CONSTRAINTS ON THE DEVELOPMENT OF THE MUNGWI AGRICULTURAL SETTLEMENT SCHEME IN THE NORTHERN PROVINCE OF ZAMBIA, 1957-1991

BY

SUNDAY BWALYA NG'ANDU

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DECLARATION

I, Sunday Bwalya Ng'andu, do hereby declare that this dissertation represents my own work and that it has never been submitted for a degree at this, or any other University.

Signed: .....

Date: 14/08/98

APPROVAL

This dissertation of Sunday Bwalya Ng'andu is approved as fulfilling part of the requirements for the award of the degree of Master of Arts in History by the University of Zambia.

EXAMINERS:	DATE:
Signed: ..... A C S Mushinga	3 September 1998
Signed:	3 September 1998
Signed:	.....
Signed:	.....

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This work is dedicated to my children: Mukupa, Mutale, Africa and Bwalya; with thoughts of the past, present and the future.

"The Woodlands of the North-east are still cultivated by the traditional methods of citemene ash-planting; politicians may disapprove, but so far they have no better answer to offer than the early company officials who vainly tried to abolish this 'wasteful' system in 19[illegible]."

Andrew Roberts, History of Zambia (London: Heinemann, 1981), p. 233.

"..... what history has taught the farmers of the Northern Province is that it is possible to adapt to changes, and that for the time being, there is every reason to continue cutting down trees."

Henrietta Moore and Megan Vaughan, Cutting Down Trees (Lusaka: UNZA Press, 1994), p. 235.

"If the causes of failure are not understood it may be difficult to escape from them."

Herbert Frankel, "Foreword," in K.D.S. Baldwin, The Niger Agricultural Project (Oxford: Basil Blackwell, 1957), p. xi.

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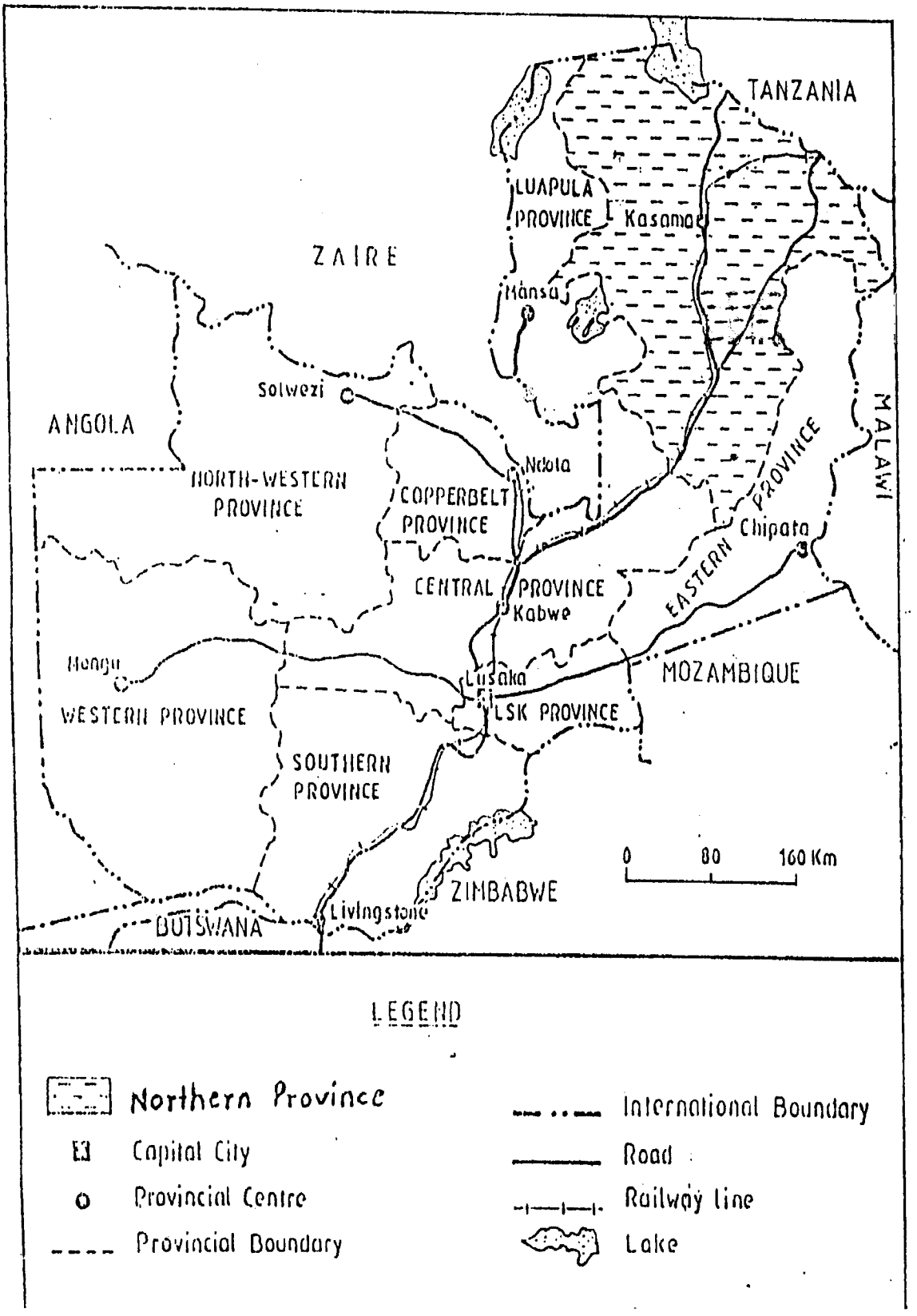
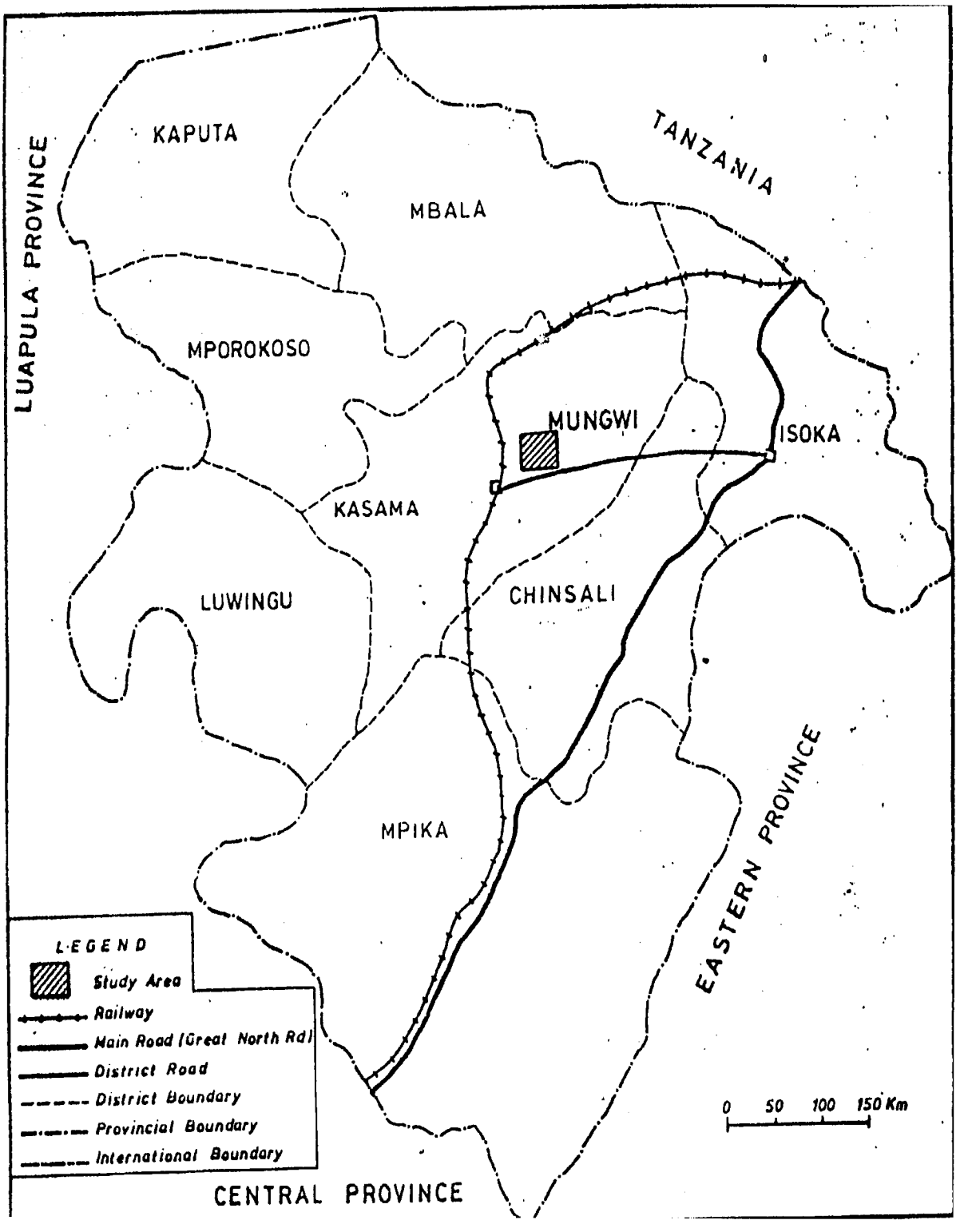
ABBREVIATIONS

AFC	Agricultural Finance Company
BSACo	British South African Company
COZ	Credit Organisation of Zambia
DATC	Development Area Training Centre
ECA	Economic Commission for Africa
FAO	Food and Agriculture Organisation
FNDP	First National Development Plan
GRZ	Government of the Republic of Zambia
LINTCO	Lint Company [of Zambia]
MIRDHP	Mungwi Integrated Rural Development and Health Project
NORAD	Norwegian Agency for International Development
NAZ	National Archives of Zambia
RST	Rhodesia Selection Trust
SNDP	Second National Development Plan
TAZARA	Tanzania-Zambia Railways Authority
UNIP	United National Independence Party
UNZA	University of Zambia
ZCCM	Zambia Consolidated Copper Mines

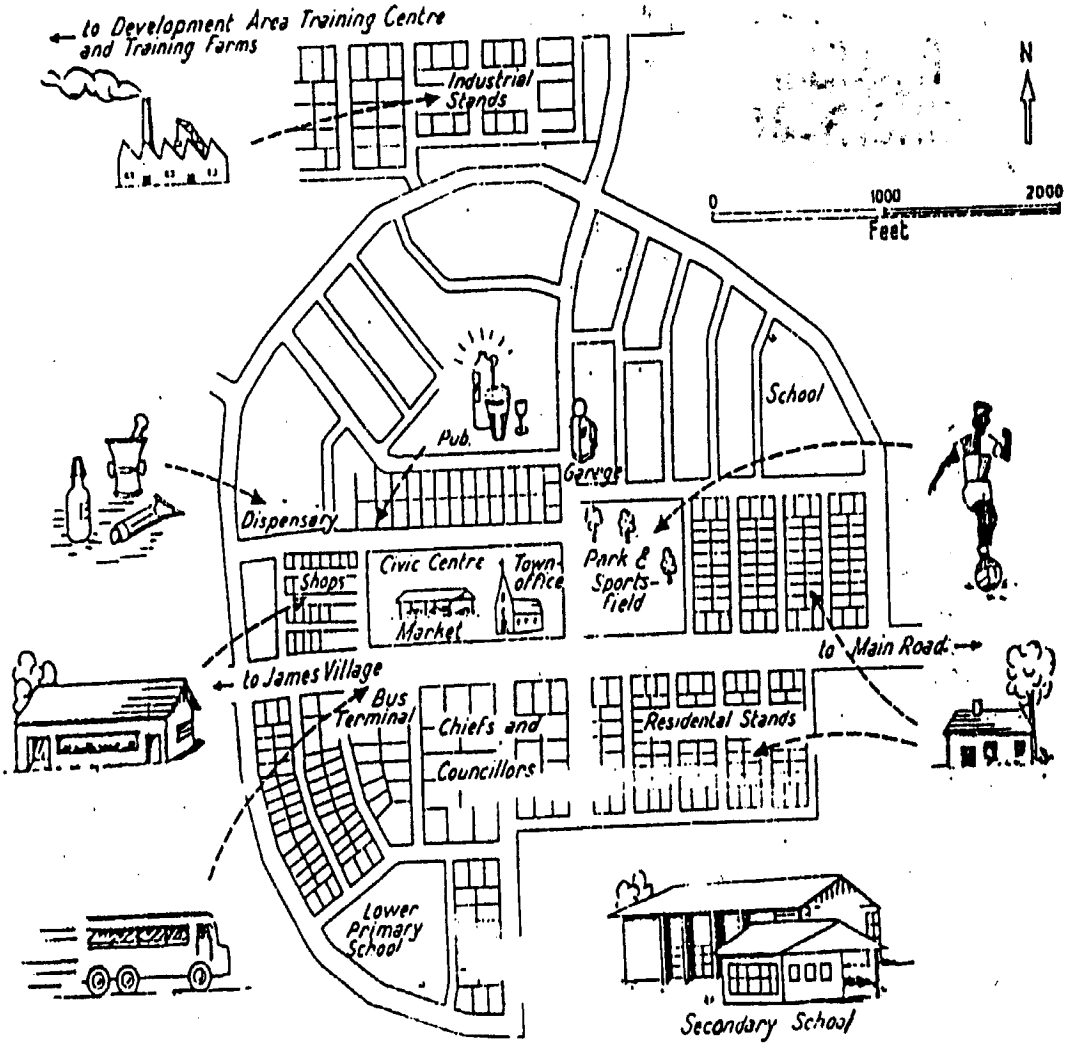
MAP 1: ZAMBIA SHOWING THE LOCATION ON NORTHERN PROVINCE



MAP 2: NORTHERN PROVINCE SHOWING THE STUDY AREA

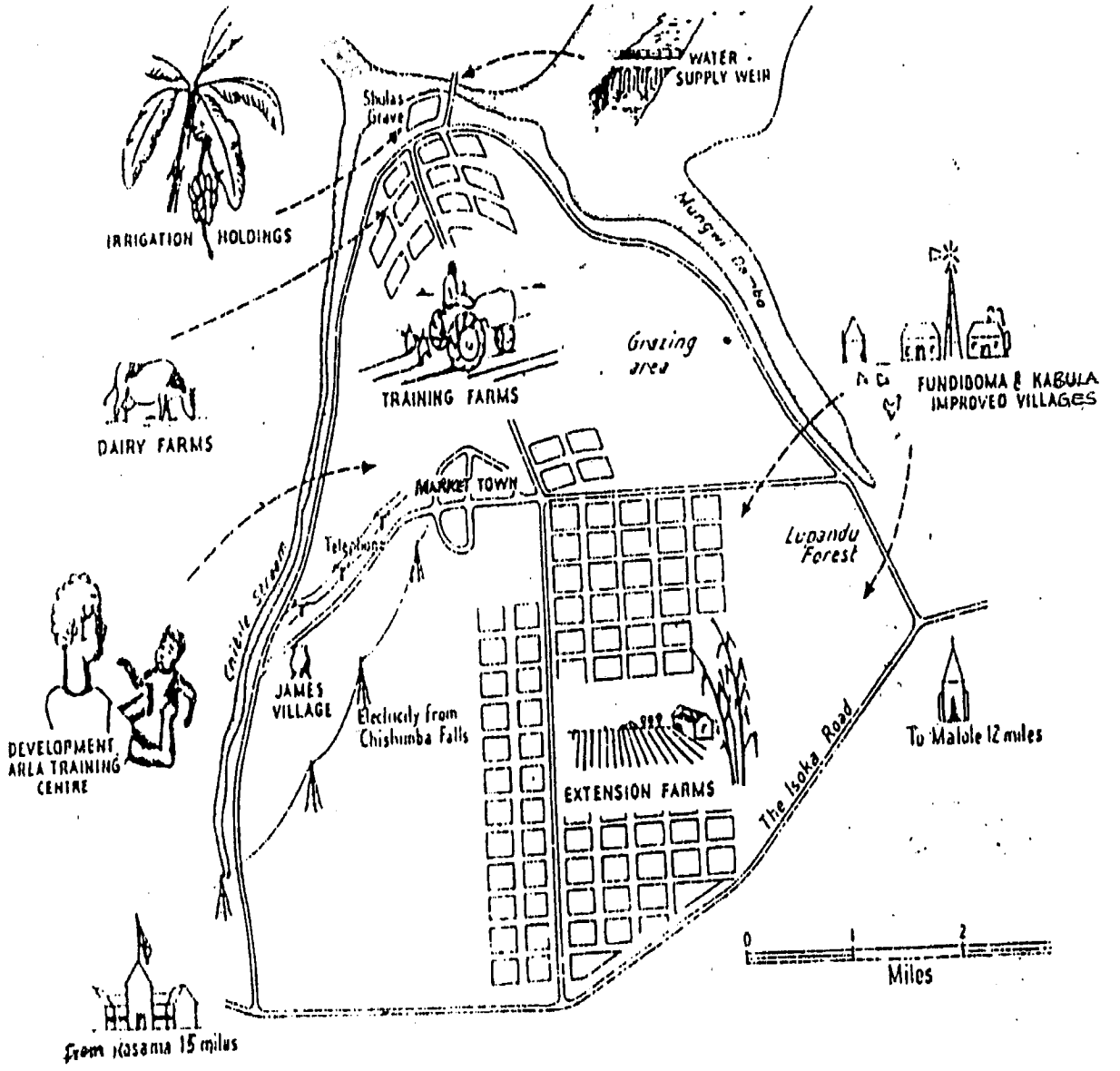


MAP 3: MUNGWI TOWNSHIP



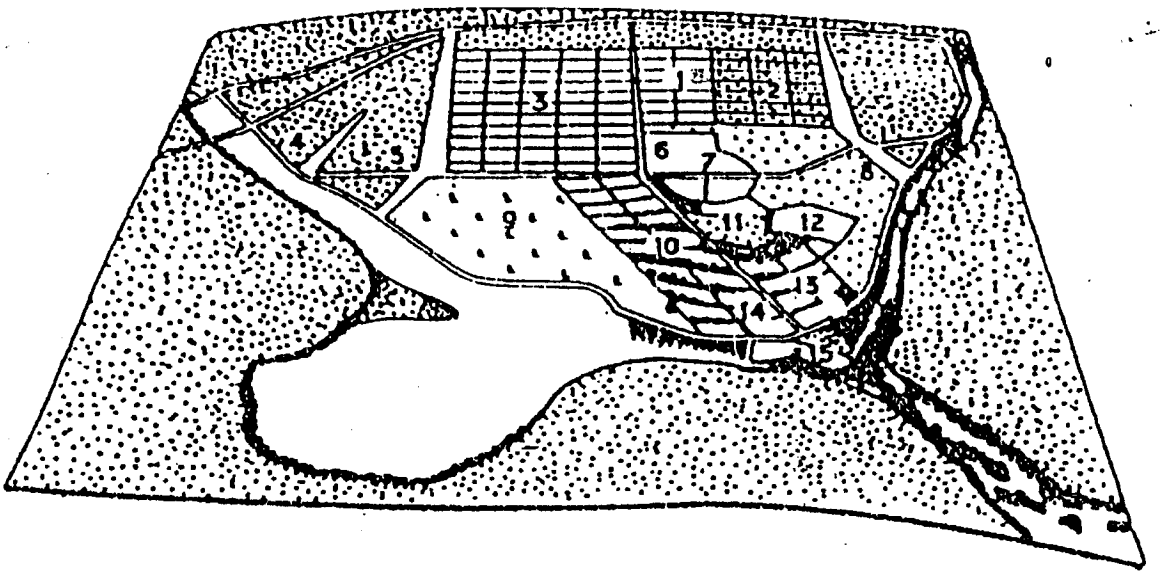
Source: **W.C. Verboom, Planned Rural Development in Northern Province of Northern Rhodesia (Netherlands: Kanaalweg, 1961), p.41. See also, Magnus Halcrow, Progress at Mungwi (Ndola: Government Printer, 1959),pp.13-14.**

MAP 4: MUNGWI INTENSIVE DEVELOPMENT AREA



Source: **Verboom, Planned Rural Development in Northern Province, p. 39. See also, Halcrow, Progress at Mungwi, pp.9-10.**

MAP 5: TABLE MODEL OF THE MUNGWI INTENSIVE DEVELOPMENT AREA



1. 1962 Extension Farms.
2. James Village Area.
3. 1961 Extension Farms.
4. Kabula Village.
5. Fwidiboma Village.
6. Secondary School.
7. Mungwi Market Township.
8. James Village.
9. Park Land Grazing.
10. 1960 Extension Farms.
11. Town Common.
12. D. A. T. C.
13. Training Farms.
14. Dairy Farm.
15. Irrigation Holding.

Source: **Verboom, Planned Rural Development, p.37. See also, Hacrow, Progress at Mungwi, p. 1.**

Photo 1: **Men and Oxen Learn to Plough at Mungwi Depot Training Farm, 1959.**

Source: **Halcrow, Progress at Mungwi, p.5.**

Photo 2: **Aerial View of Training Farms, Mungwi, 1959.**

Source: **Halcrow, Report on rural Development in the Northern and Luapula Provinces of Northern Rhodesia, 1957-1961 (Lusaka: Government Printer, 1961), p. 43.**

Photo 3: **A Trainee Farmer and his Family Plant Turkish Tobacco Seedlings at Mungwi, 1959.**

Source: **Halcrow, Progress at Mungwi, p.6.**

Photo 4: **Some Turkish Tobacco Seed-beds at Mungwi, December 1960.**

Source: **Halcrow, Report on Rural Development, p. 51.**

ABSTRACT

This study is an attempt to contribute to the existing literature on agricultural settlement schemes in Zambia. The study is centred on the constraints on the development of the Mungwi Agricultural Settlement Scheme in northern Zambia.

The study argues that the poor selection of settler farmers, mediocre and inadequate staffing, and training of settlers, impended the development of the scheme. These problems were compounded by labour constraints, low producer prices and the risks involved in cash crop production. Above all, the colonial government's primary objective for creating the scheme was not necessarily to raise the standard of living of the local people but to satisfy its economic and political ends. The African nationalist leaders realized this objective and were therefore resistant to the scheme programme.

During the post-independence era, problems of colonial legacy were further compounded by the adoption of inappropriate technology and the unsound loan policies and loan recovery problems. From the late 1980s, the Baptist Church from Germany became involved in the agricultural development at Mungwi to supplement the existing facilities. This represented a dawn of hope to the Mungwi Farming Community.

The selection of the Mungwi scheme for this study was not accidental, but a matter of historical significance. The scheme was the colonial government's biggest and most outstanding component of the Northern Province Intensive Development Plan of 1957. It was the most symbolically significant of all government interventions in the province at the time, but which over the years, failed to live to people's expectations. It is, therefore, justifiable that the history of such a scheme be investigated and constraints on its development brought to light.

The present study attempts to dismiss the assertion by some scholars and the commonly held view that the Northern Province of Zambia lagged behind in agriculture due to the inherited poor plateau soils, the "beerly-lazy" people of the area and the presence of tsetsefly. The absence of a systematic historical study on agricultural settlement schemes in northern Zambia prompted the undertaking of this study in an attempt to fill the void. It is hoped that the findings of this work would help planners of agricultural development projects and stimulate further research on the subject in the region.

CHAPTER ONE: INTRODUCTION

Literature Review and Statement of the Problem

Agricultural Settlement Schemes could be said to be new establishments of a number of farm plots or single farm enterprises in which a group of people are involved under official guidance. The establishment of such scheme necessarily do entail, as Apthorpe puts it, "population movement, population selection and most probably population control."[1] Such schemes have been attempted in many countries in tropical Africa and a substantial contribution has already been made in the writing of their histories.

Baldwin has analysed the socio-economic problems of the Mokwa Agricultural Settlement Scheme in Nigeria.[2] The Mokwa project, started in 1949, was closed down in 1954.[3] Baldwin notes that the problems that arose at Mokwa were largely due to the failure to appreciate, in the initial planning stages, the serious lack of fundamental data on soils, crops and even the people in the tropics. His study bridges the gulf between the world of ideas and practices in which the decisions which led to the development of the Mokwa scheme were conceived, and the totally variant world of ideas of the people whom it was hoped successfully to enrol as settler farmers. As Frankel states:

> The African peasants who refused to be drawn into the project were neither fools nor knaves and they were certainly not acting irrationally. Indeed they were acting as 'economic men,' and refused to take part in an enterprise that failed to meet their acid test - namely to yield them larger incomes than they could obtain elsewhere.[4]

Gaitskell has written on the history of the Gezira cotton scheme in Sudan.[5] Gaitskell sees the origin of the scheme in the context of the decline of the British cotton industry following the failure of the American and Egyptian crops in 1909, on which the British cotton industry formerly depended. He argues that the scheme was a remarkable example of development

achieved by combining the entrepreneurial spirit of private enterprise with the paternalistic spirit of colonial government. On the other, Barnett, who refers to the Gezira scheme as an illusion of development, argues that the major factors in the establishment of the scheme were not only the decline of the British cotton industry but also the requirements of the imperial grand strategy.[6] He states that:

> The Sudan was of utmost importance to the strategy of the British Empire. It formed an important link in the vision of a stretch of red on the map from the Cape to Cairo. Most importantly, it was an area which was essential to safeguarding the Suez Canal and the route to India. For these strategic reasons the Sudan had to be controlled by Britain.[7]

Chambers has written on a variety of settlement schemes in a number of countries in tropical Africa.[8] He looks at some of the more salient aspects of the relevant physical, human and governmental background of tropical British Africa in which the settlement schemes emerged and describes the changing origins and purposes of these schemes in the colonial and post colonial periods. He argues that although the schemes were justified in terms of conservation agricultural development, the rationale of containing and controlling a political threat was more explicit in the creation of schemes in some countries such as Zimbabwe and Kenya.[9] Indeed, "settlement schemes," as Chambers puts it, "could be all things to all men, embodiments of diverse utopian aspirations."[10]

Chambers has made a detailed historical and administrative study of the Mwea Scheme in Kenya, and has made comparisons with other schemes in Ghana, Nigeria, Uganda, Zimbabwe and Zambia in his attempt to draw together a comparative analysis and some practical lessons. He notes that despite involving large investments, the record of past schemes has been discouraging in social and economic terms, and not only have they given rise to many problems but outright failures and collapse have been common.[11] For example, in the Gold Coast, the Gonja Development Company, formed in 1950 with a share capital of £1million and with village

settlements as one of its aims, was wound up in 1956, having achieved "nothing except extravagant expense for the Ghana Government."[12] In Nigeria, the Mokwa settlement scheme referred to earlier in this study was closed down after an expenditure of £1/2 million,[13] and in Kenya the Lambwe Valley settlement scheme which was started in 1951, was a virtual failure by 1959.[14] The ambitious post colonial programme for settlement schemes in Tanzania ran into difficulties and was suspended in 1966.[15] Equally in Western Nigeria the post colonial settlements for school-leavers experienced multiple problems.[16] "Settlement Schemes," in the words of Chambers, "were found to be expensive ... to disappoint in agricultural production ... and to represent a misallocation of resources."[17]

Several scholars have written on agricultural settlement schemes in Zambia. Some writers have dedicated their studies to this problem,[18] others have just mentioned it in passing.[19] Kacholola has commented on the problems of training a farmer for rural settlement.[20] He notes that in Zambia farming has been considered a lower choice occupation by many a Zambian youth and on the other hand, the majority of the elderly are physically weak to participate fully in meaningful agricultural production and the "past legacy of producing mainly for consumption renders them sometimes impervious to innovations or modern scientific agriculture."[21]

Mbulo has written on the development of settlement schemes in Southern Province.[22] He argues that the bias for capitalist agricultural production structures by colonial policy makers and planners was one of the major factors leading to the establishment of the schemes. He notes that "the emergence of cash-crop farming in Zambia was a direct result of the changes brought about by British imperialism."[23] The post colonial government in Zambia encouraged agricultural settlement schemes mainly to increase food production and to create employment in the rural areas to make them more attractive and profitable.[24]

Kalapula has evaluated the settlement centres in Southern Province, designed for school leavers and the unemployed youth in general.[25] He attributes the failure of the project to meet its intended objectives, not only to the financial reason but also to poor planning and administrative problems. He notes that in the absence of a proper re-education process or a strong ideological bent, "Settlement Schemes designed for school leavers can not succeed without immediate tangible personal economic gains."[26]

Nkhata has written on settlement schemes and labour migration in Chipata District of Eastern Province.[27] He states that schemes were aimed at fostering improved farming techniques and cash crop production. He argues further that settlement schemes were established to diffuse growing dissatisfaction over land shortage in Eastern Province following land alienation through the creation of reserves by the British South African Company (BSACo) and to satisfy the demand for raw materials for both regional and metropolitan industries. The author looks at the way the economic policies for the schemes were formulated and implemented and their subsequent performance between 1951 and 1976 and argues that the introduction of inducements including technical assistance subsequently led to a process of social differentiation among the peasant farmers. The schemes did not, however, become "entres of attraction" to pull the urban dwellers into agricultural production in the countryside and Nkhata attributes this shortcoming to poor policies, administrative and marketing deficiences, bad screening of applicants and inadequacies or delays in the provision of services including credit facilities.[28] Nkhata's work, however, lacks a micro perspective on the subject.

Another authority on settlement schemes in Zambia is Tembo. Sharing Nkhata's research terrain, Tembo examines the formulation, implementation and results of the colonial and post colonial governments on settlement schemes in the Lundazi District of Eastern Province.[29] He notes that agricultural production increased because of increased use of ploughs and tractors in

the place of the hoe, and because of credit and technical assistance given to the settlers which, in turn, led to social differentiation among them. Although an indication has been made in these earlier studies that the schemes were politically motivated and linked to the state of the British economy, the metropolitan economic and political interests in the propagation of the schemes are not convincingly argued. Tembo particularly, tends to emphasize on the government's desire to raise the standards of living of the local people where the schemes were established.[30]

Writing on agricultural change in the Kasama District of Northern Province, Bwalya notes rapid agricultural and socio-economic transformation through maize production particularly after 1964.[31] However, only a handful of well-to-do emergent farmers increased their production levels and enjoyed a relatively high socio-economic status. Bwalya has only mentioned in passing, labour constraints, poor pricing and communication, and marketing bottle-necks on the development of the Mungwi Scheme.[32]

In their recent anthropological - historical studies on agriculture in Northern Province, Moore and Vaughan have stated that:

> The farming schemes of the 1950s in the region initiated by the government were borne out of a wider community development ideology ... the government hoped to create a compliant and dependent group of farmers from amongst the ex-migrants who would be working within the spirit of "cooperation."[33]

They have stated, however, that the majority of the farmers of Northern Province have contributed to produce their essential crops mainly millet, through the citemene system inspite of innovation and intervention from above.[34] Writing on the Mungwi Scheme, in passing, Moore and Vaughan have noted that the scheme was the colonial government's most ambitious farming project in northern Zambia. It was "the largest and most symbolically significant of all government intervention in the province."[35] They have argued that persuading the Bemba to

abandon citemene for settled agriculture was a near hopeless task.[36]

This study attempts to accomplish four interrelated objectives. Firstly, it attempts to investigate the internal socio-economic dynamics which influenced the establishment of the Mungwi scheme. We argue that the colonial government hoped to discourage citemene and teach the people modern farming practices to produce sufficient food for the growing urban industrial population demand which the European settler farmers alone could not meet, and also to feed the government workers within the Northern Province. It is also pointed out that the scheme was arimed at producing cash crops to raise capital for the colonial government's operations in the territory. Secondly, the study attempts to examine the external dynamics which led to the creation of the scheme. We argue that the scheme was initiated with a view of producing cash crops to raise revenue which would assist in mending the post war ravaged British economy. Thirdly, we attempt to investigate the political motive behind the birth of the scheme and the response of the nationalist forces to the programme. We argue that the colonial government hoped to diffuse the nationalist forces by attempting to take some sort of development to an area where there was rising strong support against colonial rule. It is further pointed out that the nationalist forces were opposed to the scheme programme and this adversely affected its development. Finally, we attempt to examine and analyse a combination of socio-economic bottle-necks which contributed to the lack of desirable transformation from citemene to settled farming in the area during the stated period.

Theoretical Framework

An attempt is made in this dissertation to examine the problems of the Mungwi Scheme within the colonial government's ideology of attempting to diffuse the African nationalist forces, and to raise revenue through cash - crop production on one hand, and in the context of the

nationalist struggle against colonial rule on the other hand. Placing the study in this paradoxical problematic helps us to understand the constraints on the development of the scheme during the colonial period and illuminates on the problems which the settlement programme faced in independence. We see an antagonistic relationship between the nationalist forces and the colonial authorities with regard to the scheme programme and this adversely affected its development.

Data Collection

The data for this study were obtained from a variety of sources. Research was firstly done in the University of Zambia Library, where we consulted a number of published and unpublished secondary sources such as books journals, official reports, articles, M.A. dissertations and Ph.D theses. These sources provided the preliminary search on the topic and were important in verifying the data from documents in the National Archives of Zambia (NAZ) and in the Zambia Consolidated Copper Mines (ZCCM) Company Archives. The other source from where published and unpublished secondary data were derived to supplement those from the UNZA Library was the Ministry of Agriculture's Library in Lusaka.

Primary sources were obtained from archival materials in the NAZ in Lusaka and in the ZCCM Company Archives in Ndola. A number of files in the two archives provided annual reports, district note books, tour reports, policy papers and correspondence which gave us insights on policy statements. Archival analysis enriched the data collected from secondary sources. The other sources of information were a selected sample of the people in the study area who were interviewed orally. Some of the people interviewed were at Mungwi at the time the scheme was established. These provided us with primary oral data on the scheme. Interview analyses were compared and cross-checked with written sources in our attempt to produce a

viable research report.

All the sources consulted were important in the writing up of this dissertation but of special significance were the data from the archives which provided very important primary sources on the colonial government's policies and objectives vis-a-vis agriculture development (or lack of it) in the Northern Province of Zambia. I wish to state here that if at any stage during my search for data I could have come across anything more that could have assisted in clarifying an important issue, then I should have been obliged to use it. Indeed, further search could have probably led to discovery of more data on the scheme but this was not possible due to time and financial limitations. I feel that despite the research limitations, the data gathered were sufficient in investigating the problems dealt with in this dissertation.

Organisation of the Dissertation

This dissertation is organised into four chapters. The first chapter is an introduction which looks at a variety of literature on settlement schemes both abroad and at home. The chapter establishes the statement of the problem investigated and our theoretical framework. Chapter two examines the origin and "development" of the scheme during the colonial period from 1957 to 1963. It assesses the role of the colonial state and brings to light the constraints on the development of the scheme during the stated period. The third chapter deals with the history of the scheme during the post-colonial period from 1964 to 1991. It examines the policy and performance of the post colonial government and ascertains the bottlenecks which hindered desirable agricultural production in the face of mechanised technology. The final chapter is a recapitulation of the main points in the dissertation. The chapter also offers reflective statements on the topic.

The year 1957 was chosen as the starting point of investigation because that was when the scheme was established and 1991 was taken as the terminal point of the study as it marked the end of Zambia's second Republic. This study has therefore addressed itself to both historical and contemporary problems of the Mungwi scheme.

NOTES

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2. K.D.S. Baldwin, The Niger Agricultural Project (Oxford: Basil Blackwell, 1957).

3. Baldwin, The Niger Agricultural Project, p. 183.

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5. Arthur Gaitskell, Gezira: A Story of Development in the Sudan (London: Faber and Faber, 1959).

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8. Robert Chambers, Settlement Schemes in Tropical Africa: A Study of Organisation and Development (London: Routledge and Kegan Paul, 1969).

9. Chambers, Settlement Schemes in Tropical Africa, p. 25.

10. Chambers, Settlement Schemes in Tropical Africa, p. 34.

11. Chambers, Settlement Schemes in Tropical Africa, p. 7.

12. Quoted in Chambers, Settlement Schemes in Tropical Africa, p. 7.

13. Baldwin, The Niger Agricultural Project, p. 183. See Also Chambers, Settlement Schemes in Tropical Africa, p. 7.

14. Chambers, Settlement Schemes in Tropical Africa, p. 25.

15. Chambers, Settlement Schemes in Tropical Africa, p. 7.

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17. Robert Chambers, Rural Development: Putting the Last First (New York: Longman, 1983), p. 35.

18. See for instance, M.P. Ng'andu, "Some Economic Aspects of Small-Scale farming in Zambia: A Case Study of Ngwezi Settlement Scheme in Mazabuka District," M.Sc. Dissertation (Makerere University, 1975); Mulumbe Mbulo, "Some Issues in the Development of Settlement Schemesin Southern Province, Zambia," M. Phil. Dissertation (Sussex University, 1983); S.M.C. Nkhata, "Settlement Schemes and Labour Migration in Chipata District of Eastern Province of Zambia, 1957-1976," M.A. Dissertation (University of Zambia, 1987); C.N. Tembo, "The Establishment and Development of Peasant Farming Schemes in the Eastern Province of Zambia: A Case Study of Lundazi District, 1954-1976, M.A. Dissertation (University of Zambia, 1988).

19. See for instance, C.S. Lombard and A.H.C. Twedie, Agriculture in Zambia since Independence (Lusaka: NECZAM, 1973), pp. 60-62; Andrew Roberts, A History of Zambia (London: Heinemann, 1981), p. 233; J.H.D. Bwalya, "Agricultural Change in the Northern Province of Zambia, 1948-1978: A Case Study of Maize Production in Kasama District," M.A. Dissertation (University of Zambia, 1989), pp. 5, 34.

20. W.E. Kacholola, "Problems of Training a Farmer for Rural Settlement," Seminar Report on Rural Reconstruction Programmes (5-7 December, 1975).

21. Kacholola, "Problems of Training a Farmer," p. 17.

22. Mbulo, "Some Issues in the Development of Settlement Schemes."

23. Mbulo, "Some Issues in the Development of Settlement Schemes," p. i.

24. Chambers, Settlement Schemes in Tropical Africa, p. 32. See also, Mbulo, "Some Issues in the Development of Settlement Schemes," pp. 10-16; Nkhata, "Settlement Schemes and Labour Migration," p. 39; Tembo, "The Establishment and Development of Peasant Farming Schemes," p. 1.

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27. Nkhata, "Settlement Schemes and Labour Migration."

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29. Tembo, "The Establishment and Development of Peasant Farming Schemes."

30. Tembo, "The Establishment and Development of Peasant Farming Schemes," p. 1.

31. Bwalya, "Maize Production."

32. Bwalya, "Maize Production," p. 5.

33. Henrietta Moore and Megan Vaughan, "History and Agriculture in Northern Province," in Kate Crehan and Achim von Oppen (eds.), Planners and History: Negotiating 'Development' in Rural Zambia (Lusaka: Multimedia, 1994), pp. 145-46.

34. Moore and Vaughan, Cutting Down Trees: Gender Nutrition and Agricultural Change in the Northern Province of Zambia, 1890-1990 (Lusaka: UNZA Press, 1994), p. 234.

35. Moore and Vaughan, Cutting Down Trees, p. 136.

36. Moore and Vaughan, Cutting Down Trees, p. 116.

CHAPTER TWO: THE ORIGIN AND DEVELOPMENT OF THE MUNGWI AGRICULTURAL SETTLEMENT SCHEME, 1957-1963

In this chapter we have discussed the geographical, ecological, socio-economic, historical and political background of the Mungwi Scheme. We have examined the origin of the scheme, the factors that influenced the selection of Mungwi and the mechanics of establishing the scheme. We have also examined and analysed the "progress" of the scheme and ascertained the constraints on its development during the colonial period.

The objectives of the scheme were summarised in the Intensive Rural Development Report on the Northern and Luapula Provinces as:

(a) to find and demonstrate a substitute for citemene system of agriculture, which could not maintain, stilless, improve, the standard of living of even the present population of the Bemba Plateau;

(b) to promote a modern township with urban amenities which would attract back to their homeland the many Bemba who had become accustomed to the comforts of the town;

(c) to provide an educational, social and cultural centre for the Bemba tribe and to raise their morale; and

(d) to raise social and economic standards of the people living in this area.[1]

Geographical and Ecological Background

Mungwi sub-boma, where the scheme was established, is situated 27.5 kilometres east of Kasama, the Provincial Headquarters. Bounded by the Kasama-Isoka Road, the region lies in the Tanzania-Zambia railways (TAZARA) corridor. It has a climate typical of the plateau of the Kasama District, with hot-wet summers and cool dry winters. Normally, it experiences rainy warm summers from October to April and cool dry winters from May to August, with the

temperature gradually reaching climax in October, until the commencement of the rain. The average annual mean temperature lies in the range of 20 to 24°C and the mean annual rainfall is within the range of 1000 to 1500 mm. The region is about 1200 m to 1500 m above sea level.[2]

Falling under the North-Eastern region, Mungwi is endowed wit a Savannah woodland type of vegetation and the scheme area was, in the 1950s Savannah woodland type of vegetation and the scheme area was, in the 1950s, a land of closed tree canopy with some patches of predominantly grass savannah.[3] The main source of perennial water supply is the Mungwi river but there are also a cluster of streams.

The soils of the Northern Province have generally been described as poor.[4] The Fourth National Development Plan (4NDP) of 1989 to 1993, says:

> Generally speaking, soils in Northern Province are considered not very fertile in comparison to those of other regions, mainly due to their acute shortage of potassium and phosphates. However, with the proper application of lime to neutralize acidity, yields from these soils can be greatly improved.[5]

Some studies have established that parts of Northern Province have fertile soils suitable for agricultural production.[6] Mungwi, like the Lwitikila Basin in Mpika District, was found to be a fertile arable land suitable for settled intensive agricultural developments.[7] This point is expounded later in this chapter.

Socio-economic Background to the Establishment of the Mungwi Scheme

The socio-economic and political history of the inhabitants of Mungwi region before the establishment of the scheme in 1957 was that of the Bemba of northern Zambia in general. The villages of James Katuna, Kanyanta and Fundi Boma which existed in the area at the time of the establishment of scheme were under the Native authority of the Paramount Chief Chitimukulu of the Bemba.[8]

In the Northern Province in general, and Mungwi area in particular, citemene was the main agricultural system for the production food crops by the local people. The Bemba were already tropical-hoe-cultivators before they moved unto the plateau forests of northern Zambia.[9] Bwalya has noted that the thick forest nature of the area seems to have influenced the development of the citemene system of cultivation in the area. He has argued that the forest "made the opening of new gardens of the normal hoe cultivation type rather difficult and required more labour intensity where advanced technology was scarce."[10] He adds:

> This may also be part of the reason for the difficulty which the Bemba-Bisa people have experienced in increasing surplus of agricultural production for the cash-market even though many people have been content to blame poor soils or the inherent backwardness and attitudes of the people concerned.[11]

Indeed, the Bemba became accustomed to cutting down trees for their crop production at basically subsistence level. The citemene system of the Northern Province "[was] a fine example of the evolution of a system well adapted to an environment."[12]

Trapnell has identified two varieties of citemene as northern and southern systems.[13] The northern system practised by the Bemba, involved the lopping of branches, forming them into large circular gardens which were later burnt. This was done to provide the much needed ash to raise the fertility of the soil, by increasing the hydrogen potential, phosphates and potassium elements.[14] Citemene cultivation ensured high yields at subsistence level as long as natural calamities did not occur and population density was low.

The lopping of branches was part of the men's work; it was done between the months of May and September, while the collection of branches and formation of circular gardens was women's work. The burning of gardens was done in October when the temperature was at its climax, to ensure total burning of branches in order to produce high quality ash. Millet was the main crop, spread over the citemene gardens with the commencement of the rains. This was

interplanted with crops such as cassava, maize, pumpkins, gourds, yams, cucumbers, peas and so on. These were supplementary food crops. The Bemba also made subsidiary semi-permanent village garden mounds where they planted some of these supplementary food crops.[15] Millet constituted the main diet, whereas other food stuffs, including maize, were not considered as essential but as snacks or mere substitute foods during hunger months.[16]

With the coming of British rule at the beginning of the twentieth century, citemene was described by the colonial authorities as a primitive way of cultivation and a factor both in environmental degradation and inefficient crop production. Besides, citemene made the administration of the Bemba rather difficult as they moved from one place to another in search of trees. Attempts were made as early as 1907 to ban the system.[17] One administrator of what was then known as North Eastern Rhodesia reported that in order to save the country from deforestation and to "facilitate the control of natives and the collection of hut tax, orders were given that indiscriminate destruction of trees was to be discontinued..."[18] After independence, the post colonial authorities also campaigned against the cutting down of trees. Writing in 1976, Roberts noted:

> The woodlands of the north-east are still cultivated by the traditional methods of citemene ash-planting; politicians may disapprove, but so far they have no better answer to offer than the early company officials who vainly tried to abolish this 'wasteful' system in 1907.[19]

Indeed, despite repeated calls both by the colonial and post-colonial governments to discontinue citemene the Bemba continued the practice in order to obtain their food.

The demands made on the people by the colonial government through taxation, the restricted labour market in the Northern Province, the desire to acquire the seemingly enticing European goods and, to some, the official condemnation of citemene, combined to set in motion a mass exodus of able-bodied men in search of wage or salaried employment in the sisal

plantations of East Africa, and in the mining industries on the Copperbelt, Katanga, Southern Rhodesia (today Zimbabwe) and South Africa. But the desire for adventure and the effort to escape from the tribal life and obligations and from the monotony of village life were also causes of migration to some men.[20] Brown has stated that some men migrated because they were "attracted by tales of bright lights and other novelties of the urban centres."[21]

Some men moved to the towns with their families and if they obtained well-paid jobs which offered them considerably greater incomes than could be earned from village work, they tended to leave their village homes for as long as they could find work, and only returned, if at all, in their retirement.[22] Many men, however, left their families at their villages. Married men with several children in particular could not adequately support their families on wages they obtained for unskilled work. They went alone to find employment to meet their cash requirements while their productive capacities were as fully utilized as the prevailing land-use system would permit."[23] Besides, when he was living alone, the wage-earner would possibly maximise his rate of saving. Some labour migrants were out to work and get money for certain specific ends and once they met their goal, they left for their villages to join their families.[24]

Many villages on the plateau lost many able-bodied men over the years. Johnson has stated that in some villages on the plateau of northern Zambia, the proportion of tax paying males absent at any one time had been as high as 75 per cent, adding:

> On the one hand we have the Copperbelt attracting Africans from all over the Federation with its present prosperity and modern amenities, on the other, we have the rural areas being weakened by its drain on the manpower, which in turn is hampering their development in agriculture and other fields.[25]

Male absenteeism inevitably led to the adoption of hoe cultivation by women. There was a remarkable shift from millet production to cassava production in mounds and consequently change in dietary habits.[26] Cassava required a relatively small labour input for its production in

comparison with millet production. It became the staple food crop for many households, and guaranteed a year - round supply of the starchy food. Moore and Vaughan have stated that as women took on more and more responsibility for household subsistence, so they relied increasingly on the products of more permanent fields in additions to whatever citemene fields they could get cut.[27] Other subsidiary food crops such as beans, groundnuts, maize and sweet potatoes were also grown in semi-permanent gardens. These sources of food supply were supplemented by foods such as mushrooms and caterpillar, gathered from the bush.

Some households either received some money remitted occasionally to them by their relatives working in the urban centres or sold crops such as groundnuts and beans to the administrative centres, hospitals, mission stations and schools. They used the money to buy maize meal and other items which they needed or wanted; such as salt, sugar, tea, milk, etc. [28] There was, indeed, increasing differentiation in the ability of communities and families to feed themselves and to produce a surplus in the face of increasing male labour migration from the area.

There were some people who attempted to become "improved" farmers in the Northern Province in the 1940s. In Chinsali District for instance, men such as Chief Chibesakunda, a former labour migrant in Southern Rhodesia, one Anderson Mulenga and an ex-soldier called Shitima had, in 1947, grown good crops of maize in their fields.[29] In addition to his maize field Chief Chibesakunda had an irrigated wheat field on his farm and was encouraging his people to build water furrows.[30]

By 1948, there were a number of men in the Kasama District who had set themselves up as peasant farmers. A man called Pikiti in Mpepela village, for instance, had planted six acres of maize crop and one Leki Mulenga had planted several acres of cassava.[31] And near Malole Mission Station, at Kasepa village, some farmers had dammed a tributary and were growing

maize, cassava, fruit, vegetables, coffee and wheat.[32] But lack of marketing infrastructure was the major bottle-neck for those who were far away from the administrative centres, mission stations, schools and hospitals.

Moore and Vaughan have noted that whilst the colonial government in the 1940s talked of developing the market infrastructure for the province, in practice its only real intervention was to prohibit at various times, the export of food crops from the province, with a view to securing sufficient cheap food for the government labour force within the province.[33] There were cases when farmers protested against the low official prices for their products and sometimes they with-held their crop.[34]

Generally, given the standard of production. techniques available and the absence of many able-bodied men, productivity was not high enough to meet the requirements of the province. Therefore, importation of food stuffs into the Northern Province from other areas was a common feature in the 1940s and 1950s. In 1955 and 1956 for instance, maize, beans and mealie meal were imported from Ndola and Tanganyika to feed workers in Kasama.[35] In 1957, some 12,000 bags of maize were imported from Tanganyika "to protect the local population against food shortage,"[36] and "every effort [was] being made locally to increase local production.[37]

The establishment of the Mungwi Scheme, like any other schemes in the British Colonial states, should also be viewed from external economic dynamics. The British government sponsored settlement schemes in the post World War Two period in its attempts to reconstruct its war-torn economy. The British economy in Northern Rhodesia was basically centred on mining before the Second World War and most of the Europeans' farms sprung up within twenty miles of the mining areas and the rail road.[38] The Northern Province had not attracted European settlers. Only a handful of European coffee and cotton growers settled in what was known as Tanganyika District, the area which today encompasses Mbala and Isoka Districts. These

Europeans were mainly attracted by the good climate and wonderful scenery around Mbala.[39] They took up land and "modelled themselves consciously on the life style of the Kenya settlers."[40] There was no deliberate policy by the colonial state to encourage African agriculture until in the second half of the 1940s when the government introduced a number of measures to encourage the development of African agricultural production.

Theoretically, the colonial government had the responsibility to ensure African socio-economic advancement through agricultural development. Practically, however, the government was too pre-occupied with fostering primitive accumulation of capital to mend its ravaged economy. At the end of the war, demand for copper fell sharply as nations stopped their war efforts and began to concentrate on rehabilitating their economies.[41] Copper prices, therefore, declined on the world market. Although the copper prices started to increase after 1946 due to increased industrial demand of the commodity overseas, the expenses also kept rising and the mining companies and the colonial state recognised that their good days were gone as far as costs were concerned.[42]

One other way to raise revenue was through cash-crop production. As Mooney has noted, one of the major factors leading to the establishment of the schemes was the bias for capitalist agricultural production structures by policy makers and planners.[43] Bwalya also corroborates this view. He has stated that "the deliberate policy to encourage Africans to produce cash crops after World War Two was linked to the unhealthy state of the metropolitan economy."[44]

The colonial government's policy of encouraging African agricultural production after World War Two to raise capital can be paralleled to the B.S.A.Co. policy in the 1920s and 1930s toward European Settler farming: when few mine deposits were discovered in Northern Rhodesia, the company began to encourage European settler farming to generate revenue through the export of food to the Katanga mines.[45]

In the Southern central provinces, African Farm Improvement Scheme was started in about 1946/47. Africans were encouraged to grow cash crops such as maize, tobacco and cotton. The scheme included subsidies on the purchase of ox-drawn equipment, as well as a variety of extension messages and crop pricing measures.[46] Subsequently, the number of ploughs, cultivators, wagons and scotch carts increased. These contributed to the growing importance of African agricultural production.

African farmers in eastern province were also encouraged to adopt animal drought power and credits were provided through the African Peasant Farming Scheme.[47] In the second half of the 1950s, the Northern Province, which for a long time had been considered unsuitable for modern agricultural production, was now seen as having some pocket of good fertile soils suitable for modern agriculture.[48] Consequently, the Mungwi Scheme was inaugurated.

Labour Stabilization and Political Origin of the Scheme

The Mungwi Scheme was established not only because of the economic reasons, it was also politically motivated and this had negative effects on its development. African labour stabilization on the Copperbelt from the late 1940s and the continued drift of the Bembas and other related tribes from their villages to the region brought about serious political pressures on the government.

During the 1930s, the government had recommended that after two years of absence from their villages, the African workers should be repatriated so that they would be re-integrated into their tribal society and the authority of the chiefs could be maintained.[49] Whereas in 1920 the BSA Co. had doubled taxation in the North-Eastern Districts with a view to stimulate the flow of labour,[50] in 1935, the colonial government made a deliberate attempt to force those Africans in the urban areas who were surplus to the requirements of industry back to the rural areas by

increasing taxation in the mine compounds and reducing it in the North-Eastern Districts.[51] It was a general ideology of the colonial state in the British colonies to control and avoid "detribalization" of the Africans. The government feared that by being acquainted with new tastes and habits and some occupational mobility, the Africans would not only lose their touch with their village homes but this phenomenon would result into a multiplicity of socio-economic and political problems.

Permanent settlement of Africans in the urban centres was regarded by the Europeans as a threat to their economic, social and political privileges. Until the 1950s, little or no provision was made for Africans to live permanently in the urban centres, although the European population depended greatly upon the availability of large numbers of Africans. The presence of the wage-earners' families was not recognised as a necessity: it was widely supposed that the families of African wage-earners could remain at their villages, living off their own produce.[52] Therefore, all African workers, regardless of their marital status, were housed as if they were bachelors. The mining companies and the colonial government shared the attitude that African wage-earners were to look to their village communities for support and security in sickness and old age. In the words of Roberts:

> The Northern Rhodesian government like other colonial government in eastern and southern Africa regarded settled communities of urban 'semi-civilized' africans as a threat to white domination... most colonial officials believed that a single correct path for African social evolution was through tribal institutions, developed in the African rural homelands.[53]

Indeed, the policy of indirect rule as applied by the colonial office up to 1945 was in conflict with the emergence of a stable and necessarily "detribalized" labour force.[54]

The opportunity and economic advantage of developing a stable labour force on the Copperbelt were not grasped until the late 1940s when inefficiencies of the system of a transient labour force and some evidence of improvements that a permanent labour force could bring such as on the Katanga mines, were recognised.[55]

Furthermore, in the late 1940s, the mining companies placed increasing emphasis on the use of machines partly for technological reasons and partly because the cost of labour was rising as Africans were pressing for higher wages and better working conditions.[56] It became necessary for the companies to stabilise at least some African workers so that they could be acquainted with, and retain, certain skills. The mining companies realized that Africans, like Europeans were likely to be more efficient if they could bring their wives with them. In 1948, the government required all employers to provide or pay for suitable housing for married workers.[57] However, it was still assumed that upon retirement or in case they lost their employment, Africans would go back to their village. Social policies, therefore, continued to be greatly influenced by theories of migrant labour although more and more Africans were settling in towns. It is worth noting that there was also a tendency by the unskilled African workers to 'stabilise' themselves regardless of the government policies against "detribalization". Many of them preferred to take their chances in the urban centres rather than "cutting down trees" at their villages. Despite the low wages and undesirable housing therefore, many unskilled African workers tended to spend longer periods in towns often moving from job to job in search of better conditions.[58]

More and more Bembas continued migrating to the Copperbelt and large numbers found themselves without employment. On the other hand, industrial unrests for better working conditions and higher wages were becoming common. Perrings has noted that at a general level the strikes on the Copperbelt were very much dominated by the Bemba and other related tribes

of North-Eastern Rhodesia and a Bemba Dance Association called Mbeni was a principal organ in the transmission of news, rumours and instructions.[59]

After World War Two, African nationalism was gaining ground. Indeed, industrial unrest and African political agitation reinforced each other.[60] The colonial authorities found it imperative to find a way of making some Bembas return to their home areas and to discourage would-be migrants from there to the Copperbelt. Agricultural development in the heart of Bembaland was found to be an appropriate strategy. The rise of African nationalist movement led some officials to suggest development as a means of preventing possible political unrest in the rural areas. The "imbalance between the prosperity of the Copperbelt and the impoverish rural areas was unsustainable and potentially politically explosive."[62] Indeed "improved farming often had little to do with farming per se but was part of a wider political strategy."[63] The government had pressing reasons for encouraging investment in Northern Province:

> African Nationalist leaders had found ready followers in Northern and Luapula Province amongst the Bemba and related tribes and one of the reasons for the sinking of large capital investment in the area was to provide political stability.[64]

The problem became more recognised during the 1950s as an issue which had to be tackled for political, social and economic reasons. It became essential for the government "to turn this backward, underdeveloped and potentially politically troublesome region in an area of thriving economic activity in the shortest possible time,"[65] and:

> the funds granted in the 1950s, under the colonial Development and Welfare act allowed for some badly needed expenditure on infrastructure in the Northern Province and for the possibility of realizing the plans of some of the more visionary colonial officials of the time.[66]

The most urgent need was to produce a prosperous and politically conservative farming community in the region. Hence, the government formulated the Intensive Agricultural Development Plan for the region in 1957 and the biggest single element and most important

component of this programme was the Mungwi Agricultural Settlement Scheme,[67] the ambit of our study.

In the six to twelve months prior to the preparation of the Intensive Agricultural Plan, there had been increasing nationalist political activity which had been triggered by the industrial unrest on the Copperbelt and it was thought that this could be stopped by the rustification of the leaders to induce a cooling of their tempers.[68] A majority were sent to the Northern province from where they had originally come. This increased political activity in the region. The Mungwi scheme was implemented to counter this; as well as to correct the economic imbalance within the territory. Bean has stated that:

> Large expenditure would result in the stabilization of the social and political structure of the area and the avoidance of expenditure on security measures which were in themselves of a negative nature.[69]

In the words of Tooke and Lihuswa:

> with the industrial unrests on the Copperbelt, the rustification of politicians to the Northern Province and the economic stagnation of the whole of that province, it became essential for the government to make some attempts to stabilize the economy of the rural sector.[70]

The scheme was recognised by the African politicians as a serious obstacle to their cause. By agricultural development, they thought that the support of the people could be undermined and thus endanger the political campaign.[71] The whole development scheme therefore laboured under a considerable disadvantage. The political aspect of the origin of the scheme had adverse effects on its subsequent history.

The Selection of Mungwi and Mechanics of Establishing the Scheme.

In the 1947 Ten Year Development Plan the goals of the rural development component were expressed as "basic development", an attempt to give the Africans of Northern Rhodesia

reasonable health, education and agricultural facilities within a reasonable distance of their villages.[72] Although it was generally agreed that agriculture could not be the most significant economic subject for the development in the Northern Province, "it nevertheless assumed considerable fundamental importance as a result of the social, economic and political situations of the time."[73] The Northern Province Intensive Development Programme was included in the Territorial Budget and funding for what had become known as "Development" in the area was significantly increased by a grant of 2 million pounds from the mining industry.[74] This was specifically to be used on the Mungwi Scheme and on other development projects in the province.

The Mungwi area was selected for the development scheme after preliminary surveys by the Land Use Survey Team which provided the development commissioner with an indication of the possible sites for a farming-cum-education centre on the Bemba Plateau.[75] The surveys indicated that the land and its soils, human habitation and the geographical position were suitable for the development scheme. The topography of the area was favourable. It consisted of gentry undulating country with gentle slopes that would make settlement work easy and soils were easily workable, free of rock, gravel and literite formation.[76] These were important features for future mechanised farming and free drainage. Aeration and moisture retention capacity was considered adequate. Johnson stated that Mungwi was "at the centre of a large area of comparatively fertile arable land, suitable for intensive agricultural development."[77]

The presence of the Mungwi river and a cluster of streams ensured perennial water supply. The population density was low and therefore the effects of displacement of people would not or would be little felt. Musonda states that apart from the region having settled agricultural potential, its low population density meant that there would be little or no adverse effects of the displacement of the local people and therefore little or no compensation costs

would be incurred by the authorities.[78] There were other informants who expressed similar views.[79]

Although poor communication was a phenomenon in the region, the area was found to be easily accessible, lying at a crossing of two major roads: north-south and east-west, with a hospital, an airport and other local government facilities within reach.[80] In short, the region was in the heart of the Bemba territory and the programme received strong support from the Chitimukulu Native Authority under whose jurisdiction the area fell.[81] Whereas the nationalist leaders felt that the scheme would alienate the masses from the African political campaign, the Chitimukulu supported the project to maintain his authority over former wage-earners and intending labour migrants.

The mechanism for the establishment of the scheme was based a Sir Arthur Benson's theory that if the town was built from the start, agricultural production would be stimulated which in turn would support the township.[82] Benson who was then Governor of Northern Rhodesia and who had been a District Commissioner in the Northern Province, was very keen on the establishment of rural townships as centres around which development would occur. The Mungwi township would, it was thought, inevitably be required to grow in relation to development of the surrounding countryside.[83]

A nucleus of houses with reticulated water supply and electricity, and feeder roads were constructed between 1958 and 1961. An initial land area of 20,000 acres was cleared, using bull-dozers and after this land was fully utilized, the settlement pattern could be expanded into an area of 200,000 acres on the adjacent minor watersheds which had similar soils, topography and vegetation.[84] An editorial in the Northern News had it that Mungwi was, in 1959, the most comprehensive and up-to-date planning scheme in Africa.[85] Thirteen years later, Honisch, then Acting Chief Crop Husbandry Officer, reported that the "layout of the scheme [was] very

impressive... it [had] been done with almost urbanistic precision... the road, water supply, rectangular farm blocks of 21 aces of arable land for farm, all that [was] perfect..."[86]

The scheme would act as a node which would stimulate development throughout the province by providing an agro-economic system which would curtail or reduce labour migration to towns. Moore and Vaughan have argued that whatever the political rationale for Mungwi, it was clear that its agricultural programme with the allocation of ready cleared farms and with piped water, was designed to encourage investment in permanent agriculture.[87] Mungwi was seen as:

> a new Bemba rural township incorporating a Development Area Training Centre, a related agricultural development scheme, a diary and a secondary school as well as providing markets and amenities for the surrounding farming community.[88]

It was envisaged that settled agricultural production of crops such as maize, groundnuts, millet and tobacco by trained farmers would suppress and replace the traditional citemene shifting cultivation system.[89]

The scheme would not only be a major aspect in making the region self supporting in food crops but would contribute to the national demands for both food and cash crops.[90] Peoples' living standards would be raised through the provision of a substantial agricultural industry and amenities to make rural life at least as attractive as that of urban areas.[91] The programme was:

> to lay the foundations for economic progress to make the area a more attractive place for its inhabitants to strengthen the financial position of the local native authorities and to encourage the emergence of a stabilized and prosperous rural african community in this very backward and underdeveloped area which had in it the seeds of political unrest.[92]

The Roan Select Trust (RTS) Group of Mining Companies desired to create a stable African community for a viable economic progress. It particularly desired to see development in areas from which the majority of employees of the companies were drawn.[98] Referring to the Northern

Province, Morrow has point out that:

> the very substantial contribution which the able-bodied absentee population had made in the advancement and prosperity of the industrial area and so of the country as a whole, had not been reflected to any extent in the rural areas from which they were drawn, nor in the standards of living of the people left behind in the village.[94]

The Chairman of the R.S.T. Group of Mining Companies, Sir Ronald Prain, referred particularly to "the state of imbalance which the activities of the copper companies in Northern Rhodesia [had] helped to create."[95] Prain expressed the view that the companies had a duty and responsibility to help redress the situation.[96]

Settler farmers would profess a knowledge of crop rotation, composition and methods of preventing soil erosion and they would also acquire cattle and farming implements such as oxen-drawn ploughs sledges and scotch-carts.[97] Through improved farming of methods, families would stabilize their agricultural production on a permanent basis.

Table 1: Details of Expenditure on Mungwi Settlement Scheme and Revenue from Crop Sales (Pounds), 1958-1963.

Item	1958/59	1959/60	1960/61	1961/62	1962/63	Total
Livestock	648	1,512	1,032	1,344	-	4,536
Implements	540	1,260	1,260	1,680	59	4,799
Rations	315	735	1,050	1,484	1,792	5,376
Recruitment	90	210	210	298	73	813
Seed	88	144	211	298	73	813
Fertilizer	74	158	158	210	234	833
Materials on loan	-	-	518	204	234	833
Tobacco services	50	80	146	460	802	1,538
Clearing	1,414	5,190	7,040	3,885	2,654	20,183
Water Supply	2,150	1,969	3,067	-	-	7,186
Staff salaries	1,687	2,244	2,564	1,987	1,447	9,929
Buildings	5,996	5,033	8,415	8,821	3,026	31,291
Fuel	455	757	1,470	-	-	2,682
Vehicles	3,481	-	-	-	-	3,481
Wages	1,704	2,143	4,876	2,585	473	11,781
Transport	588	354	139	1,952	72	3,105
Miscellaneous	1,961	1,557	2,049	2,494	327	8,388
Total costs	21,224	23,412	35,266	29,523	13,063	122,488
Revenue (Crop Sales)	279	715	2,702	4,189	6,825	14,709

Source: Adapted from Johnson, "The Northern Province Development Scheme", pp.79, 107.

Table 1 shows details of the costs on the Mungwi Scheme and revenue from crop sales from 1958 to 1963. The direct cost included the actual cost of providing each settler with livestock and implements which were capital items to the farmer, and once-and-for all costs, such as food (ration), seed, fertilizer and tobacco services. Tobacco services included the cost of seedbeds and marketing services carried out by the Department of Agriculture. The cost of the Diary held was also provided. Then there was the cost of recruitment.

The remaining costs were those incurred in development items such as forest clearing, water reticulation, buildings and other expenses associated with the scheme. As the table shows, the heaviest costs were on buildings, followed by forest clearing, wages, staff salaries and rations. Although heavy expenditure was incurred on clearing of forest and making the farms, the return of the scheme was very low.

Table 2: Farmers Trained and Settled, 1958-1963

	1958/59	1959/50	1960/61	1961/62	1962/63	TOTAL
Trained	9	21	21	28	26	105
Settled	-	9	15	25	26	90
Withdrew	9	12	6	3	-	30

Source: Johnson, "The Northern Province Development Scheme", p.60.

Table 2 shows the numbers of farmers who were trained, those who actually settled and those who withdrew from 1958 to 1963. Of the first batch of nine trainees, none elected to stay on the scheme for another year. They returned to their home area taking their livestock and implements with them.[98] In subsequent years, those who withdrew were not allowed to take livestock and implements with them.[99]

In 1959/60, twenty one trainees were taken on. Nine of these applied to settle while twelve withdrew. A further twenty one trainees were inducted in 1960/61 season out of which fifteen applied to settle while six withdrew. In 1961/62 twenty eight trainees were taken and twenty five of these applied to settle while three withdrew. All the twenty six trainees who were inducted in the 1962/63 season applied to stay on the scheme. In 1963 therefore, there were a total of ninety settler farmers on the scheme, occupying a twenty one acre of land each.

Constraints on the Development of the Scheme to 1963

Theoretically, the establishment of the scheme was a landmark in the transformation of agriculture from citemene to settled production of both food and cash crops and integration in the market-oriented economic system. In practical terms, however, the objectives of the scheme were rather difficult to achieve over the years due to historical, social, economic, technical, administrative and political problems.

The target groups for the scheme were retirees, the unemployed in general and those still in employment (particularly the Bemba workers on the Copperbelt), but who would wish to go back to the land and take up farming as a career. These people were enticed to take up agriculture and improve the production of crops by way of new production methods and management. In 1958, Chief Munkonge was sent on a tour of the urban areas of Kitwe and Ndola in an attempt to promote the idea of development and to entice the Bemba men to return to their homes.[100] He wrote in his report on the tour:

> I told them wonderful opportunities existed for those who wanted to make money at home by farming and for this purpose funds to loan are available... I pointed out to them that the two million pounds which the mines lent to the government is to be spent in Northern Province from where most of the rock breakers come... this was the time to make hay while the sun was shinning or people will regret their indecision.[101]

One settler called Mubanga, recalled that "several families left the urban areas to come and take-up farming because of the promises made."[102]

A Selection Committee was set for the selection of trained farmers. This Committee was composed of Central and Local Government Officials as well as private individuals.[103] But the settlers were not always selected on ability and farming merit by their past production records. There was no assessment of the applicants' potential as "improved" farmers. The Selection Committee did not always consider the credit worthiness of applicants determined by their assets

and financial positions and their desire to follow new farming practices.

Morrow has noted that the initial farmer-trainees "were of very poor material and only entered the scheme because of excessive Government aid."[104] In some cases the selection committee asked the traditional chiefs to select settlers and the chief asked the village headmen to detail off people from their villages to settle. In some instances,

> the undesirables and troublemakers were sent... and these had little vocation for farming but plenty to shout and/or drink about... later settlers keen on farming always had difficulty in such an atmosphere or joined the complainants.[105]

Musonda, a former Mungwi Community Development Officer, argued that the selection of settlers was not properly done and there were cases where settlers who had failed to live to the scheme's expectations were not evicted from the scheme plots.[106]

Prospective settlers received a year's training course in the use of ox-drawn plough, application of fertilizers, practice of crop rotation and other aspects of training relevant to agricultural modernisation.[107] Each trainee was issued with seed, fertilizer, four oxen, two cows, a plough, a ridge, trek chains, scotch cart and some pocket money, and food and housing were provided.[108] After training a settler was allocated an already cleared 21 acre holding.

The initial trials at Misamfu Agricultural Research Station had indicated that fertilizers could replace the ash-burn in the indigenous citemene system; and the agriculturalists were, therefore, able to build up a new system of farming based on fertilised crops and a suitable rotation.[109] On the 21 acre holding, some 18 acres were available for cropping, 9 of which would be down in grass ley at any one time; to maintain soil fertility.[110]

The finger millet would receive a dressing of 100 lbs of sulphate of ammonia and the maize a dressing of 120 lbs of the same fertilizer or more, and in subsequent years, it was thought that dressing of a balanced compound fertilizer would be needed, such as the local "C2" compound (NG, PL8, K12).[111]

The farmers did not properly grasp the skills of oxen-mechanisation and modern farm management. The training given did not guarantee proper utilization and management of resources for meaningful agriculture, partly because the agricultural staff responsible for implementing the scheme were of mediocre calibre who "had themselves no proper training or guidance for teaching the farmers."[112] Morrow states that the people delegated to carrying out the training of farmers in the utilization of ox-drawn implements, fertilizer application, practice of crop rotation and other concomitant aspects in modern farming techniques, were not necessarily the best for the job.[113] The conditions laid down by the conservation officer appeared to be ignored, abused and/or were sometimes completely unknown by various government officers concerned in the operation of the programme.[114] The whole training programme was poorly designed to fit the need and the circumstances.

The Bemba had no experience of cattle ownership, animal husbandry or modern farm management. They were introduced to a new farming system which, as Mpundu stated, "needed vigorous training if positive results were to be obtained."[115] Tooke and Lihusha have stated:

> cultivation by oxen was inefficient as the beasts were even more refractory than tractors and since the farmers did not fully understand the animal husbandry, their 'repair' and 'running costs' were extremely high.[116]

The standard of animal husbandry was deplorable and despite every effort by the veterinary wing of the Department of Agriculture, farmers failed to look after their cattle.[117] The majority of the cattle died in mid-1963 and were not replaced. The few remaining oxen were decimated at the end of 1963 on the understanding that there were vast numbers of Russian tractors awaiting trans-shipment to Mungwi from Dar-es-Salaam.[118] As table 1 shows, there was, consequently, a marked drop in the funding for oxen-drawn implements. Only hand tools were supplied. By 1964 therefore, ox-technology had failed on the Mungwi Scheme and as Tooke and Lihusha state, this failure was a sufficient condition for the problem of the scheme programme as an

agricultural undertaking and "without an efficient means of raising the productivity of labour the returns of the scheme were not high enough to pay for the high development costs."[119] The Diary herd was also disposed of in 1963 due to severe difficulties in the production of hygienic milk.[120]

The inadequacy and inefficiency of training were not only manifested in the settlers' inability to cope with animal husbandry but also in their inability to follow recommendations pertaining to the number of acres to be cultivated and their failure to follow the recommended crop rotations.[121] Many settlers cultivated more than the recommended number of acres, thereby severely overstretching themselves in terms of credit. The cropping programme demanded a standard of work which was greater than most trainee farmers were accustomed to doing.[122]

The settlers' knowledge and skills were indeed incomplete, hence their low yields and low returns. Therefore, the farmers, confidence in the new system was declining. None of the first batch of nine trainees on the scheme, elected to stay on for another year. There were no immediate tangible economic gains, and as Tooke and Lihusha have noted, "Farmers were at an early stage saddled with debts which coupled with the lack of financial success, discouraged them."[123] Desertions were not uncommon in subsequent years. There was, therefore lack of continuity and this adversely affected the programme. At the same time, considerable subsidies in cash and kind continued to be offered in order to attract settlers.[124]

Some settlers came to consider settlement work as laborious and unrewarding. In 1960 for instance, one settler farmer had written a letter to the Agricultural supervisor, stating that he did not desire to own an extension farm because:

> my wife and me are not all interested in farming as we have noticed it to be very laborious. My family is strengthless after all the hard work it has overcome. I would be pleased if you [could] kindly get farmer No. 16 to take over me.[125]

A number of settlers treated loans as income, livestock and agricultural implements as gifts and the development of the scheme as an entirely government responsibility. Musonda

revealed that some settlers turned the livestock into meat for consumption, sold their ploughs and other farm implements and turned back to citemene or left to seek employment elsewhere.[126]

With the establishment of a cluster of primary schools and the Mungwi Secondary School in the early 1960s, whose origin is sought in the Northern Province Rural Intensive Development Programme, one would suppose that provision would be made in the curriculum to orient the youth towards agriculture as a career. This was not done. Like elsewhere in the territory, children who reached secondary school level acquired new ambitions, which, as Roberts has put it, "increased their dissatisfaction with rural conditions.[127] Many, if not most, of the active and intelligent young people left in search of fortunes in the urban centres. This aspect was in itself a major constraint on the development of the scheme as it depleted the region's reserve of productive human resources. Many a youth who could have added to family labour force on the scheme left for towns to seek employment. Indeed, the appreciation of opportunities and effectively grasping them is a complex process that could not be attained without proper education.

The low producer prices for cash crops, such as maize and tobacco and the marketing limitations were further constraints on the development of the scheme. Maize was sold t other local market through the Kasama Marketing Union. The Department of Agriculture carried out the marketing services. Rewards in monetary terms to the maize producers were insufficient to counteract the pull factors of the urban centres where wages were much higher;[128] or to discourage the farmers from practising citemene which ensured subsistence security.[129] In 1961, for instance, maize was bought from the farmers at 35 pence per bag and the Kasama Union, which had installed a roller mill, sold the maize roller meal at 60 pence per bag, [130] and since the value of maize depended on its scarcity, it meant that if too much of it was produced, then it would cost less than 35 pence per bag.[131]

There was also a tendency among farmers to sell all the maize and to depend on millet and cassava meal for food.[132] This aspect further encouraged the practice of citemene since millet was best grown through this system.

The production of Turkish and Virginia tobacco was started in the 1959/60 planting season. The Department of Agriculture undertook a tour to recruit trainee farmers and prospective settlers for Mungwi and to explain the advantage of growing Turkish tobacco.[133] The initial response was good and great hopes were placed in the crop; the average price of 38.8d per pound could offer a net return of over £80 per acre.[134] A labour force of 150 men was organised to work on the tobacco.[135] Tredwell stated that "the crop could bring into the area the minimum of cash necessary to start the process of raising the standard of life."[136]

Table 3: **Crop Production on Mungwi Scheme: Average Yields per Acre**, 1958-1963.[137]

Planting Season	Groups of Settlers	Maize 90 Kg. bags	Finger Millet 90 Kg. Bags	Groundnuts 90 Kg. bags	Tobacco Lbs.
1958/59	1958/59 Intake	6.2	2.7	1.8	-
1959/60	1959/60 Intake	4.9	2.5	3.0	442
	1959/60 Intake	8.1	3.7	2.4	637
1960/61	1960/61 Intake	7.7	4.4	2.6	462
	1959/60 Intake	2.1	4.2	1.4	302
	1960/61 Intake	5.8	6.4	2.5	482
1961/62	1961/62 Intake	6.8	4.1	3.5	439
	1959/60 Intake	4.0	2.0	1.5	150
	1960/61 Intake	5.0	3.5	1.5	350
	1961/62 Intake	4.0	3.0	1.3	210
1962/63	1962/63 Intake	7.0	2.0	2.0	510

Source: **Adapted from Morrow, et. al. (eds.), Working Party Report, p. 52.**

Some 21,420 pounds of tobacco were produced from 47 acres in the 1960/61 season and were sold at the average price of 21.6d. Both production and price were far below the farmers expectations. Tobacco was sold at the local auctions at the Mungwi Area Training Centre.[138] There was no adequate trading organisation and the amounts drown were too insufficient to attract big contractors. One farmer, Katenda said: "most of us were discouraged from growing tobacco because of the low returns."[139] The low tobacco production was partly attributed to forest clearing by bull dozers "which removed a great deal of the top soil with the tree trunks."[140]

The low returns made it difficult for farmers to repay their loans and to build up self-sustaining capital so as to avoid borrowing for every other season. It was in most cases not possible for farmers to use their small earnings to purchase inputs. Many farmers used their small earnings on drinking and/or buying luxurious items but little or no re-investment in production.[141]

Table 4: Outstanding Loans at June, 1963 (Pounds)

PLANTING SEASON	CAPITAL LOAN		SEASONAL LOAN	
	REPAID	BALANCE	REPAID	BALANCE
1958/59	272	2,782	Nil	477
1959/60	18	4,436	465	656
1960/61	Nil	6,000	-	-
1961/62	Nil	1,560	-	-
1962/63	NIl	1,560	-	-

Source: Morrow et. al. (eds.), Working Party Report, p.86.

The political perception of the objectives of the scheme by African nationalist leaders was also a major obstacle to its development. There were mistrust and suspicion by the nationalist leaders on any colonial government programme,[142] and "Mungwi became a target for political

agitation by the newly constituted United National Independence Party (UNIP) whose leadership included the former advocate of peasant farming, Kenneth Kaunda."[143] In 1960, village headmen around Mungwi refused to visit the project to assess developments at the project and to induce a cooperative atmosphere and:

> On August 4, 1961, an armed gang of some 300 persons gathered near the Mungwi development center with the aim of beating up the settlers and another 200 people were reported lurking near the road between Mungwi and Kasama with a view to cutting off the settlement.[145]

African nationalist leaders felt that the Mungwi scheme would divert the people of the region from supporting the struggle for independence. Indeed, even though opportunities for training and settling were available at the scheme, some people in support of the African nationalist leaders, said that they were quite happy as they were and if they could no longer do citemene, they could live off cassava and beans.[146]

The Bemba's response to the Mungwi Settlement Scheme was far from overwhelming. The rate of occupation of the scheme was slower than was anticipated. At the end of the colonial era, there were 52 farmers settled on it.[147]

To sum up, the foregoing chapter has shown that the development of the scheme during, the colonial epoch was adversely affected by unsound selection of settlers, insufficient training and education given to the settlers on the new farming system due to lack of qualified staff to give sound knowledge to the settlers, low producer prices and the risks of cash crop production. The chapter has noted that the type of primary and secondary education given to the children had little to do with agriculture. The education system influenced the youth's attitudes against the acquisition of rural skills and their continued migration to the urban areas further reduced the labour force on the scheme. The chapter has revealed further, that the political perception of the aims of the scheme adversely affected its development. African nationalist leaders believed that

the scheme would divert the Bembas from participating actively in the struggle against the colonial government and instead give support to the colonial government's programmes.

At the end of the colonial period, the scheme had not significantly attracted the urban dwellers or the rural community. Citemene continued to command prominence as a means of subsistence production with a little surplus for the market. Some settlers had completely reverted to citemene, while others worked their scheme plots for cash cropping and practised citemene for food crop production. Labour migration to the urban centres continued in spite of the settlement scheme. It was this state of affairs that the Zambian Government inherited at independence in 1964. The next chapter examines the history of the scheme after independence, through the First and Second Republics to 1991 and examines the constraints on the programme during this period.

NOTES

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Verboom, Planned rural Development in the Northern Province of Northern Rhodes (Delft: International Training Centre for Aerial Survey, 1961), p.15.

5. Government of the Republic of Zambia (GRZ), New Economic Recovery Programme, 4th National Development Plan, 1980-1993 (Lusaka: Office of the President, National Commission for Development Planning, 1989), p.702.

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15. Henrietta Moore and Megan Vaughan, Cutting Down Trees, p. 142; see also Bwalya, "Maize Production", p.16.

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17. Roberts, A History of Zambia, p.233.

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22. Moore and Vaughan, "History and Planners in Northern Province", p.138.

23. George Kay, A Social Geography of Zambia (London: University of London Press, 1967), p.73.

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51. Perrings, Black Mineworkers, p. 208; Northern Rhodesia Government, Capital Plan 1959 - 1963 (Lusaka: Government Printers), p.

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53. Roberts, A History of Zambia, p.188.

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135. Morrow, "An Evaluation of the Mungwi Scheme", p.80.

136. NAZ, SEC 2/801, G.F. Tredwell, Letter to the District Commissioner, Kasama, February 29, 1960.

137. The recommended acreage were 7 acres of maize, 1 acre of groundnuts, 1 acre of millet and 1 acre of tobacco. but some farmers did not follow the recommendations. The 1959/60 group of settlers for instance, ploughed-in 1960/61 season - 12 acres of maize, 2 acres of groundnuts ¾ acre of millet and ⅓ acre of tobacco. The fertilizer and seed advance on maize and grounds was tremendous.

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135. Morrow, "An Evaluation of the Mungwi Scheme", p.80.

136. NAZ, SEC 2/801, G.F. Tredwell, Letter to the District Commissioner, Kasama, February 29, 1960.

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CHAPTER THREE: CONSTRAINTS ON THE DEVELOPMENT OF THE MUNGWI SCHEME, 1964-1991.

A General Introduction

At independence, the Zambian government inherited a lop-sided economy, with deep rooted socio-economic imbalances between the rural and urban sectors in favour of the latter. The growth of incomes and income earning opportunities in the urban sector and the socio-economic stagnation of the rural sector meant continued exodus of able-bodied men from the rural to the urban centres in search of paid employment to emancipate themselves from rural poverty. The Zambian government pledged to reverse this trend by developing the rural sector, particularly through agriculture.

Three-quarters of the total marketed food output were produced by some 7,500 white farmers, many of whom left the country a few years after independence leaving only about 400 of them.[1]. The urban food demand was rising but the base for food production was contracting. The country was forced to depend increasingly on imports of basic food stuffs. In theory, it was a major Zambian government policy to create a self-reliant, self sufficient and progressive rural society and make agriculture profitable so as to end dependence on the mining industry for employment and general creation of the nation's wealth.[2] Increased agricultural production would offset the drop in output caused by the exodus of white farmers while contributing to national self-sufficiency in food as well as increasing foreign exchange earnings from exports of agricultural products.

The Zambian government developed policies which were aimed at commercializing agriculture by way of increasing its intervention so as to promote private farming by Zambians. These policies were a reflection of the role of foreign "experts" who argued for a development strategy based on capitalist production structures - a strategy which was ideologically and

economically consistent with the interest of the political leadership, the bureaucracy and foreign capital.[3] The promotion of settlement schemes was seen as one of the appropriate strategies to achieve these objectives. Other programmes that were considered capable of contributing to the goal of increased food production by the post colonial state were cooperatives, collective ranches, rural reconstruction centres and intensive development zones.[4] But as Chitundu has pointed out, "there have been a number of serious contradictions in the post independence agricultural policy structures which have tended to abort all plans and efforts."[5]

Although the post colonial national development plans laid emphasis on agricultural development, in practical terms more capital investment was put in mining and industrial development rather than in agriculture. In the First National Development Plant (FNDP) of 1966 to 1970, agriculture was not given top priority. The agriculture sector was expected to have the lowest rate of growth of all the major sectors except for mining.[6] Between 1964 and 1970, the real value added for agriculture was projected to increase by 71 per cent as compared with 146 per cent for manufacturing, 198 per cent for construction and 147 per cent for government services.[7] And while the Second National Development Plan (SNDP) stressed the expansion of agricultural production as a top priority, planned investment expenditure by the Ministry of rural Development for 1972 to 1976 period was only K152.5 million (7.79 percent) out of a total investment outlay of K1,956 million, as opposed to K655 million (34.48 per cent) for mining and industry.[8] Indeed, despite the repeated policy emphasis on agriculture, in practical terms the pattern of sectoral investment allocations in agriculture had shown little evidence of this importance. Bratton has noted that public investments in rural development "were never large, either in absolute terms or relative to investment in the urban development or industrial infrastructure."[9] According to one Employment Advisory Mission report:

> A depressing feature of public policy which strikes the observer of the rural sector is the gulf between words and deeds. In contrast with the government's declaration about the urgency of the need to transform the rural sector, and the priority to be given to rural development in national planning, one is struck by a neglect of agriculture, by the low priority given to rural activities in the allocation of economic resources and skilled manpower...[10]

Constraints on the development of the Mungwi Scheme should in part be viewed from the above broader perspective. Insufficient funds were allocated to agricultural development in general and settlement schemes in particular. Of the K69 million allocated directly to crops and livestock in the FNDP, for instance, only K1.1 million was for settlement schemes.[11] But there were other problems of inappropriate technology, lack of sufficient qualified staff, and problems of credit facilities.

Tractor Mechanisation and its Problems

During the 1950s, oxen technology was being abandoned by the European commercial farmers in preference for tractors. The number of tractors was seen by the government as a major indicator of agricultural change.[12] On the other hand, there was growing adoption of animal drought power in many African farms. Immediately after independence, the independent states concern for improving agriculture among African producers to redress the imbalance favouring European farmers led to the adoption of tractor technology. The government was particularly concerned about maintaining food production for the towns following the departure of many European farmers. Western donors also encouraged the use of tractor technology by supporting a transformation approach to developing African agriculture.[13]

A tractor mechanisation scheme in Zambia developed out of the Food Agricultural Organisation's (FAO) recommendation for rapid mechanisation of agriculture.[14] The scheme started during the Transitional Development Plan in 1965 and provision for its expansion was

made in FNDP.[15] Tractor mechanisation became widespread through increased importation of the machinery and in 1966, 200 tractors were established in 40 chosen locations throughout the country.[16] The Mungwi Scheme was one of them.[17] Five tractors were allocated to Mungwi and in order to encourage the transformation from oxen-technology, tractor ploughing services were initially heavily subsidised. During the 1966/67 season, the tractor hiring charge was K4 per hour.[18]

Through the years, tractor mechanisation at Mungwi proved unwise. Serious damage was done to tractors due to unskilled use by hastily trained drivers.[19] The mechanical unit became increasingly poorly serviced and experienced a high level of breakdowns, lack of adequate maintenance facilities and shortage of qualified and experienced personnel.[20] The Department of Agriculture lacked staff to supervise and train operators of tractors; lack of spares and mechanics made the machines to be off the road for long periods.[21] Sometimes where tractors were operational, credit for ploughing loans were issued too late for the mechanised unit to plan its programme efficiently.[22]

Tractor resources became continuously utilized. Machines were used to perform tasks which could have been undertaken more cheaply manually. This directly increased tractor costs. One farmer, Nondo, reported that there were times when tractors did much of travelling and little farm work.[23] Sometimes in answer to a request for a tractor service the unit would arrive at the holding only to discover that the farmer had changed his mind for various reasons. The Unit had to return without earning any income.[24] Lihusha and Tooke have noted that the absence of an efficient and economic form of mechanisation resulted into low productivity.[25]

Since the introduction of tractors on the Mungwi Scheme, Oxen Technology was neglected. Burrow has stated that:

> Farmers seemed more concerned about tractors than any other single subject and were not readily expected to use the less attractive alternatives- the ox-even if this could be made available.[26]

Yet as Yadin has stated:

> Oxen use requires less mechanical skill than does tractor use, and in the Zambian context the operating costs are substantially low. Oxen use requires much less foreign exchange expenditure than does tractor use.[27]

In the 1964 Working Party Report on Mungwi, Morrow had expressed doubts on the advisability of tractor mechanisation on the scheme. He had noted that tractor mechanisation would mean cost of machinery operation and consequently "there would not be much value accruing to the farmer who sees most of his returns devoured to costs.[23] He argued that there was no justification, socially or economically, for the introduction of tractor mechanisation at Mungwi.[29] He stated that:

> while it can be shown on paper that tractor mechanisation is technically feasible and theoretically economical to establish at Mungwi, there is indeed a great void in African today between what is theoretically desirable and possible and what can be achieved and accomplished in practice.[30]

Information available at 1964 showed that in more than 90 per cent of the settlement schemes throughout Africa which had included tractor mechanisation, substantial economic losses had been incurred.[31] All that mechanisation at Mungwi could do was to erode the settler's existing economic situation, and made it worse that it was before. "The increased use of tractor mechanisation to transform traditional agriculture", wrote Wood and Shula, "showed a failure on the part of the government to assess correctly the nation's capacity to adjust to this radically different production method."[32]

Lack of concern by the authorities about the training of farmers in the use of animals in farming led some settlers to abandon or sell their ploughs and other ox-drawn implements which they had possessed.[33] In 1973 for instance, 38 settlers had cattle, but none of them were using

oxen for farming or transportation.[34] In the words of Roberts, "Schemes to help villagers produce for the markets have been vitiated by over-reliance on complex machinery.[35] During the field research for this study in 1992, a number of tractors and other items of farm machinery which had been abandoned were seen near the Mungwi Farm Institute and Training Depot.[36]

Problems of Extension Services

The problems associated with mechanisation were compounded by those of extension services. The term "extension services" here encompasses supportive services which may broadly be described a training and supervisory of settlers and the issue of credit or loan facilities vis-a-vis agricultural development. Extension Services on the Mungwi Scheme left much to be desired under the First and Second Republics.

The dissemination of relevant information to the farmers pertaining to settlement work was impaired by shortages of staff. There was depletion of staff as a result of resignations and replacement of these staff losses had not always been forthcoming.[37] The reasons for staff resignations were varied. The more evident ones were low pay, shortage of transport for extension work and the frustrating low morale among many of the farmers on the scheme.[38] Frustrated Officers left in search of more rewarding jobs in the urban centres. Mwansa and Mwila, two of the farmers who grew some Turkish Tobacco in the 1966/67 season testified of a mysterious disappearance of one agricultural officer who allegedly had left for Lusaka to make a follow-up concerning payments for their tobacco.[39] In some cases staff shortages were critical. Between 1968 and 1973, for instance, only one Agricultural Assistant Staff ran all the affairs at Mungwi[40]

The shortage of staff was compound by lack of transport for extension work. Relevant agricultural information did not reach the majority of farms. Some staff spent much of their time drinking the locally brewed katata or cipumu beer or just moving up and down chasing local women.[41] Yet, as Landell-Mills has pointed out:

> The creation of a settlement scheme based on modern farming techniques necessarily involves a massive exercise in adult education and without discipline the scheme would undoubtedly collapse.[42]

Where and when farmers received some services in the form of training or education, this was practically inapplicable in their situations. Farmers would, for instance, be taught how to use farming implements such as oxen ploughs, ridges, trek-chains, harrows and scotch-carts and the use of the right amount of, and appropriate, fertilizer.[43] However, many of them did not have the money to buy or hire ox implements. When a settler managed to acquire ox implements, one's farming career was made no better because once the implements were broken down, "it was very difficult if not impossible to have them repaired locally."[44] If farmers wanted to have their implements repaired they often needed to travel to the urban centres but this was rather expensive and transport was a problem.[45] On the other hand, household labour force was generally highly constrained due to rural to urban migration of the settler's able-bodied children or relatives who did not wish to stake their socio-economic life in farming. Dillman argues that the number of able-bodied members in a household was an important determinant of the hectarage under cultivation.[45]

Credit services vis-a-vis the Mungwi settler farmers were quite disappointing under the First and Second Republics. Between 1968 and 1972 the government adopted a dual credit approach where some settlers received loans from the Credit Organisation of Zambia (COZ), while others received loans from the scheme management service.[47] The settler farmers in the latter category grew excellent maize each year and all repaid 100 per cent of their seasonal credit,

plus a management fee before they were paid out their profits. The majority of those who received COZ loans, either as individuals or as cooperative, did little or no farming each year and their loans, which "they regarded as their reward for independence were always forthcoming even without repayments."[48] As Russel notes:

> The settler farmers who received loans from the scheme management service had less money to spend than their neighbours who did not work but who had COZ loans each year that they were not made to repay.[49]

Makings has pointed out that there was lack of understanding of the credit concept sometimes accompanied by a tendency to regard government loans as handouts, a weakness fostered by credit schemes in which loan distribution had not always been matched in the provision for recovery.[50]

The available COZ administrative and technical machinery was mediocre as it was far too inexperienced to cope with the task which demanded very high management skills. It could neither efficiently allocate and distribute loans nor cope with loan recoveries. There was no careful assessment and recording of the farmers' ability to utilize loans wisely and their ability and preparedness to repay the loans.[51] Data on the amount of capital lent out to the scheme by COZ and how much was repaid was not readily available but when the organisation was dissolved in 1970, it had made "a startling loss of K26m" at national level.[52]

Misappropriation of COZ loans adversely affected the operation of the scheme management service. Many settlers who received loans from the scheme management service started selling their produce outside the scheme to evade repaying loans.[53] Some of them received the loans but like COZ debtors, they did little or no farm work and "it became difficult for the scheme management service to run as loans for fertilizers, seed, etc. were no longer paid.[54] Russell then Chief Management Officer, reported in 1972 that "Mungwi had an increasing number of disgruntled and idle farmers, ruined by too much generosity in the form of credits and political inaction."[55] He added:

> Some action is needed from the politicans to remove the heavily indebted laggards on the scheme, who will never improve. Why not do this, and properly, select on ability and farming merit, other promising people, who could welcome the opportunity of having a settlement farm.[56]

During the 1971/72 season, for instance, only about 7 out of 100 settler farmers were cultivating their land properly.[57] A Mr. Kantu of Farm No. B5 planted only 2 acres of maize on his 21 acres land area, while his colleague J. Mwambe, of Farm No. E5, the only settler in the scheme who still owned a pair of work oxen, had on his 21 acres not planted a single acre of any crop.[58] Only about 10-20 per cent of the 20,000 acres of cleared land was cultivated in the 1971/72 season.[59] Honisch who was Acting Chief Crop Husbandry Officer wrote that:

> Since the misuse or non-use of cleared land seems to have gone on for several seasons now, I think at a time when the country is struggling for self-production of maize, something to improve the situation ought to be done quickly.[60]

By the 1980s production records of the scheme were very poor.[61] In the late 1980s Christian missionaries from Germany became involved in attempts aimed at improving crop production on the scheme and surrounding areas.

The Impact of the Baptist Association

The German missionaries, through the Zambia Baptist Association (ZBA), became involved in agricultural development on the Mungwi Scheme and surrounding areas from 1987 to complement the existing facilities."[62] After having established a station in Kasama in 1985, the German missionaries decided to spread their influence to Mungwi where they established a Church in 1987.

The obvious primary objective of the Baptist Association was to spread Christianity. The Association was, however, appalled by the low standard of living of the majority of the inhabitants of Mungwi.[63] This was evidently manifested by the many cases of malnutrition.[64]

In order to help improve the health services and the production of both food and cash crops in the region, the association formulated the Mungwi Integrated Rural Development and Health Project (MIRDHP). The Project Director Mr. Hartman asserted that the programme:

> was aimed at resuscitation of the settlement scheme, assisting farmers outside the scheme but within the Mungwi farming camp, combating malnutrition and creating employment in this remote area.[65]

The agricultural component of the Baptist Church encouraged the production of maize, millet, cassava, groundnuts, bambara nuts, sugar, beans, sorghum and soya bean.[66] Cassava and millet were still popular sources of carbohydrates among the farmers of Mungwi.[67] Fruit tree and vegetable growing and the keeping of livestock were also encouraged by the Germans.[68] However, the pilot crop was soya bean. In the words of Dillman, "soya bean was the number one cash-crop in the area as maize was grown mainly for home consumption."[69]

Soya bean was sporadically being grown around Mungwi before the coming of the Germany missionaries. The Lint Company of Zambia (LINTCO), formed in 1978 for the purpose of promoting cotton production, was in 1983, given the additional responsibility of promoting small holder coffee and soya bean production.[70] But despite supplying seeds to soya bean growers, the produce was, in many cases, never collected.[71] Enterprising soya bean growers were disappointed with this and were turning away from the crop. LINTCO paid more attention to cotton purchases of which it held the monopoly.

The Baptist Association made available technical advice and credit facilities is to prospective soya bean growers. However, only a limited number of farmers received loans from the association's credit scheme due to insufficient funds.[72] For instance, eight farmers received K300,000 credit each in the 1991/92 soya growing season.[73]

The association established what was called SOLYE ENTERPRISE in 1990.[74] The objectives of the enterprise were to help in the marketing of soya bean and the processing of some of it locally into finished products, such as soya flour, soya cake and soya coffee; these products were sold to the local community. As a small enterprise, SOLYE could not absorb all the soya beans from farmers. Therefore, the surplus crop was sold to the Copperbelt through the association.[75] The farmers were also taught by the Germans how to make finished products from soya beans, mainly for home consumption.[76]

In the same year, the Mungwi Farmers' shop was built to supply farmers with agricultural inputs and other requirements, such as bicycles spares, wheel barrows, rakes, hoes, etc. Following the establishment of the Farmers' Shop in the area, farmers were no longer worried about transport problems to Kasama or to other far-away places to go and buy farm inputs and implements, as these were made readily available locally.[77] Generally, however, labour and financial constraints, "idle agricultural officers",[78] as Hartman put it, and transport problems particularly from the farm plots to the marketing depot, remained to be tackled.

At the close of 1991, settlement work at Mungwi, by and large, left much to be desired. The year 1991 marked a new era in the history of the scheme. With the birth of the Third Republic and the keen interest that the Baptist Association has shown to help in the transformation of the socio-economic base of the settlement and surrounding areas, a dawn of hope has been shown to the Mungwi farming community.

NOTES

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25. Tooke and Lihusha, "The Evaluation of the Mungwi Scheme," p.18.

26. NAZ, MAG 2/5/110 Report by Burrows on the Minister's Tour.

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29. Morrow, "An Evaluation of the Mungwi Scheme", p.36.

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31. Morrow, "An Evaluation of the Mungwi Scheme", p.41.

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63. Interview with Hartman, Agricultural Project Coordinator, Mungwi, April 24, 1993.

64. Interview with Hartman, Mungwi, April 24, 1993. See also, Dillman, "Mungwi Integrated Rural Development and Health Project", p. 12.

65. Interview with Hartman, Mungwi, 24 April, 1993.

66. Dillman, "Mungwi Integrated Rural Development and Health Project", p. 11.

67. Dillman, "Mungwi Integrated Rural Development and Health Project", p. 11.

68. Dillman, "Mungwi Integrated Rural Development and Health Project", p. 15.

69. Dillman, "Report on Activities of the Agricultural Branch of MIRDHP", p.10.

70. Andrew Mwaba, et. al., "The Lint Company of Zambia", Wood, et. al., The Dynamics of Agricultural Policy and Reform, p.409.

71. Dillman, "Report on Activities of the Agricultural Branch of MIRDHP", p.11.

72. Dillman, "Report on Activities of the Agricultural Branch of MIRDHP", p.9.

73. Dillman, "Report on Activities of the Agricultural Branch of MIRDHP", p.14.

74. "SOLYE" literally means "come and eat". In this context, it was used to signify the "abundance" of food.

75. Interview with Dillman, Mungwi, April 26, 1993.
76. Interview with Hartman, Mungwi, April 26, 1993.

77. Interview with Hartman, Mungwi, April 26, 1993. Also personal observation when I visited the Farmers' Shop, April 29, 1993.

78. Interview with Hartman, Mungwi, April 26, 1993.

CHAPTER FOUR: CONCLUSION

This concluding chapter is mainly a recapitulation of the major constraints on the development of the Mungwi Scheme as covered in the previous chapters. The chapter also offers reflective statements on the topic.

The scheme was initiated as a result of a combination of socio-economic and political reasons. Firstly, the colonial government hoped to increase food production for the growing urban industrial demand which the white settler farmers alone could not meet. It also hoped to secure cheap food for the government labour force within the province where cases of food shortages and importation from other regions were becoming a common feature in the 1940s and early 1950s. Furthermore, the colonial government hoped, by growing cash crops such as tobacco, coffee and maize, to raise revenue to help mend the post World War Two British ravaged economy. Indeed Mungwi could act as an economic node n the production of food and cash crops.

Secondly, the colonial government inaugurated the scheme in response to the active role the Bemba were playing in the nationalist campaigns against colonial rule. The government hoped to "cool down" the political tempers of the people by attempting to take agricultural development to the area with the view of perpetuating colonialism. Elsewhere, Muntemba has made a general observation on the colonial measures with regard to African agriculture that:

> the measures taken were aimed at creating a group of producers through which the government could demonstrate its concern for rural betterment and defend itself against rural discontent.[1]

The nationalist leaders were quick to realize the government's political motive behind the initiation of the Mungwi Scheme as a programme aimed at legitimatising colonial rule. They, therefore, campaigned against the scheme programme. From the very beginning therefore, the Scheme programme laboured on a considerable political disadvantage.

The scheme programme was hastily implemented. There was no assessment of the applicants credit worthiness and their potential as "improved" farmers for settled agricultural production. Throughout the colonial period, there was great inducement to encourage people to settle at Mungwi. Loans were very easily obtained, thereby increasing the over-capitalization of the farms. This was as a result of the colonial political requirements which demanded success at all costs. The Development Commissioner was heard to say "Mungwi must not fail."[2] In the words of Morrow, "the initial farmer trainees were of very poor material and only entered the scheme because of excessive government aid."[3] There was need for careful selection of individuals for the allocation of the scheme farms and not the "come-one-come-all and be accepted attitude.

The changes from the hoe and axe tradition to the mechanical implements, and from mainly subsistence to the market economy, was very sharp. And the vast gulf between the scheme environment and the industrialized Copperbelt from which a number of the trainees were recruited was a further substantial problem. The settlers were required at one stroke to embark on a radically new way of life which required a disciplined organisation in any context. As Morrow has noted, "the type of farming for which the new training programme was designed was far removed from the type of agriculture to which the Bemba were traditionally accustomed."[4] The agricultural staff were not, themselves properly qualified. They had no proper knowledge and skills to teach and guide the farmers about the new farming system. The conditions laid down by the conservation officer appeared to be ignored, abused or were sometimes completely unknown by the officers responsible for the scheme programme. Consequently, farmers did not properly grasp the skills of oxen mechanisation and modern farm management. They failed to follow recommendations pertaining to the number of acres to be cultivated and to follow the recommended crop rotations. Indeed the scheme depended to a large extent on experienced staff

being available but this was nay. Emphasising the importance of properly training and educating the farmer for settled agriculture, Yadin, who was the Head of the Israel Agricultural Experts Team in Zambia, has remarked that "we must produced the farmer before we produce cotton, eggs or milk."[5]

Lack of knowledge of the new farming system contributed to low returns. This problem was compounded by low producer prices and marketing limitations. Consequently, there was declining confidence in the whole scheme programme. It was difficult to repay the loans and to build up self sustaining capital. Therefore, there were large numbers of bad debts by farmers who either resigned or stayed on without capital to continue. Throughout the colonial period, the scheme was not operating on a realistic economic footing. The failure of the ox-technology by 1964 was a sufficient condition for the problems of the scheme programme. As Morrow has stated:

> The results of the farming enterprise were insufficiently dramatic to convince the local people that the difficulties which had to be overcome were more than compensated for by the returns from the scheme... specifically, the cropping programme demanded a standard of work which was greater than most trainee farmers were accustomed to doing.[6]

From 1964, the Zambian government theoretically laid emphasis on developing agriculture and the settlement scheme programme was seen as one of the appropriate strategies for this development. But despite repeated policy emphasis on agriculture, practically the pattern of sectoral investment allocations in agriculture showed, on the whole, little evidence of this importance. Low priority was given in the allocation of economic resources and skilled manpower to settlement schemes in particular and agriculture in general. More capital was put in the mining and industrial developments than in agriculture. But there was a further problem of confused priorities in the utilisation of the very capital allocated to agriculture. For instance, the government hastily introduced tractor mechanisation without carefully assessing the nations

ability to utilise the machinery profitably.

The adoption of tractor mechanisation at Mungwi did not improve the operations of the scheme programme. Firstly, due to lack of proper storage facilities, the diesel easily became contaminated with various materials, principally water. Secondary, there was no adequate skilled supervision to monitor the use of the machines. Serious damage was done to the machinery due to unskilled operators. Thirdly, spare parts were not readily available. The mechanised unit became increasingly poorly serviced. A comprehensive range and quantity of spares were needed at the centre of operations. Although this could have greatly increased the capital costs of the scheme, it was essential that spares were readily available for use whenever servicing of the machinery was required. Lastly, sometimes the tractors, when operational, did much of travelling and little farm work, thereby increasing the cost of the mechanisation unit. By the mid 1970s, it was clear that tractor technology was not economically beneficial to the scheme. Although the rationale for the tractor mechanisation appeared laudable, the launching of the unit was as a result of spontaneous or ad hoc decisions lacking adequate preparation on the part of the government. As Morrow has aptly stated, "motor traction was not a realistic option."[7]

Desirable progress on the scheme was further hindered by lack of transport for the extension work and the depletion of staff due to resignations for various reasons. And the inefficient credit system was a further problem. Loans were not always given on merit, and an efficient loan recovery system was not always put in place. There was need for an effective credit control system so that when work was done, the cost was recovered from the farmers and individual defiance of demands for payment dealt with. Some settlers regarded loans as gifts of independence.

In the 1980s, Mungwi was still perceived by some people as a potential node of socio-economic advancement through agriculture. The Zambia Baptist Association started the Mungwi

Integrated Rural Development and Health Project in 1987 to support the existing effort in the resuscitation of the scheme and promotion of settled farming in the area. By and large, at the close of 1991, settlement work at Mungwi left much to be desired.

Although government policies have been persistently hostile toward citemene, the system has continued to be a major source of food security for the majority of the people in the area. Sichone has stated that millet, which is the main crop produced through citemene, "is not a mere substitute for the staple food of maize but is the basis of the village beer brewing industry and in this sense a "cash crop."[8] Citemene encompasses the cultivation of a broad spectrum of crops and requires no other technology apart from an axe. Indeed millet, like cassava, is still a popular source of carbohydrates among the people of Mungwi and surrounding areas.

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