

A History of Nakambala Sugar Estate, 1964-84

By

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A dissertation submitted to

the University of Zambia

in partial fulfilment of the requirements of
the degree of Master of Arts in History

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I hereby declare that this dissertation represents my own work and that it has not previously been submitted for any degree at this or any other University.

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To my beloved old Mother Mary Chizyuka Nyanga
and Father Luke Mchila Kalyalya.

ABSTRACT

The question as to whether the plantation system is good or bad for developing countries, is indeed an issue which has aroused much debate among scholars. Whereas some have assessed the system in positive terms, others have analysed it in negative terms. It is, therefore, in this context that an attempt has been made in this study, to examine the nature of the impact of Nakambala Sugar Estate on the area in which it is situated, and on the country as a whole. An attempt has also been made to relate Nakambala Sugar Estate and the Kaleya Smallholders' Scheme to the general discussion, concerning the relative advantages and disadvantages of the estate and smallholder systems of sugar production.

The development of Nakambala Sugar Estate has been analysed in terms of the hectareage, cane and sugar output achieved over a period of time. The evidence obtained from this analysis has strongly indicated that in spite of some climatic and technical constraints as well as the rising production costs, production of sugar at Nakambala has greatly expanded over the years. As a result the domestic market has been adequately supplied with locally produced sugar.

It is, however, also argued that general workers at Nakambala Sugar Estate are offered poor accommodation and poor wages. It is noted that their wages have not kept pace with the rising cost of living in the country. It is further argued that Zambia Sugar Company has managed to maintain such poor labour conditions at the estate, partly because the National Union of Plantation and Agricultural Workers has been weak. Evidence has shown that the weakness of the union stems from the fact that most of its leaders, have not been adequately trained in union matters. Consequently, members at Nakambala have become dissatisfied with the union representation. This has been evident from the fact that union officials were beaten at the estate by their own members, during the strike of March, 1980. Because of the union's inability to secure better terms for its members, the estate's labour relations have continued to be characterized by industrial disputes.

It is argued too that Nakambala Sugar Estate has had greater advantages than the Kalesya Smallholders' Scheme, in terms of technological know-how and financial resources. The scheme has therefore heavily relied on the estate for irrigation infrastructure, technical advice, marketing and many other services. As a result the scheme has been closely linked with the estate's operations.

On the whole, it is argued in this study that notwithstanding the competition for resources and the labour problems which are due to the establishment of Nakambala Sugar Estate, these have been ultimately offset by the benefits accruing to the area and the nation at large. It is, for instance, argued that the production of sugar beyond the national demand, has also afforded the nation an opportunity of earning foreign exchange from sugar exports. Apart from that the provision of basic skills, social and medical services has been a move towards improving the standard of living of the community in the area.

ACKNOWLEDGEMENTS

This study would have not been possible without the dedication, hardwork and patience of my supervisor Dr. H.W. Macmillan whom I thank most sincerely.

I am also deeply indebted to Dr\$ Musambachima and Mushingeh of the University of Zambia, History Department, for assisting me in the framing of my thesis proposal when Dr. Macmillan was not available. In the same vein I thank most sincerely Dr\$ Musokotwane and Fundanga and Mr. Mwanza of the University of Zambia, Business and Economic Studies Department, for reading and commenting so constructively on my thesis draft. Similarly, heartfelt appreciation and thanks go to Mr. A.H. Mulongo of Freedom House, for reading and commenting so critically on my revised thesis draft.

My profound gratitude and thanks also go to Zambia Sugar Company Limited staff, particularly to Mr. J. Luhana (Marketing Manager) for assisting in arranging interviews for me with some officers, and also for directing me to the right sources of the information/^Iwas seeking. Equally, I thank most profoundly the staff of Nakambala Sugar Estate particularly the following officers; Messrs. Wamuryima (Personnel Manager), Nyemba (Assistant Personnel Manager), Marshall (Personnel Officer), Kamocha (Staff Officer), Bbuku (Employment Officer), Lungu (Area Manager) and to all those who furnished me with the necessary information whose names have not been mentioned here.

I would also like to express my profound gratitude and thanks to all the institutions which co-operated and unreservedly furnished me with information regarding my work. Equally I thank all my dear friends and comrades on the University's Lusaka Campus and those outside who continued to give me encouragement and hope in my work. So are my grateful thanks to the Directorate of Manpower Development and Training for kindly granting me a scholarship to undertake this study. I am also thankful to Miss Nelicy Hankolwe for typing the final copy of my dissertation.

Last but not the least in importance, of course, I register my profound gratitude and thanks to my beloved wife Joyce and my dearest children; Mukanabbili, Kopolo, Haanangama, Nyanya, Majoni, Miyanda and Masowe for their continued love and affection despite my regular absence from home during research.

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INTRODUCTION

Many arguments in favour of, or against the plantation system have been advanced by various writers. While some have described the system as beneficial, others have viewed it as exploitative. Myrdal has, for instance, observed that many developing countries owe much of the development that has taken place to plantations.¹ Similarly, Courtenay has argued that wherever plantations have been established, they have modernized the previously undeveloped areas.²

On the other hand, Gilbert has argued that in the regions where plantations have been established, they have caused underdevelopment.³ According to Backford, plantations have been largely intended to supply the requirements of the metropolitan countries, where the owners of these ventures were based.⁴

In the light of such arguments about the plantation system, this study is therefore an attempt to analyse the question, what sort of impact has Nakambala Sugar Estate (NSE) made on the local area and the country as a whole? This thesis is not a comparative study of the plantation and the smallholder system. Nonetheless, an attempt is made to relate some of the well known arguments, regarding the advantages and disadvantages of the two systems of production, to Nakambala Sugar Estate and the Kaleya Scheme.

The establishment of Nakambala Sugar Estate and the Kaleya Smallholders' Scheme (KSS) should be understood in the context

of the general economic history of Zambia. At independence in 1964, the Zambian economy was in the main dichotomous. On one hand, there was the modern industrial sector dominated by copper mining and related industries in the urban areas. On the other, there was a backward subsistence agricultural sector. The agricultural sector could be further divided into two components: small groups of prosperous commercial farmers employing modern capital - intensive technology, and the vast masses of under capitalized African peasants. The former were almost exclusively European some of whom were of South African origin.⁵ After the attainment of political independence, the Zambian government realized the disadvantage of heavily relying on one economic activity. Mwaape has, for instance, argued that because of the over dependence and the greater emphasis placed by the colonial government on copper production, this caused economic retardation in other sectors, more especially in the agricultural sector.⁶

In view of the prevailing situation, the Zambian government has since independence made concerted efforts to correct the imbalance. One of the first moves was to reduce dependence for foodstuffs on a handful of European commercial farmers, by introducing producer co-operatives. But these failed to achieve the expected results, due to financial and managerial problems. Because of this they were reviewed in the mid 1970's, and more emphasis was placed on settlement schemes. In these schemes farmers were provided with various services like water, roads, extension, credit, marketing, tractor hire and many others.⁷ In addition to this some

experimental smallholder schemes were established in various parts of the country. Then in the 1980's the government introduced state farms in several provinces.⁸

State participation in economic enterprises was advocated at independence in Zambia, so as to expedite the production of essential commodities like sugar and many others. This was largely intended to satisfy local demand and also to produce surplus for export market. Therefore, two measures had to be effected. Firstly, many of the large foreign-owned enterprises were nationalized. Secondly, parastatals were set up by the state, and in certain cases in conjunction with some multinationals.⁹ It is, therefore, in this context that Nakambala Sugar Estate was established. The Zambian government invited Tate and Lyle Limited to invest with it in the Nakambala project. The latter managed the estate and also held the majority of the shares. But in later years, the government obtained most of the shares, and managerial posts.¹⁰

It can be observed that although the government seems to have accepted both the estate and peasant systems, more emphasis has been placed in regard to sugar on the former mode of production. This is clearly evident from the fact that while Nakambala Sugar Estate was established in 1964, the Kaleya scheme did not start until 1981.¹¹ Since this date, however, the two systems of production have been operated side by side in Zambia,

This study can be justified on the grounds that it is the first major study of Nakambala Sugar Estate, which attempts to assess its development and contribution to the surrounding area and to the Zambian economy at large. Earlier studies on this subject, such as those of Dietz ~~et al~~, Haastrecht, Berg, Pike : have only given a brief historical background on the development of the estate. None of these studies has analysed the successes and failures of Nakambala Sugar Estate.

Both analytical and descriptive methods have been applied in this study. The justification for the use of a combination of these methods, is that statistical data has in certain cases been seriously lacking. This is because access to data has been at times extremely.

This study is divided into four chapters. The first chapter gives a historical background of Nakambala Sugar Estate and the Kaleya scheme. The second chapter examines the development of production and marketing. The third chapter traces the history of labour supply and labour relations. The last chapter assesses the costs and benefits of large-scale sugar production with particular reference to Nakalambala Sugar Estate.

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CHAPTER ONE

HISTORICAL BACKGROUND OF NAKAMBALA SUGAR ESTATE AND KALEYA SMALL HOLDER'S SCHEME

The Nakambala Sugar Estate is situated in the Mazabuka district of the Southern Province of Zambia. It is located between the Kafue river and Mazabuka town. The estate is 128 kilometres from Lusaka and 352 kilometres from Livingstone. The total area of the estate is about 17,000 hectares, and the area suited to irrigation is about 9,894 hectares. The estate's altitude is about 1,000 metres, and the temperature of the area varies between 0° and 32° centigrade.¹

Up to 1935 most of the sugar consumed in Northern Rhodesia (Zambia) was supplied from the factories of Senna Sugar Company Limited on the Zambezi river in Mozambique. Due to the growing demand for sugar by Northern Rhodesia and Southern Rhodesia (Zimbabwe), a company, Rhodesia Sugar Refinery Limited was formed in October, 1936. The first refinery was opened in Bulawayo in the same year. Most of the raw sugar was supplied by individual farmers until 1944 when the government of Southern Rhodesia took over the responsibility.² The government later entrusted the responsibility of supplying raw sugar to the refinery at Bulawayo to Hullets, a South African Sugar Company, which

developed the Triangle Estate limited in the 1950's.³ Meanwhile, it was realized that the Bulawayo Sugar refinery could not cope with the demand, and in 1957 a second refinery was opened in Salisbury. During the same period two further cane producing projects were being developed. Firstly, the Rhodesia Sugar Refinery Limited, with financial and technical assistance provided by Tate and Lyle Limited developed a sugar estate and built a mill at Chirundu in the Zambezi Valley in 1955. Secondly, the Hippo Valley Estate Limited was established in 1959 on land adjacent to the Triangle Sugar Estate Limited.⁴ Chirundu Sugar Estate Limited supplied most of the raw sugar requirements for the Ndola Sugar Refinery Limited, which started production in Northern Rhodesia in 1960. When the Federation of Rhodesia and Nyasaland was dissolved in 1963 the sugar project at Chirundu was liquidated.⁵

Technical staff from Tate and Lyle Limited started researching for an alternative cane growing area in Zambia in 1963.⁶ Potential cane growing areas in the country were carefully investigated. The viability of an area was associated with the availability of such factors as good soil, climate, communications, power and water supply. Many sites were studied between 1963 and 1964.

The first one of these was the Lusitu area on the north bank of the Zambezi river. But this area was not developed due to insufficient suitable land available for such a venture.⁷ Another site on the north bank of the Zambezi river near Kariba Gorge was located. This was also not developed because of potential high costs that were to be encountered in the clearing of the thick bush there. In addition to this the remoteness of the site also caused it to be not economically viable.⁸ A further area on the confluence of the Zambezi and Kafue rivers was identified. But work did not proceed there because of insufficient suitable land available.⁹

Investigations continued and the Kafue Flats were thoroughly explored. The Kafue Pilot Polder was selected, and experimental cane growing commenced there in September, 1963. This project did not succeed mainly because it was located in a region with unsatisfactory conditions for cane growing.¹⁰ An alternative site was identified on the north bank of the Kafue river near Kafue town. The distance water was to be pumped to the suitable land was thought to be too great, and this scheme was discarded as uneconomical.¹¹ A more suitable site was selected on the south bank of the river in 1964. This was the area located between the Mazabuka town and the Kafue river.

This is what became known as Nakambala Sugar Estate.¹² Nakambala was chosen as the site for a new sugar estate because it met most of the requirements for cane growing. It had a suitable climate, abundance of water from the Kafue river, better communications based on the road and railway systems as well as good soil and sufficient scope for further expansion.¹³

Nakambala Sugar Estate was established in June, 1964, after Tate and Lyle Limited acquired about 17,000 acres of freehold land with water rights on the Kafue river.¹⁴ The sugar mill at Chirundu was subsequently shifted to this new site at Mazabuka. The development of the estate started with a Pilot scheme involving a 50 hectare experimental plot in July, 1964. The irrigation water was initially supplied from an existing farm borehole.¹⁵ The experimental plot was extended to 300 acres in September of the same year. More experimental work was carried out to determine the suitability of cane varieties, fertilizers and chemical requirements, irrigation and cultivation techniques.¹⁶ The planted land was increased to about 600 hectares in September, 1965.¹⁷ In December, 1967 the h ctarage was extended to 1,025.¹⁸ By this date the initial phase of the main irrigation system had been completed. This included a 33 watt power line from Lusaka to serve the electrically driven pumping plant.¹⁹ Full scale operation of the estate

began in 1968, when 173,514 tonnes of cane were harvested from 1,380 hectares. The experimental crushing mill of 625 millimetre diameter installed in 1966 was replaced by another one of 1,000 millimetre diameter at a cost of K11 million. This was because the previous one could no longer cope with the increased field output of the estate. The milling capacity of the factory was improved from 90 to about 180 tonnes of cane per hour.²⁰

By 1971 70 per cent of Zambia's sugar requirements were produced within the country. This was due to the intensified development work carried out at Nakambala Sugar Estate. The harvested cane from 3,316 hectares amounted to 309,166 metric tonnes.²¹ In a continued effort to bring in line the factory capacity with the continually expanding field production, the 1,000 millimetre crushing mill was replaced in 1973 by the one of 1,625 millimetre diameter.²² In 1974 a tall free mill for production of white sugar was installed at the estate.²³

By 1976 Zambia Sugar Company had a total of 6,655 hectares under cane cultivation. It had also increased the factory output of refined sugar from about 21,000 in 1968 to slightly over 68,000 metric tonnes by this date.²⁴ Nakambala Sugar Estate continued to expand year after year both in terms of hectareage and output. By 1980 the hectareage was slightly over 8,000 and cane output was in the region of 800,000 metric tonnes.

These were increased further in 1983 to about 9,000 hectares and 900,000 metric tonnes respectively. The available data indicates that while the hectareage increased about eight fold between 1968 and 1985, cane output increased about nine fold.²⁵

The development of the Zambian Sugar Industry was a joint effort of Tate and Lyle Limited and the government. To facilitate and co-ordinate the activities of the industry, Zambia Sugar Company Limited (ZSC) was incorporated in June, 1965.²⁶ Zambia Sugar Company Limited replaced the Ndola Sugar Company Limited that had been incorporated in 1960. This new company became in charge of both the Ndola Sugar Refinery and Nakambala Sugar Estate. It was jointly financed by Tate and Lyle Limited and the Zambian government. The latter financed the Company through the Industrial Development Corporation, a subsidiary of the Zambia Industrial and Mining Corporation. The initial capital investment in the sugar project at Nakambala was ~~\$7~~¹ million (K15,000,000).²⁷ In 1965 Tate and Lyle Limited had 80 percent of Zambia Sugar Company's equity; with the Industrial Development Corporation holding 12 percent of the shares. The balance of 8 per cent was in the hands of private shareholders.²⁸ A new arrangement was finalised in August, 1973.

The Industrial Development Corporation came to hold 51 per cent; Tate and Lyle Limited 38 per cent; with the Remainder being in the hands of private shareholders.²⁹ As at December, 1984, the Industrial Development Corporation had a stake of 78 per cent of the company's shares; Tate and Lyle Limited had 11 per cent; and the remaining 11 per cent was in private hands.³⁰

Zambia Sugar Company has two types of shares; preference and ordinary shares. These were pegged since 1980 at K1,000 and K0.50 per share, respectively. The nominal share capital for the company remained unchanged since 1980. This consisted in 1984 of K44,000,000 in ordinary shares and K12,500,000 in preference shares. The amount of the subscribed shares also remained unchanged. These consisted of K22,000,000 in ordinary shares and K12,500,000 in preference shares.³¹

Minor shareholders in Zambia Sugar Company have included: the Zambia National Provident Fund, the Zambia National Insurance Brokers Ltd, the Zambia State Insurance Corporation, Barclays Bank International and many others.³²

HISTORICAL DEVELOPMENT OF KALEYA SMALLHOLDERS' SCHEME

As a recent development the Zambian Sugar Industry has come to depend on both the estate and peasant systems of production. A smallholder scheme has been developed at Kaleya on the land adjacent to Nakambala Sugar Estate. Plans for a Smallholder

participation in sugar production had been under consideration almost from the inception of the Nakambala project. Various feasibility studies were undertaken. The first such study was by D.B. Campbell, an assistant agriculturalist of Tate and Lyle Limited, in 1966. This study proposed the settlement of 50 farmers with a 20 acre plot of cane each on a site as close as possible to the factory. Three alternative sites were considered, the Kafue Flats (Pilot Polder), Inverue Estate to the east of Nakambala, and the largely unused Veterinary Research Station, immediately adjoining the factory at Nakambala Sugar Estate. Although the latter was preferred, development did not start, because the government became reluctant to abandon the research station.³³ In 1975 proposals for a small-scale development involving 10 farms of 9 hectares each, including 9 hectares under cane and 1 hectare of food crops were put forward by N.P. Maganda, the then Economist in the Ministry of Agriculture. These were subsequently modified by Zambia Sugar Company to comprise 12 farms of 8.5 hectares of sugar cane and 1 hectare of food crops to be located on the north-western fringe of Zambia Sugar Company's land.

In early 1976 discussions between the Commonwealth Development Corporation and Zambia Sugar Company resulted in the agreement to set up the project on the block of land adjacent to

Nakambala Sugar Estate on the Southern side of the Lusaka - Livingstone road at Kaleya. Following the agreement reached with the Commonwealth Development Corporation, a company, Sugarcane Outgrowers Company Limited, was formed on 20th July, 1977. But this company was renamed Kaleya Smallholders Company Limited in 1981.³⁴

Shareholders in Kaleya Smallholders Company Limited have included: Barclays Bank International, Development Bank of Zambia, Zambia Sugar Company and the Commonwealth Development Corporation which manages the company. Kaleya Smallholders Company started off in 1981 with an initial capital investment of about K17 million. By the agreement which was signed between Zambia Sugar Company and Kaleya Smallholders Company, the former provides the market for all the cane grown by smallholders. Kaleya Smallholders Company provides the smallholders with loan and transportation facilities, as well as services such as tractor hire and many others. It also in conjunction with Nakambala Sugar Estate fixes the price of cane and renders technical advice to smallholders. Under this scheme small-scale Zambian farmers are settled on a 4 hectare plot each to grow cane and the total area of the scheme is 1865 hectares. To facilitate the development of this land Nakambala Sugar Estate's irrigation system has been modified and extended to supply irrigation water to the scheme.³⁵

The establishment of the Kalaya Smallholders' Scheme was delayed because of the non-availability of sufficient land close to Nakambala factory. The land on which the scheme has been located previously belonged to Zambezi Ranches Corporation. This company was reluctant to surrender the Kalaya farm for the development of the scheme. Another problem which caused delay in the commencement of the scheme was that the local people did not favour the idea of introducing such a project. For instance, a commission of inquiry into land matters in Southern Province, which was appointed by the Zambian government on 13th October, 1980, found that although several witnesses accepted Nakambala Sugar Estate on condition that it did not develop beyond its present limits, they strongly objected to the proposed scheme. The local people felt that such a project should be sited somewhere else and not in Mazabuka District, which in their view was already experiencing an acute shortage of land for Independent peasants. But following a presidential directive in 1981, land was allocated for the project.³⁶ The first crop by the scheme was cut in 1982/83 season when the harvest totalled 30,000 metric tonnes of cane. The harvest increased from 140,000 metric tonnes in 1983/84 season to 213,000 metric tonnes in 1984/85 season. The hectareage also considerably increased from 312 hectares in 1982/83 to 376 hectares in 1984/85 season.

The scheme operates a nucleus estate which has also been increasingly expanded from 600 hectares in 1982/83 to almost double by 1984/85.

The basic requirements in the selection of farmers included some education, at least to the level of simple reading, writing and arithmetic. In addition to this a prospective farmer needs to have nominal intelligence and adequate physique with a family capable of providing some labour. He should also have some previous farming experience. Kaleya Smallholders' Scheme started off with 78 farmers in 1981 and the number increased to 94 by 1985. The number of the estate's workers has increased during the same period from 100 to 250. The principal objective of the scheme is to settle about 300 peasant farmers by 1990. These are trained by the company on a six month basis.³⁷

There have been also a number of private cane farmers in Mazabuka district. These farmers sold their cane to Nakambala factory. They were able to increase their cane output from 7,690 metric tonnes in 1968 to 112,203 metric tonnes in 1983. But their number progressively declined from 10 in 1968 to 2 in the early 1980's. The reasons for the decline were that four out of the 10 farmers were persuaded by government to sell their holdings to Nakambala Sugar Estate. The other four reverted to production of crops other than sugar cane.³⁸

In conclusion, it should be observed that the establishment of Nakambala Sugar Estate was a result of the concerted efforts of Tate and Lyle Limited in conjunction with the Zambian government. In order to identify the best suited areas for cane growing, a series of intensive experiments were carried out. Of all the areas investigated, therefore, Nakambala proved to be the best site for such a venture. With a view to ending the nation's dependence on imported sugar, efforts were directed at increasing hectareage and sugar output at a fast rate at Nakambala Sugar Estate. This was to be achieved by the continual expansion of the irrigation system and the factory's capacity. In order to effectively meet the fast rising demand for sugar in Zambia, and also to generate surplus for the export market, it became necessary to encourage smallholding production. But the establishment of such a scheme only succeeded in the 1980's due to the non-availability of sufficient land close to the Nakambala factory.

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CHAPTER TWO

DEVELOPMENT OF PRODUCTION AND MARKETING

The theme of this chapter is to examine the development of production and marketing in relation to Nakambala Sugar Estate. The focus is on the period 1968/84, for which sufficient data has been available. The estate's development is assessed in terms of its hectarage, and the cane and refined sugar output that were achieved during the period under consideration. Cane and sugar production is further analysed in terms of the output per hectare. All these aspects are illustrated in Table I overleaf.

As demonstrated in the table, the area harvested at Nakambala Sugar Estate increased rapidly from 1,380 hectares in 1968/69 to 8,631 hectares in 1983/84. The hectarage, however, declined somewhat in the years 1977/78, 1978/79 and 1983/84. This was due to a series of very wet seasons. These made cultivation of some areas difficult or sometimes impossible. In a similar manner, cane output rose from 173,000 metric tonnes in 1968/69 to 973,000 metric tonnes in 1983/84. However, cane output fell slightly in 1977/78. This was due to unprecedently late rain which caused water logging of the cane fields. The effect of this was that the cutting and transportation of cane became extremely difficult under such conditions. The output of raw sugar has increased proportionally over time.

TABLE 1: HECTARAGE, CANE AND SUGAR PRODUCTION AT NAKAMBALA SUGAR ESTATE 1968 - 1984.

| SEASON | (HECTARES) | | (METRIC TONNES) | | CANE PER HECTARE | SUGAR PER HECTARE |
|---------|----------------|-------------|-----------------|---------|---------------------|----------------------|
| | AREA HARVESTED | CANE OUTPUT | RAW | REFINED | | |
| 1968/69 | 1,380 | 173,514 | 33,000 | 21,508 | 126.05 | 15.65 |
| 1969/70 | 2,290 | 241,651 | 36,900 | 30,417 | 105.75 | 12.60 |
| 1970/71 | 2,660 | 304,573 | 40,131 | 35,900 | 114.76 | 13.99 |
| 1971/72 | 3,316 | 309,166 | 41,546 | 39,700 | 93.13 | 11.62 |
| 1972/73 | 3,421 | 372,328 | 5,118 | 41,400 | 108.43 | 14.01 |
| 1973/74 | 4,021 | 464,993 | 58,185 | 47,900 | 114.72 | 13.80 |
| 1974/75 | 5,114 | 548,466 | 64,550 | 55,900 | 109.02 | 12.04 |
| 1975/76 | 6,655 | 730,807 | 85,058 | 68,700 | 109.81 | 12.80 |
| 1976/77 | 6,603 | 708,087 | 84,150 | 78,935 | 107.24 | 11.74 |
| 1977/78 | 5,536 | 629,064 | 71,340 | 66,931 | 113.70 | 11.73 |
| 1978/79 | 5,796 | 707,605 | 76,108 | 73,450 | 120.54 | 12.67 |
| 1979/80 | 8,789 | 820,668 | 102,148 | 96,021 | 94.05 | 10.74 |
| 1980/81 | 8,791 | 845,473 | 110,601 | 96,284 | 96.17 | 11.60 |
| 1981/82 | 9,402 | 825,856 | 102,318 | 96,075 | 87.83 | 10.88 |
| 1982/83 | 9,101 | 973,043 | 117,058 | 95,446 | 102.59 | 11.88 |
| 1983/84 | 8,631 | 973,962 | 132,003 | 100,632 | 112.84 | 13.71 |
| 1984/85 | - | - | 141,200 | - | - | - |

SOURCES: (1) ZAMBIA SUGAR COMPANY LIMITED, NOTES ON NAKAMBALA SUGAR ESTATE, NOVEMBER, 1984.

It rose from 33,000 metric tonnes in 1968/69 to 141,000 metric tonnes in 1984/85. But raw sugar output fell somewhat during the years 1977/78 and 1978/79.

The problem of reduced cane output in 1977/78 was made worse by the delay in the commissioning of the extended facilities at Nakambala factory. Two supplementary mills were supposed to start functioning in April, 1977. But one of these only became operational in May and the other in July.¹ Other contributing factors were the insufficient supply of cane cutters, and of field transport.²

It can also be observed in table 1 that refined sugar output has increased considerably over the years from 21,000 metric tonnes in 1968/69 to 100,000 metric tonnes in 1983/84. However, it declined in 1977/78 and then stagnated from 1979/80 to 1982/83, but rose in 1983/84. A problem in these years was the acute shortage of foreign exchange necessary for the purchase of new equipment, machinery and spares.³

It can also be seen from table 1 that there have been considerable fluctuations in the output of cane per hectare over the years. The highest production was in 1968/69 at 126 metric tonnes. It then declined the following year to 105 metric tonnes, but rose to 114 metric tonnes in 1970/71, and again fell to 93 metric tonnes in 1971/72.

In 1978/79 production rose to nearly the 1968/69 level, but then declined thereafter. However, it rose to 112 metric tonnes in 1983/84. These fluctuations in cane output per hectare were largely a consequence of climatic factors. Although hectareage declined in 1982/83 and 1983/84, cane output increased. This reflected relative improvement in cane output per hectare. It can further be observed that there was a close relationship between cane output and raw sugar output over the years. Evidently, there was also a close correlation between raw and refined sugar output over time. This was not, however, the case in 1982/83 when the output of refined sugar declined in spite of an increase in raw sugar production. This may have been due to some degree of wastage in the refining process at Nekembala factory that year.

It can also be noted that there was no stable correlation between cane and sugar output per hectare. This was likely due to variations in the milling efficiency of the factory, and in the sucrose content of cane.

Although there was generally growth in production at Nekembala, Zambia Sugar Company did not generate adequate profits. For instance, comparison of the aggregate profits with the net profits, as illustrated in table II and Graph A, shows clearly that the company only made marginal profits

from its activities based on the Nakambala project in the period 1967/82. During this period, the company declared only modest dividends or none at all. In certain years, as illustrated by the figures in brackets in table II, the company experienced losses. In 1969/70 the losses amounted to about K1 million and in 1978/79 and 1979/80 the accumulated losses amounted to about K5 million and K11 million, respectively.⁵

The above losses were partly due to the factors already explained. But other problems were the large foreign debts, which also demanded high finance charges.⁶ For instance, the company's long term foreign debt was in the region of K8 million in 1969/70 and this rose to K16 million in 1979/80. The charges on these debts remained fixed irrespective of the fluctuations in production at Nakambala Sugar Estate. This therefore became a setback during bad seasons. It even became necessary in certain years, such as in 1972/73, 1977/78, 1980/81 and 1981/82, to defer the company's financial obligations like debt servicing and taxation. This was to enable the company to continue in operation.⁷ Although Zambia Sugar Company was able to achieve a dramatic rise in profits in 1982, they remained on a plateau for several years and declined in 1985/86.

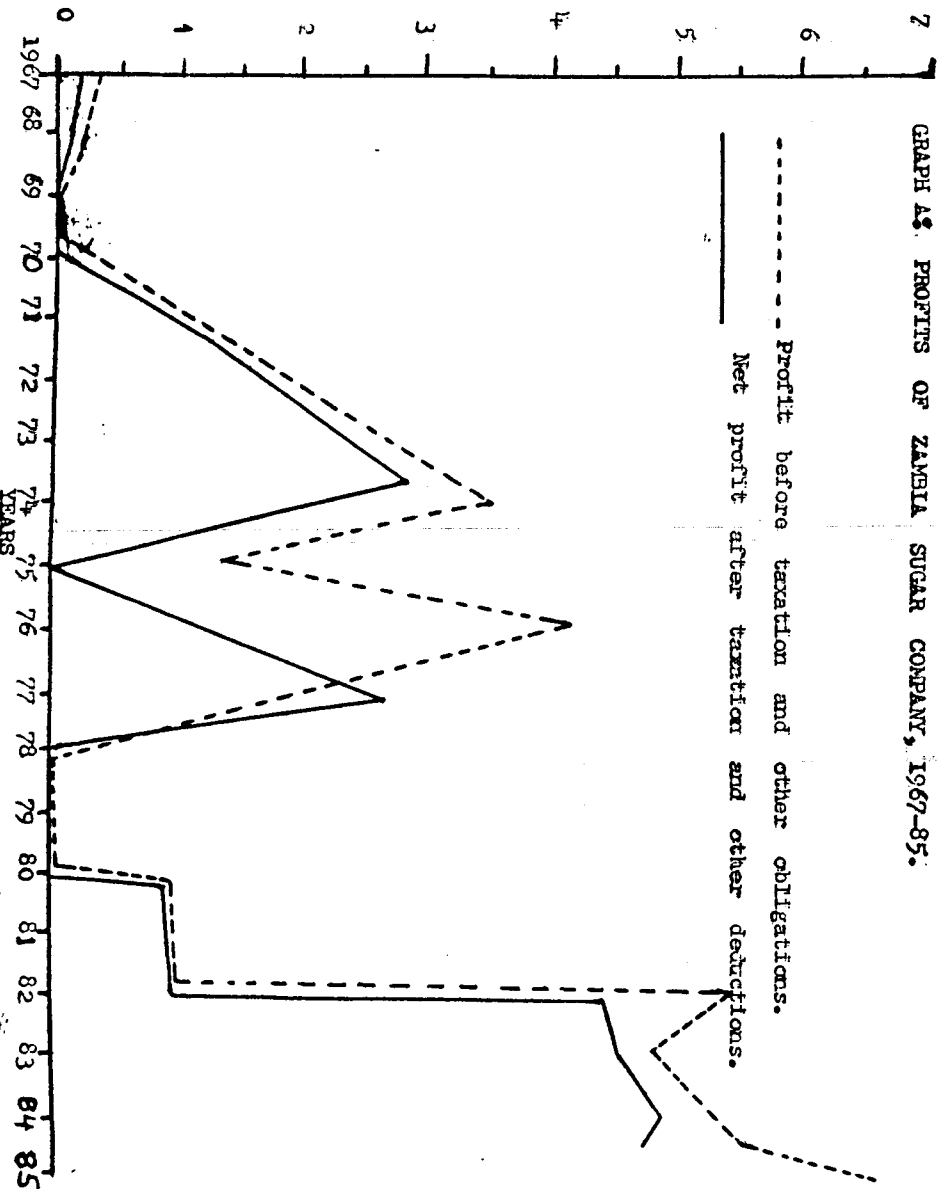
TABLE II: PROFITS OF ZAMBIA SUGAR COMPANY LIMITED, 1967-85

| <u>YEAR</u> | <u>PROFIT BEFORE TAXATION AND OTHER FINANCIAL OBLIGATIONS</u> | <u>NET PROFIT AFTER TAXATION AND OTHER DEDUCTIONS</u> |
|-------------|---|---|
| | <u>(KWACHA)</u> | <u>(KWACHA)</u> |
| 1967 | 168,190 | 128,190 |
| 1968 | 152,090 | 122,090 |
| 1969 | (1,379,010) | (1,379,010) |
| 1970 | (227,850) | 42,140 |
| 1971 | 1,210,750 | 1,147,220 |
| 1972 | 1,979,730 | 1,979,730 |
| 1973 | 2,758,850 | 2,759,000 |
| 1974 | 3,599,000 | 2,547,000 |
| 1975 | 1,330,000 | (1,494,000) |
| 1976 | 4,218,000 | 2,254,000 |
| 1977 | 2,516,000 | 2,516,000 |
| 1978 | (1,688,000) | (5,220,000) |
| 1979 | (6,216,000) | (11,328,000) |
| 1980 | 1,058,000 | 1,058,000 |
| 1981 | 1,093,000 | 1,093,000 |
| 1982 | 5,356,000 | 4,441,000 |
| 1983 | 4,761,000 | 4,459,000 |
| 1984 | 5,225,000 | 4,817,000 |
| 1985 | 6,786,000 | 4,452,000 |

SOURCE: ZAMBIA SUGAR COMPANY LIMITED,
ANNUAL REPORTS, 1967/85.

KWACHA IN MILLION

GRAPH A3. PROFITS OF ZAMBIA SUGAR COMPANY, 1967-85.



Source: Zambia Sugar Company Limited, Annual Reports, 1967-85.

Sugar consumption in Zambia has increased greatly since the establishment of Nakambala Sugar Estate, though the rate of growth has declined steadily since the late 1970s. For instance, between 1964 and 1970, the rate of growth in sugar consumption was at 15 per cent per annum. The rate fell to 7.5 per cent per annum between 1977 and 1982.⁸ Since 1983 it has been at a compounded rate of between 3 and 4 per cent per annum. The per capita consumption in Zambia rose from 5.4 kilograms in 1964 to 20 kilograms per annum in 1984.¹⁰ Sugar consumption increased due to a number of factors. Although population growth cannot explain an increase in consumption per capita, this factor, however, partly accounted for the absolute growth in sugar consumption in the country. Another factor that contributed to the increasing consumption, was the development of industries that used sugar in their production processes such as beer and confectionaries.¹¹ The Food and Agricultural Organisation estimated in 1975 that 66 per cent of the sugar produced in Zambia was directly consumed by the manufacturing industries, while the remainder was fed to other users.¹²

In addition to the above factors, sugar consumption also increased because of the increasing number of illicit brewers of beverages such as Kachipemba and Imbamba.¹³ It may also be argued that sugar consumption in the country increased due to growth in disposable incomes.

While this argument may be partly true, it should be noted that the real wages in Zambia have constantly declined since the 1970's. For instance, between 1972 and 1974, whilst the money wages in all the sectors rose by 3.8 per cent, the real wages fell by 3.4 per cent.¹⁴ Due to the constantly increasing annual rate of inflation, which was at 6.1 per cent in 1976 rising to 9.4 per cent in 1980, real wages are likely to have fallen further.¹⁵ Therefore, growth in sugar consumption in Zambia may not wholly be explained in terms of growth in disposable incomes, but it may be a factor of increasing rates of urbanisation.

In this section, an attempt is made to compare supply and demand. But due to lack of data this comparison is limited to the period 1984/5. Table III overleaf indicates that the supply of white sugar increased substantially from 66,000 metric tonnes in 1978/79 to 100,000 metric tonnes in 1984/85. Demand increased from 68,000 metric tonnes to 99,000 metric tonnes during the same period. However, supply stagnated between 1977/78 and 19^{78/79} and also between 1980/81 and 1983/84. It can also be noted that the demand for white sugar was higher than the supply from 1977/78 to 1980/81, and thereafter supply outstripped demand, but not by huge margins. It can further be observed that the price per two kilogramme packet of white sugar was constant at 88 ngwee from 1977/78 until 1979/80.

Between 1980/81 and 1983/84, the price of sugar rose marginally. However, a big increase in price was registered in 1984/85. A further observation is that there was an increase in the supply of brown sugar between 1977/78 and 1984/85. It is evident too that there was an equilibrium of supply and demand during the first two years. Thereafter, supply rose faster than demand until 1984/85, when demand outstripped supply.

TABLE III: SUGAR SUPPLY AND DEMAND IN ZAMBIA, 1977-85.

(METRIC TONNES)

| SEASON | SUPPLY (white) | DEMAND | AVERAGE RETAIL | SUPPLY (brown) | DEMAND |
|---------|-------------------|--------|------------------------------|-------------------|--------|
| | | | PRICE FOR A TWO KG PACKET | | |
| | | | (Kwacha) | | |
| 1977/78 | 56,800 | 68,500 | 0.88 | 100 | 100 |
| 1978/79 | 63,900 | 64,900 | 0.88 | 200 | 200 |
| 1979/80 | 84,600 | 84,900 | 0.88 | 3,600 | 2,400 |
| 1980/81 | 95,500 | 94,400 | 1.12 | 6,800 | 6,600 |
| 1981/82 | 95,100 | 93,700 | 1.20 | 5,800 | 5,500 |
| 1982/83 | 95,200 | 90,300 | 1.46 | 5,100 | 5,100 |
| 1983/84 | 99,700 | 95,300 | 1.66 | 5,900 | 5,300 |
| 1984/85 | 101,700 | 99,700 | 3.24 | 8,000 | 9,300 |

SOURCE: ZAMBIA SUGAR COMPANY LIMITED, ANNUAL REPORT, 1984/85.

Despite the problems that were experienced in production at Nakambale, the marketing system has since 1964 been greatly developed in the country. To ensure a more effective

distribution system, Zambia Sugar Company opened depots both along the line of rail and in rural areas. Initially most of the depots were being operated on a rental basis. But in an effort to achieve a more reliable outlet for its commodity, the company began to replace most of the rented depots with its own. These were located at Mazabuka, Lusaka, Choma, Livingstone, Mongu, Ndola, Chipata and Kasama.¹⁶ The company took further measures to rationalize its distribution system by introducing agents, particularly in places where other Zambia Industrial and Mining Corporation's companies operated distribution depots, such as at Mpika, Isoka, Kawambwa, Mansa, Chama, Lundazi, Kabwe, Feira, Mumbwa, Namwala, Sesheke, Senanga, Kalabo, Lukulu, Kaoma, Zambezi, Mwinilunga, and Solwezi.¹⁷ Prior to 1971 the retail price of sugar in rural areas included transport costs, which meant that sugar cost approximately 22 per cent more in these areas than on the line of rail. But with the introduction of national wholesales and retail prices for sugar on 1st February 1971, Zambia Sugar Company began to charge the same prices both in rural and urban areas.¹⁸ The government decided to lift price controls on 31st December, 1982 on a range of products including sugar.¹⁹ Because of this there was no longer a national sugar price and prices varied from place to place.²⁰

After satisfying local demand, Zambia Sugar Company was also able to begin sugar exports mainly to Burundi and Zaire. It has since 1980 made significant progress in this regard.

For instance, it can be noted in table IV that sugar exports increased considerably in the period 1980/85. In 1980 exports totalled only 1,000 metric tonnes, and rose to about 2,000 metric tonnes in 1983, then to about 7,000 metric tonnes in 1985. This therefore indicates that the export market continued to expand consistently over the years. It can also be observed that the expansion of Zambia Sugar Company's domestic and export markets, is clearly evident in the growth of the value of sugar sales. For instance, the value of sugar sales was at K30 million in 1978 and it rose to K56 million in 1982 and then to K86 million in 1985.²¹ Foreign exchange earnings from sugar exports increased from US \$0.7 million in 1980 to US \$2.8 million in 1986.²²

TABLE IV: WHITE AND BROWN SUGAR EXPORTS BY ZAMBIA SUGAR COMPANY, 1980 - 86

(METRIC TONNES)

(Projection)

| <u>YEAR:</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <u>AMOUNT:</u> | 1,000 | 1,498 | 1,530 | 2,127 | 7,500 | 7,502 | 12,300 |

SOURCE: ZAMBIA SUGAR COMPANY LIMITED, ANNUAL REPORT, 1984/85.

In conclusion, it is argued that despite some climatic, technical and financial problems experienced in production at Nakambala Sugar Estate, Zambia Sugar Company was able to expand its production and marketing system.

This resulted in the achievement of self-sufficiency in sugar and the production of surplus for the export market. This not only saved the nation large sums in foreign exchange which might have been spent on sugar imports, but it also enabled it to generate a substantial amount of foreign exchange. Significant foreign exchange costs were of course, incurred in production through payments for machinery, fuel, spare parts, as well as for technical and financial services, but there is no reason to doubt that on balance the local production of sugar was of benefit to the country as a whole.

FOOT NOTES

1. Zambia Sugar Company Limited, Annual Report, 1977/78, 4.
2. Zambia Sugar Company Limited, Annual Report, 1977/78, 4.
3. Zambia Sugar Company Limited, Annual Report, 1984/85.
4. Zambia Sugar Company Limited, Annual Reports, 1979/81.
5. Zambia Sugar Company Limited, Annual Reports, 1969/80.
6. Zambia Sugar Company Limited, Annual Reports, 1969/70 and 1979/80.
7. Zambia Sugar Company Limited, Annual Reports, 1972/73, 1977/78, 1980/81 and 1981/82.
8. Zambia Sugar Company Limited, Annual Report, 1984/85.
9. Interview, J. Luhana, Marketing Manager for Zambia Sugar Company Limited, Lusaka, 18 November, 1985.
10. Republic of Zambia, Ministry of Agriculture and Water Development, Annual Report, 1985/86.
11. Interview, Luhana, 1985.
12. D.F. Hodsdon, The National Union of Plantation and Agricultural Workers of the Republic of Zambia (Geneva: International Labour Office, 1980), 2.
13. Interview, Luhana, 1985.
14. Hodsdon, Plantation, 2.
15. Republic of Zambia, Monthly Digest of Statistics, No. 25, December, 1987.
16. Zambia Sugar Company Limited, Annual Report, 1971/72.
17. Zambia Sugar Company Limited, Annual Report, 1971/72.
18. Zambia Sugar Company Limited, Annual Report, 1972/73.
19. Zambia Sugar Company Limited, Annual Report, 1982/83.
20. Zambia Sugar Company Limited, Annual Report, 1982/83.
21. Zambia Sugar Company Limited, Annual Report, 1984/85.
22. Zambia Sugar Company Limited, 'Statistics on Sugar Marketing', 1986.

CHAPTER THREE

HISTORY OF LABOUR SUPPLY AND LABOUR RELATIONS

The workers at Nakambala Sugar Estate can be classified into three categories, namely: the staff, skilled and unskilled workers. The first group comprises administrators such as General Manager, Personnel Officer, Recruiting Officer, Managers and others. The second category is composed of professionals: the Accountants, Technicians, Engineers, Mechanics, Agronomists, Chemists, and the like. These work in the specialized departments of the estate such as accounts, factory, workshops, laboratory, etc. The third group, which is the largest, is made up of general workers who can be sub-divided into the semi-skilled and unskilled employees. This group includes some workers with simple trades such as drivers, machine operators, etc. The group also includes employees without any skill like the cane cutters and others. The estate distinguishes all these categories of workers by the type of contract they have been engaged for. For instance, there are permanent, seasonal and temporary workers. The first category is composed of workers engaged in pensionable contracts. The second one comprises migrant workers who are recruited only during the cropping season. And the last category is made up of workers who are recruited on a temporary basis to perform residual duties after the cropping season, such as planting of ratoons or weeding.

The total labour force of Nakambala Sugar Estate has increased

tremendously over the years. It can be noted in table II that while the size of the expatriate staff declined, that of the Zambian staff progressively increased between 1971 and 1975. This was due to the effect of the Zambianisation programme, which was being implemented by the government in all the industries in the country.¹ It can also be observed that there was a general increase both in the size of the permanent and seasonal labour force. This reflected the increasingly expanding operations of the estate.

TABLE 11: NUMBER OF WORKERS OF NAKAMBALA, 1971-75.

| <u>YEAR</u> | <u>STAFF</u> | | <u>GENERAL WORKERS</u> | | <u>TOTAL</u> |
|-------------|-------------------|----------------|------------------------|-----------------|--------------|
| | <u>EXPATRIATE</u> | <u>ZAMBIAN</u> | <u>PERMANENT</u> | <u>SEASONAL</u> | |
| 1971 | 104 | 84 | 2,170 | 621 | 2,979 |
| 1972 | 111 | 85 | 1,965 | 1,127 | 3,378 |
| 1973 | 93 | 110 | 2,416 | 1,259 | 3,878 |
| 1984 | 81 | 126 | 2,718 | 1,320 | 4,245 |
| 1975 | 79 | 135 | 3,085 | 1,083 | 4,382 |

SOURCE: ZAMBIA SUGAR COMPANY LIMITED, ANNUAL REPORTS, 1971/75.

It can also be noted in table 11A overleaf that the labour force at Nakambala Sugar Estate continued to increase in the period 1980-84. But one of the most predominant trends is that while the number of permanent workers has declined over the period

under consideration, the numbers of both the seasonal and temporary workers have increased substantially. This therefore implies that the estate has not been replacing the retired employees and has tended to maximise the utilization of migrant and temporary workers.

TABLE 11A: NUMBER OF WORKERS AT NAKAMBALA, 1980-84.

| <u>YEAR ENDING</u> <u>24TH APRIL</u> | <u>GENERAL WORKERS</u> | | <u>SEASONAL</u> | <u>TOTAL</u> |
|---|------------------------|------------------|-----------------|--------------|
| | <u>PERMANENT</u> | <u>TEMPORARY</u> | | |
| 1980 | 3,700 | 116 | 2,689 | 6,495 |
| 1981 | 3,559 | 111 | 1,985 | 5,685 |
| 1982 | 3,271 | 567 | 2,182 | 6,020 |
| 1983 | 3,262 | 339 | 2,539 | 6,140 |
| 1984 | 3,228 | 380 | 3,075 | 6,683 |

SOURCE: ZAMBIA SUGAR COMPANY LIMITED, ANNUAL REPORTS, 1980/85.

It might be assumed that the unskilled labour requirements of the Nakambala Sugar Estate could have been met from local sources within the Southern Province. This has, however, never been the case. The reluctance of the predominantly Tonga-speaking people of the area to work at the Nakambala Sugar Estate may be explained in terms of their peculiar history. As Vickery and others have noted the Tonga were among the first people in Zambia to respond to the new demand for maize created by the establishment of the Copperbelt from the late 1920's by engaging in peasant production for the market. It was noticeable that from the 1920's onwards Tonga participation

in labour migration declined. Fewer people engaged in labour migration than in other parts of the country and if they did go out as migrants they went for shorter periods and with the specific intention of acquiring capital for investment in agriculture.² Haastrecht has also observed that in the 1950's many Africans in Mazabuka district were changing from subsistence farming to cash crops growing, and were becoming improved farmers (semi-commercial farmers). He has argued that the number of improved farmers in the district increased considerably. For instance, they were 492 in 1953 and their number rose to 1,410 in 1960.³ It is therefore hardly surprising that the Southern Province proved to be a poor source of cheap unskilled labour.

In order to supply itself with the required seasonal labour, Zambia Sugar Company had to put more emphasis on the recruitment of people from Western Province. This province was chosen as the main source of seasonal workers for Nakambala Sugar Estate, because of some fundamental considerations. The Pim commission of 1937 noted that; "the total number of adult males liable for tax is estimated at between 60,000 and 70,000. There are no economic crops, no native industries of any importance, nor, owing to the presence of endemic pleuro - pneumonia, has there been any market for Barotse cattle during the last 22 years."⁴ This meant that the economic needs of the area could only be satisfied by

engaging in migrant labour. Large numbers of people left for the mines of South Africa. The Witwatersrand Native Labour Association (WENELA) only began formal recruiting in Barotseland in 1936, though people from the area had made their way South for many years previously. The absence of many able-bodied men had further disastrous effects. Peters has noted that the Lozi economy was unable to adapt itself to a huge reduction in labour by 1948. Gardens, canals, and cattle were neglected.⁵

Western Province was more economically disadvantaged than any of the other provinces in Zambia. Most of the peoples of Zambia were able to combine very well wage labour with subsistence production. For instance, the Luvale, Luchazi, Chokwe and other related peoples of North - Western Province, combined hawking and marketing of agricultural products with wage labour on the mines. Despite the acute shortage of arable land, many people of the Eastern as well as those of the Northern and Luapula Provinces were able to engage in subsistence agriculture. For this reason, they could alternate very well between wage labour and agricultural production.⁶

Given Barotseland's strong links with the South African economy and its relative lack of integration into the Zambian economy, it is no surprise that the termination by the government of WENELA's activities in the province in 1966 threw many Lozi into great desperation. The possibility of labour migration to Nakambala appeared to be one way of alleviating the serious problems caused by the closure of WENELA.⁷

The first gang of 800 men was recruited in 1968 from the Western Province for cane cutting at Nakambala Sugar Estate. But in the early 1970's Zambia Sugar Company modified once more its recruitment policy in order to pacify political agitation by the people of the other provinces, who construed the company's policy as being discriminatory. The attempt to recruit migrant workers from the other provinces, such as the Eastern, Northern and Luapula Provinces soon proved unsuccessful. Many of these deserted as soon as they arrived at the estate. This was due to what they saw as unbearable working conditions.

For this reason, Zambia Sugar Company has continued to rely on the Western Province as the main source of the estate's seasonal workers. The central recruiting station is at Mongu, and recruits come from Lukulu, Kalabo and Senanga, which are remote.⁸ The number of migrant workers recruited from that province has substantially increased over the years. For instance, out of the total of 1,083 seasonal workers recruited in 1975, 1,033 came from Western Province. And out of 3,075 recruited in 1984, 2,900 were from that province.⁹

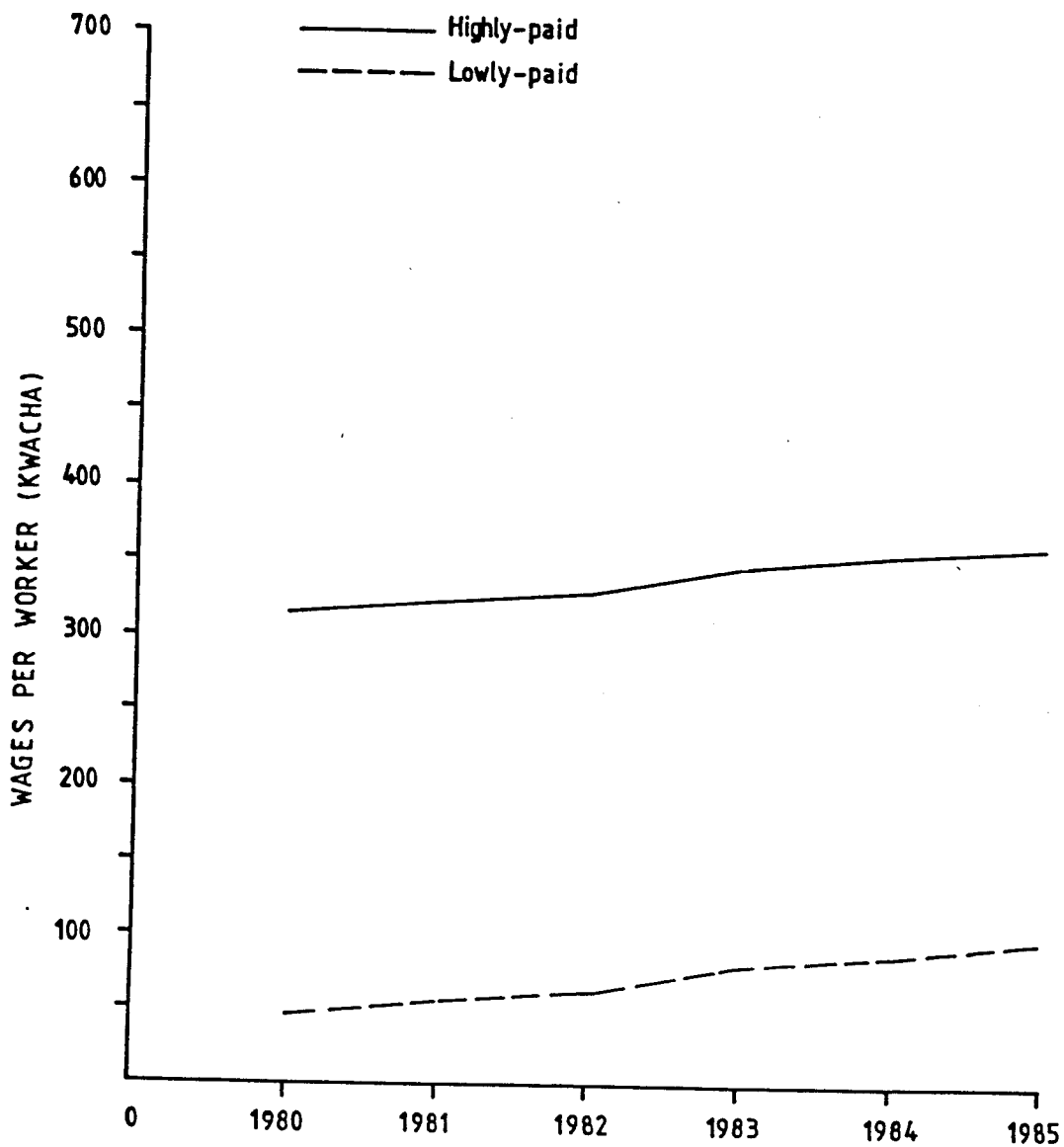
It should be stressed here that changes in labour supply at Nakambala Sugar Estate were not only due to increasing demands for labour, which fluctuated in accordance with the magnitude of the operations, but other factors contributed significantly too. For instance, we can not dismiss the fact that the unattractive rates of wages and conditions of employment had a significant effect on the supply of labour at the estate. Graph B and Table 11B show the rates of basic wages at Nakambala Sugar Estate between 1980 and 1985 for which data has been available. While the figures indicate a progressive increase both in the wages of the lowly - paid and highly - paid workases, the increases have been marginal. It can also be observed that figures suggest that there has been a great disparity between the wages of the highly - paid and lowly - paid workers in the period 1980-85. The significance of this disparity in wages is that the relatively higher wages paid to the skilled workers were offered at the expense of the unskilled workers, who formed the larger proportion of the total labour force of the estate.

TABLE 11B: BASIC WAGES PER WORKER PER MONTH AT NAKAMBALA,
1980-85

| <u>YEAR</u> | <u>LOWLY-PAID WORKERS</u> | <u>HIGHLY-PAID WORKERS</u> |
|-------------|---------------------------|----------------------------|
| 1980 | 43.72 | 312.38 |
| 1981 | 53.30 | 320.06 |
| 1982 | 60.06 | 326.62 |
| 1983 | 80.00 | 344.62 |
| 1984 | 86.86 | 351.38 |
| 1985 | 92.00 | 357.38 |

SOURCE: ZAMBIA SUGAR COMPANY LIMITED, COLLECTIVE AGREEMENTS,
1980/85.

GRAPH 8: BASIC WAGES PER WORKER AT NAKAMBALA, 1980 - 85



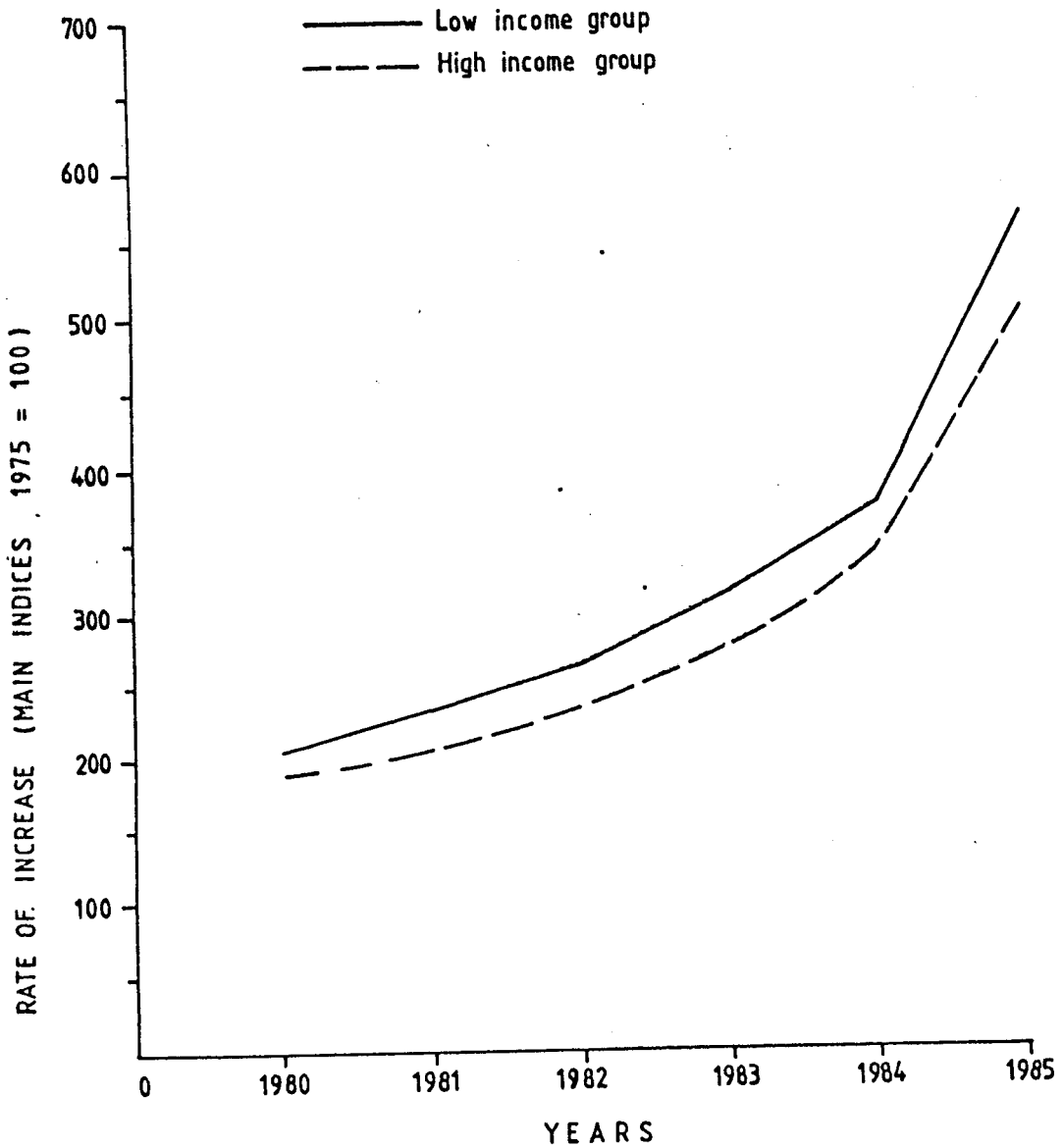
Source : Zambia Sugar Company Limited, Collective Agreement 1980 - 85

It should also be pointed out that the highly-paid and lowly-paid workers at Nakambala Sugar Estate, may be distinguished in terms of the work they do. For instance, the staff and professional workers are in the high-income group, whereas the unskilled permanent and seasonal workers are in the low-income groups.

A note should also be made that there has been a parallel difference between the low-income and high-income groups at the national level in Zambia, in terms of the cost of living index as illustrated in Graph C overleaf. It can be observed in the graph that while basic wages of the low-income workers at Nakambala Sugar Estate just doubled the cost of living tripled. In other words, real wages fell in the period 1980-85, and may have fallen further in 1985-86.

Methods of recruitment for both seasonal and permanent workers at Nakambala have undergone some transformation since 1964. For instance, until the late 1970's the recruitment of workers especially migrants was based mainly on interviews. But in subsequent years the recruitment came to be based on a combination of interviews, physical tests such as the lifting of a 20 kilogramme iron weight and medical examination.¹⁰ However, it should be made clear here that physical tests only applied to seasonal workers. The major differences in the recruitment methods of both categories of workers is that while the permanent workers are recruited at

GRAPH C: COST OF LIVING INDEX IN ZAMBIA, 1980 - 85



Source: Central Statistical Office, No. 21, January, 1986

Nakambala, the seasonal workers are recruited at the source. The reason for recruiting seasonal workers at the supplying point is to ensure that the cheapest but most effective labour force was recruited.

After tracing the history of labour supply, this section focusses on the history of labour relations at Nakambala Sugar Estate. This study deals with labour relations in respect of Nakambala Sugar Estate at three levels, namely: the relations between the National Union of Plantation and Agricultural Workers (NUPAW) and the workers, between the workers and Zambia Sugar Company, and between the workers and the supervisory staff. NUPAW was founded in Zambia in 1962, and its purpose was to cater for all agricultural workers both in the private and public sectors.¹¹ In its early development, the Union was not recognised by most of the farm employers in the country. These were mainly European in origin, and the majority of them were opposed to the idea of promoting unionism among their African farm workers. The political and economic consciousness of the African workers was to be closely checked and discouraged in the country at any cost.¹² NUPAW's branch at Nakambala Sugar Estate originated from a combination of workers, formerly belonging to the commercial farms that existed on the site where the estate was located. These had most of their African farm employees affiliated to NUPAW.¹³

Due to bad working conditions, particularly poor wages and accommodation that generally prevailed on the commercial farms, most of the workers had already realized the necessity of belonging to a union. Therefore, when the farms were sold to the Zambian government, most of their former employees became workers at the newly developed Nakambala Sugar Estate, which assumed ownership of these farms in 1964.¹⁴ The formation of the union branch at the estate was initiated by L.B. Ikowa and S.E. Silwimba, who were the General and Organising Secretaries, respectively. The two men arranged several consultative meetings with the officials of Zambia Sugar Company on the issue of forming a union branch at the estate. Because of the low wages and other poor conditions of service offered at Nakambala, it became very easy to win the support of the majority of the workers.¹⁵

Zambia Sugar Company had at first been hesitant to permit the formation of such a union branch. This was because it believed that it would be impracticable to recognise two Unions, NUPAW and the National Union of Commercial and Industrial Workers (NUCIW) in the same company. NUCIW had existed long before NUPAW, and it had already a branch at Ndola Sugar Refinery. Because of this many workers at Nakambala felt that they were entitled to membership of NUCIW. For this reason, NUPAW had to struggle to win the recognition from both the company and the industrial workers.¹⁶ However, the above

problem was finally resolved in 1966, when Zambia Sugar Company officially recognised NUPAW's branch at Nakambala. The first branch was headed by Timothy Kazawala (Chairman), Robertson Sikuibale (Secretary), Sof. Nyoni (Treasurer), and five committee members. The constitution of the union permitted a three year term of office. But in the 1980's the period of term of office was reduced to two years. This was aimed at spreading the experience of leadership to as many members as possible. As a result of this the branch office at the estate has, since its formation, been manned by different leaders at regular intervals.¹⁷

The union started off with a membership of 68 workers. Membership grew rapidly and by 1971 it increased to 2,791.¹⁸ The introduction of the Industrial Relations Act in 1971, which made it compulsory for all the general workers to be members of NUPAW, made it possible to increase membership at Nakambala Sugar Estate from 3,142 in 1972 to 5,453 in 1982. The union membership at the estate rose to 6,303 in 1984 but declined to 3,000 in November 1985. This was due to the fact that in November, 1985 the Zambian government withdrew the ^{tu} statutory instrument governing the collection of union dues by employers.¹⁹ Following this union membership became

voluntary in the country. At Nakambala this resulted in a serious reduction in membership as shown above.

NUPAW had difficulties in satisfying the workers' demands at Nakambala Sugar Estate. One of the difficulties stemmed from the fact that most of the officers elected to central office had little experience and training necessary for effective running of the office. For instance, interviews conducted revealed that most of the top union officials had only basic education and had no training in union matters. Apart from lack of the necessary education and training there was the problem of lack of continuity in office due to frequent changes in leadership, more especially at the regional level. Lack of continuity caused problems in terms of training and experience deriving from running an office. Another problem which arose in the history of labour relations at the estate was the failure on the part of the Union to achieve a satisfactory level of membership participation. For instance, interviews conducted revealed that most of the workers at Nakambala did not know their rights and responsibilities as members. It was found that most of the workers did not know the terms of agreements governing their conditions of service. This was a handicap on the part of workers who were unable to exercise their rights due to ignorance.

The idea of reviewing a collective agreement at the interval of two years caused hardships to workers who had to wait despite the fast rising cost of living, until after the expiring date of an agreement before they could bargain for a new wage package. It was also observed that all the collective agreements, regarding the Nakambala workers, included a clause on provision of housing by the company to its employees. But these agreements remained silent on the minimum standards of housing to be provided. It was noted during this research that the housing and the sanitary standards for labourers at Nakambala Sugar Estate were poor. It was also found that some of the improv^{ised} huts at the estate were in existence for over a decade. These huts were built from grass and poles. But the Employment Act of 1965 states that "the temporary buildings shall be destroyed or rebuilt before the 15th August next occurring after such temporary buildings have been in existence for twelve months."²⁰ The Employment Act prohibits any huts constructed solely of iron or canvas.²¹

Other issues which became prominent in the history of worker-union relations at Nakambala Sugar Estate were the questions of representation; lack of confidence by workers in their union leadership; and the breakdown of communication between the two parties. Workers at Nakambala, for instance, have been

traditionally represented by NUPAW while those at Ndola Sugar Refinery have been represented by the National Union of Commercial and Industrial Workers (NUCIW). Problems have arisen with such representation of two unions in the same company. For instance, some workers at Nakambala Sugar Estate felt that they were actually affiliated to NUCIW and not to NUPAW, considering the type of work they did which in some cases was not different from the work done at Ndola Refinery. The issue of representation was, for instance, found to be one of the major causes of conflicts among the workers of Zambia Sugar Company. This fact was contained in a report of the commission of inquiry appointed by the Zambian government to investigate the causes of the Nakambala strike of the 11th March, 1980.²²

Lack of confidence by Nakambala workers in their union leadership was attributed to breakdown of communication between NUPAW and its worker members at Nakambala Sugar Estate. It was found by the commission just referred to above that the Nakambala strike of the 11th March, 1980 was partly as a result of the union's arbitrary action in increasing the union subscription fee from 40 ngwee to 60 ngwee.²³

Nevertheless, despite a number of failings by the union as highlighted above, there was also some degree of success in some areas. For instance, in the collective agreement of

1981/83 provision for sick leave was two months with full pay. In the 1983/85 document sick leave provision was extended to 3 months with full pay plus an additional 3 months on half pay. Presently, however, sick leave only applies to permanent staff.

Other changes were those that affected seasonal workers only. For instance, piece work rates on the cutting and bundling of cane for mascane loading when cane was not weighed increased from K3.72 per day in 1981/83 to K4.45 in 1984/85.²⁴ Piece work rates for weighed cane increased from K2.30 per day in 1981/83 to K2.95 in 1983/85. Bonus rate also increased from 95 ngwee in 1981/83 for cutting any extra metric tonne of cane to K1 in 1983/85. Piece work rates for cutting and loading cane for grab loading also increased from K2.40 in 1981/83 to K3.95 in 1983/85.²⁵ However, it should be stressed here that although there were such increases as shown above, these wage increases did not keep pace with the rising cost of living in the country as illustrated in Graph B.

The formal relationships, as already indicated between NUPAW and ZSC started in 1966 and since then these have been characterised by regular tensions. One of the sources of such tensions was the company's tendency not to strictly adhere to all the clauses of collective agreements.

While another source of tensions between the two parties was the company's making of decisions concerning Nakambala workers without first having consultations with NUPAW's leadership.²⁶

Asked to comment on the union - company relations,

L.B. Ikowa (the current National Chairman of NUPAW), in an interview during this research on 4th January, 1985 at Kabwe, said that while the relations were satisfactory, certainly there was need for further improvements in the procedures of making consultations which were a source of tensions between his union and Zambia Sugar Company. He particularly expressed great concern over the company's wage policy which he described as being in favour of the workers of Ndola Sugar Refinery.²⁷

The history of relations between workers and the supervisory staff at Nakambala sugar Estate was equally marked by constant conflicts. For instance, most workers at Nakambala felt that there was unfairness in the giving of tasks. The practice at the estate was to pay a cane cutter a flat rate for accomplishing a day's task plus a bonus for cutting extra cane. The problem arose over the bonus which was half the basic payment. Workers argued that a bonus rate was supposed to be more than the basic payment and not vice versa.²⁸

In addition to the above contentious issue was the problem that if a worker failed to complete a day's task then he would have to start the next morning from where he left off the previous day. This then meant that a worker would not be paid for the first day when he failed to complete his allocated task. Such unpopular manipulations by supervisors created tensions at Nakambala Sugar Estate. Workers construed such manipulations as exploitation.²⁹ To the disappointment of workers, supervisors did not also take into account some of the obvious cane variables such as the fact that while some cane varieties had large stalks others had small ones. Hence, this variable sometimes caused workers to fail to complete their tasks as scheduled. In addition to this, supervisors did not take into account the difficulty, of cutting fallen cane which also contributed to failure by some workers to complete their tasks on time.³⁰ Related to the issue of tasks was the problem of over estimation of tasks by company supervisors. Since the demarcation of tasks was done in the absence of workers, supervisors took advantage of the situation by over estimating the size of tasks for the benefit of the company.³¹

To ensure control over workers the company incorporated a disciplinary code in collective agreements. The disciplinary code outlined offences and punishments of various degrees. Punishments ranged from a mere verbal warning to a summary dismissal.

The disciplinary code, however, has not changed significantly. Perhaps the only appreciable change has been that its implementation has been intensified. To ensure effective implementation of the code, for instance, the company employed security officers who were strategically deployed on the estate. The effectiveness of the implementation of the code could be noted in the reduction of the incidence of unpaid leave and absenteeism on the estate as shown in Table II C below.

TABLE 11 C: FREQUENCY OF UNPAID LEAVE AND ABSENTEEISM AT NAKAMBALA, 1980-84

| <u>YEAR ENDING</u> <u>24TH APRIL</u> | <u>NUMBER OF DAYS</u> <u>OF UNPAID LEAVE</u> | <u>NUMBER OF DAYS</u> <u>OF ABSENTEEISM</u> |
|---|---|--|
| 1980 | 1,337 | 4,044 |
| 1981 | 1,185 | 1,205 |
| 1982 | 1,134 | 2,025 |
| 1983 | 641 | 1,068 |
| 1984 | 645 | 1,402 |

SOURCE: Zambia Sugar Company Limited, Monthly Returns, 1980-84.

It can be argued here that the type of labour relations that have been developed at Nakambala Sugar Estate surely leave much to be desired. The strained relationships between workers and management have been a consequence of the company's

desire to maximise profits on the one hand, and the workers' desire to enhance and protect their interests on the other. Workers at Nakambala have devised ways by which to counteract the system. One of these ways has been to resort to 'Go slows' while striking has been another way. For instance, there have been about 15 strikes at Nakambala Sugar Estate between 1969 and 1984, the strike of the 11th March, 1980 being the most serious of all.

The issues involved in the 1980 strike just referred to above were threefold. Firstly, following the government's announcement of the K156 general wage increase to all categories of workers in the country on 1st August, 1979 Nakambala workers were also demanding a pay increase. Secondly, Nakambala workers were demanding that the effective date of payment was to be the 1st of August, 1979 when the government made the announcement, and not the 1st of April, 1980 when their new collective agreement was to commence. After protracted negotiations between the workers' representatives and company officials the latter offered to pay the employees in low scales K7.80 and K6.50 per month to those in high scales.³² But these offers were not accepted by workers. After several attempts at mediation by Mr. Simasiku the labour officer for Mazabuka both parties agreed that workers in scales 1 to 4 were to be paid K12 per month and those in scales 5 to 10 to be paid K10.00

per month. But there was still disagreement over the effective date. This controversy raged on from October 1979 until the time of the strike in March, 1980.³³

The third issue which contributed to the strike was the raising of the subscription fee by NUPAW from 40 to 60 Ngwee per month. This was done without first explaining to the members at Nakambala the reason that necessitated the increase. Most of the members at the estate felt that the union was not being sympathetic enough towards them by its unilateral decision to increase the fee. When infact they were still struggling to secure a wage increment from their employer, the Zambia Sugar Company. Therefore, this state of affairs caused many workers to begin to have serious doubts about the role of the union, in its negotiations with management as regards their demands. This is clearly evident from what transpired on the day of the strike. For instance, Isaac Nyirenda, the National Vice Chairman of NUPAW, and at the same time a factory worker at Nakambala, was called upon by management to speak to the striking workers about the progress so far made on the collective agreement, and also to persuade the workers to return to work. But workers jeered at him and rejected his explanation and call to go back to work. The workers demanded to know when they would be paid the increment of K13 per month and also the arrears backdated to 1st August, 1979.

Benson Mate, the Union Branch Chairman at the estate, together with some other official, were assaulted by the striking workers because they were urging them to resume work. The commission, referred to above, expressed disappointment to learn that even the union branch chairman was assaulted by his own members.³⁴ This clearly indicates that members at the estate had lost faith in their union leadership, which they considered to be ineffective. Strike action therefore was seen as the only way they could protect their interests. The strike was staged mainly by permanent general workers, although a substantial number of seasonal workers also joined in the strike. The strike involved 3,800 workers, which represented about 59 per cent of the estate's total labour force of 6,495 in 1980. Police were called in by the management at Nakambala Sugar Estate, and opened fire because some workers were allegedly trying to set on fire a filling station and some cane fields.³⁵

In an effort to avert a similar situation in future, the commission made a number of recommendations. These were mainly directed at the ministries of Labour and Social Services and Home Affairs. Some of these recommendations were as follows:

To the Minister of Labour and Social Services it was recommended that:

- (i) "Any future policy guidelines on labour-management relations should be discussed with both workers' and employers' representatives and ensure that the Policy guidelines are well understood by the parties before implementation. Once these policy guidelines were implemented, they should be consistently applied to both labour market parties;
- (ii) The procedures laid down in the Industrial Relations Act regarding Collective Agreements and collective disputes should be strictly adhered to in order to allay any doubt as to who is the final authority for redress, and;
- (iii) Whenever there is a strike, the employer should be advised to report to the Local Labour Office or District Secretary and not Zambia Police."³⁶

To the Minister of Home Affairs it was recommended that:

- (i) "The police should be advised to refrain from rushing to the strike scene unless asked to do so by the Local Labour Office or the District Secretary, and;
- (ii) In future, whenever a riot occurs that riot should be handled properly by Senior Police Officers and the use of fire arms should be the last resort and prior warning should be given to the rioting crowd."³⁷

The significance of the commission's recommendations as listed above is that they strongly indicate the fact that labour-management relations at Nakambala Sugar Estate were indeed unstable. The recommendations also indicate that it appears that one of the main sources of misunderstandings between workers and management at Nakambala Sugar Estate was the fact that the laid down procedures for settling collective

disputes were not strictly adhered to by the latter. This argument is also amplified by Mr. Fredrick Chiluba (the Chairman of Zambia Congress of Trade Unions) in an interview with Times of Zambia on 17 March 1980, who expressed indignation over the Nakambala shooting of the 11th March, 1980 and asserted that:

"Zambia Congress of Trade Unions did not encourage illegal strikes and had not hesitated to condemn such action. But opening fire on workers as it was in Mazabuka is the last thing that should have happened especially after looking at the mitigating factors which led to the action. If Police did open fire as we are told it would be a sad departure from our ways of treating labour and contravention of the International Labour Organisation convention of 1948 concerning freedom of association. The Police action was a rejection of article eight of the United Nation's Convention on economic, social and cultural rights of the people".³⁸

The significance of the strike just cited above is that it reflects the general industrial unrest that was slowly sweeping across the Zambian Industry since the mid 1970's. Numerous incidences of strikes were reported in many industrial enterprises.³⁹ Three students from the University of Zambia; Lemba, Nachilongo and Simuchimba, conducted research in 1979 to determine the causes of strikes in Zambia. They investigated specific cases such as the United Bus Company of Zambia, Zambia Bottle Company Limited, and

the University of Zambia strike. Their major findings were that the main causes of strikes were poor wages resulting from bad labour policies.⁴⁰ These findings have been similar to those that this study has found in the case of Nakambala Sugar Estate.

Zambia Sugar Company's wage policy tended to be in favour of a small group of skilled workers at Nakambala Sugar Estate. In the company's effort to minimize costs and maximize profits, general workers were given a raw deal in terms of wages and accommodation.

In conclusion, it is argued that although Zambia Sugar Company finally managed to establish definite sources of labour supply, and also progressively increased its labour force at Nakambala Sugar Estate, this was in fact done at the expense of the well being of the general workers. It is further observed in this context that because of the harsh working conditions that prevailed at the estate, the worker - management relationship was also seriously affected. This manifested itself in a series of conflicts and strikes.

FOOT NOTES

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3. A. Van Haastrecht, 'Mazabuka - Nakambala: An Economic Geographical Sketch' in I.D. Elgie (ed.), Zambia Geographical Association Handbook to the Southern Province, No. 4, Lusaka, (August, 1978), 187.
4. C. Perrings, Black Mine Workers in Central Africa: Industrial Strategies and the Evolution of An African Proletariat in the Copperbelt 1911-41 (London: Heinemann, 1979), 189.
5. L.V. Horn, 'The Agricultural History of Barotseland' in R. Palmer (ed.), Zambian Land and Labour Studies, Vol. 11, Lusaka, National Archives of Zambia, (September, 1974), 1-18.
6. Perring, Black Mine Workers, 191.
7. Interview, D.S. Nyambe, Assistant Labour Commissioner (Industrial), Lusaka, 17 December, 1985.
8. Interview, T. Marshall, Senior Personnel Officer for Nakambala Sugar Estate, Nakambala, 23 January, 1986.
9. Zambia Sugar Company Limited, Statistical returns, 1975/84.
10. Interview, Bkuku, 26 November, 1985.
11. Interview, L.B. Ikowa, National Chairman for National Union of Planation and Agricultural Workers, Kabwe, 14 January, 1986.
12. Interview, Ikowa, 3 December, 1987.
13. Interview, Ikowa, 3 December, 1987.
14. Interview, Ikowa, 3 December, 1987.
15. Interview, Ikowa, 3 December, 1987.
16. Interview, Ikowa, 3 December, 1987.

17. Interview, S.C. Silwimba, General Secretary for National Union of Plantation and Agricultural Workers, Kabwe, 3 December, 1987.
18. Interview, J.M. Muwila, Organising Secretary for National Union of Plantation and Agricultural Workers, Lusaka, 3 January, 1986.
19. Interview, Muwila, 3 January, 1986.
20. Republic of Zambia, The Employment Act, Chapter 512 of the Laws of Zambia, of 1965, 28 of 1971.
21. The Employment Act of 1965.
22. Report of the Tripartite Investigation Committee on Nakambala Estate of Zambia Sugar Company Limited, 30th July, 1980, 18.
23. Report of the Tripartite Investigation Committee, 18.
24. Zambia Sugar Company Limited, Collective Agreements, 1980/85.
25. Zambia Sugar Company Limited, Collective Agreements, 1980/85.
26. Interview, Ikowa, 3 December, 1987.
27. Interview, Ikowa, 3 December, 1987.
28. Interview, Simasiku Simasiku, 22 January, 1986.
29. Interview, Simasiku, 22 January, 1986.
30. Interview, Simasiku, 22 January, 1986.
31. Interview, Simasiku, 22 January, 1986.
32. Report of the Tripartite Investigation Committee, 3.
33. Report of the Tripartite Investigation Committee, 3.
34. Report of the Tripartite Investigation Committee, 3.
35. Report of the Tripartite Investigation Committee, 11.
36. Report of the Tripartite Investigation Committee, 7.
37. Report of the Tripartite Investigation Committee, 23-24.

38. Times of Zambia, 17 March, 1980.
39. M. Lemba, B. Nachilongo and C. Simuchimba 'Causes of Strikes in Zambia: Three Case Studies' in R. Finchem (ed.), Employment in Zambia: Studies in Zambian Society, Vol. IV, Lusaka, University of Zambia, (1979), 98-108.
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CHAPTER FOUR

COSTS AND BENEFITS OF LARGE-SCALE SUGAR PRODUCTION WITH PARTICULAR REFERENCE TO NAKAMBALA SUGAR ESTATE

This chapter is an attempt to assess some of the significant social costs and benefits that have arisen as a result of the establishment of Nakambala Sugar Estate in relation to the advancement of the surrounding area and the Zambian economy in general. This discussion is mainly concerned with the social costs of production, as opposed to the costs of inputs, labour and machinery of an industry. The former have been described by Harrison, as the costs which in most circumstances do not fall on the activity giving rise to them, but rather fall on the surrounding community or on the society as a whole.¹

But before analysing the above issues, this chapter, firstly, attempts to relate some of the well known arguments as to the advantages and disadvantages of an estate and a smallholding system to the Zambian situation. In this context, it can be noted that the chief advantage of an estate system lies in its efficiency.² Nakambala Sugar Estate, as a large-scale operation, has been able to acquire and utilize modern technology in its production.

For instance, it has mechanized most of its pest and weed control operations. It has also partly mechanized its harvesting process by introducing grab loaders. These are machines which have been used to load the cut cane from the fields into the tractor trailers. This has alleviated the problem of loading cane manually.³ At Kaleya smallholders have largely relied on manual methods in the above production processes. Those farmers who have utilized the services rendered by their company, have had to part with a substantial proportion of their small annual income of K3,500.⁴

Nakambala Sugar Estate has also been able to undertake expensive research with a view to improving its techniques of production. In this respect, constant research on varieties of cane has been undertaken. Three highly yielding varieties, namely; NCO 376, CO 775, and another cross breed type have been developed. Research on irrigation techniques has also been constantly carried out. On the other hand, a smallholding system has often lacked the ability to afford sophisticated technology and research. The Kaleya smallholders have in most cases relied on Nakambala Sugar Estate for technical advice.⁵ In the majority of the cases, the peasant farmers at Kaleya have not been able to obtain such services, as they were provided at a substantial cost.⁶

The estate has too utilized benefits deriving from specialization. Unlike in a smallholding system, where the owner performs most of the functions involved in production, in the estate system, specialists are greatly utilized. At Nakambala, specialized personnel such as engineers, accountants, chemists, and the like have been employed.⁷ The use of the highly specialized staff usually results in efficiency and high productivity.⁸

In the event of natural disasters, both the estate and smallholding scheme are hit. But, in this case, the former has the advantage because its greater financial resources enable it to withstand bad seasons. The smallholder, on the other hand, loses most of his annual income when a disaster destroys his crop.⁹ Because of this obvious disadvantage, smallholders at Kaleya have engaged in other ventures partly as a safeguard.¹⁰ On the other hand, an estate system has considerable difficulty in times of falling prices. By its nature, an estate demands heavy investments in labour and machinery. In times of recession this becomes a setback in that the estate has to continue in operation even when the returns on the crops are low, as has been argued in chapter two in respect of Nakambala Sugar Estate. This problem is further compounded by the fact that the estate can not easily switch to another crop.¹¹

A smallholder performs better in this situation. For he can simply cease producing if prices fall, and he may start growing an alternative crop which can sustain him and his family.¹²

Leong and Morgan have argued that in a smallholding system, the farmers actually reap the profits themselves. This helps to spread the wealth earned from the sale of cash crops more widely. This in turn enables them to improve their lot. Furthermore, they have maintained that smallholder farming is socially desirable because it reduces class disparities. Apart from this it gives more people a stake in the land, thereby making them more independent.¹³

In the light of the available evidence, the above contention is not therefore entirely accurate for Kaley's Smallholders' Scheme. Wood conducted research on this scheme in 1984. His findings were that there was a danger of alienating many farmers from the scheme. This is because there was lack of active involvement of the smallholders there in the planning and development work. These farmers were gradually losing identity with their plots and crops. Farmers were also not allowed to fix prices for their cane.¹⁴ It was as well found that many smallholders started engaging themselves in activities outside the scheme. This was not only done as a safeguard against bad seasons, but partly to supplement their income from the sale of cane. Their annual income was not adequate to sustain them and their families. The extra interest

outside the scheme resulted in poor crop husbandry among the farmers.¹⁵

Wood further found that each plot at Kaleya involved an average capital investment of about K36,000. In his opinion, this was not the best way to create employment opportunities. According to him, there were other more economical ways of achieving this goal. He asserted that the justification of the scheme on these grounds was inadequate. This high capital investment at Kaleya only helped to create a group of elite smallholders. According to Wood, this limited the number of employment opportunities. It is his conviction that the total employment for the most needy sections of ~~Zambian society~~, should have been greater had the scheme been planned as an estate.¹⁶ He further asserted that operating the scheme as an estate would as well be the best way of preventing further expansion of an elite group of farmers, who have been the main beneficiaries of the many settlement schemes in Zambia.¹⁷

On the other hand, Beckford and Jarrett have argued that there was underdevelopment in the plantation economies of the third world countries. This was largely because the ownership of plantations was in foreign hands. Most of the realized profits were externalized to the home countries of the investors. In

addition to this the local people were employed merely as labourers. They received little or irrelevant training for the local economic conditions. The kind of training that was offered only suited the interests of the plantation owners.¹⁸

However, it has to be realized that the post colonial era in the third world countries, has seen a gradual change in the ownership patterns of plantations. Home governments in the third world have increasingly taken a keen interest in setting up and running their own plantations. This has at times been done in co-operation with some multinational companies.¹⁹ In Zambia, for instance, Nakambala Sugar Estate was jointly set up by a foreign company, Tate and Lyle Limited and the government. To ensure that the country benefited substantially from the venture, the government has subsequently obtained the majority of the company's shares. By 31st December, 1984, it had 78 per cent of the total shares as compared to only 12 per cent in 1964.²⁰ The government has too ensured that key jobs were gradually transferred to qualified Zambians. This was done through the Zambianisation programme, which has been implemented since independence.²¹

It should also be observed that there is a remarkable contrast between a state-owned and a privately-owned plantation.

For instance, in Kenya, as argued by Iliffe, the establishment of some privately-owned plantations involved massive land alienation and extensive proletarianisation of the neighbouring community, whereas in Tanzania, where plantations were partly-owned by the state, traditional land ownership rights were preserved as far as possible, and the surrounding people were able to respond favourably to the developing market by commercializing their agriculture.²² Therefore, plantations and African agricultural production in Tanganyika did not compete with each other, but rather became complementary to each other. In the Zambian case, it can be noted that although the development of a jointly-owned sugar plantation gave rise to harsh labour conditions, its activities were fully integrated into the national economy. This therefore sharply contrasts with the foreign-owned plantations, which have earlier been referred to by Beckford and Jarrett.

However, in contrasting a plantation and a smallholding system, it should finally be argued that the success of either of the two systems depends largely on the prevailing circumstances.²³ Therefore, generalisation becomes difficult if not impossible. Levy has argued that while the estate and smallholding systems have relative advantages and disadvantages, the superiority of one mode over another is mainly dependent on the type of crop

involved, and the prevailing socio-economic conditions.²⁴

In some countries such as Nigeria and Ghana, the two systems have been successfully run side by side.²⁵

Having therefore identified some of the relative advantages and disadvantages of an estate and a smallholding system in regard to sugar production, it can be argued that the impact of any industry may be assessed both in positive and negative terms. According to Berg, an industry can be described as being positive if it creates a demand for raw materials and consumer goods and can provide training, medical, shopping facilities and the like. These are what he has called 'spread effects'. While the negative consequences or the 'backwash effects' on the other hand include competition for resources such as land and water, industrial pollution leading to the killing of fish, livestock and a threat to human life.²⁶ Backwash effects can as well be termed as social costs in that they affect the surrounding people in terms of their living patterns or the use patterns of resources.²⁷

As regards Nakambala Sugar Estate, it can be noted that one of its significant contributions to the advancement of the local area, has been the setting up of a training centre in 1968.

This provided basic training in mechanical and vehicle engineering, sugar process operations, supervisory and management practices, secretarial, accountancy, tractor driving, etc.²⁸

Related to this has been the provision of basic education. For instance, two primary schools located at Njomona, near the Nakambala factory, and at Kaleya, which were originally built by the government, were subsequently expanded by Zambia Sugar Company. This was intended to cater for the growing population of Nakambala Sugar Estate. It can further be noted that while the teachers at the estate's schools were paid by government, the company provided them with free accommodation.²⁹ In addition to the provision of regular schools, the residents of the estate were also provided with various community development services. For instance, Nakambala extension workers conducted brief courses in basic nutrition, sewing, childcare, gardening, and other related courses for women in all the estate's townships, such as Nkabika, Njomuna, Twapenga, Misale, Kaleya, Chuula, Beans farm, Farm 9 and Pump station 2. At Nkabika and Kaleya townships adult literacy classes were also being conducted.³⁰

The development of the estate also necessitated the provision of social amenities in all its townships. In each of these townships, a market, a shopping centre, a butchery, a canteen, a bar, a tavern, netball and football grounds have been provided by the company. In addition to all these, Zambia Sugar Company provided medical services to the estate's community.

Three clinics situated in the factory area, Kaleya and Chuula townships were set up by Zambia Sugar Company. Also a mobile bus clinic, catering for the under 5s was provided.

The significance of the provision of these social and medical services, lies in the fact that this has been a step towards improving the skills, health and ultimately the living standard of the estate's community.

The impact of the estate on the local area has also to be assessed in financial terms. For example, Haestrecht et al, found that of all the K1.8 million paid to the employees of Nakambala Sugar Estate as wages in 1978, 65 per cent of it was spent locally in Mazabuka, in shops, markets and to some extent in bars and taverns. They also found that for most of the Mazabuka townships, Nakambala money was between 40 and 60 percent of the annual turnover.³² The researchers also argued that the pay days at Nakambala Sugar Estate caused peak days for the local shops, especially for items such as mealie meal, sugar, bread and many others. Apart from the monthly one, there was also a yearly peak period, when the migrant workers were returning to their home areas after the cropping season. These bought a great deal of farm implements, clothes and blankets from Mazabuka and took them to their original homes.³³ Therefore, this indicates that Nakambala Sugar Estate created a ready market for various industrial goods available in Mazabuka, and the estate's shops.

Related to the above findings, Dietz et al, found that 5.5 per cent of the money earned by workers at Nakambala, was spent on investments mainly in small-scale agriculture, in the workers' regions of origin, by buying cattle, seeds, fertilizers, ploughs hoes and the like. They also maintained that about one third of the Nakambala workers were engaged in this kind of saving.³⁴

The contribution of Nakambala Sugar Estate should also be understood in the national context. In this regard, therefore, it can be noted that the development of the estate enabled the nation to become self-sufficient in sugar production. Since 1964 less and less sugar has been imported into the country. For instance, up to 1968, 100 per cent of the sugar consumed in Zambia was being imported from Mozambique, Zimbabwe and the United Kingdom. In 1971 the amount of sugar imported was reduced to 70 per cent, and the other 30 per cent was produced locally. In 1979 the country no longer imported sugar, as 100 per cent of the sugar requirements were supplied locally by Nakambala Sugar Estate. From this date, the estate was able to satisfy local demand with the production of between 96,000 and 100,000 metric tonnes of sugar annually.³⁵ In 1980, Zambia Sugar Company first entered the export market when it exported 1,000 metric tonnes of sugar to Burundi and Zaire.

By 1984 the company stepped up its efforts to achieve a record of 7,500 metric tonnes of sugar exports worth \$2.25 million. Self-sufficiency in sugar production saved the nation about \$50 million per annum on sugar imports.³⁶ Moreover, it became comparatively cheaper to produce sugar locally than to import it. As at 1984, it cost about K1,000 to import a tonne of sugar, whereas it cost about K500 to produce it locally.³⁷

Another significant contribution by Zambia Sugar Company through its Nakambala project, has been that its profits were being taxed annually. It can be noted that the amount of taxation in 1982/83 was about K0.152 million, and the figure rose to K0.258 million in 1984/85.³⁸ This was a substantial contribution, although as earlier indicated, in some bad seasons, the company had to defer its income tax obligations. It is also worth noting that although Nakambala Sugar Estate created large scale employment opportunities, this was infact not a very significant contribution when considered in qualitative and remunerative terms.³⁹

Another important contribution of the estate, has been the production of molasses, which is a by-product of sugar production. In 1968/69, output of molasses was in the region of 5,500 metric tonnes, and this rose to about 44,500 metric tonnes in 1983/84.

Nakambala has utilized its molasses in a variety of ways. For instance, it has made it into cattle feed, 40 per cent of which is sold to local farmers, and 20 per cent is exported mainly to Zimbabwe. The remaining 40 per cent is sold to the Yeast factory at Kafus and to the National Breweries of Zambia.⁴⁰

Nakambala Sugar Estate has also made a significant contribution to the nation's development through the Kaleya scheme. The establishment of the project was made possible by the existence of the estate, whose infrastructure, such as the irrigation system and the factory, were increasingly expanded in order to serve the scheme. In this respect, the estate provided technical advice, water, and also offered a central processing plant and a central trading system to Kaleya smallholders, as well as to the two private cane farmers in the area. The scheme was primarily intended to provide a livelihood to smallholders and their families, as well as to stimulate emergent Zambian farmers to take an increasing interest and pride in the development of their national sugar industry.⁴¹ But the available evidence has shown that the significance of the Kaleya scheme does not lie in its employment effects, but rather in its contribution towards increasing sugar production in the country. In this respect, the scheme together with the two cane farmers

contributed 20 per cent of the total annual sugar production in Zambia.⁴²

While the development of Nakambala Sugar Estate, as argued above, brought some benefits to the area in which it is located and to the country as a whole, it also had certain negative effects, which can be termed as backwash effects or social costs. One of the major negative consequences was the competition for land between the estate and the farmers in the area. For instance, in 1975 Dietz, Haastrecht and Scheffer conducted research on the potential effects of the establishment of Nakambala Sugar Estate on the surrounding area. Their findings were that the development of the estate had had a substantial effect on the land use pattern around Mazabuka. It was established that since its inception, the estate had acquired land from many commercial farmers and the Veterinary Research Station. In all it was found that about 1,600 acres of maize had been replaced by sugar cane. It was established that this meant a decrease of maize production in Mazabuka district of about 57,600 bags annually.⁴³ It was also found that about 260 dairy cows had been removed from the district's total of 1,500, and that this had had a significant effect on the district's milk production. This was reduced by 717,600 litres of milk per year, or by 18 per cent of the total production.⁴⁴ It should be noted, however, that the value of sugar production greatly outweighs the loss

of maize and milk production resulting from the establishment of Nakambala Sugar Estate.

Apart from causing competition for land use in the area, the estate also brought about competition for water rights in the Kafue river. The competition was between Zambia Electricity Supply Corporation, private farmers, Mazabuka Township Council and Kafue Textiles on one hand, and Zambia Sugar Company, Kaleya Scheme on the other. Competition for water rights was as a result of the increasing needs for water by such large enterprises as Nakambala Sugar Estate. For instance, the water needs at the estate increased from 2.85 cumecs in 1964 to 7.9 cumecs in 1974, and the figure rose to 12.74 cumecs in 1982.⁴⁵

In addition to the above problem, was a controversy that arose between Mazabuka Township Council, fishermen and farmers on one hand and Zambia Sugar Company on the other, over the polluting effects of disposals from the Nakambala factory. Refuse was being thrown into the Kafue river, and this became a health hazard. This problem was made worse by the fact that the chemicals from the refuse posed a potential danger to the life of people, livestock, game and fish. However, Zambia Sugar Company constantly sought better ways of disposing of the residue from the factory without endangering life.⁴⁶ Related

to this issue, Mr. D. Simasiku, the labour officer for Mazabuka, argued that continued irrigation posed a threat to the health of the estate's community. The health problem arose due to the fact that the workers' compounds were located very close to water canals, which became ideal breeding places for mosquitoes. This problem was exacerbated by the company's inability to apply consistent measures to eradicate mosquitoes, thereby exposing the community to the potential dangers of malaria fever.⁴⁷

It has already been observed that Nakambala Sugar Estate paid low wages, and also offered poor housing to general workers. In this connection, it may be argued that although a migrant labour system creates job opportunities, and provides a source of cash income, it has a tendency of perpetuating low wages and poor housing for migrant workers. According to labour contracts, migrant workers are not allowed to come to labour markets with their families. The result has been that the migrant workers are poorly housed, and wage levels are fixed in accordance with the living costs of a single worker. The cost of maintaining families is not included in the price of labour power.⁴⁸ The close relationship between low-wage levels and the migrant labour system is clearly shown also by the fact that migrants largely remain in the unskilled categories.⁴⁹ These arguments/^{also} apply to migrant workers at Nakambala Sugar Estate, who were paid between K60 and K70 per month in the period 1981/83. Their wages in 1984/85 were between K80 and K90 per month.⁵⁰

In conclusion, it can be argued that it has become clear from the foregoing discussion that Nakambala Sugar Estate has enjoyed greater technical and financial advantages than the Kaleya scheme. In this connection, it has been observed that the scheme was dependent on the estate for most of its technical and infrastructural requirements. For this reason, therefore, the scheme has appeared as though it is just an extension of Nakambala Sugar Estate.

It has also been argued in this chapter that because of the great utilization of its resources, the estate has played a significant role in the ~~social~~ and economic development of the area in which it is located and the nation at large. This, however, does not imply that the establishment of the estate has had no negative implications, such as the competition for resources with the other users, as well as some environmental problems. But it is clear that these have been ultimately outweighed by the positive effects, notably the meeting of the domestic demand for sugar from local supplies, and the creation of a possibility of saving and also of earning foreign exchange from sugar exports, as well as the imparting of a range of basic skills, and the provision of community services.

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CONCLUSION

It is argued in this study that Nakambala Sugar Estate has exhibited many features which have also characterized plantations in general. The establishment of the estate, for instance, caused a significant change in the land use pattern in the area in which it is located. A substantial proportion of the land which had been previously used for maize production and also for grazing livestock was brought under cane cultivation. The establishment of the estate, however, did not involve appropriation of land directly from peasant farmers. Zambia Sugar Company acquired land from commercial farmers and also from several state agencies. But a number of witnesses interviewed by the commission of inquiry into the land matters in the Southern Province of 1982 expressed their indignation over the government's action. They argued, for instance, that after independence and the 1969 referendum the government did not release to them most of the farms it repossessed but instead various state agencies took over ownership. These agencies included Nakambala Sugar Estate which acquired 18 farms.¹ Some of the witnesses even protested that they supported their leaders during the struggle for independence not only to win political freedom, but also to get back their land they lost to the colonialists.²

Land alienation has been a prominent feature in many plantation

areas. Beckford has, for instance, argued that wherever plantations were established, competition for resources, particularly land, arose with the local people. He has further asserted that plantations have often had the advantage in such situations. According to him, the history of ... plantations was marked by a transition from open resources to closed resources.³

In an attempt to justify the plantation system, Greaves has argued that "the plantation has changed the face and the economy of every area in which it has been established, and in many instances it has laid the basis of modern economic development in primitive and unused lands, brought hitherto deserted and isolated regions into the orbit of international trade, and played an important part in some of the historical movements that shaped the economy of the modern world."⁴

But Nelson has challenged the above argument by observing that the plantation was in fact the perpetuation or extension of the dualistic economy. According to him, this was because the plantation had the tendency of appropriating the best lands, resulting in the transference of subsistence producers to marginal lands often unsuited to cropping.

He has further argued that although changes may be made in the ownership pattern of plantations, these are likely to continue to be largely export-oriented enterprises. This is because they are mainly concerned with the production of export crops in tropical countries.⁵

It should also be argued that land alienation in many plantation areas was partly used as a means of creating a reservoir of cheap labour for exploitation. In this connection, Iliffe has argued that "the most common consequence of the establishment of plantations in an otherwise peasant economy is to proletarianise the peasants who have previously owned the land. In Kenya, for example, the development of European farming involved the destruction of the economy of the Kikuyu people who were its neighbours. Part of their land was seized, leaving them with insufficient to maintain their economic independence or to earn the tax demanded from them by the government, especially when they were forbidden to grow coffee. The Kikuyu were therefore forced to seek wage labour".⁶

But in the case of Nakambala Sugar Estate there has been no such a policy aimed at dislocating the economy of the local people so as to force them into wage labour. Evidence has shown that the estate acquired land from commercial farmers, with a view to achieving its expansionist policy. This is evident from the fact that the local people were able to choose between being wage-earners and subsistence producers on the periphery of the estate.

Apart from requiring an adequate supply of fertile land, plantations have also demanded a plentiful supply of labour. Kirchner has, for instance, observed that the nature of sugar cane has traditionally been a labour-intensive crop. For this reason, it has required substantial inputs of labour, and in particular, seasonal or temporary labour needed during the harvest.⁷ But because of the seasonality of sugar production, the problem of retaining the entire labour force during the off-crop season has arisen. Therefore, there has been a general tendency in plantations of encouraging the migrant labour system. A migrant worker has been described by Swindell as a semi-proletarian and at the same time a semi-peasant. According to him, this is because a seasonal worker is rarely completely separated from access to means of production, and is not totally dependent on a wage for his livelihood.⁸ Therefore, he is a person who periodically oscillates between the subsistence rural economy and the money economy.

It has been observed in this study that Nakambala Sugar Estate has tended to use extensively migrant workers also partly as a means of avoiding having to maintain a large permanent labour force.

The migrant labour system, as earlier argued, perpetuates low wages and poor conditions of service and also inhibits the acquisition of better skills as observed at Nakambala Sugar Estate. Tassig in his study of the plantations in Columbia has observed that the piece rate wage system, perpetuated the migrant labour system. According to him, this system "offers an opportunity to the employer to intensify labour, atomize the workforce, maintain the sense of individualism, set the workers in competition with each other and reduce the average daily wage."⁹ He has further argued that despite these disadvantages, plantation workers in Columbia opted ^{for} the piece rate system. This was because many of them preferred to alternate between working their plots and working on the plantations, and this further reinforced the migrant system.¹⁰ In respect of Nakambala Sugar Estate, about 75 per cent of the migrant workers were recruited from distant areas, especially among societies which had little economic alternatives to wage labour, such as in the Western Province.¹¹ The inadequate remuneration and poor means of subsistence, have tended to reproduce the migrant system.

Some people such as Stichter and others have attempted to justify the migrant system by arguing that this system is an important and spontaneous strategy of adjustment by migrant workers, an attempt to reconcile the conflicting demands of

both the peasant and the capitalist sectors.¹² On the other hand, however, Szentes and other critics of the migrant labour system, have decribed it as highly exploitative. According to them, once migrant labour has come into being and struck roots as a system, it reproduces itself. Since the mass migration of male manpower still further deteriorates the conditions of the traditional agriculture, this, in its turn, forces newer masses of labour to migrate.¹³

It should also be noted that the development of a smallholder scheme in the vicinity of Nakambala Sugar Estate, is a feature which has gained ground in most plantation areas. This new trend has been due, apart from economic reasons earlier discussed, to both social and political reasons. As Newburg has observed, in some countries, for example in Malaysia, the governments have favoured smallholder production, regarding the prosperity of a self-employed independent agricultural class as providing more effective protection against political radicalism than is afforded by a population of wage-earning plantation workers.¹⁴ Manshard has argued that the establishment of smallholdings has been aimed at meeting nationalist aspirations. According to him, the nationalists in many countriss would like to see plantations abolished as 'relics of colonial times' and they wish to hand over the land as smallholdings to peasants.¹⁵

However, Courtenay and others have, on the other hand, argued that in the cases of tea and sugar, the smallholding can survive only if a central factory, operated either by a neighbouring plantation or independently, is prepared to purchase and process the smallholders' crop. It may well insist on certain minimum standards of husbandry before doing so. According to Courtenay, the truly independent smallholder is therefore rarely found growing tea and sugar for the commercial market. In his view, it is in the production of these crops that the plantation is clearly at the greatest advantage.¹⁶

It can be argued, therefore that the evidence provided in this study suggests that the arguments advanced above are, to some extent, also true for KSS. It is, for instance, most likely that the establishment of the scheme was as well due to a combination of social, political and economic considerations. It has been established too that the scheme heavily depended on the estates. For this reason, its survival was dependent upon the continued existence of Nakambala Sugar Estates.

In the final analysis, it can be argued that in spite of whatever adverse effects that have resulted from the establishment of Nakambala Sugar Estate, it has played a significant role in enhancing the development of the local

area and the country as a whole. In this regard it is observed that the meeting of the national demand for sugar has been a step towards achieving a viable import-substitution industry, which has also become a source of foreign exchange. In addition to this its establishment has resulted in the provision of many community development services in the area.

Beckford has argued that plantations have had weak linkages with the indigenous economies of the developing countries, and also that they have tended to transfer not only dividends or profits, but material resources as well to boost the economies of the metropolises in Europe. According to him, this is because the plantation owners have had little or no interest in the development of the local economies.¹⁷

It should be argued that the above argument does not apply to Nakambala Sugar Estate. This is because the estate was fully incorporated into the national economy as from its inception. Moreover, it was established primarily to satisfy the domestic market. This is also true for many of the estates developed in independent African countries. O'Connor has, for example, argued that the plantation system has been increasing in importance in

many parts of tropical Africa. According to him, notwithstanding the plantation system being traditionally closely associated with colonialism many of the independent African states, including Nigeria and Uganda, have accepted that it has an important part to play in their economic development.¹⁸

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