

CONSTRAINTS ON COTTON PRODUCTION IN NORTHERN RHODESIA:

THE CASE OF FORT JAMESON AREA, 1900-45

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A dissertation submitted in partial fulfilment of the requirements
of the Degree of Master of Arts in History.

University of Zambia
Lusaka
1983



I solemnly declare that this dissertation has
never before been submitted for a degree at
any University.


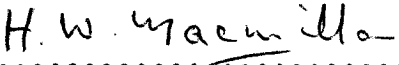
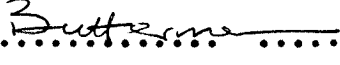
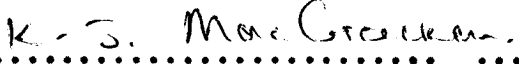
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To Patrick and in memory of Caterina, my
late mother.

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Abbreviations

ALC	African Lakes Corporation
BCGA	British Cotton Growers Association
BSAC	.....	British South Africa Company
CO	.....	Colonial Office
ECGC	.....	Empire Cotton Growing Corporation
GER	.....	Great East Road
LMS	.....	London Missionary Society
mm	.....	Millimetres
NAZ	.....	National Archives of Zambia
NER	.....	North-Eastern Rhodesia
NWR	.....	North-Western Rhodesia
PRO	.....	Public Records Office
ZGA	.....	Zambia Geographical Association

ABSTRACT

The period 1900 to 1939 witnessed increased British efforts to establish cotton growing for export in Northern Rhodesia. However, the industry did not expand to viable proportions. The official explanation for the failure of the industry was set down first and foremost to pests' ravages. This, therefore, is a study of the failure to establish a viable cotton growing industry in Northern Rhodesia.

In this study, I argue that the cotton growing industry in Northern Rhodesia was mainly thwarted by a combination of socio-economic and technical factors. Firstly, the industry was starved of trained manpower and finance. Secondly, unfavourable marketing conditions manifested themselves in the absence of adequate ginning and baling facilities, inefficient transport system, and low and fluctuating prices. Thirdly, settler monopoly of agriculture and the production of other cash crops greatly undermined the cotton growing industry. Finally, the industry was short of labour due to the Southward (Southern Rhodesia) migration of labour, and competing labour claims of African and other capitalist enterprises within the territory.

PREFACE

It is almost an axiom that the economic performance of most underdeveloped countries is to a very large extent a reflection on the colonial economic priorities. Hence, the feeble performance of the agricultural sector and the dominance of mining in Zambia has firm roots in the colonial economic policy.

Colonial economic policy in Zambia concentrated on mining with settler agriculture as an appendage. The function of the agricultural sector was to produce foodstuffs for the mines. It is in this connection that most scholarly works on colonial Zambia place emphasis on either land and labour or major foodstuffs such as maize, and cattle. This study makes a slight deviation by looking at an export crop, cotton.

The study concentrates on cotton production constraints in Fort Jameson (now Chipata) area between 1900 and 1945. This work is in three chapters. Chapter one examines the cotton growing industry between 1900 and 1924. Chapter two focuses on the period between 1924 and 1945. The final chapter is an overall explanation of the constraints on cotton production in Northern Rhodesia. The author contends that a combination of socio-economic and technical factors militated against the cotton growing industry.

The study relied extensively on published and unpublished secondary and primary sources in the University of Zambia (Lusaka Campus) library and the National Archives of Zambia.

I am deeply indebted to Dr. M.S. Muntimba for her devoted and informed guidance during the initial stages of my study, and Dr. M.C. Musambachime for his invaluable advice which enabled the study to be in its present form. Further appreciation go to the History Department (at the University of Zambia) entire staff of the 1981-82 academic year. Many thanks also to those not mentioned but helped me in one way or another.

CHAPTER ONE

CONSTRAINTS ON COTTON PRODUCTION DURING BRITISH SOUTH AFRICA COMPANY ERA, 1900-24

INTRODUCTION

Cotton comes from a tropical plant grown in Africa, Asia, Latin America, the United States of America, the Caribbean and Pacific Islands. It is primarily grown for its fibre (lint) which is used for making cloth. Oil is extracted from the cotton seed and the remnants maybe made into cake for cattle feed.

In Africa, the cotton plant has a long history. Accounts by European travellers reveal the presence of cotton in several parts of the continent. In Central Africa, David Livingstone sent to England enthusiastic reports of the suitability of parts of this area for cotton growing. In reference to the Zambezi valley, he noted the following:

The people cultivate cotton very extensively. We never saw so much anywhere; and this is the region I have pointed out as capable of becoming a counterpoise to American slave labour.... The further we went, the more important did the crop appear.¹

The cotton cultivated in the Zambezi valley along the Shire River and Lake Nyasa (now Lake Malawi) was identified by Sir John Kirk as belonging to the Gossypium Arboreum species.² This species was found in several parts of what is now Zambia. In pre-colonial West and East Africa, cotton cultivation could also be traced back to hundreds of years.³

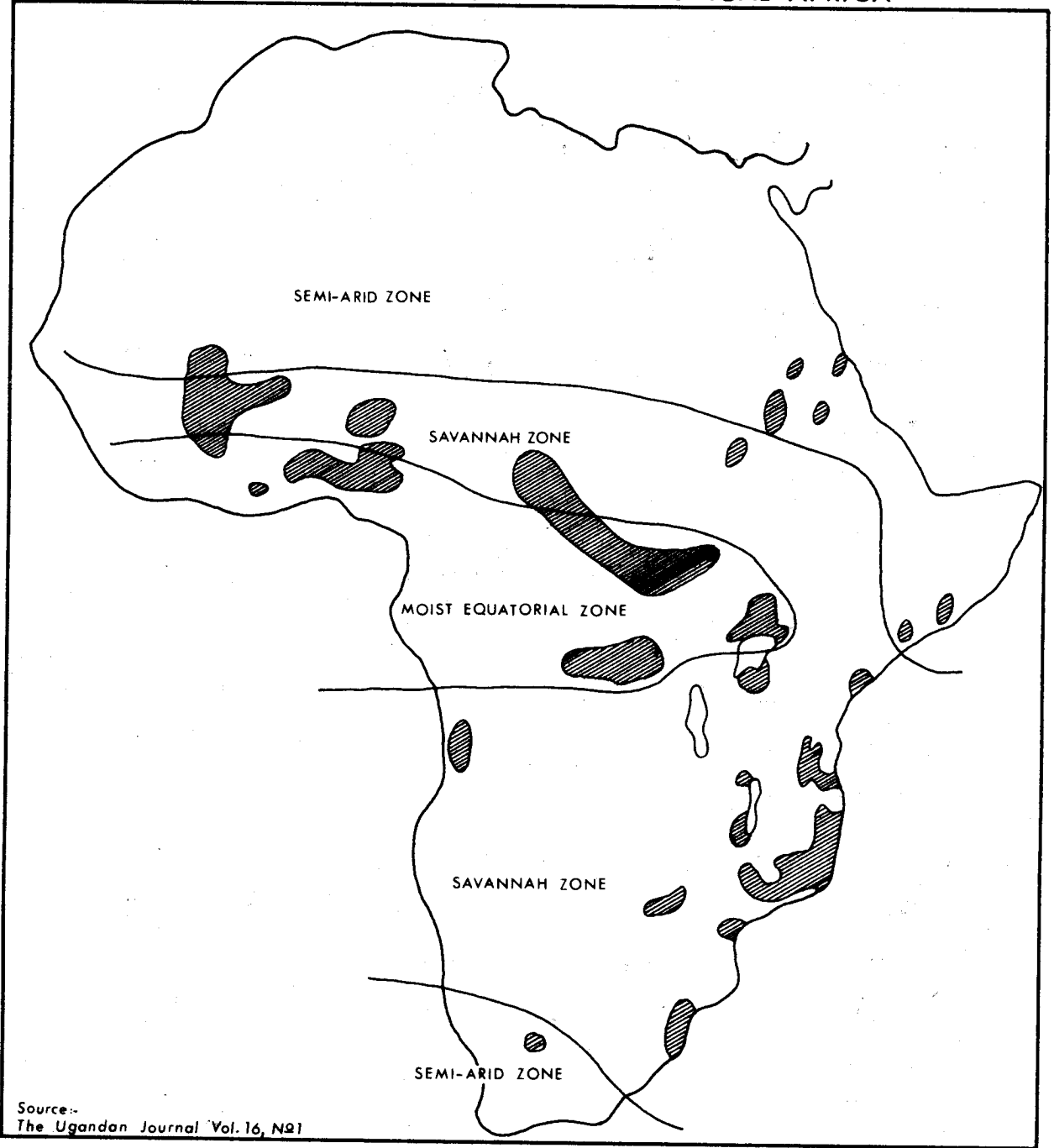
Generally, the climatic conditions required for cotton growing are well-drained medium to heavy soils, 500 to 2,000 millimeters (mm) of well distributed rainfall (except *where grown under irrigation*), at least four hours of sunshine per day, and a six month frost free growing period with an average temperature of 24°C .⁴

As shown on map one, cotton is grown in three main climatic zones in Africa. There are first the semi-arid regions in the north and southernmost parts of Africa. Cotton in these regions is grown under irrigation. The second is the most extensive. It covers the savannah climatic zone extending just north of the equator to the south to include a large part of East, Central and Southern Africa. The annual rainfall varies from about 400 to 600 mm. The rains are confined to the period between November and April with the rest of the year being dry, with cold and hot temperatures. And the third is the moist equatorial, characterized by two separate rainy seasons in a year.⁵

According to J.B. Hutchinson,⁶ cotton in pre-colonial Africa was of three varieties. The first had no lint and was found in the arid areas of Namibia and the Sahara desert. It had no commercial value. The second were the Gossypium arboreum and Gossypium herbaceum species. They were of Asiatic origin and are the oldest known cultivated cotton species. They were introduced into Africa from

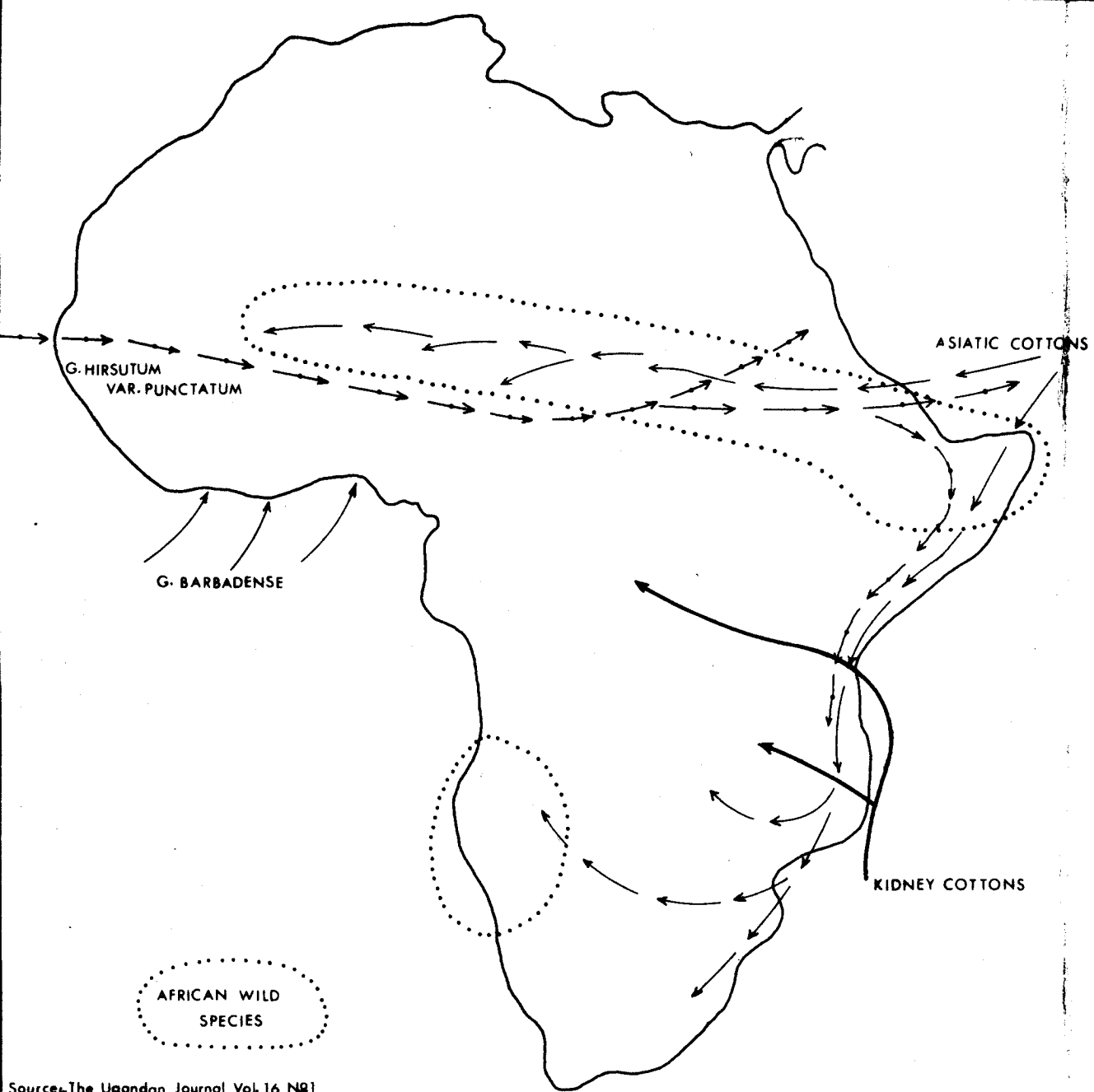
MAP 1

DISTRIBUTION OF COTTON GROWING IN TROPICAL AFRICA



MAP 2

DISTRIBUTION OF INDIGENOUS COTTONS AND OF EARLY INTRODUCTIONS FROM THE OLD AND NEW WORLD



India along 'two main trade routes, one across the sub-saharan region and the other down the east coast as far as Zululand, and across the Savannah regions to Angola'.⁷ The third type, which is a later introduction, were the Gossypium brasiliense and Gossypium hirsutum from America through the trans-Atlantic trade.⁸

Cotton was put to use mainly in indigenous handicraft. Wherever it was cultivated, 'it was a common sight to see old men and women and young ones too spinning cotton at their hut doors or under trees'.⁹ Like in pre-industrial Europe, the common machinery used in cloth making in Africa were a distaff, spindle and a handloom.¹⁰ The distaff was a wooden rod, with a bundle or fleece of cotton wool tied loosely round the top of it. The spinner held the distaff between one hand (usually the left) and the body, the hands kept about four centimetres asunder, and pulled from the fleece a continuous lock of cotton wool (lint). The other hand twisted so much of the lock as was between it and the other hand into thread. The cotton thread was converted into a coarse thread or yarn with the use of the spindle of a hand wheel. Turning the wheel with one hand moved the spindle and the thread was at the same time drawn out with the other hand. The yarn was then put into the **handloom** to be woven into cloth. Although little was manufactured due to the use of simple machinery, Dugald Campbell informs us that the indigenous shawls

were 'superior, certainly more comfortable and were longer than most of the textile material procurable today'.¹¹

Campbell's observation is strengthened by that of Richard Guest who attributes the superiority of texture and the durability of such cloth to the mode of spinning which disposed the fibres of the cotton more evenly, and twisted them more into the body of the thread than what the modern spinning machines do.¹² This simple mode of cloth manufacture is still practiced in indigenous handicraft in some parts of Asia and Africa.

Much as it can be established that there existed an indigenous cotton industry in some parts of Africa before the advent of colonial rule, the cloth produced was evidently inadequate for several reasons. Firstly, the weaving of cotton cloth was a small scale industry in that the weavers had other things to attend to such as cultivation of food crops, hunting, tending to houses, and even defence matters. The estimation that most cotton patches were less than an acre by some pre-colonial observers in Central Africa could thus not be far off the mark.¹³ Furthermore, the simple machinery used in the cloth manufacture was incompatible with mass production. Secondly, the cultivation of cotton for cloth might not have been widespread because of having alternatives such as bark cloth and animal skins. In fact, cotton cloth in most African societies was worn largely by the royalty.¹⁴ Thirdly, some cotton species, especially

the Asiatic, were in some societies grown for medicinal or religious purposes rather than for textiles.¹⁵

Importance of cotton in the Colonial Economy

The British industrial revolution during the first half of the 19th century evolved around textile, iron and steel industries. The textile industry, particularly cotton, emerged from being the least in importance before 1760, to being the most important in manufactures by 1812: contributing about eight per cent of the national income.¹⁶ Quantitative and qualitative changes in the British textile industry before the close of the nineteenth century depended to a large part on a steady supply of raw cotton from the United States of America. A sharp decline in these supplies was experienced from the 1890s due chiefly to the expansion of American cotton mills. Consequently, the American Government instituted protective measures for their cotton industry by drastically reducing cotton exports. Now that the American source was insecure, Britain had to look for an alternative source of cotton. As King Edward VII put it in his 1904 parliamentary address:

The insufficiency of the supply of the raw material upon which the great cotton industry depends has inspired me with deep concern. I trust that the efforts which are being made in various parts of my Empire to increase the area under cultivation may be attended by a large measure of success.¹⁷

This was not the first time that British textiles faced a slump in raw cotton supplies. Serious shortages

of cotton were experienced during the American Civil War (1861-1865) when the Southern ports were blockaded by the Northern Forces. Exports dropped from 51,000 bales of ginned cotton in 1860 to 18,000 in 1861.¹⁸ Similarly, in 1902, as a result of reduced exports from America, the manufacturers, spinners and operatives in Lancashire alone, lost about £2,000,000.¹⁹ A number were reduced to part time operations.

Shortages of cotton and the concomitant need to develop cotton production in the British colonies led to the desire to form a cotton association. In 1901, a committee of the Oldham Chamber of Commerce published a report which argued that 'suitable cotton for the Lancashire trade could be grown in various parts of the British Empire'.²⁰ Consequently, the British Cotton Growers Association (hereafter BCGA) was set up the following year by cotton traders in Manchester. With an initial capital of £50,000 (raised to £500,000 in two years), the BCGA aimed at pioneering and encouraging research and experiment on the possibilities of cotton growing in British Colonial Africa.²¹ The focus on the tropical territories was influenced by the suitable ecology and a history of cotton growing for local use in indigenous handicraft among some societies stretching for at least three centuries back.²² The BCGA secured a royal charter in 1904

and the key targets were Egypt, East and West Africa. In 1923, another cotton organisation, the Empire Cotton Growing Corporation (hereafter ECGC) was formed to augment the efforts of the BCGA. The primary functions of the ECGC were scientific and educational research, and the supply of manpower. The efforts bore fruits of success, though varied, notably in West and East Africa by 1930s.²³ Meanwhile efforts were also made to establish an export oriented cotton industry in such territories as Northern Rhodesia. Hence, cotton was not only important to the metropole (Britain) but its export also offered the colonies a ready source of revenue.

Northern Rhodesia: the case of Fort Jameson area 1900-24

Fort Jameson (now Chipata) was established in 1899 as the Administrative headquarters for North-Eastern Rhodesia (hereafter NER).²⁴ The district is in the eastern part of the Eastern Province of Zambia. It shares its eastern boundary with Malawi (formerly Nyasaland) while the southern boundary runs into the Mozambican border. It is mainly a plateau with land generally between 800 and 1,000 metres above sea level.²⁵ In the western part, the plateau slopes into the Luangwa valley, whose land elevation is between 450 and 600 metres above sea level.²⁶ Annual average rainfall varies from 600 to 1,000mm, and decreases with altitude. Most of the rains fall between

November and April. The number of rainy days range from about 50 in the driest (valley) areas to 100 days in the wetter (plateau) areas.²⁷ Unlike rainfall, temperature rises with decreasing altitude. The plateau area is therefore cooler than the valley. Temperature ranges from a mean maximum of about 31°C to a mean minimum of about 24°C throughout the year.²⁸

The soils vary in their fertility with relief features. There are fertile red clays and much reasonably fertile sandveld soils on the plateau while the valley has pockets of the fertile alluvial soils.²⁹ The combination of soil, rainfall and temperature gives the area a high agricultural potential. Maize, groundnuts, rice, beans, cotton, tobacco, sugar cane, sorghums, millets, cassava, and a variety of fruits and vegetables can be grown. Except in the valley, which is infested with tse-tse fly (Glossina Pallidipes), livestock (cattle, sheep and goats) are kept.³⁰

The major ethnic groups in Fort Jameson district were largely the Ngoni on the plateau, and the Senga and Kunda in the valley. Implements used in agricultural production were basically the hoe and axe. The axe was used for felling trees or their branches when preparing land for the "cultivation mounds" system of shifting cultivation.³¹ The hoe was for tilling the soil and weeding. Labour was drawn from family affiliations.

Although indigenous agriculture in Fort Jameson was essentially for cultivating food crops, some attention was also given to cotton. In 1906, George Pirie observed that:

Cotton is grown by several of the tribes, principally the Senga, and seems to do very well under native care. It is woven by them into cloths of different textures and colours according to the tribal fancy and of those with whom they deal.³²

The colonization of Northern Rhodesia came at a time when Britain was in need of securing reliable and cheaper sources of raw cotton. Northern Rhodesia was not directly colonized by Britain, but was ruled by a chartered company - the British South Africa Company (hereafter BSAC). The BSAC was preoccupied with finding rich mineral deposits north of the Zambezi. It therefore paid very little attention to developing commercial agriculture. And as Lewis Gann has observed, initially, the Company 'preferred big land companies and mining concerns ... to bring in capital and much land was locked up in purely speculative ventures'.³³

Since the main interest of the BSAC was the exploitation of mineral resources in the country, the function of the agricultural (rural) sector was to feed the mines. Settler (European) farmers were to provide sufficient food (maize, beef and vegetables) to feed the mine workers while the African populace supplied the low-cost migrant labour. Agriculture or general rural development was

therefore only important to the BSAC Administration in so far as it was in the interest of mining. And the fact that large scale mining (on the Copperbelt) started only in the mid 1920s, after BSAC rule, meant the lack of a domestic market for agricultural produce. The absence of a significant domestic market in turn delayed agricultural development in the territory. And where does this secondary role of agriculture accommodate the production of cotton as an export crop?

Efforts to establish cotton as an export crop in Northern Rhodesia go back to the earliest period of effective occupation of the territory. The first step the NER Administration took to encourage Africans into the cash economy was the imposition of a three shilling hut tax in 1901. Taxation was meant to induce Africans to enter into wage labour. It was also seen as the contribution of Africans to government revenue. Primarily, taxation created the demand for cash among Africans. This tendency increased by 1903 when payments of the tax in kind was abolished. Since wage labour opportunities for Africans within the territory during the early stages were minimal, the sale of agricultural produce was the open alternative to earn cash.³⁴ Furthermore, the BSAC Administration had to somehow respond positively to the call by the BCGA for cotton trials in British Colonial Africa.³⁵ Hence, the Secretary of the BSAC in London

sent cotton seed for trial to the NER Administration in 1904. In the same year, the Administrator of NER called a meeting of chiefs at Fort Jameson and told them that:

We have given out a lot of cotton seeds and anybody who wants any can get it from the Boma. The people should grow cotton for sale to the white man and so become rich and buy goats, sheep and clothes.³⁶

About 30 African growers around Fort Jameson were issued with Egyptian (Abassi and Affifi) cotton seed. The growers were instructed about weeding, pruning of the old trees and the cleaning of cotton after it was picked. Nonetheless, the yield was poor because the growers paid more attention to their subsistence needs.³⁷ However, samples of the yield were sent to the Secretary of the BSAC in London to ascertain the quality and viability of cotton growing in the territory. The results were encouraging. As the Secretary of the BSAC excitedly put it:

I am firmly of the opinion that if we can get it to go, the cotton industry would go far to solve most of our financial difficulties.³⁸

NER cotton lint was in 1905/6 season valued at 12d. per pound in Manchester and growers were paid about 1d. per pound.³⁹ Within a few years, the prices shot up as much as 1s.2d. per pound.⁴⁰ The Administration rated the Kunda as the best cotton growers in the territory while some observers noted that the 'native Senga cotton

is one which would pay well for cultivation.'⁴¹ Africans were thus encouraged to grow cotton partly because its cultivation was not totally new and its agricultural requirements were simple. Worth quoting here is the argument by a senior entomologist with the ECGC that 'the connection between cotton and peasant farming is an economic one and consequently a lot of labour is required for harvest'.⁴² Earmarked for a reliable source of labour here was the extended family system.

However, cotton growing was initially an occupation for Africans primarily because the small settler population was engaged in cattle trade. Cattle trade in NER was at its height from 1896 when the rinderpest epidemic in Southern Rhodesia (now Zimbabwe) decimated the herds. Cattle ranchers were forced to look northwards for consumption and breeding stock. Hence, a substantial number of cattle looted from the Ngoni when they were finally defeated by the BSAC officials found its way to Southern Rhodesia.⁴³ The cattle trade started to decline in 1907 when the border between NER and Southern Rhodesia was closed for fear of the spread of cattle disease (nagana) from the former.⁴⁴ The cattle trade was finally closed in 1912 owing to the spread of tse-tse fly in the Luangwa valley.⁴⁵ A few settlers switched to cotton growing from about 1907 and a small export was handled

by the Nyasaland-based African Lakes Corporation (hereafter ALC). Cotton cultivation among settlers became widespread with the loss of the Southern Rhodesia cattle market after 1912. The Administration turned from encouraging Africans to grow cotton to selling their labour. In 1909 chiefs were told in no uncertain terms that since white men were now growing cotton, 'your young men can go to work on the cotton plantations where the work is the sort of work they will understand and do well. Tell your young men this'.⁴⁶ However, the Administration later contradicted itself when it advanced transport difficulties as the main reason for abandoning Africans' cotton production.⁴⁷

Between 1908 and 1911, the European settler farmers around Fort Jameson cultivated an annual average of about 3,000 acres of cotton.⁴⁸ During the war period, this acreage was reduced to as low as 64 in 1917.⁴⁹ The reduction was partly due to the conscription of a large number of European settler farmers and Africans into the war service.⁵⁰ In real economic terms, however, the reduction in acreage was beneficial to cotton farming as the price for cotton rose appreciably. For instance, as Jokanya argues, the acreage for cotton declined from 92 in 1916 to 62 in 1917, production went up from 482,000 to 700,000 pounds respectively.⁵¹ Owing to the high price of 1s. per pound

and favourable weather, the settler farmers put over 1,000 acres under cotton during the 1923/24 season.⁵²

North-Western Rhodesia (hereafter NWR) was not left out in the attempt to establish cotton as an export crop. In 1904, the NWR Department of Agriculture issued cotton seeds (Egyptian and American types) for planting purposes to some Africans at Kalomo and other suitable areas along the proposed line of rail.⁵³ Cotton trials were also carried out around Lealui and Sesheke.⁵⁴ The efforts of the BSAC Administration of NWR to establish cotton growing in the territory were augmented by the BCGA. In 1909, the Company sent J. Bateson to examine and then report on the prospects of cotton growing in NWR. In 1910, Bateson reported back to the BCGA. In his report, he observed that there was great potential for the development of a viable cotton growing industry in the territory. Commenting on the efforts of the BSAC, he noted that the industry was hampered by poor methods of cultivation and selection of the cotton farm areas.⁵⁵ Bateson, who was earlier the BCGA Principal Agriculturist in Lagos (Nigeria), was immediately assigned to promote cotton growing in Northern Rhodesia. A grant of £10,000 was allocated by the BCGA and BSAC for cotton development.⁵⁶ Experimental farms were established at Mazabuka and Chilanga in 1910 and 1912 respectively.⁵⁷

In spite of the efforts made by the BSAC in conjunction with the BCGA, cotton production was not successful throughout the BSAC era. The period between 1900 and 1924 witnessed only cotton trials with some measure of success in some cases, and little or no success in most. The next section will attempt to throw light on the factors thwarting the development of viable cotton production in Fort Jameson area during the BSAC administration.

Constraints on cotton production during the BSAC Administration

The official explanation for the unsatisfactory results of cotton experiments was attributed first and foremost to pests, notably the Jassids (Cicadellidae) and Bollworms.⁵⁸ Jassids are leaf hoppers which suck the leaf vessels, causing them to 'scorch' and checking growth. Bollworms are moth larvae which eat the cotton flower buds and fruit. Most common were the pink Bollworm (Platyedra gossypiella), the American Bollworm (Heliothis armigera), and the Red Bollworm (Diparopsis Castenea). Another frequent pest was the cotton Stainers (Dysdercus ~~Sp~~) which are bugs which suck the seeds and green bolls, causing damage and also transmitting yeast-like fungus which kills the lint hairs. To put it simply, the cotton pests did damage either to the reproductive parts of the plant or the vegetable parts.⁵⁹

The other natural danger to the cotton crop came from rainfall. Rainfall affected cotton yields in three ways. Firstly, the erratic nature of rainfall: too much or too

little caused low yields. Secondly, a prolonged or temporary drought after the first rains was detrimental to the plants. Finally, late rains shortened the growing period and reduced the harvest. However, much as it can be accepted that natural disasters (pests, rains, and even diseases) contributed to poor yields, it does not fully explain the various factors inhibiting the cotton-growing industry in the Fort Jameson area.

This section is an attempt to expose the technical and socio-economic factors which militated against cotton production during the BSAC period. The section is in three parts. The first is devoted to the role of the state in providing knowledge (technical know-how) to the growers. Particular attention will be paid to experimental work and the contact between research officers and the cotton growers. The second will dwell on cotton marketing. In this context, attention will be given to processing, transportation and prices. The final part will be a discussion of the competing factors in relation to cotton growing and marketing. To be specifically discussed are the Africans' response to the cotton 'campaign', the relationship between settler cotton growers and their African counterparts, and the effects of the production of other cash crops such as maize and tobacco on cotton growing. The author is under the impression that the lack of adequate knowledge, absence of market incentives, settler demands for labour and the production of other cash crops were the chief factors

working against the establishment of a viable cotton growing industry.

Role of the State

As already indicated in the preceding section, ecological conditions in the plateau and valley areas of the Eastern Province were suitable for cotton production. The failure to attain a viable production of cotton for export could therefore only be attributed to other factors among which is knowledge about how best to grow the crop on the part of both the farmers and the Administration. Even African growers, albeit their familiarity with cotton, needed government assistance as the commercial cotton varieties were new and needed much more care than the indigenous ones. Thus, the role of the state, through the Department of Agriculture, in disseminating information is of utmost importance. Lack of expertise in all agricultural endeavours was however the order of the day during the BSAC era. As Bateson observed in 1910 in NWR:

There are a number of white planters who, with a few exceptions, are not doing well owing largely in some cases to ignorance of the best methods of cultivation. In some cases the land had been badly selected and attempts have been made to grow cotton on sandy and unsuitable soil. In other cases the land has been badly or wrongly tilled.⁶⁰

This ignorance of the best methods of farming and poor selection of soil can be directly linked to the ineffectiveness of agricultural research and extension work during the BSAC administration. The Department of Agriculture was

not only understaffed, but was also manned by people who had no professional qualifications in agriculture.⁶¹ Agricultural research work was therefore in the main, misdirected. It is not surprising to note that no proper study of soils, pests and measures against them was undertaken. Furthermore, the cotton expert, Bateson, who was employed in 1910, could not cover the whole territory alone. So his efforts were concentrated around Mazabuka where he was based. Consequently, the experimental farm opened in 1912 at Chilanga by the Department of Agriculture was what we could readily and rightly call "an organized disorganization". The experiments at Chilanga concentrated largely on forestry, grasses and fodder plants.⁶² The little attention given to both cash and food crops was extended to cotton only as an oil seed.⁶³ This was wrong as cotton was (and still is) cultivated chiefly for the market value of its fibre and not its oil.⁶⁴ Furthermore, investigations on cotton growing were basically along trial and error methods.

The varieties of cotton seeds for the experimental farms and for distribution to interested parties were acquired after receiving information ~~on~~ their successful growth in other territories, particularly Nyasaland.⁶⁵ Varieties of American and Egyptian cotton seeds were sent from London by the BSAC or the BCGA to the administrative officials in NER and NWR. Unfortunately, most of the varieties turned out to be '... very poor...., badly ginned and badly sorted'.⁶⁶ And these cotton seeds proved

to be very susceptible to pests.

Another flaw in the cotton trials was that they were carried out only in areas close to the railway line such as Mazabuka and Chilanga.⁶⁷ This led to the selection of areas with poor soils and unsuitable climate conditions.

Areas such as the East Luangwa District (present day Eastern Province) distant from the line of rail and better suited for cotton growing, were not provided with any cotton experimental station let alone an official of the Department of Agriculture. In fact, agricultural extension officers were simply non-existent because there was virtually no information to disseminate. Poor research work and lack of effective contact with growers was certainly not conducive to the establishment of a viable cotton growing industry, which among other considerations 'entails carefully timed planting, sowing of seeds at regular intervals, periodic thinning of cotton plants, constant weeding, and rapid and careful harvesting to avoid spoilage'.⁶⁸ Tempany and Grist were not far off when they observed that:

One point which emerges is that despite the efforts of a number of isolated workers, there has been a great paucity of fundamental information concerning the basic natural conditions in most parts of the tropics. Soil and climatic conditions were often known only in bare outline in many areas while in some regions they were almost unknown.⁶⁹

Cotton Marketing

The author contends that the marketing conditions of cotton had adverse effects on the cotton growing industry in Fort Jameson area. In this context, marketing of cotton embraces processing (ginning and baling), transportation and prices.

Among the many constraints that the cotton industry in Northern Rhodesia faced was inadequate ginning facilities throughout the BSAC administrative period. The two ginneries constructed at Mazabuka and Jumbe (in Fort Jameson) were both established after BSAC rule. The Administration had only ten cotton hand roller gins and ten baling presses for hire to growers at a fee of £1.00 per month in addition to railway and other transport expenses.⁷⁰ The gins and presses were only found at a government cotton farm near the Kafue bridge in Mazabuka. There was not a single gin in Fort Jameson area before ¹⁹¹⁰. The Administration and farmers had to rely on the ALC gins and presses found at Broken Hill (now Kabwe) and Tete in Mozambique. Even then, the growers experienced acute transport problems in delivering the cotton crop. One settler farmer in Fort Jameson made the following complaint to the Administration in 1908:

My 1908 cotton has been detained until too late by lack of transport. There will be about 1,000 to 1,200 acres under cotton in North Eastern Rhodesia this year, and if, as the season promises, we obtain good crops, I fear it will be difficult to get all our cotton to Broken Hill.⁷¹

The problem of inadequate gins and presses was even more pronounced in NER. In 1909 for instance, the Secretary in NER wrote to his counterpart in NWR requesting assistance. NWR sent only two gins and presses to Fort Jameson.⁷² The performance of the two gins and presses was however not up to ~~the~~ export expectations. Consequently, the Administration in co-operation with the ALC bought the cotton and delivered it to the ALC power ginnery at Tete for ginning and baling. Later, it was freighted by steamer down the Zambezi to Chinde from where it was shipped to Liverpool.⁷³

However, despite the measures taken to speed up the export of cotton, the price offered to NER growers was discouragingly low. In 1904, the price of cotton lint in NER was $\frac{1}{2}$ d per pound while it fetched about 7d. at Liverpool.⁷⁴ In 1911, the prices of cotton ranged from $3\frac{1}{4}$ d. to $13\frac{1}{2}$ d. per pound at the Liverpool exchange, but the producers in NER only got a maximum of 7d. per pound.⁷⁵ By 1924, cotton lint was fetching about 7s. 4d. per pound at Liverpool market but a mere 1s. per pound in Northern Rhodesia.⁷⁶ The difference between costs pertaining to production and marketing of cotton and its market value was so discouragingly meagre that by 1908, farmers started expressing dissatisfaction at what the ALC offered them.⁷⁷ In 1906 for instance, 105 pounds of cotton lint fetched £13.18s.0d. on the Manchester

market while production, ginning, baling and transportation costs amounted to £13.0s.6d.⁷⁸ In spite of the adverse effects of the low and fluctuating prices on cotton the ECGC audaciously clung to securing 'cheaper cotton, cheaper raw materials for the use of... British manufacturers'.⁷⁹

What emerges from the above discussion is that the cotton growing potential in NER was let down partly by the absence of efficient processing and transport facilities. The nearest rail line to the west was at Lusaka, about 372 miles (593 kilometres) away. The Great East Road, linking Fort Jameson to Lusaka, was opened to motor transport only in 1929. The nearest railhead to the east was at Salima (in Nyasaland), about 164 miles (262 kilometres) away and was only constructed in 1934. Hence the nearest railhead to the east before 1934 was at Limbe (in Nyasaland), about 225 miles (300 kilometres) away. NER therefore 'suffered from relative isolation and poor communication'.⁸⁰

The common mode of transport before World War One in NER was portering (tenga-tenga). Seed cotton was carried by porters from Fort Jameson to either Broken Hill or Tete.⁸¹ However, two chief set backs arose out of porter transport. Firstly, human transport had natural limitations as regards the weight it was able to carry and the distance it was able to cover in a given time. Secondly, the time taken in delivering cotton and the

return journey by the porters was a misallocation of labour as it (the labour) could easily have been engaged in other productive work. The problem of porter caravans was slightly eased with the introduction, in 1912, of ox-drawn wagons. Nonetheless, this was still far from a satisfactory transport system with regard to 'time taking'.⁸²

Lack of processing facilities and the absence of an efficient transport system was certainly not compatible with the desire to stimulate the cotton growing industry. And this was exacerbated by poor prices.

Competing factors

The Africans' response to cash cropping was with mixed feelings. To some extent, the Kundas responded more positively. The Senga and Ngoni were still suspicious of European activities.⁸³ The poor response on the part of the Ngoni may have been a way of defying the newly established authority. The cautious attitude towards cash cropping can also be attributed to what some scholars have argued as the need to adapt the 'traditional agricultural system to the incorporation of new crops or the expanded production of established crops without threatening the security of minimal subsistence production'.⁸⁴ The industry did not therefore start on a firm foundation.

The general policy of agricultural development in the territory being in the hands of settlers had far-reaching repercussions on the developing cotton industry. While the BSAC and BCGA Boards of Directors put emphasis on

African participation in cotton production, the policy was at variance with what was going on in the territory. Firstly, encouraging Africans to grow cotton for export was construed as a way of under-cutting the source of cheap labour for the anticipated settlers and mines. In fact, the few settlers already in the territory began to put pressure on the Administration to rescind the policy. The settlers even went to the extent of making derogatory allegations that Africans were not the right people to be entrusted with cotton growing because they were 'unintelligent and lazy'.⁸⁵ Even where the Africans were successful the settler farmers still blamed them for spreading pests and diseases. The Governor responded by issuing Ordinance Number 4 of 1914 intended to check African cotton production in a bid to comply with settler demands.⁸⁶ In a nutshell, the discriminatory approach to the development of cotton contributed to its instability.

The reaching of the Katanga copper mines by the railway line offered Northern Rhodesian farmers an attractive export market from 1910. Farmers along the line of rail took advantage of the Katanga market to produce food such as maize and livestock. Cotton became overshadowed in no time at all. Meanwhile, NER farmers took advantage of the protected tobacco market in South Africa. Tobacco was first grown in

NER in 1903. The success of the initial experiments brought in the United Tobacco Company from South Africa in 1913. The Company 'established storage facilities, gave free advice to farmers and was able to pay cash for the farmers' products'.⁸⁷ By the 1920's, tobacco was an attractive European export crop. Thus, the production of maize and tobacco undermined cotton production. Hence, from 1914, cotton production once again became a dead industry in the eyes of the settler farmers due to the emergence of a more lucrative tobacco industry. In fact, the success of tobacco production in Fort Jameson area weakens the official argument that cotton had to be abandoned on grounds of being expensive and time wasting. How come settler grown tobacco (and even cotton) could be carried to Nyasaland? Surely the same porters could have transported the African grown cotton.

At this stage, it is worthwhile to make mention of the implements used. Much as it can be argued that the hoe and axe can ~~not~~ be very efficient ~~for~~ commercial production, or the ox-drawn plough (the implements for settler farmers) in relation to the tractor, their simplicity was not a constraint to any large measure. It was the same implements that the farmers used in the commercial cultivation of tobacco in the Eastern Province and maize along the line of rail. Therefore, the hoe and axe, and the ox-drawn plough may not

have been very modern but sufficed for commercial production at that time. However, it became increasingly difficult to secure hoes due to exorbitant prices. In 1917 for instance, hoes in Asian stores went up by 125 per cent from 1s. to 2s. 3d.⁸⁸ The high prices could have been due to war time conditions. The situation became so acute that chiefs complained to Administration on behalf of their people.

The problem of farm labour appears to have been very acute in Fort Jameson. As early as 1900, the North Charterland Exploration Company manager complained to the NER Administration about the lack of local labour. He attributed this to the large number of people who were going away to work in Southern Rhodesia.⁸⁹ The labour supply was further worsened by the tendency of the Africans to stay away from farm employment during planting and harvest times.⁹⁰ The problem here was that labour demands for cotton growing coincided with the need to attend to family food gardens. Labour shortage in Fort Jameson reached an alarming proportion in 1917 due to increase in the number of carriers in the war. The situation prompted the East Luangwa Farmers Association to petition the Magistrate at Fort Jameson, complaining about labour migration, recruitment of carriers, and labour desertion.⁹¹ Although the Administration banned labour recruitment for Southern Rhodesia, labour migration continued at even an increasing rate.⁹² Hence, shortage of

farm labour was a serious constraint to the labour-intensive cotton growing industry.

CONCLUSION

Efforts to establish cotton growing in Northern Rhodesia and other British colonies arose out of the decline in raw cotton supplies for the British textile industry. However, cotton production in Northern Rhodesia remained at low level despite the efforts of the BCGA in co-operation with the BSAC. The failure to develop a viable cotton growing industry in BSAC Northern Rhodesia can be attributed to at least five chief factors.

First, were the natural factors such as pests and unfavourable weather conditions. Second, was the inefficient and understaffed Department of Agriculture which paid very little attention to cotton growing. That is why the Department failed to come up with an effective answer to cotton pests and diseases. Third, the lack of ginning and baling facilities in the cotton growing areas, the absence of an efficient transportation system and the poor and unstable prices culminated in discouraging marketing conditions. Fourth, the discouraging of active African participation, and the growing of other more popular cash crops posed a threat to the cotton growing industry. And finally, the competition for labour between the capitalist sectors and the subsistence needs of the Africans affected the flow of the much needed labour on the cotton farms. Hence, the viability of cotton growing and yields remained very low during the BSAC period.

FOOTNOTES

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CHAPTER TWO

ERA OF REVITALIZED EFFORTS? 1924-45

The relinquishing of BSNC administrative powers in 1924 and the advent of direct colonial office control of Northern Rhodesia ushered in a new approach to development in the territory. This Chapter is a discussion on the attempts by the Northern Rhodesian Government, the BCGA, and the ECOC to revitalize the development of cotton production for export in the territory between 1924 and 1945. Particular emphasis will be on the Fort Jameson area. The discussion is in two sections. The first section is an account of cotton production with reference to grants, output, type of growers, and marketing. The second section will be devoted to bringing out the chief factors militating against cotton production.

Cotton production

The increase in the price of cotton after the World War One attracted the interest of settler farmers. In the 1923-24 season, blessed with favourable weather and a high price of 1s. per pound, out of 2,331 acres cultivated in the territory, 190,000 pounds of cotton - that is an average of 81 pounds of seed cotton per acre - were harvested.¹ The yield of this season overshadowed the past failures. With this success, the BCGA were encouraged to build a ginnery at Mazabuka which was shortly after completion sold to the newly formed Northern Rhodesia Co-operative Ginneries.²

In the 1924-25 season, 16,702 acres (seven times the 1923-24 acreage) were put under cotton cultivation. According to the Livingstone Mail, cotton was the chief settler crop in the territory.³ The yield came to 1995,461 pounds of seed cotton.⁴ Although the yield was slightly higher than the previous season, it fell short of the expected 15,832,341 pounds.⁵ Inadequate rains and the ravages of insects contributed to the non realization of what would have been a 'bumper' harvest. Commenting on the poor yield, a visiting cotton expert observed that 'the cotton on the whole, has been retarded by abnormal weather conditions, and there is no doubt that this will adversely affect yields. Jassid was found practically all over',⁶

The poor yield prompted the ECGC and the Northern Rhodesia Government to set aside £40,000 as a relief fund to the settler cotton industry.⁷ The maximum grant per grower was £600 and recipients had to grow at least an acre of cotton per £5 advance.⁸ The fund instilled some optimism in cotton planters. J.C. Moore, the cotton expert, was of the opinion that 'the farmers had had a hopeless season but have never been more hopeful'.⁹

Optimism soon turned into pessimism. The settler farmers were plunged into deeper problems as heavy rains destroyed the 1925-26 cotton crop. The government had to

plead with the Colonial Office Treasury to 'fully realize the importance of agricultural development in the protectorate, but having regard to the recent experience in connection with European cotton growers to whom it has become necessary to render financial assistance'.¹⁰

Having faced two disastrous seasons, the interest of settler farmers in cotton growing declined sharply as is demonstrated in the table below:

TABLE NUMBER 1:

ACREAGE UNDER COTTON CULTIVATION

<u>Season</u>	<u>Acreage</u>
1923-24	2,331
1924-25	16,702
1925-26	11,849
1926-27	693
1927-28	286

Source: Owen Clough (ed.), Report on African Affairs for the year 1929, Volume 1 (London : Harrison and Sons Limited, 1930), 73

By 1927, the waning interest in cotton cultivation among settlers necessitated a shift of emphasis to Africans' growers. In fact, ~~even~~ the settler farmers pressed the Administration for 'assurances that the present was an opportune time to develop a native grown cotton industry'.¹¹ The ECGC were cautious. They sent a cotton expert, S. Milligan, to survey the cotton situation. Milligan strongly recommended the establishment of cotton growing

among Africans because 'it was the best solution to the labour difficulty' created by the rural emigration of the able-bodied males.¹² The recommendation echoed the suggestion made in 1925 by H.C. Sampson, the BCGA representative in Nyasaland, that cotton production among Africans in Fort Jameson area was the only way of keeping them on the land.¹³ Hence, Africans were encouraged to grow cotton for sale from about 1927.

There were two reasons for the change of emphasis. Firstly, the BCGA and ECGC were still determined to develop an export oriented cotton industry in the territory. Moreover, cotton experiments among African farmers were a way of easing the financial losses of settler farmers. Secondly, the Administration was in favour of Africans cultivating because of the need to have a slightly self-sustaining labour-reservoir. A cash crop with low return made the growers vulnerable to settler (and other capitalist) labour demands. Furthermore, the settlers did not anticipate much success from the Africans as to undercut their (settler) source of cheap labour. Hence, what was happening to cotton in Northern Rhodesia concurs with Brett's observation of Colonial Kenya that 'African production tended to be encouraged during periods of low prices because of the failures of the settler sector'.¹⁴

The decision by the settler farmers to abandon cotton cultivation was felt more in the Fort Jameson area where average yields per acre were usually below the territorial ones. For instance, while the territorial average yield

for the 1923-24 season was 81 pounds of seed cotton per acre, the average yield for Fort Jameson was 52 pounds per acre.¹⁵ A cotton expert attributed the low average yields of cotton in Fort Jameson area, to the fact that the farmers depended almost entirely upon tobacco and had little knowledge of growing cotton.¹⁶ Were the African growers more knowledgeable then?

Even if the governments, interested individuals and corporations wanted to develop viable African cash crop, the policy faced obvious setbacks. The land issue, for one, posed a big problem to effective implementation of this policy in the Eastern Province as a whole.¹⁷ Throughout the BSAC era, 10,000 square miles (about a third of the total area in the Province) stretching from the Luangwa River to the Malawi border, fell under the North Charterland Exploration Company. By 1928, this was reduced to 6,500 square miles. The Company was primarily interested in land sales to settlers and big business concerns. Leroy Vail observes that 'the Company pursued a policy of land alienation and establishing Native Reserves with certain land as European and other land as African'.¹⁸ Land alienation entailed that large tracts of the best farmland fell under the settler farming sector. Africans were thus insecure as they were thrown off their land at will. By the close of the 1930s, African reserves (particularly on the plateau) were experiencing over-

crowding; and consequently land denudation due to shortage of both agricultural and grazing land. Hence, the only area where an African's cash crop industry could develop without fear of land dispossession was in the tse-tse fly infested Luangwa valley.

In 1928, the ECGC attached A.G. Bellington (as their full-time cotton expert) to the Department of Agriculture. The ECGC also proposed to pay half the salaries of two trained men to work on cotton among Africans and open sub-stations around Fort Jameson and Abercorn (now Mbala). H. Fraser was sent to Fort Jameson in 1929 and he opened the Agricultural Research Station the following year. This station was meant to concentrate on cotton work. However, during the first years, Fraser concentrated on improving the tobacco crop.¹⁹ It was not until the mid 1930s that a scatter of cotton trials were started among Africans along the Luangwa valley and its tributary valleys. The success of the initial 20 half-acre plots in the area prompted the ECGC to write to the Northern Rhodesia Government that cotton 'as a cash crop would be a great boom to the natives, its provision would be very welcome to the government as enabling the physically fit men to earn a living at home instead of going off to the mines'.²⁰

In 1935, after soliciting government support, the ECGC set aside £80 (raised to £560 by the end of the year)

for small cotton experimental plots near chief Jumbe's village.²¹ Two years later, a grant of £707 was proposed for cotton development in the Luangwa valley.²² In 1932, the Native Development Board granted a total of £2,556 to cotton development of which £1,850 went to Luangwa valley.²³ The 1930s witnessed increased technical and financial assistance to the cotton growing industry. The grants to cotton were for buying, storage, ginning and baling charges. The financial assistance given to the cotton growing industry during the 1930s was greater than that given to any other economic crops. In 1938 for instance, the cotton grant was £2,556 while that for tobacco and beeswax amounted to only £773.²⁴ Technical and increased financial assistance led to the increase in both the number of African growers and the quantities they produced. The table below best illustrates the case of the Fort Jameson area:

TABLE NUMBER II

<u>Season</u>	<u>Number of Growers</u>	<u>Weight of Seed Cotton (lbs.)</u>	<u>Total Cash Pay out (£)</u>
1936-37	20	7,700	11.3.4
1937-38	45	16,392	57.2.0
1938-39	150	71,441	213.15.3
1939-40	700	79,860	228.16.5
1940-41	525	95,603	285.8.7
1941-42	365	90,896	284.1.0
1942-43	Not available	45,910	Not available

Source: NAZ: SEC1/60, Assistant Director of
Agriculture, Fort Jameson, to the Director
of Agriculture, Mazabuka, 14 September,
1942.

The increase in the number of growers and quantities produced between 1935 and 1941 may have been because of labour repatriation from the mines and other capitalist enterprises within and outside the territory during the 1929-32 economic slump.²⁵ The change of emphasis thus came at an opportune time. The opportunity of a cash crop did not only attract rural immigration (in the valley in particular), but also encouraged a significant number to stay on the land. Consequently, the proportion of absentee males in Fort Jameson area fell from 70 per cent to 40 per cent by 1939.²⁶ Worth noting here is the thesis advanced by Saul and Wood that a high proportion of absentee males in villages can be attributed to the 'absence of readily available cash-crops'.²⁷

The revitalized cotton growing industry led to a ginnery being erected at Jumbe in 1940. Furthermore, of 8,000 pounds of cotton lint sent to Gatooma (in Southern Rhodesia) in 1943 for sale, fetched 9d. per pound and showed that the Luangwa cotton crop was of a very high grade.²⁸ However, the increase in interest, quantity and quality produced was soon to become a temporary

experience owing largely to a combination of various factors (discussed below). The number of growers and quantity produced declined by almost 50 per cent between 1940 and 1946.²⁹ In fact, the government seriously considered abandoning the Luangwa valley cotton growing industry just after World War II.³⁰

Constraints on cotton growing, 1924-45

The official explanation for the difficulties besetting the cotton growing industry in the Fort Jameson area was centred around natural calamities. Either the rainfall was too much or inadequate as was the case between 1924 and 1926, and the 1939-40 season.³¹ Pest (particularly the Bollworm - Stainer) attacks and fungoid diseases appeared to be out of control virtually every growing season.³² There was also the problem of epidemics. Between 1941 and 1942 for instance, cotton growing in the areas of Chiefs M'soro and Tindi was suspended by the Department of Agriculture 'owing to the sleeping sickness epidemic in order to avoid the spread of the disease'.³³

However, natural setbacks alone do not fully explain the various factors militating against cotton production in Fort Jameson. In this context, consideration should also be given to technical and socio-economic factors. How much attention was given to the industry? Were the

efforts of the ECGC fully channelled into the cotton industry? Above all, was cotton growing a lucrative industry to the growers?

A sufficient supply of both unskilled and trained labour is one of the key necessities in any industry. However, one characteristic of the Department of Agriculture was the mischannelling of manpower. For instance in 1929, the two trained agricultural officers sent to Fort Jameson and Abercorn were on the understanding by the ECGC that they would direct their efforts to cotton development. However, little attention was given to cotton as the government was more interested in coffee and tobacco. The officer at Abercorn directed his efforts to coffee growing while Fraser, at Fort Jameson, concentrated on improvements in the quality of tobacco.³⁴ When asked for a progress report by the ECGC, the Director of Agriculture (C.J. Lewin), in a very vague report in 1935 attributed the slow progress on cotton growing among the Africans to insufficient funds allocated to the project.³⁵ The truth was that Lewin was reluctant to encourage cash crop production among Africans to protect settler agriculture both in terms of labour and market.³⁶

It was not until 1935 that Fraser made entirely unofficial investigations on the possibility of cotton growing in the Luangwa and its tributary valleys.³⁷

The success of the cotton trials in the valley prompted the ECGC to ask the Government to give its blessing and support to this venture for at least four years.³⁸ The Department of Agriculture gave its co-operation. This should not be construed as a change of heart on the part of the Department, but as a result of mounting pressure by the ECGC. However, it was not long before the already understaffed Department of Agriculture was forced into a **staff crisis**. With the outbreak of World War II, a number of government officers were conscripted into the army.³⁹ Fraser was among them. This left no supervisors and was a great blow to agriculture, particularly cotton which was still not very well established.

Up until 1936, the proportion of absentee males in Fort Jameson district was about 70 per cent. It fell to about 40 per cent by the close of the 1930's.⁴⁰ A large number of absentee males was in wage employment in Southern Rhodesia or the Union of South Africa. The southward flow of African workers was due to higher wages and generally better working conditions there.⁴¹ The repercussion on Fort Jameson district was labour shortage for both settler and African agriculture. Indeed, as early as 1925, the chief representative of the BCGA in

Nyasaland had warned the Northern Rhodesia Government that African labour shortage might become acute.⁴² This was the situation in the 1920's. Labour shortage resulted in late planting and harvesting which in turn led to late delivery to cotton auction in Nyasaland or at Jumbe.⁴³

The increasing number of absentee male adults in villages led to agricultural work to fall on women and children. As one scholar has argued, the Administration new by the late 1920's that cotton as an African cash crop could only be grown by women and children.⁴⁴ The situation did not escape the notice of the District Commissioner, the Kenneth Bradley, who observed in 1938 at market for cotton and rice at Jumbe:

The cotton and the rice were carried in from the villages by women....each with a wicker bale of cotton on her head, shining in the sun.... The young ones will run and spend their every penny at the Indian Store.⁴⁵

The labour situation could have been worse but for the "push-back" effect of the 1929-32 economic recession.

The negative attitude of the Government towards cotton production is further demonstrated its lack of financial assistance. The Department of Agriculture mischannelled a sizeable portion of the funds from the ECGC. In 1926 for instance, £40,000 was set aside as the relief fund to settler cotton planters. The ECGC made it very clear

that the recipients of the grant had to grow at least an acre of cotton per £5 advance. The Department of Agriculture however argued that the scheme did not provide for relief of the other farmers who had not planted cotton, but were also in need of financial assistance.⁴⁶ The Government did not want to pour the whole of the relief fund into cotton. Hence, the grant meant for cotton growers was in fact shared with non-cotton planters. Furthermore, the Government would have abandoned the cotton scheme had not the ECGC 'with characteristic generosity and promptitude, agreed to bear all charges'.⁴⁷ However, the efforts of the ECGC were further frustrated by the fact that the money made available was spent on running the Agricultural Station (Salaries), and not on the actual improvement of cotton production, vis-a-vis research, purchasing, ginning and baling.

As the pre- 1924 period, the prevailing marketing facilities contributed greatly to retarding viable cotton production. Firstly, transportation from Fort Jameson to market centres was costly as well as unreliable. Although the Great East Road was opened to motor transport in 1929, it was 'a mere track of twin footpaths... deviated round every large tree and anthill'.⁴⁸ The road was usually closed to motor (lorry) transport during the rainy season.

Even with such an unreliable route, the freight charge was 4d. per pound for every 100 miles from Fort Jameson to Lusaka.⁴⁹ The freight charge was very high considering that the average freight rate for goods in the territory, during 1930's for instance, was 1d. per pound for every 100 miles.⁵⁰ Additionally, ginning and baling also tended to raise production costs. In 1935 for instance, the charges for ginning and baling were 1½d. and ½d. per pound respectively.⁵¹ The high freight and handling charges could have been justification for offering lower prices to Northern Rhodesian farmers. However, the low prices killed the little interest the growers had. The low prices did not consider the costs of production. Difference between cost of production and the selling price was generally marginal. In 1925 for instance, the cost of production was from 7d to 9d. per pound while the selling price was a mere 1s. per pound.⁵²

Secondly, cotton prices were always fluctuating, and well below current market prices. For instance, in 1924, cotton was 1s. per pound in Northern Rhodesia while it was 7s.4d. in Liverpool.⁵³ By 1937, the price of cotton lint was 28s. per 48 pound bag in Liverpool but a mere 5s. per bag at Jumbe.⁵⁴ Furthermore, seed cotton at Jumbe always fetched less than the Salima price for seed cotton.⁵⁵ Similarly, the cotton exported to Gatooma

in 1943 from Fort Jameson fetched 9d. per pound while growers only got $\frac{3}{4}$ d. per pound.⁵⁶ Consequently, returns to cotton growers as can be deduced from the table below were quite low and fluctuating.

TABLE NUMBER III

Season	Weight of seed cotton (lbs.)	Average cash Pay out per grower (£)
1936-37	7,700	0.11.2
1937-38	16,392	1. 5.4
1938-39	71,441	0.17.0
1939-40	79,860	0. 7.0
1940-41	95,603	0.10.2
1941-42	90,896	0.15.7

Source: NAZ: SEC1/60, Assistant Director
of Agriculture, Fort Jameson, to
the Director of Agriculture, Mazabuka,
14 September, 1942.

The plight the cotton growers were experiencing
received sympathy from isolated officials. One
District Commissioner **cautiously** warned in 1936 that:

It is - I think - inadvisable to let prices
fluctuate at present and no increase on the
price should be given unless that price can
be kept up... To give them 5/- a bag now and
then to reduce it to 4/- another year would
cause uncertainty and discontent.⁵⁷

Low returns to growers meant little or no re-investment.
The money earned from cotton sales was used to pay taxes

or to buy goods from the Indian owned shops.⁵⁸

Until after 1945, all cotton was handled by the Department of Agriculture. The Department started getting disposal problems in 1939 with the withdrawal of the BCGA. Because of the unstable world cotton prices dictated by the large stocks of cotton in America, the BCGA made it very clear that they were not interested in any production of cotton short of 7,000 bales per annum.⁵⁹ It was at this stage that the Department of Agriculture, at the slightest excuse, begun to seriously contemplate abandoning the cotton project on economic grounds.

The problem of cotton marketing coupled with low prices made the growers become aware of the Government's indifference to cotton growing. Why continue with it? Four growers at Jumbe even went to the extent of agitating fellow growers to abandon the crop. As a Mr. A.J. Ndelemani recalls:

Some of them were willing to grow cotton. They grew it but were discouraged because the price was very low. Very little money was paid to the growers... very little.⁶⁰

The Government however accused those ready to stop cultivating cotton as 'doing so because they had an excellent contract to supply fingermillet to the Fort Jameson beer hall. They do not understand that

the quantity of millet required is extremely small and that overproduction will spoil the very good price they are getting'.⁶¹ What the Government failed to comprehend was that besides the higher returns, millet was a food crop and was easier to grow than cotton.

By 1945, it was evident that the interest to develop cotton remained only with the Provincial Administration. As the Provincial Commissioner at Fort Jameson complained to his superiors in 1940:

The importance of keeping this industry going must surely outweigh any consideration of a minor financial loss to Government during a bad year.⁶²

Thus, the Department of Agriculture reluctantly continued to handle the cotton crop because of pressures from the Provincial Administration. Hence, the attitude of the Department towards the industry became increasingly indifferent, contributing greatly to the death of the cotton growing industry in Fort Jameson area.

CONCLUSION

Cotton cultivation became an African occupation with the failure of settler cotton production. The ECGC provided the funds and personnel for its development while the BCGA were the chief buyer. Nonetheless, cotton production did not expand to notable proportions

chiefly due to four factors.

Firstly, cotton was prone to natural disasters such as insect pests, disease, and bad weather. Secondly, Government indifference as demonstrated in the lack of supervisory manpower and insufficient financial assistance to the cotton industry. Thirdly, cotton, being a labour-intensive crop, was undermined by the high proportion of absentee males who could provide the much needed labour. And finally, unfavourable market facilities represented by high transportation costs, fluctuating prices, and competition from other crops. The 1924-45 period was therefore, more or less, a repeat of the BSAC era, making cotton production still an unattractive enterprise.

FOOTNOTES

1. PRO/CO/795/7/16891, J.C. Moore, "Report on Cotton Growing in Eastern Province", 19 April, 1925.
On an average, cotton lint is one third in weight of a given seed cotton. Also see J. Berger, The World's Major Fibre crops: their cultivation and Manuring (Zurich : Centre D'etude De L'azote, 1969), 42.
2. PRO/CO/795/7/16891, Moore, "Report on Cotton Growing", 19 April, 1925.
3. Livingstone Mail, 5 March, 1925.
4. PRO/CO/795/7/16891, Moore, "Report on Cotton Growing", 19 April, 1925.
5. This yield was expected from the average yield of at least 80 pounds per acre like in the previous season.
6. PRO/CO/795/7/16891, T.G. Hesse, "Cotton Expert Report", 18 March 1925.
7. NAZ: RC/106, Secretary of State, London, to Governor, Livingstone, 4 August, 1925.
8. NAZ: RC/106, Secretary of State, London, to Governor, Livingstone, 4 August, 1925.
9. PRO/CO/795/7/21484, Moore, "Report on Cotton", 19 April, 1925.
10. PRO/CO/795/11/4925, G.L. Bartson, "Estimates for the 1926/27 Financial Year", 9 June, 1926.
11. PRO/CO/795/11/4925, Bartson, "Estimates for the 1926/27 Financial Year", 9 June, 1926.
12. NAZ: RC/12, S. Milligan, "Report on the Agricultural Department of Northern Rhodesia", 22 May, 1926.
13. PRO/CO/795/9/46855, Sampson, "Report on Cotton Growing in Fort Jameson", 22 October, 1925.
14. Brett, Colonialism, 205.
15. PRO/CO/795/7/16891, Moore, "Report on Cotton", 19 April, 1925.

16. PRO/CO/795/16891, Moore, "Report on Cotton", 19 April, 1925.
17. The Land Policy is discussed at length in many works such as Jokanya, "East Luangwa".
18. Vail, 'Ecology and History', 137. For details see Jokanya, "East Luangwa".
19. Pim Report, 236.
20. NAZ: SEC1/60, L.G. Kilby, Secretary of the ECGC, Manchester, to C.J. Lewin, Director of Agriculture, Mazabuka, 6 November, 1935.
21. NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 2 July, 1936.
22. NAZ: SEC1/60, Deputy Governor, Lusaka, to Secretary of ECGC, Manchester, 15 September, 1936.
23. Northern Rhodesia: Native Development Board Report on Work Financed by Funds voted to the Agriculture Department (Lusaka: Government Printer, 1940), 3.
24. Native Development Board Report, 3.
25. G.J. Orde Browne, Labour Conditions in Northern Rhodesia (London: Colonial Number 150, 1938), 13. Also Mtisi, "Economic Impact", 315.
26. Northern Rhodesia Department of Agriculture Annual Report for the Year 1939 (Lusaka: Government Printer, 1940), 7.
27. Saul and Woods, 'African Peasantries', 108. However, Mtisi, "Economic Impact", 314, 324, would like us to believe that the Administration employed force such as compulsory labour recruitment for 'harder jobs' to those who did not grow cotton. The picture of cohesion is wrong because the Administration was never enthusiastic about the cotton industry and was ready to pick on the slightest chance to stop the industry. Mtisi thus contradicts himself when he makes repeated references to Lewin's anti-cotton attitude. See 315-320.
28. NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 1 November, 1943.

29. Kay, Changing Patterns, 83.
30. Northern Rhodesia Department of Agriculture Annual Report for the Year 1946 (Lusaka : Government Printer, 1947), 15.
31. See PRO/CO/795/7-8, Cotton experts' reports, 1925-26 Also NAZ : SEC1/60, Provincial Commissioner Fort Jameson, to Chief Secretary, Lusaka, 1 August, 1940.
32. Much more affected was the widely grown (on account of its purity of strain, good staple high value of its lint) Watts Long Staple. See PRO/CO/795/7/2343, Moore, "Report on Cotton Growing", 30 May, 1925.
33. NAZ: SEC1/60, Assistant Director of Agriculture, Fort Jameson, to the Director of Agriculture, Mazabuka, 14 September, 1942.
34. Pim Report, 232
35. NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 30 December 1935.
36. Northern Rhodesia Department of Agriculture Annual Report for the year 1931 (Livingstone: Government Printer, 1932), 16.
37. NAZ: SEC1/60, Secretary of ECGC, Manchester, to Director of Agriculture, Mazabuka, 6 November, 1935.
38. NAZ: SEC1/60, Secretary of ECGC, Manchester, to Director of Agriculture, Mazabuka, 6 November, 1935.
39. NAZ: SEC1/60, Provincial Commissioner, Fort Jameson, to Chief Secretary, Lusaka, 1 August, 1940.
40. Northern Rhodesia Department of Agriculture Annual Report for the Year 1939 (Lusaka: Government Printer, 1940), 7.
41. See C. Van Onselen, Chibaro: African Mine Labour in Southern Rhodesia 1900-1933 (London: Pluto Press, 1976), 24-25, 34-63, 93, 117-118. Also K. Hancock, Survey of British Commonwealth Affairs, 1918-1939: Volume II, Problems of Economic Policy Part 2 (London: Oxford U.P., 1964), 30, 93.
42. PRO/CO/795/7/16891, Moore, "Report on Cotton Growing", 19 April, 1925.

43. PRO/CO/795/9/45665, Sampson, "Report on Cotton Growing", 9 October, 1925.
44. Mtisi "Economic Impact", 306.
45. Bradley, 'Diary', 75.
46. NAZ: RC/106, Governor, Livingstone, to Chief Secretary, London, 8 August, 1925.
47. Northern Rhodesia Department of Agriculture Annual Report for the Year 1933 (Livingstone: Government Printer, 1934), 8.
48. H.C.N. Ridley, 'Early History of Road Transport in Northern Rhodesia' Northern Rhodesia Journal volume II, Number V (1955), 19.
49. Pim Report, 230.
50. Pim Report, 230.
51. NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 30 December, 1935.
52. PRO/CO/795/7/21484, Moore, "Cotton Expert Report", 31 March, 1925.
53. First Annual Bulletin of the Department of Agriculture, 1931, 12.
54. NAZ: SEC1/60, H.C. Ducker, "Report on Cotton Growing in Luangwa Valley", 28 April, 1937.
55. NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Acting Governor, Lusaka, 6 December, 1936.
56. Mtisi, "Economic Impact", 322.
57. NAZ: SEC1/60, District Commissioner, Mazabuka, to Provincial Commissioner, Livingstone, 22 December, 1936.
58. Bradley, Diary, 76.
59. NAZ: SEC1/60, BCGA Chairman, Manchester, to Director of Agriculture, Mazabuka, 15 February, 1940.
60. Quoted in Mtisi, "Economic Impact", 320.
61. NAZ: SEC1/60, Provincial Commissioner, Fort Jameson, to Chief Secretary, Lusaka, 1 August, 1940.
62. NAZ: SEC1/60, Provincial Commissioner, Fort Jameson, to District Commissioner, Fort Jameson, 5 September, 1940.

CHAPTER THREE

A REAPPRAISAL AND CONCLUSION

There is probably no other crop in Africa with which greater mistakes have been made through rushing forward with production before the local problems have been mastered. The limited history of the cotton crop in Northern Rhodesia provides ample evidence of the need for thorough investigation.¹

In 1946, the total production of 275 cotton growers in the Luangwa valley was 43,000 pounds of seed cotton.² In 1960, production in the area was carried on by 12 growers.³ The number of cotton growers in the Luangwa valley had dropped to nil by the time of independence.⁴ Emphasis on cotton cultivation had shifted to the line of rail in Southern and Central Provinces.

The establishment of a cotton growing industry in Northern Rhodesia was to some extent influenced by the Nyasaland cotton industry. For instance, Nyasaland embarked on cotton growing at least two years earlier than Northern Rhodesia. Hence, the cotton seeds (Egyptian varieties in particular) sent for experiment purposes were on the basis of their being successfully grown in Nyasaland.⁶ Similarly, the discriminatory Cotton Ordinance of 1914 in Northern Rhodesia was patterned on the Nyasaland Cotton Ordinance enacted four years earlier.⁷

Additionally, the emphasis on Africans' cotton growing from 1927, followed the example of Nyasaland where this had taken place in 1922.⁸ Even the cotton experts who toured the Fort Jameson area came from the BCGA station in Nyasaland.⁹ The two neighbouring territories therefore also shared more or less, the same cotton failures.¹⁰

While the cotton growing industry in Northern Rhodesia was generally below a significant commercial level, a success story could be told of other African British colonies such as Uganda, and later Tanganyika. Cotton exports from Uganda amounted to more than half of the territory's total exports by as early as 1914.¹¹ Average cotton exported between 1923 and 1925 were 138,000 bales of 400 pounds, rising to an average of 359,000 bales between 1936 and 1938.¹² Tanganyika's cotton exports rose by at least 34 per cent between 1923 and 1938.¹³ As S.N. Chipungu has noted, more cotton than food crops was produced for sale in Tanganyika's Sukumaland between 1919 and 1961.¹⁴ The relative success of cotton in East Africa could even be extended to Kenya where production, although less than in the other territories, had an upward trend. For instance, exports rose from 1,200 bales of 400 pounds each in 1923 to

19,610 bales in 1938.¹⁵ Cotton production in the three territories was basically an African occupation.

This chapter is an attempt to compare the Northern Rhodesian cotton situation with that of other African territories. Particular attention will be paid to a comparison of positive and negative factors affecting the cotton growing industries in Uganda, Tanganyika, West Africa, Ouhangi - Chari (French Equatorial Africa), and Mozambique.

Most scholars attribute the success of cotton in colonial Uganda to the concerted efforts of the Government, the BCGA, the Uganda Company Limited, and the Church Missionary Society.¹⁶ The BCGA provided seeds and technical advice and set up central cotton gins to prepare the crop for shipment. The Administration, the Uganda Company, and the Missions enlisted the help of Chiefs. The Chiefs distributed the seed to their subjects and made sure that it was planted and harvested according to instructions. Notable was the keen interest shown by the Government which even subsidized cotton prices during difficult times.¹⁷

For Northern Rhodesia, what comes to light is the disadvantaged position the cotton industry was

in. Firstly, cotton growing areas such as the Luangwa Valley lacked a central ginnery to fully prepare the cotton for export.¹⁸ Secondly, transportation problems were rife in areas away from the line of rail.¹⁹ Thirdly, the cotton growing industry in Northern Rhodesia was not given adequate Government attention, while the chief buyers, the BCGA, pulled out of the venture in 1939. Additionally, the Christian Missions such as the London Missionary Society (LMS) and the Catholic Church tried to encourage cotton cultivation among Africans but were put off by the negative attitude of the Administration. For instance, the LMS was discouraged to promote cotton cultivation at Kambole, in Northern Province, during the 1920's on grounds that it was not in the interest of the settler.²⁰ Similarly, the Catholic Church, particularly at Kasisi Mission, east of Lusaka, attempted to go into cotton production during the first decade of this century, but were let down by the supplies of wrong seed and delays in Government provision of ginning and baling facilities.²¹

It would not be far-fetched to contend that cotton cultivation, particularly in the Luangwa valley, was largely due to the initiative of the African growers.

This fact is brought out by the District Commissioner at Fort Jameson who in 1938 noted that the attitude of the Africans in the Luangwa valley towards work was very favourable to cash cropping.²² Indeed, it was partly because of requests by chiefs around Mirambo in Luangwa valley that the Provincial Commissioner approached the Department of Agriculture to continue handling seed cotton after 1945.²³ One may wonder why this was the case when there were so many discouraging factors. The point is that the Chiefs also saw, in a cash crop, a way of combating migration of the productive population from the villages. Hence, cotton cultivation in the Luangwa valley provides a good rejection of John Tosh's assertion that the Africanist scholars exaggerate the peasant initiative as opposed to the extension officer and the administration.²⁴

Cotton became one of the chief primary products of the post 1945 Tanganyikan economy due largely to African cotton co-operative societies. These co-operatives arose out of discontent with the Asian-controlled monopoly system, which exploited the grower both by legal means and cheated him through corrupt and illegal methods.²⁵ The co-operatives had by 1953, captured 13 per cent of the total crop sold, 60 per cent by 1956 and 100 per cent

by 1959.²⁶ The advantage of a co-operative is that the growers are able to control the marketing or processing of their crop. As a result, the grower is assured of a guaranteed price and is therefore not subject to the fluctuations common to private enterprises purchases.²⁷

In Northern Rhodesia, exclusively European producers' marketing societies were formed as per 1914 Societies Ordinance. The Northern Rhodesia Cotton Co-operative Society was one of them. However, the society had two weaknesses. Firstly, its membership was confined to settler farmers along the line of rail.²⁸ This meant that the Africans and the settler farmers away from the line of rail were left out. The farmers in Eastern Province were further disadvantaged by lack of an organization to safeguard their interests. The Farmers Association in the region existed only from 1904 to 1910 and then "on and off" after World War 1 because of organizational problems owing to a small and sparse settler population.²⁹ Secondly, the finances of the Society were not solvent. It owed a lot of money to the BCGA from which it bought the Society's only ginnery.³⁰

It was not until 1947 when the Government directed

African producer co-operatives dealing with tobacco and groundnuts were formed in Petauke. By 1949 tobacco, maize, and groundnuts' co-operatives were flourishing around Fort Jameson.³¹ There were about 16 African Primary Producer Co-operatives in Eastern Province in 1954, with the Alimi Co-operative Marketing Association Limited as the Secondary one.³² By 1957, a larger Eastern Province Marketing Association was established as a central administrative organ of the Government directed marketing unions.³³ The Department of Agriculture operated a direct Producer Marketing Scheme in the Luangwa valley on grounds that 'an economically sound co-operative scheme could not as yet be established in a difficult, backward and somewhat remote area.'³⁴ It is therefore not surprising to note that even as late as 1961, the Government was of the view that African co-operatives could not be depended upon for efficient service 'amongst a backward people which lacks a group of fundamental economic factors'.³⁵ Thus, owing to the absence of unionized marketing, the cotton growers fell victims to price fluctuations as they were not guaranteed a minimum price.

The two chief factors against British efforts to develop cotton cultivation in West Africa between

1850 and 1910 were:

- (i) indigenous West African cultivators could not compete with other farmers from other parts of the World (particularly America) with mechanized, up-to-date equipment which reduced costs of production, and
- (ii) the production of groundnuts as a food as well as cash crop.³⁶

Comparatively, the West African experience fits well in Northern Rhodesia. Firstly, the BCGA lost interest in the small production in Northern Rhodesia by 1940 because of the large stocks from America. Hence, the African cotton cultivators in the territory could not compete with the technologically advanced cotton planters from other parts of the world. Secondly, the alternative of maize production along the line of rail, and groundnuts and tobacco in the Eastern Province greatly undermined cotton cultivation. In fact, cotton fetched more than maize taking into consideration that overhead costs such as on implements (hoe and axe) were the same or of marginal difference. For instance, on an average, an acre of land would yield two (200 pound) bags of maize and four (48 pound) bags of cotton.³⁷ The cash returns would be a total of ten shillings on maize and 16 shillings on cotton.³⁸ In 1937 for instance,

the price of maize was five shillings per bag of 200 bounds while that of a 48 pound bag of cotton was only a shilling lower.³⁹ It can only justifiably be argued that the preference of maize to cotton was to a large extent because the price of the latter was not sufficiently high to compensate for its burdensome labour requirements. Furthermore, unlike cotton, maize was a food crop which could be kept for homestead consumption if not marketed or sold.

Settler (even African eventually) agriculture in Fort Jameson evolved around tobacco because it fetched more than cotton. In 1942 for instance, the price for African grown tobacco ranged from 3 to 4 d. per pound while cotton was $\frac{3}{4}$ d.⁴⁰ In 1951, European tobacco was 34 d. per pound while cotton was a meagre 4 d. per pound.⁴¹ However, despite preference of this crop by farmers, it was more labour demanding than cotton. In 1916 for instance, the Magistrate at Fort Jameson estimated that an acre of tobacco required one and half men to attend to it while that of cotton required only half a man.⁴² However, the higher prices compensated for the ^{onerous} tobacco. Hence the production of maize as a food and cash crop, and higher prices for tobacco contributed to undercutting cotton cultivation.

That cotton was not a food crop and unrewarding to farmers in a colonial set up also applied to Colonial Mozambique where Africans opposed its forced cultivation and used ways such as deserting their villages or practising wrong husbandry.⁴³ The end result was low produce due to labour shortages or cultivation outside expert instructions.

Cotton growers in Luangwa valley also suffered from wrong methods of cultivation due to inadequate supervisory staff, while labour shortages were caused by capitalist (mines and settlers) labour demands. The cotton labour crisis falls in line with Maud Muntimba's observation that 'capitalist success to control African labour and other means of increasing labour's productivity undermined productivity in the peasant sector'.⁴⁴ Additionally, the introduction of an African cotton industry coincided with the creation of reserves. Consequently, some Africans in the Eastern Province and the line of rail justifiably construed the move as a prelude to further land dispossession for European settlement should cotton cultivation prove successful in their areas.⁴⁵ Thus, the industry started on a weak foundation owing to fears among some of the potential growers.

While Britain and Portugal were busy trying to secure cheaper sources of raw cotton, France was also

doing the same in her colonies. The constraints on French attempts were similar to the ones experienced in British colonies. For instance, some scholars have observed that cotton production failed in Oubangui-Chari (now forming Central African Republic and the Southern part of Chad) because 'transportation and handling costs were so high that the peasants received only a small fraction ... planting cotton was not worth their while'.⁴⁶ Such a situation was similar to what was happening to Northern Rhodesian cotton, particularly from Fort Jameson. Thus, it can be argued that cotton growing was unprofitable partly because the colonial Governments were only interested in raw cotton for the metropolitan textiles. As one member of the Northern Rhodesia Legislative Council put it in 1935:

The General Policy of the imperial governments is to get raw produce and raw materials at the very lowest figure and sell us British manufactures protected by tariffs at the very high prices they can get.⁴⁷

The Government remained adamant to the call for local cotton manufacture. The issue came up again only five years later due to marketing problems arising out of BCGA withdrawal. Worth quoting is the suggestion to the Chief Secretary by the

Provincial Commissioner at Fort Jameson that:

It has been said that we can not dispose of our crop. If this is so then I would suggest that machinery be provided to make absorbent cotton wool on the spot - at times such as the present the demand in this territory for this commodity could perhaps be filled and the surplus could be used by the military.⁴⁸

No heed to such repeated pleas was taken. No example was taken of the steps taken for local tobacco manufacturing at Choma let alone cotton manufacturing at Gatooma in neighbouring Southern Rhodesia.⁴⁹ Therefore, it can only be deduced that the Government played "blind and deaf" to the cotton issue primarily because it was now a largely African crop. Production for local market would have entailed a subsidizing scheme as was the case with maize and cattle.⁵⁰ This discriminatory scheme induced farmers to concentrate on maize and cattle. Subsequently, 'Government sponsored profits in the industry retarded the development of alternative crops that could be profitably exported without artificial price supports'.⁵¹ Hence, the cotton growing industry was also a victim of the general colonial agricultural policy. As Geoffrey Kay rightly argues:

Free trade and trade maximisation were only of interest to the colonial government:
(1) insofar as they were consistent with profitability and accumulation

of British capital: and (2) only to the extent that they did not threaten to undermine the social basis of British Power in the Colony.⁵²

C.W. De Kiewiet has pointed out that 'it was natural for Boer society to put its faith in occasional good seasons rather than science'.⁵³ Cotton production in Northern Rhodesia between 1900 and 1945 could readily be equated to the pre-mineral revolution agriculture in South Africa. Yields depended on nature. Too high or too low of both rainfall and temperatures caused poor yields. Furthermore, the crop was susceptible to pest ravages owing to the lack of combative measures. Pesticides such as fumigants and chlorinated hydrocarbons of which DDT (Dipheryl-trichloron-ethane) is best known were only developed after World War II.⁵⁴ Removal of the old crop by a certain date and crop rotation were the only form of pest control measures cotton growing was subjected to.⁵⁵ Such pest control measures had adverse effects on the cotton growing industry. First, other rotation crops such as maize tended to eventually take priority.⁵⁶ Second, the removal of the old crop by a certain date entailed that cotton had to be collected by a certain date. Hence, seed cotton was in some cases prematurely harvested and the lint spoiled because of poor storage facilities.

CONCLUSION

Efforts to establish cotton production in Northern Rhodesia for British textile mills stretch as far back as 1904. The scheme was prompted by the need to offset dependence on American raw cotton. The efforts were due largely to the BCGA and ECGC. The former handled the marketing aspect while the latter was concerned with financial and technical assistance.

Cotton growing was initially a predominately settler occupation. By the close of the 1920's, settler failures led to the shift to African cultivators, particularly in the Luangwa and its tributary valleys. Despite going through two phases, the industry did not expand to commercially attractive proportions and abandonment was the official opinion by the end of World War II. The socio-economic and technical factors militating against the cotton growing industry in Northern Rhodesia were many and varied. We can however pick out at least four chief factors.

Firstly, the aspirations of the BCGA and ECGC were at variance with those of the Northern Rhodesian Government. Government inclination towards export crops was minimal as preference was given to foodstuffs for the mines. Consequently, very little prior investi-

gation was made into the suitability of the different cotton varieties introduced and the problem of pests. Hence, the cotton crop suffered from Government neglect. Furthermore, colonial agricultural policy was coloured with ~~machin~~actions to maintain the status quo - settler dominance. Noteworthy is land alienation during the 1920's, and market manipulation as evidenced in the Maize Control Ordinance and Cattle Control Board of 1936 and 1937 respectively. Also, African growers were always starved of capital and technical advice. Consequently, yields were low and at the mercy of nature.

Secondly, the industry experienced labour shortages, especially during the busiest (planting and picking) times, due largely to competing labour demands from other capitalist enterprises within and outside the territory. Additionally, the cycle of the labour - intensive African cotton crop overlapped with food crops. Priority had to be given to food stuffs.

Thirdly, cotton lacked an efficiently organized transport and marketing system. The growers never exercised any control over the marketing and processing of the crop. Subsequently, cotton as an export crop amid low prices, high handling and transportation costs led to discouraging returns.

Finally, cotton was successfully undermined by competition from other apparently more lucrative crops such as maize and tobacco. This was more so where production requirements were higher, or when a sufficiently high price made up for the heavy demands.

To crown it all, a combination of several socio-economic and technical factors thwarted the development of a viable cotton growing industry in Northern Rhodesia between 1900 and 1945. Cotton production was a victim of the colonial political economy where the primary concern was mining with settler agriculture as an appendage.

FOOTNOTES

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11. Curtin, et al, African History, 511.
12. Brett, Colonialism, 288.
13. Brett, Colonialism, 288.
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15. Brett, Colonialism, 206.
16. M.S.M. Kiwanuka, 'Uganda under the British' in B.A. Ogot and J.A. Kieran (eds.), Zamani A Survey of East African History (Nairobi: East African Publishing House, 1968), 312. Also C. Ehrlich, 'Economic and Social Developments before Independence' in Ogot and Kieran (eds.) Zamani 341; C. Ehrlich, 'The Uganda Economy 1903-1945' in V. Harlow and E.M. Chilver (eds.), History of East Africa volume 11 (London: Clarendon Press, 1965), 395-475; Brett Colonialism 122, 218-219.
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18. The hand ginnery at Jumbe could not effectively handle all the cotton. Hence, the use of ginneries at Salima in Nyasaland and later Gatooma in Southern Rhodesia. See NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 2 July, 1936. Also NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 1 November, 1943.
19. R. Klepper, 'Zambian Agricultural Structure and Performance' in B. Turok (ed.), Development in Zambia (London : Zed Press, 1979), 138.
20. PRO/CO/795/21605, LMS Foreign Secretary, London to Secretary of State for Colonies, London, 12 May, 1975.
21. NAZ: BS2/61, Father Torrend, Kasisi, to Secretary BSAC, Kalomo. 19 July, 1907.
22. Bradley, Diary, 39.
23. Northern Rhodesia Department of Agriculture Annual Report for the Year 1946 (Lusaka : Government Printer, 1947), 15.
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27. Hellen, Economic Development, 191.
28. NAZ: SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 30 December, 1935.
29. Jones, "White Agrarian", 54. Also NAZ:BS3/230 Secretary, East Luangwa Farmers Association, Fort Jameson, to Magistrate, Fort Jameson, 22 March, 1917.
30. NAZ:SEC1/60, Director of Agriculture, Mazabuka, to Chief Secretary, Lusaka, 30 December, 1935.
31. NAZ:Box Number 65, Department of Co-operative Societies Annual Report for the year 1947, 5.
32. NAZ:Box Number 65, Department of Agriculture Annual Report for the Year 1955, 9.
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34. ~~NAZ: Box Number 65~~, Department of Co-operatives Annual Report for the Year 1955, 9.
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37. PRO/CO/795/7/21484, Moore, "Report on Cotton Growing", 19 April, 1925.
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39. Agricultural Advisory Board Third Report, 18
40. Mtisi, "Economic Impact", 322, 334.
41. Colonial Reports: Northern Rhodesia, 1951 (Lusaka: Government Printer 1952), 29, 32.
42. NAZ:BS3/230, Secretary, East Luangwa Farmers Association, to Magistrate, Fort Jameson, 22 March, 1917.

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44. Muntamba, "Underdevelopment", 9.
45. NAZ: SEC1/60, Provincial Commissioner, Livingstone, to Chief Secretary, Lusaka, 1 July, 1935. Also NAZ:SEC1/60, Director of Agriculture, Mazabuka, to Secretary, ECGC, Manchester, 27 December, 1935.
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48. NAZ:SEC1/60, Provincial Commissioner, Fort Jameson, to Chief Secretary, Lusaka, 1 August, 1940.
49. NAZ: SEC1/42, Moore Legislative Council Debates on Cotton Cultivation, 10 May, 1935.
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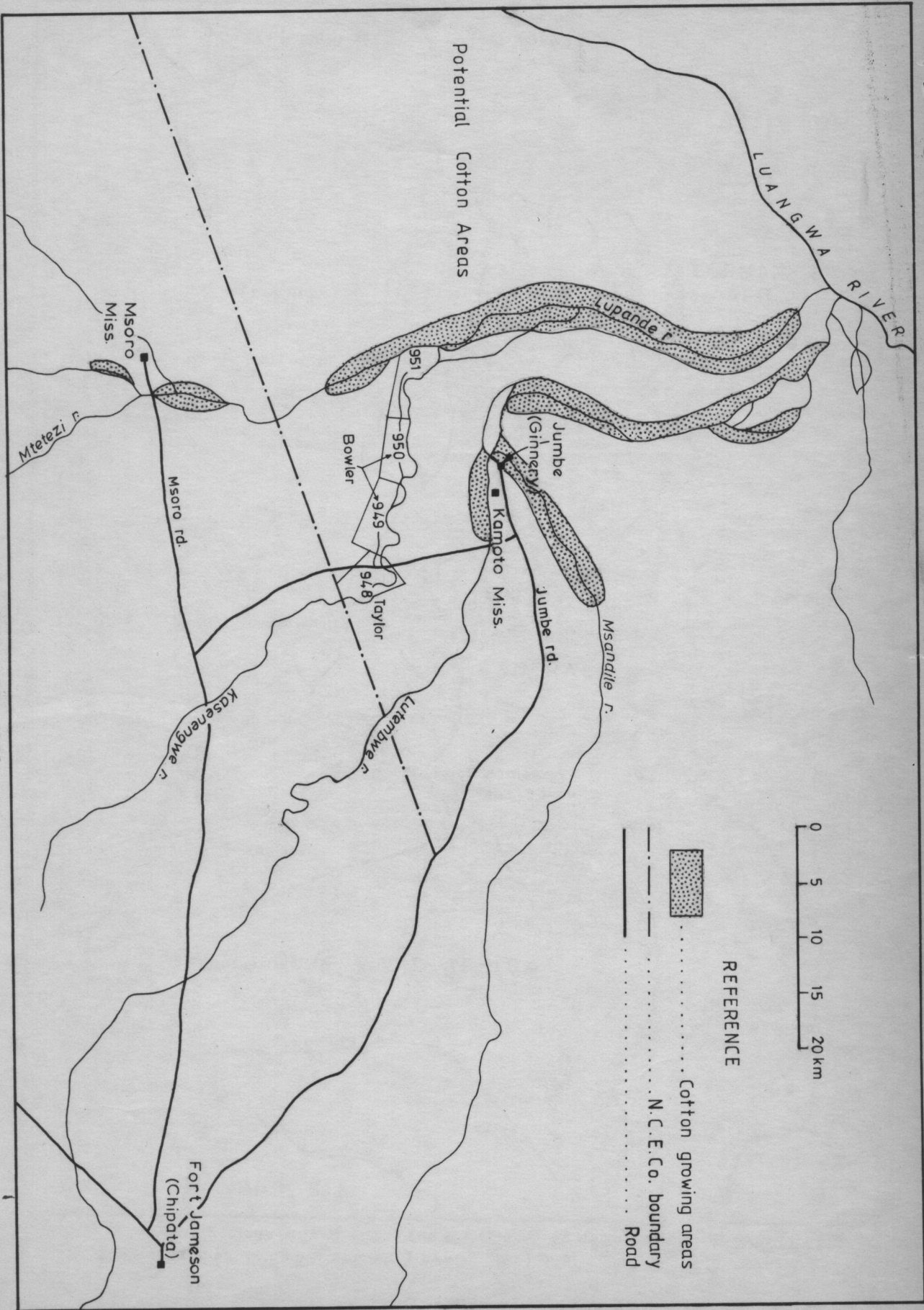
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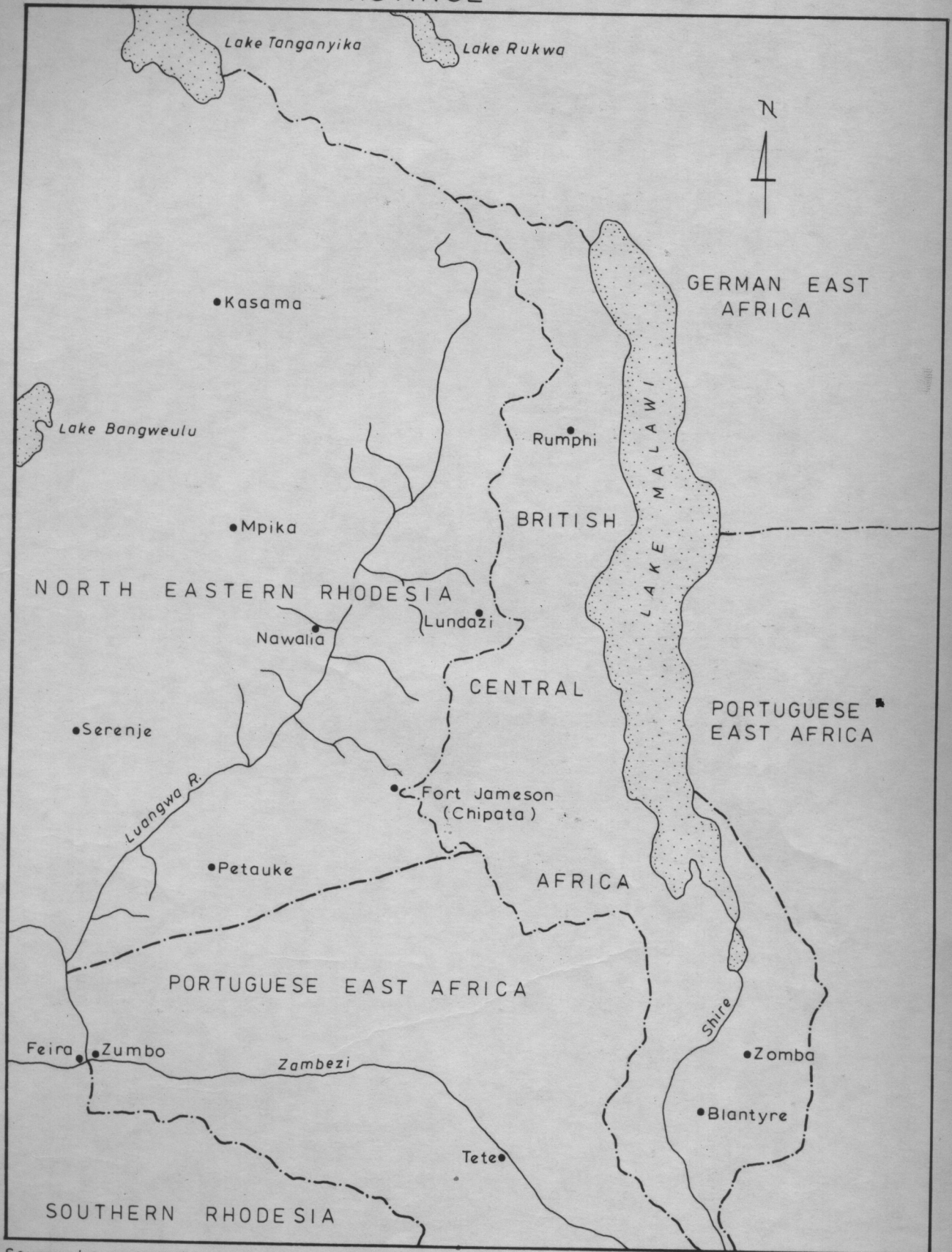
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MAP 5: COTTON GROWING AREAS IN LUANGWA VALLEY



Source : N.A.Z. : SECT 1/60, Growing of Cotton by Natives in Luangwa Valley, 1935 - 1939.

MAP3 EASTERN PROVINCE



Source: Leray Vail, "Ecology and History: The example of eastern Zambia" in Journal of Southern African Studies volume 3 number 2 (April 1977), + 31