATION

Dedicated to my parents Mrs. Agness Kabashi Chama and the late Mr. Chikobe Jickson and to my uncle Emmanuel Daniel Chama for the support. To my fiancé, I am grateful for understanding and encouraging me during this academic venture. Nancy Mwape Kaluba this is for you. To the people of Luapula Province and the valley in particular this is your work.

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LIST OF ABBREVIATIONS

ALC	Africa Lakes Company
BSAC	British South Africa Company
DC	District Commissioner
HCN	Hydrocyanic Acid
FAO	Food and Agriculture Organisation
FENZA	Faith Encounter Zambia Library and Archives
lbs	Pounds
NAMBOARD	National Agricultural Marketing Board
NAZ	National Archives of Zambia
NRG	Northern Rhodesia Government
PC	Provincial Commissioner
PWD	Public Works Department
RWC	Robert William and Company
RYC	Robert Yule Company
TCL	Tanganyika Concessions

LIST OF OLD AND NEW NAMES

<i>Old Name</i>	<i>New Name</i>
Belgian Congo	Republic of Congo (Zaire)
Elizabethville	Lubumbashi
Fort Rosebery	Mansa
Johnston Falls	Mambilima Falls
Northern Rhodesia	Zambia

LIST OF OLD AND NEW CURRENCY

Old Currency

New Currency 1968

One penny (1d)

=

One ngwee (1n)

Six Pence (6d)

=

Five ngwee (5n)

Twelve pence (12d)

=

Ten ngwee (10n)

Two Shillings and Six pence (2/-6d)

=

Twenty-five ngwee (25n)

Ten Shillings (10/-)

=

One Kwacha (K1)

One pound or 20 Shillings (£1)

=

Two Kwacha (K2)

100 Centimes

=

One Belgian Congo Franc

CHAPTER ONE

INTRODUCTION AND HISTORICAL BACKGROUND

This study attempted to reconstruct the history of cassava growing in the Luapula Valley during the colonial and the immediate post-colonial period from 1900 up to 1980. It looked at the history and state of cassava cultivation in Luapula Valley in the midst of government policies towards cassava. It also demonstrates the impact of cassava on food security, diet and economy of the people of the Luapula Valley. Further, it assesses the contribution and importance of cassava to the local subsistence economy as well as food security of the people of the area during the same period.

Cassava is the third most important tropical food crop after maize and rice. Cassava (*Manihot Esculenta Crantz*) is originally from South America in Brazil where it was a vital source of food and later spread to other parts of the world including Africa. Cassava is known by many different names. In Brazil it is known as mandioca or aipin, in French it is called manioc, in Spanish yucca and in India as tapioca. In the Luapula Valley it is known as (*tute* or *kalundwe*). The Portuguese introduced cassava in Africa in the second half of the sixteenth century.¹ The crop is believed to have been introduced in Luapula Valley by the Lunda of Kazembe who came to the area with cultivars (*ifikonkolo*). There are basically two cassava types, the bitter type (*Manihot Utilissima*) which contains hydrocyanic acid thus requiring processing before consumption, and the sweet type (*Manihot Palmata*) which does not contain cyanide and is usually eaten raw without processing.²

¹Charles M. N. White, "A Preliminary Survey of Luvale Rural Economy" *The Rhodes-Livingstone Papers, No.29* (Manchester: Manchester University Press, 1959), p. 17.

²James Cock, *Cassava: New Potential for a Neglected Crop* (Boulder and London: Westview Press, 1985), p. 14.

Cassava has three major parts, namely the roots, leaves and stems[see Appendix 1]. Some roots are eaten raw, boiled or roasted and used to make cassava meal. The leaves of cassava are eaten as a vegetable and have high protein content while the cuttings are used as planting materials or cultivar, hence cassava cultivation requires no seeds.³ The roots of cassava contain high amount of carbohydrates making the crop a good source of energy.

This study looked at the period from 1900, when the colonial administration of the British South Africa Company (BSAC) was firmly effected in Mweru-Luapula and administrative centres such as Chiengi and Kawambwa were opened.⁴ This enabled us to have information from government reports starting from 1900. The study terminates in 1980 following the changes in the policy of the government towards cassava which became clear especially in the years 1981 and 1982 when cassava was included in government crop pricing. The study also considered the effect of the two exotic pests, the cassava mealy bug (CM) and cassava green mite (CGM) which reached Luapula in 1981 and damaged the crop in the area.⁵

The Luapula Valley was chosen as a study area on the basis of the extensive cultivation of cassava by the local people. The area provided a good case study on the impact (role) of cassava on the diet, food security and its contribution to the subsistence economy, aspects which have not been extensively studied in the available literature on the Luapula Valley.

The role of cassava in the diet, food security and economy is one that requires academic investigation in order to understand the contribution of such crops in shaping the history of Zambia. According to Gordon:

³See for Example: J. E. Hughes, *Eighteen Years on Lake Bangweulu* (London: Field House, n.d), p. 69.

⁴Jeremy Gould, *Luapula: Dependence or Development?*(Lusaka: Zambia Geographical Association, 1989), p. 16.

⁵Steven Haggblade and Ballard Zulu, "The Recent Cassava Surge in Zambia and Malawi. Conference Paper No.9", Pretoria, Dec. 1-3, 2003, p. 6.

In Luapula Valley, cassava first arrived with the Lunda around 1740 and gradually took over from the older grain staples of sorghum and millet which now remained mainly for beer brewing and [ceremonial] purpose particularly for sorghum meal]. Cassava spread along the trade routes stretching from Portuguese bases in Angola on the West coast to Kazembe Kingdom where it was initially a food staple for trading elites as well as royal Lunda court in Mweru-Luapula and was reported to be extensively grown in the area.⁶

Furthermore, Von Oppen noted that “the latest and perhaps most important step in agricultural revolution was the introduction of cassava cultivation. The introduction of cassava amounted to something like an indigenous agricultural evolution as well as a change in diet”.⁷ Apart from being a food crop, cassava changed the history of the people that adopted it as a staple crop as it changed their agricultural system; it contributed to the establishment of permanent settlement, enhancement of the economy, diet as well as improved food security.

In the northern region of the country, particularly in the Luapula Valley, cassava was able to earn itself recognition among the people as a traditional crop or family crop since it became staple food. The crop played a vital role in the diet, food security and economy of rural communities that did not depend on grain crops. Musambachime observes that “Cassava had better advantages over the former staples of sorghum and millet in that it had large yields and required little storage facilities”.⁸ Thus, the cultivation of cassava ensured that the valley had enough food available. Apart from being drought-resistant, cassava yielded more than the

⁶David Gordon, *Nachituti's Gift: Economy, Society, And Environment in Central Africa* (Wisconsin: The University of Wisconsin Press, 2006), p. 56; Livingstone in 1867 reported the extensive cultivation of cassava in Kazembe Kingdom and the attention that the cultivation of cassava received from people such as Kazembe's chief wife, See Horace Waller, *Livingstone's Last Journals Vol. 1* (London: John Murray, 1874), pp. 251, 248.

⁷ Achim von Oppen, *Terms of Trade and Terms of Trust: The History and Contexts of Pre-Colonial Market Production Around the Upper Zambezi and Kasai* (Humburg: LIT Verlag, 1993), p. 236.

⁸Mwelwa C. Musambachime, “Changing Roles: The History of the Development And Disintegration of Nkuba's Shila State to 1740”, M.A. Dissertation, University of Wisconsin, 1976, p. 14.

previous staples of sorghum and millet which were susceptible to drought and pest attacks such as locusts.

Cassava also had many advantages that made people to adopt it. The crop was not labour-intensive and could be left in the soil for a year or more as compared to cereal crops such as maize, sorghum and millet which required a lot of labour, immediate harvest upon maturity and construction of storage facility. The crop required little attention and was able to withstand a drought fairly well. Moreover it is a root crop which does not necessarily require any construction of storage granaries, being left in the ground until needed.⁹ Ian Cunnison further observed that “cassava grows readily in the *cipyra* soils of the Luapula Valley. It is remarkable in these soils at any rate”.¹⁰

Cassava was not only a valuable crop in the Luapula valley alone; people in other parts of colonial and post-colonial Zambia cultivated cassava as a staple food crop as well as a source of income. Cassava was a vital crop among cultivators in the North-Western Province. Among the people of North-Western Province, cassava provided an invaluable hedge against famine during the droughts of 1948 and 1950. Millet and sorghum were susceptible to drought and bird attacks compared to cassava, thus they were gradually replaced by cassava.¹¹ Being a drought resistant crop and one that could not easily be damaged by pests and birds while in the field, cassava assured people of a source of food in case of failure of cereal crops. Thus, the growing of cassava meant availability of food for the people and consequently improved food security.

⁹ Ian G. Cunnison, *The Luapula Peoples of Northern Rhodesia: Customs and History in Tribal Politics* (Manchester: Manchester university Press, 1959), p. 16.

¹⁰ Cunnison, *The Luapula Peoples of Northern Rhodesia*, p.16.

¹¹ Bennett S. Siamwiza, “A History of Famine in Zambia, c. 1825-1949”, PhD Dissertation, University of Cambridge, 1998, p. 51.

Trade in cassava existed in many parts of colonial and post-colonial Zambia. The crop was sold in various forms as cassava meal, dried roots, roasted or boiled. Hellen noted that

Cassava trade had existed for many years in Western part of Zambia where the Luvale traders moved by canoe down the Zambezi to Barotseland in order to sell their cassava meal. In 1953 about 11,372 bags of cassava were sold while in 1954, Kabompo and Balovale supplied 2,500 bags of cassava. In 1957 Kabompo District produced 6,100 bags of cassava that were traded.¹²

In addition, Gluckman pointed out that, "...in Barotseland, each bag of cassava meal was sold at a price of 10 shillings."¹³ Kajoba observed that, "the volume of trade in cassava within the North-Western Province was estimated at between 20,000 to 30,000 bags by 1961; Zambezi and Kabompo being the major producing districts whose farmers were paid by the Maize Control Board between two shillings and two shillings six pence per 24 pounds at rural depots".¹⁴

There was extensive trade in cassava in the Luapula Valley. Missionary stations, European fish traders, individual traders, bus passengers, government institutions, fishermen and recruiting companies such as Robert Williams and Company (RWC) provided a ready market for cassava in the area. The crop served as an important source of income and livelihood for single household women who sold cassava meal, boiled, raw, roasted, and dried cassava roots or made a beverage (*munkoyo*) out of cassava meal which they sold.

Cassava cannot simply be considered as a valueless crop on the basis of its nutrition content compared to other crops. According to Chabatama, "evidence demonstrates that cassava was no more nutritionally deficient than other crops, and that it depleted the soil no more than other crops. Cassava tubers were a rich source of energy while the leaves supplied adequate

¹² John A. Hellen, *Rural Economic Development in Zambia* (Munich: WeltForum Verlag, 1968), p. 230.

¹³ Max Gluckman, "The Economy of the Central Barotse Plain", in *Rhodes-Livingstone Papers* No. 7 (Manchester: Manchester University Press, 1968), p. 114.

¹⁴ Gear Kajoba, *Food Crisis in Zambia* (Lusaka: ZPC publications, 1993), p. 31.

amounts of protein and vitamins A and C which made individuals in cassava-eating societies to be healthy and strong.”¹⁵ Although the nutritionists and government officers argued that cassava was not good for consumption due to the hydrocyanic acid in the bitter varieties, there were no records of diseases or deaths attributed to the consumption of cassava in the valley. This study demonstrates that cassava was not deficient in nutrients as it provided carbohydrates, vitamins A and C as well as proteins from the leaves which in the valley were eaten as a vegetable.

Cassava served many purposes. The crop served as the main source of food. It was consumed in various ways; the leaves could be eaten as a vegetable and some tubers were either eaten as a raw snack, roasted, boiled or processed into cassava meal used to make polenta (*Ubwali*).¹⁶ Cassava leaves (*Katapa*) are a good source of relish that could be cooked on their own or mixed with fish or dried pounded groundnuts. Cassava products were sold in the villages and provided a source of income particularly for single women headed households.¹⁷ The non-alcoholic drink and the fermented beer made from cassava meal also added to the diet of the people since they contained nutrients, with (*Munkoyo*) being a source of energy.

Cassava meal and cassava roots were exchanged in the local barter system for fish or any other product of value. Thus, cassava contributed to the trade cycle in the Luapula Valley. Due to the comparative advantage in terms of cassava production, the Luapulans benefited from cassava as they were able to take their cassava meal to the fishing camps to exchange for fish which they later sold for cash. The exchange of cassava meal for fish became a lucrative business in which women participated. Schools and mission stations also bought cassava meal to feed the pupils as

¹⁵ Chewe M. Chabatama, “Peasant Farming, The State, And Food Security in The North-Western Province of Zambia, 1902-1964”, PhD Thesis, University of Toronto, 1999, pp. 56-57.

¹⁶ William O. Jones, *Manioc in Africa* (London: Oxford University Press, 1959), pp. 142-143.

¹⁷ The information is from the Smallholder Enterprise and Marketing Programme on Cassava: A Market Research Study on Zambia, prepared by the Langmead and Baker Ltd, 2003, pp. 86-87.

well as to maintain the food requirements of mission stations. Cassava was cardinal both as a food crop which could be consumed throughout the year in addition to providing a source of income for the people of the valley.

Gould notes that “commerce in foodstuffs [cassava meal and fish] flourished across the Luapula into Katanga Province of Congo.”¹⁸ The opening up of copper mines a couple of hundred kilometres to the west of the Luapula River in the Katanga region of the Belgian Congo was of great importance. In order to feed and operate the mines, Tanganyika Concessions (TCLtd) opened up food purchasing depots in the Luapula Valley area from as early as 1904.¹⁹ Gould observed that “the development of the Katanga market for food completely revolutionised the indigenous economy in large stretches of the Luapula areas such that by 1906, the streams of Luapulan porters carrying cassava flour to the Katanga mines continued to grow.”²⁰ This trade continued especially after the growth of the fishing industry from 1920 as more sacks of cassava were exported to Katanga Province in Congo.²¹

Cultivation of cassava during the colonial period in the valley and other parts of Northern Rhodesia was initially promoted on the basis of the crop having been recognised by the colonial administrators as a good famine reserve crop. Lombard and Tweedie noted that “cassava received much encouragement from the colonial administrators as a famine relief crop.”²² Siamwiza further shows how the colonial administration promoted the growing of cassava in the Gwembe Valley of Zambia’s Southern Province as a way to alleviate the hunger problems in the

¹⁸Gould, *Luapula: Dependence or Development*, p. 47.

¹⁹See Mwelwa Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, PhD Thesis, University of Wisconsin, 1981, pp. 85-86.

²⁰Gould, *Luapula: Dependence or Development?*, pp. 112-113.

²¹ See for Example Musambachime “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, p. 178.

²² C.S. Lombard and A.H.C. Tweedie, *Agriculture in Zambia Since Independence* (Lusaka: Neczam, 1972), p.39.

area after the droughts that damaged grain crops between 1931 and 1958.²³ However, the policy of the colonial government towards the cultivation of cassava in Northern Rhodesia tended to change from time to time although, areas such as the Luapula Valley were not much affected since the people there had adopted cassava as a staple crop and resiliently cultivated it even before the introduction of colonial administration.

Government policy towards cassava after independence changed significantly. From 1964, there was no consideration of cassava as an important crop under the policy of the Zambian government until the late 1980s. Areas that depended on cassava were induced to cultivate the subsidised maize under the premise of self-sufficiency when such areas as the Luapula Valley were already producing enough food out of cassava as shown by this study. Marter noted that “the policy of the government [from 1964] for the rural sector sought to develop the downtrodden small scale farming population which could produce maize since developed agricultural areas were based largely on a maize economy and the urban consumer needs were centred on maize.”²⁴ The government, therefore, encouraged maize production on a national basis. This led to the neglect of cassava by the government since emphasis and support was on maize which was needed to meet the demand of the urban population that preferred maize over other crops. Cassava only began to receive support after 1980 especially after the failure of maize due to droughts in the 1970s and 1980s.²⁵

STATEMENT OF THE PROBLEM

²³ Bennett Siamwiza, “Hunger in the Gwembe Valley: A case Study of Mweemba Chieftaincy, 1905-1987” M.A Dissertation University of Zambia, 1993, p. 126.

²⁴ Alan Marter, *Cassava or Maize: A Comparative Study of the Economics of Production and Market Potential of cassava and Maize in Zambia* (Lusaka: Rural Development Studies Bureau, 1978), p. 4.

²⁵ Haggblade and Zulu, “The Recent Cassava Surge in Zambia and Malawi, Conference Paper No.9”, p. 6.

Cassava has for many years been a vital staple food crop in rural areas of the northern region of Zambia. The crop has been a vital contributor to food security and the subsistence economy of Luapula Valley. However, the role and contribution of cassava on the diet, food security and economy in Luapula Valley has not been extensively studied since most studies done in the area have mainly focused on the fishing industry. Contrary to the assertions that cassava was simply a “colonial crop”, this study sought to argue that cassava was an important food crop in Luapula Valley long before colonial rule and after independence. The study also intended to find out the impact that cassava had on the diet, food security and economy in Luapula Valley. Of interest also is the question of why the people of Luapula Valley have essentially remained cassava cultivators despite serious attempts by the post-colonial government to compel them to switch to maize cultivation.

OBJECTIVES

- (i) To reconstructs the history and state of cassava growing in the Luapula Valley from 1900 to 1980.
- (ii) To demonstrate the impact of cassava on the diet and food security in the valley and finally,
- (iii) To assess the contribution and importance of cassava in the local subsistence economy of the Valley.

RATIONALE

This study is envisaged as a contribution to the agricultural history and impact of cassava on food security, diet and economy of the Luapula Valley in colonial and post-colonial Zambia. The role and contribution of cassava on the diet, food security and economy in Luapula Valley has not been extensively studied since most studies done in the area have mostly focused on the fishing industry. Therefore, it is hoped that this study will contribute to the history of cassava in the Luapula Valley by bringing out the impact of the crop on diet, food security as well as the economy of the area. It is also hoped that this study will stimulate further research interest on cassava and its role in food security and income generation in Zambia. This study is a contribution to the body of knowledge that exists on the agricultural and economic history in Zambia.

STUDY AREA

The Luapula Valley is found within Luapula Province in the northern part of Zambia. It is found between latitudes 08 degrees and 12.4 degrees south and longitudes 28.5 and 30 east of Greenwich Mean Time.²⁶ It covers 50,567 square kilometres of landmass. The Province has five main physical features: the plateau, lakes, rivers, the valley and swamps. The Luapula Valley is delimited from the plateau by the escarpment with the valley lying on the western side. To the east, the Luapula Valley is bound by the Muchinga plateau whose escarpment is called *Ntumba Chusi*.²⁷ The Valley is bound by the Kundelungu Mountains or plateau on the western side. The lower reaches of the Luapula Valley is characterised by grass, shrubs, and few branchy stevia

²⁶ Peter Joy, "The Crisis of Farming Systems in Luapula Province, Zambia", In *Nordic Journal of African Studies* Vol. 2, No. 2 (1993), p.120.

²⁷ Musambachime, "Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964", p. 10.

trees.²⁸ Here cultivation of cassava is preferred. The Luapula Valley has an altitude ranging from 900 meters to 1,000 meters.

Agronomic conditions of the Luapula Valley

The adoption and cultivation of any crop in an area is based on the agronomy of the area concerned. Thus, the adoption as well as cultivation of cassava in the Luapula Valley was one that was linked to the soil and weather conditions of the valley. The conditions of the valley, coupled with the advantages of cassava over sorghum and millet, help in understanding why the crop continued to be a vital part of the agriculture system in the area. Cassava was ecologically suitable to the valley conditions since best results are obtained from the crop in areas of 2000 mm annual rainfall to semi-arid (500-700 mm) and in poor soils that are infertile for maize.²⁹

Soils

The soils in the Luapula Valley belong to the Chipya type of soils. Chipya is a vegetation type that is mainly found in high rainfall areas. This kind of vegetation is particularly widespread in the Luapula Valley. Chipya soils are heavily leached sand veldt soils with a black or very dark brown colour to a depth of 50 to 100 centimetres or more. Chipya soils is a vegetation type occurring mainly in high rainfall areas and is particularly widespread in the Luapula Valley.³⁰ These soils are rich in iron and consist of sandy loam and loamy sand. The pH for most soils in

²⁸Gordon, *Nachituti's Gift: Economy, Society, And Environment in Central Africa*, p. 12.

²⁹ See for example: Bennett Siamwiza, "Hunger in the Gwembe Valley: A case Study of Mweemba Chieftaincy, 1905-1987", M.A Dissertation University of Zambia, 1993, p. 124.

³⁰Republic of Zambia, H. Brammer, *Soils of Zambia Ministry of Rural Development Department of Agriculture*(Lusaka: Government Printers, 1976), p. 26.

the Luapula Valley is between 3.7 and 4.3.³¹ In the valley, the Chipya soils are widely used for cassava cultivation, a crop tolerant of poor sandy soils. With such type of soils, Luapula Valley could not easily support crops requiring fertile soils thus people had to resort to a crop which gave them high yields. Cassava became that crop.³²

Rainfall

The Luapula Province is in the high rainfall zone of Zambia. The rainy season runs from late October to early April with most of the rains falling between November and March. The annual range of rainfall in the valley tends to increase from the south to the north. Chiengi on the northeast shore of Lake Mweru has an average of 914.4 millimetres of rainfall while Mambilima and Kasenga on the Luapula River have about 1168.4 millimetres.³³ The land is well-watered with a normal rain season which runs from October to April.

³¹ H.C. Ezumah and B.N. Okigbo, "Cassava Systems in Africa", in Edward, J. Weber, Julio Cesar Toro and Michael Graham (eds.) *Cassava Cultural Practices: Proceedings of a Workshop held in Salvador, Bahia, Brazil, 18-21 March, 1980* (Ottawa: International Development Research Centre, 1980), p. 11.

³² Republic of Zambia, H. Brammer, *Soils of Zambia Ministry of Rural Development Department of Agriculture* (Lusaka: Government Printers, 1976), p.26.

³³ Mwelwa Musambachime, "Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964", PhD Thesis, University of Wisconsin, 1981, p.14.

Figure 1: MAP OF LUAPULA PROVINCE



Source: Joy, “The Crisis of Farming Systems in Luapula Province, Zambia”, p. 121; See Also, Jeremy Gould, *Luapula: Dependence or Development?* (Lusaka: Zambia Geographical Association, 1989), p. 3.

LITERATURE REVIEW

The review of literature showed that although cassava and its role in food security has been partially covered in different studies in Zambia, no comprehensive historical studies have been done on the impact of the crop on the diet, food security and the local subsistence economy of Luapula Valley where the crop has been grown from as far back as 1740. The available literature on cassava reviewed that studies have been conducted on the world scale and in Africa.

Falcon, Jones, Pearson, Dixon, Nelson, Roche and Unnevehr,³⁴ highlighted how increased cassava production helps to alter a country's food policy by increasing food security, reducing the importation of food and contributing to income growth. Increased cassava production helped reduce the importation of rice and improved Indonesia's food security. They argued that cassava contributed to income growth, improved income distribution through creation of new employment, and improved nutrition as well as food security of Java especially in times of rice shortages. This work is useful as it gives insights into how cassava cultivation ensures not only food security but also contributes to the economy.

Gosh, Ramanujan, Jos, Moorthy and Nair, highlight the importance of cassava as a food crop for human consumption, as an industrial raw material especially for starch-based industries and as animal and poultry feed. They point out that cassava tubers are increasingly used to extract starch used in paper board industry, making of labelling and laminating adhesives, in textile industry for sizing, for making glucose, fine spirit, and alcohol and as dye stuff. They also note that cassava is used in the manufacture of cattle, poultry and swine feed. The work shows

³⁴ W. Falcon, W. Jones, S. Pearson, J. Dixon, G. Nelson, F. Roche and L. Unnevehr, *The Cassava Economy of Java* (Stanford: Stanford University Press, 1984), pp. 10-12

that as a result of the various roles that cassava plays, it enjoys a good position in the international trade with Thailand's export industry being successful in cassava pellets and chips export as a result of demand from European countries.³⁵ The study is revealing to this present study as it illuminates the role of cassava in contributing to the local economy through trade.

James Cock's work was valuable as it provides insights on the role that cassava plays in the diet and livelihood of people, and how the crop has become vital world over. Cock notes that in the period 1979 to 1981, the world production of cassava was about 120 million tons annually.³⁶ He argues that cassava has been important as food for direct human consumption especially in Africa where even though it is considered a subsistence crop, substantial amounts of cassava are traded in rural and urban markets. Cock shows that although accurate estimates of how much cassava is traded and how much is consumed by the growers themselves are difficult to find, a significant proportion of African production of cassava enters the market economy.³⁷

The International Institute of Tropical Agriculture (IITA) in its study highlights the production constraints relating to cassava, advantages of cassava and post-harvest technologies of cassava which include: storage and processing methods of cassava both the modern as well as traditional methods. The study provided preliminary data on how cassava is stored and the methods used to process it in particular the tradition methods.

Doku examines the value of cassava to agriculture and the various uses of the crop both as food for humans and industrial purposes. Doku shows that in Ghanaian agriculture, cassava was next to plantain and cocoyam in terms of gross national production and that in 1958 the total

³⁵S.P. Gosh, T. Ramanujam, J.S. Jos, S. N. Moorthy and R.G. Nair, *Tuber Crops* (New Delhi: Oxford and IBH Publishing Co. PVT. Ltd, 1988), p. 3.

³⁶Cock, *Cassava*, p. 3.

³⁷ Cock, *Cassava*, p. 9.

annual production was estimated at about 500,000 tons.³⁸ He points out that the importance of cassava in Ghana cannot be underestimated such that the *Ewe* named it “*agbeli*” meaning “there is life” clearly portraying cassava’s importance to the whole country and to the *Ewe* in particular who are found in almost every part of that country and who are not only the major growers of cassava but also producers of *gari*, starch, *tapioca*, *kokonte* and other products made from cassava.³⁹

Burton’s work “Lacerda’s Journey to Cazembe” provided information on the early cultivation of cassava in the Luapula Valley and the role that the crop played as a source of food in the area. The study highlights the abundance of cassava that was grown in the valley and how important the crop was among the trading elites as well as trading caravans.⁴⁰ It also looks at the value of cassava as a source income for the people of the valley. This work helped the current study with background information on the history of cassava cultivation in the Luapua Valley.

Waller’s “Livingstone’s Last Journals”, points to the extensive cassava cultivation in the Luapula Valley and the role that crop played as a staple food and a key component of the Chief’s gifts to visitors. The work is valuable because it provide background information on the history of cassava cultivation and the importance of cassava as a staple in the valley as far back as 1867, when Livingstone visited the area.

Jones highlights the introduction, spread and role of cassava in Africa including Central Africa. He argues that cassava became a vital crop in Africa upon being introduced by the Portuguese in Angola and it spread through trading routes to areas such as the Congo Basin and

³⁸E.V. Doku, *Cassava in Ghana* (Accra: Ghana University Press, 1969), p. 23.

³⁹Doku, *Cassava in Ghana*, p. 24.

⁴⁰R. F. Burton, *The Lands of Cazembe: Lacerda’s Journey to Casembe in 1798* (London: John Murray, 1873), pp. 40-41.

finally into what is today Zambia. Jones points out that cassava was able to dominate the former crops of sorghum and millet to an extent that it became a vital backbone of the subsistence economic activities of rural communities.⁴¹ He further noted that cassava revolutionised the agriculture system of the African areas where it was adopted. This work provides information on how cassava spread to areas such as Northern Rhodesia. The current study benefitted from the work in that it highlights the various roles that cassava plays especially in the in the diet and availability of food.

The works by von Oppen is vital as they highlight how cassava, though, considered ‘a lazy man’s crop’ due to negative policies towards the crop both in colonial and independent Zambia, the crop was still able to revolutionise agriculture, diet, economy and social lives of the people in North-Western Zambia. Von Oppen shows that cassava was considered a palatable meal and far from a famine food in neighbouring Democratic Republic of Congo, Northern Angola and adjacent States. He notes that to among the Lunda in what is now Katanga Province (DRC), the term cassava was equivalent to “food”, while a neighbouring group called itself simply as *Bena Kalundwe* after the local name of cassava. von Oppen’s work highlights the importance and value of cassava compared to grain crops and also illuminates economic advantages that accrued to women who depended mainly on cassava.⁴² Divergent from the perception of some colonial government officials as reflected in von Oppen’s study, this present study argues that cassava was not a ‘lazy mans food’ since no crop whether produced by women can be regarded as being a ‘lazy mans crop’. von Oppen also undermined the role that cassava

⁴¹ William O. Jones, *Manioc in Africa* (Stanford, California: Stanford University Press, 1959), pp. 66-67.

⁴² Achim von Oppen, “Cassava ‘The Lazy Mans Food?’ Indigenous Agricultural Innovations and Dietary Change in North-Western Zambia ca. 1650-1970”, in Lentz Carola (ed.), *Changing food Habits: A Case Studies from Africa, South America and Europe* (Amsterdam: Harwood Academic Publishers, 1999). pp.44-46.

played in liberating women when he argued that cassava made women subordinates to men.⁴³ This current study demystifies this view and argues that cassava was valuable especially as a women stronghold which provided them with business opportunities.

Chabatama's studies highlight colonial policies regarding the marketing of cassava in North-Western, Northern and Luapula Provinces. Chabatama argues that peasants supplied cassava to meet the rising demands for local foods at the Copperbelt mines and Belgian Congo as well as Buluzi and Angola.⁴⁴ The studies further highlight how cassava was able to substitute the indigenous staple food crops of finger millet among the Luvale, Luchazi, Chokwe, Mbunda, Lunda, Mbwela and Ndembu of Chavuma, Zambezi, Kabompo as well as Mwinilunga. Chabatama also highlights how the higher "survival value" of cassava during pestilences and drought as well as its consistency and greater availability of cassava throughout the year led to its being adopted quickly. Chabatama notes that the adoption of the new crop enabled the local people to have a varied diet. Although Chabatama's studies do not extensively look at cassava, they are very informative as they provide background information on the role that the crop played in the economy, diet and food security. The two studies are relevant to the current work as they provided information on the role that cassava from North-Western province played in the country's political economy especially between 1938 and 1953.

Looking at agricultural change in Northern Province using maize, Bwalya argues that the colonial government, with a view to easing the collection of tax and later to release male labour from agriculture for the mining industry, began to encourage people to shift from millet to cassava cultivation and in 1906 banned Chitemene system. Bwalya's study is very valuable to

⁴³Von Oppen, *Terms of Trade and Terms of Trust*, p. 261.

⁴⁴ Chabatama, "Peasant Farming, The State, and Food Security in The North-Western Province of Zambia", p. 173.

the current study as it provides information on how and why the colonial government promoted the cultivation of cassava in such areas as Kasama District. The study assists in appreciating the colonial government's impetus to promote cassava cultivation. However, contrary to Bwalya's argument that the colonial policy of attempting to keep areas such as Kasama mainly under cassava cultivation left them economically backward, the current study shows that out of the cultivation of cassava, the people of the Luapula Valley were able to obtain profits from the sale of cassava. By 1906 the Luapulans were already involved in an export trade of cassava meal to the Congo.⁴⁵

Siamwiza shows that although the promotion of cassava was not fully effective in all chiefdoms of the Gwembe Valley as a hunger-remedy due to traditional cultural attitudes of the people and failure of colonial policy. The crop was successfully propagated in certain areas such as the Bana Mweemba chiefs upon people realising the need for a crop that could provide them with a source of food in hunger times.⁴⁶ Another study by Siamwiza shows how cassava became an important crop in place of millet in North-Western Province due to its advantages that made it provide an invaluable hedge against famine.⁴⁷ The studies by Siamwiza, are of relevance in that they help to understand the stance of the colonial government concerning cassava in trying to promote the crop as a famine relief crop. The studies provide information on the policy of the colonial government towards the promotion of cassava as a famine relief. The studies are also valuable in providing preliminary information on the role that cassava played in ensuring food security especially during catastrophes such as locust invasions and droughts.

⁴⁵See Gould, *Luapula Development or Dependence?*, p. 113.

⁴⁶ Siamwiza, "Hunger in the Gwembe Valley", pp.127-128.

⁴⁷ Siamwiza, "A History of Famine in Zambia, c. 1825-1949", pp. 52-52.

Chipungu highlights the role that cassava played as a source of food when cereal crops failed. He also shows the colonial governments' policies towards cassava especially during the failure of cereal crops and Second World War period. He notes that when crop failures increased in many parts of the country during the 1910s, 1920s, and 1930, the colonial government turned to cassava as a remedy.⁴⁸ Chipungu further argues that "cassava remained as a staple food only in Mweru-Luapula and parts of Bemba land [Northern Province] up to the turn of the century".⁴⁹ Although the study does not fully look at cassava, it provides background information on how the colonial government responded to the food shortages resulting from failure of grains and how cassava was used to meet the food requirements of the mining areas of the Copperbelt during the Second World War.

Hellen and Kajoba in separate studies show the trade pattern concerning cassava in North-Western and Luapula Provinces. Kajoba highlights the potential of indigenous Zambian cultivation systems in resolving food crises as well as agrarian problems by bringing about food self-sufficiency nationally through the promotion of tuber food crops such as cassava.⁵⁰ Hellen shows the trade in cassava that existed in the Western part of Zambia, where from 1953, the Luvale traders took cassava to Barotseland to sell.⁵¹ The work provides information on cassava cultivation and trade that existed in different parts of Zambia.

Lombard and Tweedie highlight the role of the different crops grown in Zambia including cassava in the agriculture sector. They argue that cassava was a major subsistence crop especially in the areas of northern and western Zambia, both as a source of starch from the roots

⁴⁸ Chipungu, *The State, Technology and Peasant Differentiation in Zambia: A Case Study of the Southern Province, 1930-1986* (Lusaka: Historical Association of Zambia, 1988), p. 61.

⁴⁹ Samuel N. Chipungu, *The State, Technology and Peasant Differentiation in Zambia*, p. 60.

⁵⁰ Kajoba, *Food Crisis in Zambia*, pp. 1-2.

⁵¹ Hellen, *Rural Economic Development in Zambia*, p. 230.

and protein relish from the leaves.⁵² Cassava had once received much encouragement from colonial administration as a famine relief crop. They further point out that trade in cassava roots and flour had existed particularly from the North-Western Province to Mongu. The study helps in understanding the performance of the agricultural sector in Zambia particularly in the immediate seven years after independence.

Alan Marter illustrates the policies of government towards cassava growing especially after independence. The study highlights the production and marketing possibilities of cassava in Zambia. Marter argues that there can be clear impact of commercialised cassava production on the overall rural development objectives especially the distribution of rural production and incomes, and self-sufficiency in food production.⁵³ The study by Marter is important as it provides information on the government's view of cassava after independence and the value of cassava particularly to the rural areas in terms of food self-sufficiency and income generation.

Further Moore and Vaughan highlight how the introduction of cassava in Northern Province by the colonial government changed the agricultural production system in the area. They state that when cassava was introduced in the area by the colonial government in 1930 in response to the locust invasion which devastated millet, it came to be regarded as a solution to the longer-term food insecurity of the area. In line with the argument of this current study, Moore and Vaughan argue that cassava rapidly became a central feature of the food production system.⁵⁴ The study helps to understand the policy of the colonial government towards cassava cultivation. Moore and Vaughan further argue that cassava became a cash crop as well as a

⁵² Lombard and Tweedie, *Agriculture in Zambia*, p. 39.

⁵³ Marter, *Cassava Or Maize*, pp. 62-65.

⁵⁴ Henrietta L. Moore and Megan Vaughan, "History and Agriculture in Northern Province", in Kate Crehan and Achim von Oppen (eds.), *Planners And History: Negotiating 'Development' in Rural Zambia* (Lusaka: Multimedia Publication, 1994), p. 139.

hunger-crop especially in Chief Mpepo's area where large amounts of the crop were sold by the early 1940s.⁵⁵

Cunnison notes that among the people of Luapula, the size and especially the occurrence of very large villages as well as their relative permanence may be associated to the way in which the staple crop cassava is cultivated.”⁵⁶ Ian Cunnison work was vital to this study as it assists in understanding the introduction, cultivation and role of cassava in the Luapula Valley.

Trapnell highlights the value of cassava cultivation in the agriculture of the Northern Province and the importation of cassava meal from Luapula Province into Northern Province from 1936 up to 1938. He notes that the imports of cassava meal seemed to have increased considerably since 1937. Thus by 1938, 970 tons of cassava meal were ready for re-importation into the Copperbelt especially after the removal of restrictions on the transit of meal and fish through the Congo Pedicle road in 1936.⁵⁷

Pritchett shows how the adoption of cassava created food surplus and bolstered trade.⁵⁸ He highlights that cassava increased the availability of food and had a profound impact on the division of labour. Pritchett notes that cassava played a key role in making women become part of the trade system as they were able to sell surplus cassava to caravans and the women who provide cassava for the rapidly expanding body of Zambian mineworkers in the 1940s and 1950s

⁵⁵Henrietta L. Moore and Megan Vaughan, *Cutting Down Trees: Gender, Nutrition, and Agricultural Change in the Northern Province of Zambia, 1890-1990* (Portsmouth, NH: Heinemann, 1994), p. 88.

⁵⁶Cunnison, *The Luapula Peoples of Northern Rhodesia*, p. 23.

⁵⁷C. G. Trapnell, *The Soil, Vegetation and Traditional Agriculture Systems of Zambia Vol. II North-Eastern Zambia: Report of the Ecological Survey* (Bristol: Redcliffe Press Ltd, 1996), p. 123.

⁵⁸James Anthony Pritchett, *The Lunda-Ndembu: Style, Change, and Social Transformation in South Central Africa* (Wisconsin: The University of Wisconsin Press, 2001), p.60; See also Allan Marter, *Cassava or maize: A Comparative Study of the Economics of Production and Market Potential of Cassava and Maize in Zambia* (Lusaka: Rural Development Studies Bureau, 1978), pp. 29,59.

were able to reap respectable profits.⁵⁹ He notes that the cash from the sale of cassava gave a great boost to the local economy, a rapid monetization of the Lunda economy which was accompanied by social and cultural transformations.⁶⁰ Pritchett shows how cassava lost its position to maize after 1964 as the independent governments continued with the colonial policy of privileging maize over cassava production. It is this similar argument that the current study also grapples with to show the role that cassava played in the Luapula Valley and how government policies affected its cultivation in the area.

CONCEPTUAL FRAMEWORK

The focus of the study was to investigate the history of cassava growing and examine as well as assess its impact on the diet and economy of the people of Luapula Valley. This study will focus on the role that cassava had in the economy and food security in Luapula Valley. Role in this study will be taken to imply the functions that cassava played in the economy and food security of the area of study vis-a-vis the diet and food self-sufficiency. This study will be guided by the concept of food security as adopted by Chabatama. Chabatama argues that “peasant farmers in the midst of natural and artificial calamities adopted a variety of traditional food security survival strategies in their quest to regain household food security”.⁶¹ Food security has been defined in different ways. This study applies the definition adopted by the Committee on World Food Security (CFS) and the Food and Agriculture Organisation FAO that “food security implies all people at all times having physical and economic access to adequate amounts of

⁵⁹Pritchett, *The Lunda-Ndembu* , p. 51.

⁶⁰ Pritchett, *The Lunda-Ndembu* , p. 59.

⁶¹ Chabatama, “Peasant Farming, The State, and Food Security in The North-western Province of Zambia”, pp.8-9.

nutritious, safe and culturally appropriate foods to maintain a health and active life.”⁶² Food security in this study will be related to people being able to adequately produce food for their substance and livelihood.

METHODOLOGY

This study took a qualitative approach while statistical data was also collected and used in some instances. Data for this study was collected from six main sources. At the University of Zambia library and the University of Zambia’s Institute for Economic and Social Research, published and unpublished data was collected. Books, dissertations, theses, journal articles, parliamentary verbatim reports and official government reports were consulted. They provided data on the cultivation of cassava and the impact it had on food security and economy in the Luapula Valley. They also yielded information on how the colonial and post colonial governments viewed cassava.

The second part of our research was devoted to collecting primary data from the National Archives of Zambia (NAZ). At NAZ, unpublished primary documents including Fort Rosebery District Notebooks, Tour Reports for Fort Rosebery, Kawambwa, Chiengi, Nchelenge and Mwense were consulted. Annual Reports of the Department of Native Affairs, Annual Reports and Quarter Reports of both the Department of Agriculture and Ministry of Agriculture were also consulted for information on cassava. The documents yielded information concerning the position of the colonial and post-colonial governments on cassava cultivation in Luapula Valley. They also provided information on the state of cassava cultivation in Luapula Valley, the role the

⁶²FAO, “World Food Security: A Reappraisal of the Concepts and Approaches,” Director-General’s Report, (Rome, 1983), p.2.

crop played in the diet, its ability to ensure food security when cereal crops failed and the trade of the crop that existed in the valley.

Faith Encounter Zambia Library and Archives (FENZA) was another source consulted for both primary and secondary data. Data was collected from diaries such as the diary of Kabunda Mission, annual reports on Luapula and books. They provided information on the trade in cassava that was conducted in the Luapula Valley and how the crop ensured food security in times of locust invasions and droughts. Mount Makulu Research Centre, Luapula Provincial Zambia Agriculture Research Institute formerly called Luapula Research Station in Mansa and the Ministry of Agriculture were also consulted for data on cassava. This supplied information on the position of the government concerning cultivation of cassava in the valley.

Oral interviews were conducted in Lusaka and the Luapula Valley. The interviews availed us with information on the history of cassava cultivation in Luapula Valley and its impact in the Luapula Valley. In Lusaka, individuals who were born, lived and educated in the valley were interviewed and they provided information on the role and importance of cassava in the area both during the colonial and post-colonial period. In Luapula Valley, Chiefs, chiefs' advisors and individual cassava farmers were interviewed and provided us with information on the state and history of cassava cultivation in the area as well as its impact on the diet, food security and economy. The respondents were selected using purposive sampling.

Primary data for the study was collected using individual interviews which were recorded. Document study was used for collecting data from secondary and primary source documents. Primary data from interviews was transcribed after which it was analysed using discourse

analysis. Secondary data was analysed using content or document analysis. Thematic analysis was also used in the final analysis of data.

ORGANISATION OF THE STUDY

The study is divided into five chapters. The first chapter is the introduction and historical background. Chapter Two is an attempt to reconstruct the history and state of cassava cultivation in the Luapula Valley during the colonial and post-colonial period from 1900 to 1980. Chapter Three demonstrates the impact of cassava on the diet and food security. The fourth chapter assesses the contribution and importance of cassava to the local subsistence economy of the Luapula Valley. The final chapter is the conclusion of the findings of the study.

CHAPTER TWO

THE HISTORY AND STATE OF CASSAVA GROWING IN THE LUAPULA VALLEY DURING THE COLONIAL AND POST INDEPENDENCE PERIODS 1900-1980

Introduction:

The people of the Luapula Valley and the surrounding areas have always been self-sufficient in food production with cassava being the main crop that provides them with both food and income. Cassava was introduced into the valley probably as early as 1740, by the Lunda of Mwata Kazembe who brought with them cassava cuttings (*ifikonkolo*)¹ which they obtained from the Lunda Kingdom of Mwata Yamvwa in Congo and the Lunda Kingdom of Kasanje in Angola, who got it from the Portuguese on the West Coast.²

C. M. N White notes that “cassava is no newcomer to the Luapula, for De Lacerda found it there when he visited Kazembe area in 1798”.³ The crop became the main staple which gradually replaced both sorghum and millet as the main source of food in the area. Millet and Sorghum continued to be grown mainly for purposes of brewing sweet and fermented drinks. Sorghum beer was mainly used in the local ceremonies to propitiate ancestral and chiefly spirits. Cassava became the major source of food from which the (*ubwali*) was made and vegetable relish (*Katapa*) gotten.

¹ Interview, Chief Lubundathe Sixteenth, Mr. Kingston Mwape , Chief Lubunda’s Palace, Mwense, 25/06/2015. *Ifikonkolo* is the local word used for the cassava cuttings,

²David Gordon, *Nachituti’s Gift: Economy, Society, And Environment in Central Africa* (Wisconsin: The University of Wisconsin Press, 2006), p. 56.; See Also, Mwelwa Musambachime, “The Agricultural History of Mweru Luapula Area up to 1940”, University of Zambia, History Staff Seminar Paper, 1974 (mimeo), p.6.; Also, Interview, Chief Lubunda (Mr. Kingston Mwape), Chief Lubunda’s palace, Mwense, 25/06/2015; See, for example, N.A.Z., SEC2/887, Kawambwa Tour report No.4 of 1960; D.M Wright who toured the area notes that “Cassava is the basic crop, introduced from the Congo with the migration of the Lunda.”

³ Charles. M.N White “A Preliminary Survey of Luvale Rural Economy”, *The Rhodes-Livingstone Papers*, No. 29 (Manchester: Manchester University Press, 1959), p. 18.

During the colonial period, cassava was not considered to be of great importance as a commercial crop by the Northern Rhodesia Government, hence the failure to fully promote the crop. Cassava was only recognised by the colonial government as an insurance crop that could ensure the availability of food in times of shortages. Even after independence, the Zambian government, from 1964 to 1980, did not recognise the commercial importance of cassava in its agricultural policies, rather considered it only as a subsistence crop grown by the poor farmers in the rural communities.⁴ Von Oppen observed that “the policies towards the crop, made cassava to be viewed as a lazy man’s crop both in the colonial and post-colonial period, with derogatory terms such as ‘cassava eaters used’ by local officials to refer to those who depended on cassava”.⁵

Rural communities in the Luapula Valley and Lake Mweru area were encouraged to grow maize which was subsidised and given a good market price. This was done to lure the people from the cultivation of cassava and other non-cash or marginal crops. However, the people of the Luapula Valley, despite post-independence government policies that did not recognise cassava as a vital crop, continued to cultivate cassava as a staple crop that served both as a source of food and income. For the Lunda of the Luapula Valley, the cultivation of cassava was part of their

⁴James Anthony Pritchett, *The Lunda-Ndembu: Style, Change, and Social Transformation in South Central Africa* (Wisconsin: The University of Wisconsin Press, 2001), p. 60.; See also Allan Marter, *Cassava or maize: A Comparative Study of the Economics of Production and Market Potential of Cassava and Maize in Zambia* (Lusaka: Rural Development Studies Bureau, 1978), pp 3-4.

⁵ Achim von Oppen, “Cassava “The Lazy Man’s Food?” Indigenous Agricultural Innovations and Dietary Change in north-Western Zambia ca. 1650-1970”, in Lentz Carola (ed.), *Changing food Habits: A Case Studies from Africa, South America and Europe* (Amsterdam: Harwood Academic Publishers, 1999), p. 43.

custom and traditions. Hence, they could not abandon a practice that had become part of their daily life on the basis of government policy.⁶

This chapter argues that the colonial government did not hinder the cultivation of cassava as a staple in the Luapula Valley. The government encouraged the cultivation of cassava in as far as it served as famine relief crop and one that provided food for the African workers at administrative centres. The market provided by the government that bought cassava meal for administrative centres encouraged cassava cultivation in the area. The chapter shows that the policies of the post-independence government did not consider cassava as a valuable staple and cash crop that could be promoted. However, the people of the Luapula Valley continued to cultivate cassava as a staple. The chapter shows that government policies that would have otherwise undermined the growing of cassava in the valley after 1964 were unsuccessful since cassava continued to be widely grown in the region.

The chapter notes that people in any given area, always tend to hold on to agricultural practices that provide them with food to sustain their livelihood. This was the case in the Luapula Valley where cassava continued to be a major staple crop. The chapter shows that the state of cassava growing in the valley remained good from 1900 to 1980 despite lack of government support.

Cassava growing in the Luapula Valley before the colonial state

Cassava was added to the crops that the Luapula people grew and later became an important acquisition. The crop quickly showed its advantages over the cereal crops that were

⁶Ian Cunnison, "A Note on the Lunda Concept of Custom", in Clyde Mitchell, Elizabeth Colson and Max Gluckman, *The Rhodes-Livingstone Journal Human Problems In British Central Africa*, No. XIV (Manchester: Manchester University Press, 1970), p.21.; Interview, His Royal Highness Chief Chisunka (Mr. Justin H. Chilufya), Chief Chisunka's palace, Mansa, 24/06/2015

grown in the area in that its propagation needed no seeds as the stem planted in the ground would grow into a big plant that produced the cassava tubers and leaves for food.⁷ According to Gordon, “the Luapulans link their preference for cassava to culture and history; they are proud cultivators and consumers of cassava, which they claim to have farmed at least since the arrival of the eastern Lunda some two hundred years ago”.⁸

The introduction of cassava in Mweru-Luapula was vital not only to the agricultural life of the people but in establishing stability in village settlement as well as supporting the rapidly increasing population.⁹ Although the cereal crops of sorghum and millet could sustain the area, the rapidly increasing population and permanent settlement in the Luapula Valley were suited for cassava production. It was able to sustain the population even in times of disturbances as well as famine since the raiders could not destroy the tubers left in the ground.¹⁰

The people of Luapula came to depend on cassava as a crop that provided them with food both the relish from the leaves and polenta (*ubwali*) made from cassava flour. Visitors and traders who reached the Luapula Valley reported the abundant cassava grown in the area as far back as 1798. When Lacerda’s expedition visited the valley in 1798, he reported that cassava was an important food for the trading elites.¹¹ Cassava also served as food for the trading caravans.¹²

⁷ Musambachime, “The Agricultural History of Mweru-Luapula Area to 1940”, p. 6.

⁸ Gordon, *Nachituti’s Gift*, p. 12.

⁹ Musambachime, “The Agricultural History of Mweru-Luapula Area to 1940”, p.6.

¹⁰ Interview, Chief Lubunda, Chief Lubunda palace Mwense, 25/06/2015

¹¹ See R. F. Burton, *The Lands of Cazembe: Lacerda’s Journey to Cazembe in 1798* (London: John Murray, 1873), pp.40, 129; See also Horace Waller, *Livingstone’s Last Journals* (London: John Murray, 1874), vol. 1, p. 248; Gordon, *Nachituti’s Gift*, p. 56.

¹² Pritchett, *The Lunda-Ndembu*, p. 51.

In 1867, during his visit to the Luapula Valley, Livingstone noted that “cassava is very extensively cultivated, indeed, so generally is this plant grown, that it is impossible to know which is town and which is country: Every hut has a plantation around it, in which is grown cassava.”¹³ The crop was a major part of the livelihood of the people of the Luapula Valley and accompanied the gifts that they gave to visitors as food. According to Livingstone, Kazembe (Casembe) sent his entourage two baskets of cassava flour and one of dried cassava as they entered the kingdom and at their departure, they were given cassava meal and dried cassava roots while two Arab traders who visited the area got the same present from Kazembe.¹⁴ Furthermore, Cunnison noted that “the second great occupation [to fishing] of the Luapula peoples is the cultivation of cassava.”¹⁵ For the people of the Luapula Valley, cultivation of cassava meant their survival, culture and a historical heritage conveyed from generation to generation. Writing about the people of Kazembe, Gamitto noted that “agriculture is the principal pursuit with which they occupy themselves and they cultivate their cassava with greatest care. They give most of their attention to the cultivation of cassava”.¹⁶

The people of the Luapula Valley were growing cassava as a staple even before the area came under colonial control. Thus even when cereal crops would do well, they continued with the cultivation of cassava which they were already used to as a staple crop.¹⁷ For instance in

¹³See Horace Waller, *Livingstone's Last Journals* (London: John Murray, 1874), vol. 1, p. 248.

¹⁴ Waller, *Livingstone Last Journals*, vol.1, p. 251.

¹⁵Ian G. Cunnison, *The Luapula Peoples of Northern Rhodesia: Customs and History in Tribal Politics* (Manchester: Manchester University Press, 1959), p. 16.

¹⁶A.C.P. Gamitto, *King Kazembe and The Marave, Chewa, Bisa, Bemba, Lunda, And other peoples of Southern Africa. Diary of the Portuguese Expedition to that potentate in the years 1831 and 1832*, Translated by Ian Cunnison Vol. 2, No. 42 (Lisboa, 1960), pp.117-118 .

¹⁷ The people of the Luapula Valley had realised that cassava was high yielding over a small piece of land and could not easily be damaged by pests and drought while in the field as compared to grain crops which were susceptible to drought and pests such as locusts. They in the view of this opted to cultivate cassava which they did even after 1964 as in indicated by the argument in Gear Kajoba, *Food Crisis in Zambia* (Lusaka: ZPC Publications, 1993), p. 32.

1867, Livingstone was informed by a Lunda elder that the area had not experienced any famine or hunger because of the cultivation of cassava. Cassava continued to be held in high esteem by the people not only as a famine relief but as a principal traditional crop that provided a reliable source of food as well as a source of income particularly for the women who sold it in various forms both to the locals and traders. Large gardens of cassava were cultivated by the people in the Luapula Valley.¹⁸

Policy and cassava growing during the colonial period 1900-1964

From 1890 to 1924, the British South Africa Company's (BSAC) interest was mainly to find minerals in Northern Rhodesia. Africans particularly those who cultivated "non-cash" crops such as cassava had very little opportunity to sell such agricultural produces for cash. During the period, there was low demand for marketed food-stuffs produced by Africans in Northern Rhodesia since the produce by white farmers was given preference. The area of Mweru-Luapula came under firm BSAC control in 1899 after the defeat of Kazembe. This ended the disturbances that had raged in the area in the 1880s as a result of the succession disputes among the Lunda and the Shila which had resulted into the reduction in the growing of cassava by the people since the crop took long to mature before it could be consumed. Thus, during the period of disturbances, people opted to depend on early maturing crops such as sorghum and millet.¹⁹

The establishment of peace and order in 1900 after the BSAC took over the area led to stability and security which helped in the revival of agricultural production in Mweru-Luapula. It was after the establishment of firm control of the area by the BSAC that cassava retained its

¹⁸See NAZ, ZA7/1/2/8Mweru-Luapula Annual Reports 1914, See also. ZA7/1/6/8 Annual Report 1922/23 and ZA7/1/4/8 Annual reports 1920

¹⁹Musambachime, "The Agricultural History of Mweru Luapula Area up to 1940", p.7.

strong preference among the people compared to the cereals.²⁰ People resumed the growing of cassava as a crop that could support the rapid population increase. From the 1900s, the Luapula Valley had extensive cassava gardens and produced abundant cassava such that it was an important part of the diet as well as the exchange system.²¹

When the BSAC extended its operations to North-Eastern Rhodesia in 1902, it introduced tax which required a robust system of collection. The collection of tax posed a challenge for the colonial administration especially in areas where the *chitemene* system was in practice as people usually moved into camps for cultivation. There was a requirement for permanent settlements which were seen as a measure to ensure easy collection of tax and census.²² Cassava cultivation received an impetus as a crop that made the collection of tax easy for the administration as it led to permanent settlements in Luapula Province compared to millet and sorghum. Gouldsbury and Sheane observed that “...such millet (*male*) gardens were cultivated chiefly for brewing beer as cassava flour was mainly used for porridge (*ubwali*)”.²³ Musambachime also pointed out that, “...by 1906, few people grew sorghum and millet mainly for beer purposes as cassava showed a strong preference among the people over cereals.”²⁴ Therefore drawing an example from Bembaland, apart from being looked at as a reserve crop to be resorted to in times of famine, droughts and locusts invasions, the initial cultivation of cassava in Bemba area was also due to the influence of the colonial administration which insisted that people change from producing

²⁰Musambachime, “The Agricultural History of Mweru-Luapula Area up to 1940”, p. 7.

²¹Musambachime, “The Agricultural History of Mweru-Luapula Area up to 1940”, pp. 7-8.

²² Donald H. J. Bwalya, “Agricultural Change in the Northern Province of Zambia, 1948-1978: A Case Study of Maize Production in Kasama District”, M.A Dissertation, University of Zambia, 1989, p.v

²³Cullen Gouldsbury and Hubert Sheane, *The Great Plateau of Northern Rhodesia* (London: Edward Arnold, 1911), p. 296.

²⁴Musambachime, “The Agricultural History of Mweru Luapula Area up to 1940”, p. 7.

millet to cassava which allowed permanent and concentrated settlement.²⁵ This is yet another reason for encouraging growing of cassava.

For the people of the Luapula Valley, long accustomed to growing cassava, taxation did not constitute the original cause of the people growing cassava. Taxation merely gave an impetus to the cultivation of the crop. The colonial government by calling upon people to cultivate more cassava which they saw as the basis for permanent settlement and consequently easy collection of tax, the cultivation of the crop was encouraged. Cassava was vital in contributing to village stability and longer settlement which had been unique in the Mweru-Luapula area.²⁶

Cassava also found favour as a famine reserve crop that the local people were encouraged to propagate in times of droughts and given that the territory was prone to droughts and pests that destroyed cereal crops. William noted that “cassava held interest only as a famine relief crop in the African farming zones”.²⁷ Thus the colonial government encouraged the people to continue the cultivation of cassava not as a way to promoting African agriculture, rather as a measure to ensuring food availability in times when grain crops failed. Haggblade and Zulu note that

As elsewhere in British Africa, colonial authorities not only urged but even ordered Zambian farmers to produce cassava as a precaution against periodic famines. Under the threat of penal sanctions, farmers in Zambia were instructed to cultivate a plot of cassava. District officers would come to inspect their cassava fields armed only with a stone. Standing in one corner of the cassava field, the inspecting officer would throw the stone as far as he could. If he could launch it out of the field, the field was too small. For this reason, cassava is often regarded as a “colonial” crop.²⁸

²⁵ Bwalya, “Agricultural Change in the Northern Province of Zambia, 1948-1978, p. 18.

²⁶ See for example: Northern Rhodesia Government, *Report of the Rural Economic Development working Party Monograph* (Lusaka: Government Printers, 1961), p. 263.

²⁷ William O. Jones, *Manioc in Africa* (Stanford, California: Stanford University Press, 1959), p. 64.

²⁸ Steven Haggblade and Ballard Zulu, “The Recent Cassava Surge in Zambia and Malawi”. Conference Paper No. 9, Pretoria, Dec. 1-3, 2003, p. 4.

The cultivation of cassava was encouraged throughout the territory as a famine reserve crop.²⁹ This position of cassava was emphasised by the colonial government and the crop held its place as an important famine reserve crop, particularly in the Northern, Western, North-Western and Barotse provinces.³⁰ In line with the preceding argument, Chipungu observes that

When crop failures increased in many parts of the country during the 1910s, 1920s and 1930s, the colonial government turned to cassava as a remedy. Colonial agricultural experts correctly argued that cassava was drought resistant, and that its tuber could not be destroyed by pests like locusts that were frequently ravaging rural environments in the 1930s.³¹

Streams of Luapulan porters carrying cassava flour en route to the Congo mines continued to grow in 1906, and alongside the officially condoned labour traffic, a parallel commerce in foodstuffs across the Luapula into the Congo also flourished.³² Within the Province, the local people supplied cassava meal and dried roots to itinerant traders who were buying food for Katanga, labour recruiters such as Tanganyika Concessions Limited (TCL), Robert Williams and Company (RWC) and Robert Yule and Company (RYC) (the latter took over from RWC in recruiting labour). Missionaries and Greek fish traders also provided a reliable market for cassava.³³ Thus the people of the Luapula Valley extensively cultivated cassava in response to the market opportunities that prevailed locally and externally in the Belgian Congo as well as the Copperbelt.

The First World War also encouraged cassava cultivation. R.J.C Reardon, the Native Commissioner at Fort Rosebery (now Mansa), noted that “during a gathering of the chiefs and

²⁹ N.A.Z, MAG2/5/33, Department of Agriculture Annual Reports 1951, p.14.

³⁰ N.A.Z, MAG2/5/37, Department of Agriculture Annual Reports 1952, p.13.

³¹ Chipungu, *The State, technology and Peasant Differentiation in Zambia: A Case Study of the Southern Province, 1930-1986*, p. 37.

³² Jeremy Gould, *Luapula: Dependence or Development?* (Lusaka: Zambia Geographical Association, 1989), p. 113; 47.

³³ See Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, pp. 81-86.

headmen, they were told to go on growing cassava as formerly and to make very large gardens of cassava in view of the probable heavy demand for food during the coming years”.³⁴ There was need for cassava meal contribution to the war effort hence the need for more production of the crop. There were periodic subscriptions of cassava flour in the villages around the valley. District Commissioners toured their districts to ensure that everybody cooperated and those who resisted were heavily punished. In 1915, an amount of over 216,000 pounds (98,182 kilograms) of cassava meal was contributed and transported to Mbala while the figures increased in the succeeding years as more and more pressure to make contributions was exerted.³⁵ In 1915, there was plenty of food in the area and the local people were encouraged endlessly to make very large gardens of cassava which the officials visiting the areas made sure the people did.³⁶

The period of the First World War showed the importance of cassava as a food crop. Since cassava could be cultivated by the women, the loss of manpower for agriculture as healthy young men were conscripted as porters of food and ammunition between Kawambwa and Mbala did not affect food production in the Luapula Valley. The low labour requirement in the cultivation of cassava made the people in Mweru-Luapula not to be much affected by the war. Cassava grown by women provided a reliable source of food in the absence of male labour. The 1920 annual report for Chiengi sub-district indicates that “there were no deflection of labour

³⁴N.A.Z, ZA7/1/2/8 Annual Report of 1915.

³⁵ Musambachime, “The Agricultural History of Mweru Luapula Area up to 1940”, p.9. ; See also the statistics given by Siamwiza, “A History of Famine”, p.152, that from Kawambwa an amount of 280,000 pounds of foodstuffs were obtained for the war by the Administration between 1915 and 1916. Our view is that in the midst of the 1902-1913 droughts which destroyed cereals, the 280, 000 pounds of foodstuffs must have consisted largely of cassava, a drought resistant crop and one which was mainly grown in the area.

³⁶N.A.Z, ZA7/1/2/8 Annual Report 1915.

from local people's gardens for war purposes and though the Congo was attracting labour it was more or less at the right time of the year as regards cultivation of cassava".³⁷

In 1929, the introduction of the Native Authorities made it easier for the colonial government to pass its orders. The propaganda to promote the cultivation of cassava as a famine reserve crop was easily filtered to the people through the Native Authorities. A family was now required to plant 400 cassava mounds. The colonial government through the Native Authorities urged the people to increase their acreage under cassava especially with the danger of a famine that was being reported. Meanwhile millet continued being planted mainly for the purpose of brewing beer or as an addition to the diet of cassava for some families.³⁸ Cassava remained the main staple food crop in the valley with millet as the staple crop on the plateau.³⁹

From 1930, the colonial administration did not hinder the cultivation of cassava; rather they encouraged the people of the Luapula Valley to grow more cassava as a measure against famine due to the droughts and locust invasions that affected sorghum, millet and maize.⁴⁰ The colonial government also realised the vital role cassava played in feeding workers at administration centre in the Luapula Valley.

In the valley, local agriculture was largely confined to the cultivation of cassava for domestic use, with the surplus being sold within the valley and also exported to the Copperbelt as well as Katanga.⁴¹ In 1930, J.B Thomson, the then District Commissioner for Kawambwa noted that "crops such as maize, kaffir corn and millet were being grown only on a small scale,

³⁷See N.A.Z. ZA7/1/4/8 Chiengi Sub-District Mweru-Luapula Annual Report for 1920.

³⁸Bwalya, "Agricultural Change in the Northern Province of Zambia, 1948-1978", p. 20.

³⁹J. Slaski, "Peoples of the Lower Luapula Valley," in Daryll Forde (ed.) *Ethnographic Survey of Africa*. (London: International African Institute, 1950), p. 78.

⁴⁰Interview, Prof. Moses Musonda, Zambia Open University, Lusaka, 11/03/2015.

⁴¹N.A.Z, SEC2/1282 Mweru-Luapula Province Annual Report 1930

sufficient for the supply of occasional changes in diet and the brewing of beer”.⁴² This clearly shows how important cassava became as a source of food, consequently being extensively cultivated.

The cultivation of cassava in the Luapula valley was not negatively affected by the development of the mines on the Copperbelt in the 1930s. Although J. B Thomson reported that “as elsewhere there has been a tendency to neglect local cultivation for apparently more profitable labour on the mines”.⁴³ Cassava cultivation still continued in the area. Supporting the argument, chiefs noted that the people of the Luapula Valley have never and will certainly never abandon cassava cultivation.⁴⁴ The cultivation of cassava was not much affected by the labour migration to the mines. Moreover, labour migration especially to Congo mines was vital in creating a market for cassava meal needed to feed the African workers on the mines. Therefore outflow of labour encouraged the cultivation of cassava.⁴⁵

As elsewhere in the territory, cassava growing had become a domain of the women and needed less male labour which was required on the mines both on the Katanga and Copperbelt. Thus, the cultivation of the crop could not be hampered by the migration of men from the Luapula Valley to the mines as women and their families continued to grow cassava which they depended on. In the 1930s, the colonial economy was affected by the Great Depression leading to the reduction in the demand for labour. Although labour migration did not cease entirely,

⁴² N.A.Z, SEC2/1282 Kawambwa District Annual Report 1930

⁴³ N.A.Z, ZA7/1/13/8 Mweru-Luapula Annual report 1930

⁴⁴ Interview, Her Royal Highness Chief Kanyembo (Margret Kanyembo Ngosa Lukwesa), Chief Kayembo’s Palace, Kawambwa, 26/06/2015.; Also Chiefs Lubunda and Mulundu and the Captain for Chief Mwata Kazembe all emphasized that people have always grown cassava and did not abandon its cultivation even at a time when maize was introduced in the area.

⁴⁵ Interview, Prof. Musonda

many young men remained in the rural areas.⁴⁶ There was as a result of the reduction in labour migration enough labour available in the production of cassava. Although young men returning from mines initially stayed away from farming (cassava cultivation) and resorted to buying their food for cash, they later had to grow their own cassava.⁴⁷ T. G. C. V. Jones who was cadet for Kawambwa in 1931, noted that “now that work is difficult to find in the mining area, it is hoped that more extensive cultivation will be done than has been possible during the past years”.⁴⁸

Women continued to grow cassava in Luapula even in the absence of male labour. Contrary to the argument that mines’ requirement for male labour affected agriculture in Zambia, the situation in the Luapula Valley particularly concerning cassava cultivation was different. The mines were actually a vital source of market for cassava meal since their recruiting companies purchased cassava meal to feed their workers.⁴⁹ Cassava meal found its way to the mining areas of the Copperbelt and Katanga Province because of the African workers mines needed to feed.

From 1931 to 1933, Luapula experienced the infestation of locust swarms that put the grain crops at risk of damage and resulted into agricultural District officers urging the local people to extend their cassava plantations.⁵⁰ In 1931, the area experienced an ever increasing menace from locust swarms that spread to the whole of the Luapula Valley from Mweru to Johnston Falls (Mambilima Falls) affecting maize, kaffir corn and millet which were grown in small quantities.⁵¹ The locust invasions worsened in 1932 and 1933 as compared to 1931. The whole Province became infested especially by the red locusts. The destruction of grain crops by

⁴⁶See for example: Pritchett, *The Lunda-Ndembu*, p.35.

⁴⁷N.A.Z., ZA7/4/26, Kawambwa Tour Report 1931; see also: ZA7/4/26, Kawambwa Tour Report for Mofwe and Chipita Area 1931

⁴⁸ N.A.Z, ZA7/4/26, Mweru-Luapula Province: Kawambwa Tour Report 1931

⁴⁹Gould, *Luapula: Dependence or Development?*, pp. 112-113

⁵⁰See N.A.Z., ZA7/1/15/8, Mweru-Luapula Province, Annual Report 1932,

⁵¹ N.A.Z, ZA7/1/14/8, Mweru-Luapula Province, Annual Report 1931,

the locusts in one or two isolated instances encouraged the District Officers to urge to extend their cassava gardens in case of a general descent by swarms of the pests on the fields.⁵²

Chabatama notes that the colonial government responded to the country-wide droughts and locust invasion between 1929 and 1940 by insisting on the planting of more resilient crops of cassava and sweet potatoes. Each family in worst-hit areas like the Gweembe-Plateau Tonga region, Bembaland and Barotseland was encouraged to do so.⁵³ In the Luapula Valley, people were encouraged to extend their cassava fields in order to produce enough and avoid occurrence of a famine.

The outbreak of the Second World War in 1939 called for production of more food in order to meet the high demand in the territory due to the failure by white farmers to produce enough maize. With the onset of the war, maize acreage declined as resources were shifted to the war effort. As a result, there was shortage of maize.⁵⁴ There was however need to feed the mining areas as well as the soldiers at the fronts. Siamwiza notes that the war was barely two months old when on October 31 the Secretary of State for the Colonies, issued a circular to all colonial governments urging them to increase food production as a war effort.⁵⁵

During the Second World War the colonial government encouraged the growing of more cassava which it bought in order to feed the African population in the mining industry of the Copperbelt. Further, in trying to meet the food requirements, the colonial government was

⁵² N.A.Z, ZA7/1/15/8, Annual Report 1932,

⁵³Chewe M. Chabatama, "The Colonial State, The Mission and Peasant Farming in North-western Province of Zambia: A Case Study of Zambezi District, 1907-1964", M.A Dissertation, University of Zambia, 1990, p.36.

⁵⁴Doris Jansen Dodge, *Agricultural Policy and Performance in Zambia: History, Prospects and Proposals* (Berkeley: Institute of International Studies, University of California, 1977), p. 11

⁵⁵ Siamwiza, "Hunger in the Gwembe Valley: A Case Study of Mweemba Chieftaincy, 1905-1987", p. 132.

compelled to become less hostile towards peasants production of both cash and non-cash or marginal crops.⁵⁶ Consequently, the government began buying food from anyone, Africans and whites. As a result of such development, cassava assumed a high commercial value and government recognition as it successfully supplemented the maize diet on food supply to the Copperbelt where maize meal rations to employees were even cut by as much as one quarter.⁵⁷

Having become a crop needed to meet the escalating food requirements of the mining areas, cassava cultivation received an impetus from the government. This was so due to the failing production levels of maize as a result of the war that demanded manpower, robbing the agriculture sector of labour. Cassava became a vital crop in meeting the food supply demands of the mining areas.⁵⁸ The people in cassava producing areas such as North-Western and the Luapula Valley responded to the market opportunities and produced a lot of cassava which they supplied to the Copperbelt.⁵⁹

The fears of the nutritionists that the people of the Luapula Valley depended too much on cassava which was considered poor in nutrition from the point of view of dietetics did not reduce the cultivation of cassava in the area. In 1951, Halcrow, the then Deputy Director of Agriculture who was acting as Director of Agriculture, stated that the department was taking steps to

⁵⁶ Chabatama, "The Colonial State, The Mission and Peasant Farming in North-Western Province of Zambia: A Case Study of Zambezi District, 1907-1964", p. 43.

⁵⁷ See for Example: N.A.Z, MAG2/5/21 Northern Rhodesia: Department of Agriculture Annual Report for the year 1947. The report indicated that cassava was being used as a substitute to reduce the consumption of maize when a twenty-five percent ration cut was imposed. See also; Samuel N. Chipungu, *The State, technology and Peasant Differentiation in Zambia: A Case Study of the Southern Province, 1930-1986* (Lusaka: Historical Association of Zambia, 1988), p. 67.

⁵⁸ Chipungu, *The State, technology and Peasant Differentiation in Zambia: A Case Study of the Southern Province, 1930-1986*, p. 62.

⁵⁹ For the argument on how people in cassava producing areas were able to respond to the available market by producing more cassava see for example Chabatama, "The Colonial State, The Mission and Peasant Farming in North-Western Province of Zambia: A Case Study of Zambezi District, 1907-1964", p. 36. ;See also, Pritchett, *The Lunda-Ndembu*, p. 59.

diversify agriculture as far as possible in areas where cassava dominated, without however upsetting its production to any extent.⁶⁰ He further pointed out that “the crop (cassava) came into its own [proved important] during the difficult times of the drought year and fully justified the persistence of the provincial administration and the department in recommending its cultivation”.⁶¹ The colonial government did not stop the cultivation of cassava. There was promotion of cassava cultivation in the colonial period especially as a relief food crop.

However, in the Luapula Valley, cassava was not just vital as a famine reserve crop. It was a crop the people depended on for their source of food as a staple. Cassava was the basis for food among the people of the entire Luapula Province and the valley in particular.⁶²

A marked decrease in cassava cultivation as a result of the increased fishing activity was noticed in the 1950s and, cassava being a staple, the situation caused concern to the administration. Thus, a ‘grow more cassava campaign’ in cooperation with the Native Authority was vigorously pursued during the latter half of 1955.⁶³ Government’s support towards cassava in the Luapula Valley was noticed through their help in ensuring that people had mosaic-resistant and high-yielding varieties particularly between 1954 and 1957 when the mosaic disease became so prevalent in the area.⁶⁴

In 1957, the mosaic disease hit the valley and affected cassava in the area. Glendening, a Cadet who toured Chief Mutipula’s area near Chipili, reported that “the Native Authority rule of cultivating 600 mounds of cassava in each garden helped improve the food situation at the time

⁶⁰N.A.Z, MAG2/5/33 Department of Agriculture Annual Report for the year 1951, p.14.

⁶¹See for example, N.A.Z, MAG2/5/33 Annual Report 1951, p. 14.

⁶²Interview, Prof. Moses Musonda; see also for example. N. A. Z, MAG2/5/33 Department of Agriculture Annual Reports 1951, p.14.

⁶³ N.A.Z, LP2/2/86, Department of Agriculture Annual Report for Northern Province 1955, p. 5.

⁶⁴N.A.Z, NP1/14/18 Department of Agriculture, Administration Area Team Luapula 1955 to 1957

of the mosaic disease that did damage to cassava, as there was more of the crop being grown”.⁶⁵ The mosaic disease coupled with the wild pigs affected cassava in Luapula Province in general and the Valley in particular. The cassava nurseries at Lukesa, Kashiba and Katuta helped eradicate the mosaic disease from the crop and by November of 1958, disease free cuttings of the 18 months maturing cassava variety were to be made available for distribution

However, the people together with the colonial government put up measures that helped protect the crop from being destroyed in order to avoid a famine. Among the measures that were set up was the distribution of mosaic-resistant cultivars and ensuring that only cassava cuttings that were not affected by the disease were used as planting materials.⁶⁶ In order to reduce the elephants and wild pigs’ menace to cassava in the fields, the people in the Luapula Valley ensured that they made their manioc gardens near villages, and also enclosed the fields with fences or dug trenches around them.⁶⁷ The colonial administration also ensured that guns and gunpowder were made available so that people could kill the pigs that ravaged cassava in the fields. Discussing the issue of wild animals that were destroying crops, Siamwiza argues that

Wild animals were kept out by fencing the fields with thorn bush or shouting and horn-blowing. After the 1930s the situation changed as the number of people with guns increased. The possession of guns did not only help reduce the number of large animals [destroying cassava], but also helped drive them into inhospitable bush.⁶⁸

The colonial government through the agricultural officers and the Native Authorities played a key role in averting the mosaic disease, consequently in the promotion of the cultivation

⁶⁵N.A.Z, SEC2/884 Kawambwa Tour Report No.1 of 1957.

⁶⁶ N.A.Z, SEC2/115 Northern Province, Kawambwa District Annual Report on African Affairs for 1956, p. 7.

⁶⁷ See Marvin P. Miracle, *Agriculture in the Congo Basin: Tradition and Change in African Rural economics* (Madison: University of Wisconsin Press, 1967), p. 127.; Also Interview, Mr. Modesto Mukunsa, Kabunda Secondary School, Chief Chimense, Mansa, 24/06/2015.

⁶⁸ Bennett Siamwiza, “Hunger in the Gwembe Valley: A Case Study of Mweemba Chieftaincy, 1905-1987”, M.A Dissertation University of Zambia, 1993, p. 35.

of cassava. Throughout the Luapula Valley, there was considerable activity in the village gardens in 1956, following the enforcing of the Agricultural orders by the Native Authority to ensure cultivation of more cassava. Wright a cadet reported that:

The Native Authority have started enforcing the agricultural Order that each family shall grow 600 mounds of cassava and Chief Mushota gave numerous talks to his people as to the reason for this Order, and stipulated that no people would be allowed to move, or passes issued for travelling to the Copperbelt, before the gardens were completed.⁶⁹

The order was to ensure that people in the valley did not neglect agriculture on the basis of the wealth from fishing which could have led to food shortages. Thus, having realised the value of cassava, the colonial government through African authorities gave the order to cultivate more cassava. Although the order was unpopular with many people, particularly the ‘smart young set’⁷⁰ who never believed that anyone would take it seriously, it was vigorously applied by the Lunda Native Authority under the leadership of the Agricultural Councillor and that many prosecutions took place for the violation of the order.⁷¹

In 1956, F. J. Smart, the then Northern Province Provincial Agricultural Officer, observed that “an attempt was being made to counteract the continued spread of cassava mosaic by a general propaganda drive for the use of clean planting material”.⁷² Thus, Native Authority cassava nurseries were established in the Luapula Valley that had to produce and distribute clean planting materials to the people in the area.⁷³

⁶⁹ N.A.Z, SEC2/883, Kawambwa Tour Report No.17 of 1956.

⁷⁰ An informant Prof. Moses Musonda noted that this were young people who usually after being to town on the Copperbelt or in Belgian Congo either as workers or visitors looked at farming especially cultivation of cassava as dirty work for old people only.

⁷¹ N.A.Z, SEC2/883, Kawambwa Tour Report No.17 of 1956.

⁷² N.A.Z, MAG2/5/57 Department of Agriculture Northern Province, Provincial Annual Report for 1956

⁷³ N.A.Z, SEC2/115 Northern Province, Kawambwa District Annual Report on Africa Affairs for 1956, p.7.

D. Glendering, reported that “using the Native Authority Cassava nurseries at Lukwesa, Kashiba and Katuta, mosaic-disease had been largely eradicated from the crop and by November of 1958, disease-free cuttings of the 18 months maturing cassava variety were to be made available for distribution”.⁷⁴ P. K. Mulala the African Administrative Assistant who toured Chief Mulundu’s area, reported that around Johnston Falls Mission, cassava was extensively grown that the gardens extended from village margins and spread out into the bush and that cassava formed the staple food of the area.⁷⁵

In 1960 F. H. F. Schofield a Cadet observed that the another nursery was opened at Puta by the Native Authority while the Department of African Agriculture had nurseries at Mulundu and Mulwe for the production and distribution of mosaic resistant cultivars.⁷⁶ This made the area not to experience any famine as there was still sufficient cassava around Luapula Valley and there was no SOS that was made of any kind. During the year, people of Chief Lubunda’s area had cultivated large cassava gardens very little maize was grown.⁷⁷ He further reported that in Chief Kashiba’s area the normal village subsistence agriculture of the people did not differ from that of the rest of the upper Luapula Valley with cassava being the main crop grown.⁷⁸ Thus in the upper valley cassava was very important as a staple food, and hence it was cultivated more than any other crop in the area.

The involvement of the Agriculture Department and mission stations in resolving cassava-related incidences such as the mosaic-disease in the Luapula Valley shows that the

⁷⁴N.A.Z, SEC2/885 Kawambwa Tour Report No.2 of 1958.

⁷⁵N.A.Z, SEC2/885 Kawambwa Tour Report No. 6 of 1958.

⁷⁶N.A.Z, LP2/2/81 Luapula Province Kawambwa District Annual Report on Native Affairs 1960, p.8.

⁷⁷N.A.Z, SEC2/912 Mwense Tour Report No. 1 of 1960.

⁷⁸N.A.Z, SEC2/912 Mwense Tour Report No. 2 of 1960.

colonial government was interested in the propagation of cassava in the area. This was due to the fact that the crop provided a source of food for government centres and the entire province.

As late as 1961, the colonial government continued to view cassava in the Luapula Valley as a famine-reserve crop and did not intend to develop the crop in terms of improving its commercial potential. However, it did not discourage the people from cultivating the crop. The government had realised its importance in ensuring food security of the area. The Rural Economic Working Party argued that “further development of cassava is not therefore recommended, except for famine reserve purposes in that it had large yields and was protected from pests such as locust swarms and required little storage facilities.”⁷⁹ Thus cassava continued to reign supreme as a staple crop that was easy to propagate and produced good yields in poor soils such as those of Chief Kalasa Lukangaba’s area as noted by P. De V. Moss during his tour.⁸⁰

The colonial administration also encouraged the cultivation of cassava in the Luapula Valley by providing the market for the crop and also through the Native Authorities. The local people were able to cultivate more cassava to meet their consumption needs as well as the demand of the trading stations, mission stations and government administrative centres with a large African work force which they needed to provide food for. Cassava was the most appropriate and available source of food in the area which recruited African workers were already used to. The people in the area responded to the available market demand by cultivating more cassava. The Minister of African Agriculture, S. M. Kapwepwe, noted in 1962 that

⁷⁹NRG, *Rural Economic Development working Party*, p. 263.

⁸⁰N.A.Z., SEC2/909, Mansa Tour Report No. 2 of 1961.

“cassava is by far the most widely grown crop in the country”.⁸¹ Cassava received much encouragement from the colonial government as a famine relief crop.⁸²

Enormous amounts of cassava were bought by government institutions, mission stations as well as labour recruiting centres. The ready market for cassava provided by the government centres in the valley gave an impetus to the cultivation of the crop as local people realised its economic value.⁸³ Further the trade in cassava between the Luapula Valley and the Congo encouraged the cultivation of cassava as it was of economic value.

Individual traders were allowed to buy cassava without government interference. The trade that existed in cassava between the Congo and the valley was not disrupted by the colonial government either through custom regulations or merely stopping people from exporting their cassava to Katanga mines.⁸⁴

The colonial government encouraged the cultivation of cassava in the valley through the creation of marketing unions that were able to buy and collect cassava from the local people on behalf of the government as well as for the mines on the Copperbelt.⁸⁵ Cassava found a ready market at the government institutions in the valley which included the schools, hospitals, administrative centres and prisons that needed cassava flour to feed the pupils, patients, workers and prisoners. Musambachime notes that “the administration resorted to imprisoning tax defaulters for a month with hard labour. To feed these and other prisoners, the administration

⁸¹NRG, Ministry of African Agriculture Department of Agriculture and Co-operatives and African Marketing Annual Report 1962 (Lusaka: Government Printer, 1963), p.4.

⁸²C.S Lombard and A.H.C Tweedie, *Agriculture In Zambia Since Independence* (Lusaka: Neczam, 1972), p. 39.

⁸³N.A.Z., MAG2/5/73, Northern and Luapula Provinces Agriculture Annual Reports 1959.

⁸⁴ Interview, Moses Musonda.

⁸⁵ Interview, Ambassador James Chando Mapoma, Roma Township Area, Lusaka, 30/05/2015.

periodically bought cassava meal and fish from neighbouring villages”.⁸⁶ By 1953, co-operatives such as the Kawambwa Marketing Union and Bangweulu Marketing Union were established to acquire cassava meal for the government at buying stations set up within the stretches of the Luapula Valley. The people responded to the available market opportunity by increasing their cassava fields and produced surplus to sell.⁸⁷

Policy and cassava cultivation in the Luapula Valley 1964-1980

The post-colonial government continued with the colonial policy of privileging maize over cassava production so as to meet the demands of the urban population, even though in areas of Northern, Luapula, North-Western and Western Provinces, people were consumers of cassava, which they extensively grew.⁸⁸ At independence in 1964, the UNIP government intervened strongly in promoting rural development by subsidising maize production and implementing protectionist policies to maintain communal tenure.

It was clearly stated in the First National Development Plan that “for Luapula Province, the major aim was to achieve self-sufficiency in maize and to increase the acreage and yields of Turkish tobacco”.⁸⁹ These policies led to over-dependence of small-scale farmers on maize and government for support at the expense of other food crops, including cassava.⁹⁰ The production

⁸⁶Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, p.83.

⁸⁷Interview, Moses Musonda.

⁸⁸NRG, Report of the Rural Economic Development Working Party (Lusaka: Government Printer, 1961), p.24.; see: Republic of Zambia, Ministry of Agriculture Annual Report for the year 1965 (Lusaka: Government Printer, 1967), p.6; See also for example: Pritchett, *The Lunda-Ndemba*, p.60.; see also Marter, *Cassava or maize*, p. 1.

⁸⁹Republic of Zambia, First National Development Plan 1966-1970 (Lusaka: Office of national Development and Planning, July 1966), p. 191.

⁹⁰See for example: Kajoba Gear, “*Vulnerability and Resilience of Rural Society in Zambia: From the View point of Land Tenure and Food Security*” Research Institute for Humanity and Nature working Paper, University of Zambia (2008).

of traditional crops such as cassava was not emphasised and was not seen as being important due to the policy that emphasised the growing of more maize which was embarked upon between 1964 and 1980. Chiputa argues that “this was a lopsided policy that did not take into account the advantages of cassava over maize as a staple food crop, a hunger fighter, and an insurance crop”.⁹¹

Government stance over cassava was in line with nutritionists who argued that cassava should not be grown as a food crop due to its low protein content and the government decided to concentrate on increased maize production aimed at achieving self-sufficiency.⁹² Cassava was viewed as lacking in proteins and nutritionists advocated for it not to be encouraged unless if supplemented with some protein sources.⁹³

The Zambian government continued to encourage people to grow more maize in place where the traditional crops such as cassava were dominant. The Luapula Valley was among the areas that the government wanted to start growing maize a crop which the people in the valley were not used to. The agronomic conditions of the area were not suitable for maize. Cassava was considered without value both as a source of food or income. As Haggblade and Zulu observe

At independence in 1964, colonial government pronouncements encouraging the growing of cassava fell into disuse along with a host of other colonial edicts. Agriculture remained a low priority for the new government. Agriculture held

⁹¹ Euston Chiputa, “Cash Crop Versus Staple Food Crops: Crop Production In Luapula Province, 1964-1988: The Case of Mansa District (Food Security Or Political Maize: The Case of Luapula Province, 1964-1988)”, Extract from a Paper Presented at the Department of History Seminar Series, University of Zambia on 21 November 2001, p.11.

⁹² H de Boer, “Cassava Growing in Zambia”, *Farming in Zambia voice of Zambian Agriculture*. vol. 11, No. 2 (1977), p. 20.

⁹³ Republic of Zambia, Ministry of Development planning: *Luapula Province Some Development Indicators* (Lusaka: Government Printers, 1976), p. 80.

interest only as a vehicle for ensuring cheap food for the mines. The few government resources allocated to agriculture focused largely on maize.⁹⁴

The post-colonial government introduced rural agricultural development policies which were detrimental to the growth of the rural agricultural sector. The state favoured the urban consumer at the expense of the peasantry in the rural areas and therefore encouraged the production maize to feed the growing urban population. Kajoba notes that “the policy of the post-colonial state had a bearing on the food crisis in Zambia since the government put more emphasis on the production of cash crops for export than on traditional food crops such as cassava”.⁹⁵

There was lack of diversity in the type of food crops that were grown, marketed as well as consumed as the emphasis was placed on maize. People who initially grew cassava were now encouraged to shift to the cultivation of maize which was seen as a cash crop. The government through National Agricultural Marketing Board (NAMBOARD) provided a market for maize while cassava had no official price and was not bought by NAMBOARD. However, this trend did not hamper the cultivation of cassava in the Luapula Valley as people in the area still sold cassava unofficially. Although the government tried to put a high producer price for maize in order to promote the production of the crop, people in the Luapula Valley continued to grow cassava extensively.

From 1964 to 1980, the government did not consider cassava in its policies not only in the Luapula Valley but the whole country. Marter notes that “credit and marketing services in Kaoma were limited such that only farmers growing maize had received a loan and since cassava was not being purchased by NAMBOARD, official marketing services were only available to

⁹⁴ Haggblade and Zulu, “The Recent Cassava Surge in Zambia and Malawi”, p. 5.

⁹⁵ Gear Kajoba, *Food Crisis in Zambia* (Lusaka: ZPC Publications, 1993), p. 9.

maize growers”.⁹⁶The bias in terms of services generally, towards maize is not surprising. Cassava production was not given much official encouragement while maize always received high priority.⁹⁷This practise was not confined to Kaoma but similarly prevailed in the valley.

The neglect of cassava is evident from the lack of clear reference to the crop in the National Development Plans from 1966 to 1980. A crop that served as the main staple of North-Western and Luapula Provinces was ignored. This trend applied to Luapula Valley where the government began to support farmers who grew maize to an extent of giving them loans while cassava was not considered at all.

The policy of the government concerning Luapula Province was to achieve self-sufficiency in maize production and to increase the acreage as well as yields of Turkish tobacco.⁹⁸ Therefore, as late as 1972, there was no development programme formulated for cassava.⁹⁹ There was no support given in order to promote the cultivation of cassava which was simply left to the farmers who used tradition methods. The words of Mr. Ruben Kamanga in 1973, the Minister of Rural Development attest to the fact that the government did not encourage the cultivation of cassava

The Hon. Minister of State for the Eastern Province asked the Ministry of Rural Development to encourage people to grow cassava in view of the bad seasons in certain years. Sir, I can only say that the ministry is not very keen to encourage people to grow this crop but at the same time it does not discourage them. The ministry has been allowing people to grow this crop without discouraging them at all. But at the same time, as I have said, Mr. Chairman, we do not think it is going

⁹⁶Marter, *Cassava or Maize*, 37.

⁹⁷Marter, *Cassava or Maize*, p. 38.

⁹⁸GRZ, *First National Development Plan 1966-1970* (Lusaka: Office of National Development and Planning, 1966), p. 191.

⁹⁹GRZ, Ministry of Rural Development Department of Agriculture. *Annual Report of the Extension Branch, October 1971 to Sept. 1972*, p. 12.

to help us much if we are going to take it upon ourselves as part of our drive to encourage people to grow this crop.¹⁰⁰

It is evident that the government did not encourage people to grow cassava and took no measure to promote the crop. The Ministry of Rural Development did not see cassava as a valuable crop that it could encourage people to grow even though the crop was crucial as a source of food for Luapula Province and the Valley in particular.¹⁰¹

The production of cassava from 1964 to 1980 was simply left to the farmers alone without any extension effort being put into expanding its production.¹⁰² In 1972 to 1973, the Department of Agriculture Extension Branch report clearly indicated that cassava was a traditional crop whose cultivation therefore was not discouraged in those areas, but neither was any extension effort put into its expansion.¹⁰³ Haggblade and Zulu remark that government policies throughout most of the independence years have overwhelmingly favoured maize, to the ultimately dangerous neglect of cassava.¹⁰⁴

In 1976, the Department of Agriculture reported that the soils of Luapula had high potential for the growing of cassava. However, the policy of the government towards the crop was to keep its production at the same level without any expansion.¹⁰⁵ Although the government acknowledged that cassava was the staple food of many parts (Luapula Valley) of the high rainfall provinces, no efforts to expand the production of cassava were made by government

¹⁰⁰GRZ, Official Verbatim Report of the Parliamentary Debates of the Fifth Session of the Second National Assembly 10th January- 2nd March 1973 (Lusaka: Government Printer, 1980), p. 1772.

¹⁰¹Interview, Ambassador James Chando Mapoma, Roma Township Area, Lusaka, 30/05/2015

¹⁰² Republic of Zambia, Ministry of Agriculture and Water Development: Department of Agriculture Annual Report of the extension Branch 1978-1979, p. 7. See also for example: Department of Agriculture Annual report: Luapula Province 1973, p. 11.

¹⁰³Republic of Zambia, Ministry of Rural Development Department of Agriculture: Annual Report of the Extension Branch 1972-73, p. 11.

¹⁰⁴ Haggblade and Zulu, "The Recent Cassava Surge in Zambia and Malawi", p. 1.

¹⁰⁵Republic of Zambia, Ministry of Agriculture and Water Development Department of Agriculture: Luapula Province Annual Report Oct. 1975 to Sept. 1976, p.19.

under the pretext that production levels were sufficient to meet the needs of such areas.¹⁰⁶ It was noted in the 1976 annual report that “the government’s policy towards this crop (cassava) is to keep its production at present levels”.¹⁰⁷ This clearly indicates the lack of interest by the post-colonial government to promote cassava production up to 1980. The only task that the government agreed to embark on was research regarding identification and selection of high yielding, disease free and early maturity cassava varieties. This was to be done by the Luapula Regional Research Station during the 1976 and 1977 cropping season while encouragement on more production was to be done only after a large market for starch were established.¹⁰⁸

By 1979, the Zambian government had not undertaken any step to improve the production of cassava in the country and in the Luapula Valley in particular. The words of Mr Chikwanda, the Minister of Agriculture, uttered in 1979, attest to the failure of government to embark on research to promote cassava production:

Cassava is one crop in which we are really behind in research. Unfortunately, as all of us know, Honourable members, in Government, we take a very long time to think about things so it is one of the things that we have thought about but at this moment the constraint is funds. The research section in the Department of Agriculture has very little allocation. So if we had the money, I am sure we would do research into cassava.¹⁰⁹

The pricing policy of the post-colonial government also encouraged the shift from cultivation of crops such as cassava to maize which had a good market price. By 1964, the

¹⁰⁶See for example GRZ, Ministry of Agriculture and Water Development Department of Agriculture Annual Report of the Extension Branch 1975-1976, p. 15; See also, GRZ, Ministry of Agriculture and Water Development Department of Agriculture Annual Report of the Extension Branch 1978-1979, p.7.

¹⁰⁷GRZ, Ministry of Agriculture and Water Development: Department of Agriculture Luapula Province Annual Report for Oct. 1975 to Sept. 1976 (Lusaka: Government Printer, 1977), p. 19.

¹⁰⁸GRZ, Ministry of Agriculture and Water Development Department of Agriculture: Luapula Province Annual Report Oct. 1975 to Sept. 1976, p.19.; See also Republic of Zambia, Ministry of Agriculture and Water Development: Department of Agriculture Luapula Province Annual Report 1979, p.21.

¹⁰⁹Republic of Zambia, Official Verbatim Report of the Debates of the First Session(Resumed) of the Fourth National Assembly, Daily Parliamentary Debates Thursday 15th March 1979 (Lusaka: Government Printers, 1979), p. 3047.

borders as well as controls between Zambia and the Congo had become more tightened. Thus, people from the Luapula Valley could no more export cassava meal to the Congo as the export regulations became more pronounced after 1964.¹¹⁰ This development hindered the trade in cassava between the Congo and Luapula Valley. An informant noted that, from 1964 customs and immigration laws requiring a passport were strictly followed. Before 1964 traders from the Congo could easily get to the Luapula Valley and buy cassava, and those from the valley could take their cassava to the Congo through Kasenga without having a native pass.¹¹¹

After 1964, cassava was often regarded as an inferior or ‘colonial’ crop to be grown only for subsistence purposes, particularly by farmers who were considered ‘not interested’ in commercialised agricultural production.¹¹² This was an important indicator of the kind of problems that cassava and other traditional food crops faced in comparison to maize production and sales. As late as 1980, the government had not yet considered cassava in terms of giving it an official price. Therefore, there was no encouragement for the farmers who cultivated cassava compared to those that cultivated maize. However, the people of Luapula Valley including those farmers who had started growing maize continued cultivating cassava.¹¹³ This is supported by the words of the Minister of Agriculture in 1980. In his response to what the official price of a bag of cassava was in the country, Mwila, the then Minister of Agriculture noted that:

There is no official price for cassava and there is no parastatal organisation that deals in cassava products. Efforts are, however, being made to commercialise cassava. When this is done, the price will have to be fixed as we do for other crops.¹¹⁴

¹¹⁰ Interview, Moses Musonda.

¹¹¹ Interview, Moses Musonda.

¹¹² Marter, *Cassava or Maize*, p. 1.

¹¹³ Zambia, Development Department of Agriculture Annual Report 1974-1975, p. 24.

¹¹⁴ Zambia, Official Verbatim Report of the Parliamentary Debates of the Second Session (Resumed) of the fourth National Assembly 29th July-22nd August 1980 (Lusaka: Government Printer, 1980), p.1324.

The commercial potential of cassava in Zambia was not recognized by the post-colonial government until after 1981 when the official price of cassava meal was for the first time ever fixed. However, it is worth noting that the sale of cassava unofficially was taking place from the Luapula Valley to Katanga and the Copperbelt, and to other parts of the country.¹¹⁵ In the 1972 to 1973 season, it was estimated that Mansa District marketed 35 000 bags of cassava during the year.¹¹⁶ Thus, cassava still found a market in the absence of government support for the crop.

State of cassava cultivation in the Luapula Valley 1964-1980

During the period 1964 to 1980, cassava maintained its position as a staple crop of Luapula Province and the Valley in particular. The people of the Luapula Valley continued to grow the crop extensively despite the lack of government support.

In 1965, the Ministry of Agriculture indicated that cassava was grown as the main crop over wide areas of the northern and western regions with a considerable acreage being planted while the value of the crop as a staple in times of grain crops failure was undisputed.¹¹⁷ In 1971, J. K. Simakungwe, the Provincial Agriculture Officer for Luapula Province, reported that “Cassava is widely grown throughout the Province and provides the staple food for many of the people. No figures are available since many farmers cultivate cassava such that District Agriculture staff would be unable to make a full survey without neglecting their extension duties”.¹¹⁸

¹¹⁵ Interview, Moses Musonda.

¹¹⁶ See for example, Ministry of Rural Development Department of Agriculture Luapula Province Annual Report 1972-1973, p. 18.

¹¹⁷ GRZ, Annual Report of the Ministry of Agriculture 1965 (Lusaka: Government Printer, 1967), p.6.

¹¹⁸ Republic of Zambia, Ministry of Rural Development: Department of Agriculture Luapula Province Annual Report for Oct 1970 to Sept, 1971, p.7; See also G.R.Z, Ministry of Rural Development: Department of Agriculture Luapula Province Annual Report Oct, 1972- Sept, 1973, p.23.

The annual report of 1973 to 1974 indicates that inspite of all the developments in the cultivation of other food crops promoted by the government in the Luapula Province, cassava still continued to enjoy the privilege of being the staple food for the entire Province and that almost all the farmers in the Province cultivated at least one garden of cassava.¹¹⁹

In 1975, the Agricultural Officer noted that “being a staple food of the Province, cassava is grown on a very large scale in this province. Almost all the farmers and non-farmers cultivate cassava as a food crop.”¹²⁰The people of the valley including those farmers who had started growing maize continued cultivating cassava.¹²¹ The governments’ failure to recognise the importance of cassava both by improving its production and marketing policies did not stop the people of the Luapula Valley from depending on cassava which had for many years provided their source of food and income. In 1980, Mwanandimai, the then Provincial Crop Husbandry Officer for Luapula Province reported that “cassava continues to be an important staple food for the people of Luapula Province and it is grown throughout the province using traditional methods of cultivation in areas where it could not get waterlogged and flooded during the peak of the rains.”¹²²

Reaction of the people to the policy of the government

The failure by the post-colonial government to promote and support the cultivation of cassava was not well received by the people in Luapula Valley who for a long time grew the crop as their staple food. In 1967, during a meeting in Samfya, Elijah Mudenda who was the first

¹¹⁹ Republic of Zambia, Ministry of Rural Development: Department of Agriculture Annual Report for Luapula Province 1973-1974, (Lusaka: government Printer, 1975), p. 28.

¹²⁰ Republic of Zambia, Ministry of Agriculture and Water Development Department of Agriculture Annual Report for Luapula Province 1974-1975, p. 24.

¹²¹ Zambia, Development Department of Agriculture Annual Report 1974-1975, p. 24.

¹²² GRZ, Ministry of Agriculture and Water Development: Department of Agriculture Crop Husbandry Annual Report Luapula Province 1979 to 1980, p.14.

Agriculture Minister after Zambia got her independence encouraged the people to cultivate more maize. However, he was challenged by Mr. Muchengwa who was chairperson of the Samfya Rural Council, who argued that people in the area were not maize-growers; rather they grew cassava and thus there was need for the Minister to advocate for the extensive cultivation of cassava rather than maize.¹²³

In reacting against the undermining of cassava which they depended upon even in times of droughts, people in the Luapula Valley sang songs that showed their resilience in cultivating cassava as a staple. An informant Mwesa Mapoma, noted that in resistance to maize, young people in Luapula Valley recorded songs such as:

Mugaiwa nga apwa tukalalya inshi (x2)

[When maize meal finishes what shall we eat (x2)]

Wemukalamba wamano wikatishe akalonde

[Wise elder use your garden hoe]

Wemukalamba wamano nafwa mayo eee

[Wise elder, help us]

Nafwa mayo eee

[Help us]

Wemukalamba wamano wikatishe akalonde

[Wise elder use your garden hoe]¹²⁴

This was a clear indication that people in the valley did not trust any other crop such as (maize) as a staple apart from cassava which had proved dependable as a source of food over the years. Through songs people expressed their resistance against the move from cassava to

¹²³Interview, Dr. Mapoma.

¹²⁴The song was recorded by Dr. Mwesa Isaiah Mapoma in 1969 in Mweru and was given to Rural Development Studies Bureau.

maize.¹²⁵ Thus, local people in the Luapula Valley would usually refer to maize as *akapondo* (rebel), as it failed during droughts and was reliant on government support of fertilizers which were not forthcoming in most instances.¹²⁶

The song cited above literally meant that there was need to continue the cultivation of cassava as maize could not be depended upon as a staple in the area because of its failure in times of droughts and locust attacks, as well as the lack of adequate government support with inputs required for maize.¹²⁷

The occurrence of the mosaic disease in 1979 and 1980 which affected cassava in the valley was also blamed on the government which the people thought had brought the plague whose magnitude had never been experienced before simply as a way to get rid of cassava and shift people to maize.¹²⁸ Reactions of the people were an indication of the poor policy of the post-independence government concerning cassava. They also demonstrated that cassava for the people of the Luapula Valley was an important crop that could not easily be replaced.

Writing on Northern Province, Bwalya noted that “despite the support given to maize production, peasants in Kasama District did not break away from millet and cassava production due to the fact that cassava did not require much labour and above all, maize itself was not a staple food while the absence of markets as well as communication networks in the Northern Province compounded the situation”.¹²⁹ This situation was not confined to Northern Province rather the people of the Luapula Valley also opted not to shift from the cultivation of cassava which was their staple food and the second most important occupation to fishing.

¹²⁵ Interview, Dr. Mapoma, Roma Residential Area, Lusaka, 30/04/2015.

¹²⁶ Interview, Chief Lubunda (Kingston Mwape).

¹²⁷ Interview, Mwesa Isaiah Mapoma, Roma Township Area, Lusaka, 30/05/2015.

¹²⁸ Interview, Mwesa Mapoma.

¹²⁹ Bwalya, “Agricultural Change in the Northern Province of Zambia, 1948-1978”, p. Vi.

The droughts that occurred in 1979 made the government to start shifting its position towards cassava. The failure of maize due to droughts began to prompt the government to establish a research team that would look into cassava a drought resistant crop.

From 1979 the government desired to embark on research in cassava production so as to maintain food security in areas such as the Luapula Valley especially after the failure of maize. In the 1970's and early 1980's, maize production faltered in Zambia during a sequence of droughts. The threat to maize forced cassava into the limelight for the first time since independence.¹³⁰ In 1979, it was reported that the government, having realised the importance of the tuber crops, allocated funds for the establishment of a Root and Tuber Improvement Program (RTIP) research Team at Mansa Regional Research Station and appointed a graduate in August 1979 to spearhead the programme.¹³¹ The RTIP carried out national cassava research activities focused on identification of best local varieties, cleaning, and distribution of planting materials.¹³² This began to change the policy of government towards cassava in the country as funds were now made available for a crop that had largely been neglected. Kambewa and Mahungu observe that “although the Root and Tuber Improvement Program was established in the late 1970s, due to limited resources, it only began earnest research in cassava in the late 1980s”.¹³³

Thus the 1970s and 1980s saw a shift in terms of government policy concerning cassava as the country experienced maize failure due to droughts. The post-independence government

¹³⁰ Haggblade and Zulu, “The Recent Cassava Surge in Zambia and Malawi”, p. 6.

¹³¹ GRZ, Ministry of Agriculture and water Development: Department of Agriculture Annual report for the Research Branch 1979-1980 (Lusaka: Government Printers, 1980), p.14.

¹³² Alene Arega, R. Khataza, C. Chibwana, P. Ntawuruhunga and C. Moyo, “Economic Impact of Cassava Research and Extension in Malawi and Zambia”, in *Journal of Development and Agricultural Economics*, 5, 11 (Nov. 2013), p. 458.

¹³³ E. Kambewa and N. M. Mahungu, *Cassava Production and Marketing in the Chinyanja Triangle (Malawi, Mozambique and Zambia), Angola and South Africa* (Ibadan:IITA.), p. 12.

began to recognize the importance of cassava as a source of food in the country. In 1980, Mubita, the Provincial Agricultural Officer for Western Province noted that “cassava is now encouraged in order to supplement maize as a staple food and produce a surplus for the ever increasing market.”¹³⁴ In the late 1980’s, there was a withdrawal of maize subsidies while the cassava research team identified and cleaned three highly superior local varieties of cassava for distribution in response to the mealybug attacks. This enabled cassava to regain its position as an important food crop after independence. The farmers in the traditional cassava producing regions particularly in Luapula rapidly reduced the area they had devoted to maize and in its place they expanded the cultivation of cassava.¹³⁵ The 1980 saw cassava being considered by the government as a famine-relief crop. The seriousness of the cassava mealybug and the cassava green mite threat that reached Luapula in 1981 and affected cassava coupled with the drought threat to maize, forced the Zambian government for the first time to take active interest in cassava.¹³⁶

CONCLUSION

This chapter has attempted to reconstruct the history and state of cassava growing in the Luapula Valley from 1900 to 1980. It has argued that the people of the valley continued to extensively cultivate cassava which was a valuable crop as a staple food in the area between 1900 and 1980. Cassava cultivation had become a custom. The chapter has shown that there was a difference in the policy regarding cassava between the colonial and post-colonial governments. During the colonial period, cultivation of cassava in the valley received an impetus. Because the

¹³⁴ N.A.Z, Department of Agriculture Annual Report for Western Province of 1981.

¹³⁵ See for example. Haggblade and Zulu, “The Recent Cassava Surge in Zambia and Malawi”, p. 9. ; See also Kajoba, Food Crisis in Zambia, p. 35.

¹³⁶ Haggblade and Zulu, “The Recent Cassava Surge in Zambia and Malawi”, p. 6.

crop is drought-resistant and could not be attacked by pests such as locusts especially when the grain crops failed, the colonial administration viewed cassava as one which provided an edge against food shortages. Cassava also provided food to feed staff at government stations in Luapula and Northern Provinces. Thus from 1900 to 1964, cassava cultivation in the valley received support from the colonial administration. The colonial government supported the cultivation of cassava as a famine reserve crop and also as a source of food for the local people as well as government institutions. Cassava cultivation was encouraged through the Native Authorities especially during catastrophes and by providing a ready market for cassava meal.

The chapter has further demonstrated that the policies of the post-colonial government did not support the cultivation of cassava as emphasis was put on the production of maize. Thus, from 1964 to 1980, cassava received no support from the government. Between 1964 and 1980, cassava had no official price and no research concerning the crop was embarked on to promote its cultivation. It has been argued that despite lack of government's support the people of the Luapula Valley continued to cultivate the crop which had proved a reliable source of food and income. The policies of the Zambian government did make the people of the valley stop their cultivation of cassava which they continued to grow especially given that the cultivation of maize was more expensive. Although government services in Zambia, when available were directed towards maize production, among the people of the Luapula Province and the valley in particular, cassava continued to be cultivated extensively as a source of food and income from 1964 to 1980.

Lastly, the chapter has shown that although cassava was a crop that could be cultivated by women especially in the absence of men, the crop did not merit being coined as a 'lazy man's

food'. Cassava cultivation did not require much labour. The chapter has clearly argued that in the Luapula Valley, the cultivation of cassava was an activity for everyone regardless of gender.

CHAPTER THREE

THE IMPACT OF CASSAVA ON THE DIET AND FOOD SECURITY IN LUAPULA VALLEY

Introduction:

Cassava played a vital role in the diet of the people of the Luapula Valley as well as in ensuring food security in the area. The availability of food depends on the ability of the food crops that the people in a particular area grow as a staple. According to Slaski, “in the valley, cassava had no competition with millet which was more a staple on the plateau.”¹

Moreover, as Chiputa notes, “cassava’s adaptability to diverse climatic conditions, its ability to survive long dry spells and flexibility in harvesting time qualify it for treatment as a food security crop”.² The switch to cassava from millet and sorghum greatly increased the local and regional availability of food.³ Thus areas such as the Luapula Valley which depended on cassava as a staple were assured of food being available. According to Chabatama:

Cassava was quickly adopted due to its consistent and greater availability throughout the year, and its higher ‘survival value’ during pestilences and drought. In addition, the crop did well on less fertile soils, did not easily exhaust soils, required less land, less water, less attention, and had a higher yielding rate in terms of calories per acre, and unit of land than grain crops.⁴

¹J. Slaski, “Peoples of the Lower Luapula Valley”, In Daryll Forde (ed.), *Ethnographic Survey of Africa* (London: International African Institute, 1950), p.78.

² Euston Chiputa, “Cash Crop Versus Staple Food Crops: Crop Production In Luapula Province, 1964-1988: The Case of Mansa District (Food Security Or Political Maize: The Case of Luapula Province, 1964-1988)”, Extract from a Paper Presented at the Department of History Seminar Series, University of Zambia on 21 November 2001, p. 16.

³James Anthony Pritchett, *The Lunda-Ndemba: Style, Change, and Social Transformation in South Central Africa* (Wisconsin: The University of Wisconsin Press, 2001), p. 51.

⁴Chewe M. Chabatama, “Peasant Farming, The State, And Food Security in The North-Western Province of Zambia, 1902-1964”, PhD Thesis, University of Toronto, 1999, p. 38.

These advantages made cassava a valuable staple that ensured food security not only in Kaoma of North-Western Province, but also in the Luapula Valley where the crop was extensively cultivated and eaten as a staple food.

Since its introduction into areas of Central Africa, cassava has revolutionised not only the agricultural system but also the diet of the people, and further led to improved food security in areas where it was adopted. There has always been extensive cultivation of cassava in Luapula Valley. The enormous land planted with cassava showed not only how much food in terms of cassava the people in the Valley had but also how valuable cassava was as a source of food for the area. David Livingstone was further informed by a Lunda elder that the Luapula Valley had not experienced any famine or hunger due to the presence of cassava.⁵

This chapter demonstrates the impact of cassava on the diet and food security among the people of the Luapula Valley from 1900 to 1980. The chapter argues that although cassava was not recognised as a major crop by both the colonial and post-colonial governments on the basis of having been considered as lacking in nutrition, the crop played a vital role in the diet and food security in the valley.

This chapter argues that in the valley, cassava was central as a source of food for the people. Cassava was a crop on which people depended upon for survival, such that they continued with its cultivation. The local people, schools, hospitals, labour recruiting companies, mission stations and government institutions in the Luapula Valley depended on cassava as a source of food. Thus the chapter postulates that cassava was vital in ensuring food security in the valley.

⁵ See for Example, Waller, *Last Journals of Livingstone*, p. 251.

The study further argues that cassava was not deficient in nutrients as was postulated by nutritionists and government officials who argued against its being a staple food on the basis that the tubers had poor nutritional value. It shows that the negative nutritional view of nutritionists and some government officials on cassava did not undermine its position in the diet of the people of the Luapula Valley. They, however, continued to cultivate and value cassava as their major staple which constituted the basis of every meal among households. It further shows that cassava in itself was not insufficient in nutrients as was wrongly pointed out by some earlier scholars as well as nutritionists who have looked at the crop.⁶

Impact of cassava on the diet of the people of Luapula Valley 1900-1980

The diet of the people in the Luapula Valley consisted mainly of cassava which was eaten at almost every meal.⁷ Cunnison's observation shows how valuable cassava was in the diet when he notes that, "cassava is the basis of any meal, and though a man may eat a plateful of sweet potatoes, if he has not had his (*Ubwali*) polenta of cassava, he 'sleeps with hunger'."⁸ People of the Luapula Valley usually decline a meal of anything else but *ubwali* made of cassava meal. In the valley, food was viewed in terms of (*ubwali*) and *ubwali* was nothing else but cassava polenta. Therefore, cassava meal was interpreted as food in the area. Those who had enough cassava as well as cassava fields were considered to have had food, hence for the people of the Luapula Valley, food sufficiency and diet was related to the availability of cassava.⁹ For instance, P. M. Mosse who was District Officer for Kawambwa observed that the people

⁶Charles. M.N White "A Preliminary Survey of Luvale Rural Economy.", *The Rhodes-Livingstone Papers, No. 29* (Manchester: Manchester University Press, 1959), p. 19. ; See also Chabatama, "Peasant Farming, The State, And Food Security in The North-Western Province of Zambia, 1902-1964", p. 65.

⁷ Interview, Dr. Mwesa Isaiah Mapoma, Roma Residential Area, Lusaka, 30/04/2015.

⁸Ian G. Cunnison, *The Luapula Peoples of Northern Rhodesia: Customs and History Tribal Politics* (Manchester: Manchester University Press, 1959), p.16.; Interview, Dr. Mwase Isaiah Mapoma

⁹Interview, Prof. Moses Musonda, Zambia Open University, Lusaka, 11/03/2015

subsisted almost entirely on cassava; fish when they could get it or [used] cassava leaves.¹⁰ Thus cassava was a vital crop in the diet of the people in the Luapula Valley.

A. B. Shone the District Assistant for Kawambwa reported that “cassava is almost the only crop grown for home consumption, and the diet for most of the year consists of fish and cassava or cassava and fish.”¹¹ Whereas a meal of nowadays consists of a large plate of cassava polenta and a small plate of fish, formerly it consisted of much fish and little cassava polenta, and children were told while eating with elders not to take cassava until they had some mouthful of fish. The starchy roots of cassava were the main valuable part used to make flour, from which polenta was made. However, the leaves which have a high protein content were also vital and extensively eaten as vegetable (relish) in the valley.¹² Cassava provided the people with a rich source of carbohydrates.¹³

Different ways of consuming cassava

There were different ways in which cassava was consumed by the people of the valley. The roots of the sweet variety which contain no toxic chemicals could be eaten raw; they were dug, the outer part peeled off and then the root was cut into small pieces that were either put in water before eating or were directly masticated raw as a snack.¹⁴ Cassava tubers are a good

¹⁰N.A.Z, SEC2/877 Kawambwa Tour Report No. 7 of 1950.

¹¹N.A.Z, SEC2/877 Kawambwa Tour Report No. 9 of 1950.

¹²G.R.Z, Ministry of Agriculture and Water Development Department of Agriculture: Luapula Province Annual report for 1974-1975, p.24; see also for example the ways cassava is consumed in the argument by James Cock, *Cassava: New Potential for a Neglected Crop* (Boulder and London: Westview Press, 1985), p.10; C.S. Lombard and A.H.C Tweedie, *Agriculture In Zambia Since Independence* (Lusaka: Neczam, 1972), p.39.

¹³Republic of Zambia, Ministry of Agriculture and Water Development: Department of Agriculture Annual Report of the Research Branch 1979-1980 (Lusaka, Government Printer, 1980), p.14.

¹⁴R.F. Burton, *The Lands of Cazembe: Lacerda's Journey to Cazembe in 1798* (London: Royal Geographical Society, 1873), p. 129.

source of Vitamin C and calories, “its starchy roots have high energy productivity”.¹⁵ The women served their husbands with the raw cassava which they had at (*insaka*) especially in between meals. The roots were also consumed as boiled cassava (*amabote*).¹⁶ Boiled cassava roots could be eaten on their own or with fish or other available relish. De Lacerda observed that “the people of Luapula Valley also ate the sweet manioc roasted [with fried groundnuts].”¹⁷ Cassava was fermented in water for three to four days, dried and then roasted to be eaten as a snack usually with fried groundnuts. School going children who attended day schools would carry with them boiled or roasted cassava which they had as a snack during break time. While on their way home from school, they would pass through fields which had been harvested to help themselves with the remnants of cassava roots.¹⁸ Cassava was thus a crucial part of the diet of the people and of their survival in terms of food.

The people of the Luapula Valley mainly used cassava tubers to make flour or meal for the preparation of polenta (*Ubwali*). This made cassava an important crop in the valley. Cassava flour was made by digging the roots, peeling them and then soaking the roots in water for a period which varied with the season.¹⁹ During the hot season, the period of soaking the roots was about two to three days while in the cold weather it ranged between five to eight days. Soaking of cassava was done in order to ferment the roots and remove the Hydrocyanic acid (HCN) in the case of the bitter variety.²⁰ After fermentation, the soaked cassava roots were dried in the sun in

¹⁵Hans Rosling, “Health effects of Cassava Dominated Diet”. International Child Health Unit (Uppsala: Uppsala University), p.4.

¹⁶ Interview, Chief Mulundu (Mr. David Kabaso)

¹⁷Burton, *The Lands of Cazembe*, p.101.

¹⁸ Interview, Prof. Musonda

¹⁹Mwelwa Musambachime “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, PhD Thesis, University of Wisconsin, 1981, p.42.

²⁰George Kay, “Chief Kalaba’s Village”, in *The Rhodes-Livingstone Journal*. No. 35 (Manchester: Manchester University Press, 1964), p. 62. See Also, E. H. Lungu, “Is Cassava a Good Staple Food or

summer or over a low fire which was lit under raised-stand (*ulwino*) in winter, after which the dried cassava was pounded in a mortar (*ibende*) using a pestle in order to turn it into flour.²¹ The flour was used for making polenta (*ubwali*), the main meal which was eaten with either fish or meat; with vegetables usually being cassava leaves fortified with or without groundnuts powder.²² Therefore, cassava meal played an important role in the preparation of (*ubwali*) eaten at every meal. Without the meal of cassava, the people of the Luapula Valley would have experienced difficulties in meeting their consumption needs or food requirements. The polenta made out of cassava meal was the base in terms of food in the Luapula Valley hence those who had no cassava or cassava field were considered to be in poverty. Having enough cassava meant that a household was food secure. The more cassava or cassava fields a household had the more food it was considered to have.

Cassava leaves (*Katapa*) also constituted the diet of the people of the valley. Prior to being cooked, the fresh leaves of cassava were pounded in a mortar (*ibende*) and fortified with fish or groundnuts powder. The leaves could also be prepared as a sauce on their own with palm oil (*chikondya*), a vegetable oil that was either locally made or gotten from the Congo. Cassava leaves would be eaten together with the polenta (*ubwali*).²³ Campbell notes that “cassava leaves made a popular spinach, which, mixed with peanuts, was eaten as a sauce.”²⁴ Although in very rare cases, when a family did not have the flour for making the mush, cassava leaves cooked

Not?”, in C.K. Nkhoma (ed.), *Farming in Zambia Voice of Zambian Agriculture*. Vol. 9, No. 4 (1975), p. 39; Rosling, “Health Effects of Cassava Dominated Diet”, p.5.

²¹See Burton, *The Lands of Cazembe*, pp.101,129; Also Interview, Mr. Mwewa Kalolo, Maloba Village, Samfya, 28/06/2015.

²²Interview, Prof. Musonda.

²³See E.L.B Turner and V.W. Turner, “Money Economy among the Mwinilunga Ndembu: A Study of Some Individual Cash Budgets”, in Clyde Mitchell, Elizabeth Colson and Max Gluckman (Eds.), *The Rhodes-Livingstone journal (Human Problems in British central Africa)*. No. XVIII (Manchester: University of Manchester Press, 1970), p.20.

²⁴Campbell, *In the Heart of BantuLand*, p.131.

with fish or groundnuts could be eaten on their own as a meal. Cassava leaves spinach was so extensively eaten as a sauce that it was called facetiously “old man’s meat,”²⁵ as it required no strenuous chewing. Thus, cassava was self-sufficient as it provided both the meal used for the polenta as well as relish. Cassava leaves which are rich in proteins, vitamins A and C as well as minerals, supplemented the roots for these nutrients.²⁶ The leaves improved the diet of the people in Luapula Valley. It was therefore erroneous for the nutritionists in the colonial and post-colonial periods to condemn cassava as not being a nutritious food.²⁷

In the valley cassava flour was also used for making beverages. A non-alcoholic sweetdrink (*munkoyo*) was made using porridge of cassava. The porridge was made by boiling cassava meal in water which was later allowed to cool and then, roots of (*munkoyo*) shrub which acted as an enzyme were added and stirred into the porridge in order to convert it into a beverage. The drink was not fermented and was ready after being kept overnight upon adding roots of (*munkoyo*) shrub. Among the people of Luapula Valley, (*munkoyo*) was taken as a drink that could be sold and was a source of energy. The drink (*munkoyo*) made of cassava meal was also a nutritious component in the diet of the peoples of Luapula Valley. At times the (*munkoyo*) drink as it was often referred to could be left to ferment for several days and became a potent drink.

Furthermore, an informant, Chief Kashiba’s advisor, observed that “cassava meal was used to brew an alcoholic beer called (*Kataata*) as well as a Nubian gin (*Lutuku*)”.²⁸ Cassava

²⁵Campbell, *In the Heart of BantuLand*, p.131.

²⁶Lungu, “Is Cassava a Good Staple Food or Not?”, p. 39.; See also Rosling, “HealthEffects of Cassava Dominated Diet”, p.4.

²⁷De Boer, “Cassava Growing in Zambia”, p. 20.

²⁸Interview, Idan Ngosa, Chief Kashiba Palace, Mwense, 25/06/2015.

meal was also to make a beer (*Kataata*) in which millet and sorghum acted as malt. According to Miracle, in the Congo:

Manioc-millet beer was made by cutting peeled cassava (manioc) roots in chunks and letting them ferment for three days. Sprouted millet or sorghum and water were then added, and the mixture is left to ferment another two days, then boiled to a paste and allowed to cool. The next day water is mixed with the paste and the beer is ready to consume.²⁹

The non-alcoholic beverage (*Munkoyo*) and the beer (*Kataata*) made out of cassava have a good nutritional value with the non-alcoholic beverage being a good source of energy.³⁰ (*Munkoyo*) was drunk to quench hunger. Starch in the porridge made of cassava meal hydrolysis by *amylolytic* enzymes contained in the *munkoyo* roots.³¹ The hydrolysis which is the breaking down of starch that occurs during the preparation of *munkoyo* improves the availability of minerals enhances the vitamin content and makes the starchy food easier to digest.³²

Nutritional value of cassava

Cassava tubers are the cheapest source of carbohydrates while the leaves which were eaten as a vegetable contain vitamins, minerals and proteins.³³ The negligibility of proteins in the cassava tuber made earlier scholars and government officials to wrongly argue that cassava was nutritionally deficient.³⁴ From 1900 to 1980, this low protein content resulted in discouraging,

²⁹Marvin P. Miracle, *Agriculture in the Congo Basin: Tradition and Change in African Rural Economies* (London: The University of Wisconsin Press, 1967), p. 211.

³⁰ Interview, Ambassador James Chanda Mapoma, Roma Residential Area, Lusaka, 30/04/2015.

³¹Roland Foma, "Study of Physicochemical Parameters and Spontaneous Fermentation during Traditional Production of *munkoyo*, an indigenous beverage produced in Democratic Republic of Congo" In *Food Control* Vol. 25, No. 1 (2012), p.13.

³²Smallholder Enterprise and Marketing Programme, *Cassava: A Market Research Study on Zambia Report*. (Lusaka: Langmead and Baker Ltd, 2003), p. 87.

³³The Food and Nutrition Division of Food Agriculture Organization argues that for most African populations carbohydrates supply the most of the energy needed by the body; See FAO, *Agriculture, Food and Nutrition for Africa: A Resource Book for Teachers of Agriculture* (Rome: FAO, 1997), 233

³⁴See for Example, Republic of Zambia, Ministry of Development and Planning: *Luapula Province Some Development Indicators*, 1976, p. 80.

condemning, neglecting as well as marginalising of cassava consumption by the government as it considered the crop as being poor for the diet of the people.³⁵ However, contrary to the preceding view, this study argues that cassava is not nutritionally deficient. Cassava tubers are a rich source of energy and have about three (3) percent of protein content when processed, although, being the lowest among tuber crops. Cassava is also relatively rich in calcium and ascorbic acid.³⁶

Polenta made of cassava provided the people with energy [carbohydrates] while the fish or meat it was eaten with provided supplementary proteins.³⁷ Martin Chiona, a Plant breeder at Luapula Research Station pointed out that cassava tubers contain three (3) percent of protein in them while the leaves have a higher content of protein compared to soya bean.³⁸ Therefore cassava should not have wrongly been demeaned as being a poor source of nutrients.

In addition, the leaves of cassava have a high content of proteins and supplied adequate amounts of vitamins A and C.³⁹ According to Martin Chiona a Plant Breeder at Luapula Research Station, “cassava leaves have a protein content comparable to that of soya beans.”⁴⁰ Further Latham notes that “cassava leaves are highly nutritious and like other dark green leaves,

³⁵See NRG, Report of the Rural Economic Development Working Party (Lusaka: Government Printer, 1961), p.24, para.37; See also Chabatama, “Peasant Farming, State and Food Security in North-Western Province of Zambia, 1902-1964”, p.56.

³⁶E. N. Chijindu and B. A. Boateng, “Effects of nutritional Content of Processed Cassava Chips on Development of *prostephanus Truncatus* (Horn)”, in *World Journal of Agricultural Sciences* 4(3): 404-408, 2008, p. 404.

³⁷De Boer, “Cassava Growing in Zambia”, p. 20; Republic of Zambia, Ministry of Development and Planning: Luapula Province Some Development Indicators, 1976, p. 80.

³⁸Interview, Dr. Martin Chiona, Luapula Research Station, Mansa, 23/06/2015.

³⁹A. J. Prior, “Should Cassava Be fertilized or Not?”, in C.K. Nkhoma (ed.), *Farming in Zambia voice of Zambian Agriculture*. Vol. 9, No.2 (1975), p.3.; See also, GRZ, Ministry of Agriculture and Water development: Department of Agriculture Annual Report of the Research Branch 1979-1980 (Lusaka: Government Printer, 1980), p.14; Chabatama, “Peasant Farming, The State, And food Security in The North-Western Province of Zambia, 1902-1964”, p.57.

⁴⁰Interview, Dr. Chiona.

they are an extremely valuable source of Vitamins A (Carotene) and C, Iron, calcium as well as proteins”.⁴¹

Other food crops such as maize do not have all the required nutrients, rather the diet is reinforced by other foods just as cassava diet in the Luapula Valley was supplemented by fish, meat, beans and the nutritious protein-rich cassava leaves. These supplemented cassava diet with proteins.⁴² De Boer observes that the lack of much protein in cassava tubers is not a big problem when the protein rich additions are available[and in Luapula Valley, cassava diet was complemented by other foods].⁴³ Further, the report of Luapula Development Indicators shows that among the people in Luapula, other foods containing much protein which included fish, groundnuts and beans were eaten as relish in order to supplement the cassava diet.⁴⁴

White observed that “even in Balovale no Medical Officer ever stressed the prevalence of malnutrition among the people,as they ate cassava with other foods, although their major food [cassava] was often criticized as a staple diet due to deficiency in proteins...”⁴⁵ This study aligns with the preceding arguments that the shortcomings of cassava were largely offset by other elements in the diet including the leaves of cassava itself. According to FAO, “the traditional African meal pattern, i.e. a carbohydrate staple complemented by relishes containing a variety of other foodstuffs, is therefore a good basis for a nutrient-efficient diet.”⁴⁶ As already indicated in this study, cassava was not only a good source of carbohydrates but also provided proteins and

⁴¹M. C. Latham, *Human Nutrition in Tropical Africa* (Rome: FAO:1979), p.11.

⁴²See, Lungu, “Is Cassava a Good Staple Food or Not?”, p.39.

⁴³de Boer, “Cassava Growing in Zambia”, p.20.

⁴⁴Republic of Zambia, Luapula Province: Some Development Indicators (Lusaka: Ministry of Development Planning, 1976), p.80.

⁴⁵White “A Preliminary Survey of Luvale Rural Economy.”, p. 19.

⁴⁶FAO, *Agriculture, Food and Nutrition for Africa*, p. 233.

other nutrients especially from the leaves. Table 1 shows the nutritional components of cassava as compared to other crops.

TABLE 1: NUTRIENT COMPOSITION OF CASSAVA COMPARED TO OTHER CROPS

Food Source	Water (%)	Protein (%)	Energy (Kcal)	Fats (g)
Crop	Water (%)	Protein (%)	Energy (Kcal)	Fats (g)
Rice	11.8	6.4	366.0	0.8
Maize	11.6	9.4	357.0	4.2
Cassava Flour	12.0	2.2	342.0	0.0
Cassava tuber	62.0	2.2	149.0	0.2
Cassava leaf	72.5	8.6	112.6	1.9
Potatoes	77.7	1.7	82.0	0.1
Rape	93.0	2.7	27.0	0.0

Source: MACO, 2000 and FAO, 2003

It is evident from the table that cassava was not totally poor in terms of nutrition content. Cassava leaves have a high percentage of proteins as compared to rice, potatoes and rape. Although cassava was condemned as not being nutritious, the evidence in the table shows that actually cassava leaves provided a good source of proteins while the meal was a good source of carbohydrates.

Cassava did not in any way compromise the health of the people in areas that subsisted on it as a staple crop. Contrary to earlier arguments by Richards, Jones and government officials who included nutritionists, studies by Chabatama, Cock, and FAO have demonstrated that

cassava-dominated diets were not as deficient as they were earlier portrayed.⁴⁷ Chabatama argued that “the people in cassava eating societies have been known to be healthy and strong.”⁴⁸ Furthermore, G. C. Hyde who was District Assistant for Kawambwa also noted in 1959 that “the diet of the people in Chief Kambwali’s area [in the valley] consists mainly of cassava and fish, and they keep reasonably healthy on it.”⁴⁹ Thus the relegation of cassava to a group of inferior foods because of its low protein content in the roots was unjustified. There were no reports of people in the Luapula Valley having died out of cassava related diseases and many healthy men from the area who had always fed on cassava as a staple, were recruited to work in the mines in Katanga as well as the Copperbelt.

It must be noted here that the African mine workers recruited from Luapula Valley had always subsisted on cassava. Had cassava been so poor a crop in terms of nutrition as was portrayed by some earlier scholars, the mining companies would have overlooked such areas as a source of labour. This study emphasises that cassava supplied the people with adequate energy as well as vitamins and proteins. Cassava is the cheapest source of energy and a diet with the energy requirement supplied by cassava can be balanced with protein rich supplements such as fish, beans, groundnuts and the leaves of cassava itself.⁵⁰ It is clear from Doku’s argument that cassava constitutes the major source of dietary energy as it is a primary source of carbohydrates and it is relatively rich in calcium as well as ascorbic acid.⁵¹ This study in tandem with Doku’s

⁴⁷ See for Example, Chabatama “Peasant Farming, The State, and Food Security in The North-Western Province of Zambia, 1902-1964”, p.56-57; James Cock, *Cassava: New Potential for A Neglected Crop* (Boulder and London: Westview Press, 1985), pp. 23-24; See also, FAO, *The World Cassava Economy: Facts, Trends and Outlook* (Rome: FAO, 2000), p. 10.

⁴⁸ Chabatama, “Peasant Farming, The State, And Food Security in The North-Western Province of Zambia, 1902-1964”, p.58.

⁴⁹ See N.A.Z., SEC2/914 Nchelenge Tour Report No. 4 of 1959.

⁵⁰ LP2/2/86 Department of Agriculture Northern Province Provincial Annual Report for 1956, p. 5. ; See Also Rosling, “Health Effects of Cassava Dominated Diets”, p. 5.

⁵¹ E.V. Doku, *Cassava in Ghana* (Accra: Ghana University Press, 1969), pp.35-37.

argument reaffirms that cassava had valuable dietary nutrients that it provided for the people of Luapula Valley. Table 2 gives the percentages of nutrients found in cassava meal.

TABLE 2: CASSAVA MEAL NUTRIENTS

CONTENT	PERCENTAGE
Carbohydrates	60.4%
Protein	2.2 %
Water	34. %
Ash	1.7%
Fibre	0.8%
Oils and Fats	0.2%

Source: N.A.Z, NRG, Correspondence of the Department of Agriculture from Acting Chief Agricultural Officer Provincial Headquarters Kasama to the Director of Agriculture Lusaka, 1962

It is clear from the above table that cassava had a fair content of nutrients such as carbohydrates and it had proteins. The figures in the table indicate that it was wrong to consider the crop bad for the people to eat on the basis of nutrients. Although cassava meal had low protein content, the deficiency was compensated by proteins from other sources including fish and cassava leaves with which *ubwali* of cassava meal was eaten.

Hydrocyanic acid in bitter cassava

The presence of cyanogenic compounds in the bitter varieties of cassava was another argument that was posed against the crop particularly after independence. Bitter cassava contains cyanogenic glycosides, which can hydrolyse during processing to form cyanohydrins. The cyanohydrins breakdown at a rate dependent on pH and temperature to release free HCN, which

if ingested in sufficient quantities can lead to acute intoxication resulting in nausea, dizziness, vomiting and in some rare cases death. However, from 1900 to 1980, there were no recorded or mentioned incidences resulting from acute cyanide intoxication or poisoning in Luapula Valley caused by cassava consumption. The cyanogens were eliminated during processing of cassava by using the well-known traditional methods of soaking in water or fermentation, drying and also boiling of tubers while the leaves lost the cyanide as they were boiled.⁵² One of the informants Martin Chiona, noted that cyanide contained in bitter cassava cannot cause complications in individuals who have no iodine deficiency.⁵³ Having had no recorded fatal incidence (in Luapula Valley) as a result of cyanide from cassava, it is clear that the presence of cyanogenic compounds in bitter cassava variety was simply used as a stigma against the crop by nutritionists. This was in order to lure the people to the cultivation of the favoured maize; needed to feed urban dwellers, when other crops such as Irish potatoes and yams can also be lethal if eaten without proper preparation.⁵⁴

Advantages of cassava that made it vital as a food security crop in the Luapula Valley under colonial rule

Due to its advantages over the grain crops of sorghum, millet and maize, from as far back as before 1900 cassava became a vital crop that ensured the availability of food for the people in the Luapula Valley.⁵⁵ Cassava is a drought resistant crop that provided a source of food for the people when the grain crops were destroyed by drought. According to Ashley, during a drought,

⁵² Campbell, *In The Heart of Bantuland*, p.131; See also, Rosling, *Health Effects of Cassava Dominated Diet*, p.5.

⁵³ Interview Dr Chiona.

⁵⁴ Felix Nweke, "New challenges in the Cassava Transformation in Nigeria and Ghana". EPTD Discussion Paper No. 118 (Washington, D. C: International Food Policy Research Institute, June, 2004), p. 11.

⁵⁵ Mwelwa Musambachime, "The Agricultural History of Mweru Luapula Area up to 1940" University of Zambia, History Staff Seminar Paper, 1974 (mimeo), p. 7.

leaf production in cassava is rapidly curtailed as soil moisture stress develops thereby reducing potential transpiration.⁵⁶ The loss of water is also reduced through the rapid closure of the stomata; when the leaves are exposed to dry air they droop, thus reducing heat load at their surface. The partitioning of assimilates to the root is also increased in moisture-stress conditions which benefits the farmers since the root is the product from the crop. Through the process cassava is able to withstand a drought.

Apart from being drought resistant crop, cassava grows well and produces a good yield in poor soils hence it could be grown even in areas of the Luapula Valley where the soils could not effectively support production of good yields with cereals. Reed noted that as elsewhere in the District, cassava was the staple in the area of Chief Matanda and that there was no shortage of food although the soil was agriculturally not good in the area, people still had ample food (cassava) to eat.⁵⁷

Cassava being a crop that allows harvest according to consumption needs, by being left in the ground did not burden the people of Luapula Valley with storage requirements as compared to grain crops of millet and sorghum which required total harvest. In terms of storage, the crop did not pose a problem for the producer as compared to cereals that required construction of granaries. Cassava was left unharvested in gardens until there was need for consumption.⁵⁸ People who rely on *manioc* have a reduced need for storage because the crop can be left in the ground without deterioration for as much as a year after it is matured.⁵⁹ According to Chabatama, “the adoption of cassava as a staple food in North-Western Province led to a

⁵⁶John Ashley, *The Tropical Agriculturalists: Food Crops And Drought* (London: Macmillan, 1999), p. 32.

⁵⁷N.A.Z., SEC2/896 Mansa Tour Report No. 21 of 1951.

⁵⁸See Andrew Roberts, *A History of Zambia* (London: Heinemann Educational Books Ltd, 1976), p.142.

⁵⁹Miracle, *Agriculture in the Congo Basin*, p. 193; See also De Boer, “Cassava Growing in Zambia”, p.20.

gradual decline of the elaborate granary construction among the people since cassava tubers were left in the ground until they were needed.”⁶⁰ This did not only reduce the labour requirement in the construction of granaries but also made cassava a crop immune from the pests which make heavy inroads into household granaries as well as raiders thereby improving food security since cassava was not being damaged.⁶¹

In addition, cassava that was left in the ground would not be nearly as attractive a target for raiders looking for a quick and easy supply of food as would be a community granary full of millet or sorghum, since the process of digging and processing cassava roots into food would be time-consuming.⁶² Cassava had low post harvest wastage since a family could simply harvest what was required for consumption at a particular time compared grain crop which could be wasted if no proper storage facility was made. In 1953, E. C. Thomson the District Commissioner noted that, “cassava is a good crop in that it can be stored in the ground while continuing to grow and it seems best to leave it in the ground when the people are not willing to sell at a lower price.”⁶³ The advantage of cassava in terms of being left in the ground as a storage measure made it a good crop that contributed to food security in the Luapula Valley especially when grain crops failed or were destroyed by the pests in the granaries. This ability of cassava helped people to have a continuous source of food from a cassava field without necessarily harvesting everything at once. Cassava could stay in the ground for another two years after maturity.⁶⁴ Thus the advantages of cassava made it to be liked as a staple among the people in valley as it guaranteed availability of food consequently enhancing food security.

⁶⁰ Chabatama, “Peasant Farming, the State, and Food Security in the North-Western Province of Zambia, 1902-1964”, pp.64-65.

⁶¹ See Roberts, *A History of Zambia*, p.11.

⁶² Gordon, *Nachituti's Gift*, p. 57. ; See also Pritchett, *The Lunda-Ndembu*, p.29.

⁶³ See N.A.Z., SEC2/900 Mansa Tour Report No.10 of 1953.

⁶⁴ Interview, James Mapoma.

However, even when cassava had to be stored after harvesting, my informants noted that the crop was not easily affected by the pests especially given that it was kept above the fire place to allow the smoke from the fire to drive away pests. Hence cassava could be stored for one to two years without being damaged. There were different ways of storing cassava either by drying it direct in the sun or soaking it before it was dried. People in the Valley developed ways of preserving cassava based on the season and the kind of product they wanted to have out of it. The informants pointed out that one way of preservation was that cassava roots were dug, then peeled, after which they dried it for three to four days and then put in water for three days. The roots were removed from the water and dried for four days and could stay up to a period of two years.⁶⁵ Cassava that was preserved in this way was called (*Kaleleka*) and was mainly used to make flour in the rainy season when drying the crop in the sun would prove difficult.⁶⁶ The stored cassava was preserved by keeping it on a raised stand called (*ulwino*), below it fire was lit for cooking so that the smoke from the fire could keep pests away from cassava.

Cassava leaves (*Katapa*) were also preserved. An informant noted that cassava leaves were preserved in two ways; one was the sun drying of the leaves on the sun while the other was by soaking the leaves in warm water and then drying them. The preserved leaves were later cooked as vegetable mixed with groundnuts powder, especially in times when the fresh cassava

⁶⁵ Interview, Chief Mulundu (Mr. David Kabaso), Chief Mulundu's Palace, Mwense, 25/06/2015; also Interview, Alfred Chabala (Chief Lukwesa's messenger), Chief Lukwesa's palace, Mwense, 25/06/2015; also Interview, Mwewa Kalolo (Cassava farmer from Maloba Village in Samfya), Mansa Agriculture Showgrounds, Mansa, 28/06/2015.

⁶⁶ Kaleleka is the local name for the cassava roots that were preserved for a period of up to two years. Cassava roots were dug, peeled, dried in the sun and then soaked in water after which they were removed and dried again, and then stored ready to be turned into cassava meal.

leaves and other vegetables were difficult to come by.⁶⁷ Thus cassava ensured availability of food in times of shortages.

Cassava is vegetatively propagated. Therefore, each plant provides multiple cuttings used as cultivars hence there was no need to buy planting materials at high price.⁶⁸ The stems [which are not eaten at all] were used as cultivars for subsequent planting without compromising the consumption needs. Grain crops required that a compromise was struck between how much was to be eaten in a year versus how much was to be saved for planting the following year since the edible portion is also the seed.⁶⁹ However, with cassava it is the portions of the non-edible part, cultivars that are planted leaving the roots and leaves entirely for consumption without any compromise in consumption needs. With cassava the roots were used only as food and not seeds while the leaves served as a vegetable relish making the crop self-sufficient for (*ubwali*) and relish while providing the non-edible stems as cultivars.

The impact of cassava on food security in the Luapula Valley 1900-1964

The role of cassava in ensuring availability of food in Luapula Valley is one that could not be underestimated especially during the colonial period. Cassava is a high yielding crop, once established cassava was said to have potential to give a yield of “six to ten times more food than if growing grain.”⁷⁰ According to White, “the dependence upon cassava among the Luvale had led to a steady supply of food throughout the year in contrast to the grain-growing tribes of

⁶⁷ Interview, Mulenga Sizo, Paramount Chief Mwata Kazembe’s Palace, Mwasabombwe, 26/06/2015

⁶⁸ H. de Boer, “Cassava Growing in Zambia”, in C.K. Nkhoma (ed.), *Farming in Zambia Voice of Zambian Agriculture*, Vol. 11, No. 2 (1977), p. 20.

⁶⁹ Pritchett, *The Lunda-Ndemba: Style, Change, and Social Transformation in South Central Africa* (Wisconsin: The University of Wisconsin Press, 2001), p.29.

⁷⁰ N.A.Z, SEC1/1366, J. Gordon Read, *Famine Relief Interim Report No.1 to Provincial Commissioner, Batoka Province*, 2nd November, 1931.

the Bemba and Kaonde, who usually suffered from food shortages from December to March.”⁷¹ This significance of cassava in terms of food provision was not confined to the Luvale of North-Western Province only, but the crop also provided the people of the Luapula Valley with a steady food supply throughout the year. As postulated by Pritchett, cassava is more disease resistant and higher yielding than either millet or sorghum, and can be planted throughout virtually the entire rainy season as opposed to the grain.⁷² Hence areas that depended on cassava had a good source of food that gave them high yields consequently improved food security.

Cassava played an important role in alleviating the food scarcity conditions in Luapula Valley in times when the area was on the verge of experiencing food shortage. Due to droughts that affected most parts of the territory, Luapula Province experienced scarcity of food from January 1912 and beginning of 1913.⁷³ George Lyons noted that “the scarce of food had caused so many deaths among the local people of Fort Rosebery Division and so much inconvenience to Europeans”.⁷⁴ He further noted that this scarcity was overcome by virtue of the local people cultivating large gardens of cassava. Lyons observed that in many cases the local people had made even larger gardens of cassava than formerly and there was to be little danger of a return of a famine if the prevailing conditions [under cassava] were maintained.⁷⁵

In the Luapula Valley, cassava was vital in providing the people with food in times of scarcity especially when grain crops failed either due to droughts or locust attacks. The colonial

⁷¹Charles. M.N White “A Preliminary Survey of Luvale Rural Economy.”, *The Rhodes-Livingstone Papers*, No. 29 (Manchester: Manchester University Press, 1959), p.18.

⁷²James Anthony Pritchett, *The Lunda-Ndembu*, p. 29. ; See also A. J. Prior, “Cassava”, in C.K. Nkhoma (ed.), *Farming in Zambia voice of Zambian Agriculture*. Vol. 9, No.2 (1975), p.16. ; David J. Rogers and S. G. Appan, “What’s So Great About Cassava?”, *In Farming Voice*, Issue No. 3, Vol. 1 (1973), p. 6.

⁷³See for example, Bennett S. Siamwiza, “A History of Famine in Zambia, c.1825 - 1949”, PhD Dissertation, University of Cambridge, 1998, p. 104.

⁷⁴N.A.Z., ZA7/1/2/8 Mweru-Luapula Province Annual Reports 1914.

⁷⁵ See N.A.Z., ZA7/1/2/8 Annual Report 1914.

government basically allowed and did not thwart the propagation of cassava in the Valley and the rest of Luapula Province after they had recognised its value as a famine reserve crop that ensured food security in times of food shortages.⁷⁶ In 1915, R. J. C. Reardon the then Native Commissioner for Kawambwa reported that there was plenty of food in the division and that the chiefs as well as headmen were told during a meeting in August, 1914 to ensure that large gardens of cassava were made to meet the food demands for the war effort as well as local consumption.⁷⁷ As already shown in this study, there was a huge contribution of cassava flour to the war effort.⁷⁸ Moreover, the figures of cassava flour contributed to the war continued to increase as more food was required. According to Musambachime, “even in the midst of huge cassava flour contributions to the war, the area continued to feed the people working for the missionaries, the traders and the Boma with the adequate available cassava”.⁷⁹ Thus cassava was crucial in ensuring food security in the valley.

Although the scarcity of food had been reported during the First World War period, the shortage in the Luapula Valley did not amount to a famine; the people had cassava which sustained them. Siamwiza observed that “...the famine had spread to Luapula in October 1917, however due to large quantities of cassava grown in the Province and despite huge requisition since the beginning of the First World War; the area remained highly productive with adequate food”.⁸⁰ By 1923, cassava was reported to have been the chief staple crop that was being grown in enormous quantities throughout Kawambwa District with a prospect of people having

⁷⁶N.A.Z, LP2/2/86 Agriculture Annual Report 1956-1959: Annual Report for Northern and Luapula Provinces 1958, p. 4; the report indicates that cassava was the main famine reserve crop in the provinces.

⁷⁷ N.A.Z, ZA7/1/2/8 Mweru-Luapula District, Kawambwa Sub-District Annual Report for 1915.

⁷⁸ N.A.Z, ZA7/2/8 Annual Report for 1915. ; ZA7/3/8; See also, Musambachime, “The Agricultural History of Mweru Luapula Area up to 1940”, p.9.

⁷⁹Musambachime, “ “The Agricultural History of Mweru Luapula Area up to 1940”, p.9.

⁸⁰ Bennett S. Siamwiza, “A History of Famine In Zambia, c.1825 -1949”, PhD Dissertation, University of Cambridge, 1998, p. 160.

sufficient food stuffs, with no fear of any shortage of food.⁸¹ The people of the Luapula Valley especially along the Luapula River cultivated little or no grain crops. When grain crops of millet and sorghum were grown, they were almost entirely for the brewing of beer while sorghum meal was also used during ceremonies.⁸² Cassava was extensively propagated since it had proved to be drought resistant and suited to poor or sandy soils thereby ensuring availability of food.⁸³

In 1925 the government was able to purchase 99,792 lbs of cassava meal in Fort Rosebery, indicating that there was adequate cassava as people were able to sell such quantities of surplus without compromising their household requirements.⁸⁴ During the year 1927, people in Kawambwa sub-district sold 500 tons of cassava meal to traders, who exported it to the Congo.⁸⁵ Thus cassava was important in servicing not only the food requirements of the local people (producers) but also recruiting companies, schools, mission stations, government institutions in the area as well as mines in Belgian Congo.⁸⁶

In 1929 the District Commissioner noted that cassava is the staple local crop and where this is grown there is rarely any food shortages.⁸⁷ The people of the valley did not experience food shortages due to the availability of cassava which had proved reliable even in times of droughts. Thus across the valley where cassava was extensively cultivated, no reports of critical

⁸¹ N.A.Z, ZA7/1/6/8 Mweru-Luapula Province, Kawambwa Sub-District Annual Report 1923.

⁸² Interview, Ambassador James Mapoma, Roma Residential Area, Lusaka, 30/04/2015.

⁸³ N.A.Z., ZA7/1/6/8 Mweru-Luapula District Annual Report 1922/23.

⁸⁴ N.A.Z, ZA7/1/8/7 Mweru-Luapula District, Fort Rosebery Sub-District Annual Report 1925, p. 12.

⁸⁵ N.A.Z, ZA7/1/11/8 Mweru-Luapula District, Kawambwa Sub-District Annual Report 1927.

⁸⁶ The trade in cassava indicated the crucial role cassava played in ensuring food security, such amounts as 59.5 tons purchased by the government, ten tons by Mr. Clarke and about 40 tons purchased by R.W. Yule from the local people in Fort Rosebery indicate that the meal was available in order for people to sale such amounts and that the availability of the meal ensured food security for the buyers; For statistics here, see N.A.Z, ZA7/1/11/8 Mweru-Luapula Fort Rosebery Annual Report 1927.

⁸⁷ See for example: N.A.Z., ZA7/1/12/8 Mweru-Luapula Province Annual Report 1929.

food shortages were made. The crop provided enough food such that people had a surplus that they sold for fish or cash.

In 1930, J. B. Thomson the then District Commissioner for Kawambwa observed that “the year’s crop [cassava] had been very good with no hunger and local agriculture in the area was largely confined to the cultivation of cassava (*manioc*) for domestic uses”.⁸⁸ The Luapula Valley had a good supply of food with no scarcity being reported anywhere as a result of the satisfactory cassava crops throughout the Province and the Valley in particular.⁸⁹ In 1931, villages in the valley had plenty of food (cassava meal) with a considerable surplus most of which was sold in the Belgian Congo.⁹⁰ For instance, it was reported in the same year that the villages situated in the Kalungwishi Valley had plenty of food as a result of the cultivation of cassava.⁹¹ And according to E.O. Collcutt who toured the area of Mofwe and Chipita, food appeared abundant, it being a cassava growing area.⁹²

Report of abundant food in 1931 appeared in the year when the Province experienced a locust invasion. The year 1931 saw the appearance of the Red (*Homadacris Septemfasciata*) and migratory (*Locusta Migratoria*) species of locusts in the Luapula Valley starting with Chiengi District. The locust swarms spread to the whole of the Luapula Valley from Lake Mweru to Johnston Falls affecting the grain crops such that there was a danger of a famine being reported.⁹³ In 1932, the locust situation worsened in the valley damaging grain crops. However the people in the area were assured of availability of food since their staple crop cassava which

⁸⁸N.A.Z., ZA7/1/14/8 Mweru-Luapula Province, Kawambwa District Annual Report for the year 1930

⁸⁹N.A.Z., ZA7/1/13/8 Mweru-Luapula Province Annual Report 1931.

⁹⁰ ZA7/4/26 Mweru-Luapula Province Tour Report of 1931

⁹¹N.A.Z., ZA7/4/26 Mweru-Luapula Province Kawambwa Tour Report 1931, p.2.

⁹²N.A.Z., ZA7/4/26 Kawambwa Tour Report 1931

⁹³See N.A.Z., ZA7/1/14/8 Mweru-Luapula Province Annual Report 1931.

they subsisted on was not attacked by the locusts.⁹⁴ Cassava sustained the people of the valley in terms of food requirements even when grain crops were damaged particularly by the locusts as reported in 1932 that were it not for the fact that local people subsisted mostly on cassava, which so far the locusts had not touched to any extent the area would have faced a famine.⁹⁵ G. Stoke who toured Fort Rosebery in 1932 attested to the vital position of cassava in ensuring food security in the Valley when he noted that “the local people were advised to increase the acreage under this tuber [cassava] as an insurance against food shortage should grain crops suffer from locusts”.⁹⁶

Therefore District Officers continued urging people to extensively plant cassava which was not easily attacked by the locust in order to avoid an occurrence of food shortages.⁹⁷ According to the 1935 African Affairs Report for Fort Rosebery, no unexpected famine was to occur as long as cassava was being grown.⁹⁸ Since sorghum and millet depended on the seasons coupled with the bad famines that had occurred in the past due to damage of cereals, particularly in 1918, cassava had become so popular a staple in areas such as Fort Rosebery and the rest of the Luapula Valley.⁹⁹

In the Luapula Valley damage to grain crops propelled the local people to extend their cassava fields in order to produce more.¹⁰⁰ The words of the people of Daudi Lumbule’s village

⁹⁴ N.A.Z, ZA7/1/15/8 Mweru-Luapula Province Annual Report 1932, p.2.

⁹⁵ N.A.Z., ZA7/1/15/8 Mweru-Luapula Province Annual Report 1932; See also ZA7/1/15/8 Mweru-Luapula Province, Kawambwa District Annual Report 1932.

⁹⁶ N.A.Z, ZA7/4/35 Mweru-Luapula Fort Rosebery Tour Reports of 1932 Box 128; See also N.A.Z, ZA7/4/44 Mweru-Luapula Province Fort Rosebery Tour Report No.1 of 1933.

⁹⁷ See ZA7/4/35.

⁹⁸ N.A.Z, SEC2/1302 Northern Province, Fort Rosebery District Annual Report on Native Affairs 1935.

⁹⁹ N.A.Z, SEC2/1302, Fort Rosebery District Annual Report on Native Affairs 1935.

¹⁰⁰ Chewe M. Chabatama, “The Colonial State, The Mission and Peasant Farming in North-Western Province of Zambia: A Case Study of Zambezi District, 1907-1964”, M.A Dissertation, University of Zambia, 1990, p. 36.

confirmed the role that cassava played in ensuring food security in times of damage to cereals when they noted in 1933 that “...we live under the constant threat of locust invasions, and we must cultivate crops the locusts spare because they do not eat them, like cassava and sweet potatoes.”¹⁰¹ Cassava was very vital in ensuring food availability especially during damage of cereal crops by locusts. In 1933, the then District Commissioner for Fort Rosebery noted that ground crops in the form of cassava, potatoes and nuts were everywhere plentiful while surface crops such as millet had been entirely eaten by locust, therefore larger areas of cultivation for ground crops were encouraged as a means to defeat the locusts.¹⁰²

The situation was similar in Zambezi sub-district. When the area experienced two major locust invasions in 1932 and 1934 respectively, the Luvale-Lunda did not starve to death at all as they easily fell back on cassava.¹⁰³ Cassava and sweet potatoes, which produce tubers under the ground, beyond the reach of the locusts that had invaded the sub-district, saved the local people from chronic famine that tormented other groups like the Bemba, Lozi and Tonga, whose staple diet was based on maize and bulrush millet.¹⁰⁴ Laurel Van Horn noted that “in Barotseland, crops normally grown in the plain and which could easily be destroyed by flooding were increasingly abandoned in favour of cassava, which found widespread acceptance during the locust

¹⁰¹FENZA, White Fathers Missions Archives, 2C Kabunda (St. Stephen) Mission Vol. 1, 1932-1938, p.12.

¹⁰²N.A.Z, ZA7/4/44, Mweru-Luapula Province Fort Rosebery Tour Report No.1 of 1933.

¹⁰³Chewe M. Chabatama, “The Colonial State, the Mission and Peasant Farming in North-Western Province of Zambia: A Case Study of Zambezi District, 1907-1964”, M.A Dissertation, University of Zambia, 1990, p. 35.

¹⁰⁴Chabatama, “The Colonial State, the Mission and Peasant Farming in North-Western Province of Zambia: A Case Study of Zambezi District, 1907-1964”, p. 35.

invasions”.¹⁰⁵ Thus cassava became important as a source of food especially during pestilences, not only in the Luapula Valley but in other parts of the territory.

The advantage of cassava to satisfactorily withstand invasion of locusts which damaged millet and other grain crops was crucial in as far as food security was concerned in the Luapula Valley. Although the damage to grain crops by locust was clear by 1933, there was no famine in the Valley due to the availability of the dependable cassava crop.¹⁰⁶In 1933 the District Commissioner for Fort Rosebery noted that “provided that cassava maintains its comparative immunity from destruction by locusts there should be no cause for anxiety on the question of food security”.¹⁰⁷ He further reported that “there has been no famine, thanks to the fact that cassava which satisfactorily withstood the locust invasion is the staple crop of the district”.¹⁰⁸The Luapula Valley was fortunate not to experience famine in the midst of the locust swarms because the areas that were invaded were under the cultivation of cassava; a tuber crop to which very little damage was done by the locusts. The words of J. B. Thomson the District Commissioner for Kawambwa in 1933, attests to this fact when he noted that:

The only redeeming feature in the cloudy sky is that the locust has not affected the people to any great extent, the majority of the population being eaters of cassava, which has so far been little affected. Even though locusts had been as numerous as they were in the previous year, so far they had done no great damage to the cassava, the staple crop of the major portion of the inhabitants.¹⁰⁹

To ensure that there was enough food during the period of the locust swarm invasion, the local people were encouraged to increase the acreage under cassava especially that the grain

¹⁰⁵Laurel Van Horn, “The Agricultural History of Barotseland, 1840-1964”, in Robin Palmer and Neil Parson (eds.), *The Roots of Rural Poverty in Central and Southern Africa*, (Berkeley and Los Angeles: University of California Press, 1977), p. 160.

¹⁰⁶N.A.Z., ZA7/4/44 Mweru-Luapula Province Fort Rosebery Tour Report No. 1 of 1933.

¹⁰⁷ N.A.Z., ZA7/1/16/5 Awemba, Mweru-Luapula and Tanganyika, Fort Rosebery Annual Report 1933.

¹⁰⁸ N.A.Z., ZA7/16/5 Mweru-Luapula and Tanganyika Province Annual Report 1933.

¹⁰⁹N.A.Z., ZA7/1/16/5 Awemba, Mweru-Luapula and Tanganyika Annual Report 1933.

crops of maize, Kaffir corn (sorghum) and millet which were grown in small quantities had suffered increasing menace from locust swarms.¹¹⁰ The area was saved from being food insecure as a result of the cultivation of cassava. Elsewhere Richards pointed out that “Cassava (*Manioc*) was extensively cultivated by the Bisa near Lake Bangweulu and became more prominent especially with the destruction of millet by locust raids.”¹¹¹

In addition, the District Officer for Kawambwa noted in 1933 that even though the locust had completely destroyed the millet crops, there was no danger of a food shortage as all the villages except the newly-built ones had plenty of cassava.¹¹² This evidence is a clear indication of the impact that cassava had in ensuring food sustenance for the people especially during times of famine as a result of drought or locust attacks in that cassava could not be damaged by drought or attacked by locusts as compared to millet and sorghum.

In 1944, an estimated amount of 17,900 bags of cassava were produced for in the Fort Rosebery-Bangweulu areas.¹¹³ Cassava held its place as an important food reserve crop that ensured availability of food in the Luapula Valley even in times of catastrophes such as a drought. By 1949, the crop had become according to J. A. Allan the then Provincial Agricultural Officer for Northern Province, “the main famine standby throughout the Province.”¹¹⁴ Although Luapula Valley was hit by the drought of 1948 to 1949, the area had plenty of cassava meal on the whole with few signs of famine conditions.¹¹⁵ As a result of cassava cultivation and its advantage as a drought resistant crop, during the 1949 drought, Fort Rosebery District, far from

¹¹⁰ See for example, ZA7/1/16/5; see also ZA7/1/15/8 Mweru-Luapula Province Annual Report 1932.

¹¹¹ Audrey I. Richards, “The Bemba of North-Eastern Rhodesia”, in Elizabeth Colson and Max Gluckman (eds.), *Tribes of British Central Africa* (London: Oxford University Press, 1951), p. 166.

¹¹² N.A.Z., ZA7/4/44 Mweru-Luapula Province, Kawambwa Tour Report No. 4 of 1933.

¹¹³ NRG, First Report of the Advisory Committee on Industrial Development 1946 (Lusaka: Government Printer, 1949), pp. 3-4.

¹¹⁴ N.A.Z., MAG2/5/27 Department of Agriculture Annual Report Northern Province of 1949.

¹¹⁵ Siamwiza, “History of Famine in Zambia, c. 1825-1949”, p. 332.

being famine-stricken was food secure and exported food to other areas.¹¹⁶ In 1949, A.G.E. Tapson, the then District Assistant for Kawambwa, noted after the tour of Chiefs Lukwesa and Lubunda areas that “owing to the dry 1948-1949 season, the relish crops were a failure however cassava stood up well to the drought conditions, there was no threat of a shortage occurring and that a surplus of cassava was being sold to the Belgian Congo”.¹¹⁷

Apart from the Luapula Valley, cassava meal was also crucial in other parts of the Northern region of the territory in ensuring food security particularly in times of droughts that led to famine. As reported in the 1949 African Affairs report, 6,800 bags of cassava meal were imported into Kasama to feed the African staff of government departments. It was observed that without cassava meal the activities of all departments in Kasama would have had to be seriously curtailed.¹¹⁸ Cassava meal also served a vital role in ensuring food security in Serenje District of Central Province in 1949. It was reported during that year that seven hundred bags of cassava meal were bought in the South-Western areas of Mpika District and exported to the neighbouring district of Serenje where a local famine was experienced.¹¹⁹ Therefore the role of cassava in ensuring food security was evident even in areas away from Luapula Valley.

In 1950, the then Fort Rosebery District Officer during the tour of Chiefs Mibenge and Mabumba areas reported that “cassava has many advantages; it is drought resistant, liked by local Africans, and there is no seed problem and as long as there is cassava grown in the District there is an assurance of food for the cultivator.”¹²⁰ A. B. Shone also observed that there was

¹¹⁶N.A.Z, SEC2/895 Mansa Tour Report No. 7 of 1950.

¹¹⁷N.A.Z, SEC2/876 Kawambwa Tour Report No. 4 of 1949.; See also N.A.Z, SEC2/876 Kawambwa Tour Report No. 3 of 1949.

¹¹⁸ N.R.G, African Affairs Annual Report for the year 1949 (Lusaka: Government Printer, 1950), p. 34.

¹¹⁹N.R.G, African Affairs Annual Report for the year 1949, p. 34.

¹²⁰N.A.Z., SEC2/895 Mansa Tour Report No. 7 of 1950, See Also SEC2/895 Mansa Tour Report No.2 of 1950.

adequate cassava in Chief Kashiba's area for the people's own consumption in as much as there was not much for the export market during the year.¹²¹ Table 3 shows that more cassava was being grown than any other crop in Chief Kalaba's area and this trend was not confined to this area only rather it was widespread in the valley. Cassava was the main crop being grown in the Valley as it had proved to be a valuable source of food even when the area was on the verge of food shortages.

TABLE 3: NUMBER OF GARDENS CULTIVATED IN EACH PARISH OF CHIEF KALABA'S AREA IN 1952

PARISH	CASSAVA	GROUNDNUTS	FINGER MILLET	BEANS	SWEET POTATOES
Chimfula	304	108	54	15	10
Changa	284	128	99	32	16
Chipoka	298	66	71	-	17
Kashindika	132	50	31	15	25
Mbaso	247	98	81	44	30
Mwansanchima	189	74	51	2	29
TOTAL	1454	524	387	108	127

Source: N.A.Z, SEC2/898, Fort Rosebery Tour Report No. 12 of 1952¹²²

¹²¹N.A.Z, SEC2/877 Kawambwa Tour Report No. 9 of 1950.

¹²² As the information from the research indicated, the people opted to cultivate more cassava gardens on the basis that it was a crop they had come to trust in providing them with food even in times of drought or locust invasion as well as having ensured high yields over a small piece of land. The number of gardens shown in the table was counted by John Lumpawho was a Food Messenger on tour in 1952.

In as much as the season of 1951 was affected by the poor rains during 1948 and 1949, the areas of Chiefs Kashiba and Mulundu were reported to have been excellently stocked and that they had large cassava gardens. J. M. E. Took who was a cadet for Kawambwa District in 1951 noted that “in Kashiba, behind the endless rows of houses were the largest fields of cassava seen, some of them approaching 40 acres”.¹²³ He further reported that although the 1948 and 1949 poor rains had an effect, in 1951 the areas of Chiefs Kambwali, Mununga as well as Kanyembo had adequate and abundant cassava with no reports of food shortages.¹²⁴

Effect of the disruption in the cultivation and supply of cassava on food security

Due to the low prices for cassava meal that the government offered, there was a reduced supply of cassava meal to the schools and other government institutions. Mission schools also delayed in acquiring cassava meal. This development threatened the food supply for Mbereshi Mission between 1928 and 1929 such that in 1928 Mable Shaw was forced to close as a result of inadequate of food.¹²⁵ The situation of Kasaba Mission gives a clear demonstration of the impact that cassava had in ensuring food security for schools and hospitals. In 1951, the activities at Kasaba Mission were almost curtailed as a result of the insufficient food that was available to be purchased. According to the report given to Cadet T. M. Lawman by the Mother Superior of Kasaba Mission, “the mission was finding it increasingly difficult to purchase cassava meal for the settlement thus it would not be able to accept an increased intake of patients until there was certainty that food (cassava meal) could be found”.¹²⁶

¹²³N.A.Z, SEC2/878 Kawambwa Tour Report No. 10 of 1951.

¹²⁴For the Cadet’s comments on the situation of cassava in the three areas of Chiefs Kambwali, Mununga and Kanyembo see N.A.Z, SEC2/878 Kawambwa Tour Reports No.9, No.8 and No. 7 of 1951.

¹²⁵See ZA7/1/12/8 Kawambwa District Annual Report 1929.

¹²⁶N.A.Z., SEC2/898 Mansa (Fort Rosebery) Tour Reports No. 15 of 1952.

Thus cassava was cardinal as a source of food in hospitals as well as schools. Paul Corfe who was the District Commissioner for Kawambwa in 1951 reported that, “two mission schools had actually closed due to lack of food while the Luapula Leper Settlement at Kabalenge only had supplies to last them until February 1952”.¹²⁷ The shortages of cassava meal at the schools and hospitals such as Kasaba mission as well as Luapula Leper Settlement could not be attributed to the shortage of cassava in the Valley. The shortage was as a result of the failure of the stations to acquire cassava meal at good prices, which made the local people to export the meal for high prices that were obtaining across the Luapula River in the Congo as well as among fishermen at fishing camps. Thus, although cassava meal was available in the Valley, the mission stations and schools found difficulties in acquiring their supplies due to their continued adherence to low buying prices and failure to buy cassava meal on time.

The disturbances of 1953 that resulted from the resistance against the federation had affected the food situation in Luapula. It was observed that the food shortages that were being experienced in 1956 were due to the failure of many people to plant cassava during the troubles of 1953.¹²⁸ This indicates how valuable cassava was in the area and that there were consequential effects of the failure to cultivate it. In times when there was reduced cultivation of cassava, Luapula Valley had a reduced supply of food. Another incidence that threatened food security in Luapula Valley occurred in 1955. The frost of 1955 had a minimal effect on cassava in Kawambwa District.

However, there was a great increase in planting of cassava during the year particularly in the Lunda and Chishinga areas by the enforcement of orders requiring the cultivation of 600

¹²⁷ See the comments of the District commissioner on Tour Report No. 10 in N.A.Z, SEC2/878 Kawambwa Tour Report No. 10 of 1951.

¹²⁸ N.A.Z, SEC2/ Northern Province, Fort Rosebery District Tour Report No. 1 of 1956

mounds (“*mputa*”) per individual each year. In Chief Lukwesa’s area and the Lunda Native Authority there was an increase in cassava cultivation as a result of the Agricultural Order. The older men in the area pointed out that they all planted between 1000 to 1500 mounds.¹²⁹ Thus, regardless of the effect of the frost, the general food position in the District was satisfactory during the year.¹³⁰ Further, the Provincial Agricultural Officer reported that with the increased requirements for food, cassava production had increased markedly often to the detriment of the growing of leguminous crops in the Valley.¹³¹ This trend resulted from the fact that cassava had played a vital role in the provision of food for the people hence they sought to increase its production.

In 1956 the District Commissioner for Kawambwa noted after his tour of Chief Kambwali’s area that “the area entirely depended on cassava with the usual subsidiary crops, for food”.¹³² The role of cassava as a staple that the people depended on in Luapula Valley is one that was clear in the colonial period in that most areas cultivated cassava as a main crop with little other crops grown.¹³³ H. F. Schofield a Cadet who toured Chiefs Lubunda and Kashiba areas in 1960 reported that, “the subsistence agriculture of the local people in the areas did not differ from that of the rest of the Luapula Valley with cassava being the staple crop and very little maize was grown”.¹³⁴ Cassava was extensively cultivated because it was the crop that provided the people with food in Luapula Valley.

¹²⁹N.A.Z, SEC2/882 Kawambwa Tour Report No.25 of 1955.

¹³⁰N.A.Z, SEC2/115 Annual Report on African Affairs for the year 1956: Northern Province, Kawambwa District.

¹³¹N.A.Z, LP2/2/86 Department of Agriculture Northern Province Annual Report 1955, p.5.

¹³²N.A.Z, SEC2/883 Kawambwa Tour Report No.10 of 1956, See Also, N.A.Z, SEC2/884 Kawambwa Tour Report No.5 of 1957.

¹³³See for Example, N.A.Z, MAG2/5/73 Northern and Luapula Province Annual Reports 1959, p.6.

¹³⁴N.A.Z., SEC2/912, Mwense Tour Report No.1 of 1960, See also N.A.Z., SEC2/912 Mwense Tour Report No. 2 of 1960.

The production of cassava required very little labour input. Thus a production strategy based on cassava appeared to have been less dependent on male labour since it required less frequent clearing of new land, which was vital especially that male labour was not always readily available.¹³⁵ Cassava cultivation requirements and its position as an important component of the diet, and food security in the Luapula Valley enabled the households to adjust to the absence of men who worked in the Congo as labour migrants.¹³⁶

Alluding to the division of labour that existed, Poewe observed that “in the Valley men were mainly involved in fishing while women grew cassava”.¹³⁷ This helped, not only in that they had cassava as a source of food but that the men were able to bring in fish and meat, eaten together with (*ubwali*) made of cassava flour, thereby improving the diet and household food security. This does not however imply that cassava was a crop for “lazy people” as wrongly implied by Von Oppen,¹³⁸ Hence, people of the Luapula Valley were able to exploit the various endowments that the area provided as a result of the efficient division of labour which was facilitated by the cultivation of a convenient crop, cassava.

¹³⁵Henrietta L. Moore and Megan Vaughan, *Cutting Down Trees: Gender, Nutrition, and Agricultural Change in the Northern Province of Zambia, 1890-1990* (Portsmouth, NH: Heinemann, 1994), p. 87.

¹³⁶Moore and Vaughan, *Cutting Down Trees*, p.87.

¹³⁷Karla O. Poewe, “Religional and Village Economic Activities: Prosperity and Stagnation in Luapula, Zambia”, in *The African Studies Review*, Vol. XXII, No. 2 (1979), p. 6.

¹³⁸ See Achim von Oppen “Cassava ‘The Lazy Man’s Food?’ Indigenous Agricultural Innovations and Dietary Change in North-Western Zambia ca. 1650-1970”, in Lentz Carola (ed.) *Changing Food Habits: A Case Studies from Africa, South America and Europe* (Amsterdam: Harwood Academic Publishers, 1999), pp. 44-45.; See Also, N.A.Z, MAG2/5/57 Department of Agriculture Northern Province, Provincial Annual Report for 1956, in which we observed the Provincial Agricultural Officer F.J. Smart’s argument that cassava is a ‘lazy crop’ popular with the steady decline of able bodied men living agriculture is a fallacy since a crop cannot be considered lazy just on the basis of women being able to grow it successfully.

However it is worth noting that in times when men were not involved in other activities, the cultivation of cassava was for both men and women.¹³⁹ Contrary to the notion that cassava was merely a burden for the women, Gordon notes that “cassava business also provided opportunities for elite women. In Luapula, elite women had so much status and autonomy that towards the nineteenth century, the Victorian-minded missionary Dan Crawford termed them Black Suffragettes.”¹⁴⁰

The role of cassava in ensuring food security in the Luapula Valley from 1964 to 1980

During the post-colonial period up to 1980, cassava continued to be the staple crop in the Luapula Valley and was vital in ensuring food security of the area. According to Chiputa “cassava has played a very significant role in enhancing food security throughout Luapula Province and even such other provinces as Northern, North-Western and Western, being a drought resistant crop, cassava is the only food security insurance crop against hunger that often arises due to shortages of maize in the Province.”¹⁴¹ After independence, people in the valley continued to grow and depend on cassava as their staple crop. For the Lunda people of the Luapula Valley exclusive cultivation of cassava continued to be the custom even after independence.¹⁴²

Cassava was essentially the main crop that sustained the needs of the people in the Luapula Valley in terms of food requirements. In 1968, J. E. Chikoti, who was the Provincial

¹³⁹ Interview, Alfred Chabala, Chief Lukwesa’s Palace, Mwense, 25/06/2015.

¹⁴⁰ David M. Gordon, *Nachituti’s Gift: Economy, Society, And Environment in Central Africa* (Wisconsin: The University of Wisconsin Press, 2006), p. 58.

¹⁴¹ Chiputa, “Cash Crop Versus Staple Food Crops: Crop Production in Luapula Province, 1964-1988: The Case of Mansa District (Food Security or Political Maize: The Case of Luapula Province, 1964-1988)”, p. 16.

¹⁴² Ian Cunnison, “A Note on the Lunda Concept of Custom”, in Clyde Mitchell, Elizabeth Colson and Max Gluckman, *The Rhodes-Livingstone Journal Human Problems in British Central Africa*, No. XIV (Manchester: Manchester University Press, 1970), p.21.

Agricultural Officer, reported that “cassava is the staple food for the majority of the population that is being produced along the Valley for local consumption”.¹⁴³

Although the post-colonial government tried to lure people in Luapula Valley to the cultivation of maize, cassava still maintained its position as a valuable crop among the people. The report of the Provincial Agricultural Officer J. K Simakungwe in 1975 attest to this when he noted that “in spite of the developments that were taking place in Luapula Province in the cultivation of other food crops, cassava continued to enjoy the privilege of being the staple food of the province.”¹⁴⁴ Almost all the farmers were cultivating at least one garden of cassava as it was vital as a major source of food.¹⁴⁵ The farmers who cultivated maize also ensured that they had a garden of cassava so that in case the maize crop failed, they could fall back on cassava.

The shift to maize after 1964 meant that the farmers needed to acquire implements and learn specific production skills to effectively obtain high yields under the crop. The production of cassava required no specific production skills as it tolerates drought, acidity and low soil fertility. This made the crop a dependable source of food among the people of Luapula Valley. They did not need government support to produce food for their households, as was the case with maize. By cultivating cassava, people in the Luapula Valley were able to produce enough food both for consumption needs as well as for sale without the burden of the need to acquire inputs. As a result of cassava, Luapula Valley did not suffer from food shortages even when the maize

¹⁴³Republic of Zambia, Ministry of Rural Development: Department of Agriculture Luapula Province PAO’s Annual Report for 1966 to 1967, p.11.; See also Republic of Zambia, Ministry of Rural Development: Department of Agriculture Luapula Province Annual Report 1969.

¹⁴⁴Republic of Zambia, Ministry of Rural Development: Department of Agriculture Luapula Province Annual Report for 1973-1974 (Lusaka: Government Printer, 1975), p. 28.

¹⁴⁵Republic of Zambia Ministry of Rural Development: Department of Agriculture Luapula Province Annual Report for Oct, 1970 to Sept, 1971, p.7; See also G.R.Z, Ministry of Rural Development: Department of Agriculture Luapula Province Annual Report Oct, 1972- Sept, 1973, p.23.

crop failed due to inadequate government support to rural maize farmers as well as recurring droughts.

Cassava was remarkable during the post-colonial period in ensuring that food was available in the valley. In 1975, the Department of Agriculture reported that “when all other crops would fail in case of droughts, cassava being resistant to drought would still give good yields”.¹⁴⁶

Although people in Luapula Valley grew other crops, the basis for food was cassava. According to informants, without cassava, for the people of the Luapula Valley one was deemed to be in hunger and poverty.¹⁴⁷ A household was considered to be food secure based on the number of cassava fields they had and how much cassava they had. For the people in the Luapula Valley, “food was cassava and cassava was food”.¹⁴⁸

Cassava was the main staple of the Luapula Valley and without it the area would have faced food shortages and hunger in the midst of droughts and other disasters such as locust invasions. However, dependency on cassava which continued to be the main source of food, the people of Luapula Valley were shielded from experiencing famine or hunger. An informant who worked at Kabunda School from 1975 indicated that “the sisters who were running Kabunda School in Mansa used cassava meal as food for the children at the school and food security for

¹⁴⁶Ministry of Agriculture and Water Development Department of Agriculture: Luapula Province Annual report for 1974 – 1975, p. 24.

¹⁴⁷Interview, Prof. Musonda.; Interview Dr. Mwesa Mapoma.

¹⁴⁸Interview, Chief Lubunda (Mr. Kingston Mwape), Chief Lubunda’s palace, Mwense, 25/06/2015.

the school depended on the availability of cassava meal.”¹⁴⁹ Cassava thus remained an important source of food for schools in the valley even after the independence.

In 1976, the Ministry of Development Planning noted that “at the moment and for some time to come, cassava is and will remain the main staple diet of the local population.”¹⁵⁰ Cassava continued to be a valuable crop in the Luapula Valley and the sustenance of the household’s food security depended on the availability of the crop. Cassava is a crop that was able to grow well in Luapula Valley as reported in the 1976 Development Indicators Report for Luapula Province that “cassava grows well throughout the Province and it grows where other crops would normally fail”.¹⁵¹ Cassava provided people with food even in areas where other crops could not easily grow as a result of the soil or rainfall.

Thus, in 1980, the governments’ position towards cassava began to change from discouraging the cultivation of the crop. The Provincial Agricultural officer for Western Province, T. S. Mubita reported that “unlike the previous years, cassava is now encouraged in order to supplement maize as a staple and people produce a surplus for the ever increasing market”.¹⁵² The post-colonial government recognised the importance of cassava in 1980 and in 1981 the crop was for the first time since 1964 given an official price.

¹⁴⁹Interview, Modesto Mukunsa, Chanda Village Chief Chimense, Mansa Luapula, 24/06/2015. Mr. Mukunsa worked as a cook at Kabanda School from 1975 and he also worked for the administration in Mansa a cook. He provided us with valuable information on the sources of cassava meal and how it was being prepared particularly for the pupils who were in boarding.

¹⁵⁰Republic of Zambia, Ministry of Development Planning: Luapula Province Some Development Indicators (Lusaka: Government Printers, 1976), p. 80.

¹⁵¹Republic of Zambia, Ministry of Development and Planning: Luapula Province Some Development Indicators, 1976, pp. 70-72.

¹⁵²Republic of Zambia, Department of Agriculture Annual Report for October, 1980 to September, 1981 (Lusaka: Government Printer, 1981)

CONCLUSION

This chapter has demonstrated that cassava had a major impact on the diet and food security in the Luapula Valley. It has argued that as a staple food, the crop was a key component of the diet of the people in the area. Cassava provided carbohydrates from the meal and proteins from the leaves. The people of the valley were able to consume cassava as a main meal of polenta, as a snack eaten raw, roasted or boiled. Cassava leaves were also a crucial part of the diet of the people of the valley as they were extensively eaten as a relish which provided vitamins A and C as well as protein. Cassava also found itself in the diet through a non-alcoholic drink (*munkoyo*) or through alcoholic drink. The crop ensured food security in times of droughts and catastrophes such as the locust invasions of the 1930s. It has been argued in this study that Luapula Valley did not experience any food shortages as long as cassava was cultivated. Being drought resistant, high yielding and one that is not attacked by pests, cassava ensured availability of food for the people of the Luapula Valley.

The chapter has also shown that in the 1940s, cassava became a major source of food for the mining areas when maize rations could not adequately meet the demands of the mining population. The mine owners opted to acquire cassava from Luapula to supplement maize and in order to sustain the food requirement of the African mine workers.

It has further highlighted that cassava was not deficient in nutrients but was a good and cheap source of carbohydrates for the people of Luapula Valley. The argument of the nutritionists and some government officials who deemed cassava as a 'poor crop' in terms of nutrients in trying to demean its being a staple was erroneous. The argument that cassava was poisonous and dangerous crop due to the content of HCN in the bitter variety was another

misplaced conjecture. The chapter has argued that not all varieties of cassava contained the hydrocyanic acid, and through the processes of soaking and drying of the roots as well as boiling of bitter leaves, the people in the Luapula Valley were able to get rid of the cyanide from cassava and no deaths resulting from cassava consumption were reported or recorded in the area. Thus there was no justification in condemning the consumption of cassava on the basis that it could cause poisoning when the local people themselves through traditional processing techniques ensured that cassava (bitter variety) was free of the toxic cyanide.

Therefore, it has been demonstrated that cassava had a major impact on the food security and diet in the Luapula Valley. Being a high yielding crop, cassava guaranteed availability of food from a small cultivated area.

CHAPTER FOUR
THE CONTRIBUTION AND IMPORTANCE OF CASSAVA IN THE LOCAL
SUBSISTENCE ECONOMY OF LUAPULA VALLEY

Introduction:

Cassava had always been a crucial crop as a source of income for the people of the Luapula Valley. The crop was initially used in barter system by the local people to obtain other items of value. Those who had cassava were able to exchange it for fish, meat, salt or for a piece of cloth (*Umukwamba*) about two meters in length. The economic contribution and value of cassava in Luapula Valley follows the comparative advantage that the area had in the production of the crop in the territory. Cassava served as a vital component of the economic activities of the people of the Valley, it was used in the acquisition of cash within the valley as well as from outside, particularly from the Congo as well as on the Copperbelt mines where a lucrative business in the sale of the flour (cassava meal) for cash was carried out. The crop was sold in various forms mainly as cassava meal or dried cassava roots as can be seen in appendix 2 and 3.

During the colonial period from 1910 to 1964, cassava found a ready market in Congo and the Copperbelt where the mine owners used cassava meal to feed their African mineworkers particularly those who were recruited from Luapula, Northern and North-Western Provinces. There was also a ready market for cassava meal within the Luapula Valley and the entire Luapula Province. Cassava was a vital source of income for the people of the valley especially during the colonial period as government institutions, mission schools, hospitals, European traders on the western bank of the Luapula River and the recruiting companies as well as fishermen in fishing camps bought cassava meal locally in the valley. Thus, through the sale of cassava to these various buyers, the people of the Luapula Valley were able to obtain money that contributed to their subsistence economy, payment of taxes and in meeting their obligations.

The chapter argues that although during the period 1900 to 1980, cassava in the Luapula Valley was not grown as a 'commercial crop' and the governments did not attempt to promote the crop particularly in the post-colonial period, it contributed to the local subsistence economy of the people. Cassava meal as well as dried roots had a reliable market both within and outside the valley.

Further the study demonstrates that cassava from the Luapula Valley became an important export item that together with the fishing industry linked the area to Belgian Congo as well as the Copperbelt. There was an extensive export of cassava from the Luapula Valley to the Congo, Copperbelt as well as other areas such as Kasama.¹ The chapter shows that through the export of cassava meal and dried cassava roots to other areas, the crop contributed to the economy of the people in Luapula Valley and helped sustain other businesses including transport businesses that were used to transport cassava meal particularly to the Copperbelt such as in 1949.

It also highlights that cassava was essential in the local exchange system and enabled people to acquire items of value which they could not locally or individually produce. The chapter affirms the importance that cassava from the Luapula Valley had in the trade that developed with the Congo, Copperbelt mines as well as within Luapula Province.

The study further indicates that trade in cassava provided the local people with employment from which they were able to earn an income. Local people were employed as agents and porters to buy as well as carry cassava meal on behalf of recruiting companies that were established within the expanse of the Luapula Valley to Kasenga in transit to the Congo.

¹See Jeremy Gould, *Luapula: Dependence or Development?* (Lusaka: Zambia Geographical Association, 1986), p.113; See also, John A. Hellen, *Rural Economic Development in Zambia 1890-1964*(Munich: WeltForum Verlag, 1968), p. 214

This activity provided a source of cash for the local people especially those who did not go to work on the mines.

Contribution and importance of cassava to the economy of the Luapula Valley from 1900 to 1964

Cassava has always been an important crop in terms of income generation for the people of the Luapula Valley. Musambachime observed that “apart from ensuring communities with food even during dry spells, cassava was also a source of income”.² During the period 1900 to 1964, there was already a flourishing internal and export trade in cassava in the valley. Cassava meal filled in a big basket (*akamponda*) to the brim was exchanged for a cloth-arm length (*ipande*), which would then be exchanged for other items such as salt or fish.³ Gould pointed out that “...by 1906, the streams of Luapulan porters carrying Luapula cassava flour en route to the Katanga mine continued to grow”.⁴ Between 1894 and 1900, the establishment of mission centres resulted in the availability of a market for cassava. For instance, Musambachime observed that in 1894 the Plymouth Brethren Mission was established at Luanza on the western shore of Lake Mweru and Mambilima on the upper lower Luapula in 1897. In 1900 Mbereshi was set up by the by the London Missionary Society.⁵

These missions provided a market for cassava meal in the Luapula Valley. The mission stations acquired foodstuffs [cassava meal] to feed the non-local Africans they employed. Thus

²Mwelwa Musambachime, *Basic Facts on Zambia* (Bloomington, Indiana: Author House, 2005), p. 358.

³Mwelwa Musambachime, “The Agricultural History of Mweru Luapula Area up to 1940”, University of Zambia, History Staff Seminar Paper, 1974 (mimeo), p.8.

⁴Gould, *Luapula: Dependence or Development?* p.113.

⁵Mwelwa Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, PhD Thesis, University of Wisconsin, 1981, p. 81.

there was a constant demand for cassava meal and fish in particular which were either exchanged for cloth or sold for money. This provided the producers with a source of income.

Further impetus for the people to sell cassava in the valley was as a result of the introduction of a three-shilling hut tax in North-Eastern Rhodesia in 1901. From 1904, the government discontinued the paying of tax in kind [using foodstuffs, livestock or hoes] and began to demand payments in cash.⁶ Thus all those that were eligible to pay tax had either to sell agricultural produce or their labour in order to raise money for tax. This trend pushed people in the valley into selling of cassava in order to raise money for tax. Musambachime noted that “for the people living near Kalungwishi Boma and the mission stations, they were able to sell cassava; four pounds (lbs) of cassava meal sold for a penny”.⁷ This meant that for one to raise tax money, they had to sell between 108 and 144 pounds of cassava meal as the price of the commodity was low. However, this created a market for cassava in the area and people were able to obtain money to pay tax. Cassava was a vital crop as it facilitated the economic activities in the Luapula Valley. It was observed in 1938 that “on the issue of native tax, a large proportion of the local people obtained their tax money mainly by the sale of the produce [cassava meal and fish]”.⁸

In 1914 and 1915, 38pounds (lbs) and 36 pounds of cassava flour was being sold at one Shilling in Chiengi and Kawambwa respectively.⁹ Therefore by 1915, cassava had a price in Chiengi as well as Kawambwa indicating that the commodity was being traded hence was a new source of income for the producers.

⁶Musambachime, “The Agricultural History of Mweru Luapula Area up to 1940”, p. 8.

⁷Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, p.82.

⁸N.A.Z, SEC2/889 Northern Province, Fort Rosebery Tour Report No.1 of 1938.

⁹N.A.Z, ZA7/1/2/8 Mweru-Luapula Province, Chiengi Sub-District Annual Report for 1914, p.9.

In 1923 it was reported that during the 1922 and 1923 season, the Boma had purchased 95,000 lbs of food (cassava meal) from the local people at a price of 1/2d per lb. In addition, the African Lakes Corporation (A.L.C) which had been in operation in the Luapula Valley provided a ready market for cassava. Messrs Robert William & Co bought cassava meal from Fort Rosebery on behalf of A.L.C at a contract price of 2d per lb. The good prices of cassava meal that prevailed enabled the A.L.C and Messrs Robert Williams & Co to make large profits.¹⁰ There was an export of enormous quantities of cassava meal from the Luapula Valley to the Congo which in return enabled the people of the valley who sold the surplus of their produce [cassava meal] to obtain cash.

Besides, Gould noted that “the opening up of copper mines a couple of kilometres to the west of Luapula River in Katanga region of what was then the Belgian Congo was of crucial importance. To feed miners, Tanganyika Concessions (TCL) opened up food purchasing in the Luapula Valley area.”¹¹ According to Musambachime:

From 1904, the TCL, using cloth as the unit of exchange began to tap the heavily populated and agriculturally productive area of Mweru-Luapula for labour and foodstuffs. The foodstuffs consisting largely of cassava were transported by porters to Kambove in Congo for storage and later distribution to the African workers.¹² In order to ensure a continuous flow of foodstuffs, the TCL opened up food buying depots in Mweru-Luapula. The first depot was opened under Hayes as an agent who was however quickly replaced by Donald McDonald who was locally known as *Mandona* (local corruption of the name McDonald). The depot was opened at Chikobi’s Village on the middle Luapula River. The depot created a heavy demand for foodstuffs which could not be met by the local supply as it had to feed hundreds of porters and recruited workers returning and going to Kambove.¹³

¹⁰N.A.Z, ZA7/1/6/8 Mweru-Luapula District, Fort Rosebery Sub-District Annual Report for, 1923, p.2.

¹¹ Gould, *Luapula: Dependence or Development?* pp. 112-113.

¹²Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, p. 85.

¹³Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, p.86.

Thus the development of the Katanga mines created an early market for foodstuffs [cassava] and labour which completely revolutionized the indigenous economy in large stretches of the Luapula Valley.

It is worth noting here that the development of the fishing industry lubricated the trade in cassava meal and dried cassava roots as itinerant European fish traders combined the buying of fish with cassava meal as well as dried cassava roots.¹⁴ This led to the opening up of trading centres at Mambilima, Kasenga, Chibambo, Katabulwe opposite Chief Lukwesa's village, Kabimbi, Chisenga Island, Nkole Island, Kafulwe, Puta and at Mpweto on the north of Luapula Valley.¹⁵ Cassava from the other buying points was transferred to Lorries at Kasenga from where it was transported together with fish to Elisabethville, Jadotville, Shinkolobwe and other towns in the Congo to feed the African mineworkers.¹⁶ Hence the need to acquire fish for the Congo mines led to a boost in the acquisition of cassava from the Valley. The fishermen also needed cassava meal to sustain their food requirements in the fishing camps. Thus, apart from the fish traders, they also provided a ready market for cassava. Consequently the fishing industry lubricated the trade in cassava and the two contributed to the economy and development of the Luapula Valley.¹⁷

¹⁴ See for example, Musambachime, "The Agricultural History of Mweru-Luapula Area up to 1940", p. 12. ; The trade in fish went side by side with trade in cassava meal. While fish provided the relish, cassava meal was needed for the mush (*ubwali*) and so the traders had to acquire the meal of cassava particularly for their African workers. See also this argument in Musambachime, "Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964", p. 65.

¹⁵ During interviews, informants provided us with information on the centers that had developed in the valley where cassava was being bought together with fish; Interview, Chief Lubunda (Mr. Kingston Mwape), Chief Lubunda's palace, Mwense, 25/06/2015; Interview Prof. Moses Musonda, Zambia Open University, Lusaka, 11/03/2015.

¹⁶ Musambachime, "The Agricultural History of Mweru Luapula Area up to 1940", p.10.

¹⁷ See for example, Musambachime, "Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964", p. 113.

According to the 1925 annual report, “the government being the greatest purchaser of food-stuffs from the local people in Fort Rosebery purchased during the year an amount of 99,792 lbs of cassava meal at $\frac{1}{2}$ d per lb. This quantity did not include the meal purchased by Robert Williams & Co which was the second largest local purchaser in the area”.¹⁸

In 1927 some 500 tons of meal grown in Kawambwa sub-district were reported to have been sold to traders on the Congo Border.¹⁹ In the same year 1927, it was reported that 59.5 tons of cassava meal were purchased by the Boma from the local people in Fort Rosebery while 10 tons were purchased by Mr Clarke²⁰ who was a trader at Kapalala, and approximately 40 tons were purchased by R.W. Yule a recruiting company; with many other consistent buyers that bought cassava meal in the sub-district.²¹ The report further indicated that in 1927, about 500 tons of cassava flour valued at £600 [K1200 then], were sold by the local people to traders who were exporting it to the Congo.²²

The quantities of cassava sold in 1925 and 1927 are indicative of how lucrative the trade in this crop had become in Luapula and clearly suggest the economic benefit that accrued to the people from the sale of such quantities of cassava.

In 1929, just as during the previous years, large quantities of meal made from cassava grown in Luapula Valley in the Kawambwa District were exported to the Belgian Congo. The price of cassava meal still remained $\frac{1}{2}$ d at both Fort Rosebery and Chiengi while at Kawambwa

¹⁸N.A.Z, ZA7/1/8/7 Mweru-Luapula District, Fort Rosebery Sub-District Annual Report for 1925, p.25.

¹⁹N.A.Z, ZA7/1/11/8 Mweru-Luapula District, Annual Report, 1927.

²⁰He was a trader who had opened up a fish depot (buying point) at Kapalala.

²¹N.A.Z, ZA7/1/11/8 Mweru-Luapula District, Fort Rosebery Sub-District Annual Report for 1927.

²² See ZA7/1/11/8 Mweru-Luapula District Annual Report 1927.

the local price for the commodity was ranged between 1d [One ngwee] for 1 lb to 1d for 3 lbs.²³ Thus the sale of cassava in Kawambwa District where the price was higher, enabled the people in that part of the Valley to make more cash as compared to cassava sold in Fort Rosebery and Chiengi. However, the producers in all these areas were able to earn an income out of the sale of cassava especially with exports to the Congo. This trend resulted in Mbereshi Mission, for instance, experiencing difficulties in acquiring adequate foodstuffs in 1929 even though there was plenty of cassava meal available for sale in the Luapula Valley.²⁴

Due to the effects of the depression that the territory suffered from, the price of cassava in the valley remained very low. In 1930, the price of cassava meal in Fort Rosebery and Chiengi remained at ½d per lb. It should be noted here that due to the effects of the Great Depression, there was lack of willingness on the side of missionaries and the government to accept an increase in the prices of cassava meal. Thus in 1932, the price of cassava meal in Kawambwa dropped nearly by 100 percent from 1d per lb to ½d per lb and remained the same until 1933,²⁵ while in Fort Rosebery and Chiengi the price continued to be ½d per lb.²⁶ However, the reluctance particularly by missionaries and individual traders to admit the necessity for an increase in the prices of cassava meal did not stop the sells rather it resulted in the producers in the Luapula Valley choosing to sell their cassava at higher prices to the fishermen in fishing camps as well as to traders from the Congo.

²³See for example N.A.Z, ZA7/1/12/8 Mweru-luapula Province Annual Report 1929.see also N.A.Z, ZA7/1/12/8 Mweru-Luapula, Kawambwa Sub-District Annual Report for 1929.

²⁴N.A.Z, ZA7/1/12/8 Kawambwa District Annual Report for 1929.

²⁵N.A.Z, ZA7/1/16/5 Awemba Mweru-Luapula and Tanganyika Province, Kawambwa District Annual Report 1933.

²⁶N.A.Z, ZA7/1/15/8 Mweru-Luapula Province, Fort Rosebery and Kawambwa District Annual Report 1932.

There was intense competition for foodstuffs between the recruiting companies, the administration, the missionaries, fish traders as well as the fishermen.²⁷ The recruiting companies and fishermen got most of the foodstuffs as they offered higher prices coupled with the large field staff that the recruiting companies engaged to buy cassava meal. Using coercive measures and working through chiefs, the administration was also able to get their needed supplies while the missionaries found it difficult to get foodstuffs (cassava meal) for the boarding schools.²⁸

However, the situation with the local missions such as Mbereshi and Kabunda changed in 1930 as was observed by J.B. Thomson the District commissioner for Kawambwa that, "...local missions, having now been forced by circumstances to pay economic prices, appear to be obtaining adequate supplies of food [cassava meal]".²⁹

It is worth noting that there was a ready local market of cassava meal within the Luapula Valley. For instance it was reported that the Luapula Leprosy Settlement at Kabalenge had an annual requirement of 200 tons of foodstuffs which provided an adequate local market for the produces [mainly cassava].³⁰ This high demand for cassava particularly by the mission centres, whose activities depended on the availability of foodstuffs, was indicative of the contribution that cassava was making to the economy of the area.

There was extensive unrecorded trade in cassava with the Congo particularly with Katanga where mining companies sought to buy cassava to feed their African workers. In 1930, the Provincial Commissioner reported that "at certain points adjacent to the road system in the

²⁷ See for Example, Musambachime, "Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964", p.97.

²⁸ Musambachime, "Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964", p.97.

²⁹ N.A.Z, ZA7/1/13/8 Mweru-Luapula Province Kawambwa District Annual Report 1930.

³⁰ NAZ, LP2/2/82, Department of Agricultural Kawambwa District Annual Report for 1959-1960.

Belgian Congo quantities of cassava meal are sold to traders for export to the larger centres where there is a constant demand for this class of local food”.³¹ It was further reported that there was a fairly brisk trade in the sale of cassava meal locally to cover the needs of government stations, missions and labour recruiting posts.³² J.B. Thomson observed that although the local people cultivated cassava for domestic use, there was a large amount of manioc which was grown for sale in the valley and considerable quantities of the meal were exported to the Belgian Congo.³³

From the Luapula Valley, individual traders would take cassava meal as well as dried cassava roots to Kasenga in Belgian Congo. Trade in cassava at Kasenga was lucrative as compared to the sale of cassava meal within the Valley at the government buying stations where it obtained a low price. The mines in the Belgian Congo which employed thousands of workers from Luapula became vital in providing the market for cassava meal which served as food for the workers who were already accustomed to the meal.

Labour recruiting companies such as the Tanganyika Concessions were also vital in providing a market for cassava in the valley. The companies depended on African workers coming from such areas as the Luapula Valley where they were already accustomed to cassava meal. Hence for the mining companies to feed them, they had to buy cassava meal which was readily available in the valley thereby creating a market for the produce. Gould noted that “there was influx of cassava meal that was being taken to the Congo for sale. As a result, alongside the

³¹N.A.Z, SEC2/1282 Mweru-Luapula Province Annual Report 1930.

³²N.A.Z, ZA7/1/13/8 Mweru-Luapula Province Annual Report 1930.

³³N.A.Z, ZA7/1/13/8 Kawambwa District Annual Reports 1930.

officially condoned traffic of labour, a parallel commerce in foodstuffs across the Luapula into Katanga Province of Congo also flourished.”³⁴

In 1931 the DC for Kawambwa observed that in the Luapula Valley there was a considerable surplus of food [cassava meal] most of which was sold in the Belgian Congo.³⁵ He further noted that the administrator at Kasenga had informed him during his visit that a regular weekly market was held there and that practically all the produce [cassava] exposed for sale was bought from the territory.³⁶

In 1932, in order to promote the local production of cassava and other goods in the Congo, the Belgian Congo Authorities imposed import duties on all foodstuffs and this did much to arrest what had become a lucrative business for the people of the valley. Northern Rhodesian natives crossing the border with cassava were made to pay duties.³⁷ This however did not stop the export of cassava meal to the Congo which was a vital market for this product from the Luapula Valley as the mines there needed the commodity to sustain their African mineworkers particularly those recruited from Luapula. The sale of cassava also continued within the valley. For instance, F.R.G. Phillips who was now the District Officer for Kawambwa reported of an exchange of fish and cassava that took place between the area of Munkombwe in Kalungwishi and Mununga. The people of Munkombwe who were focused on fishing bought their food [cassava meal] from Mununga in Chiengi District. As evidenced above, a ready local market for cassava still existed even during the depression era.

³⁴Gould, *Luapula: Dependence or Development?* p. 47.

³⁵N.A.Z, ZA7/4/26 Mweru-Luapula Province Kawambwa Tour Report 1931.

³⁶N.A.Z, ZA7/4/26 Mweru-Luapula Province Kawambwa Tour Report 1931.

³⁷ N.A.Z, ZA7/1/15/8 Mweru-Luapula Province Annual Report 1932, p. 2.

In 1935, it was observed that cassava meal from Fort Rosebery could be exported to the great benefit of the district if it were not for the distance to Ndola by road and for the Belgian restriction. However, the African Lakes Corporation just as in the previous year was able to export 21,945 lbs of cassava meal by Lorries which returned empty indicating that all the cassava meal had been sold.³⁸ Table 1 shows the amount of cassava meal sold to European buyers in relation to other crops.

TABLE 1: DETAILS RELATING TO THE SALE OF AGRICULTURAL PRODUCE TO EUROPEAN BUYERS IN 1937

COMMODITY	QUANTITY IN TONS	VALUE			APPROX. AVERAGE PRICE PER POUND (lb) IN PENCE
		£	s.	d.	
Cassava Meal	72	201	3	0	.30
Groundnuts	25	174	11	3	.76
BEANS	1¼	11	11	0	1.00
Grain & Rice	7	39	19	0	.61

Source: N.A.Z, SEC2/1302 Northern Province: Fort Rosebery Annual Report on Native Affairs 1937, p. 10

It is apparent from the table that more tons of cassava meal were sold, and although the price for cassava was the lowest, more money amounting to £201.3.0 was obtained from cassava than from the other crops, suggesting that cassava was a major contributor to the economy of the people in the area.

³⁸N.A.Z, SEC2/1302 Northern Province Fort Rosebery District Annual Report on Native Affairs 1935.

Cassava was also given as church offering by the local people in times when money was difficult to come by. Between 1932 and 1936, people at Kabunda were urged to give their contributions ‘Peter’s (*sic*) pence’ to the coffers of the church (*mutulo wa kwa Papa(sic)*) using cassava meal especially that the Depression had led to the scarcity of money. The White Fathers at Kabunda noted that “since there was scarcity of coins and yet no shortage of cassava meal during the year due to the good crop in 1932 to 1933, people were encouraged to give the flour which they had in plenty since the fathers always managed to sell the flour”.³⁹ Thus cassava served an economic purpose even in church as people were called upon to give cassava meal as church offertory which was later sold for cash.

Trapnell observed that the imports of cassava meal from the Luapula Valley to Fort Rosebery increased considerably since 1937, amounting to some 970 tons in 1938 meant for re-importation into the Copperbelt especially after the removal of restrictions on the transit of meal and fish through the Congo Pedicle road in 1936.⁴⁰ Cassava had found a ready market on the Copperbelt.

Trade in cassava from the valley to the Copperbelt had existed prior to the Second World War period as individual traders took advantage of the presence of African miners [already used to eating polenta made of cassava meal] from Luapula on the Copperbelt.⁴¹ During the Second World War period there was however increased trade in cassava with the Copperbelt. During the

³⁹FENZA, 2C Kabunda St. Stephen Mission Volume 1, 1932-1938 Translated and edited by Fr. Maurice C.J. Gruffat.

⁴⁰C. G. Trapnell, *The Soil, Vegetation and Traditional Agriculture Systems of Zambia Vol. II North-Eastern Zambia: Report of the Ecological Survey* (Bristol: Redcliffe Press Ltd, 1996), p. 123.

⁴¹The workers that came from areas such as Luapula, Northern and North Western Provinces were used to eating cassava meal and so even on the Copperbelt they found the meal palatable, for the men a snack of roasted cassava with groundnut was enjoyed on the Copperbelt. Dr. Mwensa Mapoma and Prof. Moses Musonda our informants were firm in indicating to us that when relatives from Luapula Valley visited the Copperbelt they usually felt at home when served with a meal of cassava.

period, cassava found a flourishing market on the Copperbelt mines as mining companies reduced on the maize rations they were giving to Africans and substituted it with cassava meal rations. Cassava assumed an unprecedented commercial value during the war period as it was often used to supplement the maize diet after maize production appeared to be threatened by drought as in 1942.⁴² Cassava meal was imported from Luapula into the Copperbelt mines to feed the African mine workers. Luapula Province became an important supplier of cassava to the Copperbelt especially during the period of the Second World War (1939-1945), when a shortage of foodstuffs was experienced on the Copperbelt mines.

In order to facilitate the export of 10,000 bags of cassava annually from Luapula to the Copperbelt, in 1942 a water channel on Lake Bangweulu was started and completed in 1944.⁴³ Thus between 1944 and 1960, about 160,000 bags of cassava meal from Luapula were exported since 10,000 bags were exported annually.⁴⁴ This shows that cassava from Luapula found a ready market in the mining areas of the Copperbelt and in return provided a source of income for the people. This is yet another clear indication of the contribution cassava made to the national economy and how important the crop was in the economy of the people of Luapula.

The mining companies provided food rations to thousands of African mineworkers as part of compensation. During the boom economy of the late 1940s and early 1950s there was a sudden increased demand for foodstuffs on the mines which the European farmers could not meet. The mine owners, in desperation, sent out trucks to scour the country for surplus food to

⁴² Samuel N. Chipungu, *The State, Technology and Peasant Differentiation in Zambia: A Case Study of the Southern Province, 1930-1986* (Lusaka: Historical Association of Zambia), p.62.

⁴³ Hellen, *Rural Economic Development in Zambia 1890-1964*, p. 214.

⁴⁴ Kajoba, *Food Crisis in Zambia*, 34.

feed their African workers. Cassava from Luapula Valley was able to find itself on the Copperbelt. The cash from the sale of cassava gave a great boost to the local economy.⁴⁵

Greek fish traders were also crucial as a source of market for cassava meal in the Luapula Valley as they bought cassava meal to replenish their food stocks but also took advantage of the lucrative market for cassava meal particularly in the Congo mines.⁴⁶In 1940, there was a flourishing market at Chipepa Village where fish was traded for cassava and other agricultural produce.⁴⁷

Commenting on the need to find sources of food for the development programme of Fort Rosebery in case of insufficiency locally, G. Howe, the Provincial Commissioner noted that “in the event of local food supplies proving insufficient when the development program gets under way, it should be possible to import up to about 6,000 bags of cassava meal annually into Fort Rosebery District from the lower Luapula Valley area of the Kawambwa district...”⁴⁸ The internal trade in cassava meal from the lower Luapula Valley to Fort Rosebery proved to be a vital source of income. There was adequate surplus of cassava meal in the lower Luapula Valley ready for sale.

It was reported that the people of Chief Kambwali's area had made demands for an increase in the controlled price of cassava from the existing rate of 1/-6 a debbie to 3/- a debbie and that their attitude clearly indicated that unless the request was acceded to, there would be

⁴⁵James Anthony Pritchett, *The Lunda Ndembu: Style, Change and Social Transformation in South Central Africa* (Wisconsin: The University of Wisconsin Press, 2001), p. 59.

⁴⁶Interview, Prof. Moses Musonda.

⁴⁷N.A.Z, SEC2/874 Kawambwa Tour Report No.3 of 1940.

⁴⁸N.A.Z, SEC2/891 Mansa (Fort Rosebery) Tour Report No.9 of 1947 Comments by Provincial Commissioner.

little hope of them co-operating on the matter.⁴⁹ This implied reduced supply to the government agencies since they offered low prices. E. C. Thomson the DC for Kawambwa, reported after his tour of the whole Lunda area that considerable quantities of cassava meal were being sold to the Congo. In as much as exporting without a permit was realised to have been unlawful, the Congo offered a lucrative market of four pence more than the local controlled prices and so the people resorted to exporting their cassava meal to the Congo.⁵⁰

The colonial administration did not hinder the local people from participating in the cassava trade with the Congo which mainly took place through Kasenga.⁵¹ There existed a cordial relationship between the Congo towns of Elizabethville (Lubumbashi) and the people of the Luapula Valley such that the currency of the valley was in most cases the Belgian Congo francs. In 1948 it was noted in the African Affairs report that, "...cassava was not only a valuable insurance against famine in years of poor rainfall but was a most useful cash crop".⁵² This evidence clearly indicates how important cassava was as a source of income in the Luapula Valley.

In 1948, the DC for Kawambwa observed that although it was not hopeful of purchasing much cassava meal since the buying of the meal had started after the rains had set in, after visiting most of the buying depots, he found that 600 bags had been bought in five weeks. This was far more than was expected to be bought during the rains and with an assured market the quantity of surplus available could increase to over 10,000 bags.⁵³ In addition, S.A. Symon, a cadet who toured Chief Kashiba's area reported that, "...there is an over-abundance of

⁴⁹N.A.Z, SEC2/874 Kawambwa Tour Report No.5 of 1947.

⁵⁰N.A.Z, SEC2/874 Kawambwa Tour Report No.3 of 1947.

⁵¹Interview, Prof. Moses Musonda; Interview, Chief Kashiba's Advisors Mr Idan Ngosa and Mr. Musonda Shichipili, Kashiba's Palace, 25/06/2015.

⁵²NRG, African Affairs Annual Report for the year 1948 (Lusaka: Government Printer, 1949), p.20.

⁵³N.A.Z, SEC2/875 Kawambwa Tour Report No. 5 of 1948.

subsistence at Kasenga, where I noticed the more enterprising females selling cassava and relish already cooked to travellers on the main road into Kasenga”.⁵⁴

Chief Lukwesa’s area had a surplus of cassava and quite a lot of the flour was being sold to the crews of Greek fishing vessels which were proceeding to Lake Mweru incidentally carrying a considerable number of African passengers. There was a port of call about a mile north of Kawama Mission where cassava meal was being sold”.⁵⁵ He further noted that cassava had stood up to the drought conditions of 1946-49 and there was a large surplus of cassava at that time which was being sold in the Congo.⁵⁶ The crop found a ready market and provided cash for the producers.

The people of the Luapula Valley grew surplus cassava for profit. The people in the valley used to sell enormous quantities of cassava meal to the Public Works Department (P.W.D) which used to employ large numbers of men on road construction works while Chipili Mission Station also provided a ready market for cassava meal and other agricultural produces.⁵⁷ In 1949, J.H.C Edmonds a Cadet reported

There is more than adequate supply and continuous requests made for the opening of more government buying stations. The weekly P.W.D convoy from Kasama would stop at Fort Rosebery to collect any cassava; consequently food that was bought at Chengo was at the Farmers Co-operative Society in Ndola within a few days of being bought.⁵⁸

⁵⁴N.A.Z, SEC2/875 Kawambwa Tour Report No.3 of 1948.

⁵⁵N.A.Z, SEC2/876 Kawambwa Tour Report No.4 of 1949.

⁵⁶N.A.Z, SEC2/876 Kawambwa Tour Report No.3 of 1949; See Also, Bennett Siamwiza, “A History of Famine in Zambia, c. 1825-1949”, PhD Thesis, University of Cambridge, 1998, p. 344.

⁵⁷N.A.Z, SEC2/874 Kawambwa Tour Report No.4 of 1947.

⁵⁸NAZ, SEC2/894 Mansa Tour Report No.9 of 1949, See Also N.A.Z, SEC2/894 Mansa Tour Report No. 7 of 1949.

The wide employment of workers locally by the P.W.D for road construction made the government to start buying large quantities of cassava meal as rations.⁵⁹ A number of African middlemen began to operate in the pedicle and bought cassava meal from villagers to resell to the government.⁶⁰

The excess cassava in Chief Chisunka's area was being bought at the buying stations established at Songamali as well as at Chengo on the Fort Rosebery-Kawambwa and Johnston Falls roads respectively. By September of 1950, two hundred bags of cassava had been bought at each of the stations with an estimate of a hundred more bags that were to be bought from each station before the buying season closed in October thus giving a total of 600 bags of surplus food from the area.⁶¹ Table 2 shows the number of bags of cassava that were bought in Chiefs Mibenge and Mabumba of Fort Rosebery in 1950 at the five buying depots that were in the area.

⁵⁹Turner and Turner, E.L.B Turner and V.W. Turner, "Money Economy among the Mwinilunga Ndembu: A Study of Some Individual Cash Budgets", in Clyde Mitchell, Elizabeth Colson and Max Gluckman (Eds.), *The Rhodes-Livingstone Journal (Human Problems in British central Africa)*. No. XVIII (Manchester: University of Manchester Press, 1970), p. 22.

⁶⁰Turner and Turner, "Money Economy among the Mwinilunga Ndembu", p. 23.

⁶¹N.A.Z., SEC2/895 Mansa Tour Report No.9 of 1950.

Table 2: APPROXIMATE CASSAVA BOUGHT BY GOVERNMENT IN CHIEF MABUMBA AND MIBENGE OF FORT ROSEBERY IN 1950

BUYING STATION	CHIEFDOM	QUANTITY (Bags)
Chipanta	Mabumba	140 bags
Monga	Mabumba	120 bags
Chanda	Mibenge	170 bags
Kabalika	Mibenge	140 bags
Mibenge	Mibenge	320 bags
	TOTAL	890 bags

Source: N.A.Z, SEC2/895 Mansa Tour Report No. 7 of 1950⁶²

The table clearly shows that there was a good supply of cassava in the area. As shown, the two chiefdoms supplied close to a 1000 bags to government agencies even though the local people did not supply much of their cassava to the government due to low prices it offered. It should be noted that the quantities presented in the table did not include sales to individual buyers and recruiting companies, implying that more cassava was sold in the area.

There was also extensive trade in dried cassava roots within Luapula Valley. In 1951 an amount of 780 tons of dried cassava roots, were bought, mostly in Fort Rosebery and Kawambwa areas.⁶³ Apart from meeting their own consumption needs, the local people found a

⁶²The quantities only show the estimates bought up to July, 1950 before the closing of the buying season in October of that year and therefore it is possible that more bags were bought at the stations. The estimates also do not show the cassava that was not sold to the buying depots suggesting that more cassava may have been sold in the two areas.

⁶³ N.R.G, Department of Agriculture Correspondence, Letter from Acting Chief Agricultural Officer Provincial Headquarters Kasama to Director of Agriculture, Lusaka 8th March 1962.

ready and consistent market for cassava among the fishermen, particularly those who come from other Districts. Much of the cassava was bartered for fish; the rest is sold at high prices.⁶⁴

In 1952, the buying stations in Chief Mibenge's area were able to produce 368 and 423 bags of cassava from Chama and Ndoba respectively which were purchased by the Bangweulu Marketing Union.⁶⁵ The figures indicate that cassava was able to earn the people income in the area. In Chiefs Katuta and Kashiba's area there were large amounts of cassava that were being purchased by both Johnston Falls Mission and the Cooperative; at the time of the tour there were 160 bags that were waiting at Lubebe.⁶⁶

The price that the government offered (1/9 per debbie) for cassava meal was not attractive to the producers. This led the local people in reducing the supply to government agencies. In 1953, it was observed that the price that was being offered for cassava was a source of complaints throughout the valley. The local people knew that the price was higher just over the border in Luwingu District and those who were returning from the Copperbelt were willing to pay more and that cassava had a high price of 33/3d per bag upon being transported to the Copperbelt to be sold.⁶⁷

In the same year, it was reported that the Chiefs had been standing out for higher prices for cassava meal and refused to let their people sell until higher prices were obtained. The people especially in Chief Mwewa's area were unanimous in their refusal to sell their cassava meal at 1/9 per debbie.⁶⁸ The low government prices for cassava which was considered as the second

⁶⁴N.A.Z, SEC2/878 Kawambwa Tour Report No.9 of 1951.

⁶⁵N.A.Z., SEC2/898 Mansa (Fort rosebery) Tour Report No. 14 of 1952.

⁶⁶N.A.Z, SEC2/879 Kawambwa Tour Report No. 6 of 1952.

⁶⁷N.A.Z, SEC2/900 Mansa (Fort Rosebery) Tour Report No.10 of 1953.

⁶⁸ N.A.Z, SEC2/900 Mansa (Fort Rosebery) Tour Report No.8 of 1953; See also, N.A.Z, SEC2/900 Fort Rosebery Tour Report No. 15 for 1953.

major source of income to fish in the area, led to a gradual reduction in cassava meal that was sold to Kawambwa Marketing Union and other government agencies. Table 3 shows the amount of cassava that was sold to the Kawambwa Marketing Union between 1953 and 1957.

Table 3: CASSAVA MEAL PURCHASED BY THE KAWAMBWA MARKETING UNION
1953-1957

Product	1953	1954	1955	1956	1957	Price at 18/- per bag.
Cassava Meal	571 bags	427 bags	315 bags	90 bags	8 bags	

Source: N.A.Z, LP2/2/82, Department of Agriculture, Kawambwa District Annual Report for 1957/58

It is clear from the above table that the amount of cassava meal that was purchased by the marketing union between 1953 and 1957 gradually declined. However as already pointed out in this chapter, the reduction did not imply that there was less cassava being sold rather it shows the resistance by the local people to sell their cassava at low official prices. Consequently, people resorted to selling their cassava meal to fishermen, bus passengers or to the Congo where they sold it at higher and profitable prices.

There was also a drastic reduction in the purchase of cassava by the government agencies at Fort Rosebery between the years 1951 and 1954 as shown in table 3. For instance in 1953, only an amount of 150 tons of cassava meal were purchased in Fort Rosebery District by the Co-operative Marketing Union for local distribution.⁶⁹ The prices that the government was offering for cassava meal remained the same from 1954 to 1957 and were not attractive to the farmers. The chiefs played a role by stopping their subjects from supplying the government especially between 1953 and 1954 when there was dissatisfaction over the federation. However, it should

⁶⁹N.R.G, Department of Agriculture Annual Report for the year 1953 (Lusaka: Government Printer, 1954), p. 10, para.27

be noted here that the reduction as shown in table 4 does not reflect the total quantity of cassava sold in the area as there were other buyers such as the fishermen, bus passengers and mission stations apart from government agencies. This implies that contrary to the tons shown in the table, more cassava was sold outside the official government system.

TABLE 4: REDUCTION IN QUANTITY OF CASSAVA PURCHASED BY GOVERNMENT AGENCIES AT FORT ROSEBERY 1951-1954

YEAR	QUANTITY
1951	782.5 tons
1952	683 tons
1953	150 tons
1954	34.5 tons

Source: N.A.Z, MAG2/17/73 Ministry of Agriculture Northern Province Annual Report 1954

Furthermore, it was reported in 1955 that there was continued reduction in the amount of cassava that was offered for sale to government marketing agencies, although the cause was not agricultural but economic in that the Marketing Union offered low prices.⁷⁰ In 1955, only 278 bags of cassava meal were exported from Fort Rosebery through the official government channels.⁷¹ According to the African Affairs report of 1955, “Fort Rosebery’s usual export surplus reduced due to the demand at high prices on the Islands of Bangweulu and the local producers near the main roads found no difficulties in disposing of their produce to traders and

⁷⁰N.A.Z, LP2/2/83 Northern Province Fort Rosebery Annual Report on African Affairs for 1955, p. 14.

⁷¹See N.A.Z, NP2/2/83 Fort Rosebery Annual Report on African Affairs for the year 1955, p.14.

bus passengers at a price above the official price of the government marketing agencies”.⁷² The sale of cassava to bus passengers and fishermen yielded high profit, consequently the people continued to earn income from the trade in cassava.

Cassava had an economic value in Luapula Valley. It was sold to foreign fishermen who need it for consumption especially in Chief Kambwali’s area.⁷³ People in the fishing areas were quite content to purchase food (cassava meal) at supra-economic prices causing local markets to become inflated such that a price of 36/- per bag of cassava was obtainable among the fishing communities of Lake Bangweulu while barter of fish for food was also very common.⁷⁴ This evidence of the high price for cassava shows that huge profits were made out of the sell of cassava.

Prices offered by government in 1956 were similar to those of the previous year and were not attractive to the producers who were able to dispose of their produce at a much higher price due to the large demand from the rich fishermen and fish traders.⁷⁵ Cassava continued to offer a good source of income for the producers in Luapula Valley. C.G.C Rawlins who was the DC for Kawambwa observed that:

Cassava serves not only for the subsistence of the inhabitants, but it is providing those who do not fish, such as the women, with good business at the fishing-camps, where both fishermen and traders, generally flush with money, pay high prices. It is common for as much as 7/6d a debbie to be paid for cassava meal, as against the “official” Native Authority price of 2/6d.⁷⁶

⁷² See for Example, N.A.Z, LP2/2/83 Northern Province Fort Rosebery Annual Report on African Affairs, 1955, p.14.

⁷³ N.A.Z, SEC2/882 Kawambwa Tour Report No.10 of 1955.

⁷⁴ See N.A.Z, NP2/2/83 Northern Province Fort Rosebery Annual Report on African Affairs 1955, p.14.

⁷⁵ N.A.Z, LP2/2/85 Northern Province Fort Rosebery Annual Report on African Affairs 1956, p.13.

⁷⁶ N.A.Z, SEC2/883 Kawambwa Tour Reports No.10 of 1956.

Persistent shortages on account of reluctance by local traders to sell cassava at low prices compelled government to consider increasing the price of the commodity. The government also decided to increase the storage accommodation at Fort Rosebery.⁷⁷

In 1957, it was noted that the marketing departments bought little of the disposable cassava surplus, as the price of 3/- per debbie was considered too low by the producers.⁷⁸ In Kawambwa District, there were considerable sales mainly from Chief Mwenda's and Chief Mutipula's area to bus passengers and fish Lorries proceeding to the Copperbelt.⁷⁹ In that year the Director of Co-operatives and African Marketing reported that Fort Rosebery alone was able to export 92 tons of cassava meal to other parts of Northern Province.⁸⁰

The prices with the Luapula fishermen ranged from 4/- to 10/- and alternatively, cassava meal was bartered for fish on a debbie for debbie basis.⁸¹ The trade with fishermen accrued profits to the cassava producer than when sold at government prices to government institutions. Table 5 (see appendix 2) shows the amount of cassava sold to other buyers apart from the government agencies. It is apparent from the table that although the purchases of cassava by the government agencies tended to reduce from time to time, there was more cassava being sold directly from producer to consumers among them; bus passengers and fishermen.

In 1958, C.W. Lynn, the Director of Agriculture noted that "cassava has a special value as a famine reserve, and when alternative foods are not available there is a considerable trade in

⁷⁷N.A.Z, LP2/2/85 Northern Province Fort Rosebery Annual Report on African Affairs 1956, p.13.

⁷⁸N.A.Z, LP2/2/82 Department of Agriculture Kawambwa District Annual Report 1957, p. 5.

⁷⁹N.A.Z, LP2/2/82 Kawambwa Agriculture Annual Report for 1957, p. 5. ; See also SEC2/115 Northern Province: Kawambwa District Annual Report on African Affairs 1956, p. 7.

⁸⁰N.A.Z, MAG1/18/1 Reports on Crop Prospects Northern Province 1957, p.3.

⁸¹ N.A.Z, LP2/2/82 Agriculture Annual Report 1957, p. 5.

cassava meal".⁸² During the year, available statistics show that Fort Rosebery sold 728 bags of cassava at a value of £543, indicating the role that cassava played in contributing to the economy of the people in the area.⁸³

Apart from cassava that was sold from the Luapula Valley, the crop also had economic value even in other parts of the territory such as Barotseland and North-Western Province. In the same year, Balovale and Kabompo districts produced a surplus of 20,000 bags of cassava meal, of which a large proportion was exported to Mongu by river where it was sold for £3 to £4 per bag of 180 lb.⁸⁴ The exports of cassava meal from Balovale to Barotseland amounted to 700 tons and 300 tons from Kabompo, indicating that there was extensive trade in cassava meal during the colonial period.

It is worth noting that during that year, cassava meal had the lowest price compared to other crops as shown in table 6. However, the people of the Luapula Valley found the sale of cassava profitable.

⁸² N.A.Z, MAG1/18/4, Ministry of African Agriculture: Department of Agriculture Annual Report for the year 1958 (Lusaka: Government Printer, 1959), p.3.

⁸³ N.A.Z, LP2/2/86 Northern and Luapula Province Annual Report for 1958.

⁸⁴ NRG, Department of Agriculture Annual Report for the year 1958 (Lusaka: Government Printer, 1959), p.3, para 20

TABLE 6: OFFICIAL PRICES PER BAG 1957-1958

CROP	PRICE PER BAG
Cassava	18/-
Maize	30/-
Beans and Groundnuts	49/6d
Paddy Rice	27/-
Cowpeas	24/-

Source: N.A.Z, LP2/2/82 Department of Agriculture Kawambwa District Annual Report for 1957/1958, p.6

In 1959, trade in cassava meal was mostly outside the organised marketing agencies with a good deal of exchange taking place in Luapula Province. Cashsales of cassava were reported at up to 10s per debbie (four-gallon tin).⁸⁵ During the 1958 to 1959 season, the marketing union bought 247 bags of cassava meal.⁸⁶ Table 7 shows the prices that were being paid for different crops by the Marketing Union. There was an increase by 3 shillings in the price of cassava meal as government agencies sought to get a good supply of cassava for their institutions.

⁸⁵N.A.Z, MA1/18/4 Ministry of African Agriculture Annual Report of the Department of Agriculture for 1959 (Lusaka: Government Printer, 1960), p. 4.

⁸⁶N.A.Z, LP2/2/82 Department of Agriculture Kawambwa Annual Report for 1959, p.4.

TABLE 7: PRICES PAID FOR COMMODITIES BY MARKETING UNION 1959-1960

CROP	PRICE (per bag)
Cassava	21/-
Maize	33/-
Beans	55/6d
Groundnuts	57/-
Rice Paddi	28/6d
Rice hulled	96/-
Finger Millet	31/6d

Source: N.A.Z, LP2/2/82, Department of Agricultural Kawambwa District Annual Report for 1959-1960, p.8

It is evident from the table that cassava had the lowest price compared to other crops. However, having been the most grown and marketed crop in the Luapula Valley coupled with the fact that people found better paying prices for the produce among fishermen, bus passengers, traders as well as in the Congo, cassava still earned the people there more income. For the people of the valley, cassava was second to the fishing industry in contributing to the economic wellbeing of the people and development of the area.⁸⁷ An informant noted that “following the labour recruited on the mines which required foodstuffs to maintain, cassava meal and fish came to link the valley to the Congo and the Copperbelt in trade”,⁸⁸ such that Elizabethville (Lubumbashi) was regarded as a town for the people of the Luapula Valley and the Congo

⁸⁷ Interview, Prof. Moses Musonda, Zambia Open University, Lusaka, 11/03/2015; see also Musambachime, “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, p. 113.

⁸⁸ Interview, Chief Lubunda (Mr. Kingston Mwape), Chief Lubunda’s Palace, Mwense, 25/06/2015.

currency the franc was used in the Valley.⁸⁹ The trade in fish and cassava became so vital that it led to the establishment of not only buying depots around the valley but also trade centres or towns such as Kasenga.

In 1961, trade in cassava meal from the Luapula Valley to the Congo and Copperbelt mines continued to take place. The Department of Agriculture reported that “there is a local trade in cassava flour with some export from Luapula area to the Congo and Copperbelt”.⁹⁰ Thus, during the colonial period, cassava meal enjoyed a successful export trade from the Luapula Valley to the Congo as well as the Copperbelt mines in particular. Local and export trade of cassava did not just ensure availability of food for those who bought it, but also enhanced the economic welfare of the producers in the Luapula Valley by providing a source of income used to acquire other household items. Cassava was such an important item in the local trade in valley that many tearooms established in the area were able to sell mush (*ubwali*) made out of cassava meal.⁹¹

In contrast to the view held by von Oppen that “in the pre-colonial times, cassava cultivation marked the beginning of a history of women’s subordination as subsistence producers, at most as unpaid family labour to subsidize male export production”.⁹² This study, in line with Pritchett, argues that cassava cultivation later had a liberating effect as it gave the women in the Luapula Valley a means through which they were able to earn an income without

⁸⁹Interview, Prof. Moses Musonda.

⁹⁰N.A.Z, LP2/2/82 Department Agriculture Northern and Luapula Provinces Annual Report for 1st Oct 1960-30th Sept 1961, p. 4.

⁹¹NRG, Report of the Rural Economic Development Working Party (Lusaka: Government Printer, 1961), p. 24.; For the argument on the teashops that sold *ubwali* made of cassava meal See Musambachime “Development and Growth of the Fishing Industry in Mweru-Luapula 1920-1964”, p. 178.

⁹² Achim Von Oppen, *Terms of Trade and Terms of Trust: The History and Contexts of Pre-Colonial Market Production Around the Upper Zambezi and Kasai* (Humburg: LIT Verlag, 1993), p.261.

necessarily depending on their husbands.⁹³ Pritchett argues that women's increased labour in processing cassava perhaps gave them additional power in controlling the crop, selling it to traders and turning the profit into ornamentation as well as other items of value that they would not lose in the event of divorce or widowhood.⁹⁴ Some Women in Mwinilunga and Luapula managed to reap respectable profits by providing cassava to the rapidly expanding body of mineworkers on the Zambian Copperbelt.⁹⁵

Contribution and importance of cassava to the economy of the Luapula Valley from 1964 to 1980

After independence in 1964, the value of cassava as a cash crop in Zambia declined largely on account of the promotion of maize as a cash crop. The government put more emphasis on maize cultivation as a commercial crop. Maize coming from rural areas such as Luapula was given a higher price in order to encourage the cultivation of the crop. However that did not hinder the production and sale of cassava in the valley as the crop continued to find market locally as well as on the Copperbelt and other urban markets. With independence also came strict customs regulations which hindered the export of cassava from the valley to the Congo.⁹⁶ The Provincial Agricultural Officer noted in 1969 that cassava was now generally used for subsistence needs and the selling of the meal was done locally.⁹⁷

⁹³Pritchett, *The Lunda Ndembu*, p. 182.

⁹⁴ Pritchett, *The Lunda Ndembu*, p. 183.

⁹⁵Pritchett, *The Lunda Ndembu*, p.185.

⁹⁶Interview Prof. Moses Musonda, Zambia Open University, Lusaka, 11/03/2015; Also Interview, Ambassador Chanda Mapoma, Roma Residential Area, Lusaka, 30/04/2015.

⁹⁷Republic of Zambia, Ministry of Rural Development: Department of Agriculture Luapula Province Annual Report for 1968-1969, p.13.

An informant noted that Saturday markets were held at which cassava meal (*Ulubingu*) was sold especially by the women.⁹⁸ The sale of cassava at the Saturday markets helped the families in the Luapula Valley to find money to enable them pay school fees for their children and also to acquire other items of value and utility.⁹⁹ Another informant noted that he started cultivating cassava in 1967 and managed to raise money to educate three of the children out of the sale of cassava.¹⁰⁰ Cassava therefore enabled the people of the valley to meet cash requirements.

In 1973, there was extensive local trade in cassava chips within Northern, Luapula, North-Western and Western Provinces, as well as between these producing areas and the Copperbelt.¹⁰¹ The trade in cassava roots and flour was entirely controlled by local entrepreneurs with no government involvement.¹⁰² Large quantities of cassava from Luapula continued to be sold locally in Zambia. During the 1972 to 1973 crop season it was reported that Mansa District had marketed 35,000 bags of cassava which did not include farmer's own consumption indicating that the actual production figure was well over the quoted marketed figure.¹⁰³ The quantity of marketed cassava shows that the crop continued to be a source of income for producers in Luapula.

The exchange of cassava meal from the Luapula Valley for fish with the fishermen in the fishing camps continued to be an important trade after independence. Those who had cassava

⁹⁸ Interview, Mr. Modesto Mukunsa, Kabunda Secondary School Chief Chimense, Mansa, 24/06/2015.

⁹⁹ Interview, Chief Lubunda (Mr, Kingston Mwape), Chief Lubunda's palace, Mwense, 25/06/2015.

¹⁰⁰ Interview, Mr. Mulenga Sizo, Chief retainer, Mwata Kazembe Palace, 26/06/2015.

¹⁰¹ Republic of Zambia Ministry of Rural Development: department of Agriculture Annual Report of the extension Branch 1972-73, p. 11.

¹⁰² C.S. Lombard and A.H.C Tweedie, *Agriculture in Zambia Since Independence* (Lusaka: Neczam, 1972), p.39.

¹⁰³ Republic of Zambia, Ministry of Rural Development: Department of Agriculture Annual Report October 1972 – September 1973 for Luapula Province, p.18.; See also Republic of Zambia, Luapula Province Some Development Indicators (Lusaka: Ministry of Development Planning, 1976), 70.

meal were able to take it to fishing camps where they obtained fish which they later sold either locally or on the Copperbelt for cash. Informants noted that this exchange of cassava for fish was a lucrative venture and elevated a lot of women from Luapula Valley into successful business women.¹⁰⁴ Those who owned transport businesses made profits from the transportation of cassava meal to fishing camps and the transit of fish as well as cassava to markets on the Copperbelt.¹⁰⁵

In 1979, E. H. B. Sinyangwe who was Provincial Agricultural Officer noted that “although it was difficult to get sales figures on cassava, there was trade of cassava especially at the local markets”,¹⁰⁶ and yet the government had decided not to pay attention to the crop by not putting a price for cassava. It was noted in the Third National Development Plan that “cassava can earn foreign exchange and generate some cash income for inhabitants of areas where ecological conditions are less favourable for other crops”.¹⁰⁷ Even after independence cassava and the fishing industry were a crucial component of the economy of Luapula valley.

CONCLUSION

This chapter has demonstrated that cassava contributed and was important to the subsistence economy of the people of the Luapula Valley. The crop was not only grown for consumption rather much of the surplus was sold as a source of income. From 1900 to 1980, the people of the Luapula Valley continued to sell their cassava either locally or to outside markets. It has been argued that there was extensive export of cassava from the valley, especially during

¹⁰⁴ Interview, Mr, John Levy Kanyembo (From Mwansabombwe), Luapula Regional Research Station Mansa, 23/06/2015.

¹⁰⁵ Interview, Ambassador Chanda Mapoma.

¹⁰⁶ GRZ, Ministry of Agriculture and Water Development: Department of Agriculture Luapula Province Annual Report 1979 (Lusaka: Government Printer, 1980), p. 21.

¹⁰⁷ GRZ, Third National Development Plan 1979-1983 (Lusaka: Office of the President National Commission for Development Planning, 1979), p. 146, Line 38

the colonial period, to the Congo and Copperbelt mines where cassava meal was needed to feed the African mineworkers. The export of cassava meal created a lucrative business as it profited the producers particularly in the trade with the Congo which offered high prices. Towns such as Kasenga actually became vital trade centres partly as a result of the trade in cassava between the Luapula Valley and the Congo. Transportowners such as Machipisha found cassava transportation from the Luapula Valley to the Copperbelt a profitable venture.

There was a lucrative local market for cassava that was provided by government institutions, mission stations, schools, traders, bus passengers and the fishermen in fishing camps. In times when the government offered low prices, the local people either exported their cassava to the Congo and Copperbelt or sold it locally to fishermen and bus passengers at higher prices. The people of the Luapula Valley also exchanged cassava for fish which they later sold either locally or on the Copperbelt at higher prices. Therefore, cassava tended to be profitable for the producers. It has also been argued that although from 1964 to 1980 the government did not buy any cassava or put up an official price for the crop but cassava meal from the valley continued to find a market among the fishermen, bus passengers, individuals as well as African miners on the Copperbelt. Hence cassava continued to play a key role in the economy of the Luapula Valley.

Lastly, it has been demonstrated that cassava was very important in the economy of the people of the Luapula Valley and contributed as a source of income. Cassava became an important crop as a source of income for producers in the valley who either sold cassava meal or made beverages (*munkoyo*) or beer out of cassava flour, which they later sold and were able to earn an income. Through the various channels in which cassava was sold, people in the Luapula Valley were able to obtain income such that they managed to meet their financial requirements.

CHAPTER FIVE

CONCLUSIONS

The study has attempted a reconstruction of the history and state of cassava cultivation in the Luapula Valley from 1900 to 1980. This study has also highlighted the impact of cassava on the diet and food security in the valley. It has further assessed the contribution and importance of cassava in the subsistence economy of the area. This study had three objectives. The initial objective was to investigate the history of cassava growing in the Luapula Valley from 1900 to 1980. Secondly, it set out to examine the impact of cassava on the diet and food security in the area. Finally the study sought to assess the contributions and importance of cassava in the local subsistence economy of the Luapula Valley.

Among the several conclusions that have emerged from this study is that there was continued cultivation of cassava from 1900 to 1980. Cassava cultivation was part of the tradition of the people of the Luapula Valley. The crop became a staple crop and was extensively grown in the area from 1900 up to 1980. It has been shown in this study that during the colonial period, the government administrators in the Luapula Valley and other parts of the territory promoted the cultivation of cassava as a famine relief crop. The colonial administrators became part of the major providers of the market for cassava meal in the Luapula Valley where they opened up buying stations for the meal and other agricultural produce. This gave an impetus to the people in the Valley to cultivate more cassava. Through the Native Authorities, the administration in Luapula instituted orders such as the cultivating of 600 mounds of cassava per person in order to ensure increased production of the crop particularly in times of drought or pestilences. Thus there was an increase in cassava cultivation especially during the First and Second World War periods. It has also been argued in this study that the colonial administration assisted in

combating diseases such as the cassava mosaic disease that threatened cassava in the Luapula Valley by setting up nurseries that were meant to produce and distribute disease resistant cultivars.

Another conclusion that has emerged from this study is that from 1964 to 1980, the Zambian government did not officially promote the cultivation of cassava. Rather they only began to recognise cassava in the late 1980. During the period 1964 to 1980, the government was preoccupied with the policy of producing more maize to the neglect of cassava which was left to the subsistence farmers alone. It has however been argued in this study that in the Luapula Valley, people continued to grow cassava extensively. Those who wanted to grow maize also ensured that they cultivated cassava which was the staple and reliable food crop compare to cereals. The post-independence government did not recognise the commercial potential of cassava which they opted not to buy and did not put up an official price for it until 1981.

It has also been argued that cassava played a key role in the diet and food security of the Luapula Valley. It has been shown in this study that cassava is the staple food that replaced the grain crops of millet and sorghum. The crop became a valuable component of the diet of the people in the valley. It provided them with a cheap source of carbohydrates and also provided vitamins as well as proteins that were obtained from the leaves (*Katapa*), which were eaten as a vegetable. Contrary to the views of nutritionists and government officials who argued that cassava was not nutritious, this study has concluded that cassava was nutritious. The study has shown that no records of deaths or diseases were recorded in the Luapula Valley as being directly caused by the consumption of cassava. The area whose staple was cassava actually produced energetic and strong men who were recruited for the mines on the Copperbelt as well as for the Belgian Congo.

It has also been argued in this study that cassava played a significant role in ensuring food security for the people of the Luapula Valley. The crop is high yielding compared to cereals and thus provided more food over a small cultivated piece of land. Cassava is drought resistant which enabled it to survive when cereals crops failed. It was less affected by pests and could withstand the invasion of locust as was the case in the years 1931 and 1933 when the valley was hit by locust swarms. Cassava being a tuber could not be attacked and damaged by birds and pests while in the field. This enabled the people of the Luapula Valley to be food secure even when other areas such as Bembaland, Barotseland and the Gwembe Valley that depended on cereals experienced extreme food shortages as a result of locust invasion and droughts that occurred between 1929 and 1940

It has further been demonstrated that cassava was important and contributed immensely to the local subsistence economy of the Luapula Valley. The study has shown that there was extensive local trade in cassava especially with the fishermen, bus passengers, fish traders, and mission stations, recruiting companies as well as government institutions who bought cassava from Luapula Valley. From as early as 1904, the export of cassava meal and dried cassava roots to the Congo and later to Copperbelt mines enabled the crop to contribute to the local subsistence economy as it became the second major source of income to fish especially after 1920. Cassava linked the people of the Luapula Valley to the Belgian Congo where the crop was exported to through Kasenga. The crop also helped people raise money for paying of tax and for meeting their cash requirements.

From this study, it has emerged, divergent from the view held by earlier scholars, that cassava played a crucial role in liberating women from being depended on male generated income and helped them to acquire items of value as well as contribute to the household income

and household food supply. Women in the Luapula Valley sold cassava as a source of income allowing them to acquire other items of value as well as take their children to school.

Finally the study has underscored that between 1900 and 1980, cassava played an important role in the Luapula Valley as a crop that assured the people of food security in times when the area was on the verge of experiencing a famine, and also provided a means through which money could be obtained by selling cassava. The crop was a vital component of the diet of the people of the Luapula Valley.

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No.	NAME	DATE OF BIRTH	OCCUPATION	DATE AND PLACE OF INTERVIEW
1	Professor Moses Musonda		Vice Chancellor ZAOU	11/03/2015, Zambia Open University, Mumbwa Road, Lusaka.
2	Dr. Mapoma, Mwesa Isaiah	1936	Academic- Ethnomusicologist	30/04/2015, Roma Residential Area, Lusaka
3	Ambassador. Mapoma, James Chanda	1925	Retired Government Worker, Former Ambassador	30/04/2015, Roma Residential Area, Lusaka
4	John Levy Kayembo Ilunga	1957	Farmer	23/06/2015, Luapula Regional Research Station
5	Dr. Martin Chiona	1966	Plant Breeder	23/06/2015, Luapula Regional Research Station
6	Modesto Mukunsa	1957	Retired Cook	24/06/2015, Chanda Village, Mansa
7	Justin H. Chilufya (Chief Chisunka No.6)	1969	Royal Highness Chief Chisunka	24/06/2015, Chief Chisunka Palace, Mansa
8	Kabaso, David (Chief Mulundu No.11)	1942	Royal Highness Chief Mulundu	25/06/2015, Chief Mulundu Palace, Mwense
9	Ngosa, Idan	1936	Chief Kashiba	25/06/2015, Chief Kashiba

			Advisor	Palace, Mwense
10	Chabala, Musonda	1933	Chief Kashiba Advisor	25/06/2015, Chief Kashiba Palace, Mwense
11	Mwape, Kingston (Chief Lubunda, Mudemba II)	1943	Royal Highness Chief Lubunda	25/06/2015, Chief Lubunda's Palace, Mwense
12	Chabala, Alfred	1956	Chief Lukwesa's Messenger	25/06/2015, Chief Lukwesa's Palace, Mwense
13	Mulenga, Sizo	1947	Paramount Chief Mwata kazembe's Messenger	26/06/2015, Paramount Chief Mwata Kazembe's Palace, Mwansabombwe
14	Kayembo, Paul (Paramount Chief Mwata Kazembe, Mwata Kapale No. 19)	1961	His Royal Highness Paramount Chief Mwata Kazembe	26/06/2015, Paramount Chief Mwata Kazembe Palace, Mwansabombwe
15	Kanyembo, Margret Ngosa Lukwesa (Chief Kanyembo)	1947	Her Royal Highness Kanyembo	26/06/2015, Chieftains Kanyembo's Palace, Mwansabombwe
16	Kalolo, Mwewa	1975	Cassava Farmer	28/06/2015, Mansa Agriculture Showground, Mansa
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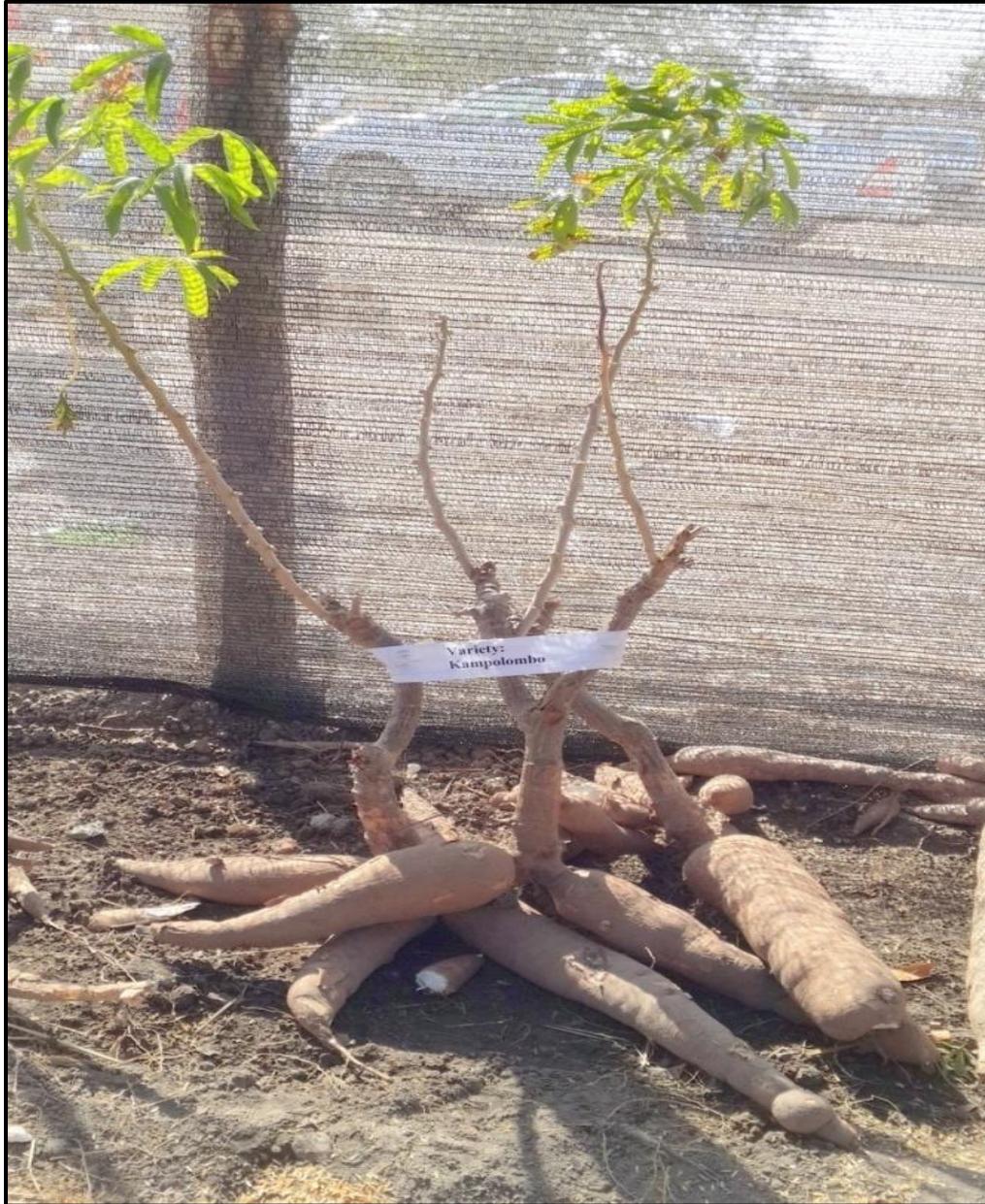
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Appendix 1: Pictures taken during the field trip in Luapula Valley

Figure 1a: Cassava plant showing the leaves, stems and roots



Source: Picture taken by the author in Mansa at the Agricultural show

Figure 1b: Cassava cuttings used as planting material



Source: Picture taken by the author at Mansa Agricultural Show grounds

Figure 1b: Cassava meal sold at a market



Figure 1c: Dried cassava roots sold at a market



Source: Pictures taken by the author at Mansa market

**Appendix 2: KAWAMBWA DISTRICT: ESTIMATED TRADE IN CASSAVA FROM
1955 TO 1957**

PRODUCT	SOURCE OF INFORMATION	MARKETING OUTLET	ESTIMATED TRADE			REMARKS
			1955	1956	1957	
CASSAVA MEAL	Provincial Co-op.	Kawambwa	320 bags	90 bags	8 bags	
	Marketing officer	Marketing Union	(a)	(a)		
	Staff Observation	Missions and Government Institutions	1000 bags (b)	750 bags (b)	500 bags (b)	
		Producer to Consumer	2000 bags (c)	3000 bags (c)	3000 bags (c)	Bus travellers— mainly Fishing Camps
(a) Exact or near figure (b) Estimate (c) Very rough Estimate						

Source: N.A.Z, LP2/2/82, Kawambwa District Department of Agriculture Annual Report for 1957/58 by Agricultural Supervisor